



**TOWN OF LOS GATOS
COUNCIL MEETING AGENDA
DECEMBER 03, 2019
110 EAST MAIN STREET
LOS GATOS, CA**

*Marcia Jensen, Mayor
Barbara Spector, Vice Mayor
Steve Leonardis, Council Member
Rob Rennie, Council Member
Marico Sayoc, Council Member*

PARTICIPATION IN THE PUBLIC PROCESS

How to participate: The Town of Los Gatos strongly encourages your active participation in the public process, which is the cornerstone of democracy. If you wish to speak to an item on the agenda, please complete a “speaker’s card” located on the back of the chamber benches and return it to the Clerk Administrator. If you wish to speak to an item NOT on the agenda, you may do so during the “Verbal Communications” period. The time allocated to speakers may change to better facilitate the Town Council meeting.

Effective Proceedings: The purpose of the Town Council meeting is to conduct the business of the community in an effective and efficient manner. For the benefit of the community, the Town of Los Gatos asks that you follow the Town’s meeting guidelines while attending Town Council meetings and treat everyone with respect and dignity. This is done by following meeting guidelines set forth in State law and in the Town Code. Disruptive conduct is not tolerated, including but not limited to: addressing the Town Council without first being recognized; interrupting speakers, Town Council or Town staff; continuing to speak after the allotted time has expired; failing to relinquish the podium when directed to do so; and repetitiously addressing the same subject.

Deadlines for Public Comment and Presentations are as follows:

- Persons wishing to make an audio/visual presentation on any agenda item must submit the presentation electronically, either in person or via email, to the Clerk’s Office no later than 3:00 p.m. on the day of the Council meeting.
- Persons wishing to submit written comments to be included in the materials provided to Town Council must provide the comments as follows:
 - For inclusion in the regular packet: by 11:00 a.m. the Thursday before the Council meeting
 - For inclusion in any Addendum: by 11:00 a.m. the Monday before the Council meeting
 - For inclusion in any Desk Item: by 11:00 a.m. on the day of the Council Meeting

***Town Council Meetings Broadcast Live on KCAT, Channel 15 (on Comcast) on the 1st and 3rd Tuesdays at 7:00 p.m.
Rebroadcast of Town Council Meetings on the 2nd and 4th Mondays at 7:00 p.m.
Live & Archived Council Meetings can be viewed by going to:
www.losgatosca.gov/Councilvideos***

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE CLERK DEPARTMENT AT (408) 354-6834. NOTIFICATION 48 HOURS BEFORE THE MEETING WILL ENABLE THE TOWN TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING [28 CFR §35.102-35.104]

**TOWN OF LOS GATOS
COUNCIL MEETING AGENDA
DECEMBER 03, 2019
7:00 PM**

MEETING CALLED TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

- i. Community Pledge Leader - Saaj Shah

COUNCIL / MANAGER MATTERS

CONSENT ITEMS *(Items appearing on the Consent Items are considered routine and may be approved by one motion. Any member of the Council or public may request to have an item removed from the Consent Items for comment and action. If an item is pulled, the Mayor has the sole discretion to determine when the item will be heard. Unless there are separate discussions and/or actions requested by Council, staff, or a member of the public, it is requested that items under the Consent Items be acted on simultaneously.)*

1. Approve Closed Session Meeting Minutes of November 19, 2019.
2. Approve Council Meeting Minutes of November 19, 2019.
3. Authorize the Town Manager to Enter into a Five-Year Agreement with ECS Imaging, Inc. for Software Maintenance and Support Not to Exceed \$350,000.
4. Authorize the Town Manager to Execute an Agreement for Services with LWP Claims Solutions to Provide Workers' Compensation Third-Party Administration Services Effective January 1, 2020 Through December 31, 2022 for a Total Amount Not to Exceed \$171,357.
5. Adopt a Resolution for the California Public Employees' Retirement System Health Plan to Update the Region Name from Bay Area to Region 1.
6. Approve an Amendment to the Classification Plan to Create a Flexibly Staffed Engineering Technician Job Series.
7. Adopt a Resolution Approving the Council Policy Committee Recommendations for the Modification of the Traffic Impact Policy.
8. Adopt a Resolution Declaring Weeds to be a Public Nuisance and Set Hearing Date of January 21, 2020 to Consider Objections for Proposed Removal.
9. Authorize the Town Manager to Negotiate and Execute a Five-Year Agreement for Services with Cartegraph, Inc. for Enterprise Asset Management System Services Effective January 1, 2020 Through December 31, 2024 in an Amount Not to Exceed \$34,165 Annually, and a Total Agreement Amount Not to Exceed \$181,263, With Three Five-Year Options Thereafter.
10. Receive Information on Transportation Grant Activity.
11. Receive the First Quarter Investment Report (July through September 2019) for Fiscal Year 2019/20.
12. Accept Fiscal Year (FY) 2018/19 Status Report on Receipt and Use of Development Impact Fees.

13. Approve Revisions to the Town Agenda Format and Rules Policy.

VERBAL COMMUNICATIONS *(Members of the public are welcome to address the Town Council on any matter that is not listed on the agenda. To ensure all agenda items are heard and unless additional time is authorized by the Mayor, this portion of the agenda is limited to 30 minutes and no more than three (3) minutes per speaker. In the event additional speakers were not able to be heard during the initial Verbal Communications portion of the agenda, an additional Verbal Communications will be opened prior to adjournment.)*

OTHER BUSINESS *(Up to three minutes may be allotted to each speaker on any of the following items.)*

14. Approve an Amendment to the Employment Agreement Between the Town of Los Gatos and the Town Manager and Authorize Salary and Benefits Budget Adjustments in the Amount of \$15,267 from Estimates Available FY 2019/20 Operating Revenues.

15. Approve an Amendment to the Employment Agreement Between the Town of Los Gatos and the Town Attorney and Authorize Salary and Benefits Budget Adjustments in the Amount of \$7,402 from Estimates Available FY 2019/20 Operating Revenues.

PUBLIC HEARINGS *(Applicants/Appellants and their representatives may be allotted up to a total of ten minutes maximum for opening statements. Members of the public may be allotted up to three minutes to comment on any public hearing item. Applicants/Appellants and their representatives may be allotted up to a total of five minutes maximum for closing statements. Items requested/recommended for continuance are subject to Council's consent at the meeting.)*

16. First Reading and Introduction of an Ordinance of the Town of Los Gatos Amending Chapter 29 (Zoning Regulations) of the Town Code Regarding the Land Use Appeal Process.

Town Code Amendment Application A-19-008. Project Location: Town Wide. Applicant: Town of Los Gatos.

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17. Provide Direction on the Elements of the Music in the Park Request for Proposals.

EnterTextHere

18. 2019 California Building, Fire, and Reach Codes

1. Introduce an ordinance repealing and replacing Chapter 6, Building Regulations, and Chapter 9, Fire Prevention and Protection, of the Town of Los Gatos Municipal Code with the new 2019 California Building and Fire Codes, as amended, including reach codes. (Town Code Amendment Application A-19-009. Project Location: **Town Wide.**)
2. Adopt a resolution making findings for modifying the 2019 California Building and Fire Codes.

EnterTextHere

- [19.](#) Approve the “El Gato” Design by Artist Matt Babcock for the Pilot Los Gatos Gateway Marker as Recommended by the Arts and Culture Commission.

ADJOURNMENT *(Council policy is to adjourn no later than midnight unless a majority of Council votes for an extension of time)*

Writings related to an item on the Town Council meeting agenda distributed to members of the Council within 72 hours of the meeting are available for public inspection at the front desk of the Los Gatos Town Library, located at 100 Villa Avenue, and are also available for review on the official Town of Los Gatos website. Copies of desk items distributed to members of the Council at the meeting are available for review in the Town Council Chambers.

Note: The Town of Los Gatos has adopted the provisions of Code of Civil Procedure §1094.6; litigation challenging a decision of the Town Council must be brought within 90 days after the decision is announced unless a shorter time is required by State or Federal law.



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 1

**DRAFT
Minutes of the Special Town Council Meeting - Closed Session
November 19, 2019**

The Town Council of the Town of Los Gatos conducted a Special Meeting on Tuesday, November 19, 2019, to hold a Closed Session at 5:15 p.m.

MEETING CALLED TO ORDER AT 5:15 P.M.

ROLL CALL

Present: Mayor Steven Leonardis, Vice Mayor Marcia Jensen, Council Member Rob Rennie, Council Member Marico Sayoc, Council Member Barbara Spector.

Absent: None

VERBAL COMMUNICATIONS

Cameron Clarno (Fisher Middle School Choir Teacher) spoke in support of the proposed Teacher Housing Project.

Diana Hill (President of the Los Gatos Teachers Association) spoke in support of the proposed Teacher Housing Project.

Paul Johnson (LGUSD Superintendent) spoke in support of the proposed Teacher Housing Project.

Sarah Chaffin (Teacher Housing Applicant) asked for the Council's support for her requests.

Michael Silva (American Legion) spoke in favor of the Venue as a location for the American Legion for one year.

Larry Maggio (American Legion) spoke in favor of the Venue as a location for the American Legion for one year.

Lee Fagot spoke in favor of the Venue as a location for the American Legion.

Colette Lerner (American Legion) spoke in favor of the Venue as a location for the American Legion, which could be shared with the Los Gatos Veterans Foundation and other nearby Veterans organizations.

SUBJECT: Draft Minutes of the Special Town Council Meeting -Closed Session of November 19, 2019

DATE: November 19, 2019

Maureen Cappon-Javey (Executive Director NUMU) asked the Council to support her requests regarding the lease and Conditional Use Permit.

**1. CS-1 CONFERENCE WITH REAL PROPERTY NEGOTIATOR
(Government Code Section 54956.8)**

- a. Property: 20 Dittos Lane (APN: 529-29-034)
Negotiating parties: Town of Los Gatos
Negiator: Arn Andrews, Assistant Town Manager and Sarah Chaffin, Potential Buyer and/or Lessee
Negotiations: Price and terms of potential sale or payment of lease
- b. Property: 106 E. Main Street (APN: 510-44-054)
Negotiating Parties: Town of Los Gatos
Negiator: Arn Andrews, Assistant Town Manager and NUMU Executive Director, Lessee
Negotiations: Terms of lease
- c. Property: 14580 Winchester Avenue (APN: 424-31-055 Parcels B and C)
Negotiating Parties: Town of Los Gatos
Negiator: Arn Andrews, Assistant Town Manager and Santa Clara County Fire Department
Negotiations: Price and terms of potential sale
- d. Property: 4 New York Avenue (Venue) (APN: 529-27-024)
Negotiating Parties: Town of Los Gatos
Negiator: Arn Andrews, Assistant Town Manager and Los Gatos-Saratoga Union High School District, Potential Buyer and/or Lessee
Negotiations: Price and terms of potential sale

ADJOURNMENT

Closed Session adjourned at 6:46.

Attest:

Submitted by:

Shelley Neis, Town Clerk

Laurel Prevetti, Town Manager



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 2

**DRAFT
Minutes of the Town Council Meeting
November 19, 2019**

The Town Council of the Town of Los Gatos conducted a Regular Meeting on Tuesday, November 19, 2019, at 7:00 p.m.

MEETING CALLED TO ORDER AT 7:00 P.M.

ROLL CALL

Present: Mayor Steven Leonardis, Vice Mayor Marcia Jensen, Council Member Rob Rennie, Council Member Marico Sayoc, Council Member Barbara Spector.

Absent: None

PLEDGE OF ALLEGIANCE

Trevor Schwartz led the Pledge of Allegiance. The audience was invited to participate.

PRESENTATIONS

Mayor Leonardis announced a Small Business, Big Applause commendation would be given to Yeung Shing Restaurant.

CLOSED SESSION REPORT

Robert Schultz, Town Attorney, stated Council met in Closed Session as duly noted on the agenda and there is no report.

CONSENT ITEMS (TO BE ACTED UPON BY A SINGLE MOTION)

1. Approve Commissioner Interview Meeting Minutes of November 5, 2019.
2. Approve Council Meeting Minutes of November 5, 2019.
3. Adopt an Ordinance Amending Chapter 29 (Zoning Regulations) of the Town Code Regarding Demolition Regulations. **ORDINANCE 2295**
Town Code Amendment Application A-19-007. Project Location: Town Wide. Applicant: Town of Los Gatos.
4. Adopt an Ordinance Effecting Amendments to Chapter 23 (Streets and Sidewalks) of the Town Code Regarding Right of Way Dedication, Installation of Curbs, Gutters and Sidewalks and Undergrounding of Utilities. **ORDINANCE 2296**
5. Adopt an Ordinance of the Town of Los Gatos Amending Chapter 18, Article VI, Section 18.60.020 of the Los Gatos Town Code Entitled Permits for Retailers of Tobacco Products to Prohibit the Sale of Electronic Cigarettes. **ORDINANCE 2297**

Consent Items – continued

6. Agreement for Consultant Services to Provide Senate Bill 743 Implementation Technical Assistance:
 - a. Authorize the Town Manager to Negotiate and Execute an Agreement for Consultant Services with Fehr & Peers in an Amount Not to Exceed \$122,820
 - b. Authorize Revenue and Expenditure Budget Adjustment in the amount \$122,820 from the General Plan Update Deposit Account
7. Authorize the Town Manager to Submit Grant Applications for the Measure B Bicycle and Pedestrian Competitive Grant Program for Five Candidate Projects.
8. Adopt a Resolution Approving the Final Map for Tract No. 10514 (258 Union Avenue) and Accepting the Dedications. **RESOLUTION 2019-057**

MOTION: Motion by Vice Mayor Jensen to approve the Consent Items. **Seconded** by Council Member Rennie.

VOTE: Motion passed unanimously.

VERBAL COMMUNICATIONS

Karen Aidi, Green Monday

- Requested the Town adopt policies for more plant-based eating programs in the Town.

Kathleen Willey, Green Monday

- Commented on the effects of dairy cows on the environment and dairy consumption by humans.

John Shepardson

- Commented on the high fire severity zone in Los Gatos, President Trump, and former Ambassador Marie Yovanovich.

COUNCIL / MANAGER MATTERS

Tabled to the December 3, 2019 Town Council meeting.

APPOINTMENT OF MAYOR AND VICE MAYOR

On behalf of the Town Council and staff, Town Manager Prevetti presented Mayor Leonardis with a plaque commemorating his year as Mayor.

Mayor Leonardis thanked the service club volunteers, Town Commissioners, staff, Council, and Town residents for their support during his year as Mayor and commented on achievements.

Appointment of Mayor and Vice Mayor – continued

MOTION: Motion by Mayor Leonardis to appoint Vice Mayor Jensen as Mayor. Seconded by Council Member Spector.

VOTE: Motion passed unanimously.

Mayor Elect Jensen

- Thanked the Council and the Town for her appointment as Mayor and commented on her intent to focus on the community as whole to address Town-wide issues for the coming year, such as housing, transportation, and energy that have regional implications.

MOTION: Motion by Mayor Elect Jensen to appoint Council Member Spector as Vice Mayor. Seconded by Council Member Leonardis.

VOTE: Motion passed unanimously.

Vice Mayor Elect Spector

- Thanked the Council and the Town for her appointment as Vice Mayor and commented on regional considerations affecting the Town.

Supervisor Wasserman presented a Certificate of Commendation to Mayor Leonardis from the Board of Supervisors.

Town Clerk Neis administered the Oath of Office to Mayor Elect Jensen and Vice Mayor Elect Spector.

Mayor Jensen thanked all for attending and invited those present to the reception in the Council Chambers Lobby.

ADJOURNMENT

The meeting adjourned at 7:32 p.m.

Attest:

Shelley Neis, Town Clerk



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 3

DATE: November 20, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Authorize the Town Manager to Enter into a Five-Year Agreement with ECS Imaging, Inc. for Software Maintenance and Support Not to Exceed \$350,000

RECOMMENDATION:

Authorize the Town Manager to enter into a five-year agreement with ECS Imaging, Inc. for software maintenance and support not to exceed \$350,000.

BACKGROUND:

In 2008, the Town first contracted with Peelle Technologies to purchase electronic management software (Laserfiche), scanners, consulting support, and offsite scanning services. Laserfiche digitizes and organizes paper documents, allows users to locate content quickly through a robust search functionality, and brings together digital files from multiple locations into a unified repository.

Peelle helped implement and customize Laserfiche for Los Gatos, which has enhanced the efficiency of document storage and retrieval for all Town Departments. Laserfiche has also enabled public access to ordinances, plans, reports, and other documents via the Town website.

Laserfiche sells their product through approved, licensed Solution Providers of record. The Solution Provider is responsible to service the accounts listed under their license with Laserfiche.

In 2017, Peelle discontinued Solution Provider support of Laserfiche and Laserfiche transferred the Town's assigned "Solution Provider of record" to ECS Imaging. ECS Imaging, Inc. took over the existing contract via a First Amendment, which expires on January 1, 2020. The First

PREPARED BY: Chris Gjerde, IT Manager and Holly Zappala, Management Analyst

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

SUBJECT: Authorize the Town Manger to Enter into a Five-Year Agreement wit ECS Imaging, Inc. for Software Maintenance and Support

DATE: November 20, 2019

BACKGROUND (continued):

Amendment and original Purchase and Service Agreement can be found as Attachment 1 to this report. The Town's Laserfiche technical support representative also transitioned from Peelle Technologies to ECS Imaging at that time. A letter from Laserfiche indicating that ECS Imaging is the Town's assigned Solution Provider of record and likely has the best understanding of the Town's system can be found as Attachment 2 to this report.

DISCUSSION:

In order to maintain the existing Laserfiche software licenses and services, a new contract is needed with ECS Imaging.

ECS is the top Laserfiche Solution Provider in California and has extensive experience and expertise working with many local government municipalities, water districts, etc. throughout the state. The Town Attorney has reviewed and approved ECS as a sole-service provider for all software maintenance and support for Laserfiche products as found in Attachment 3.

Solution Provider account services include: additional sales of software, management of version upgrades (typically at no additional charge), and technical support (remote support is also typically at no additional charge). When a higher level of technical support is needed, ECS's hourly rate for consultants of their level of expertise is at the industry standard.

A draft five-year Agreement for Purchase and Service can be found as Attachment 4 to this report.

CONCLUSION:

Based on ECS Imaging Inc.'s substantial knowledge of the Town's customized Laserfiche implementation, excellent support history with the Town, position as top Laserfiche Solution Provider in California, competitive pricing, and the fact that switching to a different Laserfiche Solution Provider would be disruptive to Town operations and service delivery, staff recommends that the Town Council authorize the Town Manager to enter into a five-year agreement with ECS Imaging, Inc. for software maintenance and support not to exceed \$350,000.

COORDINATION:

The Finance Department, Town Attorney, Information Technology, and Town Manager's Office coordinated this report.

PAGE 3 OF 3

SUBJECT: Authorize the Town Manger to Enter into a Five-Year Agreement wit ECS
Imaging, Inc. for Software Maintenance and Support

DATE: November 20, 2019

FISCAL IMPACT:

There are sufficient funds available in the Information Technology budget.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. First Amendment 17.233 to Purchase and Service Agreement 17.010 for Software Maintenance and Support Services
2. Laserfiche Solution Provider of Record Letter
3. Sole Source Memorandum Approved by Town Attorney
4. Draft Five-Year Purchase and Service Agreement

FIRST AMENDMENT

ECS IMAGING, INC SOFTWARE/HARDWARE MAINTENANCE AGREEMENT - TERMS AND CONDITIONS

LASERFICHE RENEWAL START DATE: 12/01/2017

END DATE: 01/01/2020 | 7233

*SEE INVOICE FOR PRODUCT(S) INCLUDED

IHH

The terms and conditions below shall be the "Agreement" by which ECS Imaging, Inc. ("ECS") and the client ("Client") identified at the signature portion hereof agree to be governed relative to the software and/or hardware maintenance services ("Service" or "Services") which ECS will provide relative to the above-described Products.

1) Software Maintenance/Support Services: If applicable based on the above-described Products, ECS will supply the following software maintenance/support services:

(a) ECS shall provide all necessary telephone support for reporting and resolving problems with the software products covered by this Agreement, and shall be available to receive notification by the Client of any software problem. The Client must provide adequate information and documentation to enable ECS to recreate the reported problem. If it is determined that there is no problem with the software products, ECS will so inform the Client and, in such case, ECS reserves the right to charge the Client for the services provided at ECS's then current standard rates plus reasonable associated expenses. Notwithstanding the provisions of this section, ECS makes no warranties that the maintenance/support provided hereunder will be successful in resolving any problems or in diagnosing faults.

(b) All software releases/updates made available by the software manufacturer during the term of this Agreement.

Service is available by calling 877-790-1600 or via the Internet at helpdesk@ecsimaging.com. Unless otherwise specified at Paragraph 15 hereof, ECS agrees to use reasonable efforts to respond to the Client's service request within four (4) hours of receipt of notification. ECS shall first attempt to diagnose the reported problem via telephone, e-mail and/or remote access and, if considered appropriate, shall attempt to resolve the reported problem by requesting that the Client perform any required/standard operational maintenance or simple adjustments which the Client can reasonably be expected to conduct. If the reported problem is not resolved via telephone, e-mail and/or remote access, ECS shall arrange for a system engineer to visit the Client's site during ECS's normal business hours, which are defined as the hours between 7:30 a.m. and 5:00 p.m. PST, Monday through Friday (excluding ECS company holidays), such to be charged at the then current ECS site rates.

2) Hardware Maintenance/Support Services: If applicable based on the above-described Products, ECS will supply the following hardware maintenance/support services:

(a) Hardware maintenance will be covered if such hardware is covered by the manufacturer's or vendor's warranty.

3) Charges: ECS will invoice Client for the total software/hardware maintenance/support services cost, including any applicable taxes. Client agrees to remit complete payment for such invoice in advance of the Start Date set forth above. An interest payment of 1.5% compounded monthly and any applicable software maintenance reinstatement fees imposed by the software manufacturer shall be added to any such invoices not paid by the Start Date set forth above.

4) Client Responsibility: Client is responsible for:

(a) Notifying ECS in advance of any material changes to the supported Products components, including, but not limited to, the system's network, server/workstation hardware, operating system or security configuration.

(b) Having a valid backup of data at all times to maintain original operating system, data and application software.

(c) Promptly notifying ECS of any need for service and making product(s) available to ECS engineers.

(d) Running diagnostic tests on all non-supported system components (network, server/workstation hardware, operating system or security configuration) before having a product serviced under this Agreement.

5) Limitations of Service: Maintenance/support services provided under this Agreement do not include:

(a) Cost of bringing product(s) to operational status prior to placing them under maintenance.

(b) Costs related to the off or on-site implementation (including, but not limited to installation, configuration and training services) of software updates made available by the software manufacturer during the term of this Agreement.

(c) Costs related to the resolution of software problems caused by unapproved changes to the supported system's network, server/workstation hardware, operating system or security configuration.

(d) Repair of damage caused by; accidents, natural disaster, improper use, damage during transportation/relocation by Client, work performed on software/hardware by personnel other than ECS employees/subcontractors, causes beyond ECS's control.

(e) Furnishing consumable supplies or accessories as specified by the manufacturer.

(f) Hardware with missing or altered serial numbers.

(g) Repair of damage or increase in service time caused by the use of the product for purpose other than for which it was designed or beyond the manufacturer's specifications.

If services are required due to the above causes, ECS will provide services at ECS's then current standard service rates.

6) Term: This Agreement shall be in effect beginning on the Start Date set forth above and continue through the End Date set forth above, unless sooner terminated as provided in Section 7 of this Agreement.

7) Termination: Client may terminate this Agreement for any reason with sixty (60) days written notice prior to the any anniversary of the Start Date. Client may also terminate this Agreement if any material agreement or obligation contained or referred to in the Agreement has been breached by ECS, provided that Client has given ECS notice of such breach and there has been a failure to cure such breach, if curable, within thirty (30) days after receipt of such notice. Unless such breach has been cured, termination shall be effective thirty (30) days after receipt of such notice, and shall be without prejudice to any other right or remedy to which Client may be

entitled either at law, in equity, or otherwise, including, without limitation, under this Agreement, may terminate this Agreement at any time for any reason with sixty (60) days written notice. Upon terminating the Agreement, ECS will issue a prorated refund of any remaining prepaid Agreement coverage. The refund amount will be for the ECS technical support component only and will not include prepaid, non-refundable maintenance/support fees paid to the software manufacturer(s) or third-party hardware service provider(s).

8) Rate Changes: The maintenance/support rates stated within this Agreement will not change during the Start Date and End Date set forth above. All rates are adjustable for maintenance/support coverage periods after the End Date.

9) Limitation of Liability: Client must provide ECS with notice of claims of damage, improper service, or lawsuit within thirty (30) days of service. ECS shall not be liable for performance delays or for nonperformance due to causes beyond its reasonable control. For any material breach of this Agreement by ECS, Client's remedy and ECS's liability shall be limited to a refund of related maintenance/support fees paid during the period of breach, up to a maximum of twelve (12) months. The remedies provided herein are Client's sole and exclusive remedies. In no event will ECS be liable for special, punitive, incidental, or consequential damages, whether based in contract, tort, or otherwise, including, without limitation, claims for loss or corruption of data or lost profit.

10) Entire Agreement: Client acknowledges that he/she/it has read this Agreement, understands it and agrees to be bound by the terms and provisions set forth herein. This Agreement may not be modified or amended except by written instrument duly executed by the parties. This Agreement, contains the entire agreement and understanding between ECS and the Client respecting the subject matter hereof and it supersedes and replaces any prior or contemporaneous written or oral proposals or agreements relative thereto.

11) Binding Effect: Subject to any prohibition against assignment contained herein, the within Agreement shall be binding on and shall inure to the benefit of the heirs, executors, administrators, successors, and assigns of the parties hereto.

12) Governing Law - Venue: This Agreement shall be governed by and construed in accordance with the laws of the State of California. It shall be deemed to have been made and entered into in the City of Riverside, State of California, and all legal actions or arbitrations pertaining thereto shall occur with regard to such specification of venue.

13) Professional Service – ECS provides professional services for developing workflows, electronic forms, or data conversions and several other services. If the client chooses, these services will be provided by ECS at the rate of \$ 175 per hour, with a two hour minimum, portal-to-portal.

14) Authorization -Any person signing the within Agreement as the party hereto or as the representative of a party hereto hereby represents and warrants to all other parties that he/she has authority to bind the party on behalf of whom he/she executes to the within Agreement.

15) Modifications and Clarifications The following modify and clarify any term or provisions of the above and foregoing terms and provisions of this Agreement.

16) Please authorize your acceptance with a signed copy of this maintenance agreement and your Purchase order.

ECS IMAGING, INC.
5905 Brockton Ave., Suite "C"
Riverside, CA 92506
(951) 787-8768 x103

Client: Town of Los Gatos Community Development Department
Address: 110 E. Main Street
Los Gatos CA 95030

By: Kristan Stillman Date: 10/6/17
Print Name: Kristan Stillman
Title: Accounting Supervisor

By: _____ Date: _____
Print Name: _____
Title: _____

See attached.

IN WITNESS WHEREOF, the Town and Consultant have executed this Agreement.

Town of Los Gatos by:



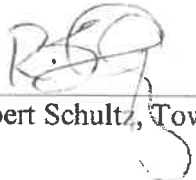
Laurel Prevetti, Town Manager

Recommended by:



Chris Gjerde, IT Manager

Approved as to Form:



Robert Schultz, Town Attorney

Shannon Lombardo

From: Chris Gjerde
Sent: Tuesday, February 28, 2017 8:15 AM
To: Melissa Ynegas; Shannon Lombardo; Beca Muniz; Tushar Deshpande; Mary Blekh; Gitta Ungvari; Shelley Neis; Sarah Mosunic
Cc: Robert Schultz
Subject: Laserfiche vendor ECS
Attachments: Company Org Chart_February 2017.pdf; ECS Client List 7-2016.pdf; User Group-1st Qtr N CA 3-16-17 final.pdf

Hello all,

Our vendor "Peelle" in Campbell is not out of business, but they are discontinuing support on the Laserfiche end of things. ECS in Concord will take over their contract. Rob is OK with them honoring the existing contract. Rates stay the same. Major payments for Laserfiche licensing and software maintenance were made a couple weeks ago, so will not be needed for almost a year. Several notes below, please comment or correct me if I'm wrong:

1. I will ask ECS for a W9. Since I do not plan on having them come onsite, I would like to skip business license and insurance. If we need them onsite, we will deal with that later.
2. Brian Grove from Peelle is moving over to ECS next week. His new contact information is below, if you are working on an existing issue with him and need help, please feel free to call or email him at the new number/email.
3. With Rob approving the contract transfer to ECS, we should be able to pay the next invoice if we get one, right? I do not expect to see any invoice, unless we have Brian tune up or create new workflows (remotely). Will get a PO before that.
4. Note that Peelle will continue to be our scanning service, so they will need to maintain their business license and insurance if they continue to scan building, planning, ppw items.
5. Note also that ECS has quarterly user group meetings, next one is 3/16 near sacto. They also hold annual conferences with training/classroom opportunities.
6. They have a general support line. So if you are experiencing a Laserfiche issue and can't contact us at helpdesk, and you don't think it's something that needs Brian's expertise and history, feel free to contact them. Info below.
7. New sales rep "Al" replaces Jim Detrick. His information is also below.

Thanks!

From: Pete Herschelman [mailto:pete@ecsimaging.com]
Sent: Monday, February 27, 2017 11:44 AM
To: Chris Gjerde <cgjerde@losgatosca.gov>
Cc: Al Carrion <al@ecsimaging.com>; Brian Grove <brian@ecsimaging.com>
Subject: RE: Town of Los Gatos

Chris,

Thank you for your time today to discuss your account needs & concerns.

ECS has retained Brian Grove as a full time employee & *will continue to serve your Laserfiche support needs.*

He will be accompanied by our existing technical support staff which will give us a greater opportunity to serve you & the Town of Los Gatos.

Your existing contract will be honored with no changes to the terms as listed in your contract and Brian is assigned as your primary tech support contact. His new contact information will be:

email address; brian@ecsimaging.com

Phone: 877 790-1600 x 210

ECS Tech Support can also be reached at the following:

Email; Support@ecsimaging.com

Phone; 877 790-1600 x 6

ECS Imaging Inc. website: www.ecsimaging.com

As you know Laserfiche sells their product through a VAR Channel (approved, licensed Value Added Resellers). The VAR is responsible to service the accounts that are listed under their VAR License with Laserfiche. Account Service includes; additional sales of software, management of version upgrades (typically included in your LSAP annual support agreement @ no additional charge), technical support, etc.

According to the agreement between Peelle & ECS Imaging Inc. your account has been transferred to ECS Imaging Inc. as your "Assigned VAR of Record".by Laserfiche. Upon your next renewal date for annual support payment for LSAP will be invoiced directly form ECS Imaging Inc.

Your Local Sales Rep is Al Carrion. He serves the San Jose, Peninsula, & San Francisco area territory. Please expect a phone call from Al to schedule a visit introduce himself & ECS Imaging Inc. to you.

Al's contact information is;

Email; al@ecsimaging.com

Phone; 408 771-4916

Our goal is to continue to offer you the level of service you have come to expect and more!

We look forward to serving you.

Pete

Pete Herschelman

V.P. Northern Calif.

ECS Imaging Inc.

5052 Forni Dr.

Concord, Ca 94520

925 586 7549 C

AGR 17.010

IHH

PURCHASE AND SERVICE AGREEMENT

THIS AGREEMENT is dated for identification this 22nd of January, 2017 and is made by and between TOWN OF LOS GATOS, a California municipal corporation, ("Town") and ~~Peelle~~ ^{ECS IMAGING} Technologies, ("Supplier"), whose address is 197 E. Hamilton Avenue, Campbell, CA 95008. This Agreement is made with reference to the following facts. This contract will remain in effect from January 22, 2017 to January 1, 2020.

I. RECITALS

- 1.1.1 Town sought sole source approval for Peelle Technologies for all software maintenance/support for Laserfiche software products. Peelle is our local area Laserfiche reseller, they have set up all the Laserfiche customization that spans almost every department.
- 1.2 Supplier represents that it is a qualified and competent supplier of the items to be purchased under this Agreement.
- 1.3 The Town desires to engage Supplier to provide Laserfiche Annual Maintenance, additional Laserfiche software licenses, software updates, scanners, scanning services, remote support, setup and troubleshooting of the Laserfiche system, and significant document scanning projects town-wide.
- 1.4 The Supplier represents and affirms that it is qualified and willing to perform the desired work pursuant to this Agreement.

II. AGREEMENTS

- 2.1 Supplies and Terms. Supplier hereby agrees to deliver to Town at 110 E. Main Street, Los Gatos, CA 95030 the items and materials described in quotes throughout the year. The terms and conditions are as follows:
 - (1) Price. Town shall pay Supplier the amounts defined in Staff approved quotations or purchase orders, which include sales tax and delivery charges. Payment shall be net 30 days from delivery.
 - (2) Delivery. The delivery of additional software licenses and scanners shall be as needed, no later than two weeks from date of request. Delivery shall be made between 8:00 a.m. and 5:00 p.m. on weekdays that are not Town holidays or furlough days.
- 2.2 Time of the Essence. Prompt delivery of the items and materials is essential to this Agreement.
- 2.3 Scope of Services. Supplier shall provide services as described in that certain Software/Hardware Maintenance Agreement Renewal sent to the Town on December 13, 2016 which is hereby incorporated by reference and attached as "Exhibit A." In addition,

supplier shall provide, scanning, on-site support, and additional Laserfiche software licenses/equipment defined in staff approved quotations or purchase orders.

- 2.4 Time of Performance. The services to be performed are as follows: The annual maintenance/support cost for the Laserfiche software products includes all software updates. If required, on-site software support will be billed at the rate of \$175.00 per hour. Document scanning will be performed on an as needed basis, and be preceded by a Town staff approved quotation.
- 2.5 Compliance with Laws. The Supplier shall comply with all applicable laws, codes, ordinances, and regulations of governing federal, state and local laws. Supplier represents and warrants to Town that it has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for Supplier to practice its profession. Supplier shall maintain a Town of Los Gatos business license pursuant to Chapter 14 of the Code of the Town of Los Gatos.
- 2.6 Sole Responsibility. Supplier shall be responsible for employing or engaging all persons necessary to perform the services under this Agreement.
- 2.7 Information/Report Handling. All documents furnished to Supplier by the Town and all reports and supportive data prepared by the Supplier under this Agreement are the Town's property and shall be delivered to the Town upon the completion of Supplier's services or at the Town's written request. All reports, information, data, and exhibits prepared or assembled by Supplier in connection with the performance of its services pursuant to this Agreement are confidential until released by the Town to the public, and the Supplier shall not make any of these documents or information available to any individual or organization not employed by the Supplier or the Town without the written consent of the Town before such release. The Town acknowledges that the reports to be prepared by the Supplier pursuant to this Agreement are for the purpose of evaluating a defined project, and Town's use of the information contained in the reports prepared by the Supplier in connection with other projects shall be solely at Town's risk, unless Supplier expressly consents to such use in writing. Town further agrees that it will not appropriate any methodology or technique of Supplier which is and has been confirmed in writing by Supplier to be a trade secret of Supplier.
- 2.8 Compensation. Compensation for the supplies and materials delivered and for supplier's professional services **not to exceed \$70,000.00 annually**, inclusive of all costs, for a total amount not to exceed \$210,000.00. Payment shall be based upon Town approval of each task.
- Annual Software/Hardware Maintenance Agreement Renewal (Exhibit A)
 - On-site software support \$175.00 per hour (two hour minimum)
 - Document Scanning Services and additional Laserfiche software licenses/equipment defined in staff approved quotations or purchase orders
- 2.9 Billing. Billing shall be by invoice within thirty (30) days of the rendering of the services and shall be accompanied by a detailed explanation of the work performed by whom at

what rate and on what date. Also, plans, specifications, documents or other pertinent materials shall be submitted for Town review, even if only in partial or draft form.

Payment shall be net thirty (30) days. All invoices and statements to the Town shall be addressed as follows:

Invoices:

Town of Los Gatos

Attn: Accounts Payable

P.O. Box 655

Los Gatos, CA 95031-0655

- 2.10 Availability of Records. Supplier shall maintain the records supporting this billing for not less than three years following completion of the work under this Agreement. Supplier shall make these records available to authorized personnel of the Town at the Supplier's offices during business hours upon written request of the Town.
- 2.11 Assignability and Subcontracting. The services to be performed under this Agreement are unique and personal to the Supplier. No portion of these services shall be assigned or subcontracted without the written consent of the Town.
- 2.12 Independent Contractor. It is understood that the Supplier, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and not an agent or employee of the Town. As an independent contractor he/she shall not obtain any rights to retirement benefits or other benefits which accrue to Town employee(s). With prior written consent, the Supplier may perform some obligations under this Agreement by subcontracting, but may not delegate ultimate responsibility for performance or assign or transfer interests under this Agreement. Supplier agrees to testify in any litigation brought regarding the subject of the work to be performed under this Agreement. Supplier shall be compensated for its costs and expenses in preparing for, traveling to, and testifying in such matters at its then current hourly rates of compensation, unless such litigation is brought by Supplier or is based on allegations of Supplier's negligent performance or wrongdoing.
- 2.13 Conflict of Interest. Supplier understands that its professional responsibilities are solely to the Town. The Supplier has and shall not obtain any holding or interest within the Town of Los Gatos. Supplier has no business holdings or agreements with any individual member of the Staff or management of the Town or its representatives nor shall it enter into any such holdings or agreements. In addition, Supplier warrants that it does not presently and shall not acquire any direct or indirect interest adverse to those of the Town in the subject of this Agreement, and it shall immediately disassociate itself from such an interest, should it discover it has done so and shall, at the Town's sole discretion, divest itself of such interest. Supplier shall not knowingly and shall take reasonable steps to ensure that it does not employ a person having such an interest in this performance of this Agreement. If after employment of a person, Supplier discovers it has employed a person with a direct or indirect interest that would conflict with its performance of this Agreement, Supplier shall

promptly notify Town of this employment relationship, and shall, at the Town's sole discretion, sever any such employment relationship.

- 2.14 Equal Employment Opportunity. Supplier warrants that it is an equal opportunity employer and shall comply with applicable regulations governing equal employment opportunity. Neither Supplier nor its subcontractors do and neither shall discriminate against persons employed or seeking employment with them on the basis of age, sex, color, race, marital status, sexual orientation, ancestry, physical or mental disability, national origin, religion, or medical condition, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment & Housing Act.

III. INSURANCE AND INDEMNIFICATION

3.1 Minimum Scope of Insurance:

- i. Supplier agrees to have and maintain, for the duration of the contract, General Liability insurance policies insuring him/her and his/her firm to an amount not less than: one million dollars (\$1,000,000) combined single limit per occurrence for bodily injury, personal injury and property damage.
- ii. Supplier agrees to have and maintain for the duration of the contract, an Automobile Liability insurance policy ensuring him/her and his/her staff to an amount not less than one million dollars (\$1,000,000) combined single limit per accident for bodily injury and property damage.
- iii. Supplier shall provide to the Town all certificates of insurance, with original endorsements effecting coverage. Supplier agrees that all certificates and endorsements are to be received and approved by the Town before work commences.
- iv. Supplier agrees to have and maintain, for the duration of the contract, professional liability insurance in amounts not less than \$1,000,000 which is sufficient to insure Supplier for professional errors or omissions in the performance of the particular scope of work under this agreement.

General Liability:

- i. The Town, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Supplier; products and completed operations of Supplier, premises owned or used by the Supplier. This requirement does not apply to the professional liability insurance required for professional errors and omissions.

- ii. The Supplier's insurance coverage shall be primary insurance as respects the Town, its officers, officials, employees and volunteers. Any insurance or self-insurances maintained by the Town, its officers, officials, employees or volunteers shall be excess of the Supplier's insurance and shall not contribute with it.
 - iii. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town, its officers, officials, employees or volunteers.
 - iv. The Supplier's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- 3.2 All Coverages. Each insurance policy required in this item shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the Town. Current certification of such insurance shall be kept on file at all times during the term of this agreement with the Town Clerk Administrator.
- 3.3 Workers' Compensation. In addition to these policies, Supplier shall have and maintain Workers' Compensation insurance as required by California law and shall provide evidence of such policy to the Town before beginning services under this Agreement. Further, Supplier shall ensure that all subcontractors employed by Supplier provide the required Workers' Compensation insurance for their respective employees.
- 3.4 Indemnification. The Supplier shall save, keep, hold harmless and indemnify and defend the Town its officers, agent, employees and volunteers from all damages, liabilities, penalties, costs, or expenses in law or equity that may at any time arise or be set up because of damages to property or personal injury received by reason of, or in the course of performing work which may be occasioned by a willful or negligent act or omissions of the Supplier, or any of the Supplier's officers, employees, or agents or any sub-contractor.

IV. GENERAL TERMS

- 4.1 Waiver. No failure on the part of either party to exercise any right or remedy hereunder shall operate as a waiver of any other right or remedy that party may have hereunder, nor does waiver of a breach or default under this Agreement constitute a continuing waiver of a subsequent breach of the same or any other provision of this Agreement.
- 4.2 Severability. If any term of this Agreement is held invalid by a court of competent jurisdiction, the remainder of this Agreement shall remain in effect.

- 4.3 Warranty. Supplier shall remedy any defects due to faulty materials and/or workmanship and pay for any damages to other work and/or existing facilities resulting therefrom which shall appear within a period of one year from the date of recording of final acceptance.
- 4.4 Governing Law. This Agreement, regardless of where executed, shall be governed by and construed to the laws of the State of California. Venue for any action regarding this Agreement shall be in the Superior Court of the County of Santa Clara.
- 4.5 Termination of Agreement. The Town and the Supplier shall have the right to terminate this agreement with or without cause by giving not less than sixty days (60) written notice of termination. In the event of termination, the Supplier shall deliver to the Town all supplies and services scheduled to be delivered to Town within that sixty (60) day period.
- 4.6 Amendment. No modification, waiver, mutual termination, or amendment of this Agreement is effective unless made in writing and signed by the Town and the Supplier.
- 4.7 Disputes. In any dispute over any aspect of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, including costs of appeal.
- 4.8 Notices. Any notice required to be given shall be deemed to be duly and properly given if mailed postage prepaid, and addressed to:

Town of Los Gatos
Attn: Town Clerk
110 E. Main Street
Los Gatos, CA 95030

Peelle Technologies
Attn: Donna Braxton, Contract Administrator
197 East Hamilton Avenue
Campbell, CA 95008

OR personally delivered to Supplier to such address or such other address as Supplier designates in writing to Town.

- 4.9 Order of Precedence. In the event of any conflict, contradiction, or ambiguity between the terms and conditions of this Agreement in respect of the Products or Services and any attachments to this Agreement, then the terms and conditions of this Agreement shall prevail over attachments or other writings.

///

///

4.10 Entire Agreement. This Agreement, including all Exhibits, constitutes the complete and exclusive statement of the Agreement between the Town and Supplier. No terms, conditions, understandings or agreements purporting to modify or vary this Agreement, unless hereafter made in writing and signed by the party to be bound, shall be binding on either party.

IN WITNESS WHEREOF, the Town and Supplier have executed this Agreement.

Town of Los Gatos by:

Laurel Prevetti
Laurel Prevetti, Town Manager

~~Pecolle Technologies~~ by:

ECS
IMAGING

see attached
signature page.

Recommended by:

Chris Gjerde
Chris Gjerde, Information Systems Manager

Contract Administrator
Title

Approved as to Form:

Robert Schultz
Robert Schultz, Town Attorney

Attest:

Shelley Neis
Shelley Neis, CMO, Clerk Administrator

- 4.10 Entire Agreement. This Agreement, including all Exhibits, constitutes the complete and exclusive statement of the Agreement between the Town and Supplier. No terms, conditions, understandings or agreements purporting to modify or vary this Agreement, unless hereafter made in writing and signed by the party to be bound, shall be binding on either party.

IN WITNESS WHEREOF, the Town and Supplier have executed this Agreement.

Town of Los Gatos by:

Peelle Technologies by:


Donna Braxton

01/18/2017

Laurel Prevetti, Town Manager

Recommended by:

Contract Administrator

Chris Gjerde, Information Systems Manager

Title

Approved as to Form:

Robert Schultz, Town Attorney

Attest:

Shelley Neis, CMC, Clerk Administrator



Document and Data Management Solutions

197 East Hamilton Avenue
Campbell, CA 95008
Phone: 800.233.5006 Fax: 408.866.4803

Software / Hardware Maintenance Agreement RENEWAL

Send Invoices To:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Software / Hardware Location:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Client ID	Account Manager	Client P.O. #	Peelle Invoice #
TOLG1102	Jim Detrick		

Qty.	Product Description	Service Level	Start Date	End Date	Unit Cost	Ext. Cost
1	Laserfiche Standard Server	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$1,450.00	\$1,450.00
1	Laserfiche Standard Server - Addnl. Database	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$600.00	\$600.00
1	Laserfiche Web Access	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$1,590.00	\$1,590.00
1	Laserfiche Web Access - Addnl. Database	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$250.00	\$250.00
1	Laserfiche Weblink	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$1,590.00	\$1,590.00
15	Laserfiche Full User	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$150.00	\$2,250.00
50	Laserfiche Retrieval User	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$60.00	\$3,000.00
1	Laserfiche Import Agent	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$390.00	\$390.00
9	Laserfiche Quick Fields	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$120.00	\$1,080.00
4	Laserfiche Real Time Lookup	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$100.00	\$400.00

Continued



Software / Hardware Maintenance Agreement RENEWAL

Document and Data Management Solutions

197 East Hamilton Avenue
Campbell, CA 95008
Phone: 800.233.5006 Fax: 408.866.4803

Send Invoices To:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Software / Hardware Location:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Client ID	Account Manager	Client P.O. #	Peelle Invoice #
TOLG1102	Jim Detrick		

Qty.	Product Description	Service Level	Start Date	End Date	Unit Cost	Ext. Cost
3	Laserfiche Zone OCR and Validation Package	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$560.00	\$1,680.00
5	Laserfiche Real Time Lookup and Validation Pkg.	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$120.00	\$600.00
1	Laserfiche Advanced Audit Trail	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$1,600.00	\$1,600.00
1	Laserfiche ScanConnect	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$34.00	\$34.00
5	Laserfiche Workflow Additional User	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$60.00	\$300.00
1	Laserfiche Workflow (10 User)	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$3000.00	\$3000.00
2	Fujitsu fi-6140 Document Scanner S/N: 033937 and 01949	Monday - Friday 8:00am - 5:00pm PST	1/23/2017	1/22/2018	\$125.00	\$250.00
Notes: The annual maintenance/support cost for the Laserfiche software products includes all software updates. If required, on-site software support will be billed at the rate of \$175.00 per hour, portal to portal, with a two-hour minimum charge.					Total:	\$20,064.00

Please acknowledge your acceptance with a signed copy of the Maintenance Agreement and your purchase order. Faxed copies are acceptable and can be faxed directly to the Contract Administration Department at 408.866.4803

Donna Braxton / Contract Administrator 12/12/16
Authorized Peelle Representative / Title Date

Authorized Client Representative / Title Date

JD 01/12/2017

Page 2 of 4

Exhibit A
2 of 4

AGREEMENT TERMS AND CONDITIONS

Included are the Terms and Conditions under which Peelle Technologies, Inc. (hereafter referred to as Peelle) will provide software and/or hardware maintenance/support services for the products listed within this Software/Hardware Maintenance Agreement (hereafter referred to as Agreement).

1) Software Maintenance/Support Services: Peelle will supply the following software maintenance/support services:

(a) Peelle shall provide all necessary telephone support for reporting and resolving problems with the software products covered by this Agreement, and shall be available to receive notification by the Client of any software problem. The Client must provide adequate information and documentation to enable Peelle to recreate the reported problem. If it is determined that there is no problem with the software products, Peelle will so inform the Client and, in such case, Peelle reserves the right to charge the Client for the services provided at Peelle's then current standard rates plus reasonable associated expenses. Notwithstanding the provisions of this section, Peelle makes no warranties that the maintenance/support provided hereunder will be successful in resolving any problems or in diagnosing faults.

(b) All software releases/updates made available by the software manufacturer during the term of this Agreement.

Service is available by calling 800-233-5006 or via the Internet at support@peelletech.com. Unless otherwise specified on page one (1) of this Agreement, Peelle agrees to use reasonable efforts to respond to the Client's service request within four (4) hours of receipt of notification. In the first instance, Peelle shall attempt to diagnose the reported problem via telephone, e-mail and/or remote access and, if considered appropriate, shall attempt to resolve the reported problem by requesting that the Client perform any required/standard operational maintenance or simple adjustments which the Client can reasonably be expected to conduct. If the reported problem is not resolved via telephone, e-mail and/or remote access, Peelle shall arrange for a system engineer to visit the Client's site during Peelle's normal business hours, which are defined as the hours between 8:00 a.m. and 5:00 p.m. PST, Monday through Friday (excluding Peelle company holidays).

2) Hardware Maintenance/Support Services: Peelle will supply the following hardware maintenance/support services:

(a) All parts, labor and materials necessary to maintain products covered by this Agreement.

Service is available by calling 800-233-5006 or via the Internet at support@peelletech.com. Unless otherwise specified on page one (1) of this Agreement, Peelle agrees to use reasonable efforts to respond to the Client's service request within twenty-four (24) hours of receipt of notification and services will be performed during Peelle's normal business hours. Normal business hours are defined as the hours between 8:00 a.m. and 5:00 p.m. PST, Monday through Friday (excluding Peelle company holidays).

3) Charges: Peelle will invoice Client for the total software/hardware maintenance/support services cost, including any applicable taxes. Client agrees to remit complete payment for the invoice in advance of the stated Agreement Start Date. An interest payment of 1.5% compounded monthly and any applicable software maintenance reinstatement fees imposed by the software manufacturer shall be added to those invoices not paid by the stated software maintenance Start Date.

4) Client Responsibility: Client is responsible for:

(a) Notifying Peelle in advance of any material changes to the supported system's components, including, but not limited to, the system's network, server/workstation hardware, operating system or security configuration.

(b) Having a valid backup of data at all times to maintain original operating system, data and application software.

(c) Promptly notifying Peelle of any need for service and making product(s) available to Peelle engineers.

(d) Running diagnostic tests on all non-supported system components (network, server/workstation hardware, operating system or security configuration) before having a product serviced under this Agreement.

5) Limitations of Service: Maintenance/support services provided under this Agreement do not include:

(a) Cost of bringing product(s) to operational status prior to placing them under maintenance.

(b) Costs related to the off or on-site implementation (including, but not limited to installation, configuration and training services) of software updates made available by the software manufacturer during the term of this Agreement.

(c) Costs related to the resolution of software problems caused by unapproved changes to the supported system's network, server/workstation hardware, operating system or security configuration.

(d) Repair of damage caused by; accidents, natural disaster, improper use, damage during transportation/relocation by Client, work performed on software/hardware by personnel other than Peelle employees/subcontractors, causes beyond Peelle's control.

(e) Furnishing consumable supplies or accessories as specified by the manufacturer.

(f) Hardware with missing or altered serial numbers.

(g) Repair of damage or increase in service time caused by the use of the product for purpose other than for which it was designed or beyond the manufacturer's specifications.

If services are required due to the above causes, Peelle will provide services at Peelle's then current standard service rates.

6) Term: This Agreement shall be in effect beginning on the Start Date as noted on page one (1) of this Agreement and continue through the End Date as noted on page two (2), unless sooner terminated as provided in Section 7 of this Agreement.

As per the 1st Agreement
Reb

7) **Termination:** Client may terminate this Agreement for any reason with sixty (60) days written notice ~~prior to the request for payment~~ ^{Rev}. Client may also terminate this Agreement if any material agreement or obligation contained or referred to in the Agreement has been breached by Peelle, provided that Client has given Peelle notice of such breach and there has been a failure to cure such breach, if curable, within thirty (30) days after receipt of such notice. Unless such breach has been cured, termination shall be effective thirty (30) days after receipt of such notice, and shall be without prejudice to any other right or remedy to which Client may be entitled at law, in equity, or otherwise, including, without limitation, under this Agreement. Peelle may terminate this Agreement at any time for any reason with sixty (60) days written notice. Upon terminating the Agreement, Peelle will issue a prorated refund of any remaining prepaid Agreement coverage. The refund amount will be for the Peelle technical support component only and will not include prepaid, non-refundable maintenance/support fees paid to the software manufacturer(s) or third-party hardware service provider(s).

8) **Rate Changes:** The maintenance/support rates stated within this Agreement will not change during the effective dates specified for this Agreement. All rates are adjustable for maintenance/support coverage periods after the contract expiration date.

9) **Limitation of Liability:** ~~Client must provide Peelle with notice of claims of damages, improper service, or lawsuit within thirty (30) days of service. Peelle shall not be liable for performance delays or for nonperformance due to causes beyond its reasonable control. For any material breach of this Agreement by Peelle, Client's remedy and Peelle's liability shall be limited to a refund of related maintenance/support fees paid during the period of breach, up to a maximum of twelve (12) months. The remedies provided herein are Client's sole and exclusive remedies. In no event will Peelle be liable for special, punitive, incidental, or consequential damages, whether based in contract, tort, or otherwise, including, without limitation, claims for loss or corruption of data or lost profit.~~ ^{Rev}

10) **Entire Agreement:** Client acknowledges that he/she has read this Agreement, understands it and agrees to be bound by Peelle's terms and conditions. Further, Client acknowledges that this Agreement is the complete and exclusive statement of the agreement between the parties, which supersedes all proposals or prior agreements, oral or written. This Agreement may not be modified or amended except by written instrument duly executed by the parties. *This Agreement is an Exhibit to the Agreement* ^{Rev}

11) **Binding Effect.** This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors.

12) **Governing Law:** This Agreement shall be governed by and construed in accordance with the laws of the State of California.



MEMORANDUM

CLERK DEPARTMENT
APR 16 11 30
JUL 13 2016
REC
RESO

To: Robert Schultz, Town Attorney

From: Chris Gjerde, Management Information Systems Manager *CG*

Subject: Sole Source Approval for Peelle Technologies

Date: July 13, 2016

The information Systems Management would like to request sole source approval for Peelle Technologies for all software maintenance/support for Laserfiche software products. This includes all software updates and significant remote support, setup and troubleshooting of the Laserfiche system. Peelle is our local area Laserfiche reseller, they have set up all the Laserfiche customization that spans almost every department, they typically do not charge for remote support, and their hourly rate is competitive for consultants of this expertise when needed. This sole source approval request is for January 23, 2016 to January 22, 2017.

Recommended by:

CG

Chris Gjerde
Management Information Systems

Date: 7-13-16

Approved as to form:

RS

Robert Schultz
Town Attorney

Date: 7-27-16

Exhibit B



Software / Hardware Maintenance Agreement RENEWAL

Document and Data Management Solutions

197 East Hamilton Avenue
Campbell, CA 95008
Phone: 800.233.5006 Fax: 408.866.4803

Send Invoices To:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Software / Hardware Location:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Client ID	Account Manager	Client P.O. #	Peelle Invoice #
TOLG1102	Jim Detrick		

Qty.	Product Description	Service Level	Start Date	End Date	Unit Cost	Ext. Cost
1	Laserfiche Standard Server	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$1,450.00	\$1,450.00
1	Laserfiche Standard Server - Addnl. Database	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$600.00	\$600.00
1	Laserfiche Web Access	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$1,590.00	\$1,590.00
1	Laserfiche Web Access – Addnl. Database	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$250.00	\$250.00
13	Laserfiche Full User	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$150.00	\$1,950.00
20	Laserfiche Retrieval User	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$60.00	\$1,200.00
1	Laserfiche Import Agent	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$390.00	\$390.00
7	Laserfiche Quick Fields	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$120.00	\$840.00
4	Laserfiche Real Time Lookup	Monday – Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$100.00	\$400.00

Continued



Software / Hardware Maintenance Agreement RENEWAL

Document and Data Management Solutions

197 East Hamilton Avenue
Campbell, CA 95008
Phone: 800.233.5006 Fax: 408.866.4803

Send Invoices To:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Software / Hardware Location:

Client: Town of Los Gatos
Attn: Chris Gjerde
Address: 110 East Main Street
City, State, Zip: Los Gatos, CA 95030
Phone: (408) 354-6814

Client ID	Account Manager	Client P.O. #	Peelle Invoice #
TOLG1102	Jim Detrick		

Qty.	Product Description	Service Level	Start Date	End Date	Unit Cost	Ext. Cost
2	Laserfiche Zone OCR and Validation Package	Monday - Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$560.00	\$1,120.00
3	Laserfiche Real Time Lookup and Validation Pkg.	Monday - Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$120.00	\$360.00
1	Laserfiche Advanced Audit Trail	Monday - Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$1,600.00	\$1,600.00
1	Laserfiche ScanConnect	Monday - Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$34.00	\$34.00
3	Laserfiche Workflow Additional User	Monday - Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$60.00	\$180.00
1	Laserfiche Workflow (10 User)	Monday - Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$3000.00	\$3000.00
2	Fujitsu fi-6140 Document Scanner S/N: 033937 and 01949	Monday - Friday 8:00am - 5:00pm PST	1/23/2016	1/22/2017	\$125.00	\$250.00
Notes: The annual maintenance/support cost for the Laserfiche software products includes all software updates. If required, on-site software support will be billed at the rate of \$175.00 per hour, portal to portal, with a two-hour minimum charge.					Total:	\$15,214.00

Please acknowledge your acceptance with a signed copy of the Maintenance Agreement and your purchase order. Faxed copies are acceptable and can be faxed directly to the Contract Administration Department at 408.866.4803.

Donna Braxton / Contract Administrator 12/01/15
Authorized Peelle Representative / Title Date

James P. Scholtz
Authorized Client Representative / Title 8-3-16
Date

Page 2 of 4

Approved as to form:

Robert Scholtz, Town Attorney

Date: 7-24-16

AGREEMENT TERMS AND CONDITIONS

Included are the Terms and Conditions under which Peelle Technologies, Inc. (hereafter referred to as Peelle) will provide software and/or hardware maintenance/support services for the products listed within this Software/Hardware Maintenance Agreement (hereafter referred to as Agreement).

1) Software Maintenance/Support Services: Peelle will supply the following software maintenance/support services:

(a) Peelle shall provide all necessary telephone support for reporting and resolving problems with the software products covered by this Agreement, and shall be available to receive notification by the Client of any software problem. The Client must provide adequate information and documentation to enable Peelle to recreate the reported problem. If it is determined that there is no problem with the software products, Peelle will so inform the Client and, in such case, Peelle reserves the right to charge the Client for the services provided at Peelle's then current standard rates plus reasonable associated expenses. Notwithstanding the provisions of this section, Peelle makes no warranties that the maintenance/support provided hereunder will be successful in resolving any problems or in diagnosing faults.

(b) All software releases/updates made available by the software manufacturer during the term of this Agreement.

Service is available by calling 800-233-5006 or via the Internet at support@peelletech.com. Unless otherwise specified on page one (1) of this Agreement, Peelle agrees to use reasonable efforts to respond to the Client's service request within four (4) hours of receipt of notification. In the first instance, Peelle shall attempt to diagnose the reported problem via telephone, e-mail and/or remote access and, if considered appropriate, shall attempt to resolve the reported problem by requesting that the Client perform any required/standard operational maintenance or simple adjustments which the Client can reasonably be expected to conduct. If the reported problem is not resolved via telephone, e-mail and/or remote access, Peelle shall arrange for a system engineer to visit the Client's site during Peelle's normal business hours, which are defined as the hours between 8:00 a.m. and 5:00 p.m. PST, Monday through Friday (excluding Peelle company holidays).

2) Hardware Maintenance/Support Services: Peelle will supply the following hardware maintenance/support services:

(a) All parts, labor and materials necessary to maintain products covered by this Agreement.

Service is available by calling 800-233-5006 or via the Internet at support@peelletech.com. Unless otherwise specified on page one (1) of this Agreement, Peelle agrees to use reasonable efforts to respond to the Client's service request within twenty-four (24) hours of receipt of notification and services will be performed during Peelle's normal business hours. Normal business hours are defined as the hours between 8:00 a.m. and 5:00 p.m. PST, Monday through Friday (excluding Peelle company holidays).

3) Charges: Peelle will invoice Client for the total software/hardware maintenance/support services cost, including any applicable taxes. Client agrees to remit complete payment for the invoice in advance of the stated Agreement Start Date. An interest payment of 1.5% compounded monthly and any applicable software maintenance reinstatement fees imposed by the software manufacturer shall be added to those invoices not paid by the stated software maintenance Start Date.

4) Client Responsibility: Client is responsible for:

(a) Notifying Peelle in advance of any material changes to the supported system's components, including, but not limited to, the system's network, server/workstation hardware, operating system or security configuration.

(b) Having a valid backup of data at all times to maintain original operating system, data and application software.

(c) Promptly notifying Peelle of any need for service and making product(s) available to Peelle engineers.

(d) Running diagnostic tests on all non-supported system components (network, server/workstation hardware, operating system or security configuration) before having a product serviced under this Agreement.

5) Limitations of Service: Maintenance/support services provided under this Agreement do not include:

(a) Cost of bringing product(s) to operational status prior to placing them under maintenance.

(b) Costs related to the off or on-site implementation (including, but not limited to installation, configuration and training services) of software updates made available by the software manufacturer during the term of this Agreement.

(c) Costs related to the resolution of software problems caused by unapproved changes to the supported system's network, server/workstation hardware, operating system or security configuration.

(d) Repair of damage caused by; accidents, natural disaster, improper use, damage during transportation/relocation by Client, work performed on software/hardware by personnel other than Peelle employees/subcontractors, causes beyond Peelle's control.

(e) Furnishing consumable supplies or accessories as specified by the manufacturer.

(f) Hardware with missing or altered serial numbers.

(g) Repair of damage or increase in service time caused by the use of the product for purpose other than for which it was designed or beyond the manufacturer's specifications.

If services are required due to the above causes, Peelle will provide services at Peelle's then current standard service rates.

6) Term: This Agreement shall be in effect beginning on the Start Date as noted on page one (1) of this Agreement and continue through the End Date as noted on page two (2), unless sooner terminated as provided in Section 7 of this Agreement.

7) Termination: Client may terminate this Agreement for any reason with sixty (60) days written notice prior to the renewal anniversary date. Client may also terminate this Agreement if any material agreement or obligation contained or referred to in the Agreement has been breached by Peelle, provided that Client has given Peelle notice of such breach and there has been a failure to cure such breach, if curable, within thirty (30) days after receipt of such notice. Unless such breach has been cured, termination shall be effective thirty (30) days after receipt of such notice, and shall be without prejudice to any other right or remedy to which Client may be entitled either at law, in equity, or otherwise, including, without limitation, under this Agreement. Peelle may terminate this Agreement at any time for any reason with sixty (60) days written notice. Upon terminating the Agreement, Peelle will issue a prorated refund of any remaining prepaid Agreement coverage. The refund amount will be for the Peelle technical support component only and will not include prepaid, non-refundable maintenance/support fees paid to the software manufacturer(s) or third-party hardware service provider(s).

8) Rate Changes: The maintenance/support rates stated within this Agreement will not change during the effective dates specified for this Agreement. All rates are adjustable for maintenance/support coverage periods after the contract expiration date.

9) Limitation of Liability: Client must provide Peelle with notice of claims of damage, improper service, or lawsuit within thirty (30) days of service. Peelle shall not be liable for performance delays or for nonperformance due to causes beyond its reasonable control. For any material breach of this Agreement by Peelle, Client's remedy and Peelle's liability shall be limited to a refund of related maintenance/support fees paid during the period of breach, up to a maximum of twelve (12) months. The remedies provided herein are Client's sole and exclusive remedies. In no event will Peelle be liable for special, punitive, incidental, or consequential damages, whether based in contract, tort, or otherwise, including, without limitation, claims for loss or corruption of data or lost profit.


10) Entire Agreement: Client acknowledges that he/she has read this Agreement, understands it and agrees to be bound by Peelle's terms and conditions. Further, Client acknowledges that this Agreement is the complete and exclusive statement of the agreement between the parties, which supersedes all proposals or prior agreements, oral or written. This Agreement may not be modified or amended except by written instrument duly executed by the parties.

11) Binding Effect: This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors.

12) Governing Law: This Agreement shall be governed by and construed in accordance with the laws of the State of California.

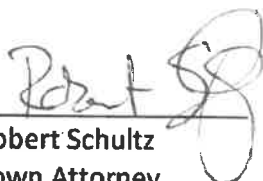


MEMORANDUM

To: Robert Schultz, Town Attorney
From: Chris Gjerde, IT Manager 
Subject: Sole Source for Approval by Town Attorney
Date: November 22, 2017

The Information Technology Department would like to request sole source approval for ECS Imaging for all software maintenance/support for Laserfiche software products. This includes all software updates and significant remote support, setup and troubleshooting of the Laserfiche system. ECS has taken over the duties of Peelle Technologies (our previous sole source) when they went out of business.

Approved as to Form:


Robert Schultz
Town Attorney

October 22, 2019

Town of Los Gatos
110 E. Main Street
Los Gatos, CA 95030

Dear Sir/Madam:

Laserfiche policy dictates that ECS Imaging, Inc., as your current Solution Provider of record, is the sole Solution Provider that can download software licenses and activations for you. In addition, unless you change your Solution Provider of record, only your current Solution Provider of record can provide you with additional Laserfiche software to expand or upgrade your Laserfiche system and renew your Laserfiche Software Assurance Plan ("LSAP"). Please note that we have generally found that the Solution Provider that has implemented and supported your Laserfiche system is likely to have a better understanding of your current system. Thus, it may take some time for a different Solution Provider to gain that same understanding.

Should you decide to change your Solution Provider of record, you will need to complete Laserfiche's change of Solution Provider process, which usually takes about 30 days to finalize. For further clarification, please feel free to call or email your District Manager, Martha Morales, at 562-988-1688 x 115 or martha.morales@laserfiche.com.

Regards,

Hedy Belttary  10/22/2019 06:58 PM EDT

Hedy Belttary
Senior Vice President of Sales



MEMORANDUM

DATE: October 30, 2019

TO: Rob Schultz, Town Attorney

FROM: Chris Gjerde, IT Manager

SUBJECT: Sole Source for Approval by Town Attorney
ECS Imaging, Inc.

BACKGROUND:

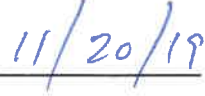
The Information Technology Department requests sole source approval for ECS Imaging, Inc. regarding all software maintenance and support for Laserfiche software products. This includes all software updates and significant remote support, set-up and troubleshooting of the Laserfiche system.

Laserfiche sells their product through approved, licensed Solution Providers. The Solution Provider is responsible to service the accounts listed under their license with Laserfiche. ECS Imaging, Inc. is the top Solution Provider for Laserfiche in California. ECS Imaging is currently the assigned "Solution Provider of record" for the Town by Laserfiche and has extensive experience and expertise working with many local government municipalities, water districts, etc. throughout the state.

Approved as to Form:



Rob Schultz, Town Attorney



Date

DRAFT
PURCHASE AND SERVICE AGREEMENT

THIS AGREEMENT is dated for identification this first day of January, 2020 and is made by and between TOWN OF LOS GATOS, a California municipal corporation, ("Town") and ECS Imaging, Inc., ("Supplier"). This Agreement is made with reference to the following facts. This contract will remain in effect from January 1, 2020 to December 31, 2024.

I. RECITALS

- 1.1 Town sought sole source approval for ECS Imaging, Inc. for all software maintenance and support for Laserfiche software products. ECS Imaging, Inc. is the top Solution Provider in California for Laserfiche products. ECS Imaging is familiar with all of the Laserfiche customization that spans almost every Town Department.
- 1.2 Supplier represents that it is a qualified and competent supplier of the items to be purchased and maintained under this agreement.
- 1.3 The Town desires to engage Supplier to provide Laserfiche annual maintenance, additional Laserfiche software licenses, software updates, scanners, scanning services, remote support, set-up and troubleshooting of the Laserfiche system, and significant document scanning projects Town-wide.
- 1.4 The Supplier represents and affirms that it is qualified and willing to perform the desired work pursuant to this Agreement.

II. AGREEMENTS

- 2.1 Supplies and Terms. Supplier hereby agrees to deliver to Town at 110 E. Main Street, Los Gatos, CA 95030 the items and materials described in quotes throughout the year. The terms and conditions are as follows:
 - (1) Price. Town shall pay Supplier the amounts defined in Staff approved quotations or purchase orders, which includes sales tax and delivery charges. Payment shall be net 30 days from delivery.
 - (2) Delivery. The delivery of additional software licenses and scanners shall be as needed, no later than two weeks from date of request. Delivery shall be made between 8:00 a.m. and 5:00 p.m. on weekdays that are not Town holidays.
- 2.2 Time of the Essence. Prompt delivery of the items and materials is essential to this Agreement.

- 2.3 Scope of Services. Supplier shall provide services as described in that certain ECS Basic Plus Support Agreement – Terms and Conditions, which is hereby incorporated by reference and attached as “**Exhibit A.**” In addition, supplier shall provide scanning, on-site support, and additional Laserfiche software licenses/equipment defined in staff-approved quotations or purchase orders.
- 2.4 Time of Performance. The services to be performed are as follows: the annual maintenance/support cost for the Laserfiche software products includes all software updates. If required, on-site software support will be billed at the rate of \$175.00 per hour with a two-hour minimum. Document scanning will be performed on an as-needed basis, and be preceded by a Town staff-approved quotation.
- 2.5 Compliance with Laws. The Supplier shall comply with all applicable laws, codes, ordinances, and regulations of governing federal, state and local laws. Supplier represents and warrants to Town that it has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required to Supplier to practice its profession. Supplier shall maintain a Town of Los Gatos business license pursuant to Chapter 14 of the Code of the Town of Los Gatos.
- 2.6 Sole Responsibility. Supplier shall be responsible for employing or engaging all persons necessary to perform the services under this Agreement.
- 2.7 Information/Report Handling. All documents furnished to Supplier by the Town and all reports and supportive data prepared by the Supplier under this Agreement are the Town’s property and shall be delivered to the Town upon the completion of Supplier’s services or at the Town’s written request. All reports, information, data, and exhibits prepared or assembled by Supplier in connection with the performance of its service pursuant to this Agreement are confidential until released by the Town to the public, and the Supplier shall not make any of these documents or information available to any individual or organization not employed by the Supplier or the Town without the written consent of the Town before such release. The Town acknowledges that the reports to be prepared by the Supplier pursuant to this Agreement are for the purpose of evaluating a defined project, and Town’s use of the information contained in the reports prepared by the Supplier in connection with other projects shall be solely at Town’s risk, unless Supplier expressly consents to such in writing. Town further agrees that it will not appropriate and methodology or technique of Supplier which is and has been confirmed in writing by Supplier to be a trade secret of Supplier.
- 2.8 Compensation. Compensation for the supplies and materials delivered and for supplier’s professional services is not to exceed \$70,000 annually, inclusive of all costs, for a total amount not to exceed \$350,000. Payment shall be based upon Town approval of each task. See:

- ECS Basic Plus Support Agreement – Terms and Conditions attached as **Exhibit A**.
- Quote for Software, Annual Maintenance and Licensing, and Services attached as **Exhibit B**.
- Document Scanning Services Pricing Quote attached as **Exhibit C** to be defined in individual Town staff approved quotations or purchase orders.

2.9 Billing. Billing shall be by invoice within 30 days of the rendering of the services and shall be accompanied by a detailed explanation of the work performed by whom at what rate and on what date. Also, plans, specifications, documents, or other pertinent materials shall be submitted for Town review, even if only in partial draft form.

Payment shall be net 30 days. All invoices and statement to the Town shall be addressed as follows:

Town of Los Gatos
Attn: Accounts Payable
P.O. Box 655
Los Gatos, CA 95031-0655

2.10 Availability of Records. Supplier shall maintain the records supporting this billing for not less than three years following completion of the work under this Agreement. Supplier shall make these records available to authorized personnel of the Town at the Supplier's offices during business hours upon written request of the Town.

2.11 Assignability and Subcontracting. The services to be performed under this Agreement are unique and personal to the Supplier. No portion of these services shall be assigned or subcontracted without the written consent of the Town.

2.12 Independent Contractor. It is understood that the Supplier, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and not an agent or employee of the Town. As an independent contractor, he/she shall not obtain any rights to retirement benefits or other benefits which accrue to Town employee(s). With prior written consent, the Supplier may perform some obligations under this Agreement by subcontracting, but may not delegate ultimate responsibility for performance or assign or transfer interests under this Agreement. Supplier agrees to testify in any litigation brought regarding the subject of the work to be performed under this Agreement. Supplier shall be compensated for its costs and expenses in preparing for, traveling to, and testifying in such matters at its then current hourly rates of compensation, unless

such litigation is brought by Supplier or is based on allegations of Supplier's negligent performance or wrongdoing.

- 2.13 Conflict of Interest. Supplier understands that its professional responsibilities are solely to the Town. The Supplier has and shall not obtain any holding or interest within the Town of Los Gatos. Supplier has no business holdings or agreements with any individual member of the staff or management of the Town or its representatives nor shall it enter into any such holdings or agreements. In addition, Supplier warrants that it does not presently and shall not acquire any direct or indirect interest adverse to those of the Town in the subject of this Agreement, and it shall immediately disassociate itself from such an interest, should it discover it has done so and shall, at the Town's sole discretion, divest itself of such interest. Supplier shall not knowingly and shall take reasonable steps to ensure that it does not employ a person having such an interest in this performance of this Agreement. If after employment of a person, Supplier discovers it has employed a person with a direct or indirect interest that would conflict with its performance of this Agreement, Supplier shall promptly notify Town of this employment relationship, and shall, at the Town's sole discretion, sever any such employment relationship.
- 2.14 Equal Employment Opportunity. Supplier warrants that it is an equal opportunity employer and shall comply with applicable regulations governing equal employment opportunity. Neither Supplier nor its subcontractors do and neither shall discriminate against persons employed or seeking employment with them on the basis of age, sex, color, race, marital status, sexual orientation, ancestry, physical or mental disability, national origin, religion, or medical condition, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment & Housing Act.

III. INSURANCE AND INDEMNIFICATION

- 3.1 Minimum Scope of Insurance:
- i. Supplier agrees to have and maintain, for the duration of the contract, General Liability insurance policies insuring him/her and his/her firm to an amount not less than: one million dollars (\$1,000,000) combined single limit per occurrence for bodily injury, personal injury and property damage.
 - ii. Supplier agrees to have and maintain for the duration of the contract, an Automobile Liability insurance policy ensuring him/her and his/her staff to an amount not less than one million dollars (\$1,000,000) combined single limit per accident for bodily injury and property damage.
 - iii. Supplier shall provide to the Town all certificates of insurance, with original endorsements effecting coverage. Supplier agrees that all certificates and

endorsements are to be received and approved by the Town before work commences.

- iv. Supplier agrees to have and maintain, for the duration of the contract, professional liability insurance in amounts not less than one million dollars (\$1,000,000) which is sufficient to insure Supplier for professional errors or omissions in the performance of the particular scope of work under this Agreement.

General Liability:

- i. The Town, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Supplier, products and completed operations of Supplier, and premises owned or used by the Supplier. This requirement does not apply to the professional liability insurance required for professional errors and omissions.
 - ii. The Supplier's insurance coverage shall be primary insurance as respects the Town, its officers, officials, employees and volunteers. Any insurance or self-insurances maintained by the Town, its officers, officials, employees or volunteers shall be excess of the Supplier's insurance and shall not contribute with it.
 - iii. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town, its officers, officials, employees or volunteers.
 - iv. The Supplier's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- 3.2 All Coverages. Each insurance policy required in this item shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced in coverage or in limits except after 30 days prior written notice by certified mail, return receipt requested, has been given to the Town. Current certification of such insurance shall be kept on file at all times during the term of this agreement with the Town Clerk Department.
- 3.3 Workers' Compensation. In addition to these policies, Supplier shall have and maintain Workers' Compensation insurance as required by California law and shall provide evidence of such policy to the Town before beginning services under this Agreement. Further, Supplier shall ensure that all subcontractors employed by Supplier provide the required Workers' Compensation insurance for their respective employees.
- 3.4 Indemnification. The Supplier shall save, keep, hold harmless and indemnify and defend the Town and its officers, agent, employees, and volunteers from all damages, liabilities, penalties, costs, or expenses in law or equity that may at any time arise or be set up because of damages to property or personal injury received by reason of, or in the course of performing work which may be occasioned by a willful or negligent act or omissions of the Supplier, or any of the Supplier's officers, employees, or agents or any sub-contractor.

IV. GENERAL TERMS

- 4.1 Waiver. No failure on the part of either party to exercise any right or remedy hereunder shall operate as a waiver of any other right or remedy that party may have hereunder, nor does waiver of a breach or default under this Agreement constitute a continuing waiver of a subsequent breach of the same or any other provision of this Agreement.
- 4.2 Severability. If any term of this Agreement is held invalid by a court of competent jurisdiction, the remainder of this Agreement shall remain in effect.
- 4.3 Warranty. Supplier shall remedy any defects due to faulty materials and/or workmanship and pay for any damages to other work and/or existing facilities resulting therefrom which shall appear within a period of one year from the date of recording of final acceptance.
- 4.4 Governing Law. This Agreement, regardless of where executed, shall be governed by and construed to the laws of the State of California. Venue for any action regarding this Agreement shall be in the Superior Court of the County of Santa Clara.
- 4.5 Termination of Agreement. The Town and the Supplier shall have the right to terminate this Agreement with or without cause by giving not less than 60 days written notice of termination. In the event of termination, the Supplier shall deliver to the Town all supplies and services scheduled to be delivered to Town within that 60-day period.
- 4.6 Amendment. No modification, waiver, mutual termination, or amendment of this Agreement is effective unless made in writing and signed by the Town and the Supplier.
- 4.7 Disputes. In any dispute over any aspect of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, including cost of appeal.
- 4.8 Notices. Any notice required to be given shall be deemed to be duly and properly given if mailed postage prepaid and addressed to:

Town of Los Gatos
Attn: Town Clerk
110 E. Main Street
Los Gatos, CA 95030

ECS Imaging, Inc.
5905 Brockton Avenue
Suite C
Riverside, CA 92506

OR personally delivered to Supplier to such address or such other address as Supplier designates in writing to Town.

- 4.9 Order of Precedence. In the event of any conflict, contradiction, or ambiguity between the terms and conditions of this Agreement in respect of the Products or Services and any attachments to this Agreement, then the terms and conditions of this Agreement shall prevail over attachments or other writings.

4.10 Entire Agreement. This Agreement, including all Exhibits, constitutes the complete and exclusive statement of the Agreement between the Town and Supplier. No terms, conditions, understandings or agreements purporting to modify or vary this Agreement, unless hereafter made in writing and signed by the party to be bound, shall be binding on either party.

IN WITNESS WHEREOF, the Town and Supplier have executed this Agreement.

Town of Los Gatos by:

ECS Imaging, Inc., by:

Laurel Prevetti, Town Manager

Print Name: _____

Recommended by:

Title: _____

Chris Gjerde, Information Technology Manager

Approved as to Form:

Robert Schultz, Town Attorney

Attest:

Shelley Neis, CMC, CPMC, Town Clerk

ECS BASIC PLUS SUPPORT AGREEMENT - TERMS AND CONDITIONS

This ECS Priority Support Agreement (the "**Support Agreement**") is incorporated by this reference in the agreement to which it is attached (the "**Master Agreement**"). Products covered by this Support Agreement ("**Products**") are any item or group of items supplied by ECS which are set forth in the Master Agreement or any corresponding ECS invoice for support services (each an "**Invoice**"). Unless specified differently, defined terms herein shall have the same meaning as attributed to them in the Master Agreement. ECS Imaging, Inc. ("**ECS**"), a Value-Added Reseller of Laserfiche, and the Client agree to be governed by this Support Agreement relative to the software and/or hardware maintenance services ("**Service**" or "**Services**") which ECS will provide relative to the Products. The terms and provisions in this Support Agreement shall control over any inconsistent terms or provisions in the Master Agreement.

1) Software Maintenance/Priority Support Services: Based on the software provided as part of the Master Agreement or applicable Invoice, ECS will supply the following software maintenance/support services:

(a) ECS shall provide all necessary telephone support for reporting and resolving problems with the software products covered by this Support Agreement, and shall be available to receive notification by the Client of any software problem. The Client must provide adequate information and documentation to enable ECS to recreate the reported problem. If it is determined that there is no problem with the software products, ECS will so inform the Client and, in such case, ECS reserves the right to charge the Client for the services provided at ECS's then current standard rates plus reasonable associated expenses. Notwithstanding the provisions of this section, ECS makes no warranties that the maintenance/support provided hereunder will be successful in resolving any problems or in diagnosing faults.

(b) Service is available by calling 877-790-1600 or via E-mail at helpdesk@ecsimaging.com during Regular Business Hours, defined as the hours between 7:30 a.m. and 5:00 p.m. PST, Monday through Friday (excluding ECS company holidays). ECS agrees to use reasonable efforts to respond to the Client's service request within four (4) hours of receipt of notification. ECS shall first attempt to diagnose the reported problem via telephone and/or e-mail, if considered appropriate, shall attempt to resolve the reported problem by requesting that the Client perform any required/standard operational maintenance or simple adjustments which the Client can reasonably be expected to conduct. If the reported problem is not resolved via telephone and/or e-mail, ECS shall arrange for a system engineer to visit the Client's site during ECS's Regular Business Hours.

(c) The Client has purchased an unlimited support per year as defined in the Invoice for support services. Basic Plus Support can be used for remote desktop support and remote upgrades only. On-site support, on-site and remote upgrades, and on-site training can be provided after the Client purchases Professional Services Hours at a rate of \$250/Hr.

2) Hardware Maintenance/Support Services: If applicable based on the above-described Products, ECS will supply the following hardware maintenance/support services:

(a) Hardware maintenance will be covered if such hardware is covered by the manufacturer's warranty and the warranty is maintained through ECS.

3) Charges: ECS will invoice Client for the total software/hardware maintenance/support services cost, including any applicable taxes. Client agrees to remit complete payment for such invoice in advance of the renewal date indicated. An interest payment of 1.5% compounded monthly and any applicable software maintenance reinstatement fees imposed by the software manufacturer shall be added to any such invoices not paid by the renewal date specified on the Master Agreement or Invoice.

4) Client Responsibility: Client is responsible for:

- (a) Notifying ECS in advance of any material changes to the supported Products components, including, but not limited to, the system's network, server/workstation hardware, operating system or security configuration.
- (b) Having a valid backup of data at all times to maintain original operating system, data and application software.
- (c) Promptly notifying ECS of any need for service and making product(s) available to ECS engineers.
- (d) Running diagnostic tests on all non-supported system components (network, server/workstation hardware, operating system or security configuration) before having a product serviced under this Support Agreement.

5) Limitations of Service: Maintenance/support services provided under this Support Agreement do not include:

- (a) Cost of bringing product(s) to operational status prior to placing them under maintenance.
- (b) Costs related to the resolution of software problems caused by unapproved changes to the supported system's network, server/workstation hardware, operating system or security configuration.
- (c) Repair of damage caused by; accidents, natural disaster, improper use, damage during transportation/relocation by Client, work performed on software/hardware by personnel other than ECS employees/subcontractors, causes beyond ECS's control.
- (d) Furnishing consumable supplies or accessories as specified by the manufacturer.
- (e) Hardware with missing or altered serial numbers.
- (f) Repair of damage or increase in service time caused by the use of the product for purpose other than for which it was designed or beyond the manufacturer's specifications.

If services are required due to the above causes, ECS will provide services at ECS's then current standard service rates.

6) Term: This Support Agreement shall be in effect beginning on the first date of support and continue for one year, unless sooner provided in Section 7 of this Support Agreement.

7) Termination: Client may terminate this Support Agreement for any reason with sixty (60) days written notice prior to the anniversary. Client may also terminate this Support Agreement if any material agreement or obligation contained or referred to in the Support Agreement has been breached by ECS, provided that Client has given ECS notice of such breach and there has been a failure to cure such breach, if curable, within thirty (30) days after receipt of such notice. Unless such breach has been cured, termination shall be effective thirty (30) days after receipt of such notice, and shall be without prejudice to any other right or remedy to which Client may be entitled either at law, in equity, or otherwise, including, without limitation, under this Support Agreement, may terminate this Support Agreement at any time for any reason with sixty (60) days written notice. Upon terminating the Support Agreement, ECS will issue a prorated refund of any remaining prepaid Support Agreement coverage. The refund amount will be for the ECS Priority Support Hours only and will not include prepaid, non-refundable maintenance/support fees paid to the software manufacturer(s) or third-party hardware service provider(s).

8) Rate Changes: The Priority Support rates stated within this Support Agreement will not change during the for a period of one year. All rates are adjustable for Priority Support coverage periods after the End Date.

9) Limitation of Liability: Client must provide ECS with notice of claims of damage, improper service, or lawsuit within thirty (30) days of service. ECS shall not be liable for performance delays or for nonperformance due to causes beyond its reasonable control. For any material breach of this Support Agreement by ECS, Client's remedy and ECS's liability shall be limited to a refund of related maintenance/support fees paid during the period of breach, up to a maximum of twelve (12) months. The remedies provided herein are Client's sole and exclusive remedies. In no event will ECS be liable for special, punitive, incidental, or consequential damages, whether based in contract, tort, or otherwise, including, without limitation, claims for loss or corruption of data or lost profit.

10) Entire Agreement: Client acknowledges that he/she/it has read this Support Agreement, understands it and agrees to be bound by the terms and provisions set forth herein. This Support Agreement may not be modified or amended except by written instrument duly executed by the parties. This Support Agreement, contains the entire agreement and understanding between ECS and the Client respecting the subject matter hereof and it supersedes and replaces any prior or contemporaneous written or oral proposals or Support Agreements relative to Support Agreement services.

11) Binding Effect: Subject to any prohibition against assignment contained herein, the within Support Agreement shall be binding on and shall inure to the benefit of the heirs, executors, administrators, successors, and assigns of the parties hereto.

12) Governing Law - Venue: This Support Agreement shall be governed by and construed in accordance with the laws of the State of California. It shall be deemed to have been made and entered into in the City of Riverside, State of California, and all legal actions or arbitrations pertaining thereto shall occur with regard to such specification of venue.

13) Professional Services: ECS provides professional services for developing workflows, electronic forms, or data conversions and several other services. If the client chooses, these services will be provided by ECS at the rate of \$250 per hour with a two-hour minimum, portal-to-portal.

14) Acceptance: This Support Agreement is deemed accepted by and binding upon Client by virtue of any of the following: (i) Client's execution of the Master Agreement; or (ii) ECS receiving a Client generated purchase order at any time during the period specified for any Services to be performed by ECS; or (iii) Client availing itself of the Services to be provided hereunder.

Q4 2019 V1

Quote Type **Rio**

Quotation For

Name:	Chris Gjerde
Company:	Town of Los Gatos
Phone:	
E-mail:	

Quote Info

Date:	10/31/2019
Quote Number:	103119
Valid Through	1230/2019
Terms:	net 15
Account Manager:	pete H
Phone:	925 586 7549
E-mail:	

Description of Product and Services

trade in multiple QF work stations fro QF agent

Software

Rio includes Workflow, Web Access, Mobile, Adv. Audit Trail, Digital Signatures, Discussions, Unlimited Servers, Forms Essentials

SKU	Description	Unit Price	Quantity	Line Total
ENFPL25	Laserfiche Rio Pilot Named Full Users (25-49 users)	\$ 900.00	40	\$ 36,000.00
EPLS2	Laserfiche Rio Public Portal for 2 Laserfiche Servers	\$ 50,000.00	1	\$ 50,000.00
QFA	Laserfiche Quick Fields Agent	\$ 10,000.00	1	\$ 10,000.00
QC1	Laserfiche Quick Fields Core	\$ 5,000.00	1	\$ 5,000.00

Trade-in Credit \$ (99,290.00) **\$ 1,710.00**

Annual Maintenance and Licensing

SKU	Description	Unit Price	Quantity	Line Total
ENFPL25B	Laserfiche Rio Pilot Named Full Users (25-49 users) LSAP	\$ 180.00	40	\$ 7,200.00
EPLS2B	Laserfiche Rio Public Portal for 2 Laserfiche Servers LSAP	\$ 10,000.00	1	\$ 10,000.00
QFAB	Laserfiche Quick Fields Agent LSAP	\$ 2,000.00	1	\$ 2,000.00
QC1B	Laserfiche Quick Fields Core LSAP	\$ 1,000.00	1	\$ 1,000.00
S6140-AEPWNBD-1	fi-6140 1 Year Adv Exchange	\$ 119.00	4	\$ 476.00
5352B011	DR-M160II, ePak, 1 Yr. AE	\$ 89.00	1	\$ 89.00

Annual Maintenance Subtotal \$ **20,765.00**

Hardware

SKU	Description	Unit Price	Quantity	Line Total
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Hardware Subtotal \$ -

Professional Services

SKU	Description	Rate	Quantity	Line Total
ECSCI	ECS Install, Configuration, Consulting, & Project Management Services	\$ 1,800.00	1.00	\$ 1,800.00

Professional Services Subtotal \$ **1,800.00**

Special Terms

migrate QF sessions to Server & load all above licenses

Subtotal \$ 24,275.00

Tax Rate Software Only (Download Only)

0.000%

Tax \$ -

Software is only available via download and is not subject to CA sales tax

Shipping \$ -

Total \$ **24,275.00**

Billing Terms:

All Software and Annual Maintenance is billed 100% at project start. Services are billed 50% up front minimally with remaining Services as incurred.

Annual Priority Support Contract Includes

- o Maximum 4 Hour Response Time - Upgraded from 24 hours with traditional LSAP support
- o Live Hours of support are 7:30am - 5:00pm PST M-F
- o Unlimited Phone and E-mail Support
- o On-site time is calculated to the nearest half hour and minimum onsite calculation is between 2-8 hours depending on the location
- o On-site time can be used for remedial training, installing updates, and consulting, in addition to support
- o ECS may allow planned after hours support in rare circumstances. In these circumstances Priority Support will be billed at double the hourly rate.

Hardware Return Policy:

Unopened boxed hardware may be exchanged for a full cash or credit refund within 7 days - a 15% restocking fee may apply. Defective hardware will be exchanged for a replacement per the terms and conditions specified on the product warranty card.

- o Two free admissions to the ECS Annual Customer Conference along with Free Admission to Quarterly User Groups
- o Monthly E-Newsletter
- o On-site/remote support hours included as quoted. On-site within next business day as needed. Additional hours of support purchased at a discounted hourly rate. Customers not under this plan can purchase on-site hours at \$250/hour with a 1 hour minimum for remote support, and an 8 hour minimum onsite charge in addition to travel expenses.

Q2 2017 V1

Quote Type Scanning

Quotation For

Name:
Company: Town of Los Gatos
Phone:
E-mail:

Quote Info

Date:
Quote Number:
Valid Through
Terms: Net 15
Account Manager: Pete H
Phone: 925 586 7549
E-mail: pete@ecsimaging.com

Description of Product and Services

Quote for Scanning Services

Scanning Services

SKU	Description	Unit Price	Quantity	Line Total
ECSS-REG-B&W	ECS Black & White Document Scanning Services up to 11" x 17" size	\$ 0.11	0	\$ -
ECSS-ESIZE-B&W	ECS Black & White Map Scanning Services up to esize	\$ 1.25	0	\$ -
ECSS-PICKUP	ECS Pick Up Fee	\$ 150.00	0	\$ -
ECSS-PREP	ECS Prep Charge Per Hour	\$ 30.00	0	\$ -
ECSS-INDEX	ECS Indexing Fee Per Hour	\$ 30.00	0	\$ -
ECSS-DVD	ECS DVD - 1 Data DVD	\$ 65.00	0	\$ -

Scanning Subtotal \$ -

Special Terms

Actual Pricing may vary due to type of labor needed or quantity scanned and type of documents. Estimated up to 2 hours per box for indexing. Possibly No

Subtotal	\$ -
Tax Rate Software Only (Download Only)	0.00%
Tax	\$ -
Total	\$ -

Terms & Conditions:

- o Payment Terms: Net 20 after each batch returned.
- o Laserfiche Tiffs in portable volumes to be attached to your Laserfiche system
- o ECS will train customer on how to load data onto LF Server during first delivery, if needed
- o Consulting of folder template and volume set ups included in project set up fee
- o Items will be placed back into original carrier (folder, sleeve, etc.)
- o Items will be delivered free of charge after being scanned
- o Items are scanned in order received. Any additional requests are subject to a charge
- o Scanning in Tiff images is 200-300dpi depending on need
- o Paper/Plans: Indexing included is 2 fields, up to 20 characters and Unique Document Name up to 20 characters each
- o Microfiche: Indexing included is the name on the Sleeve
- o Microfilm: Indexing included is the name on the Cartridge
- o Images that have been fished/filmed reverse have additional charge
- o All prices listed above are for estimating purposes only. Actual prices may vary
- o Any upload fee is for 5GB per volume maximum

- o Pick up / Delivery charges (pricing varies, based on location and quantity)
- o Change orders after files have been returned are subject to restructuring/reindexing fee
- o OCRing can be done during scan process at no charge. Any verification time is \$30.00 Per Hour
- o DVD Set = 1 Data DVD, 1 Plus Viewer DVD - Plus DVD has retrieval engine on DVD. Regular size documents fit approximately 90,000 images
- o CD Set = 1 Data CD, 1 Plus Viewer CD - Plus CD has retrieval engine on CD. Regular size rolls fit approximately 10,000 images
- o Boxes may be destroyed at the customer's request at a cost of \$16.00 a box. A Destruction Certificate will be provided
- o While documents are at ECS, we can provide an electronic copy for up to 4 per batch at no charge. Additional special handling requests are subject to charge of \$30/per hour
- o IMPORTANT: Once the imaged data has been delivered you will have 90 days to review all images. After 90 days all original documents will be destroyed or a storage box fee will apply

Box Type Box Count Image Count Total Images

Total Image Count -



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 4

DATE: November 21, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Authorize the Town Manager to Execute an Agreement for Services with LWP Claims Solutions to Provide Workers' Compensation Third-Party Administration Services Effective January 1, 2020 Through December 31, 2022 for a Total Amount Not to Exceed \$171,357

RECOMMENDATION:

Authorize the Town Manager to execute an Agreement for Services with LWP Claims Solutions (Attachment 1) to provide workers' compensation third-party administration services effective January 1, 2020 through December 31, 2022 for a total not to exceed amount of \$171,357.

BACKGROUND:

The California Division of Occupational Safety and Health requires that all employers provide workers' compensation insurance protection for workers' who are injured or ill as a result of their employment to provide medical care and replace lost income. The Town of Los Gatos is self-insured for workers' compensation insurance and engages the services of a third-party administrator to receive and evaluate employee claims, authorize and pay for medical care, coordinate the payment of lost income, ensure the plan remains in compliance with state regulations, provide training to managers and supervisors, determine appropriate reserves for future medical care and permanent disability, and represent the Town in cases that are elevated for evaluation before the Workers' Compensation Appeals Board.

The Town last issued a request for proposals (RFP) for workers' compensation third-party administration services in 2010.

PREPARED BY: Lisa Velasco
Human Resources Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

DISCUSSION:

Due to the length of time since a formal RFP has been solicited for workers' compensation claims administration services, a new request was sent to vendors in July 2019. The request was sent to twenty (20) vendors, including the Town's current vendor, and posted on the Town's website. Five responses were received by the due date and after evaluation, three finalists were invited to interview with a panel of Town representatives that are most closely involved with workers' compensation administration services. Based on the interviews, the panel selected LWP Claims Solutions as a new vendor to provide workers' compensation claims administration services for the Town based on their record of providing high quality and strong customer service commitment to public agencies. In addition, LWP Claims Solutions has a track record of reducing costs associated with utilization reviews, collaborating with employees to assist in a timely return to work, and reducing overall claims cost.

CONCLUSION:

Based on the outcome of the competitive RFP process for workers' compensation third-party claims administration services, staff recommends that Council authorize the Town Manager to execute a new Agreement for Services with LWP Claims Solutions.

FISCAL IMPACT:

LWP Claims Solution has committed to a not to exceed claims administration fee amount of \$60,500 for year one of the agreement which is an overall increase of \$5,848 for the remainder of FY 2019/20. Staff will recommend a mid-year budget adjustment to factor the additional cost into the FY 2019/20 Operating Budget. The costs for year two and year three of the agreement will be built into the Operating Budgets for FY 2020/21 and FY 2021/22.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachment:

1. Agreement for Services

AGREEMENT FOR CONSULTANT SERVICES

THIS AGREEMENT is made and entered into on this 1st day of January, 2020 by and between TOWN OF LOS GATOS, a California municipal corporation, ("Town") and LWP Claims Solutions, Inc., ("Consultant"), whose address is 35 Miller Avenue #214, Mill Valley, CA 94941. This Agreement is made with reference to the following facts.

I. RECITALS

- 1.1 The Town desires to engage Consultant to provide workers' compensation third-party claims administration services for the Town's self-insured workers' compensation program.
- 1.2 The Consultant represents and affirms that it is willing to perform the desired work pursuant to this Agreement.
- 1.3 Consultant warrants it possesses the distinct professional skills, qualifications, experience, and resources necessary to timely perform the services described in this Agreement. Consultant acknowledges Town has relied upon these warranties to retain Consultant.

II. AGREEMENTS

- 2.1 Scope of Services. Consultant shall provide services as described in that certain Scope of Services sent to the Town on August 19, 2019, which is hereby incorporated by reference and attached as Exhibit A.
- 2.2 Term and Time of Performance. This contract will remain in effect from January 1, 2020 to December 31, 2022.
- 2.3 Compliance with Laws. The Consultant shall comply with all applicable laws, codes, ordinances, and regulations of governing federal, state and local laws. Consultant represents and warrants to Town that it has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for Consultant to practice its profession. Consultant shall maintain a Town of Los Gatos business license pursuant to Chapter 14 of the Code of the Town of Los Gatos.
- 2.4 Sole Responsibility. Consultant shall be responsible for employing or engaging all persons necessary to perform the services under this Agreement.
- 2.5 Information/Report Handling. All documents furnished to Consultant by the Town and all reports and supportive data prepared by the Consultant under this Agreement are the Town's property and shall be delivered to the Town upon the completion of Consultant's services or at the Town's written request. All reports, information, data, and exhibits prepared or assembled by Consultant in connection with the performance of its services

ATTACHMENT 1

pursuant to this Agreement are confidential until released by the Town to the public, and the Consultant shall not make any of these documents or information available to any individual or organization not employed by the Consultant or the Town without the written consent of the Town before such release. The Town acknowledges that the reports to be prepared by the Consultant pursuant to this Agreement are for the purpose of evaluating a defined project, and Town's use of the information contained in the reports prepared by the Consultant in connection with other projects shall be solely at Town's risk, unless Consultant expressly consents to such use in writing. Town further agrees that it will not appropriate any methodology or technique of Consultant which is and has been confirmed in writing by Consultant to be a trade secret of Consultant.

- 2.6 Compensation. Compensation for Consultant's professional services **shall not exceed \$171,357**, inclusive of all costs. The service fee schedule is incorporated in this agreement as Exhibit B. Payment shall be based upon Town approval of each task.
- 2.7 Billing. Billing shall be monthly by invoice within thirty (30) days of the rendering of the service and shall be accompanied by a detailed explanation of the work performed by whom at what rate and on what date. Also, plans, specifications, documents or other pertinent materials shall be submitted for Town review, even if only in partial or draft form.

Payment shall be net thirty (30) days. All invoices and statements to the Town shall be addressed as follows:

Invoices:

Town of Los Gatos
Attn: Human Resources
110 E. Main Street
Los Gatos, CA 95030

- 2.8 Availability of Records. Consultant shall maintain the records supporting this billing for not less than three years following completion of the work under this Agreement. Consultant shall make these records available to authorized personnel of the Town at the Consultant's offices during business hours upon written request of the Town.
- 2.9 Project Manager. The Project Manager for the Consultant for the work under this Agreement shall be:

Amber Davis, Claims Manager
P.O. Box 349016
Sacramento, CA 95834
Phone: (916) 609-3654 Email: a_davis@lwpclaims.com

- 2.10 Assignability and Subcontracting. The services to be performed under this Agreement are unique and personal to the Consultant. No portion of these services shall be assigned or subcontracted without the written consent of the Town.
- 2.11 Independent Contractor. It is understood that the Consultant, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and not an agent or employee of the Town. As an independent contractor he/she shall not obtain any rights to retirement benefits or other benefits which accrue to Town employee(s). With prior written consent, the Consultant may perform some obligations under this Agreement by subcontracting, but may not delegate ultimate responsibility for performance or assign or transfer interests under this Agreement. Consultant agrees to testify in any litigation brought regarding the subject of the work to be performed under this Agreement. Consultant shall be compensated for its costs and expenses in preparing for, traveling to, and testifying in such matters at its then current hourly rates of compensation, unless such litigation is brought by Consultant or is based on allegations of Consultant's negligent performance or wrongdoing.
- 2.12 Conflict of Interest. Consultant understands that its professional responsibilities are solely to the Town. The Consultant has and shall not obtain any holding or interest within the Town of Los Gatos. Consultant has no business holdings or agreements with any individual member of the Staff or management of the Town or its representatives nor shall it enter into any such holdings or agreements. In addition, Consultant warrants that it does not presently and shall not acquire any direct or indirect interest adverse to those of the Town in the subject of this Agreement, and it shall immediately disassociate itself from such an interest, should it discover it has done so and shall, at the Town's sole discretion, divest itself of such interest. Consultant shall not knowingly and shall take reasonable steps to ensure that it does not employ a person having such an interest in this performance of this Agreement. If after employment of a person, Consultant discovers it has employed a person with a direct or indirect interest that would conflict with its performance of this Agreement, Consultant shall promptly notify Town of this employment relationship, and shall, at the Town's sole discretion, sever any such employment relationship.
- 2.13 Equal Employment Opportunity. Consultant warrants that it is an equal opportunity employer and shall comply with applicable regulations governing equal employment opportunity. Neither Consultant nor its subcontractors do and neither shall discriminate against persons employed or seeking employment with them on the basis of age, sex, color, race, marital status, sexual orientation, ancestry, physical or mental disability, national origin, religion, or medical condition, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment & Housing Act.

III. INSURANCE AND INDEMNIFICATION

- 3.1 Minimum Scope of Insurance:

- i. Consultant agrees to have and maintain, for the duration of the contract, General Liability insurance policies insuring him/her and his/her firm to an amount not less than: one million dollars (\$1,000,000) combined single limit per occurrence for bodily injury, personal injury and property damage.
- ii. Consultant agrees to have and maintain for the duration of the contract, an Automobile Liability insurance policy ensuring him/her and his/her staff to an amount not less than one million dollars (\$1,000,000) combined single limit per accident for bodily injury and property damage.
- iii. Consultant shall provide to the Town all certificates of insurance, with original endorsements effecting coverage. Consultant agrees that all certificates and endorsements are to be received and approved by the Town before work commences.
- iv. Consultant agrees to have and maintain, for the duration of the contract, professional liability insurance in amounts not less than \$1,000,000 which is sufficient to insure Consultant for professional errors or omissions in the performance of the particular scope of work under this agreement.

General Liability:

- i. The Town, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of Consultant, premises owned or used by the Consultant. This requirement does not apply to the professional liability insurance required for professional errors and omissions.
- ii. The Consultant's insurance coverage shall be primary insurance as respects the Town, its officers, officials, employees and volunteers. Any insurance or self-insurances maintained by the Town, its officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
- iii. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town, its officers, officials, employees or volunteers.
- iv. The Consultant's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

- 3.2 All Coverages. Each insurance policy required in this item shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the Town. Current certification of such insurance shall be kept on file at all times during the term of this agreement with the Town Clerk.
- 3.3 Workers' Compensation. In addition to these policies, Consultant shall have and maintain Workers' Compensation insurance as required by California law and shall provide evidence of such policy to the Town before beginning services under this Agreement. Further, Consultant shall ensure that all subcontractors employed by Consultant provide the required Workers' Compensation insurance for their respective employees.
- 3.4 Indemnification. The Consultant shall save, keep, hold harmless and indemnify and defend the Town its officers, agent, employees and volunteers from all damages, liabilities, penalties, costs, or expenses in law or equity that may at any time arise or be set up because of damages to property or personal injury received by reason of, or in the course of performing work which may be occasioned by a willful or negligent act or omissions of the Consultant, or any of the Consultant's officers, employees, or agents or any subconsultant.

IV. GENERAL TERMS

- 4.1 Waiver. No failure on the part of either party to exercise any right or remedy hereunder shall operate as a waiver of any other right or remedy that party may have hereunder, nor does waiver of a breach or default under this Agreement constitute a continuing waiver of a subsequent breach of the same or any other provision of this Agreement.
- 4.2 Governing Law. This Agreement, regardless of where executed, shall be governed by and construed to the laws of the State of California. Venue for any action regarding this Agreement shall be in the Superior Court of the County of Santa Clara.
- 4.3 Termination of Agreement. The Town and the Consultant shall have the right to terminate this agreement with or without cause by giving not less than sixty days (60) written notice of termination. In the event of termination, the Consultant shall deliver to the Town all plans, files, documents, reports, performed to date by the Consultant. In the event of such termination, Town shall pay Consultant an amount that bears the same ratio to the maximum contract price as the work delivered to the Town bears to completed services contemplated under this Agreement, unless such termination is made for cause, in which event, compensation, if any, shall be adjusted in light of the particular facts and circumstances involved in such termination.
- 4.4 Amendment. No modification, waiver, mutual termination, or amendment of this Agreement is effective unless made in writing and signed by the Town and the Consultant.

- 4.5 Disputes. In any dispute over any aspect of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, including costs of appeal.
- 4.6 Notices. Any notice required to be given shall be deemed to be duly and properly given if mailed postage prepaid, and addressed to:

Town of Los Gatos
Attn: Human Resources Director
110 E. Main Street
Los Gatos, CA 95030

LWP Claims Solutions, Inc.
Attn: Judy Adlam, President & CEO
35 Miller Ave #214
Mill Valley, CA 94941

or personally delivered to Consultant to such address or such other address as Consultant designates in writing to Town.

Unless otherwise specified, consultant contact with Town shall be limited to the Human Resources Director, Human Resources Analyst, Human Resources Technician, Town Attorney, Town Manager or their designee.

- 4.7 Order of Precedence. In the event of any conflict, contradiction, or ambiguity between the terms and conditions of this Agreement in respect of the Products or Services and any attachments to this Agreement, then the terms and conditions of this Agreement shall prevail over attachments or other writings.
- 4.8 Entire Agreement. This Agreement, including all Exhibits, constitutes the complete and exclusive statement of the Agreement between the Town and Consultant. No terms, conditions, understandings or agreements purporting to modify or vary this Agreement, unless hereafter made in writing and signed by the party to be bound, shall be binding on either party.

IN WITNESS WHEREOF, the Town and Consultant have executed this Agreement.

Town of Los Gatos by:

Consultant, by:

Laurel Prevetti, Town Manager

Judy Adlam, President & CEO
LWP Claims Solutions, Inc.

Recommended by:

Lisa Velasco, Human Resources Director

Approved as to Form:

Robert Schultz, Town Attorney

Attest:

Shelley Neis, CMC, Town Clerk

EXHIBIT A - SCOPE OF SERVICES

During the Term of this Agreement, Consultant shall provide the following services to ensure compliance with workers' compensation statutes and regulations as established by the Department of Industrial Relations:

A. WORKERS' COMPENSATION CLAIMS MANAGEMENT AND ADMINISTRATION:

1. To review on behalf of the Town all reports of injury as defined by California Labor Code Sections 3208 and 3208.1 that are reported by the Town to Consultant.
2. To determine on behalf of the Town for each reported employee Injury those benefits, if any, that should be paid or rendered under the California Workers' Compensation laws (the "WC Laws").
3. To establish and maintain a claim file on each reported claim, which file shall be available to the Town for inspection. The maintenance of such files shall exhibit handling practices which meet or exceed minimum industry standards for California workers' compensation claims.
4. To maintain current cost-benefit figures and an estimate of the total costs of all reasonable and foreseeable benefits and related expenses on each case.
5. To prepare and file on behalf of the Town all legally required forms and reports with the Administrative Director or Self-Insurance Plans, or any other report required by the State.
6. To pay on the behalf of the Town, from a segregated bank workers' compensation account funded and maintained by the Town, those sums that should reasonably be paid for claims and claims-related expenses under the California Workers' Compensation Laws for each reported claim.
7. When required and appropriate, to refer cases where an employee of the Town files an application with the California Workers' Compensation Appeals Board or any other activity involving litigation to attorneys selected and approved by the Town and not to any other attorneys without the prior written consent of the Town.
8. To render assistance as is reasonably necessary in the preparation of litigated cases.

9. To pay on behalf of the Town out of the bank workers' compensation trust account funded by the Town all "Allocated Loss Expense" which is defined to include all fees of attorneys, witnesses, court reporters, process servers, independent investigators, any court or Workers' Compensation Appeals Board, for depositions, surveillance or the necessary engagement of personnel in the handling of any claim subject to this Agreement.
10. To provide computerized loss analysis and financial claim detail reports within ten days following the end of the month. At no additional charge, Consultant will provide the following reports:
 - a. Annual graphic reports reflecting the highest cost department and loss-types. Annual recaps, litigated claims and other mutually accepted categories.
11. To provide and make appropriate claims reports to excess carriers and collect excess recoveries, including the return of excess recoveries to Town, subject to the Town providing Consultant with a list of excess carriers for all preceding years, and identifying the policy numbers and the parties to whom reports are to be directed.
12. To attend Workers' Compensation Appeals Board hearings, rehabilitation hearings, meetings with defense counsel, and meetings with Town staff, departments, and employee groups as necessary and as requested to do so.
13. To provide monthly summaries of all Town of Los Gatos workers' compensation bank trust account activities undertaken by Consultant.
14. To advise the Town on any material problems or need for improvement in the claims reporting, administration or other aspects of the workers' compensation program.
15. To employ, as necessary, outside vendors subject to obtaining the Town's prior written approval of all vendors eligible to provide services, directly or indirectly, on behalf of, or for the Town pursuant to this Agreement.

B. PROGRAM IMPLEMENTATION SERVICES:

Consultant will provide the following services:

16. Storage of all closed files, even those assumed from the prior administrators.
17. Develop and print up to fifty copies of a claim reporting procedure manual (including the most recent workers' compensation reform information) for distribution to all departments and key employees, should any major changes in

procedures be required.

18. Implementation visits to the Town to distribute claim manuals and discuss self-insurance and TPA service program with key personnel, should any major changes in procedures be required.
19. Design and implement all accounting and trust fund procedures, should any changes be required.
20. Produce and design all necessary reports.

Exhibit B - Service Fee Schedule

Proposed Pricing

Claims Administration - Life of Contract Bundled Claims Administration and Managed Care

Year 1	\$51,000
Year 2	\$52,275
Year 3 -Optional Year 3	\$53,582

Assumes open case load of 30 claims. Should takeover claims (including reopen) be more than 35 an additional annual fee of \$1,000 for each indemnity claim open over 35 will be charged.

Services Included in Claims Administration Fee

Claims Administration	Designated Account Manager
Claim Review Meetings	Litigation Management
Swat Team Claim Intake	Reporting to Reinsurer

Additional Services

Annual Administration Fee	\$2,500
Bank Charges (one Account)	Included
Storage Fees	Included
On-Line 5020 Reporting	Included
Loss Reports	Included
On-Line System Access	Included up to 4 users, \$250 per user/year over 4 users
Trust Accounting	Included
Preparation and filing of 1099's	Included
Preparation of SIP reports	Included
FROI/SROI Reporting	Included
Medicare Reporting	Included
Ebill	Included
Transition Services	
Data Intake	\$5,000
Claims Triage	No Charge

Not to Exceed Claims Administration Fee

Year 1	\$60,500
Year 2	\$54,775
Year 3 - Optional	\$56,082

Does not include fees allocated to claims included below.

Indexing

Index and OFAC Reporting (ISO Fee passed through)	\$10.40 per report (2019 fee - reviewed annually)
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Bill Review**Fee**

Standard Medical Bill Review Fee Schedule Reductions	\$8.50 per bill plus PPO Reduction
Inpatient or outpatient hospital or surgery center	\$500 per bill plus PPO Reduction
PPO Reduction	24% of Reduction below Fee Schedule
Bills not subject to Fee Schedule	24% of Reduction
Medical Bill EDI	\$1 per bill

Managed Care Programs**Case Management**

Telephonic Case Management	\$102 per hour
Field Case Management	\$108 per hour + incidentals (including mileage, phone, tolls, parking, etc.)

Utilization Review

Tier 1 - Nurse Review	\$110 Flat Fee
<i>Includes 3 medical request in a single review, set up, phone calls to physician, email notices to adjuster and letters to all parties including network providers. Fee applies to reviews approved by nurse or escalated to physician.</i>	
Tier 2 - Physician Review	\$235 plus nurse charge
<i>Includes 3 medical request in a single review.</i>	
Pharmacy Review	\$385 plus nurse charge
<i>Includes unlimited medical request in a single review.</i>	

Medical Provider Network Access (LWP Network)

PPO fee for savings below fee schedule and negotiations	24%
<i>There is no separate charge for medical provider access to LWP's proprietary network. Percentage of savings below fee schedule is the only charge.</i>	

Specialized Network Access

(bill review charges do not apply)

Durable Medical Goods	\$4 per bill network access fee
Expedited Diagnostic Testing	\$4 per bill network access fee
Physical Therapy Network	\$4 per bill network access fee
Pharmacy Benefit Network	\$4 per bill network access fee

These charges apply only if LWP's programs are utilized.

Other Services		Fee
Investigation		
Field Investigation		\$88 per hour
SIU related work		\$98 per hour
Other Charges		
Subrogation		15% of gross recovery
<i>Fee shall not apply to cases where file is referred to subrogation attorney for handling, and shall apply only to cases where recovery is negotiated by LWP staff. Fee shall still apply to cases where counsel is employed ONLY to draft releases, but where LWP did all negotiations.</i>		
Liens		10% of savings achieved
<i>Charge does not apply to liens negotiated by defense counsel. Additional fees that may be incurred for liens negotiated directly by defense counsel will be charged to the file as an expense. Charge does not apply to liens that are negotiated as a result of a dispute over a fee schedule and/or a PPO reduction.</i>		



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 5

DATE: November 20, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Adopt a Resolution for the California Public Employees' Retirement System Health Plan to Update the Region Name from Bay Area to Region 1

RECOMMENDATION:

Adopt a resolution (Attachment 1) for the California Public Employees' Retirement System health plan to update the region name from Bay Area to Region 1.

BACKGROUND:

The Town has an existing agreement with the California Public Employees' Retirement System (CalPERS) to provide its health program to active Town employees and retired annuitants. The CalPERS health program is governed by the Public Employees Medical and Hospital Care Act (PEMHCA), and the California Code of Regulations (CCR) of the California Public Employees Retirement Law (PERL). PEMHCA contains all the rules and regulations that a contracting agency must adhere to. PEMHCA is the health contract and the resolution is the method by which an agency elects to become subject to PEMHCA. The Town currently has a resolution (Attachment 2) adopted on December 16, 2014 that identifies the Town as a contracting agency of PEMHCA and defines the calculation of the employer health contribution for active employees and retired annuitants.

DISCUSSION:

CalPERS provides its health program to public agencies and schools throughout California. Since health care costs vary throughout California, CalPERS uses a regional pricing model to reflect the actual cost of health care based upon specific regions. There are currently five different regions and the Town of Los Gatos participates in the Bay Area region. In December 2018, the CalPERS Board approved a health pricing region change that will reallocate the five regions into three regions. Beginning January 1, 2020, the Town will be designated in Region 1.

PREPARED BY: Lisa Velasco
Human Resources Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

PAGE 2 OF 2

SUBJECT: Adopt CalPERS Health Resolution to Update Region Name

DATE: November 20, 2019

DISCUSSION (continued):

Because the current adopted Resolution defines the calculation of the employer health contribution method for active employees and retired annuitants based on Kaiser Bay Area rates, CalPERS requires that the Town revise its contribution method by adopting a new Resolution to reflect Kaiser Region 1.

CONCLUSION:

Staff recommends that the revised CalPERS Resolution is adopted to identify the Region change in the employer contribution method so that the Town's monthly health premium cost is correctly calculated by CalPERS.

FISCAL IMPACT:

The revised resolution is an administrative change, therefore, there is no fiscal impact.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. Proposed CalPERS Health Resolution
2. Current CalPERS Health Resolution

RESOLUTION NO. Number
FIXING THE EMPLOYER CONTRIBUTION
UNDER THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT
AT AN UNEQUAL AMOUNT FOR EMPLOYEES AND ANNUITANTS

WHEREAS, (1) Town of Los Gatos is a contracting agency under Government Code Section 22920 and subject to the Public Employees' Medical and Hospital Care Act (the "Act"); and

WHEREAS, (2) Government Code Section 22892(a) provides that a contracting agency subject to Act shall fix the amount of the employer contribution by resolution; and

WHEREAS, (3) Government Code Section 22892(b) provides that the employer contribution shall be an equal amount for both employees and annuitants, but may not be less than the amount prescribed by Section 22892(b) of the Act; and

WHEREAS, (4) Government Code Section 22892(c) provides that, notwithstanding Section 22892(b), a contracting agency may establish a lesser monthly employer contribution for annuitants than for employees, provided that the monthly employer contribution for annuitants is annually increased to equal an amount not less than the number of years the contracting agency has been subject to this subdivision multiplied by five percent of the current monthly employer contribution for employees, until the time that the employer contribution for annuitants equals the employer contribution paid for employees; now, therefore be it

RESOLVED, (a) That the employer contribution for each employee shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of family members, in a health benefits plan up to a maximum of 100% Self/90% Dependents Kaiser Region 1 Basic/Medicare/Combination per month; and be it further

RESOLVED, (b) That the monthly employer contribution for annuitants is annually increased to equal an amount not less than the number of years the contracting agency has been subject to this subdivision multiplied by five percent of the current monthly employer contribution for employees, until the time that the employer contribution for annuitants equals the employer contribution paid for employees;

And that the contributions for employees and annuitants shall be in addition to those amounts contributed by the Public Agency for administrative fees and to the Contingency Reserve Fund; and be it further

RESOLVED, (c) Town of Los Gatos has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above; and be it further

- RESOLVED, (d) That the participation of the employees and annuitants of Town of Los Gatos shall be subject to determination of its status as an “agency or instrumentality of the state or political subdivision of a State” that is eligible to participate in a governmental plan within the meaning of Section 414(d) of the Internal Revenue Code, upon publication of final Regulations pursuant to such Section. If it is determined that Town of Los Gatos would not qualify as an agency or instrumentality of the state or political subdivision of a State under such final Regulations, CalPERS may be obligated, and reserves the right to terminate the health coverage of all participants of the employer; and be it further
- RESOLVED, (e) That the executive body appoint and direct, and it does hereby appoint and direct, Town Manager to file with the Board a verified copy of this resolution, and to perform on behalf of Town of Los Gatos all functions required of it under the Act; and be it further
- RESOLVED, (f) That coverage under the Act be effective on January 1, 2020.

Adopted at a regular meeting of the Town Council at the Town of Los Gatos, this 3rd day of December, 2019.

Signed: _____
Mayor

Attest: _____
Town Clerk

RESOLUTION NO. 2014-074
FIXING THE EMPLOYER CONTRIBUTION AT UNEQUAL AMOUNTS FOR EMPLOYEES AND ANNUITANTS
UNDER THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT

- WHEREAS, (1) Town of Los Gatos is a contracting agency under Government Code Section 22920 and subject to the Public Employees' Medical and Hospital Care Act (the "Act"); and
- WHEREAS, (2) Government Code Section 22892(a) provides that a contracting agency subject to Act shall fix the amount of the employer contribution by resolution; and
- WHEREAS, (3) Government Code Section 22892(b) provides that the employer contribution shall be an equal amount for both employees and annuitants, but may not be less than the amount prescribed by Section 22892(b) of the Act; and
- WHEREAS, (4) Government Code Section 22892(c) provides that, notwithstanding Section 22892(b), a contracting agency may establish a lesser monthly employer contribution for annuitants than for employees, provided that the monthly employer contribution for annuitants is annually increased to equal an amount not less than the number of years the contracting agency has been subject to this subdivision multiplied by 5 percent of the current monthly employer contribution for employees, until such time as the amounts are equal; and
- RESOLVED, (a) That the employer contribution for each employee shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of family members, in a health benefits plan or plans up to a maximum of 100% Self / 90% Dependents Kaiser Bay Basic/Medicare/Combination per month, plus administrative fees and Contingency Reserve Fund assessments; and be it further
- RESOLVED, (b) Town of Los Gatos has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above; and be it further
- RESOLVED, (c) That the participation of the employees and annuitants of Town of Los Gatos shall be subject to determination of its status as an "agency or instrumentality of the state or political subdivision of a State" that is eligible to participate in a governmental plan within the meaning of Section 414(d) of the Internal Revenue Code, upon publication of final Regulations pursuant to such Section. If it is determined that Town of Los Gatos would not qualify as an agency or instrumentality of the state or political subdivision of a State under such final Regulations, CalPERS may be obligated, and reserves the right to terminate the health coverage of all participants of the employer.
- RESOLVED, (d) That the executive body appoint and direct, and it does hereby appoint and direct, the Town Manager to file with the Board a verified copy of this resolution, and to perform on behalf of Town of Los Gatos all functions required of it under the Act.

CHANGE - ALL, UNEQUAL, 1 FIXED - ACTIVE ONLY (REV. 5/2015)

FILED: 12-22-15

EFFECTIVE DATE: 2-1-16

APPROVED:  Public Agency Coordinator

Adopted at a regular meeting of the Town Council of the Town of Los Gatos at Los Gatos, California, this 16th day of December, 2014.

Signed: 
(President, Chairman, etc.)

Attest: Shelley Neis
(Secretary or appropriate officer)

The foregoing instrument is a
correct copy of the original
on file in this office

ATTEST: CLERK ADMINISTRATOR
TOWN OF LOS GATOS, CALIFORNIA

By Shelley Neis

Date 12/17/15



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 6

DATE: November 21, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Approve an Amendment to the Classification Plan to Create a Flexibly Staffed Engineering Technician Job Series

RECOMMENDATION:

Approve an amendment to the classification plan to create a flexibly staffed Engineering Technician job series.

BACKGROUND:

The Town of Los Gatos Personnel Rules and Regulations (Section 4.4) and the Municipal Code (Section 2.30.925) require that amendments and revisions to the classification plan are effective upon approval by Town Council. Typically, these changes are presented to Council for approval as part of the formal budget adoption or through the labor negotiations process.

DISCUSSION:

The Town has an existing Engineering Technician classification that was created in November 2000. In the process of reviewing the classification in conjunction with a reclassification study, it was determined that a flexibly staffed classification series will better meet the needs of the Parks and Public Works Department to provide a vehicle for succession planning and a career ladder for existing and future employees.

In accordance with the Town's existing Flexibly Staffed Classes procedure, flexible staffing is the alternate use of two or more classes in a designated series. Flexibly staffed classes allow departments to hire at the entry-level and provide a career incentive as employees become proficient and gain more experience which ultimately benefits the Town through retention and reduced training time. Alternatively, departments may hire new employees at the more

PREPARED BY: Lisa Velasco
Human Resources Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

DISCUSSION (continued):

advanced levels within the series depending on the complexity of assignments and experience needed when vacancies exist.

The revised Engineering Technician series would contain the following classifications: Engineering Technician, Associate Engineering Technician, and Senior Engineering Technician. If approved, the Associate Engineering Technician and Senior Engineering Technician will be added to the Salary Schedule for TEA Classifications (Attachment 1) with appropriate advancing salary ranges that have been calculated using external and internal compensation data to ensure equity.

Since this is a Town Employees' Association (TEA) represented classification, staff has met its obligation to meet and confer regarding the proposed classification and salary range changes.

CONCLUSION:

Staff is requesting the approval of an amendment to the classification plan to create a flexibly staffed series for the Engineering Technician classification that will result in the addition of Associate Engineering Technician and Senior Engineering Technician to the plan. The Town's Personnel Rules and Municipal Code require Council approval of classification plan amendments. The California Public Employees' Retirement System (CalPERS), that provides the Town's employee pension benefits, requires that any changes proposed to Town salary schedules are formally approved by a municipal agency Governing Body.

FISCAL IMPACT:

Staff is not requesting funding of a full-time equivalent position at this time. If a vacancy occurs or a need is identified to promote an existing approved full-time equivalent into a higher level class within the series during the 2019/20 budget year, the cost will be absorbed into the Department's existing operating budget.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachment:

1. Salary Schedule for TEA Classifications

Town of Los Gatos
Salary Schedule for TEA Classifications
Effective July 1, 2019

Class Code	Classification Title	Range TE1	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
4310	Account Technician	08	\$33.15	\$34.81	\$36.55	\$38.38	\$40.30	\$42.90
3580	Administrative Assistant	04	\$27.74	\$29.13	\$30.59	\$32.12	\$33.73	\$36.00
4620	Assistant Engineer	25	\$44.15	\$46.36	\$48.68	\$51.11	\$53.67	\$56.93
4420	Assistant Planner	12	\$38.39	\$40.31	\$42.33	\$44.45	\$46.67	\$49.58
TBD	Associate Engineering Technician*	14	\$38.66	\$40.59	\$42.62	\$44.75	\$46.99	\$49.92
4600	Associate Civil Engineer	27	\$50.23	\$52.74	\$55.38	\$58.15	\$61.06	\$64.69
4400	Associate Planner	20	\$44.67	\$46.90	\$49.25	\$51.71	\$54.30	\$57.60
4410	Building Inspector	24	\$42.98	\$45.13	\$47.39	\$49.76	\$52.25	\$55.44
4430	Code Compliance Officer	10	\$38.43	\$40.35	\$42.37	\$44.49	\$46.71	\$49.63
4530	Communication Dispatcher	14	\$38.66	\$40.59	\$42.62	\$44.75	\$46.99	\$49.92
4535	Communication Dispatcher Lead	19	\$45.96	\$48.26	\$50.67	\$53.20	\$55.86	\$59.23
4540	Community Services Officer	11	\$32.68	\$34.31	\$36.03	\$37.83	\$39.72	\$42.29
4615	Construction Project Manager	26	\$48.19	\$50.60	\$53.13	\$55.79	\$58.58	\$62.09
4660	Engineering Technician	13	\$35.10	\$36.86	\$38.70	\$40.64	\$42.67	\$45.38
4705	Environmental Programs Specialist	08	\$33.15	\$34.81	\$36.55	\$38.38	\$40.30	\$42.90
4200	Events and Marketing Specialist	06	\$29.24	\$30.70	\$32.24	\$33.85	\$35.54	\$37.90
3501	Executive Assistant	08	\$33.15	\$34.81	\$36.55	\$38.38	\$40.30	\$42.90
4900	IT Systems Administrator	23	\$47.85	\$50.24	\$52.75	\$55.39	\$58.16	\$61.65
4915	IT Technician	07	\$35.87	\$37.66	\$39.54	\$41.52	\$43.60	\$46.36
4810	Librarian	16	\$36.68	\$38.51	\$40.44	\$42.46	\$44.58	\$47.39
4830	Library Assistant	03	\$27.08	\$28.43	\$29.85	\$31.34	\$32.91	\$35.14
4807	Library Customer Service Specialist	01	\$25.38	\$26.65	\$27.98	\$29.38	\$30.85	\$32.97
4805	Library Customer Service Supervisor	08	\$33.15	\$34.81	\$36.55	\$38.38	\$40.30	\$42.90
4825	Library Specialist	06	\$29.24	\$30.70	\$32.24	\$33.85	\$35.54	\$37.90
4819	Library Tech Specialist	15	\$35.54	\$37.32	\$39.19	\$41.15	\$43.21	\$45.95
3181	Office Assistant	01	\$25.38	\$26.65	\$27.98	\$29.38	\$30.85	\$32.97
4640	Park Services Officer	11	\$32.68	\$34.31	\$36.03	\$37.83	\$39.72	\$42.29
4560	Parking Control Officer	01	\$25.38	\$26.65	\$27.98	\$29.38	\$30.85	\$32.97
4440	Permit Technician	09	\$31.93	\$33.53	\$35.21	\$36.97	\$38.82	\$41.34
4425	Planning Technician	11	\$32.68	\$34.31	\$36.03	\$37.83	\$39.72	\$42.29
4550	Police Records Specialist	05	\$28.41	\$29.83	\$31.32	\$32.89	\$34.53	\$36.84
4630	Public Works Inspector	18	\$39.97	\$41.97	\$44.07	\$46.27	\$48.58	\$51.59
4450	Senior Building Inspector	27	\$50.23	\$52.74	\$55.38	\$58.15	\$61.06	\$64.69
TBD	Senior Engineering Technician*	24	\$42.98	\$45.13	\$47.39	\$49.76	\$52.25	\$55.44
4831	Senior Library Page	02	\$17.84	\$18.73	\$19.67	\$20.65	\$21.68	\$23.34
4405	Senior Planner	28	\$51.45	\$54.02	\$56.72	\$59.56	\$62.54	\$66.25
4610	Senior Public Works Inspector	26	\$48.19	\$50.60	\$53.13	\$55.79	\$58.58	\$62.09

Reflects General Increase of 3%

Approved by Town Council June 4, 2019

**Pending Approval December 3, 2019*

ATTACHMENT 1



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 7

DATE: November 25, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Adopt a Resolution Approving the Council Policy Committee
Recommendations for the Modification of the Traffic Impact Policy

RECOMMENDATION:

Adopt a resolution approving the Council Policy Committee recommendations for the modification of the Traffic Impact Policy (Attachment 1).

BACKGROUND:

The Traffic Impact Mitigation fee was established in 1991 and first revised by Council in 2014. Since then, the Policy Committee has reviewed the Traffic Impact Policy on two occasions (11/17/16 and 2/16/17) and recommended changes to the Town Council. In both cases the changes were adopted by the Town Council to provide a more streamlined and cost-effective process for changes of use in existing commercial spaces.

The modifications adopted in December 2016 reflect the application of the Policy in the C-2 zoning district/downtown, essentially applying the shopping center rate to downtown. This allows for a change of use without the assessment of the traffic impact fee unless new square footage is added. It is important to note that new square footage in both the downtown and outside of downtown are still assessed a traffic impact fee.

The modifications adopted by the Council on March 21, 2017 affected the application of traffic impact fees to properties that have been vacant longer than five years.

These changes have provided a streamlined and less expensive opportunity for businesses and property owners, and have provided the Town the opportunity to continue to attract new

PREPARED BY: Matt Morley
Parks and Public Works Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

SUBJECT: Adopt a Resolution Approving the Council Policy Committee Recommendations
for the Modification of the Traffic Impact Policy

DATE: November 25, 2019

BACKGROUND (Continued):

businesses that may have historically chosen a neighboring jurisdiction because of the high traffic impact fee assessed for a change of use.

Traffic impact fees are based on a study that identified the Town's traffic improvement needs related to growth and the expected cost per vehicle trip necessary to mitigate the growth. The vehicle trips associated with individual uses are most often identified through data provided by the Institute of Traffic Engineers (ITE). The Town's current Traffic Impact Policy is provided for reference as Attachment 2.

On October 22, 2019 the Policy Committee reviewed the Traffic Impact Policy for the purpose of considering broader modifications to the Policy. The Policy Committee is recommending modifications such that the Policy applies Town-wide to new square footage only, thus a change of use without additional square footage being added in any space would not require payment of traffic impact fees. The Policy Committee also considered an option of a more limited expansion adjacent to the downtown to include the area between University and North Santa Cruz from Highway 9 to Blossom Hill Road but did not recommend this option. Proposed changes to the current Traffic Impact Policy are provided in redline format as Attachment 3.

DISCUSSION:

As staff continues to work with business and property owners, there have been a few instances where businesses have moved on from considering Los Gatos as a potential new location because they are interested in a standalone building outside of the C-2/downtown. The potential businesses have cited the fees associated with a standalone building outside of the C-2/downtown as one of the reasons for not opening in Los Gatos.

Given that the Town Council has a strategic priority that encourages community vitality and supports streamlining efforts for business processes, staff brought this question to the Policy Committee for its consideration. Staff understands that traffic continues to be a serious concern for many stakeholders, as well as creating an inviting environment for new businesses.

In the proposed revision, a change of use, regardless of the intensification of use, would not be subject to Traffic Impact Fees. Where structure square footage is expanded or new structures are added, the additional square footage would still be required to pay the traffic impact fee at the ITE rate for the proposed use, for the new square footage only.

Changes to the Policy would likely reduce traffic impact fees. As these fees are intended to help offset the cost from the impact of the intensified use, addressing traffic impacts would fall to other sources of funds, likely the general fund. The Council may find that this is a fair tradeoff among priorities.

SUBJECT: Adopt a Resolution Approving the Council Policy Committee Recommendations
for the Modification of the Traffic Impact Policy

DATE: November 25, 2019

DISCUSSION (continued):

During its review of this topic, the Policy Committee asked staff to follow up on two items. The first is the lost revenue from traffic impact fees in the C-2 Zone since the last change. In reviewing this request, there is no simple means for assembling that data – the process would be manual and labor intensive across multiple Departments. Given that additional workload, staff has not undertaken that effort.

The other item the Policy Committee asked for was how the traffic impact fees and Policy would function as the Town explores Vehicle Miles Travelled (VMT). This discussion will be the subject of a future Council presentation and discussion on its own. However, VMT is a regional look at traffic and does not inform local jurisdictions on the needs and function of local roads. Staff anticipates recommending a continued assessment of the impact of development on local road functionality through the retention of the Traffic Impact Policy.

CONCLUSION:

Staff recommends that the Town Council adopt a Resolution approving the Council Policy Committee recommendations for the modification of the Traffic Impact Policy (Attachment 1).

COORDINATION:

This report was prepared in coordination with the Economic Vitality Manager and the Community Development Department.

FISCAL IMPACT:

Action on this item does not affect the proposed budget; however, it may decrease potential fees collected. A reduction in fees may reduce the Town's ability to mitigate traffic impacts from the intensification of use. The reduction of fees may also encourage increased changes to more sustainable uses with a corresponding increase in sales tax revenue.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. Draft Resolution with proposed Traffic Impact Policy
2. Existing Traffic Impact Policy
3. Redlined Traffic Impact Policy Changes

RESOLUTION 2019-

RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF LOS GATOS AMENDING THE TRAFFIC IMPACT POLICY

WHEREAS, on August 5, 1991, the Town of Los Gatos adopted Resolution 1991-174 adopting a Traffic Impact Policy; and

WHEREAS, Chapter 15, Article VII of the Town of Los Gatos Town Code provides for the establishment of Traffic Impact Mitigation Fees; and

WHEREAS, on March 24, 2014, the Town Council at a duly noticed Public Hearing considered and took action on the specific amount to be charged for traffic mitigation fees; and

WHEREAS, on May 19, 2014, the Town Council adopted Resolution 2014-017 confirming actions taken by the Council on March 24, 2014 amending the Town's Traffic Impact Mitigation Fees; and

WHEREAS, on May 19, 2014, the Town Council, in conjunction with amending the Town's Traffic Impact Mitigation Fees also adopted a number of additional provisions related to the assessment of Traffic Impact Mitigation Fees, including provisions related to specialty retail uses, traffic credit for existing or former uses, secondary dwelling units, low income housing, and credit for payment and construction of Traffic Mitigation Improvement Projects; and

WHEREAS, on August 19, 2014 the Town Council revised the traffic impact policy thereby rescinding provisions of Resolution No. 2002-175 related to Community Benefit offerings for traffic impact mitigation; and

WHEREAS, on December 6, 2016 the Town Council revised the traffic impact policy to more accurately reflect the traffic impacts from changes in use within the Central Business District (Downtown);

WHEREAS, the traffic impact policy should more accurately reflect the economic vitality priorities of the Town by facilitating changes in use.

NOW, THEREFORE, BE IT RESOLVED, by the Town Council of the Town of Los Gatos, County of Santa Clara, State of California that the attached Traffic Impact Policy (Exhibit A), dated December 3, 2019 is hereby adopted.

ATTACHMENT 1

PASSED AND ADOPTED at a regular meeting of the Town Council of the Town of Los Gatos
held on the 3rd day of December 2019 by the following vote:

COUNCIL MEMBERS:

AYES:

NAYS:

ABSENT:

ABSTAIN:

SIGNED:

MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

ATTEST:

TOWN CLERK OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

Exhibit A

TOWN OF LOS GATOS TRAFFIC IMPACT POLICY December 3, 2019

I. DEFINITIONS

Average Daily Trips. Average Daily Trips (ADT) are the total number of trips, both in-bound and out-bound, within a 24 hour weekday period, generated by a particular use or development.

Pass-By Trip. Trips generated by the proposed Project that would be attracted from traffic passing the proposed project site on an adjacent street that contains direct access to the Project.

Peak Hour Trip. Peak Hour Trips are vehicle trips, both in-bound and out-bound, occurring during a one hour period either during the A.M. Peak (7 A.M. to 9 A.M.) or the P.M. Peak (4 P.M. to 6 P.M.), generated by a particular use or Project.

Project. A Project subject to this policy encompasses all land use development projects affecting the built environment over which the Town has administrative or legislative authority, that require review and approval and issuance of a building permit, certificate of use or occupancy, or other land use approval by Town staff, Commissions, or Council.

Specialty Retail. Specialty Retail uses are defined as walk-in and impulse businesses such as juice bars, yogurt shops, coffee shops, donut shops, and similar uses which do not generally serve meals and have limited or no seating. Specialty Retail uses are defined under this policy for purposes of establishing trip generation data and this definition does not provide any land use or zoning guidance.

II. GENERAL CONDITIONS AND APPLICABILITY

1. This policy is intended to provide guidance to Town staff and the development community in implementing the provisions of the Town Municipal Code, Chapter 15, Article VII, Traffic Impact Mitigation Fees.
2. Projects that are determined by the Town to generate one or more new net Average Daily Trips are subject to this policy.
3. Projects that will generate 20 or more new Peak Hour Trips shall be required to complete a comprehensive traffic impact analysis report as described in more detail in Section VI, TRAFFIC IMPACT MITIGATION REPORT.
4. Consistent with Transportation Impact Analysis (TIA) Guidelines adopted by the Santa Clara County Transportation Authority (VTA) Congestion Management Program, Pass-by Trips shall not be considered in calculating the 20 new Peak Hour Trip threshold that triggers the requirement for conducting a comprehensive traffic impact analysis report.
5. For the purpose of Traffic Impact Fees, changes in use without changes in net building square footage shall not be considered to create a traffic impact, shall be exempt from this policy, and no fees shall

be charged for a change in use. Any increases in building square footage shall pay impact fees at the ITE equivalent rate for the expanded area, as determined by the Town Traffic Engineer.

6. In order to determine how much new traffic a Project will generate, the Town will use applicable trip generation rates and pass-by trip data from the most recent edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual*. Alternatively, trip generation rates from the following resources may be used if determined by the Town to be more appropriate than the available ITE rates: San Diego Association of Governments (SanDAG); California Department of Transportation (Caltrans); or the City of San Jose. A Town-sponsored or peer-reviewed traffic study may also be used to determine trip generation rates.
7. Nothing in this Policy shall prohibit or restrict a Project applicant from completing a traffic study for a Project anticipated to generate less than 20 new Peak Hour trips.

III. TRAFFIC IMPACT MITIGATION FEES

1. All Projects that generate one or more new Average Daily Trips are required to pay Traffic Impact Mitigation Fees, subject to preceding sections of this policy.
2. All required Traffic Impact Mitigation Fees shall be paid in full to the Town in association with and prior to issuance of a building permit. If no building permit is required, the fee shall be paid in full prior to issuance of a certificate of use and occupancy, or similar entitlement. The amount due shall be calculated based on the fee in place as approved by the Town Council by resolution at the time the fee is paid.
3. The per trip amount of the fee shall be as set forth by the Town Council by resolution, pursuant to Town Municipal Code, Chapter 15, Article VII, Traffic Impact Mitigation Fees.
4. Fees shall be calculated by multiplying net new ADT by the per trip amount in place at the time the fees are paid.
5. ADT shall be determined by using the applicable trip generation rate and pass-by trip data from the most recent edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual*. When a use is not listed in the ITE *Trip Generation Manual*, or where ADT data is not available, the Town Traffic Engineer shall use available Peak Hour Trip data or select the most appropriate trip generation rate and pass-by trip classification for use in calculating ADT. Trip generation rates from alternate sources may be used if determined by the Town Traffic Engineer to be more appropriate than the available ITE rates. Examples of alternate sources of data include: San Diego Association of Governments (SanDAG); California Department of Transportation (Caltrans); City of San Jose; comparable store/business traffic studies.

IV. CREDIT FOR EXISTING TRIPS

1. In calculating new Peak Hour Trips for purposes of determining whether or not a traffic impact analysis report is required pursuant to this Policy, trip credit shall be granted for an existing use or the most recent former use within the past five years prior to submittal of a Project application.

2. In calculating new Average Daily Trips for purposes of determining the amount of the Traffic Impact Mitigation Fee due, trip credit shall be granted for an existing use or the most recent former use within the past five years prior to submission of a Project application.
3. Where the property is vacant, the most recent former use within the past five years prior to submission of a Project application shall be used. If the property has been vacant for more than five years, no credit shall be given. Vacancy for purposes of Fee Credit shall include any vacant or unoccupied property, structure or building where no active, approved use is currently present.

V. CREDIT FOR TRAFFIC MITIGATION IMPROVEMENTS

1. Credit against Traffic Impact Mitigation Fees due shall be granted up to the amount of the Estimated Project Cost shown on Attachment 1, Town of Los Gatos Traffic Mitigation Improvements Project List, for any listed projects for which the developer, as a condition of approval, is required to either construct at the developer's sole cost, or contribute a fixed or percentage amount of funding toward future construction of the listed improvement. Where construction is fully funded and completed by the developer, said credit shall be equal to the Project Cost as shown in Attachment 1. Where payment is a fixed amount or a percentage of Project Cost, credit shall be equal to the actual amount due, whether the project is constructed by the developer or others.
2. No credit shall be given for any public right-of-way dedication required for completion of projects listed on Attachment 1.
3. Credit will be given on a case-by-case basis and shall not exceed the impact fee payable. Any request for credit shall be made prior to the payment of the Traffic Impact Mitigation Fees. No credit shall be given for installation of Town-standard frontage improvements, Project access improvements, or internal circulation improvements.
4. Credit shall only be granted for payment of costs or construction of projects listed in Attachment 1, unless otherwise approved by the Town Council.

VI. TRAFFIC IMPACT ANALYSIS REPORT

1. Traffic impact analysis reports required pursuant to this policy shall be prepared consistent with the Transportation Impact Analysis (TIA) Guidelines adopted by the Santa Clara County Transportation Authority (VTA) Congestion Management Program (August 2009), or as such Guidelines may be amended or updated from time to time, except that the threshold for preparation of a traffic report under this policy is 20 new Peak Hour trips, whereas the VTA TIA threshold is 100 new Peak Hour Trips.
2. Traffic impact analysis reports shall be funded in full by the project applicant. Project applicants shall deposit funds with the Town in an amount deemed necessary to cover the cost of an independent consultant report, plus staff administrative and review costs. Following deposit of funds, the Town will hire a professional transportation consultant to complete the required study. Alternatively, the project applicant may hire their own professional engineering or transportation consultant to complete a traffic study, in which case they must deposit with the Town funds sufficient for the Town

to hire a professional firm to conduct a peer review of the applicant-prepared traffic report, plus staff administrative and review costs.

3. The Town shall conduct an open, competitive process to establish a list of firms which are qualified to prepare traffic reports and/or conduct peer review of traffic studies under contract to the Town. The list of firms shall be selected in accordance with the Town Purchasing Policy. A new list shall be created at a minimum of once every five years.

VII. OTHER PROVISIONS

1. The Institute of Traffic Engineers (ITE) *Trip Generation Manual* trip generation rates for Specialty Retail Center shall apply to all Specialty Retail uses as defined in this policy.
2. A secondary dwelling unit shall be exempt from this policy.
3. The Town Council may exempt housing developments for very low, low and moderate income residents (as defined by Town Ordinance, General Plan, or statute) from all or a portion of the traffic impact mitigation fee upon making a finding that the development provides a significant community benefit by meeting current needs for affordable housing.

Attachment 1

Town of Los Gatos Traffic Mitigation Improvements Project List

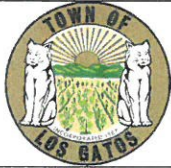
Source	Description	Estimated Project Cost (2014 \$)	Growth Related Project Cost	Mitigation Impact Fee Eligible Cost
GPV TP 2035	Blossom Hill Rd and Union Ave Intersection Improvements	\$ 1,200,000	90.00%	\$ 1,080,000
GPV TP 2035	Los Gatos - Almaden Rd Improvements	\$ 3,000,000	50.00%	\$ 1,500,000
GPV TP 2035	Los Gatos Blvd Widening - Samaritan Dr to Camino Del Sol - Road widening, new sidewalks and bike lanes	\$ 4,000,000	50.00%	\$ 2,000,000
GPV TP 2035	Union Ave Widening and Sidewalks - complete ped and bike routes	\$ 3,000,000	50.00%	\$ 1,500,000
GPV TP 2035	Wood Rd Gateway on Santa Cruz Ave - roundabout	\$ 1,200,000	50.00%	\$ 600,000
GPV TP 2035	Central Traffic Signal Control System	\$ 750,000	9.68%	\$ 72,600
GPV TP 2035	Hwy 9 Los Gatos Creek Trail connector - new path and bridge for	\$ 1,000,000	50.00%	\$ 500,000
GPV TP 2035	Hwy 9/N. Santa Cruz Ave Intersection Improvements	\$ 1,400,000	90.00%	\$ 1,260,000
CIP	Roberts Road Improvements from bridge to University	\$ 600,000	50.00%	\$ 300,000
CIP	Pollard Road Widening from Knowles to York Avenue	\$ 2,500,000	50.00%	\$ 1,250,000
CIP	Sidewalks infill - Van Meter, Fischer and Blossom Hill Schools	\$ 1,000,000	50.00%	\$ 500,000
CIP	Winchester Blvd/Lark Avenue Intersection Improvements	\$ 850,000	90.00%	\$ 765,000
CIP	Westbound Lark to Hwy 17 northbound ramps - add two right-turn	\$ 3,750,000	90.00%	\$ 3,375,000
CIP	Unfunded Deferred Street Maintenance (Annual FMS Survey)	\$ 10,500,000	9.68%	\$ 1,016,400
GP	Lark/Los Gatos Intersection Improvements - Add Third Left Turn Lanes for Eastbound and Northbound Approaches	\$ 1,200,000	90.00%	\$ 1,080,000
GP	Complete Street Improvements - Lark from Garden Hill to Los Gatos	\$ 2,100,000	50.00%	\$ 1,050,000
GP	Complete Street Improvements - SR 9 from University to Los Gatos	\$ 650,000	50.00%	\$ 325,000
GP	Complete Street Improvements - Blossom Hill Road from Old Blossom Hill Road to Regent Drive	\$ 3,000,000	50.00%	\$ 1,500,000
GP	Complete Street Improvements - Knowles from Pollard to Winchester	\$ 2,000,000	50.00%	\$ 1,000,000
GP	Complete Street Improvements - Winchester from Blossom Hill to Lark	\$ 1,500,000	50.00%	\$ 750,000
GP	Blossom Hill Road widening over Highway 17	\$ 2,000,000	50.00%	\$ 1,000,000
GP	Local Bikeway Improvements	\$ 750,000	50.00%	\$ 375,000
Total		\$ 47,950,000		\$ 22,799,000

Notes:

VTP = Valley Transportation Plan, 2035 by Santa Clara Valley Transportation Authority.

Town CIP = Town of Los Gatos, Capital Improvement Program and pending construction project list.

Source: Town of Los Gatos.



TITLE: Traffic Impact Policy

POLICY NUMBER: 1-05

EFFECTIVE DATE: 3/22/2017

PAGES: 5

ENABLING ACTIONS: 1991-174; 2014-017; 2016-068; 2017-011

REVISED DATES: 8/5/91; 3/24/14; 12/6/16; 3/21/17

APPROVED:

I. DEFINITIONS

Average Daily Trips. Average Daily Trips (ADT) are the total number of trips, both in-bound and out-bound, within a 24 hour weekday period, generated by a particular use or development.

Pass-By Trip. Trips generated by the proposed Project that would be attracted from traffic passing the proposed project site on an adjacent street that contains direct access to the Project.

Peak Hour Trip. Peak Hour Trips are vehicle trips, both in-bound and out-bound, occurring during a one hour period either during the A.M. Peak (7 A.M. to 9 A.M.) or the P.M. Peak (4 P.M. to 6 P.M.), generated by a particular use or Project.

Project. A Project subject to this policy encompasses all land use development projects affecting the built environment, including changes in occupancy or intensification of existing uses, over which the Town has administrative or legislative authority, that require review and approval and issuance of a building permit, certificate of use or occupancy, or other land use approval by Town staff, Commissions, or Council.

Specialty Retail. Specialty Retail uses are defined as walk-in and impulse businesses such as juice bars, yogurt shops, coffee shops, donut shops, and similar uses which do not generally serve meals and have limited or no seating. Specialty Retail uses are defined under this policy for purposes of establishing trip generation data and this definition does not provide any land use or zoning guidance.

II. GENERAL CONDITIONS AND APPLICABILITY

1. This policy is intended to provide guidance to Town staff and the development community in implementing the provisions of the Town Municipal Code, Chapter 15, Article VII, Traffic Impact Mitigation Fees.
2. Projects that are determined by the Town to generate one or more new net Average Daily Trips are subject to this policy.
3. Projects that will generate 20 or more new Peak Hour Trips shall be required to complete a comprehensive traffic impact analysis report as described in more detail in Section VI, TRAFFIC IMPACT MITIGATION REPORT.
4. Consistent with Transportation Impact Analysis (TIA) Guidelines adopted by the Santa Clara County Transportation Authority (VTA) Congestion Management Program, Pass-by Trips shall not be considered in calculating the 20 new Peak Hour Trip threshold that triggers the requirement for conducting a comprehensive traffic impact analysis report.
5. In order to determine how much new traffic a Project will generate, the Town will use applicable trip generation rates and pass-by trip data from the most recent edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual*. Alternatively, trip generation rates from the following resources may be used if determined by the Town to be more appropriate than the available ITE rates: San Diego Association of Governments (SanDAG); California Department of Transportation (Caltrans); or the City of San Jose. A Town-sponsored or peer-reviewed traffic study may also be used to determine trip generation rates.
6. Nothing in this Policy shall prohibit or restrict a Project applicant from completing a traffic study for a Project anticipated to generate less than 20 new Peak Hour trips.

III. TRAFFIC IMPACT MITIGATION FEES

1. All Projects that generate one or more new Average Daily Trips are required to pay Traffic Impact Mitigation Fees.
2. All required Traffic Impact Mitigation Fees shall be paid in full to the Town in association with and prior to issuance of a building permit. If no building permit is required, the fee shall be paid in full prior to issuance of a certificate of use and occupancy, or similar entitlement. The amount due shall be calculated based on the fee in place as approved by the Town Council by resolution at the time the fee is paid.

TITLE: Traffic Impact Policy	PAGE: 3 of 5	POLICY NUMBER: 1-05
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3. The per trip amount of the fee shall be as set forth by the Town Council by resolution, pursuant to Town Municipal Code, Chapter 15, Article VII, Traffic Impact Mitigation Fees.
4. Fees shall be calculated by multiplying net new ADT by the per trip amount in place at the time the fees are paid.
5. ADT shall be determined by using the applicable trip generation rate and pass-by trip data from the most recent edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual*. When a use is not listed in the ITE *Trip Generation Manual*, or where ADT data is not available, the Town Traffic Engineer shall use available Peak Hour Trip data or select the most appropriate trip generation rate and pass-by trip classification for use in calculating ADT. Trip generation rates from alternate sources may be used if determined by the Town Traffic Engineer to be more appropriate than the available ITE rates. Examples of alternate sources of data include: San Diego Association of Governments (SanDAG); California Department of Transportation (Caltrans); City of San Jose; comparable store/business traffic studies.

IV. CREDIT FOR EXISTING TRIPS

1. In calculating new Peak Hour Trips for purposes of determining whether or not a traffic impact analysis report is required pursuant to this Policy, trip credit shall be granted for an existing use or the most recent former use.
2. In calculating new Average Daily Trips for purposes of determining the amount of the Traffic Impact Mitigation Fee due, trip credit shall be granted for an existing use or the most recent former use.
3. Where the property is vacant, the most recent former use shall be used.
4. Where a portion of the space is changing use, credit will apply to the proportionate square footage of the space under review.
5. Where the change in use results in fewer trips than the existing or former use, no credit or refund will be due the applicant.

V. CREDIT FOR TRAFFIC MITIGATION IMPROVEMENTS

1. Credit against Traffic Impact Mitigation Fees due shall be granted up to the amount of the Estimated Project Cost shown on Attachment 1, Town of Los Gatos Traffic Mitigation

Improvements Project List, for any listed projects for which the developer, as a condition of approval, is required to either construct at the developer's sole cost, or contribute a fixed or percentage amount of funding toward future construction of the listed improvement. Where construction is fully funded and completed by the developer, said credit shall be equal to the Project Cost as shown in Attachment 1. Where payment is a fixed amount or a percentage of Project Cost, credit shall be equal to the actual amount due, whether the project is constructed by the developer or others.

2. No credit shall be given for any public right-of-way dedication required for completion of projects listed on Attachment 1.
3. Credit will be given on a case-by-case basis and shall not exceed the impact fee payable. Any request for credit shall be made prior to the payment of the Traffic Impact Mitigation Fees. No credit shall be given for installation of Town-standard frontage improvements, Project access improvements, or internal circulation improvements.
4. Credit shall only be granted for payment of costs or construction of projects listed in Attachment 1, unless otherwise approved by the Town Council.

VI. TRAFFIC IMPACT ANALYSIS


1. Traffic impact analysis reports required pursuant to this policy shall be prepared consistent with the Transportation Impact Analysis (TIA) Guidelines adopted by the Santa Clara County Transportation Authority (VTA) Congestion Management Program (August 2009), or as such Guidelines may be amended or updated from time to time, except that the threshold for preparation of a traffic report under this policy is 20 new Peak Hour trips, whereas the VTA TIA threshold is 100 new Peak Hour Trips.
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3. The Town shall conduct an open, competitive process to establish a list of firms which are qualified to prepare traffic reports and/or conduct peer review of traffic studies under

contract to the Town. The list of firms shall be selected in accordance with the Town Purchasing Policy. A new list shall be created at a minimum of once every five years.

VII. OTHER PROVISIONS

1. The Institute of Traffic Engineers (ITE) *Trip Generation Manual* trip generation rates for Specialty Retail Center shall apply to all Specialty Retail uses as defined in this policy.
2. A secondary dwelling unit shall be exempt from this policy.
3. The Town Council may exempt housing developments for very low, low and moderate income residents (as defined by Town Ordinance, General Plan, or statute) from all or a portion of the traffic impact mitigation fee upon making a finding that the development provides a significant community benefit by meeting current needs for affordable housing.
4. Uses within the Central Business District (C-2 Zone) are expected to change periodically as part of the natural business cycle. For the purpose of Traffic Impact Fees, changes in use without changes in net building square footage within the C-2 Zone shall not be considered to create a traffic impact, shall be exempt from this policy, and no fees shall be charged for a change in use. Any increases in building square footage shall pay impact fees at the ITE Shopping Center rate or comparable equivalent rate for the expanded area, as determined by the Town Traffic Engineer.

APPROVED AS TO FORM:



Robert Schultz, Town Attorney

Attachment 1

Town of Los Gatos Traffic Mitigation Improvements Project List

Source	Description	Estimated Project Cost (2014 \$)	Growth Related Project Cost	Mitigation Impact Fee Eligible Cost
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Total		\$ 47,950,000		\$ 22,799,000

Notes:

VTP = Valley Transportation Plan, 2035 by Santa Clara Valley Transportation Authority.

Town CIP = Town of Los Gatos, Capital Improvement Program and pending construction project list.

Source: Town of Los Gatos.

Exhibit A

TOWN OF LOS GATOS TRAFFIC IMPACT POLICY December 6, ~~2016~~ 2019

I. DEFINITIONS

Average Daily Trips. Average Daily Trips (ADT) are the total number of trips, both in-bound and out-bound, within a 24 hour weekday period, generated by a particular use or development.

Pass-By Trip. Trips generated by the proposed Project that would be attracted from traffic passing the proposed project site on an adjacent street that contains direct access to the Project.

Peak Hour Trip. Peak Hour Trips are vehicle trips, both in-bound and out-bound, occurring during a one hour period either during the A.M. Peak (7 A.M. to 9 A.M.) or the P.M. Peak (4 P.M. to 6 P.M.), generated by a particular use or Project.

Project. A Project subject to this policy encompasses all land use development projects affecting the built environment, ~~including changes in occupancy or intensification of existing uses,~~ over which the Town has administrative or legislative authority, that require review and approval and issuance of a building permit, certificate of use or occupancy, or other land use approval by Town staff, Commissions, or Council.

Specialty Retail. Specialty Retail uses are defined as walk-in and impulse businesses such as juice bars, yogurt shops, coffee shops, donut shops, and similar uses which do not generally serve meals and have limited or no seating. Specialty Retail uses are defined under this policy for purposes of establishing trip generation data and this definition does not provide any land use or zoning guidance.

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1. This policy is intended to provide guidance to Town staff and the development community in implementing the provisions of the Town Municipal Code, Chapter 15, Article VII, Traffic Impact Mitigation Fees.
2. Projects that are determined by the Town to generate one or more new net Average Daily Trips are subject to this policy.
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4. Consistent with Transportation Impact Analysis (TIA) Guidelines adopted by the Santa Clara County Transportation Authority (VTA) Congestion Management Program, Pass-by Trips shall not be considered in calculating the 20 new Peak Hour Trip threshold that triggers the requirement for conducting a comprehensive traffic impact analysis report.
5. For the purpose of Traffic Impact Fees, changes in use without changes in net building square footage shall not be considered to create a traffic impact, shall be exempt from this policy, and no fees shall

be charged for a change in use. Any increases in building square footage shall pay impact fees at the ITE equivalent rate for the expanded area, as determined by the Town Traffic Engineer.

~~5.6.~~ In order to determine how much new traffic a Project will generate, the Town will use applicable trip generation rates and pass-by trip data from the most recent edition of the Institute of Traffic Engineers (ITE) *Trip Generation Manual*. Alternatively, trip generation rates from the following resources may be used if determined by the Town to be more appropriate than the available ITE rates: San Diego Association of Governments (SanDAG); California Department of Transportation (Caltrans); or the City of San Jose. A Town-sponsored or peer-reviewed traffic study may also be used to determine trip generation rates.

~~6.7.~~ Nothing in this Policy shall prohibit or restrict a Project applicant from completing a traffic study for a Project anticipated to generate less than 20 new Peak Hour trips.

III. TRAFFIC IMPACT MITIGATION FEES

1. All Projects that generate one or more new Average Daily Trips are required to pay Traffic Impact Mitigation Fees-, subject to preceding sections of this policy.
2. All required Traffic Impact Mitigation Fees shall be paid in full to the Town in association with and prior to issuance of a building permit. If no building permit is required, the fee shall be paid in full prior to issuance of a certificate of use and occupancy, or similar entitlement. The amount due shall be calculated based on the fee in place as approved by the Town Council by resolution at the time the fee is paid.
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V. CREDIT FOR TRAFFIC MITIGATION IMPROVEMENTS

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2. No credit shall be given for any public right-of-way dedication required for completion of projects listed on Attachment 1.
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1. Traffic impact analysis reports required pursuant to this policy shall be prepared consistent with the Transportation Impact Analysis (TIA) Guidelines adopted by the Santa Clara County Transportation Authority (VTA) Congestion Management Program (August 2009), or as such Guidelines may be amended or updated from time to time, except that the threshold for preparation of a traffic report under this policy is 20 new Peak Hour trips, whereas the VTA TIA threshold is 100 new Peak Hour Trips.
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consultant report, plus staff administrative and review costs. Following deposit of funds, the Town will hire a professional transportation consultant to complete the required study. Alternatively, the project applicant may hire their own professional engineering or transportation consultant to complete a traffic study, in which case they must deposit with the Town funds sufficient for the Town to hire a professional firm to conduct a peer review of the applicant-prepared traffic report, plus staff administrative and review costs.

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2. A secondary dwelling unit shall be exempt from this policy.
3. The Town Council may exempt housing developments for very low, low and moderate income residents (as defined by Town Ordinance, General Plan, or statute) from all or a portion of the traffic impact mitigation fee upon making a finding that the development provides a significant community benefit by meeting current needs for affordable housing.
4. ~~Uses within the Central Business District (C-2 Zone) are expected to change periodically as part of the natural business cycle. For the purpose of Traffic Impact Fees, changes in use without changes in net building square footage within the C-2 Zone shall not be considered to create a traffic impact, shall be exempt from this policy, and no fees shall be charged for a change in use. Any increases in building square footage shall pay impact fees at the ITE Shopping Center rate or comparable equivalent rate for the expanded area, as determined by the Town Traffic Engineer.~~

Attachment 1

Town of Los Gatos Traffic Mitigation Improvements Project List

Source	Description	Estimated Project Cost (2014 \$)	Growth Related Project Cost	Mitigation Impact Fee Eligible Cost
GPV TP 2035	Blossom Hill Rd and Union Ave Intersection Improvements	\$ 1,200,000	90.00%	\$ 1,080,000
GPV TP 2035	Los Gatos - Almaden Rd Improvements	\$ 3,000,000	50.00%	\$ 1,500,000
GPV TP 2035	Los Gatos Blvd Widening - Samaritan Dr to Camino Del Sol - Road widening, new sidewalks and bike lanes	\$ 4,000,000	50.00%	\$ 2,000,000
GPV TP 2035	Union Ave Widening and Sidewalks - complete ped and bike routes	\$ 3,000,000	50.00%	\$ 1,500,000
GPV TP 2035	Wood Rd Gateway on Santa Cruz Ave - roundabout	\$ 1,200,000	50.00%	\$ 600,000
GPV TP 2035	Central Traffic Signal Control System	\$ 750,000	9.68%	\$ 72,600
GPV TP 2035	Hwy 9 Los Gatos Creek Trail connector - new path and bridge for	\$ 1,000,000	50.00%	\$ 500,000
GPV TP 2035	Hwy 9/N. Santa Cruz Ave Intersection Improvements	\$ 1,400,000	90.00%	\$ 1,260,000
CIP	Roberts Road Improvements from bridge to University	\$ 600,000	50.00%	\$ 300,000
CIP	Pollard Road Widening from Knowles to York Avenue	\$ 2,500,000	50.00%	\$ 1,250,000
CIP	Sidewalks infill - Van Meter, Fischer and Blossom Hill Schools	\$ 1,000,000	50.00%	\$ 500,000
CIP	Winchester Blvd/Lark Avenue Intersection Improvements	\$ 850,000	90.00%	\$ 765,000
CIP	Westbound Lark to Hwy 17 northbound ramps - add two right-turn	\$ 3,750,000	90.00%	\$ 3,375,000
CIP	Unfunded Deferred Street Maintenance (Annual PMS Survey)	\$ 10,500,000	9.68%	\$ 1,016,400
GP	Lark/Los Gatos Intersection Improvements - Add Third Left Turn Lanes for Eastbound and Northbound Approaches	\$ 1,200,000	90.00%	\$ 1,080,000
GP	Complete Street Improvements - Lark from Garden Hill to Los Gatos	\$ 2,100,000	50.00%	\$ 1,050,000
GP	Complete Street Improvements - SR 9 from University to Los Gatos	\$ 650,000	50.00%	\$ 325,000
GP	Complete Street Improvements - Blossom Hill Road from Old Blossom Hill Road to Regent Drive	\$ 3,000,000	50.00%	\$ 1,500,000
GP	Complete Street Improvements - Knowles from Pollard to Winchester	\$ 2,000,000	50.00%	\$ 1,000,000
GP	Complete Street Improvements - Winchester from Blossom Hill to Lark	\$ 1,500,000	50.00%	\$ 750,000
GP	Blossom Hill Road widening over Highway 17	\$ 2,000,000	50.00%	\$ 1,000,000
GP	Local Bikeway Improvements	\$ 750,000	50.00%	\$ 375,000
Total		\$ 47,950,000		\$ 22,799,000

Notes:

VTP = Valley Transportation Plan, 2035 by Santa Clara Valley Transportation Authority.

Town CIP = Town of Los Gatos, Capital Improvement Program and pending construction project list.

Source: Town of Los Gatos.



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 8

DATE: November 22, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Adopt a Resolution Declaring Weeds to be a Public Nuisance and Set Hearing Date of January 21, 2020 to Consider Objections for Proposed Removal

RECOMMENDATION:

Adopt a resolution (Attachment 1) declaring weeds to a public nuisance and set hearing date of January 21, 2020 to consider objections for proposed removal.

BACKGROUND:

Chapter 11, Article II, Section 11.20.015 of the Town of Los Gatos Municipal Code requires property owners to remove or destroy weeds on their property for fire protection. On November 5, 2019, the Town Council adopted amendments to Chapter 11 to expand the definition of weeds to include other dead vegetation, fallen limbs, and combustible trash on private property and add additional language to clarify and strengthen the Town's weed abatement program.

The weed abatement process is in place to notify the property owners of this responsibility, authorize the County to remove the weeds if the property owner does not, and allow the County to recover the costs of the abatement. The primary objective is voluntary compliance. The weed abatement program is administered through a contract with the Santa Clara County Department of Agriculture and Environmental Management (County).

DISCUSSION:

The process consists of eight steps that begin in November and go through August of each year. Currently the process is at Step 2 on the list as illustrated on the following page.

PREPARED BY: Stefanie Hockemeyer
Executive Assistant, Parks and Public Works

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, Finance Director, and Director of Parks and Public Works

SUBJECT: Adopt a Resolution Declaring Weeds to be a Public Nuisance and Set Hearing
Date of January 21, 2020 to Consider Objections for Proposed Removal

DATE: November 22, 2019

DISCUSSION (continued):

1. When properties are identified as having hazardous weeds, they are placed in the program, monitored, and must be compliant for three consecutive years in order to be removed from the program. County prepares a report of all properties that have been identified and provides the report to the Town (Attachment 2) (November).
2. Town Council adopts resolution declaring weeds a nuisance and sets a hearing date to hear objections by property owners to having their property listed on the report (December).
3. County sends notice to property owners on the report notifying them of the hearing date, along with guidelines on the Weed Abatement Program explaining that they must remove weeds by the abatement deadline of April 30 or it will be done for them and the cost of the abatement plus administrative costs will assessed by the County Tax Collector against the respective property (December).
4. Town Council holds the hearing to consider objections by property owners and adopts a resolution ordering abatement (January).
5. County sends a courtesy letter to property owners on the report notifying them again of the abatement deadline (January).
6. After April 30, the properties are inspected by the County to verify that weeds were removed and proceeds with abatement if the inspection fails. County creates an assessment report of all costs associated with the abatement and provides that report to the Town (June-July).
7. Town notifies the property owners on the assessment report notifying them of the hearing date (July).
8. Town Council holds a hearing, notes any disputes, and adopts a resolution confirming the assessment report, authorizing collection of the assessment charges (August).

CONCLUSION:

Adopt a resolution declaring weeds to a public nuisance and set hearing date of January 21, 2020 to consider objections for proposed removal.

PAGE 3 OF 3

SUBJECT: Adopt a Resolution Declaring Weeds to be a Public Nuisance and Set Hearing
Date of January 21, 2020 to Consider Objections for Proposed Removal
DATE: November 22, 2019

COORDINATION:

This program has been coordinated with the Santa Clara County Department of Agriculture and Environmental Management.

FISCAL IMPACT:

The County's Weed Abatement Program administers services for 13 local agencies under a cost recovery model, paid for by fees imposed on the parcel owners. The estimated program cost related to each agency is based on the number of parcels per agency. Funds are provided in the FY 2019/20 Operating Budget to cover the cost of publishing all required legal notices.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. Resolution Declaring Weeds to be a Public Nuisance and Set Hearing Date of January 21, 2020 to Consider Objections for Proposed Removal.
2. 2020 Weed Abatement Program Commencement Report.

RESOLUTION 2019-
RESOLUTION OF THE TOWN COUNCIL
OF THE TOWN OF LOS GATOS
DECLARING WEEDS TO BE A PUBLIC NUISANCE AND
SET HEARING DATE OF JANUARY 21, 2020 TO CONSIDER OBJECTIONS FOR
PROPOSED REMOVAL

WHEREAS, Section 39501 and Section 39502 of the Government Code of the State of California authorize the Town of Los Gatos to prescribe a procedure for compelling the owner, lessees or occupant of buildings, grounds, or lots to remove hazardous vegetation (weeds) from such buildings or grounds and adjacent sidewalks, and, upon his failure to do so, to remove such hazardous vegetation (weeds) at owner's expense, making the cost thereof a lien upon such property; and

WHEREAS, the Town of Los Gatos, by ordinance, has adopted such a procedure, codified in Chapter 11, Article II, Sections 11.20.010 through 11.20.045 of the Los Gatos Town Code.

NOW, THEREFORE, BE IT RESOLVED: that the Town Council hereby finds that hazardous vegetation "weeds," as that term is defined in Section 11.20.010, are growing upon and adjacent to private property within the Town of Los Gatos, and declares that all hazardous vegetation (weeds) growing upon any private property or properties, and in any sidewalk street, or alley within the Town of Los Gatos are a public nuisance and should be abated.

BE IT FURTHER RESOLVED that unless such nuisance be abated by the destruction or removal of such hazardous vegetation (weeds) within thirty (30) days after the adoption of this resolution, or within the time specified in a written agreement with the Town of Los Gatos Director of Parks and Public Works, or his representative, whichever time shall be later, as provided in Chapter 11, Article II, of the Los Gatos Town Code, the Town of Los Gatos shall cause such nuisance to be abated, and the expense thereof assessed upon the lots and lands from which, or in the front and rear of which, such hazardous vegetation (weeds) shall have been destroyed or removed, such expense constituting a lien upon such lots or lands until paid, and to be collected upon the next tax roll upon which general municipal taxes are collected.

ATTACHMENT 1

BE IT FURTHER RESOLVED that the Director shall execute a "Notice to Destroy Hazardous Vegetation (Weeds)" in the form set forth in Section 11.20.020(b) and shall cause same to be published and posted in the manner prescribed by Section 11.20.020(c).

BE IT FURTHER RESOLVED that on the 21st day of January, 2020 at a meeting of the Town Council beginning at 7:00 p.m. in the Council Chambers of the Civic Center, 110 E. Main Street, Los Gatos, California, a public hearing will be held during which all property owners in the Town of Los Gatos having any objections to the proposed destruction or removal of such hazardous vegetation (weeds) will be heard and given due consideration.

PASSED AND ADOPTED at a regular meeting of the Town Council of the Town of Los Gatos, California, held on the 3rd day of December 2019 by the following vote:

COUNCIL MEMBERS:

AYES:

NAYS:

ABSENT:

ABSTAIN:

SIGNED:

MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

ATTEST:

TOWN CLERK OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

**2020 WEED ABATEMENT PROGRAM
COMMENCEMENT REPORT
TOWN OF LOS GATOS**

<u>Situs</u>	<u>APN</u>	<u>CITY/STATE</u>				
0	CALLE	409-04-049	GUPTA, MOHIT AND APAN, PARUL	4708 GRIMSBY DR	SAN JOSE	CA 95130-2037
0		409-08-001	UNION PACIFIC CORPORATION	10031 FOOTHILLS BLVD	ROSEVILLE	CA 95747
935	CASTLEWOOD DR	409-11-021	YAMAGUCHI, JUDY C TRUSTEE	0 PO BOX 3390	SARATOGA	CA 95070-1390
17291	WEDGEWOOD AV	409-14-013	SAFFARIAN, BABAK TRUSTEE & ET	48817 DEER VIEW TR	FREMONT	CA 94539
14333	MULBERRY DR	409-15-022	BOLANDI, HOOMAN	14333 MULBERRY DR	LOS GATOS	CA 95032-0000
14311	MULBERRY DR	409-15-038	LEE, KWANGHO AND YUNSUN	14311 MULBERRY DR	LOS GATOS	CA 95032-0000
16245	BURTON RD	424-06-115	SWENSON, C B TRUSTEE	777 1ST ST N FL 5	SAN JOSE	CA 95112
14823	LOS GATOS BL	424-07-065	14823 LGB LLC	965 PAGE MILL RD	PALO ALTO	CA 94304
15439	NATIONAL AV	424-12-137	AURORA LOAN SERVICES LLC	1851 FIRST ST E 10TH FL	SANTA ANA	CA 92705
15710	WINCHESTER BL	424-27-013	DONNELLY, TESSA I ET AL	15710 WINCHESTER BL	LOS GATOS	CA 95030-3305
18481	OVERLOOK RD	510-40-019	DICKINSON, PATRICIA J	19 ASANTA CRUZ AV N	LOS GATOS	CA 95030-5968
0	LAUREL AV	510-41-068	GERTRIDGE, JOHN H ET AL	1080 COLLEGE AV	MENLO PARK	CA 94025
110	WOOD RD	510-47-038	COVIA COMMUNITIES	2185 CALIFORNIA BL N STE	WALNUT CREEK	CA 94596-3508
138	WOOD RD	510-47-044	FRENKEL, LILY M AND DRAA, JUSTIN	138 WOOD RD	LOS GATOS	CA 95030-6740
779	BLOSSOM HILL RD	523-04-037	BLANTON, LOUISE C TRUSTEE	779 BLOSSOM HILL RD	LOS GATOS	CA 95032-3502
15931	BLOSSOM HILL RD	523-25-028	TERRY, NAKA K	15931 BLOSSOM HILL RD	LOS GATOS	CA 95032-4808
16009	STEPHENIE LN	523-26-006	CAPRIOLA, JOAN C TRUSTEE	1466 SUTTER CREEK DR	EL DORADO HILLS	CA 95762
263	PINEHURST AV	523-43-019	GORMAN, ROBERT L AND THERESA A	263 PINEHURST AV	LOS GATOS	CA 95032-3917
15941	QUAIL HILL RD	527-02-006	KHOSRAVI, ARVIN AND MOZAFAR,	15941 QUAIL HILL RD	LOS GATOS	CA 95032-4819
15925	QUAIL HILL RD	527-02-007	DIEP, JOHN AND ALLISON	5950 COUNTRY CRUZ PY	SAN JOSE	CA 95138
145	DRYSDALE DR	527-03-003	ZUKIN, MARGARET S TRUSTEE	145 DRYSDALE DR	LOS GATOS	CA 95032-4847
0	GUM TREE LN	527-03-007	QUINT, ROBERT A TRUSTEE & ET AL	0 GUM TREE LN	LOS GATOS	CA 95032-0000
16200	GREENRIDGE TR	527-15-001	ORMANDY, ROMAN AND BIBIANA	16200 GREENRIDGE TR	LOS GATOS	CA 95032-4914

**2020 WEED ABATEMENT PROGRAM
COMMENCEMENT REPORT
TOWN OF LOS GATOS**

Situs	APN				CITY/STATE			
16084	GREENRIDGE	TR	527-15-002	LUU, RICHARD T	952 5TH ST N	SAN JOSE	CA	95112-4411
0	LARGA VISTA	DR	527-16-013	GUEVARA, MARIA E TRUSTEE & ET	14975 LARGA VISTA DR	LOS GATOS	CA	95032-4917
14960	LARGA VISTA	DR	527-16-016	PROUTY, KYMBERLY K AND PAUL R	14960 LARGA VISTA DR	LOS GATOS	CA	95032-4918
401	SURMONT	DR	527-20-002	BATE, ROSEMARY S	110 BELVALE DR	LOS GATOS	CA	95032
258	UNION	AV	527-44-012	CASHMERE BOUQUET 1031 LLC	2470 WINCHESTER BL S D	CAMPBELL	CA	95008
258	UNION	AV	527-44-013	CASHMERE BOUQUET 1031 LLC	2470 WINCHESTER BL S D	CAMPBELL	CA	95008
	NO SITUS		529-06-072	CROSS CREEK LOS GATOS LLC	3553 MEADOWLANDS LN	SAN JOSE	CA	95135-0000
615	BLOSSOM HILL RD	RD	529-16-026	DUNN PROPERTIES LP ETAL	301 ALTA LOMA LN	SANTA CRUZ	CA	95062
0	BELLA VISTA	AV	529-21-010	FINLAYSON, GRAHAM C AND	385 BELLA VISTA AV	LOS GATOS	CA	95032-5416
0	BELLA VISTA	AV	529-23-003	RUNYAN, PETER AND CHOI, HYUNG	331 BELLA VISTA AV	LOS GATOS	CA	95032-5416
0	BELLA VISTA	AV	529-23-015	PETERS, JAKE C AND KATHERINE H	0 P O BOX 3486	KETCHUM	ID	83340
0	BELLA VISTA	AV	529-23-016	ROSS, DANIEL LEE TRUSTEE	188 VILLA AV	LOS GATOS	CA	95030-0000
0	BELLA VISTA	AV	529-23-019	HARLAN, MARILYN S TRUSTEE	4168 RIVA RIDGE	FAIR OAKS	CA	95628-6429
0	BELLA VISTA	AV	529-23-020	HEDBERG, PERNILLA AND CLAES J	350 BELLA VISTA AV	LOS GATOS	CA	95032-5400
	NO SITUS		529-29-065	DOUGLAS, VASILIKI	0 RESERVOIR RD	LOS GATOS	CA	95032-7028
0	RESERVOIR	RD	529-29-066	KIDDER, VASILIKI	0 RESERVOIR RD	LOS GATOS	CA	95030-0000
148	CLELAND	AV	529-34-043	HATTAR, MARIE C	148 CLELAND AV	LOS GATOS	CA	95030-0000
0	(VACANT)		529-39-047	ST WARD PROPS LP	107 FOSTER RD	LOS GATOS	CA	95030-0000
16386	HILOW	RD	532-04-080	JALALIAN, VALY F AND KHANSHIR,	140 CLOVER WY	LOS GATOS	CA	95032-5620
16666	TOPPING	WY	532-09-018	LIN, ARTHUR W AND CHANG,	4100 MOORPARK AV STE 205	SAN JOSE	CA	95117
16510	KENNEDY	RD	532-17-025	MCKENZIE, JACLYN J TRUSTEE	16510 KENNEDY RD	LOS GATOS	CA	95032-6431
16461	KENNEDY	RD	532-17-027	CHAUDHRY, FAISAL AND REEM C	16461 KENNEDY RD S	LOS GATOS	CA	95030-0000
16481	KENNEDY	RD	532-17-028	HAKHU, JAI K AND NALINI	7 SHORE PINE DR	NEWPORT COAST	CA	92657

**2020 WEED ABATEMENT PROGRAM
COMMENCEMENT REPORT
TOWN OF LOS GATOS**

<u>Situs</u>	<u>APN</u>	<u>CITY/STATE</u>	
248 JARED LN 532-34-071	PAN, SAM SHIWEI	1901 NOBILI AV	SANTA CLARA CA 95051-2229
17511 PHILLIPS AV 532-39-009	UPLIFT FAMILY SERVICES	251 LLEWWLLYN AV	CAMPBELL CA 95008
17528 TOURNEY RD 537-04-019	EBRAHIMI, KEVIN A	4459 WINDSOR PARK DR	SAN JOSE CA 95136-2048
17652 TOURNEY RD 537-04-043	YU, MARGARET AND ROLANDI,	17652 TOURNEY RD	LOS GATOS CA 95030-7166
15220 KENNEDY RD 537-15-004	BEZECNY SUSAN K AND	15220 KENNEDY RD	LOS GATOS CA 95032
14050 SHANNON RD 537-17-027	LEIRER, VON OTTO AND PERZOW,	14050 SHANNON RD	LOS GATOS CA 95032-0000
233 FORRESTER RD 537-21-010	JACKSON STREET EQUITIES LLC	0 PO BOX 27421	SAN FRANCISCO CA 94127
229 FORRESTER RD 537-22-011	SATIA, JAGAT B AND INDIRA	229 FORRESTER RD	LOS GATOS CA 95032-6508
155 WOODED VIEW DR 537-23-028	OWNBEY, DOUGLAS V TRUSTEE	0 P.O. BOX 9277	SAN JOSE CA 95157
210 WOODED VIEW DR 537-23-046	CUNNINGHAM, JAMES	210 WOODED VIEW DR	LOS GATOS CA 95032-5738
15876 SHANNON RD 537-26-009	LIVE WELL HOMES INC	409 CASSELINO DR	SAN JOSE CA 95136-0000
15760 SHANNON RD RD 537-26-018	KELLERMANN MARC ET AL	15760 SHANNON RD	LOS GATOS CA 95032-5759
16060 CERRO VISTA DR 537-30-004	BREZOCZKY, BLASIUS TRUSTEE &	16060 CERRO VISTA DR	LOS GATOS CA 95032-0000



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 11/19/2019

ITEM NO: 9

DATE: November 26, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Authorize the Town Manager to Negotiate and Execute a Five-Year Agreement for Services with Cartegraph, Inc. for Enterprise Asset Management System Services Effective January 1, 2020 Through December 31, 2024 in an Amount Not to Exceed \$34,165 Annually, and a Total Agreement Amount Not to Exceed \$181,263, With Three Five-Year Options Thereafter

RECOMMENDATION:

Authorize the Town Manager to negotiate and execute a five-year Agreement for Services with Cartegraph, Inc. for Enterprise Asset Management System (EAMS) services effective January 1, 2020 through December 31, 2024 in an amount not to exceed \$34,165 annually plus a three percent annual escalation, and a total agreement amount not to exceed \$181,263, with three five-year options thereafter.

BACKGROUND:

The Town of Los Gatos has been utilizing an Enterprise Asset Management System (EAM) by Cartegraph since 2004. The Cartegraph Asset Management Program allows for day-to-day management of work activities by effectively logging and tracking citizen requests, scheduling work orders, and tracking of assets and work history throughout the Town. The Parks and Public Works Department currently tracks facilities, parks, streets, sidewalks, signs, and fleet. The system is essential in managing the work of the department and identifying the needs of the Town's assets.

PREPARED BY: Bobby González
Senior Administrative Analyst

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, Finance Director, and Director of Parks and Public Works

PAGE 2 OF 2

SUBJECT: Authorize the Town Manager to Negotiate and Execute a Five-Year Agreement for Services with Cartegraph, Inc. for Enterprise Asset Management System Services Effective January 1, 2020 Through December 31, 2024 in an Amount Not to Exceed \$34,165 Annually, and a Total Agreement Amount Not to Exceed \$181,263, With Three Five-Year Options Thereafter

DATE: November 26, 2019

DISCUSSION:

This past fall, staff from Parks and Public Works issued a Request for Proposals (RFP) to firms who specialize in providing EAM systems. Staff received and reviewed seven proposals through the RFP process. Four companies were short listed and extended the opportunity to provide product demonstrations. After extensive review and discussions, Cartegraph, Inc. was chosen as the company that best meets the needs of the Town due to its experience, quality of product, and rankings by the evaluation panel.

Following the identification of Cartegraph as the best match for the Town's needs, staff entered negotiations, successfully obtaining more in person meetings with Cartegraph's Customer Success Team to ensure that staff receives training on quarterly product updates. In addition, the number of user licenses has increased from 12 to 25, which will allow multiple users for management, maintenance, and administration to be added to the system. Staff was also able to negotiate the cost down from the original proposal.

CONCLUSION:

Authorize the Town Manager to negotiate and execute a five-year Agreement for Services with Cartegraph, Inc. for Enterprise Asset Management System services, to be effective January 1, 2020 through December 31, 2024 in an amount not to exceed \$34,165 annually, and a total agreement amount not to exceed \$181,263, with three five-year options thereafter.

FISCAL IMPACT:

Funds of \$38,400 have been appropriated in the Adopted FY 2019/20 Parks and Public Works Operating Budget for the system. The proposed agreement includes a first-year cost of \$34,165 plus a 3% annual price escalation. A minor adjustment in the budget line item for this system will be needed in year five.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachment:

1. Pricing Schedule

COST PROPOSAL

SOLUTION	DESCRIPTION	TOTAL
YEAR 1		
SOFTWARE		
Cartegraph OMS Platform by Domain	OMS User, 25 User Pack Subscription	\$39,018.00
	Domain Subscriptions:	
	• Transportation Domain	
	• Parks and Rec Domain	
	• Walkability Domain	
	• Stormwater Domain	
	• Facilities Domain	
	• Signals Domain	
	Cartegraph Cloud Subscription	Included
	OMS Test Environment Subscription	Included
	Extension: Advanced Asset Management Subscription	Included
	15% Software Discount	(\$5,852.70)
SERVICES		
CSM Engagement	Two Complimentary (2-day) Onsite Visits for Consulting and Training	Included
Integration Services	Fuel Master Integration	\$ 6,000.00
	Integration Discount	(\$5,000.00)
TOTAL YEAR 1		\$34,165.30
YEAR 2		
SOFTWARE		
Cartegraph OMS Platform by Domain	OMS User, 25 User Pack Subscription	\$40,188.54
	Domain Subscriptions:	
	• Transportation Domain	
	• Parks and Rec Domain	
	• Walkability Domain	
	• Stormwater Domain	
	• Facilities Domain	
	• Signals Domain	
	Cartegraph Cloud Subscription	Included
	OMS Test Environment Subscription	Included
	Extension: Advanced Asset Management Subscription	Included

15% Software Discount	(\$6,028.28)
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SERVICES

CSM Engagement	One Onsite Visit and at least three (3) remote engagements to provide Post Implementation System Checks, Health Checks, Executive Business Reviews, and Success Planning	Included
Integration Services	Fuel Master Integration Support	\$ 1,000.00
TOTAL YEAR 2		\$35,160.26

YEAR 3

SOFTWARE

Cartegraph OMS Platform by Domain – Cloud Deployment	OMS User, 25 User Pack Subscription Domain Subscriptions: <ul style="list-style-type: none"> • Transportation Domain • Parks and Rec Domain • Walkability Domain • Stormwater Domain • Facilities Domain • Signals Domain 	\$41,394.20
	Cartegraph Cloud Subscription	Included
	OMS Test Environment Subscription	Included
	Extension: Advanced Asset Management Subscription	Included
	15% Software Discount	(\$6,209.13)

SERVICES

CSM Engagement	One Onsite Visit and at least three (3) remote engagements to provide Post Implementation System Checks, Health Checks, Executive Business Reviews, and Success Planning	Included
Integration Services	Fuel Master Integration Support	\$ 1,030.00
TOTAL YEAR 3		\$36,215.07

YEAR 4

SOFTWARE

Cartegraph OMS Platform by Domain – Cloud Deployment	OMS User, 25 User Pack Subscription Domain Subscriptions: <ul style="list-style-type: none"> • Transportation Domain • Parks and Rec Domain • Walkability Domain • Stormwater Domain • Facilities Domain • Signals Domain 	\$42,636.02
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Cartegraph Cloud Subscription	Included
OMS Test Environment Subscription	Included
Extension: Advanced Asset Management Subscription	Included
15% Software Discount	(\$6,395.40)

SERVICES

CSM Engagement	One Onsite Visit and at least three (3) remote engagements to provide Post Implementation System Checks, Health Checks, Executive Business Reviews, and Success Planning	Included
Integration Services	Fuel Master Integration Support	\$ 1,060.90
TOTAL YEAR 4		\$37,301.52
YEAR 5		

SOFTWARE

Cartegraph OMS Platform by Domain – Cloud Deployment	OMS User, 25 User Pack Subscription Domain Subscriptions: <ul style="list-style-type: none"> • Transportation Domain • Parks and Rec Domain • Walkability Domain • Stormwater Domain • Facilities Domain • Signals Domain 	\$43,915.10
	Cartegraph Cloud Subscription	Included
	OMS Test Environment Subscription	Included
	Extension: Advanced Asset Management Subscription	Included
	15% Software Discount	(\$6,587.27)

SERVICES

CSM Engagement	One Onsite Visit and at least three (3) remote engagements to provide Post Implementation System Checks, Health Checks, Executive Business Reviews, and Success Planning	Included
Integration Services	Fuel Master Integration Support	\$ 1,092.73
TOTAL YEAR 5		\$38,420.57
GRAND TOTAL - 5 YEAR TERM		\$181,262.72



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 10

DATE: November 26, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Receive Information on Transportation Grant Activity

RECOMMENDATION:

Receive information on transportation grant activity.

BACKGROUND:

Recognizing the need to increase the Town's ability to compete for Measure B and other funding opportunities to support its traffic and transportation priorities, the Town has increased efforts in pursuing grant funds. In the FY 2016/2017 budget, the Transportation and Mobility Manager position was added to facilitate pursuing grant opportunities.

In the last three years, the Town has been awarded more than \$10 million in grant funding to transportation projects with another \$11 million in applications pending or upcoming (Attachment 1). During this time, the Town Council has received updates on specific grant application activities and taken actions to receive grant funds as each award occurred. This report summarizes grant efforts to provide a clearer picture of the overall activity.

DISCUSSION:

The infusion of grant dollars has played a significant role in the Town's Capital Improvement Program. The funds have helped the Town complete the Bicycle and Pedestrian Master Plan (BPMP) and start the implementation of projects. The first capital improvement project from the BPMP, the Blossom Hill Road Bike and Pedestrian Improvements, was partially funded by grant dollars and was completed in August 2019.

Town staff is actively working on six grant-funded projects, including the Los Gatos Creek Trail to State Route 9 Connector, Bicycle and Pedestrian Bridge over Highway 17, Winchester

PREPARED BY: Matt Morley
Parks and Public Works Director

Reviewed by: Town Manager, Assistant Town Manager, Finance Director and Town Attorney

DISCUSSION (continued):

Boulevard Complete Streets, School Bus Pilot, Los Gatos Smart Signals, and Guardrail Upgrades.

In 2020, work will start on an additional three projects that also already have grant funding: Shannon Road Complete Streets, East Main St. Speed Table/Raised Crosswalk, and Winchester Class IV Bikeway.

Securing funding is a critical step in delivering a project, but it is only the beginning. Each grant program dictates its own project delivery schedule and requirements. At the same time, the community has expectations to see the results of these projects and the public funds invested in them. The ability for a jurisdiction to successfully deliver projects on schedule is becoming an increasingly important factor in the grantors' consideration of future applications, especially in high-profile programs like Senate Bill 1 (SB-1). Parks and Public Works staff is taking all the necessary steps to develop and deliver these projects on time and comply with the programs' requirements.

The multifaceted demands associated with a successful grant program brings its own challenges. Applying for grants is by itself an involved process, often taking many staff hours to compile a sound application with supporting data. The administrative needs continue as grants bring strict requirements in reporting and monitoring that increase project delivery costs. In addition, the increased volume of projects as grants are awarded has stretched staff's ability to manage design and construction with the limited staffing available in the Town's capital program. Finally, grants often require matching funds. Staff attempts to be strategic, looking for other sources of funds, including other grants, to meet the match requirements, but some inevitable general fund match will be needed.

Future Funding Opportunities

At the November 19, 2019 meeting, the Town Council authorized the Town Manager to submit five grant applications for the Measure B Bicycle and Pedestrian Competitive Grant Program. The voter-approved 2016 Santa Clara County Ballot Measure B included several program categories. In addition to the competitive Bicycle and Pedestrian Program Category, there are two categories which provide formula funds, including the Local Streets and Roads and Education/Encouragement. The Town receives \$580,633 and \$24,586 annually in each respective category. The formulaic funds can support the Town's annual street maintenance program and education/encouragement activities, including the programs provided by Los Gatos-Monte Sereno Safe Routes to School.

CONCLUSION AND NEXT STEPS:

With the recent experience in applying for and receiving grants, Town staff has established a track record of being competitive in securing grant funds. In anticipation of the Measure B programs and potentially the SB-1 programs, staff is gearing up for another busy year of grant submittals in 2020. Through the annual Capital Improvement Program budgeting process, staff will seek Council's direction on prioritizing the projects and allocating appropriate resources in pursuing additional funding opportunities. Staff will continue to review and prioritize future grant opportunities based on staff resources, matching fund capabilities, and the Town's ability to be competitive in the grant process.

FISCAL IMPACT:

There is no fiscal impact related to this item. When grant applications are awarded in the future, the Council will have the opportunities to review the individual funding agreements to accept the grant funds and commit to local match funds.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA and no further action is required.

Attachment:

1. Summary of Grant Awards

Summary of Awarded Funds in Grant Programs at State, Regional and County Levels

Updated November 2019

Awarded Grants

Year	Project Name	Grant Program	Awarded	Type	Project Status
2016/17	Bicycle & Pedestrian Master Plan	Transportation Development Act Article 3	\$ 75,497	Formulaic	Completed
2016/17	Bicycle & Pedestrian Master Plan	County PICH	\$ 40,000	Competitive	Completed
2016/17	SR2S	County PICH	\$ 15,000	Competitive	Completed
2017	Los Gatos Creek Trail to SR 9 Connector	OBAG 2	\$ 343,000	Formulaic	Design
2016	Townwide signal modernization (Smart Signals)	Vehicle Registration Fee (VRF)	\$ 500,000	Competitive	Design
2017	Los Gatos Smart Signals	MTC IDEA	\$ 700,000	Competitive	Design
2017	Los Gatos Smart Signals	Vehicle Registration Fee (VRF)	\$ 376,400	Competitive	Design
2018	Roberts Fisher School Frontage	Transportation Fund for Clean Air (TFCA)	\$ 39,500	Competitive	Completed
2018	BHR Bike and Pedestrian Improvements	Regional Bike Program from TFCA	\$ 242,000	Competitive	Completed
2018	Bicycle and Pedestrian Bridge over Highway 17	Transportation Development Act Article 3	\$ 52,995	Formulaic	Feasibility Study
2019	Bicycle and Pedestrian Bridge over Highway 17	Transportation Development Act Article 3	\$ 34,456	Formulaic	Feasibility Study
2018	Shannon Road Complete Streets	Vehicle Emissions Reductions Based at Schools	\$ 940,100	Competitive	Start in 2020
2018	Guardrail Upgrade	Highway Safety Improvement Program (HSIP)	\$ 980,100	Competitive	Design RFP released
2019	Hwy 9 Interchange & Hwy 17 Efficiency Improvements - Design	Measure B	\$ 5,400,000	Competitive	Design
2019	Bicycle and Pedestrian Education & Encouragement	Measure B	\$ 24,586	Formulaic	Design
2019	E. Main St. Speed Table/Raised Crosswalk	Transportation Fund for Clean Air (TFCA)	\$ 86,200	Competitive	Start in 2020
2019	School bus pilot	Transportation Fund for Clean Air (TFCA)	\$ 174,000	Competitive	In service
2019	Winchester Class IV Bikeway	Regional Bike Program from TFCA	\$ 293,922	Competitive	Start in 2020
Total			\$ 10,317,756		

Pending and Upcoming

Year	Project Name	Grant Program	Requested	Type	Project Status
2019	Local Road Safety Plan	Highway Safety Improvement Program (HSIP)	\$ 72,000	Fund request	Start in 2020
2020	LG Creek Trail to SR 9 Connector (construction)	Measure B	\$ 4,000,000	Competitive	N/A
2020	BPOC over Highway 17 (final design)	Measure B	\$ 5,000,000	Competitive	N/A
2020	Kennedy sidewalk between LGB and Englewood	Measure B	\$ 800,000	Competitive	N/A
2020	Winchester Boulevard Complete Streets	Measure B	\$ 1,100,000	Competitive	Conceptual design
2020	Highway 9/Massol Avenue RRFB (construction)	Measure B	\$ 400,000	Competitive	"Shovel ready"
Total			\$ 11,372,000		

Note: Grant amounts requested are preliminary estimates.

Not Awarded

Year	Project Name	Grant Program	Requested	Type
2017	Urban Forest Master Plan	Cal Fire Urban & Community Forestry Program	\$ 160,000	Competitive
2017	Activate Los Gatos	Caltrans Transportation Planning	\$ 386,000	Competitive
2018	School ride sharing pilot	Transportation Fund for Clean Air (TFCA)	\$ 120,000	Competitive
2018	E. Main St. Speed Table/Raised Crosswalk	AARP Community Challenge	\$ 77,250	Competitive
2018	LG Creek Trail to SR 9 Connector (construction)	Vehicle Emissions Reductions Based at Schools	\$ 1,000,000	Competitive
2019	LG Creek Trail to SR 9 Connector (construction)	Santa Clara Valley Water District	\$ 571,000	Competitive



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 11

DATE: November 19, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Receive the First Quarter Investment Report (July through September 2019)
for Fiscal Year 2019/20

RECOMMENDATION:

Receive the First Quarter Investment Report (July through September 2019) for Fiscal Year 2019/20.

DISCUSSION:

As of September 30, 2019, the Town's weighted portfolio yield was 2.02% which trended below the Local Agency Investment Fund (LAIF) yield of 2.28%. This difference was primarily due to the LAIF portfolio's weighted average maturity (WAM) of 173 days being below the Town's WAM of 493 days. Given the shorter WAM it is not unusual in the short run for LAIF yields to outperform portfolios that have a longer average maturity. In recent months, staff in consultation with the Town's investment advisor have been extending maturities to capture the higher yields associated with longer dated securities. Staff continues to replace matured or called investments with similar investments with respect to maturity and credit quality. For the First quarter, the Town's weighted average rate of return decreased slightly by 3 basis points (0.03%) from 2.05% to 2.02%.

For the quarter ending September 30, 2019, interest rates decreased across the yield curve partially fueled by the Federal Open Market Committee (FOMC) decision on September 18, 2019 to further ease monetary policy by lowering the Federal funds target rate by 25 basis points. Seven members of the Committee voted to lower the target funds range to 1¾ to 2 percent. Two members preferred maintaining the existing funds range of 2 percent to 2¼ percent and one member preferred lowering the range further. On October 30, 2019 the FOMC voted to lower rates for the third time this calendar year by reducing the Federal funds rate by another 25 basis points. This recent Federal action is consistent with the

PREPARED BY: Stephen Conway
Finance Director

Reviewed by: Town Manager, Assistant Town Manager, and Town Attorney

PAGE 2 OF 2

SUBJECT: Receive the First Quarter Investment Report (July through September 2019) for
Fiscal Year 2019/20

DATE: November 19, 2019

DISCUSSION (Continued):

aforementioned strategy to extend maturity lengths on new purchases of securities to take advantage of higher yielding securities in the 2 to 3-year maturity range.

CONCLUSION:

Staff recommends that the Town Council receive the First Quarter Investment Report (July through September 2019) for Fiscal Year 2019/20.

Attachment:

1. First Quarter Investment Report for FY 2019/20 (July through September 2019)

**Town of Los Gatos
Summary Investment Information
September 30, 2019**

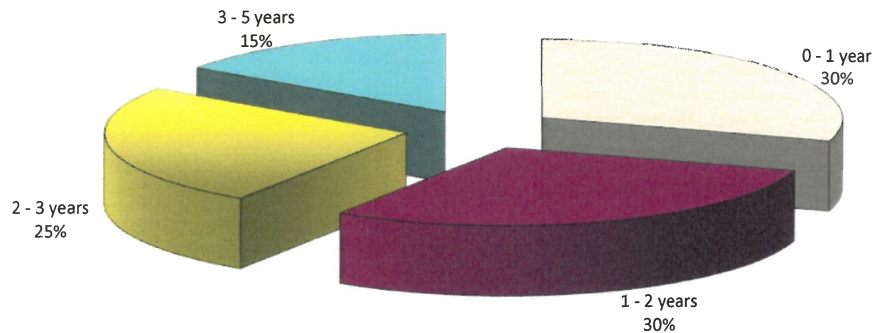
Weighted Average YTM Portfolio Yield: **2.02%** **Weighted Average Maturity (days)** **493**

	<u>This Month</u>	<u>Last Month</u>	<u>One year ago</u>
Portfolio Balance	\$61,720,311	\$62,530,263	\$63,940,263

Benchmarks/ References:

Town's Average Yield	2.02%	1.99%	1.84%
LAIF Yield for month	2.28%	2.38%	2.06%
3 mo. Treasury	1.82%	2.07%	2.06%
6 mo. Treasury	1.82%	2.07%	2.37%
2 yr. Treasury	1.62%	1.87%	2.82%
5 yr. Treasury (most recent)	1.55%	1.83%	2.95%
10 Yr. Treasury	1.67%	2.02%	3.06%

Portfolio Maturity Profile



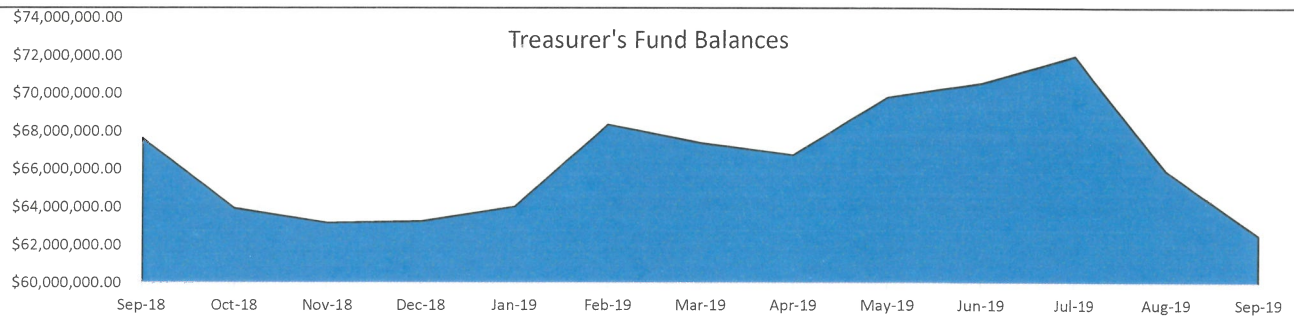
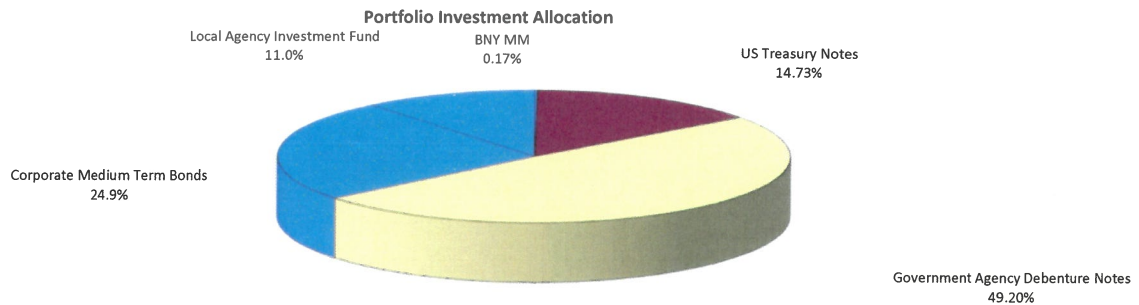
Compliance: The Town's investments are in compliance with the Town's investment policy dated Sept 3, 2019 and also in compliance with the requirements of Section 53601 of the California State Code. Based on the information available, the Town has sufficient funds to meet the cash demands for the next six months.

Town of Los Gatos
Portfolio Allocation & Treasurer's Fund Balances
September 30, 2019

	<u>Month</u>	<u>YTD</u>
Fund Balances - Beginning of Month/Period	\$62,530,263.46	\$72,013,633.77
Receipts	2,457,903.67	7,332,984.27
Disbursements	<u>(3,267,856.35)</u>	<u>(17,626,307.26)</u>
Fund Balances - End of Month/Period	<u>\$61,720,310.78</u>	<u>\$61,720,310.78</u>

<u>Portfolio Allocation:</u>		<u>% of Portfolio</u>	<u>Max. % Or \$ Allowed Per State Law or Policy</u>
BNY MM	\$98,812.13	0.17%	20% of Town Portfolio
US Treasury Notes	\$8,691,144.10	14.73%	No Max. on US Treasuries
Government Agency Debenture Notes	\$29,040,434.12	49.20%	No Max. on Non-Mortgage Backed
Corporate Medium Term Bonds	\$14,723,289.50	24.95%	30% of Town Portfolio
Local Agency Investment Fund	<u>6,466,339.17</u>	10.96%	\$65M per State Law
Subtotal - Investments	59,020,019.02	100.00%	
Reconciled Demand Deposit Balances	<u>2,700,291.76</u>		

Total Treasurer's Fund \$61,720,310.78



Town of Los Gatos
Non-Treasury Restricted Fund Balances
September 30, 2019

	Previous Balance	SEP 19 Deposits Realized Gain/Adj.	SEP 19 Interest/ Earnings	SEP 19 Withdrawals	Ending Balance	
Non-Treasury Funds:						
Cert. of Participation 2002 Series A Reserve Fund	\$ 690,487.43		\$ 915.76	\$ -	\$ 691,403.19	Note 1
Cert. Of Participation 2010 Ser A Lease Pymt Fund	590.20		0.93		591.13	Note 1
Cert. of Participation 2002 Lease Payment Fund	242.81		0.27		243.08	Note 1
Cert. of Participation 2010 Series Reserve Fund	1,284,196.01		2,144.74	0.00	1,286,340.75	Note 2
Total Restricted Funds:	<u>\$ 1,975,516.45</u>	<u>\$0.00</u>	<u>\$3,061.70</u>	<u>\$0.00</u>	<u>\$1,978,578.15</u>	
PARS IRS Section 115 Trust	<u>\$ 5,039,842.95</u>	<u>\$ -</u>	<u>\$ (53,151.93)</u>	<u>\$ 1,049.97</u>	<u>\$ 4,985,641.05</u>	Note 3
Grand Total COP's and PARS Trust	<u>\$ 7,015,359.40</u>	<u>\$ -</u>	<u>\$ (50,090.23)</u>	<u>\$ 1,049.97</u>	<u>\$ 6,964,219.20</u>	

These accounts are not part of the Treasurer's fund balances reported elsewhere in this report, as they are for separate and distinct entities.

Note 1: The three original funds for the Certificates of Participation 2002 Series A consist of construction funds which will be expended over the next few years, reserve funds which will guarantee the payment of lease payments, and a third fund for the disbursement of lease payments and initial delivery costs.

Note 2: The 2010 COP Funds are all for the Library construction, reserves to guarantee lease payments, and a lease payment fund for the life of the COP issue. The COI fund was closed in September 2010.

Note 3: The PARS Section IRS Section 115 Trust was established as an irrevocable trust dedicated to accumulate resources to fund the Town's unfunded liabilities related to pension and other po:

Town of Los Gatos
Statement of Interest Earned
September 30, 2019

Interest by Month

July 2019	\$103,238.97
August 2019	101,993.84
September 2019	99,668.91
October 2019	
November 2019	
December 2019	
January 2020	
February 2020	
March 2020	
April 2020	
May 2020	
June 2020	
	<hr/>
	<u>\$304,901.72</u>

**Town of Los Gatos Investment Schedule September
2019**

Institution	Security	Deposit Date	Par Value	Original Cost	Market Value	Purchased Interest	Maturity Date or Call Date	Yield to Maturity or Call	Interest Received to Date	Interest Earned Prior Yrs.	Interest Earned Current FY	Days to Maturity
Treasury	US Treasury Note	4/2/2019	1,000,000.00	995,625.00	1,007,421.88		6/30/2021	2.33%	\$ 5,224.45	\$ 5,656.35	\$ 5,847.02	639
Toyota Motor Credit	Corporate Bond	05/20/19	1,100,000.00	1,102,596.00	1,117,407.63		1/11/2022	2.50%	\$ 4,051.67	\$ 3,102.53	\$ 6,961.78	834
FHLB	Gov. Agency Debenture	9/20/2017	1,785,000.00	1,776,432.00	1,778,976.79		6/12/2020	1.56%	\$ 42,406.15	\$ 49,147.92	\$ 6,977.79	256
FFCB	Gov. Agency Debenture	10/9/2018	1,700,000.00	1,697,331.00	1,707,680.26		3/25/2020	2.84%	\$ 44,605.17	\$ 34,889.76	\$ 12,158.55	177
FFCB	Gov. Agency Debenture	8/2/2019	1,000,000.00	1,014,400.00	1,025,617.60		2/23/2024	1.90%	\$ 6,875.83	\$ -	\$ 3,094.69	1607
FFCB	Gov. Agency Debenture	9/20/2017	1,600,000.00	1,602,304.00	1,598,139.49		4/6/2020	1.54%	\$ 39,537.78	\$ 43,841.67	\$ 6,224.43	189
FNMA	Gov. Agency Debenture	9/21/2017	1,300,000.00	1,295,866.00	1,296,292.26		9/14/2020	1.61%	\$ 38,620.83	\$ 37,021.86	\$ 5,264.31	350
US Treasury	US Treasury Note	9/21/2017	1,000,000.00	997,109.38	996,601.56		5/31/2020	1.48%	\$ 23,254.78	\$ 26,275.86	\$ 3,736.29	244
FNMA	Gov. Agency Debenture	12/13/2017	2,000,000.00	2,017,900.00	2,010,240.74		10/16/2020	2.02%	\$ 63,058.33	\$ 62,898.65	\$ 10,260.06	382
IBM	Corporate Bond	8/8/2019	1,000,000.00	995,010.00	995,686.98	364.58	8/1/2022	2.05%	\$ (364.58)	\$ -	\$ 2,965.46	1036
Oracle	Corporate Bond	7/8/2019	1,000,000.00	1,008,880.00	1,012,351.81		7/15/2023	2.18%	\$ 4,466.67	\$ -	\$ 5,015.17	1384
US Treasury	US Treasury Note	7/2/2019	500,000.00	497,246.09	500,722.66	1,390.96	4/30/2023	1.77%	\$ (1,390.96)	\$ -	\$ 2,180.72	1308
American Express	Corporate Bond	9/15/2017	1,000,000.00	1,007,980.00	1,000,155.72		1/2/2020	1.87%	\$ 43,266.67	\$ 33,148.01	\$ 4,670.16	94
Freddie Mac	Gov. Agency Debenture	7/19/2019	2,000,000.00	2,072,358.00	2,080,856.60	4,583.33	6/19/2023	1.79%	\$ (4,583.33)	\$ -	\$ 7,308.78	1358
FFCB	Gov. Agency Debenture	7/22/2019	1,000,000.00	999,630.00	1,008,355.90	260.42	1/17/2023	1.89%	\$ (260.42)	\$ -	\$ 3,616.20	1205
Treasury	US Treasury Note	7/22/2019	1,200,000.00	1,197,988.40	1,205,953.13		9/30/2022	2.09%	\$ 4,016.39	\$ -	\$ 4,148.16	1096
FreddieMac	Gov. Agency Debenture	12/20/2017	1,000,000.00	991,200.00	998,778.00		1/17/2020	1.93%	\$ 23,625.00	\$ 29,356.90	\$ 4,848.90	109
FreddieMac	Gov. Agency Debenture	12/18/2018	1,000,000.00	987,160.00	998,778.00		1/17/2020	2.71%	\$ 8,708.33	\$ 14,278.83	\$ 6,771.40	109
FNMA	Gov. Agency Debenture	7/25/2018	1,000,000.00	988,193.47	980,540.00		12/30/2019	2.54%	\$ 10,701.39	\$ 23,363.19	\$ 6,321.80	91
FHLB	Gov. Agency Debenture	7/25/2018	1,500,000.00	1,479,404.42	1,499,045.90		2/7/2020	2.59%	\$ 26,040.00	\$ 35,933.93	\$ 9,723.30	130
American Honda	Corporate Bond	4/11/2018	1,000,000.00	990,620.00	999,990.00		11/13/2019	2.61%	\$ 21,944.44	\$ 31,567.90	\$ 6,526.40	44
Disney	Corporate Bond	12/1/2017	1,000,000.00	998,190.00	999,534.19		3/4/2020	2.03%	\$ 34,284.50	\$ 32,037.85	\$ 5,117.16	156
FFCB	Gov. Agency Debenture	6/1/2018	1,000,000.00	1,001,454.00	1,000,346.43		10/21/2019	2.38%	\$ 24,111.11	\$ 25,640.48	\$ 5,987.12	21
FHLB	Gov. Agency Debenture	9/14/2018	1,000,000.00	998,101.00	1,004,867.13		5/28/2020	2.46%	\$ 18,010.42	\$ 21,666.58	\$ 6,897.32	241
US Bancorp	Corporate Bond	10/19/2018	1,000,000.00	986,540.00	1,000,074.15		12/24/2019	3.09%	\$ 15,277.78	\$ 21,850.15	\$ 7,914.23	85
Chevron	Corporate Bond	11/9/2017	1,350,000.00	1,366,834.50	1,354,217.48		5/24/2020	1.94%	\$ 53,242.31	\$ 42,820.12	\$ 6,587.71	237
FFCB	Gov. Agency Debenture	3/21/2019	1,400,000.00	1,403,262.00	1,414,623.95		3/11/2021	2.43%	\$ 16,858.33	\$ 9,421.68	\$ 8,582.12	528
FFCB	Gov. Agency Debenture	10/28/2016	1,000,000.00	997,507.00	999,659.83		10/17/2019	1.14%	\$ 25,929.17	\$ 30,290.27	\$ 2,858.16	17
PNC Financial	Corporate Bond	8/15/2019	1,000,000.00	1,029,280.00	1,031,980.02		2/6/2022	2.12%	\$ 2,108.33	\$ -	\$ 2,672.28	860
FHLB	Gov. Agency Debenture	7/22/2019	1,000,000.00	1,006,960.00	1,012,667.20	2,479.17	6/10/2022	1.87%	\$ (2,479.17)	\$ -	\$ 3,613.10	984
FNMA	Gov. Agency Debenture	12/20/2017	1,550,000.00	1,545,642.95	1,549,675.83		11/26/2019	1.90%	\$ 38,879.17	\$ 44,831.00	\$ 7,404.76	57
Freddie Mac	Gov. Agency Debenture	9/29/2017	1,000,000.00	998,900.00	998,187.30		6/29/2020	1.67%	\$ 28,437.50	\$ 29,148.73	\$ 4,196.69	273
JP Morgan Chase	Corporate Bond	9/23/2019	1,400,000.00	1,485,414.00	1,491,657.85	7,836.11	2/1/2024	2.39%	\$ (7,836.11)	\$ -	\$ 664.85	1585
FHLB	US Treasury Note	4/15/2019	1,000,000.00	988,250.00	1,004,071.00		11/29/2021	2.34%	\$ 2,291.67	\$ 4,835.29	\$ 5,853.24	791
FNMA	Gov. Agency Debenture	4/25/2017	1,000,000.00	1,013,390.00	1,000,310.08		2/7/2020	1.50%	\$ 45,666.67	\$ 33,146.46	\$ 3,831.00	130
JP Morgan Chase	Corporate Bond	3/4/2019	1,000,000.00	996,520.00	1,001,657.77		2/1/2020	2.71%	\$ 10,633.00	\$ 9,647.87	\$ 7,522.07	124
Treasury	US Treasury Note	7/22/2019	1,000,000.00	1,006,175.23	1,012,578.12	2,841.53	11/30/2022	1.81%	\$ (2,841.53)	\$ -	\$ 3,483.32	1157
Treasury	US Treasury Note	7/31/2019	1,000,000.00	1,011,875.00	1,022,031.25	3,541.67	11/30/2023	1.84%	\$ (3,541.67)	\$ -	\$ 3,093.77	1522
Pepsico	Corporate Bond	5/15/2017	1,250,000.00	1,249,600.00	1,249,009.64		3/30/2020	1.31%	\$ 45,286.46	\$ 49,460.00	\$ 5,863.81	182
Pfizer	Corporate Bond	6/30/2017	1,000,000.00	1,002,280.00	999,182.40		12/15/2019	1.60%	\$ 33,291.67	\$ 32,146.55	\$ 4,051.35	76
Treasury	US Treasury Note	6/30/2017	1,000,000.00	1,002,148.44	999,510.00		10/31/2019	1.41%	\$ 27,513.59	\$ 28,161.36	\$ 3,549.10	31
Treasury	US Treasury Note	6/30/2017	1,000,000.00	994,726.56	997,773.44		1/31/2020	1.46%	\$ 26,070.44	\$ 29,073.66	\$ 3,664.08	123
Toyota Motor Credit	Corporate Bond	10/6/2017	500,000.00	503,545.00	500,522.61		3/12/2020	1.85%	\$ 20,783.33	\$ 16,090.68	\$ 2,342.31	164
FFCB	Gov. Agency Debenture	8/28/2019	1,500,000.00	1,587,503.75	1,575,300.75	8,026.04	12/21/2023	2.12%	\$ (8,026.04)	\$ -	\$ 2,066.72	1543
Freddie Mac	Gov. Agency Debenture	6/24/2019	1,550,000.00	1,573,188.00	1,582,112.78		2/8/2023	1.82%	\$ 12,981.25	\$ 468.29	\$ 7,180.38	1227
Subtotal			\$ 52,185,000.00	\$ 52,454,867.72	\$ 52,638,797.58	\$ 31,323.81			\$ 860,736.77	\$ 891,220.38	\$ 239,618.05	
BNY MM				98,812.13	98,812.13			0.00%				1
LAIF	N/A			6,466,339.17	6,466,339.17			2.28%			39,830.74	1
				\$59,020,019.02	\$59,203,948.88				\$ 860,736.77	\$ 891,220.38	\$ 279,448.79	
Matured Assets												
Treasury	US Treasury Note	5/2/2017	500,000.00	503,339.84			7/1/2019	1.31%	\$ 17,574.24	\$ 14,227.74	\$ 18.03	
Oracle	Corporate Bond	5/3/2018	1,000,000.00	1,028,370.00			7/8/2019	2.54%	\$ 59,027.78	\$ 30,101.79	\$ 569.30	
FHLB	Gov. Agency Debenture	8/27/2018	1,000,000.00	999,180.00			7/22/2019	2.46%	\$ 23,750.00	\$ 20,741.19	\$ 1,486.34	
Treasury	US Treasury Note	4/17/2018	1,200,000.00	1,190,343.75			7/22/2019	2.32%	\$ 30,524.59	\$ 34,452.97	\$ 1,726.57	
FHLB	Gov. Agency Debenture	5/25/2018	2,000,000.00	1,989,800.00			7/22/2019	2.40%	\$ 52,000.00	\$ 53,614.71	\$ 2,941.46	
FHLMC	Gov. Agency Debenture	3/14/2017	2,000,000.00	1,970,180.00			7/19/2019	1.52%	\$ 41,076.39	\$ 69,336.96	\$ 1,572.08	
Treasury	US Treasury Note	7/2/2018	1,000,000.00	989,218.75			7/31/2019	2.39%	\$ 14,851.52	\$ 23,607.64	\$ 2,016.08	
FNMA	Gov. Agency Debenture	04/17/13	1,000,000.00	981,984.01			8/2/2019	2.17%	\$ 12,322.92	\$ 28,416.36	\$ 1,945.52	
Microsoft	Corporate Bond	8/8/2016	1,000,000.00	999,470.00			8/8/2019	1.12%	\$ 33,000.00	\$ 32,335.78	\$ 1,194.22	
Berkshire Hathaway	Corporate Bond	1/22/2018	1,100,000.00	1,086,305.00			8/15/2019	2.11%	\$ 22,363.61	\$ 33,119.10	\$ 2,907.40	
FNMA	Gov. Agency Debenture	11/15/2016	1,500,000.00	1,487,505.00			8/28/2019	1.31%	\$ 41,791.66	\$ 51,098.17	\$ 3,150.25	
JP Morgan Chase	Corporate Bond	3/28/2017	1,400,000.00	1,393,196.00			9/23/2019	1.86%	\$ 57,429.17	\$ 58,316.80	\$ 6,015.69	
Total Investments "Matured"				14,618,892.35					\$ 1,266,448.65	\$ 1,340,589.61	\$ 304,991.73	
Maturity Profile												
				Amount								
	0-1 year			\$36,026,477.55								
	1-2 years			\$4,416,787.00								
	2-3 years			\$5,122,096.00								
	3-5 years			\$ 13,454,658.47								
				\$59,020,019.02								

Town of Los Gatos
Summary Investment Information
August 31, 2019

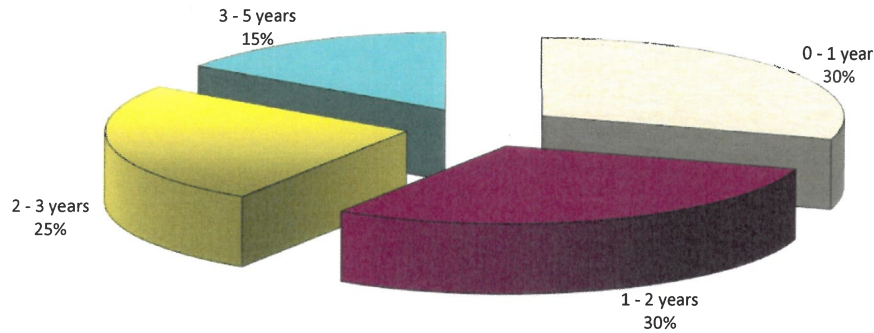
Weighted Average YTM Portfolio Yield: **1.99%** **Weighted Average Maturity (days)** **483**

	<u>This Month</u>	<u>Last Month</u>	<u>One year ago</u>
Portfolio Balance	\$62,530,263	\$65,922,912	\$67,641,614

Benchmarks/ References:

Town's Average Yield	1.99%	1.75%	1.81%
LAIF Yield for month	2.34%	2.38%	2.00%
3 mo. Treasury	2.07%	2.07%	2.01%
6 mo. Treasury	2.07%	2.07%	2.27%
2 yr. Treasury	1.87%	1.87%	2.63%
5 yr. Treasury (most recent)	1.83%	1.83%	2.74%
10 Yr. Treasury	2.02%	2.02%	2.86%

Portfolio Maturity Profile

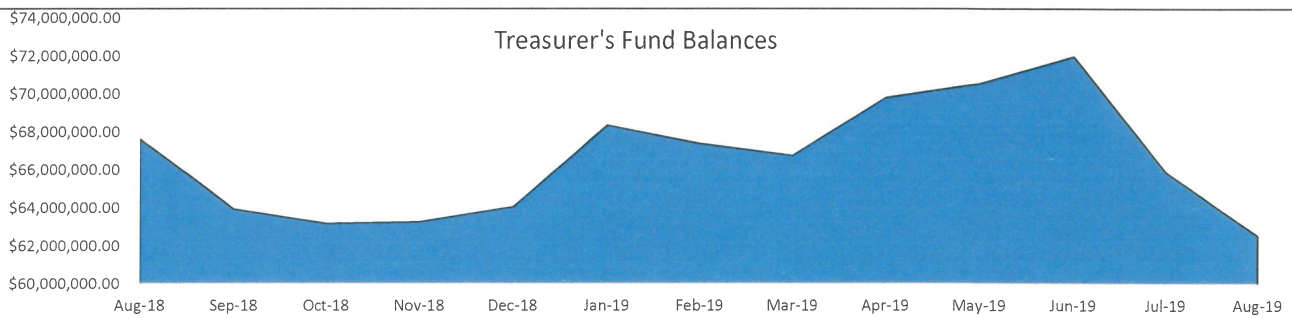
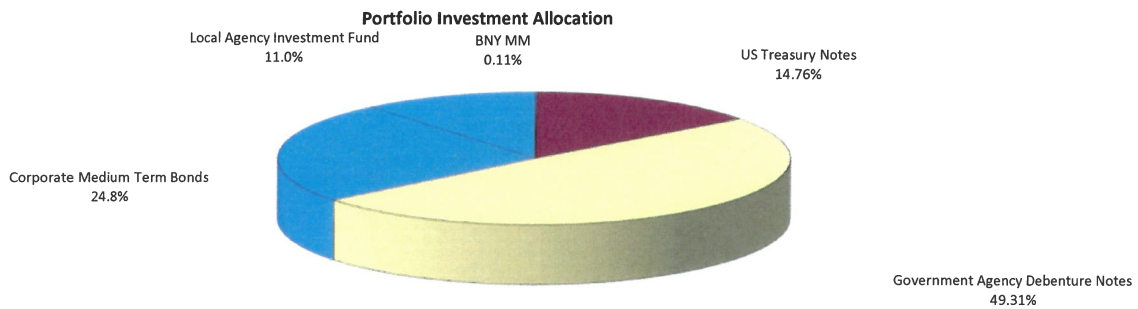


Compliance: The Town's investments are in compliance with the Town's investment policy dated May 15, 2019 and also in compliance with the requirements of Section 53601 of the California State Code. Based on the information available, the Town has sufficient funds to meet the cash demands for the next six months.

Town of Los Gatos
Portfolio Allocation & Treasurer's Fund Balances
August 31, 2019

	Month	YTD
Fund Balances - Beginning of Month/Period	\$65,922,912.37	\$72,013,633.77
Receipts	2,318,391.81	4,875,080.60
Disbursements	(5,711,040.72)	(14,358,450.91)
Fund Balances - End of Month/Period	<u>\$62,530,263.46</u>	<u>\$62,530,263.46</u>

<u>Portfolio Allocation:</u>	%	% of Portfolio	Max. % Or \$ Allowed Per State Law or Policy
BNY MM	\$64,416.47	0.11%	20% of Town Portfolio
US Treasury Notes	\$8,691,144.10	14.76%	No Max. on US Treasuries
Government Agency Debenture Notes	\$29,040,434.12	49.31%	No Max. on Non-Mortgage Backed
Corporate Medium Term Bonds	\$14,631,071.50	24.84%	30% of Town Portfolio
Local Agency Investment Fund	6,466,339.17	10.98%	\$65M per State Law
Subtotal - Investments	58,893,405.36	100.00%	
Reconciled Demand Deposit Balances	<u>3,636,858.10</u>		
Total Treasurer's Fund	<u>\$62,530,263.46</u>		



Town of Los Gatos
Non-Treasury Restricted Fund Balances
August 31, 2019

	Previous Balance	AUGUST 19 Deposits Realized Gain/Adj.	AUGUST 19 Interest/ Earnings	AUGUST 19 Withdrawals	Ending Balance	
Non-Treasury Funds:						
Cert. of Participation 2002 Series A Reserve Fund	\$ 689,432.77		\$ 1,054.66	\$ -	\$ 690,487.43	Note 1
Cert. Of Participation 2010 Ser A Lease Pymt Fund	1,038,777.20		575.50	1,038,762.50	590.20	Note 1
Cert. of Participation 2002 Lease Payment Fund	523,802.66		232.65	523,792.50	242.81	Note 1
Cert. of Participation 2010 Series Reserve Fund	1,281,940.69		2,255.32	0.00	1,284,196.01	Note 2
Total Restricted Funds:	<u>\$ 3,533,953.32</u>	<u>\$0.00</u>	<u>\$4,118.13</u>	<u>\$1,562,555.00</u>	<u>\$1,975,516.45</u>	
PARS IRS Section 115 Trust	<u>\$ 5,039,842.95</u>	<u>\$ -</u>	<u>\$ (53,151.93)</u>	<u>\$ 1,049.97</u>	<u>\$ 4,985,641.05</u>	Note 3
Grand Total COP's and PARS Trust	<u>\$ 8,573,796.27</u>	<u>\$ -</u>	<u>\$ (49,033.80)</u>	<u>\$ 1,563,604.97</u>	<u>\$ 6,961,157.50</u>	

These accounts are not part of the Treasurer's fund balances reported elsewhere in this report, as they are for separate and distinct entities.

Note 1: The three original funds for the Certificates of Participation 2002 Series A consist of construction funds which will be expended over the next few years, reserve funds which will guarantee the payment of lease payments, and a third fund for the disbursement of lease payments and initial delivery costs.

Note 2: The 2010 COP Funds are all for the Library construction, reserves to guarantee lease payments, and a lease payment fund for the life of the COP issue. The COI fund was closed in September 2010.

Note 3: The PARS Section IRS Section 115 Trust was established as an irrevocable trust dedicated to accumulate resources to fund the Town's unfunded liabilities related to pension and other pos:

**Town of Los Gatos
Statement of Interest Earned
August 31, 2019**

Interest by Month

July 2019	\$103,328.97
August 2019	101,993.84
September 2019	
October 2019	
November 2019	
December 2019	
January 2020	
February 2020	
March 2020	
April 2020	
May 2020	
June 2020	
	<hr/>
	<u>\$205,322.81</u>

Town of Los Gatos Investment Schedule August 2019

Institution	Security	Deposit Date	Par Value	Original Cost	Market Value	Purchased Interest	Maturity Date or Call Date	Yield to Maturity or Call	Interest Received to Date	Interest Earned Prior Yrs.	Interest Earned Current FY	Days to Maturity
Treasury	US Treasury Note	4/2/2019	1,000,000.00	995,625.00	1,010,117.19		6/30/2021	2.33%	\$ 5,224.45	\$ 5,656.35	\$ 3,940.38	669
Toyota Motor Credit	Corporate Bond	05/20/19	1,100,000.00	1,102,596.00	1,117,762.23		1/11/2022	2.50%	\$ 4,051.67	\$ 3,102.53	\$ 4,691.64	864
FHLB	Gov. Agency Debenture	9/20/2017	1,785,000.00	1,776,432.00	1,778,231.60		6/12/2020	1.56%	\$ 42,406.15	\$ 49,147.92	\$ 4,702.42	286
FFCB	Gov. Agency Debenture	10/9/2018	1,700,000.00	1,697,331.00	1,708,401.26		3/25/2020	2.84%	\$ 21,400.17	\$ 34,889.76	\$ 8,193.81	207
FFCB	Gov. Agency Debenture	8/2/2019	1,000,000.00	1,014,400.00	1,032,650.99		2/23/2024	1.90%	\$ 6,875.83	\$ -	\$ 1,521.12	1637
FFCB	Gov. Agency Debenture	9/20/2017	1,600,000.00	1,602,304.00	1,597,072.38		4/6/2020	1.54%	\$ 39,537.78	\$ 43,841.67	\$ 4,194.73	219
FNMA	Gov. Agency Debenture	9/21/2017	1,300,000.00	1,295,866.00	1,297,023.21		9/14/2020	1.61%	\$ 28,870.83	\$ 37,021.86	\$ 3,547.69	380
US Treasury	US Treasury Note	9/21/2017	1,000,000.00	997,109.38	996,484.38		5/31/2020	1.48%	\$ 23,254.78	\$ 26,275.86	\$ 2,517.93	274
FNMA	Gov. Agency Debenture	12/13/2017	2,000,000.00	2,017,900.00	2,014,009.00		10/16/2020	2.02%	\$ 63,058.33	\$ 62,898.65	\$ 6,914.39	412
IBM	Corporate Bond	8/8/2019	1,000,000.00	995,010.00	997,620.23	364.58	8/1/2022	2.05%	\$ (364.58)	\$ -	\$ 1,286.90	1066
Oracle	Corporate Bond	7/8/2019	1,000,000.00	1,008,880.00	1,014,945.67	7,533.33	7/15/2023	2.18%	\$ (7,533.33)	\$ -	\$ 3,224.04	1414
US Treasury	US Treasury Note	7/2/2019	500,000.00	497,246.09	503,535.16	1,390.96	4/30/2023	1.77%	\$ (1,390.96)	\$ -	\$ 1,453.81	1338
American Express	Corporate Bond	9/15/2017	1,000,000.00	1,007,980.00	1,000,472.48		1/2/2020	1.87%	\$ 32,266.67	\$ 33,148.01	\$ 3,147.28	124
Freddie Mac	Gov. Agency Debenture	7/19/2019	2,000,000.00	2,072,358.00	2,092,491.50	4,583.33	6/19/2023	1.79%	\$ (4,583.33)	\$ -	\$ 4,305.17	1388
FFCB	Gov. Agency Debenture	7/22/2019	1,000,000.00	999,630.00	1,012,790.49	260.42	1/17/2023	1.89%	\$ (260.42)	\$ -	\$ 2,066.40	1235
Treasury	US Treasury Note	7/22/2019	1,200,000.00	1,197,988.40	1,211,390.63	6,483.61	9/30/2022	2.09%	\$ (6,483.61)	\$ -	\$ 2,370.38	1126
FreddieMac	Gov. Agency Debenture	12/20/2017	1,000,000.00	991,200.00	998,338.79		1/17/2020	1.93%	\$ 23,625.00	\$ 29,356.90	\$ 3,267.73	139
FreddieMac	Gov. Agency Debenture	12/18/2018	1,000,000.00	987,160.00	998,338.79		1/17/2020	2.71%	\$ 8,708.33	\$ 14,278.83	\$ 4,563.34	139
FNMA	Gov. Agency Debenture	7/25/2018	1,000,000.00	980,540.00	997,370.55		12/30/2019	2.54%	\$ 10,701.39	\$ 23,363.19	\$ 4,260.35	121
FHLB	Gov. Agency Debenture	7/25/2018	1,500,000.00	1,479,404.42	1,498,014.17		2/7/2020	2.59%	\$ 26,040.00	\$ 35,933.93	\$ 6,552.66	160
American Honda	Corporate Bond	4/11/2018	1,000,000.00	990,620.00	999,780.00		11/13/2019	2.61%	\$ 21,944.44	\$ 31,567.90	\$ 4,398.22	74
Disney	Corporate Bond	12/1/2017	1,000,000.00	998,190.00	1,000,047.69		3/4/2020	2.03%	\$ 24,534.50	\$ 32,037.85	\$ 3,448.52	186
FFCB	Gov. Agency Debenture	6/1/2018	1,000,000.00	1,001,454.00	1,000,561.34		10/21/2019	2.38%	\$ 24,111.11	\$ 25,640.48	\$ 4,034.80	51
FHLB	Gov. Agency Debenture	9/14/2018	1,000,000.00	998,101.00	1,005,475.56		5/28/2020	2.46%	\$ 18,010.42	\$ 21,666.58	\$ 4,648.19	271
US Bampcorp	Corporate Bond	10/19/2018	1,000,000.00	986,540.00	999,655.38		12/24/2019	3.09%	\$ 15,277.78	\$ 21,850.15	\$ 5,333.50	115
Chevron	Corporate Bond	11/9/2017	1,350,000.00	1,366,834.50	1,354,854.55		5/24/2020	1.94%	\$ 53,242.31	\$ 42,820.12	\$ 4,439.54	267
FFCB	Gov. Agency Debenture	3/21/2019	1,400,000.00	1,403,262.00	1,419,655.19	991.67	3/11/2021	2.43%	\$ (991.67)	\$ 9,421.68	\$ 5,783.60	558
FFCB	Gov. Agency Debenture	10/28/2016	1,000,000.00	997,507.00	998,881.07		10/17/2019	1.14%	\$ 25,929.17	\$ 30,290.27	\$ 1,926.15	47
PNC Financial	Corporate Bond	8/15/2019	1,000,000.00	1,029,280.00	1,032,375.19	14,391.67	2/6/2022	2.12%	\$ (14,391.67)	\$ -	\$ 929.49	890
FHLB	Gov. Agency Debenture	7/22/2019	1,000,000.00	1,006,960.00	1,016,717.98	2,479.17	6/10/2022	1.87%	\$ (2,479.17)	\$ -	\$ 2,064.63	1014
FNMA	Gov. Agency Debenture	12/20/2017	1,550,000.00	1,545,642.95	1,548,932.64		11/26/2019	1.90%	\$ 38,879.17	\$ 44,831.00	\$ 4,990.16	87
Freddie Mac	Gov. Agency Debenture	9/29/2017	1,000,000.00	998,900.00	998,649.76		6/29/2020	1.67%	\$ 28,437.50	\$ 29,148.73	\$ 2,828.20	303
JP Morgan Chase	Corporate Bond	3/28/2017	1,400,000.00	1,393,196.00	1,399,582.10		9/23/2019	1.86%	\$ 45,879.17	\$ 58,316.80	\$ 4,387.91	23
FHLB	US Treasury Note	4/15/2019	1,000,000.00	988,250.00	1,007,644.83		11/29/2021	2.34%	\$ 2,291.67	\$ 4,835.29	\$ 3,944.58	821
FNMA	Gov. Agency Debenture	4/25/2017	1,000,000.00	1,013,390.00	1,000,466.17		2/7/2020	1.50%	\$ 45,666.67	\$ 33,146.46	\$ 2,581.76	160
JP Morgan Chase	Corporate Bond	3/4/2019	1,000,000.00	996,520.00	1,001,925.13		2/1/2020	2.71%	\$ 10,633.00	\$ 9,647.87	\$ 5,069.22	154
Treasury	US Treasury Note	7/22/2019	1,000,000.00	1,006,175.23	1,017,890.62	2,841.53	11/30/2022	1.81%	\$ (2,841.53)	\$ -	\$ 1,990.47	1187
Treasury	US Treasury Note	7/31/2019	1,000,000.00	1,011,875.00	1,028,906.25	3,541.67	11/30/2023	1.84%	\$ (3,541.67)	\$ -	\$ 1,572.25	1552
Pepsico	Corporate Bond	5/15/2017	1,250,000.00	1,249,600.00	1,248,449.44		3/30/2020	1.31%	\$ 45,286.46	\$ 49,460.00	\$ 3,951.70	212
Pfizer	Corporate Bond	6/30/2017	1,000,000.00	1,002,280.00	998,639.45		12/15/2019	1.60%	\$ 33,291.67	\$ 32,146.55	\$ 2,730.25	106
Treasury	US Treasury Note	6/30/2017	1,000,000.00	1,002,148.44	999,050.00		10/31/2019	1.41%	\$ 27,513.59	\$ 28,161.36	\$ 2,391.79	61
Treasury	US Treasury Note	6/30/2017	1,000,000.00	994,726.56	997,226.56		1/31/2020	1.46%	\$ 26,070.44	\$ 29,073.66	\$ 2,469.27	153
Toyota Motor Credit	Corporate Bond	10/6/2017	500,000.00	503,545.00	500,556.17		3/12/2020	1.85%	\$ 15,408.33	\$ 16,090.68	\$ 1,578.52	194
FFCB	Gov. Agency Debenture	8/28/2019	1,500,000.00	1,587,503.75	1,589,452.71	8,026.04	12/21/2023	2.12%	\$ (8,026.04)	\$ -	\$ 187.88	1573
Freddie Mac	Gov. Agency Debenture	6/24/2019	1,550,000.00	1,573,188.00	1,587,606.74		2/8/2023	1.82%	\$ 12,981.25	\$ 468.29	\$ 4,838.95	1257
Subtotal			\$ 52,185,000.00	\$ 52,362,649.72	\$ 52,630,043.22	\$ 52,887.98			\$ 798,522.05	\$ 949,537.18	\$ 159,241.74	
BNY MM				64,416.47	64,416.47			0.00%				1
LAIF	N/A			6,466,339.17	6,466,339.17			2.34%			26,553.83	1
				\$58,893,405.36	\$59,160,798.86				\$ 798,522.05	\$ 949,537.18	\$ 185,795.57	
Matured Assets												
Treasury	US Treasury Note	5/2/2017	500,000.00	503,339.84			7/1/2019	1.31%	\$ 17,574.24	\$ 14,227.74	\$ 18.03	0
Oracle	Corporate Bond	5/3/2018	1,000,000.00	1,028,370.00			7/8/2019	2.54%	\$ 59,027.78	\$ 30,101.79	\$ 569.30	
FHLB	Gov. Agency Debenture	8/27/2018	1,000,000.00	999,180.00			7/22/2019	2.46%	\$ 23,750.00	\$ 20,741.19	\$ 1,486.34	
Treasury	US Treasury Note	4/17/2018	1,200,000.00	1,190,343.75			7/22/2019	2.32%	\$ 30,524.59	\$ 34,452.97	\$ 1,726.57	
FHLB	Gov. Agency Debenture	5/25/2018	2,000,000.00	1,989,800.00			7/22/2019	2.40%	\$ 52,000.00	\$ 53,614.71	\$ 2,941.46	
FHLMC	Gov. Agency Debenture	3/14/2017	2,000,000.00	1,970,180.00			7/19/2019	1.52%	\$ 41,076.39	\$ 69,336.96	\$ 1,572.08	
Treasury	US Treasury Note	7/2/2018	1,000,000.00	989,218.75			7/31/2019	2.39%	\$ 14,851.52	\$ 23,607.64	\$ 2,016.08	
FNMA	Gov. Agency Debenture	04/17/13	1,000,000.00	981,984.01			8/2/2019	2.17%	\$ 12,322.92	\$ 28,416.36	\$ 1,945.52	0
Microsoft	Corporate Bond	8/8/2016	1,000,000.00	999,470.00			8/8/2019	1.12%	\$ 33,000.00	\$ 32,335.78	\$ 1,194.22	0
Berkshire Hathaway	Corporate Bond	1/22/2018	1,100,000.00	1,086,305.00			8/15/2019	2.11%	\$ 22,363.61	\$ 33,119.10	\$ 2,907.40	0
FNMA	Gov. Agency Debenture	11/15/2016	1,500,000.00	1,487,505.00			8/28/2019	1.31%	\$ 41,791.66	\$ 51,098.17	\$ 3,150.25	0
Total Investments "Matured"				13,225,696.35					\$ 1,146,804.76	\$ 1,340,589.61	\$ 205,322.82	
Maturity Profile												
	0-1 year			Amount								
	1-2 years			\$36,089,411.89								
	2-3 years			\$5,712,653.00								
	3-5 years			\$5,122,096.00								
				\$ 11,969,244.47								
				\$58,893,405.36								

Town of Los Gatos
Summary Investment Information
July 31, 2019

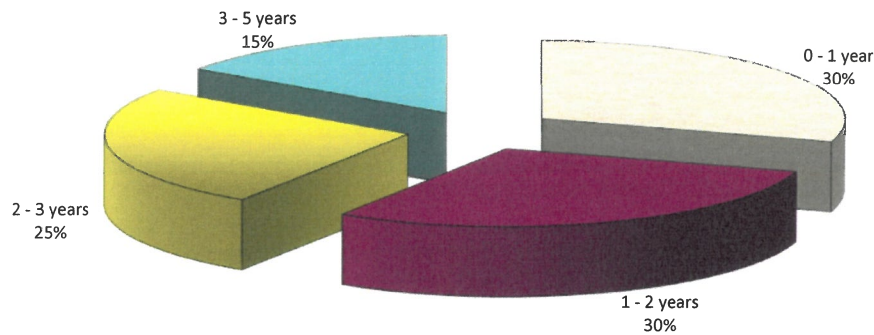
Weighted Average YTM Portfolio Yield: **1.98%** **Weighted Average Maturity (days)** **408**

	<u>This Month</u>	<u>Last Month</u>	<u>One year ago</u>
Portfolio Balance	\$65,922,912	\$72,013,634	\$74,160,411

Benchmarks/ References:

Town's Average Yield	1.98%	2.05%	1.80%
LAIF Yield for month	2.38%	2.43%	1.94%
3 mo. Treasury	2.07%	2.09%	2.02%
6 mo. Treasury	2.07%	2.10%	2.19%
2 yr. Treasury	1.87%	1.76%	2.67%
5 yr. Treasury (most recent)	1.83%	1.77%	2.85%
10 Yr. Treasury	2.02%	2.01%	2.96%

Portfolio Maturity Profile

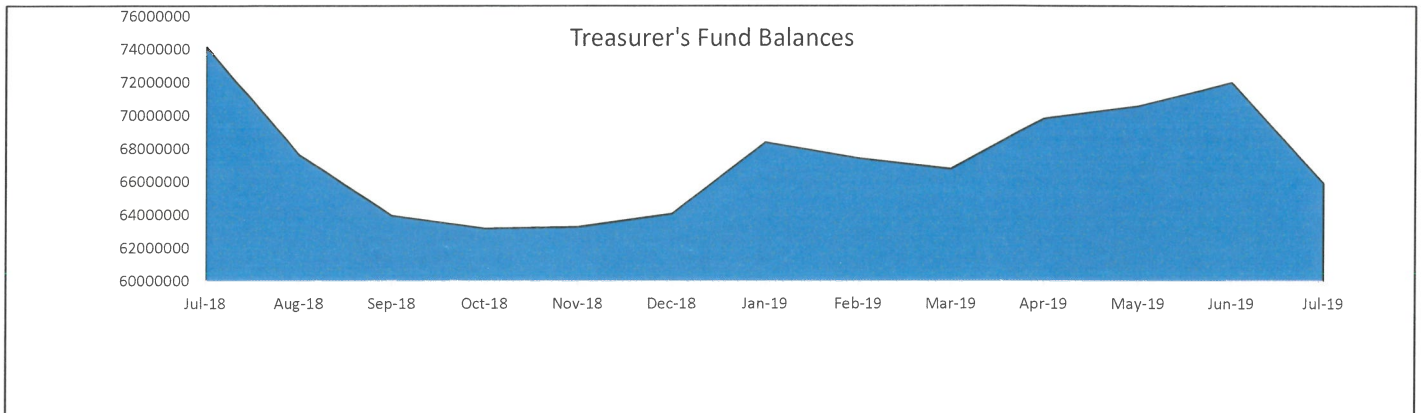
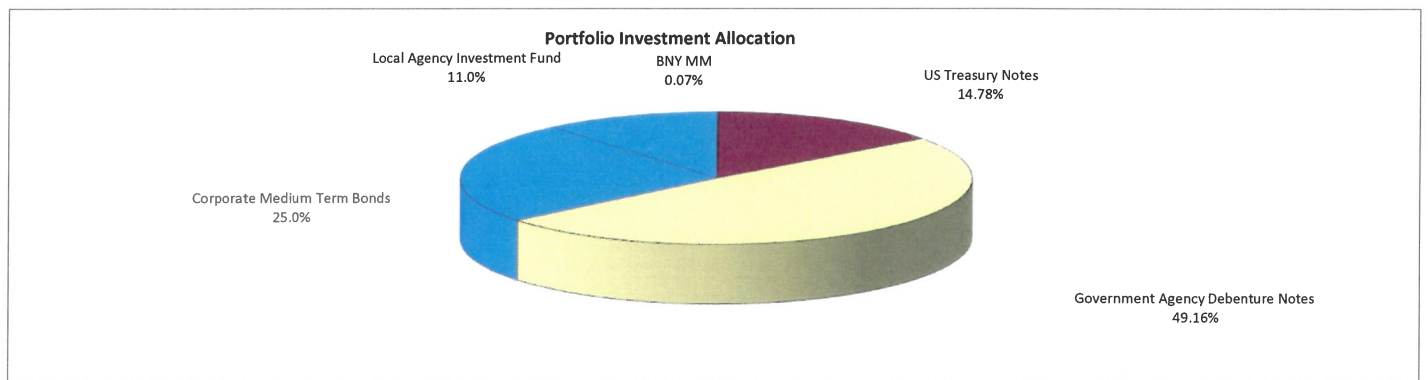


Compliance: The Town's investments are in compliance with the Town's investment policy dated May 15, 2019 and also in compliance with the requirements of Section 53601 of the California State Code. Based on the information available, the Town has sufficient funds to meet the cash demands for the next six months.

Town of Los Gatos
Portfolio Allocation & Treasurer's Fund Balances
July 31, 2019

	<u>Month</u>	<u>YTD</u>
Fund Balances - Beginning of Month/Period	\$72,013,633.77	\$72,013,633.77
Receipts	2,556,688.79	2,556,688.79
Disbursements	<u>(8,647,410.19)</u>	<u>(8,647,410.19)</u>
Fund Balances - End of Month/Period	<u>\$65,922,912.37</u>	<u>\$65,922,912.37</u>

<u>Portfolio Allocation:</u>		<u>% of Portfolio</u>	<u>Max. % Or \$ Allowed Per State Law or Policy</u>
BNY MM	\$43,095.54	0.07%	20% of Town Portfolio
US Treasury Notes	\$8,691,144.10	14.78%	No Max. on US Treasuries
Government Agency Debenture Notes	\$28,908,019.38	49.16%	No Max. on Non-Mortgage Backed
Corporate Medium Term Bonds	\$14,692,556.50	24.99%	30% of Town Portfolio
Local Agency Investment Fund	<u>6,466,339.17</u>	<u>11.00%</u>	<u>\$65M per State Law</u>
Subtotal - Investments	58,801,154.69	100.00%	
Reconciled Demand Deposit Balances	<u>7,121,757.68</u>		
Total Treasurer's Fund	<u>\$65,922,912.37</u>		



Town of Los Gatos
Non-Treasury Restricted Fund Balances
July 31, 2019

	Previous Balance	JULY 19 Deposits Realized Gain/Adj.	JULY 19 Interest/ Earnings	JULY 19 Withdrawals	Ending Balance	
Non-Treasury Funds:						
Cert. of Participation 2002 Series A Reserve Fund	\$ 688,408.82	\$ 1,023.95	\$ -	\$ -	\$ 689,432.77	Note 1
Cert. Of Participation 2010 Ser A Lease Pymt Fund	42,090.99	996,671.51	14.70		1,038,777.20	Note 1
Cert. of Participation 2002 Lease Payment Fund	5,224.90	518,569.98	7.78		523,802.66	Note 1
Cert. of Participation 2010 Series Reserve Fund	1,279,591.68	2,349.01	0.00	0.00	1,281,940.69	Note 2
Total Restricted Funds:	<u>\$ 2,015,316.39</u>	<u>\$1,518,614.45</u>	<u>\$22.48</u>	<u>\$0.00</u>	<u>\$3,533,953.32</u>	
PARS IRS Section 115 Trust	<u>\$ 5,015,316.26</u>	<u>\$ -</u>	<u>\$ 25,571.55</u>	<u>\$ 1,044.86</u>	<u>\$ 5,039,842.95</u>	Note 3
Grand Total COP's and PARS Trust	<u>\$ 7,030,632.65</u>	<u>\$ 1,518,614.45</u>	<u>\$ 25,594.03</u>	<u>\$ 1,044.86</u>	<u>\$ 8,573,796.27</u>	

These accounts are not part of the Treasurer's fund balances reported elsewhere in this report, as they are for separate and distinct entities.

Note 1: The three original funds for the Certificates of Participation 2002 Series A consist of construction funds which will be expended over the next few years, reserve funds which will guarantee the payment of lease payments, and a third fund for the disbursement of lease payments and initial delivery costs.

Note 2: The 2010 COP Funds are all for the Library construction, reserves to guarantee lease payments, and a lease payment fund for the life of the COP issue. The COI fund was closed in September 2010.

Note 3: The PARS Section IRS Section 115 Trust was established as an irrevocable trust dedicated to accumulate resources to fund the Town's unfunded liabilities related to pension and other p

**Town of Los Gatos
Statement of Interest Earned
July 31, 2019**

Interest by Month

July 2019	\$103,328.97
August 2019	
September 2019	
October 2019	
November 2019	
December 2019	
January 2020	
February 2020	
March 2020	
April 2020	
May 2020	
June 2020	
	<hr/>
	<u><u>\$103,328.97</u></u>

Town of Los Gatos Investment Schedule July 2019

Institution	Security	Deposit Date	Par Value	Original Cost	Market Value	Purchased Interest	Maturity Date or Call Date	Yield to Maturity or Call	Interest Received to Date	Interest Earned Prior Yrs.	Interest Earned Current FY	Days to Maturity
Treasury	US Treasury Note	4/2/2019	1,000,000.00	995,625.00	1,003,867.00		6/30/2021	2.33%	\$ 5,224.45	\$ 5,656.35	\$ 1,970.19	700
Toyota Motor Credit	Corporate Bond	05/20/19	1,100,000.00	1,102,596.00	1,110,091.40		1/11/2022	2.50%	\$ 4,051.67	\$ 3,102.53	\$ 2,345.82	895
FHLB	Gov. Agency Debenture	9/20/2017	1,785,000.00	1,776,432.00	1,775,093.25		6/12/2020	1.56%	\$ 42,406.15	\$ 49,147.92	\$ 2,351.21	317
FFCB	Gov. Agency Debenture	10/9/2018	1,700,000.00	1,697,331.00	1,707,463.00		3/25/2020	2.84%	\$ 21,400.17	\$ 34,889.76	\$ 4,096.90	238
Microsoft	Corporate Bond	8/8/2016	1,000,000.00	999,470.00	999,762.00		8/8/2019	1.12%	\$ 27,500.00	\$ 32,335.78	\$ 949.25	8
FFCB	Gov. Agency Debenture	9/20/2017	1,600,000.00	1,602,304.00	1,594,432.00		4/6/2020	1.54%	\$ 39,537.78	\$ 43,841.67	\$ 2,097.36	250
FNMA	Gov. Agency Debenture	9/21/2017	1,300,000.00	1,295,866.00	1,292,343.00		9/14/2020	1.61%	\$ 28,870.83	\$ 37,021.86	\$ 1,773.84	411
US Treasury	US Treasury Note	9/21/2017	1,000,000.00	997,109.38	993,945.00		5/31/2020	1.48%	\$ 23,254.78	\$ 26,275.86	\$ 1,258.97	305
FNMA	Gov. Agency Debenture	12/13/2017	2,000,000.00	2,017,900.00	2,006,860.00		10/16/2020	2.02%	\$ 63,058.33	\$ 62,898.65	\$ 3,457.20	443
FNMA	Gov. Agency Debenture	04/17/13	1,000,000.00	981,984.01	999,960.00		8/2/2019	2.17%	\$ 7,947.92	\$ 28,416.36	\$ 1,827.61	2
Oracle	Corporate Bond	7/8/2019	1,000,000.00	1,008,880.00	1,003,834.00	7,533.33	7/15/2023	2.18%	\$ (7,533.33)	\$ -	\$ 1,373.20	1445
US Treasury	US Treasury Note	7/2/2019	500,000.00	497,246.09	496,004.78	1,390.96	4/30/2023	1.77%	\$ (1,390.96)	\$ -	\$ 702.67	1369
American Express	Corporate Bond	9/15/2017	1,000,000.00	1,007,980.00	998,969.00		1/2/2020	1.87%	\$ 32,266.67	\$ 33,148.01	\$ 1,573.64	155
Freddie Mac	Gov. Agency Debenture	7/19/2019	2,000,000.00	2,072,358.00	2,060,838.00	4,583.33	6/19/2023	1.79%	\$ (4,583.33)	\$ -	\$ 1,201.44	1419
FFCB	Gov. Agency Debenture	7/22/2019	1,000,000.00	999,630.00	1,000,670.00	260.42	1/17/2023	1.89%	\$ (260.42)	\$ -	\$ 464.94	1266
Treasury	US Treasury Note	7/22/2019	1,200,000.00	1,197,988.40	1,196,578.20	6,483.61	9/30/2022	2.09%	\$ (6,483.61)	\$ -	\$ 533.34	1157
FreddieMac	Gov. Agency Debenture	12/20/2017	1,000,000.00	991,200.00	997,142.00		1/17/2020	1.93%	\$ 23,625.00	\$ 29,356.90	\$ 1,633.87	170
FreddieMac	Gov. Agency Debenture	12/18/2018	1,000,000.00	987,160.00	997,142.00		1/17/2020	2.71%	\$ 8,708.33	\$ 14,278.83	\$ 2,281.67	170
FNMA	Gov. Agency Debenture	7/25/2018	1,000,000.00	980,540.00	995,970.00		12/30/2019	2.54%	\$ 10,701.39	\$ 23,363.19	\$ 2,130.17	152
FHLB	Gov. Agency Debenture	7/25/2018	1,500,000.00	1,479,404.42	1,497,225.00		2/7/2020	2.59%	\$ 13,440.00	\$ 35,933.93	\$ 3,276.33	191
American Honda	Corporate Bond	4/11/2018	1,000,000.00	990,620.00	998,842.00		11/13/2019	2.61%	\$ 21,944.44	\$ 31,567.90	\$ 2,199.11	105
Disney	Corporate Bond	12/1/2017	1,000,000.00	998,190.00	998,046.00		3/4/2020	2.03%	\$ 24,534.50	\$ 32,037.85	\$ 1,724.26	217
FFCB	Gov. Agency Debenture	6/1/2018	1,000,000.00	1,001,454.00	1,000,540.00		10/21/2019	2.38%	\$ 24,111.11	\$ 25,640.48	\$ 2,017.40	82
FHLB	Gov. Agency Debenture	9/14/2018	1,000,000.00	998,101.00	1,004,796.00		5/28/2020	2.46%	\$ 18,010.42	\$ 21,666.58	\$ 2,324.10	302
US Bancorp	Corporate Bond	10/19/2018	1,000,000.00	986,540.00	998,101.00		12/24/2019	3.09%	\$ 15,277.78	\$ 21,850.15	\$ 2,666.75	146
Chevron	Corporate Bond	11/9/2017	1,350,000.00	1,366,834.50	1,351,864.35		5/24/2020	1.94%	\$ 53,242.31	\$ 42,820.12	\$ 2,219.77	298
FFCB	Gov. Agency Debenture	3/21/2019	1,400,000.00	1,403,262.00	1,412,250.00	991.67	3/11/2021	2.43%	\$ (991.67)	\$ 9,421.68	\$ 2,891.80	589
FFCB	Gov. Agency Debenture	10/28/2016	1,000,000.00	997,507.00	997,830.00		10/17/2019	1.14%	\$ 25,929.17	\$ 30,290.27	\$ 963.08	78
FNMA	Gov. Agency Debenture	11/15/2016	1,500,000.00	1,487,505.00	1,498,645.50		8/28/2019	1.31%	\$ 34,291.66	\$ 51,098.17	\$ 1,655.22	28
FHLB	Gov. Agency Debenture	7/22/2019	1,000,000.00	1,006,960.00	1,005,442.00	2,479.17	6/10/2022	1.87%	\$ (2,479.17)	\$ -	\$ 464.54	1045
FNMA	Gov. Agency Debenture	12/20/2017	1,550,000.00	1,545,642.95	1,547,854.80		11/26/2019	1.90%	\$ 38,879.17	\$ 44,831.00	\$ 2,495.08	118
Freddie Mac	Gov. Agency Debenture	9/29/2017	1,000,000.00	998,900.00	995,790.00		6/29/2020	1.67%	\$ 28,437.50	\$ 29,148.73	\$ 1,414.10	334
JP Morgan Chase	Corporate Bond	3/28/2017	1,400,000.00	1,393,196.00	1,398,553.80		8/23/2019	1.86%	\$ 45,879.17	\$ 58,534.57	\$ 2,202.15	23
FHLB	US Treasury Note	4/15/2019	1,000,000.00	988,250.00	998,333.00		11/29/2021	2.34%	\$ 2,291.67	\$ 4,835.29	\$ 1,972.29	852
FNMA	Gov. Agency Debenture	4/25/2017	1,000,000.00	1,013,390.00	999,540.00		2/7/2020	1.50%	\$ 35,666.67	\$ 33,146.46	\$ 1,290.88	191
JP Morgan Chase	Corporate Bond	3/4/2019	1,000,000.00	996,520.00	1,000,885.00	2,387.00	2/1/2020	2.71%	\$ (2,387.00)	\$ 9,647.87	\$ 2,534.61	185
Treasury	US Treasury Note	7/22/2019	1,000,000.00	1,006,175.23	1,004,570.00	2,841.53	11/30/2022	1.81%	\$ (2,841.53)	\$ -	\$ 447.86	1218
Treasury	US Treasury Note	7/31/2019	1,000,000.00	1,011,875.00	1,011,055.00	3,541.67	11/30/2023	1.84%	\$ (3,541.67)	\$ -	\$ -	1583
Pepsico	Corporate Bond	5/15/2017	1,250,000.00	1,249,600.00	1,245,992.50		3/30/2020	1.31%	\$ 45,286.46	\$ 49,460.00	\$ 1,975.85	243
Pfizer	Corporate Bond	6/30/2017	1,000,000.00	1,002,280.00	997,546.00		12/15/2019	1.60%	\$ 33,291.67	\$ 32,146.55	\$ 1,365.13	137
Treasury	US Treasury Note	6/30/2017	1,000,000.00	1,002,148.44	998,164.00		10/31/2019	1.41%	\$ 27,513.59	\$ 28,161.36	\$ 1,195.89	92
Treasury	US Treasury Note	6/30/2017	1,000,000.00	994,726.56	995,352.00		1/31/2020	1.46%	\$ 26,070.44	\$ 29,073.66	\$ 1,234.63	184
Toyota Motor Credit	Corporate Bond	10/6/2017	500,000.00	503,545.00	499,440.50		3/12/2020	1.85%	\$ 15,408.33	\$ 16,090.68	\$ 789.26	225
Berkshire Hathaway	Corporate Bond	1/22/2018	1,100,000.00	1,086,305.00	1,099,593.00		8/15/2019	2.11%	\$ 15,213.61	\$ 33,119.10	\$ 1,959.34	15
Freddie Mac	Gov. Agency Debenture	6/24/2019	1,550,000.00	1,573,188.00	1,567,360.00	4,456.25	2/8/2023	1.82%	\$ (4,456.25)	\$ 468.29	\$ 2,419.47	1288
Subtotal			\$ 52,285,000.00	\$ 52,291,719.98	\$ 52,354,576.08	\$ 36,948.94			\$ 846,324.20	\$ 1,094,724.37	\$ 79,722.20	
BNY MM				43,095.54	43,095.54			0.00%				1
LAIF	N/A			6,466,339.17	6,466,339.17			2.43%			13,276.91	1
				\$58,801,154.69	\$58,864,010.79				\$ 846,324.20	\$ 1,094,724.37	\$ 92,999.11	
Matured Assets												
Treasury	US Treasury Note	5/2/2017	500,000.00	503,339.84			7/1/2019	1.31%	\$ 17,574.24	\$ 14,227.74	\$ 18.03	0
Oracle	Corporate Bond	5/3/2018	1,000,000.00	1,028,370.00			7/8/2019	2.54%	\$ 59,027.78	\$ 30,101.79	\$ 569.30	
FHLB	Gov. Agency Debenture	8/27/2018	1,000,000.00	999,180.00			7/22/2019	2.46%	\$ 23,750.00	\$ 20,741.19	\$ 1,486.34	
Treasury	US Treasury Note	4/17/2018	1,200,000.00	1,190,343.75			7/22/2019	2.32%	\$ 30,524.59	\$ 34,452.97	\$ 1,726.57	
FHLB	Gov. Agency Debenture	5/25/2018	2,000,000.00	1,989,800.00			7/22/2019	2.40%	\$ 52,000.00	\$ 53,614.71	\$ 2,941.46	
FHLMC	Gov. Agency Debenture	3/14/2017	2,000,000.00	1,970,180.00			7/19/2019	1.52%	\$ 41,076.39	\$ 69,336.96	\$ 1,572.08	
Treasury	US Treasury Note	7/2/2018	1,000,000.00	989,218.75			7/31/2019	2.39%	\$ 14,851.52	\$ 23,607.64	\$ 2,016.08	
Total Investments "Matured"				<u>8,670,432.34</u>					<u>\$ 1,085,128.72</u>	<u>\$ 1,340,807.38</u>	<u>\$ 103,328.97</u>	
Maturity Profile												
	0-1 year			Amount								
	1-2 years			\$40,623,354.97								
	2-3 years			\$5,712,653.00								
	3-5 years			\$3,097,806.00								
				<u>\$ 9,367,340.72</u>								
				<u>\$58,801,154.69</u>								



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 12

DATE: November 20, 2019
TO: Council Policy Committee
FROM: Laurel Prevetti, Town Manager
SUBJECT: Accept Fiscal Year (FY) 2018/19 Status Report on Receipt and Use of
Development Impact Fees

RECOMMENDATION:

Accept Fiscal Year (FY) 2018/19 status report on receipt and use of Development Impact Fees.

BACKGROUND:

To ensure that mitigation fees associated with development are spent in a timely manner and on projects for which they were being collected, the State Legislature passed a bill known as AB 1600 (the Mitigation Fee Act). This bill applies to developer fees which were increased or imposed on or after January 1, 1989.

The Mitigation Fee Act (California Government Code, §66000 et seq.) requires local agencies that impose Development Impact Fees to present an annual, consolidated report showing the receipt and use of those fees. The Annual Status Report (Attachment 1) must be reviewed by Council within 180 days after the close of the fiscal year represented.

The Town collects three Development Impact Fees that meet the AB 1600 reporting requirement: the Traffic Impact Mitigation Fee, Below-Market Priced Housing Program In-Lieu Fee, and the Construction Activity Impact Fee. Separate balances exist for each of these fees either as individual accounts or in the case of Traffic Impact Mitigation Fees, separate funds. As required by AB 1600, as of June 30, 2019, all accounts or funds with unspent balances have been credited interest revenue at the Town's current interest rate earned on its total investment portfolio.

PREPARED BY: Stephen Conway
Finance Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

SUBJECT: Accept Fiscal Year (FY) 2018/19 Status Report on Receipt and Use of
Development Fees

DATE: November 26, 2019

DISCUSSION:

AB 1600 requires that a status report be prepared annually which must include the following:

- A brief description of the fee and the fund into which the fee was deposited;
- The amount of the fee;
- The associated fund's beginning and ending balances for the fiscal year;
- The total amount of fees collected and interest earned;
- Identification of each public improvement on which impact fees were expended and amount of expenditure on each improvement, including the total percentage of the cost of the public improvement that was funded with impact fees;
- Identification of approximate date by which construction of a public improvement will begin;
- Determination that sufficient funds have been collected to complete financing on an incomplete public improvement;
- Description of each inter-fund transfer or loan made from the account or fund, including the public improvement on which the loaned funds will be expended, and in the case of an inter-fund loan, the date on which the loan will be repaid and the rate of interest that the account or fund will receive on the loan; and
- Amount of any refunds made due to inability to expend impact fees once a determination is made that sufficient impact fees have been collected to finance a public improvement, the improvement remains incomplete, and the City has not determined an approximate date by which construction will begin.

This information is presented in the attached FY 2018/19 Annual Status Report on Receipt and Use of Development Impact Fees.

CONCLUSION:

Staff recommends Council accept the FY 2018/19 Annual Status Report on Receipt and Use of Development Impact Fees as required under the Mitigation Fee Act (AB 1600).

COORDINATION:

This report was coordinated with the Community Development and Park and Public Works Departments.

PAGE 3 OF 3

SUBJECT: Accept Fiscal Year (FY) 2018/19 Status Report on Receipt and Use of
Development Fees

DATE: November 26, 2019

FISCAL IMPACT:

There is no fiscal impact from this action.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachment:

1. FY 2018/19 Annual Status Report on Receipt and Use of Development Impact Fees.

TOWN OF LOS GATOS
ANNUAL STATUS REPORT ON RECEIPT AND USE OF DEVELOPMENT IMPACT FEES
JUNE 30, 2019

Traffic Impact Mitigation Fee:

The Traffic Impact Mitigation Fee assures that each new development or expansion of use pays its fair share of the transportation improvements needed to accommodate the cumulative traffic impacts. The fee, \$958 per new average daily trip generated, is paid in full to the Town Building Department prior to issuance of the building permit for new development or expansion of use. The collected fee is held in the Traffic Mitigation Fee Fund. The Traffic Mitigation Fund should be used solely to fund transportation improvement projects related to mitigating the impacts of new development. The funds cannot be used for routine repair or maintenance.

TRAFFIC IMPACT MITIGATION FEES FUND

Beginning Cash Balance (07/01/2018)	\$2,596,299
Source of Funds	
Fees Collected FY 18/19	43,704
Interest Earned FY 18/19	44,161
Total Source of Funds	\$2,684,163
Use of Funds	
Capital Outlay:	
Crosswalk Improvements	\$14,131
Crosswalk Lighting Upgrades	29,192
Cut-Thru Traffic Mitigation	2,910
Project Overhead Business Service Charge	10,000
Traffic Signal Modernization	18,394
Total Use of Funds	\$74,626
Expenses Occurred in FY 2017/18 , Paid in July of FY 2018/19	58,450
Expenses Occurred in FY 2018/19, Paid in July of FY 2019/20	4,219
Ending Cash Balance (07/01/2019) Pre-Final Audit	\$2,555,306
Designated Future Projects:	
Per FY 19/20 through 23/24 Capital Improvement Plan:	
Los Gatos Boulevard/Shannon Improvements (FY 2019/20)	\$20,000
Cut Through Traffic /Wood Road Roundabout (FY 2019/20)	228,136
Highway 17 Bicycle & Ped Bridge (FY 2019/20)	147,005
Bicycle & Pedestrian Improvements (FY 2019/20)	2,400
Traffic Signal Modernization (FY 2019/20- FY 2020/21)	978,289
Highway 17/9 Interchange and Capacity Improvements (FY 2019/20)	600,000
Total CIP and Operating Budget Commitments	1,975,830
Potential Project List (Estimates Only) per Unfunded List (Additional Unfunded Projects are Located in the Operating Budget)	
Blossom Hill Rd and University Ave Intersection Improvements (Future Project - Pending Funding)	\$1,080,000
Los Gatos- Almaden Road Improvements (Future Project - Pending Funding)	1,500,000
Los Gatos Blvd Widening , New Sidewalks, and Bike Lanes (Future Project - Pending Funding)	2,000,000
Total Potential Project List	\$4,580,000
Total Designated and Unfunded Projects	6,555,830
Current Funding Shortfall	(\$4,000,524)

TOWN OF LOS GATOS
ANNUAL STATUS REPORT ON RECEIPT AND USE OF DEVELOPMENT IMPACT FEES

JUNE 30, 2019
(Continued)

Construction Impact Activity Fee:

Construction Impact Activity Fee is assessed on construction projects based on the square foot size of the project at a rate of \$1.17 per square foot. These fees are intended to recover the damage caused to Town streets by construction traffic. The collected fee is held in the General Fund Appropriated Reserves.

CONSTRUCTION IMPACT ACTIVITY FEE

Beginning Cash Balance (07/01/2018)	\$0
Source of Funds	
Fees Collected FY 18/19	181,687
Interest Earned FY 18/19 (Funds expended upon receipt)	-
Total Source of Funds	\$181,687
Use of Funds	
Business Services Charge	
Capital Outlay:	
Street Repair and Resurfacing Project FY 18/19	\$181,687
Total Use of Funds	\$181,687
Ending Cash Balance (7/01/2019) Pre-Final Audit	\$0
Designated Future Projects	
Per FY 19/20 through FY 23/24 Capital Improvement Plan:	
Street Repair and Resurfacing Project	\$10,667,885
Total Designated Future Projects	\$10,667,885
Current Funding Shortfall	(\$10,667,885)

TOWN OF LOS GATOS
ANNUAL STATUS REPORT ON RECEIPT AND USE OF DEVELOPMENT IMPACT FEES
JUNE 30, 2019
(Continued)

Below-Market Priced (BMP) Housing Program In-Lieu Fee:

BMP In-Lieu Fees are collected from residential development projects with five (5) or more units when the construction of the BMP unit is impractical or there are unusual circumstances that make the construction of the unit inconsistent with Town policy. The required in-lieu fee is to be paid to the Town prior to issuance of the certificate of occupancy. The BMP In-Lieu Fee is equal to the amount of six (6) percent of the building permit valuation for the entire project. The collected fees are held in the General Fund BMP Housing liability account and are restricted to be used solely for BMP Housing Program activities.

BELOW-MARKET PRICED HOUSING PROGRAM IN-LIEU FEES

Beginning Cash Balance (07/01/2018)	\$3,704,586
Source of Funds	
Fees Collected FY 18/19	\$163,433
Interest Earned FY 18/19	66,505
Total Source of Funds	\$3,934,523
Use of Funds	
Staff Administration	23,000
Total Use of Funds	\$23,000
Ending Cash Balance (7/01/2019) Pre-Final Audit	\$3,911,523
Potential Future Projects	
Low and Moderate Income Housing <i>(Future Project - Pending Funding)</i>	\$3,000,000
Reacquisition of Distressed/Foreclosed Properties <i>(Future Project - Pending Funding)</i>	700,000
Hello House Program Services <i>(Future Project - Pending Funding -5 Year Total)</i>	600,000
Total Potential Future Projects	\$4,300,000
Current Funding Shortfall	(\$388,477)

Other Required Disclosures:

As required by law, no inter-fund (loans/transfers) were made during the reporting period and no refund were necessary as all fees collected have a current funding short fall status as presented in the Annual Status Report.



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 13

DATE: November 26, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Approve Revisions to the Town Agenda Format and Rules Policy

RECOMMENDATION:

Approve revisions to the Town Agenda Format and Rules Policy.

REMARKS:

Town Council Policy 2-01: Town Agenda Format and Rules was adopted to establish procedures which standardize the Town Council agenda process and insure orderly meetings (see Attachment 1). This Policy applies to all Town Boards, Committees, and Commissions.

The Mayor has requested that the Town Council consider proposed revisions to move Council and Manager Matters earlier in the agenda order (see Attachment 2). This modification would enable members of the public to learn of pertinent activities of the other Boards and Committees for which individual Council members serve.

If the Policy revision is approved, the agenda order would also apply to the agendas for all Town Boards, Committees, and Commissions.

FISCAL IMPACT:

There is no fiscal impact associated with this item.

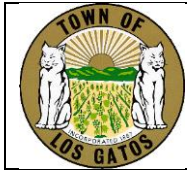
ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. Existing Town Agenda Format and Rules Policy
 2. Proposed Town Agenda Format and Rules Policy (redline)
-

Reviewed by: Town Attorney



TITLE: Town Agenda Format and Rules

POLICY NUMBER: 2-01

EFFECTIVE DATE: 12/15/1986

PAGES: 6

ENABLING ACTIONS: 1986-183; 1987-024; 1988-124; 1993-181; 1994-057; 1996-108; 2001-077; 2004-033; 2009-002

REVISED DATES: 12/15/1986; 3/2/1987; 6/6/1988; 6/15/1992; 12/6/1993; 4/4/1994; 8/5/1996; 7/2/2001; 4/5/2004; 1/20/2009; 3/16/2009; 12/6/2010; 8/5/2013; 3/3/2015; 9/20/2016; 6/20/2017; 8/1/2017; 12/4/18/; 8/20/19

APPROVED:

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- Appointments
- Presentations
- Closed Session Report
- Consent Calendar
- Verbal Communications
- Public Hearings
- Other Business
- Council Matters
- Manager Matters
- Adjournment (No later than midnight without vote)

TITLE: Town Agenda Format and Rules	PAGE: 2 of 6	POLICY NUMBER: 2-01
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TITLE: Town Agenda Format and Rules	PAGE: 4 of 6	POLICY NUMBER: 2-01
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TITLE: Town Agenda Format and Rules	PAGE: 6 of 6	POLICY NUMBER: 2-01
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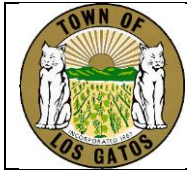
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APPROVED AS TO FORM:

Robert Schultz, Town Attorney



TOWN OF
LOS GATOS
CALIFORNIA

COUNCIL POLICY MANUAL

Small Town Service

Community Stewardship

Future Focus

TITLE: Town Agenda Format and Rules

POLICY NUMBER: 2-01

EFFECTIVE DATE: 12/15/1986

PAGES: 6

ENABLING ACTIONS: 1986-183; 1987-024; 1988-124; 1993-181; 1994-057; 1996-108; 2001-077; 2004-033; 2009-002

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Robert Schultz, Town Attorney



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 14

DATE: November 18, 2019
TO: Mayor and Town Council
FROM: Lisa Velasco, Human Resources Director
SUBJECT: Approve an Amendment to the Employment Agreement Between the Town of Los Gatos and the Town Manager and Authorize Salary and Benefits Budget Adjustments in the Amount of \$15,267 from Estimates Available FY 2019/20 Operating Revenues

RECOMMENDATION:

Approve an amendment to the Employment Agreement (Attachment 1) between the Town of Los Gatos and the Town Manager and authorize salary and benefits budget adjustments in the amount of \$15,267 from estimates available FY 2019/20 operating revenues.

BACKGROUND:

As an appointee of the Town Council, the Town Manager is employed under an Employment Agreement specifying the terms and conditions of employment. The terms and conditions of employment include items such as base pay, basic and optional benefits, covered expenses, parameters for an annual performance review, and conditions for termination/severability. Senate Bill 1436 requires an oral summary at a Council meeting when a recommendation is made related to modifying the salary, salary schedule, or fringe benefits of any person employed under an Employment Agreement with a local agency.

DISCUSSION:

As outlined in the Employment Agreement, the Town Manager's performance and compensation is reviewed annually in conjunction with a performance evaluation. The review of the Employment Agreement is conducted to ensure legal compliance and to provide for any adjustments in the terms and conditions of employment. In accordance with the agreement terms for Town Manager Laurel Prevetti, the Town Council completed the evaluation for her fourth year in the position, from September 2018 through September 2019.

PREPARED BY: Lisa Velasco
Human Resources Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

CONCLUSION:

Based upon the satisfactory completion of the performance review in Closed Session, it is recommended that the Town Manager's annual base salary increase to \$250,000 effective in the pay period that includes the anniversary date of September 2, 2019. In addition, it is recommended that the Town Manager receive a one-time lump sum performance bonus of \$5,000.

FISCAL IMPACT:

Funding to support the Town Manager's salary and benefits is authorized in the annual budget each fiscal year along with all other Town employee compensation and benefits.

The anticipated fiscal impact for the remainder of 2019/20 is \$15,267. The requested budget adjustment in the amount of \$15,267 from estimated available FY 2019/20 operating revenues will provide funding for the additional salary and benefit cost for FY 2019/20. Funding to support the FY 2020/21 ongoing cost each year will be incorporated into the proposed future year budgets for Council approval.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. Amendment to the Employment Agreement – Town Manager
2. Salary Schedule for Town Council and Management

FOURTH AMENDMENT TO THE TOWN MANAGER EMPLOYMENT AGREEMENT

This Amendment to Town Agreement AGR 15-172 is entered into this 3rd day of December, 2019, by and between the Town of Los Gatos, a municipal corporation ("TOWN"), and Laurel Prevetti ("EMPLOYEE").

RECITALS

WHEREAS, Town and Laurel Prevetti executed an Agreement effective September 2, 2015 to provide Town Manager services to the Town;

WHEREAS, a First Amendment to the Agreement was executed on April 4, 2017 to amend the employment agreement to award a 4.43% wage increase to the annual base salary, effective on April 4, 2017 and a lump sum performance bonus of \$3,000; and

WHEREAS, a Second Amendment to the Agreement was executed on January 16, 2018 to amend the employment agreement to award a \$8,000 wage increase to the annual base salary, effective on January 16, 2018; and

WHEREAS, on the basis of the annual evaluation, the Town Council desires to amend the employment agreement to award a \$16,250 wage increase to the annual base salary, effective on September 2, 2018 and a lump sum performance bonus of \$3,300; and

WHEREAS, on the basis of the annual evaluation, the Town Council desires to amend the employment agreement to award a \$13,750 wage increase to the annual base salary, effective on September 2, 2019 and a lump sum performance bonus of \$5,000; and

IT IS THEREFORE AGREED by the parties as follows:

Section 2 of the Agreement is amended to read as follows:

A. Salary.

The Town Manager is awarded a \$13,750 wage increase for a total annual base salary of \$250,000, effective September 2, 2019.

- (1) On the basis of an annual performance evaluation covering the third year of employment from September 2018 to September 2019, the Town Manager is awarded a one-time lump sum payment of \$5,000.

ATTACHMENT 1

IN WITNESS WHEREOF, the parties have executed this Amendment to the Town Manager Agreement on the date written above.

TOWN OF LOS GATOS

Marcia Jensen, Mayor

Laurel Prevetti, Town Manager

ATTEST:

Shelley Neis, Town Clerk

APPROVED AS TO FORM:

Robert W. Schultz, Town Attorney

Town of Los Gatos
Salary Schedule for Town Council and Management
Effective July 1, 2019 (unless otherwise noted)

Class Code	Classification Title	Annual Salary Minimum	Annual Salary Maximum
2615	Assistant Parks & Public Works Director	\$ 137,631	\$ 185,801
2110	Assistant Town Manager	\$ 163,599	\$ 220,859
2420	Chief Building Official	\$ 124,687	\$ 168,327
2400	Community Development Director	\$ 159,609	\$ 215,472
2180	Community Outreach Coordinator	\$ 86,092	\$ 116,223
2010	Deputy Attorney	\$ 107,517	\$ 145,148
2130	Economic Vitality Manager	\$ 118,678	\$ 160,215
2310	Finance and Budget Manager	\$ 124,687	\$ 168,327
2300	Finance Director	\$ 155,716	\$ 210,217
2200	Human Resources Director	\$ 144,598	\$ 195,207
2900	Information Technology Manager	\$ 124,687	\$ 168,327
2800	Library Director	\$ 144,598	\$ 195,207
2820	Library Division Manager	\$ 95,029	\$ 128,289
2600	Parks & Public Works Director	\$ 159,605	\$ 215,472
2645	Parks & Public Works Operations Manager	\$ 107,517	\$ 145,148
2630	Parks & Public Works Superintendent	\$ 124,687	\$ 168,327
2412	Planning Manager	\$ 124,687	\$ 168,327
2510	Police Captain	\$ 148,213	\$ 200,087
2500	Police Chief	\$ 167,689	\$ 226,381
2545	Police Records & Communication Manager	\$ 115,783	\$ 156,308
2140	Senior Administrative Analyst	\$ 92,711	\$ 125,160
2650	Senior Civil Engineer	\$ 118,678	\$ 160,215
2000	Town Attorney - Council Appointed <i>(Effective 12/12/19) *</i>		\$ 235,000
2412	Town Clerk	\$ 124,687	\$ 168,327
2100	Town Manager - Council Appointed <i>(Effective 9/2/19)*</i>		\$ 250,000
2655	Transportation & Mobility Manager	\$ 115,783	\$ 156,308
1000	Town Council (Effective 1/1/19)	\$570 Stipend per month, for a total compensation of \$6,840 per year	

Management salaries reflect a spread of 35% to the top of the range.

**Pending Approval December 3, 2019*



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

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ADDENDUM

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TO: Mayor and Town Council
FROM: Lisa Velasco, Human Resources Director
SUBJECT: Approve an Amendment to the Employment Agreement Between the Town of Los Gatos and the Town Manager and Authorize Salary and Benefits Budget Adjustments in the Amount of \$15,267 from Estimates Available FY 2019/20 Operating Revenues

DISCUSSION:

Staff received public comment (Attachment 1) after the distribution of the staff report, and before 11:00 a.m. on Tuesday, December 3, 2019.

Attachments previously received with the Staff Report:

1. Amendment to the Employment Agreement – Town Manager
2. Salary Schedule for Town Council and Management

Attachment received with this Addendum:

3. Public Comment received after distribution of the staff report and before 11 a.m. on December 3, 2019

PREPARED BY: Lisa Velasco
Human Resources Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

A comparison of two similar towns, Los Gatos to Los Altos, as you increase salaries that will, in turn, increase pensions and may set a higher bar for employees when they bargain for wage increases - that will also increase pension costs.

City	Residents	Employees	Total Wages	Total Retirement & Health Contrib	Wages / Employees	Benefits/ Employee	Total Pay Package/Emp.
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Los Altos vs Los Gatos	202	(1)	(1,234,410)	(585,984)	(5,004)	(2,448)	(7,452)

Los Altos has 202 fewer residents than Los Gatos

Has one less employee

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Those two total more than \$1.8 million that Los Altos pays less than Los Gatos

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Los Gatos Net Pension liabilities on 6/30/18 were \$53,204,508

Top 10 Paid Employee information

	LG Minimum	LG Maximum	LA Minimum	LA Maximum
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The averages came from Los Altos and Los Gatos public internet data

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Los Altos has no Library Director

It does not appear that Los Altos has an attorney,

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Since 2016, the Town Manager's salary has increased 23%

The Assistant Town Managers salary has increased 19.7%

The Police Chief's Salary has increased 22.7%

The Town Attorney's salary has increased 13.3%

Los Gatos Town Manager Projected Salary: \$250,000

Los Altos City Manager Salary: \$228,360

Jak VanNada -

Los Gatos Community Alliance

Facts Matter; Transparency Matters; Honesty Matters

www.lqca.town



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 15

DATE: November 18, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Approve an Amendment to the Employment Agreement Between the Town of Los Gatos and the Town Attorney and Authorize Salary and Benefits Budget Adjustments in the Amount of \$7,402 from Estimates Available FY 2019/20 Operating Revenues

RECOMMENDATION:

Approve an amendment to the Employment Agreement (Attachment 1) between the Town of Los Gatos and the Town Attorney and authorize salary and benefits budget adjustments in the amount of \$7,402 from estimates available FY 2019/20 operating revenues.

BACKGROUND:

As an appointee of the Town Council, the Town Attorney is employed under an Employment Agreement specifying the terms and conditions of employment. The terms and conditions of employment include items such as base pay, basic and optional benefits, covered expenses, parameters for an annual performance review, and conditions for termination/severability. Senate Bill 1436 requires an oral summary at a Council meeting when a recommendation is made related to modifying the salary, salary schedule, or fringe benefits of any person employed under an Employment Agreement with a local agency.

DISCUSSION:

As outlined in the Employment Agreement, the Town Attorney's performance and compensation is reviewed annually in conjunction with a performance evaluation. The review of the Employment Agreement is conducted to ensure legal compliance and to provide for any adjustments in the terms and conditions of employment.

PREPARED BY: Lisa Velasco
Human Resources Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

DISCUSSION (continued):

In accordance with the agreement terms for Town Attorney Robert Schultz, the Town Council completed the evaluation for his sixth year in the position, from December 2018 through December 2019.

CONCLUSION:

Based upon the satisfactory completion of the performance review in Closed Session, it is recommended that the Town Attorney's annual base salary increase to \$235,000 effective in the pay period that includes the anniversary date of December 12, 2019. In addition, it is recommended that the Town Attorney receive a one-time lump sum performance bonus of \$5,000.

FISCAL IMPACT:

Funding to support the Town Attorney's salary and benefits is authorized in the annual budget each fiscal year along with all other Town employee compensation and benefits.

The anticipated fiscal impact for the remainder of the 2019/20 is \$7,402. The requested budget adjustment in the amount of \$7,402 from estimated FY 2019/20 operating revenues will provide funding for the additional salary and benefit cost for FY 2019/20. Funding to support the FY 2020/21 ongoing cost each year will be incorporated into the proposed future year budgets for Council approval.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. Amendment to the Employment Agreement – Town Attorney
2. Salary Schedule Town Council and Management

SIXTH AMENDMENT TO THE TOWN ATTORNEY EMPLOYMENT AGREEMENT

This Amendment to Town Agreement AGR13.180 is entered into this 3rd day of December, 2019, by and between the Town of Los Gatos, a municipal corporation ("TOWN") and Robert Schultz ("EMPLOYEE").

RECITALS:

WHEREAS, Town and Robert Schultz executed an Agreement effective December 12, 2013 to provide Town Attorney services to the Town;

WHEREAS, a First Amendment to the Agreement was executed on December 17, 2015 to amend the employment agreement to award a 2% wage increase to the annual base salary, effective with the Town Attorney's anniversary date of December 12, 2014 and a lump sum performance bonus of \$2,000; and

WHEREAS, a Second Amendment to the Agreement was executed on January 19, 2016 to amend the employment agreement to award a 5% wage increase to the annual base salary, effective with the Town Attorney's anniversary date of December 12, 2015 and a lump sum performance bonus of \$5,000; and

WHEREAS, a Third Amendment to the Agreement was executed on February 7, 2017 to amend the employment agreement to award a 2.5% wage increase to the annual base salary, effective with the Town Attorney's anniversary date of December 12, 2016, a lump sum performance bonus of \$2,500, and transfer the \$350 per month (\$4,200 annually) car allowance to annual base salary; and

WHEREAS, a Fourth Amendment to the Agreement was executed on January 16, 2018 to amend the employment agreement to award a \$7,607 wage increase to the annual base salary, effective January 16, 2018, and a one-time lump sum performance bonus of \$3,000; and

WHEREAS, on the basis of the annual evaluation, the Town Council desires to amend the employment agreement to award a \$10,000 wage increase to the annual base salary, effective with the Town Attorney's anniversary date of December 12, 2018, and a one-time lump sum performance bonus of \$3,225; and

WHEREAS, on the basis of the annual evaluation, the Town Council desires to amend the employment agreement to award a \$10,000 wage increase to the annual base salary, effective with the Town Attorney's anniversary date of December 12, 2019, and a one-time lump sum performance bonus of \$5,000.

IT IS THEREFORE AGREED by the parties as follows: Section 4 of the

Agreement is amended to read as follows:

4. Compensation

(a) Base Salary.

- (1) The Town Attorney is awarded a \$10,000 wage increase for a total annual base salary of \$235,000, effective December 12, 2019.

(b) Performance Review.

- (1) On the basis of an annual performance evaluation covering the sixth year of employment from December 2018 to December 2019, the Town Attorney is awarded a one-time lump sum performance bonus of \$5,000.

IN WITNESS WHEREOF, the parties have executed this Amendment to the Town Attorney Agreement on the date written above.

TOWN OF LOS GATOS

Marcia Jensen, Mayor

Robert Schultz, Town Attorney

ATTEST:

Shelley Neis, Town Clerk

Town of Los Gatos
Salary Schedule for Town Council and Management
Effective July 1, 2019 (unless otherwise noted)

Class Code	Classification Title	Annual Salary Minimum	Annual Salary Maximum
2615	Assistant Parks & Public Works Director	\$ 137,631	\$ 185,801
2110	Assistant Town Manager	\$ 163,599	\$ 220,859
2420	Chief Building Official	\$ 124,687	\$ 168,327
2400	Community Development Director	\$ 159,609	\$ 215,472
2180	Community Outreach Coordinator	\$ 86,092	\$ 116,223
2010	Deputy Attorney	\$ 107,517	\$ 145,148
2130	Economic Vitality Manager	\$ 118,678	\$ 160,215
2310	Finance and Budget Manager	\$ 124,687	\$ 168,327
2300	Finance Director	\$ 155,716	\$ 210,217
2200	Human Resources Director	\$ 144,598	\$ 195,207
2900	Information Technology Manager	\$ 124,687	\$ 168,327
2800	Library Director	\$ 144,598	\$ 195,207
2820	Library Division Manager	\$ 95,029	\$ 128,289
2600	Parks & Public Works Director	\$ 159,605	\$ 215,472
2645	Parks & Public Works Operations Manager	\$ 107,517	\$ 145,148
2630	Parks & Public Works Superintendent	\$ 124,687	\$ 168,327
2412	Planning Manager	\$ 124,687	\$ 168,327
2510	Police Captain	\$ 148,213	\$ 200,087
2500	Police Chief	\$ 167,689	\$ 226,381
2545	Police Records & Communication Manager	\$ 115,783	\$ 156,308
2140	Senior Administrative Analyst	\$ 92,711	\$ 125,160
2650	Senior Civil Engineer	\$ 118,678	\$ 160,215
2000	Town Attorney - Council Appointed <i>(Effective 12/12/19) *</i>		\$ 235,000
2412	Town Clerk	\$ 124,687	\$ 168,327
2100	Town Manager - Council Appointed <i>(Effective 9/2/19)*</i>		\$ 250,000
2655	Transportation & Mobility Manager	\$ 115,783	\$ 156,308
1000	Town Council (Effective 1/1/19)	\$570 Stipend per month, for a total compensation of \$6,840 per year	

Management salaries reflect a spread of 35% to the top of the range.

**Pending Approval December 3, 2019*



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 15

ADDENDUM

DATE: November 18, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
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PREPARED BY: Lisa Velasco
Human Resources Director

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

A comparison of two similar towns, Los Gatos to Los Altos, as you increase salaries that will, in turn, increase pensions and may set a higher bar for employees when they bargain for wage increases - that will also increase pension costs.

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**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 16

DATE: November 21, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: First Reading and Introduction of an Ordinance of the Town of Los Gatos Amending Chapter 29 (Zoning Regulations) of the Town Code Regarding the Land Use Appeal Process.
Town Code Amendment Application A-19-008. Project Location: Town Wide.
Applicant: Town of Los Gatos.

RECOMMENDATION:

Staff recommends that Town Council accept public comment and then move for the introduction and first reading of an Ordinance (Attachment 11 or Attachment 12), by title only, amending Chapter 29 (Zoning Regulations) of the Town Code regarding the land use appeal process.

BACKGROUND:

In 2018, the Town Council Policy Committee requested that amendments to the Town Code to streamline the land use appeal process be placed on a Policy Committee agenda for discussion. On December 20, 2018, the Committee forwarded a recommendation to the Planning Commission to approve the proposed amendments to the land use appeal process.

On March 27, 2019, the Planning Commission recommended approval of the Council Policy Committee's proposed amendments to include a definition of the term interested person in Section 29.10.020, and to state that an interested person may appeal the decision on a Minor Residential Development application in Section 29.29.480. The Commission further recommended retaining the requirement that the Town Council make one of three findings to modify or reverse the decision of the Commission on any appeal in Section 29.20.300; however, they proposed modifying the second finding to clarify that the Town Council shall specify that

PREPARED BY: Sally Zarnowitz
Planning Manager

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, Community Development Director, and Finance Director

SUBJECT: Consider Amendments to the Town Code Regarding the Land Use Appeal Process.

DATE: November 21, 2019

BACKGROUND (continued):

new information should be relative to the same project considered by the Planning Commission, with no design changes.

On May 7, 2019, the Town Council considered the Planning Commission recommendations and introduced an ordinance, effecting amendments to the Town Code, excluding the proposed changes to Section 29.20.300, and referred those changes back to the Policy Committee for further discussion. Attachment 1 contains the minutes for the May 7, 2019 Town Council meeting.

DISCUSSION:

A. Council Policy Committee Meeting

On June 25, 2019, the Policy Committee began discussion of the Planning Commission's recommended changes to Section 29.20.300. The Policy Committee recommended amendments to Section 29.20.275 to require the appellant's notice of appeal to include the error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record, and to clarify that an appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal, as follows, in ~~strike through~~ and underlined font:

Sec. 29.20.275. - Appeals from decisions by the Planning Commission.

Any interested person as defined in section 29.10.020 may appeal to the Council any decision of the Planning Commission. The appellant must file a written notice of appeal in duplicate with the Clerk not more than ten (10) days after the decision is rendered. ~~The notice shall state clearly the reasons why the appeal ought to be granted. The~~ notice of appeal shall state specifically wherein it is claimed there was an error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record. The Council shall only hear the appeal if the notice is filed and all required fees are paid within the ten-day appeal period. ~~Once a notice of appeal has been filed, it may be withdrawn by the appellant prior to the distribution of public hearing notices, but not thereafter.~~ An appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal.

With the recommended changes to Section 29.20.275, the Policy Committee recommended removing Section 29.20.300, as follows:

~~Sec. 29.20.300. Decision.~~

~~(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and~~

DISCUSSION (continued):

~~substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.~~

~~(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:~~

~~(1) Where there was error or abuse of discretion on the part of the Planning Commission; or~~

~~(2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission.; or~~

~~(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.~~

~~c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection (b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d) The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.~~

Attachment 2 contains the staff report and Attachment 3 contains the minutes for the June 25, 2019 Policy Committee meeting.

The Policy Committee continued the discussion of the land use appeal process at their July 23, 2019 and August 27, 2019 meetings. Attachment 4 contains the staff report and Attachment 5 contains the minutes for the July 23, 2019 Policy Committee meeting. Attachment 6 contains the staff report and Attachment 7 contains the minutes for the August 27, 2019 Policy Committee meeting.

On September 24, 2019, the Policy Committee recommended two options for potential amendments to Section 29.20.295 for consideration by the Town Council. Attachment 8 contains the staff report and Attachment 9 contains the minutes for the September 24, 2019 Policy Committee meeting.

In Option 1 (Attachment 11), the Town Council may consider the record, including additional information, in its determination as to whether there was an error or abuse of discretion by the Planning Commission, or their decision is not supported by substantial evidence in the record, as follows:

DISCUSSION (continued):

Sec. 29.20.295. - Council hearing and decision.

~~When hearing~~In the appeal, the Council shall consider and based on the record, and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination.~~the appellant bears the burden to prove that there was an error or abuse of discretion by the Planning Commission as required by of proof before the Council~~ins proving that one or more of the reasons specified in Section 29.20.275 300. If neither is proved, the appeal shall be denied. exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.If the appellant meets the burden, the Council shall grant the appeal and may modify, in whole or in part, the determination from which the appeal was taken or, in its discretion, return the matter to the Planning Commission.

In Option 2 (Attachment 12), the Town Council may also consider the record in its determination. However, if the basis for granting the appeal is information not presented to or considered by the Planning Commission, the matter shall be returned to the Planning Commission for review, as follows with additional language in double underlined font:

Sec. 29.20.295. - Council hearing and decision.

~~When hearing~~In the appeal, the Council shall consider and based on the record, and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination.~~the appellant bears the burden to prove that there was an error or abuse of discretion by the Planning Commission as required by of proof before the Council~~ins proving that one or more of the reasons specified in Section 29.20.275 300. If neither is proved, the appeal shall be denied. exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.If the appellant meets the burden, the Council shall grant the appeal and may modify, in whole or in part, the determination from which the appeal was taken or, in its discretion, return the matter to the Planning Commission.If the basis for granting the appeal is, in whole or in part, information not presented to or considered by the Planning Commission, the matter shall be returned to the Planning Commission for review.

SUBJECT: Consider Amendments to the Town Code Regarding the Land Use Appeal Process.

DATE: November 21, 2019

DISCUSSION (continued):

B. Public Outreach

Public input has been requested through the following media and social media resources:

- An eighth-page public notice in the newspaper;
- A poster at the Planning counter at Town Hall;
- The Town's website home page, What's New;
- The Town's Facebook page;
- The Town's Twitter account;
- The Town's Instagram account; and
- The Town's Nextdoor page.

In addition, interested architects and the following organizations have been contacted regarding the amendments:

- American Institute of Architects (AIA) Silicon Valley;
- Santa Clara County Association of Realtors (SCCAR); and
- Silicon Valley Association of Realtors (SILVAR).

CONCLUSION:

Staff recommends that the Town Council:

1. Make the finding that there is no possibility that this project will have a significant impact on the environment; therefore, the project is not subject to the California Environmental Quality Act [Section 15061 (b) (3)] (Attachment 10);
2. Make the required finding that the amendments to Chapter 29 of the Town Code are consistent with the General Plan (Attachment 10); and
3. Introduce an ordinance of the Town of Los Gatos effecting Option 1 or Option 2 (Attachment 11 or Attachment 12) for amendments to Chapter 29 of the Town Code A-19-008, by title only, with any specific changes identified and agreed upon by the majority of the Town Council.

SUBJECT: Consider Amendments to the Town Code Regarding the Land Use Appeal Process.

DATE: November 21, 2019

ALTERNATIVES:

Alternatively, the Council may:

1. Continue this item to a date certain with specific direction to staff;
2. Refer the item back to the Council Policy Committee with specific direction; or
3. Take no action, leaving the Town Code unchanged.

COORDINATION:

The evaluation of the application was coordinated with the Town Attorney.

ENVIRONMENTAL ASSESSMENT:

The project is Categorically Exempt pursuant to the adopted Guidelines for the Implementation of the California Environmental Quality Act, Section 15061(b)(3), in that it can be seen with certainty that there is no possibility that the amendments will have a significant effect on the environment.

PUBLIC COMMENTS:

No written comments have been received.

Attachments:

1. May 7, 2019 Town Council Minutes
2. June 25, 2019 Council Policy Committee Staff Report
3. June 25, 2019 Council Policy Committee Minutes
4. July 23, 2019 Council Policy Committee Staff Report
5. July 23, 2019 Council Policy Committee Minutes
6. August 27, 2019 Council Policy Committee Staff Report
7. August 27, 2019 Council Policy Committee Minutes
8. September 24, 2019 Council Policy Committee Staff Report
9. September 24, 2019 Council Policy Committee Minutes
10. Required Findings
11. Draft Ordinance (Option 1)
12. Draft Ordinance (Option 2)



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 05/21/2019

ITEM NO: 1

**DRAFT
MINUTES OF THE TOWN COUNCIL MEETING
MAY 7, 2018**

The Town Council of the Town of Los Gatos conducted a Regular Meeting on Tuesday, May 7, 2019, at 7:00 p.m.

MEETING CALLED TO ORDER AT 7:00 P.M.

ROLL CALL

Present: Mayor Steven Leonardis, Vice Mayor Marcia Jensen, Council Member Rob Rennie, Council Member Marico Sayoc, Council Member Barbara Spector.

Absent: None

PLEDGE OF ALLEGIANCE

Sachin Pancholy led the Pledge of Allegiance. The audience was invited to participate.

PRESENTATIONS

Mayor Leonardis presented a Small Business, Big Applause commendation to Purple Onion. Steve Angelo accepted the commendation and thanked the Town for its support.

Mayor Leonardis presented proclamations to the Parks and Public Works Department in recognition of National Public Works Week, the Clerk's Department in recognition of Municipal Clerks Week, and the Building Division of the Community Development Department in recognition of Building Safety Month.

CONSENT ITEMS (TO BE ACTED UPON BY A SINGLE MOTION)

1. Approve Council minutes of April 16, 2019.
2. Approve an extension of the Downtown Parklet Pilot Program to include all side streets in the C-2 zone (Downtown), where on-street parking currently exists.
3. Adopt a Resolution Authorizing the Provision of a Supplemental Military Leave Benefit for Town Employees Ordered to Active Military Leave Duty. **RESOLUTION 2019-018**
4. Adopt a resolution declaring hazardous vegetation (brush) a public nuisance, order abatement, and set June 18, 2019 as a public hearing to hear and consider all objections to the proposed removal of brush. **RESOLUTION 2019-019**
5. Adopt a resolution authorizing the Town Manager to file an application for 2019/20 Metropolitan Transportation Commission (MTC) Transportation Development Act (TDA) Article 3 funds in the amount of \$34,456 to partially fund the Conceptual Engineering Phase for the Nino Avenue or Blossom Hill Road Bicycle and Pedestrian Bridge over Highway 17. **RESOLUTION 2019-020**

Consent Items – continued

6. Landscape & Lighting Assessment Districts No. 1 and 2
 - a. Adopt resolution approving the Engineer's Report for Fiscal Year 2019/20. **RESOLUTION 2019-021**
 - b. Adopt Resolution of Intention to Order the Levy and Collection of Assessments for Landscape and Lighting No. 1-Blackwell Drive Benefit Zone. **RESOLUTION 2019-022**
 - c. Adopt Resolution of Intention to Order the Levy and Collection of Assessments for Landscape and Lighting District No. 1-Kennedy Meadows Benefit Zone. **RESOLUTION 2019-023**
 - d. Adopt Resolution of Intention to Order the Levy and Collection of Assessments for Landscape and Lighting District No. 1-Santa Rosa Heights Benefit Zone. **RESOLUTION 2019-024**
 - e. Adopt Resolution of Intention to Order the Levy and Collection of Assessments for Landscape and Lighting District No. 1-Vasona Heights Benefit Zone. **RESOLUTION 2019-025**
 - f. Adopt Resolution of Intention to Order the Levy and Collection of Assessments for Landscape and Lighting District No. 1-Hillbrook Drive Benefit Zone. **RESOLUTION 2019-026**
 - g. Adopt Resolution of Intention to Order the Levy and Collection of Assessments for Landscape and Lighting District No. 2-Gemini Court Benefit Zone. **RESOLUTION 2019-027**
7. Authorize the Town Manager to purchase a replacement ten-wheel dump truck from Coast Counties Truck and Equipment Company in an amount not to exceed \$175,068.
8. Continued Collection of Storm Sewer Property-Related Fee
 - a. Adopt a resolution authorizing the West Valley Clean Water Authority (JPA) to take over the collection of the storm sewer property-related fee that has been collected by the West Valley Sanitation District on the Santa Clara County annual property tax roll since 1992. **RESOLUTION 2019-028**
 - b. Direct the Town Manager, or his or her designee, to work with the JPA to transfer to the JPA the collection duties for the property-related fee.
9. Authorize the Town Manager to Execute a Certificate of Acceptance and Notice of Completion Accepting the Completed Work of Taylor Morrison of California, LLC, for Improvements in the Public Right of Way for 375 Knowles Drive and Authorize Recording by the Town Clerk.

MOTION: Motion by Vice Mayor Jensen to approve the Consent Items. **Seconded by Council Member Spector.**

VOTE: Motion passed unanimously.

PAGE 3 OF 6

SUBJECT: DRAFT MINUTES OF THE TOWN COUNCIL MEETING OF MAY 7, 2019

DATE: MAY 8, 2019

VERBAL COMMUNICATIONS

Vicki Kuizinga

- Inquired about the status of the Council considering the Mills Act.

Jeffrey Siegel

- Commented on the history of the Mills Act.

Maria Ristow

- Announced that May is Bike Month, May 8 is Bike to School Day sponsored by Safe Routes to School, and May 9 is Bike to Work Day.

OTHER BUSINESS

10. Provide direction on potential amendments to the Town's newsrack regulations.

Joel Paulson, Community Development Director, presented the staff report.

Opened and closed Public Comment.

Council discussed the matter.

MOTION: **Motion by Council Member Sayoc** that no changes be made to the ordinance unless/until an issue is brought forward by the community. **Seconded by Council Member Rennie.**

VOTE: **Motion passed 4/1. Mayor Leonardis voting no.**

PUBLIC HEARINGS

11. Introduction of an Ordinance of the Town of Los Gatos amending Chapter 28, Article IV, of the Los Gatos Town Code Entitled Horse Drawn Vehicles.

Robert Schultz, Town Attorney, presented the staff report.

Opened and closed Public Comment.

Council discussed the matter.

MOTION: **Motion by Vice Mayor Jensen** to introduce the ordinance by title only, amending Chapter 28, Article IV, of the Los Gatos Town Code Entitled Horse Drawn Vehicles. **Seconded by Council Member Spector.**

VOTE: **Motion passed unanimously.**

Public Hearings Item #11 – continued

The Town Clerk read the title of the ordinance.

12. Town Code Amendment Application A-19-002. Project Location: Town Wide.

Applicant: Town of Los Gatos Consider amendments to Chapter 29 (Zoning Regulations) of the Town Code regarding the land use appeal process.

Sally Zarnowitz, Planning Manager, presented the staff report.

Opened and closed Public Comment.

Council discussed the matter.

MOTION: **Motion by Vice Mayor Jensen** to introduce an ordinance (Attachment 1, Exhibit 6), by title only, effecting amendments to Chapter 29 (Zoning Regulations) of the Town Code regarding the land use appeal process with the modification to Sec. 29.10.020(1) to change 500 feet to 1000 feet. **Seconded by Council Member Rennie.**

VOTE: **Motion failed 2/3. Mayor Leonardis and Council Members Sayoc and Spector voting no.**

MOTION: **Motion by Vice Mayor Jensen** to introduce an ordinance (Attachment 1, Exhibit 6), by title only, effecting amendments to Chapter 29 (Zoning Regulations) of the Town Code regarding the land use appeal process with the modification to Sec. 29.10.020(1) to change 500 feet to 1,000 feet, exclude the proposed changes to Sec. 29.20.300, and refer those changes back to the Council Policy Committee for further discussion. **Seconded by Council Member Rennie.**

VOTE: **Motion passed unanimously.**

The Town Clerk read the title of the ordinance.

OTHER BUSINESS

13. PPW Job Number 813-0234 – One-Way Downtown Street Pilot Project (North Santa Cruz Avenue Between Bachman and Elm Street).

- a. Approve the plans and specifications for the One-Way Downtown Street Pilot Project (North Santa Cruz Avenue between Bachman Avenue and Elm Street); and
- b. Authorize the Town Manager to award and execute a Construction Agreement in an amount not to exceed \$175,088 including contingencies; and
- c. Authorize staff to execute potential change orders in an amount not to exceed fifteen percent of the contract award; and
- d. Authorize a budget adjustment to the project of \$108,686 from available General Fund Appropriated Reserves (GFAR) fund balance

Matt Morley, Parks and Public Works Department, presented the staff report.

Opened Public Comment.

Matthew Hudes

- Suggested identifying criteria that can be evaluated as to whether the pilot was a success.

Closed Public Comment.

Council discussed the matter.

MOTION: **Motion by Vice Mayor Jensen** to approve the recommendations contained in the staff report. **Seconded by Council Member Rennie.**

VOTE: **Motion passed unanimously.**

COUNCIL/TOWN MANAGER MATTERS

Council Matters

- Council Member Sayoc reminded Council that it is the legislative season and if there are any bills for which Members would like more information, they should contact Town Manager Prevetti.
- Council Member Spector stated she attended the General Plan Advisory Committee (GPAC), West Valley Clean Water Authority Board (WVCWA), and the Solid Waste Management Board meetings.

Council Matters – continued

- Mayor Leonardis stated he attended the West Valley Mayors and Managers meeting; he along with Town Manager Prevetti, Economic Vitality Manager Renn, and the Los Gatos Chamber of Commerce visited Burlingame and met with the Community Development Director; he hosted Japanese representatives from the USA/Japan forum; he attended the Best in the West SWAT Competition; he met with Senator Beall; and together with the Town Manager, he met with the high school principal and superintendent.
- Vice Mayor Jensen stated she attended the GPAC meeting.
- Council Member Rennie stated he attended the Best in the West SWAT Competition; the Housing and Community Development Advisory Committee and the Valley Transportation Authority (VTA) Board meetings; he met with the VTA General Manager; he did ribbon cuttings for Interactive Medicine and with the Mayor at the Wine Cellar; and he spoke at the West Valley Mayors and Managers meeting and at the Saratoga High School Green Team Event.

Manager Matters

- The historical artifacts that were given to the Town from the Japanese representative are being archived at the Town Library.
- Announced the Adult Commissioner application deadline is 4:00 p.m. June 7, 2019.

ADJOURNMENT

The meeting adjourned at 8:39 p.m.

Attest:

Shelley Neis, Town Clerk



**TOWN OF LOS GATOS
POLICY COMMITTEE REPORT**

MEETING DATE: 6/25/2019

ITEM NO:

DATE: JUNE 17, 2019

TO: POLICY COMMITTEE

FROM: LAUREL PREVETTI, TOWN MANAGER

SUBJECT: DISCUSS AND PROVIDE DIRECTION ON THE LAND USE APPEAL PROCESS.

RECOMMENDATION:

Discuss and provide direction on the land use appeal process.

BACKGROUND:

The Policy Committee last considered this matter on December 20, 2018. After discussion, the Committee's direction was to forward a recommendation to the Planning Commission to approve the following proposed modifications to the land use appeal process:

- Include a definition of the term interested person in Town Code Sec. 29.10.020, bifurcating the commercial and residential appeal processes;
- Remove the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on any appeal in Town Code Sec. 29.20.295 and Sec. 29.20.300; and
- State that an interested person may appeal the decision by the Planning Director on a Minor Residential Development application to the Planning Commission in Town Code Sec. 29.20.480.

DISCUSSION:

On March 27, 2019, the Commission recommended approval of the proposed amendments to the Town Council with modifications to retain the requirement that the Town Council make one of three findings to modify or reverse the decision of the Commission on any appeal, while modifying the second finding in Section 29.20.300(b)(2) to specify that any new information

PREPARED BY: JOEL PAULSON
Community Development Director

Reviewed by: Town Manager

DISCUSSION (continued):

submitted to the Town Council during the appeal process shall be relative to the same project considered by the Commission, with no design changes.

On May 7, 2019, the Town Council considered the Planning Commission recommendation and introduced an Ordinance effecting amendments to Chapter 29 (Zoning Regulations) of the Town Code, but did not include the Planning Commission's recommended changes to Town Code Section 29.20.295 and 29.20.300 regarding the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on any appeal. The Town Council referred discussion of potential amendments to Town Code Section 29.20.295 and 29.20.300 back to the Policy Committee.

Section 29.20.295 and 29.20.300 currently read as follows:

Sec. 29.20.295. - Council hearing.

When hearing the appeal, the Council shall consider the record and such additional evidence as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. The appellant bears the burden of proof before the Council is proving that one or more of the reasons specified in section 29.20.300 exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

Sec. 29.20.300. - Decision.

- (a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.
- (b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:
 - (1) Where there was error or abuse of discretion on the part of the Planning Commission; or
 - (2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission; or
 - (3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.
- (c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection (b)(2) above, it is the policy of the Town that the application will be returned to the

DISCUSSION (continued):

Commission for review in light of the new information unless the new information has minimal effect on the application.

(d) The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.

The Policy Committee's previously recommended changes read as follows:

Sec. 29.20.295. - Council hearing.

When hearing the appeal, the Council shall consider the record and such additional evidence as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. ~~The appellant bears the burden of proof before the Council is proving that one or more of the reasons specified in section 29.20.300 exist on the appeal for reversing or modifying the Commission determination.~~ The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

Sec. 29.20.300. - Decision.

(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.

~~(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:~~

~~(1) Where there was error or abuse of discretion on the part of the Planning Commission; or~~

~~(2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission; or~~

~~(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.~~

~~(c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection (b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d)~~ The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.

DISCUSSION (continued):

The Planning Commission's previously recommended changes read as follows:

Sec. 29.20.295. - Council hearing.

When hearing the appeal, the Council shall consider the record and such additional evidence as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. ~~The appellant bears the burden of proof before the Council is proving that one or more of the reasons specified in section 29.20.300 exist on the appeal for reversing or modifying the Commission determination.~~ The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

Sec. 29.20.300. - Decision.

(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.

(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:

(1) Where there was error or abuse of discretion on the part of the Planning Commission; or

(2) The new information, relative to the same project considered by the Planning Commission, that was submitted to the Council during the appeal process that does not include any design changes and was not readily and reasonably available for submission to the Commission; or

(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.

~~(c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection (b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d)~~ (e) The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.

Staff looks forward to the discussion and direction of the Policy Committee for next steps.

PAGE 5 OF 5
SUBJECT: LAND USE APPEAL PROCESS
DATE: JUNE 17, 2019

COORDINATION:

The preparation of this report was coordinated with the Town Manager's and Town Attorney's Offices.



**TOWN OF LOS GATOS
TOWN COUNCIL
POLICY COMMITTEE**

MEETING DATE: 07/23/2019

**MINUTES OF THE TOWN COUNCIL REGULAR POLICY COMMITTEE MEETING
JUNE 25, 2019**

The Town Council Policy Committee of the Town of Los Gatos conducted a regular meeting on Tuesday, June 25, 2019, at 5:00 p.m.

MEETING CALLED TO ORDER AT 5:01 P.M.

ROLL CALL

Members Present: Marcia Jensen, Barbara Spector.

Staff Present: Robert Schultz, Town Attorney; Joel Paulson, Community Development Director; Sally Zarnowitz, Planning Manager; Holly Zappala, Management Analyst.

VERBAL COMMUNICATIONS

None.

OTHER BUSINESS

1. Approval of the May 28, 2019 Council Policy Committee Minutes.

Approved.

Vice Mayor Jensen requested Item 3 be reviewed next, as it was the only item that had public comment.

3. Discuss and provide direction on demolition regulations.

Joel Paulson, Community Development Director, presented the staff report.

Tom Sloan, Architect

-Commented in favor of changing the existing demolition regulations. He said that the integrity of a building still exists without outside and inside wall coverings as long as the studs remain. He said that putting a new "skin" on the studs allows the building to be more structurally sound and last longer.

Jennifer Kretschmer, Architect

-Commented that the existing demolition policy creates a health and life safety issue because there may be cases when people allow mold to remain on their sheetrock in order to save the substantial cost and time delay of the Architecture and Site process required for a technical demolition. She also said that a time delay of a couple months with an open structure can lead to materials being destroyed by inclement weather and stated that removing interior/exterior finishes should not be considered a demolition.

Gary Kohlsaas, Architect

-Commented that it is difficult to match the siding on all sides of a house or cover up existing siding material without it being considered a technical demolition under the current regulations. He mentioned that technical demolitions require large additional expenses for homeowners, including putting in curbs and gutters and undergrounding utilities. He said that the building process is meant to go in a certain order for safety reasons and trying to avoid a technical demolition requires builders to go out of sequence.

Bess Wiersema, Architect

-Commented that the demolition policy should protect the mass of an existing house and the framing is what holds a house together as opposed to the inside and outside coverings. She said that removing the interior/exterior coverings allows construction to be done properly, better materials to be used, and the building to look better and last longer.

After discussion, the Committee agreed to forward a recommendation to the Planning Commission that interior wall structure (framing) should be considered in place of wall surface material when retaining existing walls. The Committee also requested that staff return to the Policy Committee with a review of the requirements for installing sidewalks/gutters and undergrounding utilities with the goal that both items should be considered together as a package by Town Council.

2. Discuss and provide direction on the land use appeal process.

Joel Paulson, Community Development Director, presented the staff report.

After discussion, the Committee agreed that the duty to make a finding should fall on the land use appellant and not the Town Council. The Policy Committee asked staff to return to the Committee with language reflecting two options for the land use appeal process:

- The Town Council may consider additional findings/information as part of the land use decision appeal; and
- Any new information would go back to the Planning Commission and the Town Council would not consider it as part of the land use decision appeal.

PAGE 3 OF 3

SUBJECT: MINUTES OF THE REGULAR TOWN COUNCIL POLICY COMMITTEE MEETING OF
JUNE 25, 2019

DATE: JULY 23, 2019

4. **Review proposed amendments and legal analysis to the Town Agenda Format and Rules Policy regarding time limits for applicant and appellant presentations and rebuttals.**

Robert Schultz, Town Attorney, presented the staff report.

After discussion, the Committee agreed to forward a recommendation to the Town Council to modify the time limits in the Town Agenda Format and Rules Policy regarding time limits for applicant and appellant presentations and rebuttals to five minutes for each of the presentations and three minutes for each of the rebuttals.

ADJOURNMENT

The meeting adjourned at 6:15 p.m.

This is to certify that the foregoing is a true and correct copy of the minutes of the June 25, 2019 meeting as approved by the Town Council Policy Committee.

/s/ Holly Zappala, Management Analyst



**TOWN OF LOS GATOS
COUNCIL POLICY COMMITTEE**

MEETING DATE: 07/23/2019

ITEM NO: 3

DATE: July 18, 2019
TO: Council Policy Committee
FROM: Laurel Prevetti, Town Manager
SUBJECT: Discuss and Provide Direction on the Land Use Appeal Process

RECOMMENDATION:

Discuss and provide direction on the land use appeal process.

BACKGROUND:

On June 25, 2019, the Policy Committee considered changes to the Town Code regarding the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on any appeal. The Committee members reached a consensus on the following matters:

- Remove the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on an appeal from Section 29.20.300 of the Town Code in both versions; and
- Revise Section 29.20.275 of the Town Code to require the appellant's notice of appeal to include the error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record; and revise Section 29.20.295 of the Town Code to require the appellant to bear the burden of proof before in proving that the Planning Commission decision was not supported by substantial evidence.

Section 29.20.275 would also be revised to clarify that an appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal.

ATTACHMENT 4

PREPARED BY: Joel Paulson
Community Development Director

Reviewed by: Town Manager

BACKGROUND (continued):

The Policy Committee did not reach a consensus on whether the Town Council should be able to consider additional information during the appeal process that was not available to the Commission. Therefore, after discussion, the Committee's direction was to move forward without a recommendation on this specific issue, but to include potential changes to Town Code representing the two points of view.

In the first point of view, the changes would clarify that the Town Council may consider additional information during the appeal process that was not available to the Commission. In the second point of view, the changes would clarify that it is the policy of the Town that the application will be returned to the Commission for review in light of the additional information.

DISCUSSION:

The changes that both Policy committee members reached a consensus on are as follows:

Sec. 29.20.275. - Appeals from decisions by the Planning Commission.

Any interested person as defined in section 29.10.020 may appeal to the Council any decision of the Planning Commission. The appellant must file a written notice of appeal in duplicate with the Clerk not more than ten (10) days after the decision is rendered. ~~The notice shall state clearly the reasons why the appeal ought to be granted. The~~ notice of appeal shall state specifically wherein it is claimed there was an error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record. The Council shall only hear the appeal if the notice is filed and all required fees are paid within the ten-day appeal period. ~~Once a notice of appeal has been filed, it may be withdrawn by the appellant prior to the distribution of public hearing notices, but not thereafter. An appellant may submit a written request to~~ withdraw their appeal any time before the scheduled hearing for the appeal.

~~Sec. 29.20.300. - Decision.~~

- ~~(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.~~
- ~~(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:~~
- ~~(1) Where there was error or abuse of discretion on the part of the Planning Commission; or~~
 - ~~(2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission.; or~~

DISCUSSION (continued):

~~(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.~~

~~c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection~~

~~(b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d) The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.~~

The potential changes representing the two points of view are as follows:

- *Consider additional information*

Sec. 29.20.295. - Council hearing and decision.

When hearing the appeal, the Council shall consider the record and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. The appellant bears the burden of proof before the Council is proving that one or more of the reasons specified in section 29.20.300 275 exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

- *Return application to Commission if additional information is provided*

Sec. 29.20.295. - Council hearing and decision.

When hearing the appeal, the Council shall consider the record and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, ~~or may remand to the Planning Commission for further review and determination.~~ The appellant bears the burden of proof before the Council is proving that one or more of the reasons specified in section 29.20.300 275 exist on the appeal for reversing or modifying the Commission determination. If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of additional information that was not readily and reasonably available for submission to the Commission, the application will be returned to the Commission for review in light of the additional information unless the additional information has

PAGE 4 OF 4

SUBJECT: Land Use Appeal Process

DATE: July 18, 2019

minimal effect on the application. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

Staff looks forward to the discussion and direction of the Policy Committee for next steps.

COORDINATION:

The preparation of this report was coordinated with the Town Manager's and Town Attorney's offices.



**TOWN OF LOS GATOS
TOWN COUNCIL
POLICY COMMITTEE**

MEETING DATE: 08/27/2019

ITEM NO: 1

**Minutes of the Regular Town Council Policy Committee Meeting
July 23, 2019**

The Town Council Policy Committee of the Town of Los Gatos conducted a regular meeting on Tuesday, July 23, 2019, at 5:00 p.m.

MEETING CALLED TO ORDER AT 5:01 P.M.

ROLL CALL

Members Present: Marcia Jensen, Barbara Spector.

Staff Present: Laurel Prevetti, Town Manager; Robert Schultz, Town Attorney; Joel Paulson, Community Development Director; Matt Morley, Parks and Public Works Director; Lisa Petersen, Assistant Parks and Public Works Director/Town Engineer; Sally Zarnowitz, Planning Manager; Holly Zappala, Management Analyst.

VERBAL COMMUNICATIONS

None.

OTHER BUSINESS

1. Approval of the June 25, 2019 Council Policy Committee Minutes.

Approved.

2. Review and Provide Direction on Regulations for Dedications of Public Right-of-Way, Installation of Curbs, Gutters, and Sidewalk, and Undergrounding of Utilities.

Lisa Petersen, Assistant Parks and Public Works Director/Town Engineer, presented the staff report.

After discussion, the Committee asked staff to return to the Committee with a draft ordinance that succinctly makes dedications of public right-of-way, installation of curbs, gutters, and sidewalk, and undergrounding of utilities applicable to building permits. The Committee also requested that staff review the current policy regarding when and how "in-lieu" fee money is used.

PAGE 2 OF 2

SUBJECT: Minutes of the Regular Town Council Policy Committee Meeting of July 23, 2019

DATE: August 27, 2019

3. Discuss and Provide Direction on the Land Use Appeal Process.

Robert Schultz, Town Attorney, presented the staff report.

After discussion, the Committee asked staff to return to the Committee with revised language reflecting the following two options for the land use appeal process:

- The Town Council may consider additional findings/information as part of the land use decision appeal; and
- The appeal is returned to the Planning Commission if the Town Council grants the appeal based on information not presented to the Planning Commission.

The Committee remained in agreement that the duty to make a finding should fall on the land use appellant and not the Town Council.

ADJOURNMENT

The meeting adjourned at 5:48 p.m.

This is to certify that the foregoing is a true and correct copy of the minutes of the July 23, 2019 meeting as approved by the Town Council Policy Committee.

/s/ Holly Zappala, Management Analyst



TOWN OF LOS GATOS
COUNCIL POLICY COMMITTEE REPORT

MEETING DATE: 08/27/2019

ITEM NO: 3

DATE: August 22, 2019
TO: Council Policy Committee
FROM: Laurel Prevetti, Town Manager
SUBJECT: Discuss and Provide Direction on the Land Use Appeal Process

RECOMMENDATION:

Discuss and provide direction on the land use appeal process.

BACKGROUND:

On June 25, 2019, the Policy Committee considered changes to the Town Code regarding the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on any appeal. The Committee members reached a consensus on the following matters:

- Revise Section 29.20.275 of the Town Code to require the appellant's notice of appeal to include the error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record, and to clarify that the appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal;
- Revise Section 29.20.295 of the Town Code to require the appellant to bear the burden of proof in proving that the Planning Commission decision was not supported by substantial evidence; and
- Remove the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on an appeal from Section 29.20.300 of the Town Code.

PREPARED BY: Joel Paulson
Community Development Director

Reviewed by: Town Manager and Town Attorney

BACKGROUND (continued):

The changes that both Policy Committee members reached a consensus on are as follows:

Sec. 29.20.275. - Appeals from decisions by the Planning Commission.

Any interested person as defined in section 29.10.020 may appeal to the Council any decision of the Planning Commission. The appellant must file a written notice of appeal in duplicate with the Clerk not more than ten (10) days after the decision is rendered. ~~The notice shall state clearly the reasons why the appeal ought to be granted. The~~ notice of appeal shall state specifically wherein it is claimed there was an error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record. The Council shall only hear the appeal if the notice is filed and all required fees are paid within the ten-day appeal period. ~~Once a notice of appeal has been filed, it may be withdrawn by the appellant prior to the distribution of public hearing notices, but not thereafter. An appellant may submit a written request to~~ withdraw their appeal any time before the scheduled hearing for the appeal.

~~Sec. 29.20.300. — Decision.~~

~~(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.~~

~~(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:~~

~~(1) Where there was error or abuse of discretion on the part of the Planning Commission; or~~

~~(2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission.; or~~

~~(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.~~

~~c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection~~

~~(b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d) The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.~~

BACKGROUND (continued):

Regarding Section 29.20.295 of the Town Code, the Policy Committee did not reach a consensus on whether the Town Council should be able to consider additional information during the appeal process. Therefore, after discussion, the Committee's direction in June was to move forward without a recommendation on this specific issue, after returning to the Committee with the potential changes to Town Code representing the two points of view. On July 23, 2019, the Committee reviewed the potential changes to Town Code provided; however, did not reach consensus on the language.

DISCUSSION

The Committee's direction in July was to return with alternative ordinance language representing the two points of view.

In the first point of view, the existing ordinance language that the Town Council may consider the record and such additional information as may be offered by anyone during the appeal process, would be retained, as follows:

Sec. 29.20.295. - Council hearing and decision.

When hearing the appeal, the Council shall consider the record and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. The appellant bears the burden of proof before the Council ins proving that one or more of the reasons specified in section 29.20.300 ~~275~~ exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

In the second point of view, the existing ordinance language that the Town Council may consider the record would be retained; however, the existing language that the Town Council may also consider such additional information as may be offered by anyone would be removed, as follows:

Sec. 29.20.295. - Council hearing and decision.

When hearing the appeal, the Council shall consider the record ~~and such additional information as may be offered by anyone~~ and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. If the only or predominant reason for modifying or reversing

DISCUSSION (continued):

the decision of the Planning Commission is the availability of new information that was not readily and reasonably available for submission to the Commission, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.

The appellant bears the burden of proof before the Council ~~ins~~ proving that one or more of the reasons specified in section 29.20.300-275 exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

Staff looks forward to the continued Policy Committee discussion and direction for next steps.

COORDINATION:

The preparation of this report was coordinated with the Town Manager's and Town Attorney's offices.



**TOWN OF LOS GATOS
TOWN COUNCIL
POLICY COMMITTEE**

MEETING DATE: 09/24/2019

**Minutes of the Regular Town Council Policy Committee Meeting
August 27, 2019**

The Town Council Policy Committee of the Town of Los Gatos conducted a regular meeting on Tuesday, August 27, 2019, at 5:00 p.m.

MEETING CALLED TO ORDER AT 5:00 P.M.

ROLL CALL

Members Present: Marcia Jensen, Barbara Spector.

Staff Present: Laurel Prevetti, Town Manager; Robert Schultz, Town Attorney; Arn Andrews, Assistant Town Manager; Joel Paulson, Community Development Director; Sally Zarnowitz, Planning Manager; Shelley Neis, Clerk Administrator; Michelle Radcliffe, Deputy Clerk; Jocelyn Shoopman, Associate Planner; Holly Zappala, Management Analyst.

VERBAL COMMUNICATIONS

None.

OTHER BUSINESS

1. Approval of the July 23, 2019 Council Policy Committee Minutes.

Approved with one modification.

2. Review and Provide Direction on Proposed Modifications to the Commission Appointment Policy.

Shelley Neis, Clerk Administrator, presented the staff report.

After discussion, the Committee agreed to forward a recommendation to the Town Council to amend the Commission Appointment Policy to allow applicants to apply for more than one Commission at a time.

3. Discuss and Provide Direction on the Land Use Appeal Process.

After continuing its discussion from prior meetings, the Committee asked staff to return to with revised language reflecting the following two options for the land use appeal process:

PAGE 2 OF 2

SUBJECT: Minutes of the Regular Town Council Policy Committee Meeting of August 27, 2019

DATE: September 24, 2019

- The Town Council may consider additional findings/information as part of the land use decision appeal; and
- The appeal is returned to the Planning Commission if the Town Council grants the appeal based on information not presented to the Planning Commission.

The Committee asked that the revised language be simple, easy to understand, and clear about the Council's full discretion to decide the matter.

The Committee also requested that staff create a brochure to provide to appellants with information about filing an appeal, including frequently asked questions, deadlines, and options for withdrawal and refunds.

The Committee remained in agreement that the land use appellant has the responsibility ("burden of proof") of providing information to support a finding and not the Town Council.

4. Provide Direction on Potential Amendments to Chapter 29 (Zoning Regulations) of the Town Code Regarding Below Market Price Regulations and Options for the Use of Below Market Price In-Lieu Fees.

Jocelyn Shoopman, Associate Planner, presented the staff report.

After discussion, the Committee asked staff to return to the Committee with options for potential uses of the existing Below Market Price (BMP) in-lieu fees, and alternatives to modify the BMP program consistent with the goals of increasing the number of BMPs in the Town, decreasing the number of in-lieu fees collected, and keeping BMPs on-site when possible.

ADJOURNMENT

The meeting adjourned at 6:15 p.m.

This is to certify that the foregoing is a true and correct copy of the minutes of the August 27, 2019 meeting as approved by the Town Council Policy Committee.

/s/Holly Zappala, Management Analyst



TOWN OF LOS GATOS
COUNCIL POLICY COMMITTEE REPORT

MEETING DATE: 09/24/2019

ITEM NO: 2

DATE: September 12, 2019
TO: Council Policy Committee
FROM: Laurel Prevetti, Town Manager
SUBJECT: Discuss and Provide Direction on the Land Use Appeal Process

RECOMMENDATION:

Discuss and provide direction on the land use appeal process.

BACKGROUND:

On June 25, 2019, the Policy Committee considered changes to the Town Code regarding the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on any appeal. The Committee members reached a consensus on the following matters:

- Revise Section 29.20.275 of the Town Code to require the appellant's notice of appeal to include the error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record, and to clarify that the appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal;
- Revise Section 29.20.295 of the Town Code to require the appellant to bear the burden of proof in proving that the Planning Commission decision was not supported by substantial evidence; and
- Remove the requirement that the Town Council make one of three findings to modify or reverse the decision of the Planning Commission on an appeal from Section 29.20.300 of the Town Code.

PREPARED BY: JOEL PAULSON
Community Development Director

Reviewed by: Town Manager

BACKGROUND (continued):

The changes that both Policy committee members reached a consensus on are as follows:

Sec. 29.20.275. - Appeals from decisions by the Planning Commission.

Any interested person as defined in section 29.10.020 may appeal to the Council any decision of the Planning Commission. The appellant must file a written notice of appeal in duplicate with the Clerk not more than ten (10) days after the decision is rendered. The notice shall state clearly the reasons why the appeal ought to be granted. The notice of appeal shall state specifically wherein it is claimed there was an error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record. The Council shall only hear the appeal if the notice is filed and all required fees are paid within the ten-day appeal period. Once a notice of appeal has been filed, it may be withdrawn by the appellant prior to the distribution of public hearing notices, but not thereafter. An appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal.

~~Sec. 29.20.300. - Decision.~~

~~(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.~~

~~(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:~~

~~(1) Where there was error or abuse of discretion on the part of the Planning Commission; or~~

~~(2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission; or~~

~~(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.~~

~~c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection~~

~~(b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d) The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.~~

BACKGROUND (continued):

Regarding Section 29.20.295 of the Town Code, the Policy Committee did not reach a consensus on whether the Town Council should be able to consider additional information during the appeal process. Therefore, after discussion, the Committee's direction in June was to move forward without a recommendation on this specific issue, after returning to the Committee with the potential changes to Town Code representing the two points of view. On July 23, 2019, and again on August 27, 2019, the Committee did not agree that the revised ordinance language provided accurately represented the second point of view, and therefore provided direction to return with revised ordinance language representing the second point of view.

DISCUSSION

The Committee agreed that the following language accurately represented the first point of view, wherein the existing ordinance language that the Town Council may consider the record and such additional information as may be offered by anyone during the appeal process, would be retained:

Sec. 29.20.295. - Council hearing and decision.

When hearing the appeal, the Council shall consider the record and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. The appellant bears the burden of proof before the Council ~~in~~ proving that one or more of the reasons specified in section 29.20.~~300~~ 275 exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

The Committee did not agree that the revised ordinance language provided in August accurately represented the second point of view, and therefore provided direction to return with the following revised ordinance language clarifying that the application will be remanded to the Planning Commission if new information is provided:

Sec. 29.20.295. - Council hearing and decision.

When hearing the appeal, the Council shall consider the record ~~and such additional information as may be offered by anyone~~ and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. The application will be remanded to the Commission if new information is provided that was not readily and reasonably available for submission to the Commission, unless the new information has minimal effect on the application. The

appellant bears the burden of proof before the Council ins proving that one or more of the reasons specified in section 29.20.300-275 exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council.

Staff looks forward to the Policy Committee review of the revised language, discussion, and direction for next steps.

COORDINATION:

The preparation of this report was coordinated with the Town Manager's and Town Attorney's offices.



**TOWN OF LOS GATOS
TOWN COUNCIL
POLICY COMMITTEE**

MEETING DATE: 10/22/2019

ITEM NO: 1

**Minutes of the Regular Town Council Policy Committee Meeting
September 24, 2019**

The Town Council Policy Committee of the Town of Los Gatos conducted a regular meeting on Tuesday, September 24, 2019, at 5:00 p.m.

MEETING CALLED TO ORDER AT 5:00 P.M.

ROLL CALL

Members Present: Marcia Jensen, Barbara Spector.

Staff Present: Laurel Prevetti, Town Manager; Joel Paulson, Community Development Director; Sally Zarnowitz, Planning Manager; Lisa Petersen, Town Engineer; Holly Zappala, Management Analyst.

VERBAL COMMUNICATIONS

None.

OTHER BUSINESS

1. Approval of the August 27, 2019 Council Policy Committee Minutes.

Approved.

2. Discuss and Provide Direction on the Land Use Appeal Process.

After continuing the discussion from prior meetings, the Committee asked staff to send the Committee via email revised language reflecting the following two options for the land use appeal process:

- The Town Council may consider additional findings/information as part of the land use decision appeal; and
- The appeal is returned to the Planning Commission if the Town Council grants the appeal based on information not presented to the Planning Commission.

Upon approval of the emailed language, the Committee agreed to forward both options to the Town Council for discussion and decision.

3. Provide Direction on Potential Amendments to the Town Code Regarding Right of Way Dedication, Installation of Curbs, Gutters and Sidewalks, and Undergrounding of Utilities.

After discussion, the Committee agreed to forward a recommendation to adopt the proposed amendments to the Town Council with modifications to the language.

4. Provide direction on potential amendments to Chapter 29 (Zoning Regulations) of the Town Code regarding below market price regulations and options for the use of below market price in-lieu fees.

After discussion, the Committee asked staff to send the Committee via email revised language reflecting a goal of below market price units seamlessly integrating into the rest of the development. Upon approval of the emailed language, the Committee agreed to forward a recommendation to adopt the proposed amendment to the Town Council.

5. Discuss and Provide Direction on a Planning Grants Program Application.

Sally Zarnowitz, Planning Manager, presented the staff report.

After discussion, the Committee agreed to forward a recommendation to the Town Council to apply for the Planning Grants Program for implementation of qualifying action items in the current Housing Element of the General Plan. The Committee asked staff to include those items as an attachment to the Town Council report.

ADJOURNMENT

The meeting adjourned at 6:18 p.m.

This is to certify that the foregoing is a true and correct copy of the minutes of the September 24, 2019 meeting as approved by the Town Council Policy Committee.

/s/Holly Zappala, Management Analyst

TOWN COUNCIL – December 3, 2019
REQUIRED FINDINGS FOR:

Town Code Amendment Application A-19-008

Consider amendments to Chapter 29 (Zoning Regulations) of the Town Code regarding the land use appeal process.

FINDINGS

Required Findings for CEQA:

- It has been determined that there is no possibility that the project will have a significant impact on the environment; therefore, the project is not subject to the California Environmental Quality Act, Section 15061 (b)(3).

Required Findings for General Plan:

- The amendments to Chapter 29 of the Town Code are consistent with the General Plan.

TOWN COUNCIL – December 3, 2019
REQUIRED FINDINGS FOR:

Town Code Amendment Application A-19-008

Consider amendments to Chapter 29 (Zoning Regulations) of the Town Code regarding the land use appeal process.

FINDINGS

Required Findings for CEQA:

- It has been determined that there is no possibility that the project will have a significant impact on the environment; therefore, the project is not subject to the California Environmental Quality Act, Section 15061 (b)(3).

Required Findings for General Plan:

- The amendments to Chapter 29 of the Town Code are consistent with the General Plan.

ATTACHMENT 10

DRAFT ORDINANCE

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF LOS GATOS AMENDING CHAPTER 29 (ZONING REGULATIONS) OF THE TOWN CODE REGARDING THE LAND USE APPEAL PROCESS

WHEREAS, the Town Council would like to streamline the land use appeal process to reduce the back and forth between Planning Commission and Town Council;

WHEREAS, the Town encourages prospective applicants to utilize the Town's Conceptual Development Advisory Committee to receive initial feedback on a possible development prior to application submittal;

WHEREAS, the Town Planning staff are available to answer questions as applicants are putting together their application materials;

WHEREAS, the Town expects all applicants to do their best work in the initial application and not wait until a potential appeal process to propose viable solutions that meet Town Codes, Policies, and Guidelines;

WHEREAS, the Planning Commission is expected to fully vet the land use application according to the adopted Town Codes, Policies, and Guidelines;

WHEREAS, On May 7, 2019, the Town Council introduced an Ordinance, effecting amendments to the Town Code regarding the land use appeal process, excluding changes to Section 29.20.300, and referred those changes back to the Council Policy Committee for further discussion;

WHEREAS, on June 25, 2019, July 23, 2019, August 27, 2019, and September 24, 2019, the Council Policy Committee considered changes to Section 29.20.275, Section 29.20.295, and Section 29.20.300, and forwarded a recommendation to the Town Council for approval of the proposed amendments;

WHEREAS, this matter was regularly noticed in conformance with State and Town law and came before the Town Council for public hearing on December 3, 2019; and

WHEREAS, on December 3, 2019, the Town Council reviewed and commented on the proposed amendments regarding the land use appeal process and the Town Council voted to

introduce the Ordinance.

NOW, THEREFORE, THE PEOPLE OF THE TOWN OF LOS GATOS AND THE TOWN COUNCIL DO HEREBY ORDAIN AS FOLLOWS:

SECTION I

Sec. 29.20.275, Sec. 29.20.295, and Sec. 29.20.300 of Town Code Chapter 29 are hereby amended to read as follows:

Sec. 29.20.275. - Appeals from decisions by the Planning Commission.

Any interested person as defined in section 29.10.020 may appeal to the Council any decision of the Planning Commission. The appellant must file a written notice of appeal in duplicate with the Clerk not more than ten (10) days after the decision is rendered. ~~The notice shall state clearly the reasons why the appeal ought to be granted.~~ The notice of appeal shall state specifically wherein it is claimed there was an error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record. The Council shall only hear the appeal if the notice is filed and all required fees are paid within the ten-day appeal period. ~~Once a notice of appeal has been filed, it may be withdrawn by the appellant prior to the distribution of public hearing notices, but not thereafter.~~ An appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal.

...

Sec. 29.20.295. - Council hearing and decision.

~~When hearing~~ In the appeal, the Council shall consider and based on the record, ~~and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination.~~ the appellant bears the burden to prove that there was an error or abuse of discretion by the Planning Commission as required by ~~of proof before the Council in~~ proving that

~~one or more of the reasons specified in Section 29.20.275 300. If neither is proved, the appeal shall be denied. exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council. If the appellant meets the burden, the Council shall grant the appeal and may modify, in whole or in part, the determination from which the appeal was taken or, in its discretion, return the matter to the Planning Commission.~~

~~Sec. 29.20.300. Decision.~~

~~(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.~~

~~(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:~~

~~(1) Where there was error or abuse of discretion on the part of the Planning Commission; or~~

~~(2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission.; or~~

~~(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.~~

~~c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection (b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d) The decision of the Council upon the appeal will be expressed by a written resolution. The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.~~

SECTION II

The Town Council finds as follows:

A. These Town Code amendments are not subject to review under CEQA pursuant to sections and 15061(b)(3), in that it can be seen with certainty that there is no possibility that the Town Code amendments will have a significant impact on the environment; and

B. The Town Code amendments are consistent with the General Plan.

SECTION III

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable. This Town Council hereby declares that it would have adopted this ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed and the balance of the ordinance be enforced.

SECTION IV

Except as expressly modified in this Ordinance, all other sections set forth in the Los Gatos Town Code shall remain unchanged and shall be in full force and effect.

SECTION V

This Ordinance was introduced at a regular meeting of the Town Council of the Town of Los Gatos on December 3, 2019, and adopted by the following vote as an ordinance of the Town of Los Gatos at a meeting of the Town Council of the Town of Los Gatos on December 17, 2019 and becomes effective 30 days after it is adopted.

In lieu of publication of the full text of the ordinance within fifteen (15) days after its passage a summary of the ordinance may be published at least five (5) days prior to and fifteen (15) days after adoption by the Town Council and a certified copy shall be posted in the office of the Town Clerk, pursuant to GC 36933(c)(1).

COUNCIL MEMBERS:

AYES:

NAYS:

ABSENT:

ABSTAIN:

SIGNED:

MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

ATTEST:

CLERK ADMINISTRATOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

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DRAFT ORDINANCE

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF LOS GATOS AMENDING CHAPTER 29 (ZONING REGULATIONS) OF THE TOWN CODE REGARDING THE LAND USE APPEAL PROCESS

WHEREAS, the Town Council would like to streamline the land use appeal process to reduce the back and forth between Planning Commission and Town Council;

WHEREAS, the Town encourages prospective applicants to utilize the Town's Conceptual Development Advisory Committee to receive initial feedback on a possible development prior to application submittal;

WHEREAS, the Town Planning staff are available to answer questions as applicants are putting together their application materials;

WHEREAS, the Town expects all applicants to do their best work in the initial application and not wait until a potential appeal process to propose viable solutions that meet Town Codes, Policies, and Guidelines;

WHEREAS, the Planning Commission is expected to fully vet the land use application according to the adopted Town Code, Policies, and Guidelines;

WHEREAS, On May 7, 2019, the Town Council introduced an Ordinance, effecting amendments to the Town Codes regarding the land use appeal process, excluding changes to Section 29.20.300, and referred those changes back to the Council Policy Committee for further discussion;

WHEREAS, on June 25, 2019, July 23, 2019, August 27, 2019, and September 24, 2019, the Council Policy Committee considered changes to Section 29.20.275, Section 29.20.295, and Section 29.20.300, and forwarded a recommendation to the Town Council for approval of the proposed amendments;

WHEREAS, this matter was regularly noticed in conformance with State and Town law and came before the Town Council for public hearing on December 3, 2019; and

WHEREAS, on December 3, 2019, the Town Council reviewed and commented on the proposed amendments regarding the land use appeal process and the Town Council voted to

introduce the Ordinance.

NOW, THEREFORE, THE PEOPLE OF THE TOWN OF LOS GATOS AND THE TOWN COUNCIL DO HEREBY ORDAIN AS FOLLOWS:

SECTION I

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Sec. 29.20.275. - Appeals from decisions by the Planning Commission.

Any interested person as defined in section 29.10.020 may appeal to the Council any decision of the Planning Commission. The appellant must file a written notice of appeal in duplicate with the Clerk not more than ten (10) days after the decision is rendered. ~~The notice shall state clearly the reasons why the appeal ought to be granted.~~ The notice of appeal shall state specifically wherein it is claimed there was an error or abuse of discretion by the Commission or wherein its decision is not supported by substantial evidence in the record. The Council shall only hear the appeal if the notice is filed and all required fees are paid within the ten-day appeal period. ~~Once a notice of appeal has been filed, it may be withdrawn by the appellant prior to the distribution of public hearing notices, but not thereafter. An appellant may submit a written request to withdraw their appeal any time before the scheduled hearing for the appeal.~~

...

Sec. 29.20.295. - Council hearing and decision.

~~When hearing~~ In the appeal, the Council shall consider and based on the record, and such additional information as may be offered by anyone and may affirm, modify or reverse, in whole or in part, the determination appealed from, or make and substitute such other determination as is warranted, or may remand to the Planning Commission for further review and determination. ~~the appellant bears the burden to prove that there was an error or abuse of discretion by the Planning Commission as required by of proof before the Council~~ ins proving that

~~one or more of the reasons specified in Section 29.20.275 300. If neither is proved, the appeal shall be denied. exist on the appeal for reversing or modifying the Commission determination. The standards of this chapter governing the discretion of the reviewing body shall apply with equal effect to actions of the Council. If the appellant meets the burden, the Council shall grant the appeal and may modify, in whole or in part, the determination from which the appeal was taken or, in its discretion, return the matter to the Planning Commission. If the basis for granting the appeal is, in whole or in part, information not presented to or considered by the Planning Commission, the matter shall be returned to the Planning Commission for review.~~

~~Sec. 29.20.300. Decision.~~

~~(a) Any decision of the Council modifying, in whole or in part, the order, requirement, decision, determination, interpretation, or ruling appealed from, or making and substituting another decision or determination, requires the concurrence of a majority of the membership of the Council.~~

~~(b) If the Council decides to modify or reverse the decision of the Planning Commission, on any appeal, the resolution shall specify one or more of the following:~~

~~(1) Where there was error or abuse of discretion on the part of the Planning Commission; or~~

~~(2) The new information, that was submitted to the Council during the appeal process that was not readily and reasonably available for submission to the Commission.; or~~

~~(3) An issue or policy over which the Commission did not have discretion to modify or address, but which is vested in the Council for modification or decision.~~

~~c) If the only or predominant reason for modifying or reversing the decision of the Planning Commission is the availability of new information as defined in subsection (b)(2) above, it is the policy of the Town that the application will be returned to the Commission for review in light of the new information unless the new information has minimal effect on the application.~~

~~(d) The decision of the Council upon the appeal will be expressed by a written resolution.~~

~~The Council will forthwith transmit copies of the resolution to the original applicant, the appellant, and the Planning Commission.~~

SECTION II

With respect to compliance with the California Environmental Quality Act (CEQA), the Town Council finds as follows:

- A. These Town Code amendments are not subject to review under CEQA pursuant to sections and 15061(b)(3), in that it can be seen with certainty that there is no possibility that the amendments will have a significant impact on the environment; and
- B. The Town Code amendments are consistent with the General Plan.

SECTION III

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable. This Town Council hereby declares that it would have adopted this ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed and the balance of the ordinance be enforced.

SECTION IV

Except as expressly modified in this Ordinance, all other sections set forth in the Los Gatos Town Code shall remain unchanged and shall be in full force and effect.

SECTION V

This Ordinance was introduced at a regular meeting of the Town Council of the Town of Los Gatos on December 3, 2019, and adopted by the following vote as an ordinance of the Town of Los Gatos at a meeting of the Town Council of the Town of Los Gatos on December 17, 2019 and becomes effective 30 days after it is adopted.

In lieu of publication of the full text of the ordinance within fifteen (15) days after its

passage a summary of the ordinance may be published at least five (5) days prior to and fifteen (15) days after adoption by the Town Council and a certified copy shall be posted in the office of the Town Clerk, pursuant to GC 36933(c)(1).

COUNCIL MEMBERS:

AYES:

NAYS:

ABSENT:

ABSTAIN:

SIGNED:

MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

ATTEST:

CLERK ADMINISTRATOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

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**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 17

DATE: November 25, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Provide Direction on the Elements of the Music in the Park Request for Proposals

RECOMMENDATION:

Provide direction on the elements of the Music in the Park (MIP) Request for Proposals (RFP).

BACKGROUND:

Since 1988, Music in the Park (MIP) has been a free public summer concert series held on Sunday afternoons on the Los Gatos Civic Center lawn. Over the years, MIP has been managed by multiple parties including the Town's Arts and Culture Commission, Los Gatos Music and Arts (2009-2015), Los Gatos Music in the Park (2016 and 2017), and most recently Town staff (2018 and 2019).

During December 2017, Town staff issued an RFP for the production and management of the 2018 Music in the Park Summer Concert series when the prior entity opted to no longer produce the series. At the conclusion of the RFP deadline, no proposals were received.

Given that no external parties stepped forward to manage MIP, the Town Council directed staff to produce the 2018 summer concert series. At the conclusion of the 2018 MIP season, Council directed staff to produce the 2019 MIP season with the understanding that the Town would seek outside production of the series going forward.

This agenda item allows the Town Council to listen to public testimony and provide direction on elements of the concert series for inclusion in the RFP. Staff believes potential respondents would be more inclined to submit a proposal to produce MIP if the Town's potential sponsor

PREPARED BY: Arn Andrews
Assistant Town Manager

Reviewed by: Town Manager, Town Attorney, Economic Vitality Manager, Chief of Police, and Finance Director

BACKGROUND (continued):

commitment and other in-kind considerations are clearly spelled out in the RFP. This approach would allow potential respondents to fully understand the economics of producing the MIP series and minimize the necessity of a successful respondent returning to Council to seek additional concessions.

DISCUSSION:

To provide Council with additional context for discussing the production of the MIP series, following are the net financial results for the staff produced series. As the tables below illustrate, production of the series resulted in a net loss both years. In addition, it should be noted that the Town was a \$5,000 "premier" sponsor both years which is represented in the sponsorship totals.

2018		
Category	Item	Expense
Production	Bands, sound engineer, portable toilets, and insurance	\$27,458
Marketing	Marketing items including various banners and advertisements	\$7,818
Miscellaneous	Pathway roping, giveaways, perimeter tape, etc.	\$1,094
Paid Town Event Staff	Salary and overtime (does not include in-kind staffing)	\$2,569
Total Expenses 2018		\$38,939
Total Sponsorships 2018		\$36,000
Net Loss		(\$2,939)

DISCUSSION (continued):

2019		
Category	Item	Expense
Production	Bands, sound engineer, portable toilets, and insurance	\$28,106
Marketing	Marketing items including various banners and advertisements	\$6,134
Miscellaneous	Pathway roping, giveaways, perimeter tape, etc.	\$606
Paid Town Event Staff	Salary and overtime (does not include in-kind staffing)	\$3,608
Total Expenses 2019		\$38,454
Total Sponsorships 2019		\$22,000
Net Loss		(\$16,454)

In addition to the production and sponsorship costs the past two years, the Town provided the following in-kind support to the production of MIP:

- Use of Council Lobby as a band staging area ("green room")
- Use of Town stage, including setup and tear down
- Use of electricity to power the stage and sound systems
- Use of parking spaces to accommodate restrooms, sponsors, and band and sound technicians
- Use of Town staff for affixing the concert sign behind the stage
- Use of Town salaried staff to volunteer at all concerts, assisting with set up, the attendee's questions, and general oversight

Historically, the Council has provided most of these in-kind resources even when the Town did not produce the concert.

Staff is structuring the RFP in a fashion that would help respondents identify any other costs associated with producing the series. As with Jazz on the Plazz, MIP would require a Special Event Permit. The Permit would be the vehicle to identify the specific requirements to ensure the public's safety, address use of Town facilities, and address other issues. It is important to note that after the Gilroy Garlic Festival shooting, the Town routinely requires two Officers at

SUBJECT: Provide Direction on the Elements of the Music in the Park Request for Proposals

DATE: November 25, 2019

DISCUSSION (continued):

each Special Event in Los Gatos. Based on the Town's current fee schedule, following are the estimated costs for an 8-concert series that will be represented in the RFP.

MIP Estimated Town Fees	Series Units	Cost Per Unit	Total
Special Event Permit Application Fee (For-Profit Rate, Repeat Event)	1	\$680.00	\$680.00
Alternatively, Special Event Permit Application Fee (Non-Profit Rate Repeat Event)	1	\$170.00	\$170.00
Parks Hourly Fee	80	\$55.00	\$4,400.00
Refundable Parks Use Deposit	1	\$500.00	\$500.00
Temporary Sign Fee	1	\$99.00	\$99.00
Required Security (LGMS Police Officers)	2 @ \$160/hour 4 hours per concert	\$1,280.00	\$10,240.00
No Parking Signs	240	\$0.46	\$110.40
Total Estimate for Profit			\$16,029.40
Total Estimate for Non-Profit			\$15,519.40
Notes			
Parks hourly use fee is based on eight weeks at 10 hours each, assuming park use from 10 a.m. to 8 p.m.			
Included the repeat special event application rate since this is not a new event.			
Included for profit and non-profit application rates since the concert entity is not yet known.			
Estimated 30 no parking signs needed for each week.			

CONCLUSION:

Staff is seeking direction on the flowing elements for inclusion in the MIP RFP:

- Council's desired level of monetary sponsorship commitment,
- Council's desired level of in-kind commitment, and
- Any other Council considerations

COORDINATION:

This staff report was coordinated with the Town Manager, Town Attorney, Chief of Police, and Director of Finance.

PAGE 5 OF 5

SUBJECT: Provide Direction on the Elements of the Music in the Park Request for Proposals

DATE: November 25, 2019

FISCAL IMPACT:

The Council's level of desired commitment would be programmed into the FY 2020/21 Operating Budget.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 18

DATE: November 27, 2019

TO: Mayor and Town Council

FROM: Laurel Prevetti, Town Manager

SUBJECT: 2019 California Building, Fire, and Reach Codes

1. Introduce an ordinance repealing and replacing Chapter 6, Building Regulations, and Chapter 9, Fire Prevention and Protection, of the Town of Los Gatos Municipal Code with the new 2019 California Building and Fire Codes, as amended, including reach codes. (Town Code Amendment Application A-19-009. Project Location: **Town Wide.**)
2. Adopt a resolution making findings for modifying the 2019 California Building and Fire Codes.

RECOMMENDATIONS:

1. Introduce an Ordinance (Attachment 1), by title only, effecting amendments repealing and replacing Chapter 6, Building Regulations, and Chapter 9, Fire Prevention and Protection, of the Town of Los Gatos Municipal Code with the new 2019 California Building and Fire Codes, as amended, including reach codes.
2. Adopt a resolution making findings for modifying the 2019 California Building and Fire Codes (Attachment 2).

BACKGROUND:

The new 2019 California Building Standards Code, California Code of Regulations (CCR) Title 24, will go into effect on January 1, 2020. The Town of Los Gatos must adopt these new State Codes by deleting and replacing Chapter 6, Building Regulations, and Chapter 9, Fire Prevention and Protection, of the Town Code. The new 2019 California Building Code (CBC) and 2019 California Fire Code (CFC) are somewhat different from the current 2016 CBC and CFC so deleting and replacing the Town Code Chapters in their entirety and incorporating our current recommended local amendments is the cleanest process for adoption.

PREPARED BY: Robert Gray
Building Official

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

BACKGROUND (continued):

On November 5, 2019 the Town Council considered a draft ordinance regarding Chapter 6, Building Regulations, and Chapter 9, Fire Prevention and Protection. Following Town Council discussion, the Town Council continued the matter to the December 3, 2019 meeting with the following direction:

- Include reach code language that is similar to the language approved by the City of San Jose that bans gas in new single-family buildings, accessory dwelling units (ADU), and new residential low-rise building, except for gas cooking; and
- Include language regarding 100-foot defensible space across property lines.

The draft Ordinance adopting the revisions to Chapter 6 and Chapter 9 includes amendments regarding reach codes (Attachment 1). California Health and Safety Code Sections 17958 and 17958.5 allow the Town to make modifications or changes to the State Building Standards Codes based on findings that the changes are reasonably necessary because of local climatic, geological, geographical, or topographical conditions. The Resolution included as Attachment 2 contains the required findings.

DISCUSSION:

A. Reach Codes:

City of San Jose Reach Codes

The City of San Jose reach codes require among other things, all electric construction for new single-family residential buildings, detached ADUs, and low-rise multi-family buildings. San Jose's mixed fuel requirements include a reduced Energy Design Rating (EDR) and electrification-ready circuit for all new single-family residential buildings, detached ADUs, and low-rise multi-family buildings. New high-rise multi-family buildings, hotel/motel, and all other non-residential buildings require electrification-ready and a specific percentage increase in energy efficiency based on the type of use.

San Jose's electric vehicle (EV) requirements include installation of an EV charging circuit and receptacle in all new single-family residential buildings, detached ADUs, low-rise and high-rise multi-family buildings, hotel/motel, and all other non-residential buildings.

The City of San Jose's Summary of Reach Code is included as Attachment 3.

DISCUSSION (continued):

California Energy Code

Local governments are authorized to adopt local modifications to the state energy standards contained in Part 6 of Title 24, also known as the California Energy Code. Such local changes are referred to as “energy reach codes.” To adopt an energy reach code, a

local government must find that its proposed changes are cost-effective, and the California Energy Commission (CEC) must find that the changes would result in buildings designed to use no more energy than permitted by the California Energy Code. An energy reach code may be enforced by the local government only after the CEC has approved it.

In association with the California Energy Code and Standards Program, Frontier Energy, Inc. and Misti Bruceri & Associates, LLC, have produced the “2019 Cost-effectiveness Study: Low-Rise Residential New Construction” (Attachment 4). This study measures efficiency using a benefit to cost ratio, where a value of 1 represents that benefit is equal to cost. A number greater than 1 shows that benefits outweigh costs. Table 53 on page 86 illustrates that the benefit to cost ratio of an all-electric single-family building, at worst case, is a factor of 1.52 using the federally supplied efficiency specifications for appliances. Table 54 on page 87 illustrates that the benefit to cost ratio of an all-electric multi-family building is at worst case 1.09 per dwelling unit, using the same federally supplied efficiency specifications for appliances.

The Town’s proposed reach codes include all electric construction for new single-family residential buildings, ADUs, and low-rise multi-family buildings. An exception is included for gas cooking appliances; however, the gas cooking appliance location must also be provided with a complete electrical circuit for future conversion to an electrical appliance.

The Town’s proposed reach codes for the California Energy Code are included in Attachment 1 on page 9 and 11.

California Green Buildings Standards Code

It is widely known that the availability of electric vehicle (EV) charging infrastructure is a critical component to EV adoption. Meanwhile, it is significantly more expensive to install charging infrastructure as a retrofit than it is during new construction. Therefore, ensuring that newly constructed residential parking has ample EV charging capability reduces long-term costs of EV infrastructure installation, helps to increase EV adoption, and decreases transportation-related greenhouse gas emissions. Unlike amendments to the California Energy Code, a cost-effectiveness study is not required for amendments to the California Green Buildings Standards Code.

DISCUSSION (continued):

The 2019 California Green Buildings Standards Code requires EV infrastructure to be provided for all new single-family buildings, two-family buildings, and townhomes with private garages. The Town's proposed reach code adds a requirement for the installation of one complete EV charging circuit and receptacle for all new single-family and two-family residential buildings, ADUs, and low-rise multi-family buildings with private garages.

The Town's proposed EV reach codes are included in Attachment 1 on pages 9 and 11.

B. Defensible Space:

The Council's motion from November 5, 2019 requested that language regarding 100-foot defensible space across property lines be included in the draft Ordinance. Staff has not included this amendment at this time. Per the staff report to the Town Council dated October 15, 2019 regarding enhanced wildfire mitigation language to Chapter 11 (Garbage, Refuse and Weeds) of the Town Code, enhanced language for defensible space is part of a broader effort to augment and align Town Codes related to wildfire mitigation. Staff anticipates bringing this matter, and additional recommendations for Code modifications, back to the Town Council at its December 17, 2019 meeting to discuss potential best management practice options for fuel load reduction in the Wildland Urban Interface area. California State law does not preclude jurisdictions from imposing additional stricter regulations locally within Very High Fire Hazard Severity Zones (VHFHSZ) at a later date.

C. Public Outreach:

Public input has been requested through the following media and social media resources:

- An eighth-page public notice in the newspaper;
- A poster at the Planning counter at Town Hall;
- The Town's website home page, What's New;
- The Town's Facebook page;
- The Town's Twitter account;
- The Town's Instagram account; and
- The Town's Nextdoor page.

In addition, interested architects and the following organizations have been contacted regarding the amendments:

- American Institute of Architects (AIA) Silicon Valley;
- Santa Clara County Association of Realtors (SCCAR);
- Silicon Valley Association of Realtors (SILVAR);

DISCUSSION (continued):

- Building Industry Association (BIA); and
- National Association of Home Builders (NAHB).

CONCLUSION:

Staff recommends that the Town Council:

1. Introduce the Ordinance repealing and replacing Chapter 6 and Chapter 9 of the Town Code (Attachment 1); and
2. Adopt a resolution making findings for modifying the 2019 California Building and Fire Codes (Attachment 2).

FISCAL IMPACT:

None.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachments:

1. Ordinance adopting new Building and Fire Codes
2. Resolution making Findings for modifying California Codes
3. City of San Jose Summary of Reach Codes
4. 2019 Cost-effectiveness Study: Low-Rise Residential New Construction
5. Public comments received by 11:00 a.m. Wednesday, November 27, 2019

DRAFT ORDINANCE

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF LOS GATOS REPEALING AND REPLACING CHAPTER 6, BUILDING REGULATIONS, AND CHAPTER 9, FIRE PREVENTION AND PROTECTION, AND ADOPTING NEW 2019 CALIFORNIA BUILDING AND FIRE CODES, AS AMENDED, INCLUDING REACH CODES

WHEREAS, every three years, 14 State of California agencies review, amend, and propose model codes to be adopted by the Building Standards Commission; and

WHEREAS, the California Building Standards Commission completed the adoption and approval of 12 new building codes, and local jurisdictions are required to adopt these codes by January 1, 2020; and

WHEREAS, the Town of Los Gatos is proposing to adopt and amend Part 1, the California Administrative Code to address administrative provisions; and

WHEREAS, the Town of Los Gatos is proposing to adopt the California Building Standards Codes as Chapter 6 and the California Fire Code as Chapter 9 of the Town Code and to make amendments to address climatic, topographic, and geological conditions; and

WHEREAS, the Town of Los Gatos is proposing to adopt the 2018 International Property Maintenance Code and portions of the 2018 International Existing Building Code to provide procedures for the maintenance, repair, and demolition of existing buildings; and

WHEREAS, the Town of Los Gatos, in adopting these codes will be consistent with the State of California and other local municipalities.

NOW, THEREFORE, THE TOWN COUNCIL OF THE TOWN OF LOS GATOS DOES HEREBY ORDAIN AS FOLLOWS:

SECTION I

CHAPTER 6 is deleted in its entirety and replaced with the following:

ARTICLE I. IN GENERAL (reserved)

ATTACHMENT 1

ARTICLE II. ADMINISTRATION OF CODES

Sec. 6.20.010. Conflicting Provisions.

When any provisions of the administrative sections of the codes adopted in this Chapter 6 are in conflict with the administrative provisions found in the California Administrative or Building Codes, the California Administrative and Building Codes shall apply. If any code adopted in this Chapter does not include administrative provisions, the administrative provisions of the California Administrative and Building Codes shall apply.

ARTICLE III. BUILDING CODE

Sec. 6.30.010. Adopted.

The 2018 International Building Code (IBC) as amended by the State of California Building Standards Commission and known as the 2019 California Building Code (CBC), California Code of Regulations Title 24, Part 2, Volumes 1 and 2, with Appendix Chapters B, I, and J, with modifications provided in sections 6.30.020 through 6.30.180 of this article, is adopted by reference.

The 2019 California Administrative Code, California Code of Regulations, Title 24, Part 1, is also adopted by reference.

Sec. 6.30.020. Fire Protection Systems.

Section 901.2 of the California Building Code adopted by this article is amended to read as follows:

Fire Protection Systems. Fire protection systems shall be installed, repaired, operated, and maintained in accordance with this code and the California Fire Code as amended by the Town of Los Gatos.

Sec. 6.30.030. Roof Drainage.

1502 is amended to add Section 1502.5 as follows:

Section 1502.5

Over Public Property.

Roof drainage water from a building shall not be permitted to flow over public property.

Exception(s): 1) Group R3, and Group U Occupancies

2) Other occupancies where the drainage plan and method of drainage have been approved by the "Building Official."

Sec. 6.30.040. Roof Covering Requirements in a Wildland-Urban Interface Fire Area and other areas.

Section 1505.1.2 is amended as follows:

1505.1.2 Roof coverings within state responsibility areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be fire-retardant roof covering that is at least ~~Class B~~ Class A.

Section 1505.1.3 is amended as follows:

1505.1.3 Roof coverings within all other areas.

The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be fire-retardant roof covering that is at least ~~Class C~~ Class A.

Section 1505.1.4 is amended as follows:

1505.1.4. Roofing requirements in a Wildland-Urban Interface Fire Area. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair, or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.

Roofing requirements for structures located in a Wildland-Urban Interface Fire Area shall also comply with Section 705A.

701A.3 is amended as follows:

701A.3 Application. New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter.

Exceptions:

1. Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, ~~when located at least 30 feet from an applicable building.~~
2. Buildings of an accessory character classified as Group U occupancy of any size ~~located at least 50 feet from an applicable building.~~

3. Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code (see also Appendix C – Group U Agricultural Buildings), ~~when located at least 50 feet from an applicable building.~~
4. Additions to and remodels of buildings originally constructed prior to the applicable application date.
5. Group C, special buildings conforming to the limitations specified in Section 450.4.1.

For the purpose of this section and Section 710A, applicable building includes all buildings that have residential, commercial, educational, institutional, or similar occupancy type use.

707A.9 is amended as follows:

707A.9 Underside of appendages. ~~When required by the enforcing agency~~ the underside of overhanging appendages shall be enclosed to grade in accordance with the requirements of this chapter or the underside of the exposed under-floor shall consist of one of the following:

1. Noncombustible material
2. Ignition-resistant material
3. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the floor including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual
5. The underside of a floor assembly that meets the performance criteria in accordance with test procedures set forth in either of the following:
 - 5.1 SFM Standard 12-7A3; or
 - 5.2 ASTM E2957

Exception: Structural column and beams do not require protection when constructed with sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks splined, tongue-and-groove, or set close together and well spiked.

710A.3 is amended as follows:

710A.3 Where required. ~~No requirements shall apply to accessory building or miscellaneous structures when located at least 50 feet from an applicable building. Applicable accessory buildings and attached miscellaneous structures, or detached miscellaneous structures that are installed at a distance of less than 3 feet from an applicable building, shall comply with this section. When required by the enforcing agency, detached miscellaneous structures that are installed at a distance of more than 3 feet but less than 50 feet from an applicable building shall comply with the requirements of this section.~~

710A.3.1 Accessory building requirements. ~~Applicable accessory buildings that are less than 120 square feet in floor area and are located more than 30 feet but less than 50 feet from~~

an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.

~~**710A.3.2 Attached miscellaneous structure requirements.** Applicable miscellaneous structures that are attached to, or installed at a distance of less than 3 feet from, an applicable building shall be constructed of non-combustible materials or of ignition-resistant materials as described in Section 704A.2.~~

~~**710A.3.3 Detached miscellaneous structure requirements.** When required by the enforcing agency, applicable detached miscellaneous structures that are installed at a distance of more than 3 feet but less than 50 feet from an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.~~
Applicable accessory buildings and attached miscellaneous structures or detached miscellaneous structures shall comply with this section and shall be constructed of noncombustible materials or of ignition-resistant materials as described in section 704A.2.

Sec. 6.30.060. Concrete Strength.

Section 1705.3, Exception 1 is amended as follows:

Exception: Special inspections and tests shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, $f'c$, no greater than 2,500 pounds per square inch (psi) (17.2 Mpa).

Sec. 6.30.070. Modification to ACI 318.

Section 1905.1.7 ACI 318, Section 14.1.4 is deleted and amended as follows:

1905.1.7 ACI 318, Section 14.1.4. Delete ACI 318, Section 14.1.4, and replace with the following:

~~14.1.4 Plain concrete in structures assigned to Seismic Design Category C, D, E or F.~~

~~14.1.4.1 Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:~~

- ~~(a) Structural plain concrete basement, foundation or other walls below the base as defined in ASCE 7 are permitted in detached one- and two-family dwellings three stories or less in height constructed with stud-bearing walls. In dwellings assigned to Seismic Design Category D or E, the height to the wall shall not exceed 8 feet (2438 mm), the thickness shall be not less than 7 ½ inches (190 mm), and the wall shall retain no more than 4 feet (1219 mm) of unbalanced fill. Walls shall have reinforcement in accordance with 14.6.1.~~

- ~~(b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.~~

~~**Exception:** In detached one and two family dwellings, three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.~~

- ~~(c) Plain concrete footings supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. For footings that exceed 8 inches (203 mm) in thickness, a minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.~~

~~**Exceptions:**~~

- ~~1. In Seismic Design Categories A, B, and C, detached one and two family dwellings three stories or less in height constructed with stud bearing walls are permitted to have plain concrete footings without longitudinal reinforcement.~~
- ~~2. For foundation systems consisting of plain concrete footings and a plain concrete stemwall a minimum of one bar shall be provided at the top of the stemwall and at the bottom of the footing.~~
- ~~3. Where a slab on ground is cast monolithically with the footing, one No. 5 bar is permitted to be located at either the top of the slab or bottom of the footing.~~

14.1.4 - Plain concrete in structures assigned to Seismic Design Category C, D, E, or

F.

14.1.4.1- Structures assigned to Seismic Design Category C, D, E, or F shall not have elements of structural plain concrete, except as follows:

(a) Left intentionally blank.

(b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

(c) Plain concrete footings supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars not smaller than No. 4, with a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

Sec. 6.30.085. Swimming Pools, Spas, and Hot Tubs:

3109 Swimming Pools Spas and Hot Tubs is adopted in its entirety.

Sec. 6.30.090. IBC Oversight. The California adoption of the new 2018 International Building Code may have inadvertently eliminated some construction requirements by oversight or erroneous reference to another code. In cases where the code adoption has inadvertently deleted or missed referenced necessary construction requirements, the Town of Los Gatos Building Official may authorize use of construction requirements from the last previously adopted International Codes.

Sec. 6.30.170 is amended as follows:

Sec. 6.30.170. Schedule of permit fees. Administration Chapter 1, Division II, Section 109.2 of the 2019 California Building Code adopted by this article states that "... a fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority (Town of Los Gatos).

109.7. Plan Review Fees.

Section 109.7 is added as follows:

When submittal documents are required by Section 109, a plan review fee shall be paid at the time of submitting the submittal documents for plan review. Said plan review fee shall be 65 percent of the building permit fee. The plan review fees specified in this section are separate fees from the permit fees and are in addition to the permit fees.

When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items as defined in Section 107.3.4.1, an additional plan review fee shall be charged at the per hour plan review rate as adopted by the Town of Los Gatos.

Sec. 6.30.180. Refunds. Administration Chapter 1, Section 109.6 of the 2019 California Building Code adopted by this article is amended to add Section 109.6.1:

Section 109.6.1 is added as follows:

109.6.1. Refunds. The building official may authorize refunds of Building Division fees which were erroneously paid or collected.

The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work or inspections has been done under an issued permit.

The building official may authorize refunding of not more than 80 percent of the collected plan review fee when the plan check application is withdrawn or cancelled prior to any plan review work being done.

The building official shall not authorize refunding of any collected fee until a written request for a refund by the original permittee or applicant is received. Requests must be received no later than 180 days after the date of fee payment.

ARTICLE IV. PLUMBING CODE

Sec. 6.40.010. Adopted.

The Uniform Plumbing Code, 2018 Edition, as amended by the State of California Building Standards Commission, California Code of Regulations, Title 24, Part 5, as the 2019 California Plumbing Code is adopted with Appendix Chapters A, B, D, G, I, K, and L only.

Sec. 6.40.020. Backflow protection.

Section 710.1 is amended as follows:

710.1. Backflow Protection. ~~Fixtures installed on a floor level that is lower than the next upstream manhole cover of the public, or private sewer shall be protected from backflow of sewage by installing an approved type of backwater valve. Fixtures on such floor level that are not below the next upstream manhole cover shall not be required to be protected by a backwater valve. Fixtures on floor levels above such elevation shall not discharge through the backwater valve.~~ Drainage piping serving fixtures which have flood level rims less than twelve (12) inches (304.8 mm) above the elevation of the next upstream manhole and/or flushing inlet cover at the public or private sewer system serving such drainage piping shall be protected from backflow of sewage by installing an approved backwater valve. Fixtures above such elevation shall not discharge through the backwater valve, unless first approved by the Administrative Authority. Cleanouts for drains that pass through a backwater valve shall be clearly identified with a permanent label stating, "backwater valve downstream."

ARTICLE V. MECHANICAL CODE

Sec. 6.50.010. Adopted.

The Uniform Mechanical Code (UMC), 2018 Edition, amended by the State of California Building Standards Commission, California Code of Regulations, Title 24, Part 4, as the 2016 California Mechanical Code is adopted by reference.

ARTICLE VI. ELECTRICAL CODE

Sec. 6.60.010. Adopted.

The National Electrical Code, 2017 Edition, as amended by the State of California Building Standards Commission, California Code of Regulations, Title 24, Part 3, as the 2016 California Electrical Code is adopted by reference.

ARTICLE VII. ENERGY CODE

Sec. 6.70.010. Adopted.

The 2019 California Energy Code, California Code of Regulations, Title 24, Part 6 is adopted by reference and amended as follows.

Sec. 6.70.020 Single Family Residential, ADU (Accessory Dwelling Unit), and Low-Rise Residential All Electric Requirements.

100.0(e)2D Low-rise residential buildings is amended as follows.

100.0(e)2D Low-rise residential buildings.

i Sections applicable. Sections 150.0 through 150.1 apply to newly constructed low-rise residential buildings except where they conflict with Section ii below.

ii All electric construction. All single-family residential and low-rise multifamily buildings as defined in Section 100.1 of this code and ADUs (Accessory Dwelling Unit) as defined in Town of Los Gatos Municipal Code Sec. 29.10.310 shall use electricity as the source of energy for its space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances.

Exception: Natural gas or propane may be used for cooktop or range and standalone cooking ovens provided that all the following are met:

1. A dedicated 208/240-volt, 50-amp or greater electrical receptacle that is connected to the electric panel with conductors of adequate capacity, within 3 feet of the appliance and accessible with no obstructions;
2. Both ends of the unused conductor shall be labeled with the words “For Future Electric Range, Cooktop or Oven” as applicable, and be electrically isolated;
3. A reserved double-pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words “For Future Electric Range, Cooktop or Oven” as applicable, and;
4. Other electrical components, including conductors, receptacles, or blank covers, related to this section shall be installed in accordance with the California Electrical Code.

ARTICLE VIII. REFERENCE STANDARDS CODE

Sec. 6.80.010. Adopted.

The 2019 California Referenced Standards Code, California Code of Regulations, Title 24, Part 12, is adopted by reference.

ARTICLE IX. HISTORICAL BUILDING CODE

Sec. 6.90.010. Adopted.

The 2019 California Historical Building Code, California Code of Regulations, Title 24, Part 8 including Appendix A is adopted by reference.

ARTICLE X. EXISTING BUILDING CODE

Sec. 6.100.010. Adopted.

The 2018 International Existing Building Code (IEBC), specifically Appendix Chapter A1, as amended by the State of California Building Standards Commission and known as the 2019 California Existing Building Code, California Code of Regulations, Title 24, Part 10, is adopted by reference.

Sec. 6.100.020. Additional Chapters Adopted.

The following Chapters of the 2018 International Existing Building Code, as published by the International Code Council (ICC) are also adopted:

Chapter 9
Chapter 14
Appendix A2
Appendix A3
Appendix A4
Appendix A5

ARTICLE XI. INTERNATIONAL PROPERTY MAINTENANCE CODE

Sec. 6.110.010. Adopted.

The 2018 International Property Maintenance Code, as published by International Code Council (ICC), is adopted by reference.

Sec. 6.110.020. Application of other codes.

Section 102.3 is amended as follows:

Sec. 102.3 Application of other codes. Repairs, additions or alterations to a structure, or changes of occupancy, shall be done in accordance with the procedures and provisions of the IBC, IEBC, IECC, IFC, IFGC, IMC, IRC, IPC and NFPA 70. ~~Nothing in this code shall be construed to cancel, modify or set aside any provision of the International Zoning Code, California Building Code, California Plumbing Code, California Electrical Code, and California Mechanical Code. Nothing in this code shall be construed to cancel, modify or set aside any provisions of the Town of Los Gatos Zoning Code.~~

ARTICLE XII. CALIFORNIA GREEN BUILDING STANDARDS CODE

Sec. 6.120.010. Adopted.

The 2019 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapters 1 through 8 only, are adopted by reference and amended as follows.

Sec. 6.120.020 Electric Vehicle Charging Requirements.

4.106.4 is amended as follows:

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Section 4.106.4.1, 4.106.4.2, or 4.106.4.3, to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with California Electrical Code, Article 625.

Exceptions:

1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
 - 1.1. Where there is no commercial power supply.
 - 1.2. Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase utility side cost to the homeowner or the developer by more than \$400 per dwelling unit.
2. ~~Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.~~

4.106.4.1 is amended as follows:

4.106.4.1 New one- and two-family dwellings, ADUs, and townhouses with attached private garages. For each dwelling unit a wired National Electrical Manufacturers Association (NEMA) outlet supplied by a 40-ampere minimum dedicated branch circuit shall be installed specifically for supplying electrical power for an Electric Vehicle Charger. ~~For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not~~

~~be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.~~

~~**4.106.4.1.1 Identification** The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as “EV CAPABLE”. The raceway termination location shall be permanently and visibly marked as “EV CAPABLE.”~~

ARTICLE XIII.

Sec. 6.130.010. Additions and alterations. Clarification.

301.1.1 is amended as follows:

301.1.1. Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building’s conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected, and other important enactment dates.

Clarification: Based on definitions found within the California Building Code and the California Green Building Standards Code, alteration and improvements are interpreted to mean any construction to an existing structure which enhance or improve the structure. Construction related to repairs or maintenance of the structure is not considered to be an alteration or improvement. **Alteration**, as defined in the 2019 California Building Code, states in part; *“Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility.”* Therefore, permits can be issued for property maintenance and repair without the requirement to replace noncompliant plumbing fixtures. The following is a list of permits that are considered to be repair or maintenance:

- Electrical Service Change Out

- HVAC Change Out
- Re-Roof
- Sewer Line Replacement
- Siding or Stucco application
- Site Work: Retaining Walls, Fences, Walkways, etc.
- Water heater Replacement
- Window Replacement
- Other Repairs as determined by the Building Official

ARTICLE XIV. BUILDING RELOCATION CODE OF THE TOWN

DIVISION 1. GENERALLY

Sec. 6.140.010. Title.

This article is the Building Relocation Code of the Town of Los Gatos.

Sec. 6.140.020. Interference with demolition or removal of building.

It shall be unlawful for any person to interfere with or obstruct the Building Official, any person engaged by the Town, or any representative of any surety, engaged in inspection or in the work of completing, demolishing, or removing any building or structure for which a building relocation permit has been issued under Division 2 of this article, after a default has occurred in timely completion of the work or in the performance of the other terms or conditions of the permit.

DIVISION 2. PERMIT

Sec. 6.140.030. Required, exceptions.

It shall be unlawful for any person to move any building or structure on any parcel of land in the Town (except a contractor's tool house, construction building or similar structure which is moved as construction work requires) without first obtaining a permit and posting a bond as provided in this article.

Sec. 6.140.040. Application.

An application for a permit required by the provisions of this division shall be made in writing on the form provided by the Town. The application shall:

- (1) Be signed by the permittee or the permittee's authorized agent (who may be required to submit evidence proving authority);
- (2) Be accompanied by plans, photographs or other substantiating data as reasonably may be required by the Building Official; and

(3) Contain such information as reasonably may be required by the Building Official in order to carry out the purposes of this chapter.

Sec. 6.140.050. Review of application, duty of applicant.

The application for a permit required by the provisions of this division, including the plans and other data filed with it, shall be checked by the Building Official, who is authorized to conduct any investigation in connection therewith may be deemed reasonably necessary. If, when the Building Official has completed such investigation and has notified the applicant that a permit will issue, the applicant fails for a period of sixty (60) days to post the bond and any other instrument required by this division, the application shall become void.

Sec. 6.140.060. Issuance, fees.

(a) Subject to the requirements contained in this article, if in the judgment of the Building Official the conditions of the building or structure can be effectively and practically repaired or restored to comply with this Code, the Building Official shall issue a permit to the owner of the property where the building or structure is to be located.

(b) A permit fee shall be paid at the time of issuance of the permit. The amount of the fee shall be fixed by resolution of the Town Council.

Sec. 6.140.070. When issuance prohibited.

The Building Official shall not issue a permit under this division for any building or structure:

- (1) Which does not or cannot be repaired or modified to comply with this code, as it presently exists or hereafter may be amended;
- (2) Which is so constructed or in such condition as to be a substandard building;
- (3) Which is infested with pests or is unsanitary;
- (4) Which is so dilapidated, defective, unsightly, or in such a condition of deterioration or disrepair that its relocation at the proposed site would cause appreciable harm to or be materially detrimental to the existing improvements on nearby property;
- (5) If the proposed use is prohibited by the zoning ordinance;
- (6) If the structure is of a type prohibited at the site of the proposed relocation by this code, or any other statute or ordinance; or
- (7) If the structure or site has not received approval as prescribed in sections 29.20.140 through 29.20.155 of the Town Code. The body granting such approval shall first consider and determine that the proposed site and building are compatible in use, size and architecture with other buildings and structures in the area of the proposed relocation.

Sec. 6.140.080. Conditions of issuance.

In connection with the issuance of any permit under this division, the Building Official or the body granting architecture and site approval or both may attach to the permit such conditions

which are necessary to assure compliance with the purposes of this article and the zoning ordinance, and to assure that the building or structure when relocated will be compatible with and not detrimental or injurious to the buildings or structures in the area of the proposed relocation. Such conditions may include, but are not limited to:

- (1) A limitation of the period of time required to complete the work of relocation;
- (2) Requirements for changes, alterations, additions or repairs;
- (3) The providing of all utility services by the time the building relocation is finished;
- (4) Provision for any improvement work or dedication provided for by the zoning ordinance;
- (5) The applicant's written agreement to indemnify the Town for any and all damages or injury to Town property incurred in the course of the moving, including but not limited to damage or injury to streets, thoroughfares, pavements, curbs, gutters, sidewalks, sewers, public lighting equipment and plants.

Sec. 6.140.090. Bond required.

(a) As a condition precedent to the issuance of any building relocation permit, the applicant shall post a surety bond, the form of which is subject to approval by the Town Attorney, issued by a surety company conducting business in the State. The penal sum of the bond shall be an amount equal to the estimated cost, plus ten (10) percent, of all the work required to perform the relocation to comply with all of the conditions of the permit. The cost estimate is made by the Building Official.

(b) The applicant, in lieu of posting a surety bond, may deposit with the town an amount equal to the required bond amount, in cash.

Sec. 6.140.100. Conditions of bond.

A surety bond shall contain, and any deposit shall be subject to, the following conditions:

- (1) All work, including performance of conditions of the permit (except for performance of conditions such as street improvements when provision is made in a contract with the Town to do the work at a later time) shall be performed and completed within one hundred twenty (120) days after the date of issuance of the permit. After that time, the permit expires.
- (2) The time limit and expiration date of the permit may be extended for good cause after written request of both the principal and the surety. The request may be made either during or after the one-hundred-twenty-day period. If the Building Official decides to grant the request the Building Official shall notify the principal and surety in writing stating the new deadline. The Building Official need not grant the request if the work is not being done continuously and diligently, or if reasonable progress has not been made.
- (3) The term of each bond shall begin on the date the bond instrument is delivered to the town and shall end upon the acceptance by the Building Official of performance of all the terms and conditions of the permit as satisfactory and complete.
- (4) The Building Official, the surety and their representatives shall have access to the premises to inspect the progress of the work.

(5) Upon default by the principal, the surety shall be required to complete the work and to perform all conditions of the permit. The principal shall give the surety right-of-entry onto the site for those purposes.

(6) In the event of any default in the performance of any term or condition of the permit, or failure to complete the work before the permit expires, the surety or any person employed or engaged on its behalf, or the building official, or any person employed or engaged on behalf of the Town may go on the premises to complete the required work or to remove or demolish the building or structure, and clear, clean and restore the site.

Sec. 6.140.110. Default on bond.

(a) If the permittee as principal on the bond defaults in the performance of the conditions required by the permit, or fails to complete the work before the permit expires, the Building Official shall give notice in writing to the principal and the surety, stating the conditions which have not been complied with and the period of time deemed by the Building Official to be reasonably necessary for the completion of the work.

(b) After receipt of the notice, the surety, within the time therein specified, shall finish the work. When the principal has defaulted in any way, the surety, at its option, in lieu of completing the work required, may remove or demolish the building or structure and clear, clean and restore the site.

Sec. 6.140.120. Bond other than surety bond--Default.

If a deposit has been made as provided in Section 6.140.090, the Building Official shall give notice of default, as provided in section 6.140.110, to the permittee. If the permittee does not perform within the time specified in the notice, the Building Official shall proceed without delay and without further notice or proceeding whatever to use the deposit, or any portion of the deposit necessary to cause the required work to be done by contract or otherwise at the Building Official's discretion, upon the completion of the work. The balance, if any, of the deposit, shall be returned to the depositor or to the depositor's successors or assigns after deducting the cost of the work plus ten (10) percent of the cost, which is an amount to defray the Town's cost in enforcement and administration.

Sec. 6.140.130. Same--Release. When a deposit has been made as provided in Section 6.140.090 and all requirements of the permit have been completed, the Building Official shall return the deposit to the depositor or to the depositor's successors or assigns, except any portion thereof that may have been used or deducted as provided in this section.

ARTICLE XV. CALIFORNIA RESIDENTIAL BUILDING CODE

Sec. 6.150.010. Adopted.

The 2019 California Residential Code, California Code of Regulations, Title 24, Part 2.5 is adopted by reference including Appendices H, K, O, Q, S, V, and X and as locally modified by the following Sections of this Article.

Sec. 6.150.020. Fire Protection Amendments.

R310.1 is amended as follows:

- ~~2. Where the dwelling or townhouse is equipped with an automatic sprinkler system installed in accordance with Section P2904, sleeping rooms in basements shall not be required to have emergency escape and rescue opening provided that the basement has one of the following:~~
- ~~2.1 One means of egress complying with Section R311 and one emergency escape and rescue opening.~~
- ~~2.2 Two means of egress complying with Section R311.~~

R313.1 is amended as follows:

~~R313.1 Townhouse automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in townhouses.~~

~~Exception: An automatic residential fire sprinkler system shall not be required where additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.~~ An automatic residential fire sprinkler system shall be installed in all new townhouses and in existing townhouses when additions are made that increase the building area to more than 3,600 square feet.

Exception: One or more additions made to an existing building after January 1, 2011 that do not total more than 1000 square feet of building area.

R313.2 One- and two-family dwellings automatic fire sprinkler systems is amended as follows:

R313.2 One- and two-family dwellings automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in one- and two-family dwellings as follows:

- ~~1. An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.~~
- ~~2. Accessory dwelling Unit provided that all of the following are met:~~
 - ~~2.1 The unit meets the definition of an Accessory Dwelling Unit as defined in the Government Code Section 65852.2.~~
 - ~~2.2 The existing primary residence does not have automatic fire sprinklers.~~
 - ~~2.3 The accessory detached dwelling unit does not exceed 1,200 square feet in size.~~
 - ~~2.4 The unit is on the same lot as the primary residence.~~

1. In all new one- and two-family dwellings and in existing one- and two-family dwellings when additions are made that increase the building area to more than 3,600 square feet, whether by increasing the area of the primary residence or by creation of an attached ADU.

2. In all attached ADUs, additions or alterations to an existing one- and two-family dwelling that have an existing fire sprinkler system.

Exceptions:

1. One or more additions made to a building after January 1, 2011 that does not total more than 1,000 square feet of building area and meets all access and water supply requirements of Chapter 5 and Appendix B and C of the 2019 California Fire Code.

2. Detached Accessory Dwelling Units, provided that all of the following are met:

2.1 The unit meets the definition of an Accessory Dwelling Unit as defined in the Government Code Section 65852.2.

2.2 The existing primary residence does not have automatic fire sprinklers.

2.3 The accessory detached dwelling unit does not exceed 1,200 square feet in size.

2.4 The unit is on the same lot as the primary residence.

2.5 The unit meets all access and water supply requirements of Chapter 5 and Appendix B and C of the 2019 California Fire Code.

3. In all new basements and in existing basements that are expanded by more than 50 percent.

R337.1.3 is amended as follows:

R337.1.3 Application. New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter.

Exceptions:

1. Buildings of an accessory character classified as a Group U occupancy and not exceeding 120 square feet in floor area, ~~when located at least 30 feet from an applicable building.~~

2. Buildings of an accessory character classified as Group U occupancy of any size ~~located at least 50 feet from an applicable building.~~

3. Buildings classified as a Group U Agricultural Building, as defined in Section 202 of this code (see also Appendix C – Group U Agricultural Buildings), ~~when located at least 50 feet from an applicable building.~~

4. Additions to and remodels of buildings originally constructed prior to the applicable application date.

5. Group C, special buildings conforming to the limitations specified in Section 450.4.1.

For the purpose of this section and Section R337.10, applicable building includes all buildings that have residential, commercial, educational, institutional, or similar occupancy type use.

R337.7.9 is amended as follows:

R337.7.9 Underside of appendages. ~~When required by the enforcing agency~~ The underside of overhanging appendages shall be enclosed to grade in accordance with the requirements of this chapter or the underside of the exposed under-floor shall consist of one of the following:

1. Noncombustible material
2. Ignition-resistant material
3. One layer of 5/8-inch Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection
4. The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the floor including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual
5. The underside of a floor assembly that meets the performance criteria in accordance with test procedures set forth in either of the following:
 - 5.1 SFM Standard 12-7A3; or
 - 5.2 ASTM E2957

Exception: Structural column and beams do not require protection when constructed with sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks splined, tongue-and-groove, or set close together and well spiked.

R337.10.3 is amended as follows:

R337.10.3 Where required. ~~No requirements shall apply to accessory building or miscellaneous structures when located at least 50 feet from an applicable building. Applicable accessory buildings and attached miscellaneous structures, or detached miscellaneous structures that are installed at a distance of less than 3 feet from an applicable building, shall comply with this section. When required by the enforcing agency, detached miscellaneous structures that are installed at a distance of more than 3 feet but less than 50 feet from an applicable building shall comply with the requirements of this section.~~

~~**R337.10.3.1 Accessory building requirements.** Applicable accessory buildings that are less than 120 square feet in floor area and are located more than 30 feet but less than 50 feet from an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section R337.4.2.~~

~~**R337.10.3.2 Attached miscellaneous structure requirements.** Applicable miscellaneous structures that are attached to, or installed at a distance of less than 3 feet from, an applicable~~

building shall be constructed of non-combustible materials or of ignition-resistant materials as described in Section R337.4.2.

~~**R337.10.3.3 Detached miscellaneous structure requirements.** When required by the enforcing agency, applicable detached miscellaneous structures that are installed at a distance of more than 3 feet but less than 50 feet from an applicable building shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section R337.4.2.~~
Applicable accessory buildings and attached miscellaneous structures or detached miscellaneous structures shall comply with this section and shall be constructed of noncombustible materials or of ignition-resistant materials as described in section R337.4.2.

R902.1.2 is amended as follows:

R902.1.2 Roof coverings within state responsibility areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be fire-retardant roof covering that is at least ~~Class B~~ Class A.

R902.1.3 is amended as follows:

R902.1.3 Roof coverings in all other areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be fire-retardant roof covering that is at least ~~Class C~~ Class A.

R902.1.4 is amended as follows:

R902.1.4 Roofing requirements in a wildland urban interface fire area. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A. Roofing requirements for structures located in a Wildland-Urban Interface Fire Area shall also comply with Section R337.5.

Sec. 6.150.040. Limits on methods using Gypsum Board and Cement Plaster.

Table R602.10.3(3) is amended as follows:

TABLE R602.10.3(3)g

Footnote "g" is added to Table R602.10.3(3) as follows:

g. In Seismic Design Categories D0, D1, and D2, Method GB is not permitted, and the use of Method PCP is limited to one-story dwellings and accessory structures.

R602.10.4 Construction methods for braced wall panels is amended to add Section R602.10.4.5 Limits on methods GB and PCP.

R602.10.4.5 is added as follows:

R602.10.4.5 Limits on methods GB and PCP. In Seismic Design Categories D0, D1, and D2, Method GB is not permitted, but GB is permitted to be placed on the opposite side of the studs from other types of braced wall panel sheathing. In Seismic Design Categories D0, D1, and D2, the use of Method PCP is limited to one-story dwellings and accessory structures.

SECTION II

CHAPTER 9, Article III, IS DELETED IN ITS ENTIRETY AND REPLACED WITH THE FOLLOWING:

Sec. 9.30.005. Adoption of 2019 CFC and 2018 IFC

Adoption of the 2019 California Fire Code and 2018 International Fire Code.

There is hereby adopted by the Town for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, that certain Code known as the 2019 California Fire Code and also the International Fire Code 2018 Edition, including Appendix Chapters B, C, and O and the whole thereof, save and except such portions as are hereinafter deleted, modified or amended by this ordinance, of which one copy has been filed for use and examination by the public in the office of the Town Building Official and the Town Fire Chief and the same adopted and incorporated as fully as if set out at length herein, and from the date on which this ordinance shall take effect, the provisions thereof shall be controlling within the limits of the Town of Los Gatos.

CHAPTER 1, DIVISION II Administration

Chapter 1 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

105 PERMITS

105.6.8 is amended as follows:

105.6.8 Compressed gases. An operational permit is required for the storage, use or handling at normal temperature and pressure (NTP) of compressed gases in excess of the amounts listed in Table 105.6.8.

Exception:

1. Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle.

Table 105.6.20 is amended as follows:

**TABLE 105.6.20
PERMIT AMOUNTS FOR HAZARDOUS MATERIALS**

TYPE OF MATERIAL	AMOUNT
Combustible liquids	See Section 105.6.16
Corrosive materials:	
Gases	See Section 105.6.8
Liquids	55 gallons
Solids	500 pounds
Explosive materials	See Section 105.6.14
Flammable materials:	
Gases	See Section 105.6.8
Liquids	See Section 105.6.16
Solids	100 pounds
Highly toxic materials:	
Gases	See Section 105.6.8
Liquids	Any Amount
Solids	Any Amount
<u>Moderately toxic materials:</u>	
<u>Gases</u>	<u>See Section 105.6.8</u>
<u>Other health hazard materials:</u>	
<u>Gases</u>	<u>See Section 105.6.8</u>
<u>Liquids</u>	<u>55 gallons</u>
<u>Solids</u>	<u>500 pounds</u>
Oxidizing materials:	
Gases	See Section 105.6.8
Liquids:	
Class 4	Any Amount
Class 3	1 gallon ^a
Class 2	10 gallons
Class 1	55 gallons
Solids:	
Class 4	Any Amount

Class 3	10 pounds ^b
Class 2	100 pounds
Class 1	500 pounds
Organic peroxides:	
Liquids	
Class I	Any Amount
Class II	Any Amount
Class III	1 gallon
Class IV	2 gallons
Class V	No Permit Required
Solids	
Class I	Any Amount
Class II	Any Amount
Class III	10 pounds
Class IV	20 pounds
Class V	No Permit Required
Pyrophoric materials:	
Gases	Any amount
Liquids	Any amount
Solids	Any amount
Toxic materials:	
Gases	See Section 105.6.8
Liquids	10 gallons
Solids	100 pounds
Unstable (reactive) materials:	
Liquids	
Class 4	Any Amount
Class 3	Any Amount
Class 2	5 gallons
Class 1	10 gallons
Solids	
Class 4	Any Amount
Class 3	Any Amount
Class 2	50 pounds
Class 1	100 pounds
Water-reactive materials:	
Liquids	
Class 3	Any Amount
Class 2	5 gallons
Class 1	55 gallons
Solids	
Class 3	Any Amount
Class 2	50 pounds

Class 1	500 pounds
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For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg.

- a. 20 gallons for Class 3 oxidizers when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 20 gallons or less.
- b. 200 pounds for Class 3 oxidizers when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 200 pounds or less.

105.6.30 is deleted as follows:

~~105.6.30 Mobile food preparation vehicles. A permit is required for mobile food preparation vehicles equipped with appliances that produce smoke or grease-laden vapors.~~

Sec. 9.30.770. Day care facility permit.

105.6.52 is added as follows:

105.6.52 Day care facility. An operational permit is required to operate a business as a day care facility for more than 6 people.

Sec. 9.30.775. Institutional permits.

105.6.53 is added as follows:

105.6.53 Institutional. A permit is required to operate, maintain, or use any institutional type occupancy. For the purpose of this Section, an institution shall be, but is not limited to: hospitals, children's home, home or institution for insane or mentally retarded persons, home or institution for the care of aged or senile persons, sanitarium, nursing or convalescent home, certified family care homes, residential care homes for the elderly, out of home placement facilities, halfway house, and day care nurseries or similar facility of any capacity.

105.6.54 is added as follows:

105.6.54 Lithium Batteries. An operational permit is required to collect or store more than 1,000 pounds (454 kg) of lithium batteries.

105.6.55 is added as follows:

105.6.55 Additive Manufacturing. An operational permit is required to conduct additive manufacturing operations as covered in Section 321.3.

105.7.4 is amended as follows:

[A] 105.7.4 Compressed gases. A construction permit is required to install any piped distribution system for compressed gases, or to install a non-flammable medical gas manifold system. A construction permit is required to ~~Where the compressed gases in use or storage exceed the amounts listed in Table 105.6.8, a construction permit is required to~~ install, repair damage to, abandon, remove, place temporarily out of service, close substantially, or modify a compressed gas system.

Exceptions:

1. Routine maintenance.
2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

The permit applicant shall apply for approval to close storage, use, or handling facilities at least 30 days prior to the termination of the storage, use, or handling of compressed or liquefied gases. Such application shall include any change or alteration of the facility closure plan. This 30-day period may be waived by the chief if there are special circumstances requiring such waiver.

105.7.5 is amended as follows:

105.7.5 Cryogenic fluids. A construction permit is required for installation of or alteration to ~~outdoor stationary~~ cryogenic fluid storage systems where the system capacity exceeds the amounts listed in Table 105.6.10. Maintenance performed in accordance with this code is not considered an alteration and does not require a construction permit.

Sec. 9.30.745 Construction permit fees.

106.2.1 is added as follows:

106.2.1 Construction permit fees. Construction permit fees and plan review fees for fire hydrant systems, fire extinguishing systems, and fire alarm systems shall be paid to the Santa Clara County Fire Department in accordance with the following table based on valuation. The valuation shall be limited to the value of the system installation for which the permit is being issued. Plan review fees are 65 percent of the Permit Fee amount. For the purposes of determining the total fee amount for each permit, the plan review fee shall be added to the Permit Fee.

<u>TOTAL VALUATIONS</u>	<u>PERMIT FEE</u>
<u>\$1.00 TO \$500.00</u>	<u>\$23.50</u>
<u>\$501.00 TO \$2,000.00</u>	<u>\$23.50 for the first \$500.00 plus \$3.05 for each additional \$100.00, or fraction thereof, to and including \$2,000.00</u>
<u>\$2001.00 TO \$25,000.00</u>	<u>\$69.25 for the first \$2,000.00 plus \$14.00 for each additional \$1,000.00 or fraction thereof, to and including \$25,000.00</u>
<u>\$25,001.00 TO \$50,000.00</u>	<u>\$391.25 for the first \$25,000.00 plus \$4.00 for each additional \$1,000.00, or fraction thereof, to and including \$50,000.00</u>
<u>\$50,001.00 TO \$100,000.00</u>	<u>\$630.15 for the first \$50,000.00 plus \$13.60 for each additional \$1,000.00, or fraction thereof, to and including \$100,000.00</u>
<u>\$100,001.00 to \$500,000.00</u>	<u>\$986.75 for the first \$100,000.00 plus \$7.00 for each additional \$1,000.00, or fraction thereof, to and including \$500,000.00</u>
<u>\$500,001 to \$1,000,000.00</u>	<u>\$3,228.15 for the first \$500,000.00 plus \$5.35 for each additional \$1,000.00, or fraction thereof, to and including \$1,000,000.00</u>
<u>\$1,000,001 and up</u>	<u>\$5,604.00 for the first \$1,000,000.00 plus \$4.75 for each additional \$1,000.00, or fraction thereof</u>
<u>Additional re-inspections, in connection with the permits above, are to be paid at \$120.00 for each occurrence at the discretion of the fire code official.</u>	
<u>Cancelled inspections without advance notice are to be paid at \$120.00 for each occurrence.</u>	

Sec. 9.30.750. Operational permit fees.

106.2.2 is added as follows:

106.2.2 Operational permit fees. Operational permit fees shall be paid to the Santa Clara County Fire Department as follows:

<u>FACILITY TYPE</u>		<u>PERMIT FEE</u>
<u>1.</u>	<u>Institutional</u>	
	<u>A. More than 6 persons</u>	<u>\$75.00 - Annually</u>
	<u>B. Over 50 persons</u>	<u>\$100.00 - Annually</u>
<u>2.</u>	<u>Day Care Facilities</u>	
	<u>More than 6 clients</u>	<u>\$35.00 - Annually</u>
<u>3.</u>	<u>Places of Assembly</u>	
	<u>A. 50-300 persons</u>	<u>\$50.00 - Annually</u>
	<u>B. Over 300 persons</u>	<u>\$85.00 - Annually</u>
<u>4.</u>	<u>Temporary Membrane Structures, Tents, and Canopies</u>	<u>\$85.00 – Each</u>

	(Only those requiring permits in accordance with Section 105.6.47).	occurrence
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Sec. 9.30.780. Final inspection.

107.5 is added as follows:

107.5 Final inspection. No final inspection as to all or any portion of a development shall be deemed completed until the installation of the required fire protection facilities and access ways have been completed and approved. No final certificate of occupancy may be granted until the Fire Department issues notice of final clearance of such fire protection facilities and access ways to the Building Department.

Sec. 9.30.785. Violations.

110.4 is deleted as follows:

~~**[A] 110.4 Violation penalties.** Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a [SPECIFY OFFENSE], punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.~~

CHAPTER 2 DEFINITIONS

Chapter 1 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

202 GENERAL DEFINITIONS

202 is amended as follows:

3D PRINTER. A machine used in the additive manufacturing process for fabricating objects through the deposition of a material using a print head, nozzle, or another printer technology.

ADDITIVE MANUFACTURING. A process of joining materials to make objects from 3D model data, usually layer upon layer, sometimes referred to as 3D printing. The Code recognizes two types of additive manufacturing:

1. Industrial additive manufacturing. 3D printing operations that typically utilize combustible powders or metals, an inert gas supply, a combustible dust collection system, or that create a hazardous (classified) location area or zone outside of the equipment.
2. Non-industrial additive manufacturing. 3D printing operations that do create a hazardous (classified) location area outside of the equipment, and do not utilize an inert gas supply or a combustible dust collection system.

CORROSIVE LIQUID. Corrosive liquid is:

1. Any liquid which, when in contact with living tissue, will cause destruction or irreversible alteration of such tissue by chemical action;
2. Any liquid having a pH of 2 or less or 12.5 or more;
3. Any liquid classified as corrosive by the U.S. Department of Transportation; and
4. Any material exhibiting the characteristics of corrosivity in accordance with Title 22, California Code of Regulations §66261.22.

MINIMUM THRESHOLD QUANTITY. Minimum threshold quantity is the aggregate of highly toxic, toxic, or moderately toxic gases in a control area which, due to the minimum aggregate quantities, need only comply with the requirements set forth in Section 6004.1

MODERATELY TOXIC GAS. A chemical or substance that has a median lethal concentration (LC50) in air more than 2000 parts per million but not more than 5000 parts per million by volume of gas or vapor, when administered by continuous inhalation for an hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.

OTHER HEALTH HAZARD MATERIAL. A hazardous material which affects target organs of the body, including but not limited to, those materials which produce liver damage, kidney damage, damage to the nervous system, act on the blood to decrease hemoglobin function, deprive the body tissue of oxygen or affect reproductive capabilities, including mutations (chromosomal damage) or teratogens (effect on fetuses).

SECONDARY CONTAINMENT. Secondary containment is that level of containment that is external to and separate from primary containment and is capable of safely and securely containing the material, without discharge, for a reasonable period of time to ensure detection and remedy of the primary containment failure.

SPILL CONTROL. That level of containment that is external to and separate from the primary containment and is capable of safely and securely containing the contents of the largest container and prevents the materials from spreading to other parts of the room.

WORKSTATION is a defined space or an independent principal piece of equipment using ~~HPM within a fabrication area~~ hazardous material with a hazard rating of 3 or 4 in accordance with NFPA 704 where a specific function, laboratory procedure or research activity occurs. Approved or listed hazardous materials storage cabinets, flammable liquid storage cabinets

or gas cabinets serving a workstation are included as part of the workstation. A workstation is allowed to contain ventilation equipment, fire protection devices, detection devices, electrical devices, and other processing and scientific equipment.

CHAPTER 3 GENERAL REQUIREMENTS

Chapter 3 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

315.8 is added as follows:

315.8 LITHIUM BATTERY STORAGE AND HANDLING

315.8 Lithium Battery Storage and Handling. The storage and handling of lithium ion and lithium metal batteries or cells in quantities exceeding 1,000 pounds (4086 kg) shall comply with Section 315.8.1 through 315.8.10, and Chapter 32 where applicable.

315.8.1 Permits. Permits shall be required as set forth in Section 105.6.54.

315.8.2 Maximum quantity in a fire area. The aggregate amount of lithium batteries stored and handled in a single fire area shall not exceed 9,000 pounds (4086 kg).

315.8.3 Construction requirements. Fire areas shall be separated from each other by fire barriers having not less than 2-hour fire resistance rating constructed in accordance with Section 707 of the Building Code and horizontal assemblies constructed in accordance with Section 711 of the Building Code.

315.8.4 Number of fire areas. The maximum number of fire areas within a building shall be four.

315.8.5 Group H, Division 2 occupancy. Storage and handling of more than 9,000 pounds of lithium batteries per fire area shall be in an approved Group H, Division 2 occupancy constructed in accordance with the Building Code and provided throughout with approved automatic smoke detection and radiant-energy detection systems.

315.8.6 Automatic sprinkler system. Buildings containing fire areas used for lithium battery storage or handling shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The design of the sprinkler system within each fire area shall not be less than that required for Extra Hazard Group 2 with a minimum design area of 2,500 square feet. Where the storage arrangement is required by other provisions of this code to be provided with a higher level of sprinkler system protection, the higher level of sprinkler system protection shall be provided.

315.8.7 Automatic smoke detection system. An approved automatic smoke detection system that activates an approved occupant notification system shall be provided throughout each fire area in accordance with Section 907.

315.8.8 Radiant energy detection. An approved radiant-energy detection system that activates an approved occupant notification system shall be installed throughout each fire area in accordance with Section 907.

315.8.9 Collection containers. Containers used to collect or store lithium batteries shall be noncombustible and shall not have an individual capacity exceeding 30 gallons (113.6 L), or be approved for transportation in accordance with the Department of Transportation (DOT).

315.8.10 Storage configuration. Lithium batteries shall be considered a high-hazard commodity in accordance with Chapter 32 and where applicable, lithium battery storage shall comply with Chapter 32 in addition to Section 315.8.

316 HAZARDS TO FIRE FIGHTERS

316.7 is added as follows:

316.7 Roof guardrails at interior courts. Roof openings into interior courts that are bounded on all sides by building walls shall be protected with guardrails. The top of the guardrail shall not be less than 42 inches in height above the adjacent roof surface that can be walked on. Intermediate rails shall be designed and spaced such that a 12-inch diameter sphere cannot pass through.

Exception:

Where the roof opening is greater than 600 square feet in area.

321 is added as follows:

321 ADDITIVE MANUFACTURING

321.1 General. Additive manufacturing equipment and operations shall comply with Section 321.

321.1.1 Scope. Additive manufacturing shall comply with one of the following:

1. Non-industrial additive manufacturing shall comply with Section 321.2.
2. Industrial additive manufacturing shall comply with Section 321.3.

321.1.2 Installation, operation and maintenance. 3D printers and associated additive manufacturing equipment shall be installed, operated, and maintained in accordance with this Code, the listing, and the manufacturer's instructions.

321.1.3 Production materials. Only the production materials listed for use with the equipment and included in the manufacturer's instructions shall be used.

321.2 Non-industrial additive manufacturing. Non-industrial additive manufacturing equipment and operations shall comply with Section 321.2.1 through 321.2.4. Additive manufacturing equipment and operations that do not comply with Section 321.2 shall comply with Section 321.3.

321.2.1 Listing. 3D printers used in non-industrial additive manufacturing shall be listed and labeled in accordance with UL 60950-1, UL 62368-1, or UL 2011. The listing shall also verify:

1. The 3D printers are self-contained and utilize maximum 30-liter pre-packaged production materials.
2. The operation of the 3D printers shall not create a hazardous (classified) electrical area or outside of the unit.
3. If any hazardous (classified) electrical area or zone exists inside of the unit's outer enclosure, the area shall be protected by intrinsically safe electrical construction or other acceptable protection methods.
4. The 3D printers shall not utilize inert gas or an external combustible dust collection.

321.2.2 Occupancies. Non-industrial additive manufacturing shall be permitted in all occupancy groups.

321.3 Industrial additive manufacturing. Industrial additive manufacturing equipment and operations shall comply with Section 321.3.1 through 321.3.13.

321.3.1 Permits required. Permits shall be obtained from the fire code official in accordance with Section 105.6.55 prior to engaging in industrial additive manufacturing operations.

321.3.2 Listing. 3D printers used in industrial additive manufacturing shall be listed and labeled in accordance with UL 2011 or approved for the application based on a field evaluation conducted by an approved agency.

321.3.3 Combustible dusts and metals. Industrial additive manufacturing operations that store, use, or produce combustible dust, combustible particulate solids, or combustible metals shall comply with Chapter 22 and this section.

321.3.4 Powder evaluation. Printing powders used in industrial additive manufacturing operations shall be tested for combustibility in accordance with NFPA 484 or NFPA 652 as applicable. A copy of test reports shall be provided to the fire code official upon request.

321.3.5 Combustible (non-metallic) dusts. Industrial additive manufacturing that uses operations that store, use, or produce combustible (non-metallic) dusts shall comply with NFPA 654.

321.3.6 Combustible metals. Industrial additive manufacturing operations that store or use combustible metals shall also comply with NFPA 484.

321.3.7 Ancillary equipment. Ancillary equipment provided for recycling, sieving, vacuuming, or handling combustible powders shall be designed and approved for such use.

321.3.8 Hazardous materials. Industrial additive manufacturing operations that store or use hazardous materials exceeding the maximum allowable quantity limits shall comply with Chapter 50.

321.3.9 Inert Gas. Additive manufacturing processes that utilize inert gases shall comply with Chapter 53. Ventilation or gas detection shall be provided in accordance with Section 5307.

321.3.10 Technical assistance. Where required by the fire code official, a report evaluating the acceptability of technologies, processes, products, facilities, materials, and uses associated with the operation shall be provided in accordance with 104.7.2 and approved.

321.3.11 Performance based design alternative. Where approved by the fire code official, buildings and facilities where industrial additive manufacturing is performed shall be permitted to comply with the performance-based design options in Section 5001.3 as an alternative to compliance with the other requirements set forth in this Section.

321.3.12 Occupancies. Industrial additive manufacturing shall only be conducted in the occupancy groups associated with manufacturing operations. The occupancy may be required by the fire code official to comply with Chapter 50 maximum allowable quantity tables. Where approved, the requirements in Sections 321.2.5 and 321.3.6 shall be permitted to provide the technical basis for determining compliance with Table 5003.1.1(1), footnote q.

321.3.13 Safety Certification. The equipment, process, training procedures, and occupancy associated with industrial additive manufacturing may be required by the fire code official to receive a safety certification from Underwriter's Laboratory or equivalent.

CHAPTER 5 FIRE SERVICE FEATURES

Chapter 5 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

503 FIRE APPARATUS ACCESS ROADS

503.1 is amended as follows:

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 and as per fire department access road standards.

503.1.1 is amended as follows:

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements for this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where any of the following conditions occur:
 - 1.1 In other than R-3 occupancies, when the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.11903.3.1.2 or 903.3.1.3, the dimension may be increased to a maximum of 300 feet when approved by the fire code official.
 - 1.2 When fire apparatus access roads cannot be installed because of ~~location on property,~~ topography, waterways, nonnegotiable grades, or other similar conditions, ~~and an approved alternative means of fire protection is~~ shall be provided.
 - 1.3 When there are no more than two Group R-3 or accessory Group U occupancies, the dimension may be increased to a maximum of 200 feet.
2. Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

503.2.1 is amended as follows:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, or as required by fire department access road standards, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of 13 feet 6 inches (4115 mm).

Exception:

When there are not more than two Group R, Division 3, or Group U occupancies, the access road width may be modified by the fire code official.

503.2.2 is amended as follows:

503.2.2 Authority. The fire code official shall have the authority to require or permit modifications to the required access widths and/or vertical clearance where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

504 ACCESS TO BUILDING OPENING AND ROOFS

504.5 is added as follows:

504.5 Access control devices. When access control devices including bars, grates, gates, electric or magnetic locks or similar devices, which would inhibit rapid fire department emergency access to or within the building are installed, such devices shall be approved by the fire code official. All electrically powered access control devices shall be provided with an approved means for deactivation or unlocking from a single location or otherwise approved by the fire code official.

Access control devices shall also comply with Chapter 10 Means of Egress.

510 EMERGENCY RESPONDER RADIO COVERAGE

510.1 is amended as follows:

510.1 Emergency responder radio coverage in new buildings. ~~New buildings shall have~~ Approved radio coverage for emergency responders shall be provided within all the buildings meeting any one of the following conditions: based on the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. ~~This section shall not require improvement of the existing public safety communication systems.~~

1. There are more than 3 stories above grade plane (as defined by the Building Code Section 202);
2. The total building area is 30,000 square feet or more;
3. The total basement area is 5,000 square feet or more; or
4. Where required by the fire code official and radio coverage signal strength levels are not consistent with the minimum levels set forth in Section 510.4.1.

Exceptions:

1. Where approved by the ~~building official and the~~ fire code official, a wired communication system in accordance with Section 907.2.12.2 shall be permitted to be installed or maintained in ~~instead~~ lieu of an approved radio coverage system.

2. Where it is determined by the fire code official that the radio coverage system is not needed.
3. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system.
4. Buildings and areas of buildings that have minimum radio coverage signal strength levels of the Silicon Valley Regional Interoperability Authority (SVRIA) P25 Phase 2 700 MHz Digital Trunked Radio System within the building in accordance with Section 510.4.1 without the use of an indoor radio coverage system.

The radio coverage system shall be installed and maintained in accordance with Sections 510.4 through 510.6.4 of this code and with the applicable provisions of NFPA 1221, Standard for the Installation, and Maintenance and Use of Emergency Services Communications Systems.

The coverage shall be based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

510.1.1 is added as follows:

510.1.1 Obstruction by new buildings. No obstruction of the public safety system backhaul shall be allowed without an approved mitigating plan.

510.2 is deleted as follows:

~~**510.2 Emergency responder radio coverage in existing buildings.** Existing buildings shall be provided with approved radio coverage for emergency responders as required in Chapter 11.~~

510.3 is amended as follows:

510.3 Permit required. A construction permit, for the installation of, or modification to emergency responder radio coverage systems and related equipment is required as specified in Section 105.7.6. Maintenance performed in accordance with this code is not considered a modification and does not require a permit. A frequency change made to an existing system is considered to be new construction and will require a construction permit.

510.4 is amended as follows:

510.4 Technical requirements. Systems, components and equipment required to provide the emergency responder radio coverage system shall comply with ~~Section 510.4.1 through~~

~~510.4.2.8.~~ the current Emergency Responders Radio Coverage Systems Standard Details & Specification enforced by the Santa Clara County Fire Department.

510.4.1.1 is amended as follows:

510.4.1.1 Minimum signal strength into the building. The minimum inbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The inbound signal level shall be sufficient to provide not less than a Delivered Audio Quality (DAQ) of 3.0 for analog communications and a DAQ of 3.4 for digital communications systems or an equivalent Signal-to-Interference-Plus-Noise Ratio (SINR) applicable to the technology ~~for either analog or digital signals.~~

510.4.1.2 is amended as follows:

510.4.1.2 Minimum signal strength out of the building. The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The outbound signal level shall be sufficient to provide not less than a DAQ of 3.0 for analog communications and a DAQ of 3.4 for digital communications systems or an equivalent SINR applicable to the technology ~~for either analog or digital signals.~~

510.5 is amended as follows:

510.5 Installation requirement. The installation of the ~~public safety radio~~ emergency responder radio coverage system shall be in accordance with NFPA 1221 and ~~Sections 510.5.1 through 510.5.4~~ the current Emergency Responder Radio Coverage Systems Standard Details & Specification enforced by the Santa Clara County Fire Department.

510.5.1 is amended as follows:

510.5.1 Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC or other radio licensing authority shall not be installed without prior coordination and approval of the fire code official and the agency FCC license holder or systems administrator.

Amend the First Paragraph of 510.5.3 as follows:

510.5.3 Acceptance test procedure. Where an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to verify that two-way coverage on each floor of the building is not less than 95 percent. Final system acceptance will require ERRCS power level and DAQ testing with the agency FCC license holder, systems administrators, or designee.

CHAPTER 6

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BUILDING SERVICES AND SYSTEMS

Chapter 6 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

603 FUEL-FIRED APPLIANCES

603.4.2.1.1 is amended as follows:

603.4.2.1.1 Prohibited locations. The storage or use of portable outdoor gas-fired heating appliances is prohibited in any of the following locations:

1. Inside of any occupancy where connected to the fuel gas container.
2. Inside of tents, canopies and membrane structures.
3. On exterior balconies and rooftops in other than R-3 occupancies.

604 ELECTRICAL EQUIPMENT, WIRING AND HAZARDS

604.12 is added as follows:

604.12 Immersion heaters. All electrical immersion heaters used in dip tanks, sinks, vats, and similar operations shall be provided with approved over-temperature controls and low liquid level electrical disconnects. Manual reset of required protection devices shall be provided.

CHAPTER 8 INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

Chapter 8 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

806 NATURAL DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS

806.1.1 is amended as follows:

806.1.1 Restricted occupancies. ~~Natural cut trees shall be prohibited within ambulatory care facilities and Group A, E, I-2, I-3, I-4, M, R-1, R-2 and R-4 occupancies.~~ The display of natural cut trees and other decorative vegetation shall be in accordance with the California Code of Regulations, Title 19, Division 1, Section 3.08 and Sections 806 .1 through 806.4.

Exceptions:

1. Trees located in areas protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 shall not be prohibited in Groups A, E, M,

R-1 and R-2.

2. Trees shall be allowed within dwelling units in Group R-2 occupancies.

CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Chapter 9 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

901 GENERAL

901.6.3 is amended as follows:

901.6.3 Records. Records of all system inspections, tests and maintenance required by the referenced standard shall be maintained on the premises for a minimum of five years.
Inspections and tests performed on fire alarm systems shall be documented on NFPA 72 forms.

903 AUTOMATIC SPRINKLER SYSTEMS

903.2 is amended as follows:

903.2 Where required. Approved automatic sprinkler system in new and existing buildings and structures shall be provided in the locations described in this Section or in Sections 903.2.1 through 903.2.18 whichever is the more restrictive.
For the purposes of this section, firewalls and fire barriers used to separate building areas shall be constructed in accordance with the California Building Code and shall not be utilized as a means of area reduction for the purposes of circumventing automatic fire sprinkler system installation requirements.

1. An approved automatic sprinkler system shall be provided throughout all new buildings and structures.

Exceptions:

- a. Buildings and structures that do not exceed 1,000 square feet of building area and that are not located in the Wildland-Urban Interface Fire Area.
- b. Buildings and structures that are located in the Wildland-Urban Interface Fire Area and do not exceed 500 square feet of building area.
- c. Group S-2 or U occupancies that are not located in the Wildland-Urban Interface and used exclusively for vehicle parking and meeting all of the following conditions:
 - i. Noncombustible construction;
 - ii. Maximum building area not to exceed 5,000 square feet;

- iii. Structure is open on three (3) or more sides; and
 - iv. Minimum of 10 feet separation from existing buildings unless area is separated by fire walls complying with CBC 706.
2. An automatic sprinkler system shall be provided throughout existing buildings and structures when alterations or additions are made that create conditions described in Sections 903.2.1 through 903.2.18.
 3. An automatic sprinkler system shall be provided throughout existing buildings and structures, when additions are made that increase the building area to more than 3,600 square feet.

Exception: One or more additions made to a building after January 1, 2011 that does not total more than 1,000 square feet of building area.

4. An automatic sprinkler system shall be provided throughout all new basements regardless of size and throughout existing basements that are expanded by more than 50 percent.
5. Any change in the character of occupancy or in use of any building with a building area equal to or greater than 3,600 square feet which, in the opinion of the fire code official or building official, would place the building into a more hazardous division of the same occupancy group or into a different group of occupancies and constitutes a greater degree of life safety or increased fire risk, shall require the installation of an approved automatic fire sprinkler system.

1 Life Safety - Increased occupant load, public assembly areas, public meeting areas, churches, indoor amusement attractions, buildings with complex exiting systems due to increased occupant loads, large schools/day-care facilities, and large residential care facilities with non-ambulatory persons.

2 Fire Risks - High-piled combustible storage, woodworking operations, hazardous operations using hazardous materials, increased fuel loads (storage of moderate to highly combustible materials), and increased sources of ignition (welding, automotive repair with the use of flammable liquids and open flames).

903.2.18 is amended as follows:

903.2.18 Group U private garages and carports accessory to Group R-3 occupancies. Carports with habitable space above and attached garages, accessory to Group R-3 occupancies, shall be protected by residential fire sprinklers in accordance with this section. Residential fire sprinklers shall be connected to, and installed in accordance with, an automatic residential fire sprinkler system that complies with Section R313 of the California Residential Code or with NFPA 13D. Fire sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a minimum density of 0.05 gpm/ft² (2.04 mm/min) over the area of the garage and/or carport,

but not to exceed two sprinklers for hydraulic calculation purposes. Garage doors shall not be considered obstructions with respect to sprinkler placement.

Exception:

An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing carports and/or garages that do not have an automatic residential fire sprinkler system installed in accordance with this section.

909 SMOKE CONTROL SYSTEMS

909.20.1 is amended as follows:

909.20.1 Schedule. A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established and both shall occur at least annually.

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS.

Delete Chapter 11 of the 2018 International Fire Code in its entirety.

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

Chapter 33 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

3304 PRECAUTIONS AGAINST FIRE

3304.9 is added as follows:

3304.9 Fire walls. When firewalls are required in combustible construction, the wall construction shall be completed (with all openings protected) immediately after the building is sufficiently weather protected at the location of the wall(s).

3311 MEANS OF EGRESS

3311.1 is amended as follows:

3311.1 Stairways required. ~~Where building construction exceeds 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be provided. As construction progresses, such stairway shall be extended to~~

~~within one floor of the highest point of construction having secured decking or flooring.~~
Each level above the first story in multi-story buildings that require two exit stairways shall be provided with at least two usable exit stairways after the floor decking is installed. Exit stairs in new and in existing, occupied buildings shall be lighted and maintained clear of debris and construction materials at all times.

Exception:

For multi-story buildings, one of the required exit stairs may be obstructed on not more than two contiguous floor levels for the purposes of stairway construction (i.e., installation of gypsum board, painting, flooring, etc.).

3311.1.1 is added as follows:

3311.1.1 Required means of egress. All buildings under construction shall have at least one unobstructed means of egress. All means of egress shall be identified in the pre-fire plan see Section 3308.3.

CHAPTER 49 REQUIREMENTS FOR WILDLAND-URBAN INTERFACE FIRE AREAS

Chapter 49 of the 2019 California Fire Code is adopted with the following amendments:

4902 DEFINITIONS

Amend the following definition as follows:

Wildland-Urban Interface Fire Area. A geographical area identified by the state as a " Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. The Wildland-Urban Interface Fire Area shall be defined as all areas within the Town of Los Gatos as set forth and delineated on the map entitled "Wildland-Urban Interface Fire Area" which map and all notations, references, data, and other information shown thereon are hereby adopted and made a part of this chapter. The map properly attested, shall be on file in the Office of the Town Clerk of the Town of Los Gatos.

4906 HAZARDOUS VEGETATION AND FUEL MANAGEMENT

4906.2 is amended as follows:

4906.2 Application. Buildings and structures located in the following areas shall maintain the required hazardous vegetation and fuel management:

1. All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Areas (SRA) including:
 - 1.1 Moderate Fire Hazard Severity Zones
 - 1.2 High Fire Hazard Severity Zones
 - 1.3 Very-high Fire Hazard Severity Zones
2. Land designated as a Very-high Fire Hazard Severity Zone ~~by cities and other local agencies or~~ as a Wildland Urban Interface Fire Area by the Town of Los Gatos.

4907 DEFENSIBLE SPACE

4907.1 is amended as follows:

4907.1 General. Defensible space will be maintained around all buildings and structures in Sate Responsibility Area (SRA) as required in Public Resources Code 4290 and "SRA Fire Safe Regulations" California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 2, Section 1270.

Buildings and structures within the Very-High Fire Hazard Severity Zones of a Local Responsibility Area (LRA) shall maintain defensible space as outlined in Government Code 51175 - 51189 and any local ordinance of the authority having jurisdiction.

Persons owning, leasing, controlling, operating, or maintaining buildings or structures in the locally adopted Wildland-Urban Interface Fire Area but that are not within the Very-High Fire Hazard Severity Zone and persons owning, leasing, or controlling land adjacent to such buildings or structures, shall at all times:

1. Maintain an effective defensible space by removing and clearing away flammable vegetation and combustible growth from areas within 30 feet (9144 mm) of such buildings or structures.
Exception: Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.
2. Maintain additional effective defensible space by removing brush, flammable vegetation and combustible growth located 30 feet to 100 feet (9144 mm to 30480 mm) when required by the fire code official due to steepness of terrain or other conditions that would cause a defensible space of only 30 feet (9144 mm) to be insufficient.

Exception: Grass and other vegetation located more than 30 feet (9144 mm) from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

3. Remove portions of trees, which extend within 10 feet (3048 mm) of the outlet of a chimney.

4. Maintain trees adjacent to or overhanging a building free of deadwood; and
5. Maintain the roof of a structure free of leaves, needles, or other dead vegetative growth.
6. Defensible space shall also be provided around water tank structures, water supply pumps, and pump houses.
7. Remove flammable vegetation a minimum of 10 feet around liquefied petroleum gas tanks/containers.
8. Firewood and combustible materials shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. The storage of firewood and combustible material within the defensible space shall be located a minimum of 30 feet (6096 mm) from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet (4572 mm).
Exception: Firewood and combustible materials not for consumption on the premises shall be stored as approved by the fire code official.
9. Clear areas within 10 feet (3048 mm) of fire apparatus access roads and driveways of non-fire-resistive vegetation growth.
Exception: Single specimens of trees, ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents, or similar plants used as ground cover, provided they do not form a means of readily transmitting fire.

4907.2 is added as follows:

4907.2 Corrective actions. The executive body is authorized to instruct the fire code official to give notice to the owner of the property upon which conditions regulated by Section 4907.1 exist to correct such conditions. If the owner fails to correct such conditions the executive body is authorized to cause the same to be done and make the expense of such correction a lien upon the property where such conditions exist.

4908 is added as follows:

4908 FIRE PROTECTION PLAN

4908.1 General. When required by the fire code official, a fire protection plan shall be prepared.

4908.2 Content. The plan shall be based upon a site-specific wildfire risk assessment that includes considerations of location, topography, aspect, flammable vegetation, climatic conditions, and fire history. The plan shall address water supply, access, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space, and vegetation management.

4908.3 Cost. The cost of fire protection plan preparation and review shall be the responsibility of the applicant.

4908.4 Plan retention. The fire protection plan shall be retained by the fire code official.

4909 is added as follows:

4909 WATER SUPPLY

4909.1 General. Buildings and structures, or portions thereof, hereafter constructed or relocated into or within the Wildland-Urban Interface Fire Area shall be provided with fire protection water supplies in accordance with Chapter 5 and Section 4909.2.

Exception:

Buildings containing only private garages, carports, sheds, and agricultural buildings with a building area of not more than 500 square feet (56 m²).

4909.2 Standby power. Standby power shall be provided to pumps, controllers, and related electrical equipment so that stationary water supply facilities within the wildland-urban interface area that are dependent on electrical power can provide the required water supply. The standby power system shall be in accordance with the Electrical Code. The standby power source shall be capable of providing power for a minimum of two hours.

Exceptions:

1. When approved by the fire code official, a standby power supply is not required where the primary power service to the stationary water supply facility is underground.
2. A standby power supply is not required where the stationary water supply facility serves no more than one single-family dwelling.

4910 is added as follows:

4910 IGNITION SOURCE CONTROL

4910.1 Fireworks. Fireworks shall not be used or possessed in the Wildland-Urban Interface Fire Area.

CHAPTER 50 HAZARDOUS MATERIALS-GENERAL PROVISIONS

Chapter 50 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

5001 GENERAL

5001.2.2.2 is amended as follows:

5001.2.2.2 Health hazards. The material categories listed in this section are classified as health hazards. A material with a primary classification as a health hazard can also pose a physical hazard.

1. Highly toxic and toxic materials.
2. Corrosive materials.
3. Moderately toxic gas.
4. Other health hazards.

5001.5.3 is added as follows:

5001.5.3 Hazardous Materials Business Plan (HMBP). Where required by the Fire code official, facilities shall submit a Hazardous Materials Business Plan (HMBP) as required by California Health & Safety Code (HSC), Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 4. The HMBP shall be electronically submitted in accordance with the fire code official's requested timeframe and no less frequently than is required by the HSC.

5003 GENERAL REQUIREMENTS

5003.1.3.1 is added as follows:

5003.1.3.1 Highly toxic, toxic, moderately toxic gases, and similarly used or handled materials. The storage, use, and handling of highly toxic, toxic, and moderately toxic gases in amounts exceeding Table 6004.2.1.4 shall be in accordance with this chapter and Chapter 60. Any highly toxic, toxic or moderately toxic material that is used or handled as a gas or vapor shall be in accordance with the requirements for highly toxic, toxic, or moderately toxic gases.

5003.1.5 is added as follows:

5003.1.5 Other health hazards. The storage, use, and handling of materials classified as other health hazards including carcinogens, irritants, and sensitizers in amounts exceeding 810 cubic feet for gases, 55 gallons for liquids, and 5,000 pounds for solids shall be in accordance with Section 5003.

5003.1.6 is added as follows:

5003.1.6 Additional spill control and secondary containment requirements. In addition to the requirements set forth in Section 5004.2, an approved containment system is required for any quantity of hazardous materials, that are liquids or solids at normal temperature, and pressure (NTP) where a spill is determined to be a plausible event and where such an event would endanger people, property, or the environment. The approved containment

system may be required to include a combination of spill control and secondary containment meeting the design and construction requirements set forth in Section 5004.2.

5003.2.2.1 is added as follows:

5003.2.2.1 Design and construction. Piping, tubing, valves, fittings and related components used for hazardous materials shall be in accordance with the following:

1. Piping, tubing, valves, fittings and related components shall be designed and fabricated from materials that are compatible with the material to be contained and shall be of adequate strength and durability to withstand the pressure, structural and seismic stress, and exposure to which they are subject.
2. Piping and tubing shall be identified in accordance with ASME A13.1 and the Santa Clara County Fire Chiefs Marking Requirements and Guidelines for Hazardous Materials and Hazardous Waste to indicate the material conveyed.
3. Readily accessible manual valves or automatic remotely activated fail-safe emergency shutoff valves shall be installed on supply piping and tubing ~~and provided with ready access~~ at the following locations:
 1. The point of use.
 2. The tank, cylinder, or bulk use.
4. Manual emergency shutoff valves and controls for remotely activated emergency shutoff valves shall be identified and the location shall ~~have access~~ be clearly visible, accessible, and indicated by means of a sign.
5. Backflow prevention or check valves shall be provided where the backflow of hazardous materials could create a hazardous condition or cause the unauthorized discharge of hazardous materials.

Exception:

- ~~1. Piping for inlet connections designed to prevent backflow.~~
- ~~2. Piping for pressure relief devices.~~
6. Where gases or liquids having a hazard ranking of: Health Hazard Class 3 or 4
Flammability Class 4
Reactivity Class 4

In accordance with NFPA 704 are carried in pressurized piping above 15 pounds per square inch gauge (psig) (103 Kpa), an approved means of leak detection and emergency shutoff or excess flow control shall be provided. Where the piping originates from within a hazardous material storage room or area, the excess flow control shall be located within the storage room or area. Where the piping originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical.

Exceptions:

1. Piping for inlet connections designed to prevent backflow.

2. Piping for pressure relief devices.
7. Secondary containment or equivalent protection from spills or leaks shall be provided for piping for liquid hazardous materials and for highly toxic and toxic corrosive gases above threshold quantities listed in Table 6004.2.1.4. Secondary containment includes but is not limited to double walled piping.

Exceptions:

1. Secondary containment is not required for toxic corrosive gases if the piping is constructed of inert materials.
2. Piping under sub-atmospheric conditions if the piping is equipped with an alarm and fail-safe-to-close valve activated by a loss of vacuum.
8. Expansion chambers shall be provided between valves whenever the regulated gas may be subjected to thermal expansion. Chambers shall be sized to provide protection for piping and instrumentation and to accommodate the expansion of regulated materials.

5003.2.2.2 is amended as follows:

5003.2.2.2 Additional regulation for supply piping for health-hazard materials. Supply piping and tubing for gases and liquids having a health hazard ranking of 3 or 4 ~~in accordance with NFPA 704~~ shall be in accordance with ASME B31.3 and the following:

1. Piping and tubing utilized for the transmission of highly toxic, toxic, or highly volatile corrosive liquids and gases shall have welded ~~threaded or flanged~~ or brazed connections throughout except for connections within a ~~ventilated or exhausted~~ enclosure if the material is a gas, or an approved method of drainage or containment is provided for connections if the material is a liquid.
2. Piping and tubing shall not be located within corridors, within any portion of a means of egress required to be enclosed in fire-resistance-rated construction or in concealed spaces in areas not classified as Group H occupancies.

EXCEPTION: Piping and tubing within the space defined by the walls of corridors and the floor or roof above or in concealed space above other occupancies ~~where~~ when installed in accordance with Section 415.11.6.4 of the California Building Code for Group H-5 occupancies.

3. All primary piping for highly toxic, toxic, and moderately toxic gases shall pass a helium leak test of 1×10^{-9} cubic centimeters/second where practical, or shall pass testing in accordance with an approved, nationally recognized standard. Tests shall be conducted by a qualified third party not involved with the construction of the piping and control systems.

5003.3.1 is amended as follows:

5003.3.1 Unauthorized discharges. ~~In the event~~ Where hazardous materials are released in quantities reportable under state, federal, or local regulations or when there is release or a threatened release that presents a threat to health, property, or the environment, the fire code official shall be notified immediately in an approved manner and the following procedures required in accordance with Sections 5003.3.1.1 through 5003.3.1.4.

5003.5.2 is amended as follows:

5003.5.2 Ventilation ducting. Ducts venting hazardous materials operations shall be labeled with the hazard class of the material being vented and the direction of flow.

5003.5.3 is added as follows:

5003.5.3 "H" occupancies. In "H" occupancies, all piping and tubing may be required to be identified when there is any possibility of confusion with hazardous materials transport tubing or piping. Flow direction indicators are required.

5003.9.11 is added as follows:

5003.9.11 Fire extinguishing systems for workstations dispensing, handling, or using hazardous materials. Combustible and non-combustible workstations, which dispense, handle, or use hazardous materials, shall be protected by an approved automatic fire extinguishing system in accordance with Section 2703.10.

Exception: Internal fire protection is not required for Biological Safety Cabinets that carry NSF/ANSI certification where quantities of flammable liquids in use or storage within the cabinet do not exceed 500ml.

5003.10.4 is amended as follows:

5003.10.4 Elevators utilized to transport hazardous materials.

5003.10.4.1 When transporting hazardous materials, elevators shall have no other passengers other than the individual(s) handling the chemical transport cart.

5003.10.4.2 Hazardous materials liquid containers shall have a maximum capacity of 20 liters {5.28 gal}.

5003.10.4.3 Highly toxic, toxic, and moderately toxic gases shall be limited to a container of a maximum water capacity of 1lb.

5003.10.4.4 Means shall be provided to prevent the elevator from being summoned to other floors.

5004 STORAGE

5004.2.1 is amended as follows:

5004.2.1 Spill control for hazardous material liquids. Rooms, buildings or areas used for storage of hazardous material liquids in individual vessels having a capacity of more than 55 gallons (208 L), or in which the aggregate capacity of multiple vessels exceeds 1,000 gallons (3785 L), shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
2. Liquid-tight floors in indoor and outdoor locations or similar areas ~~in outdoor locations~~ provided with liquid-tight raised or recessed sills or dikes.
3. Sumps and collection systems, including containment pallets in accordance with Section 5004.2.3.
4. Other approved engineered systems.

Except for surfacing, the floors, sills, dikes, sumps and collection systems shall be constructed of noncombustible material, and the liquid-tight seal shall be compatible with the material stored. When liquid-tight sills or dikes are provided, they are not required at perimeter openings having an open-grate trench across the opening that connects to an approved collection system.

5004.2.2.2 is amended as follows:

5004.2.2.2 Incompatible materials. Incompatible materials ~~used in open systems~~ shall be separated from each other in the independent secondary containment systems.

5004.2.3 is amended as follows:

5004.2.3 Containment pallets. Where used as an alternative to spill control and secondary containment for outdoor storage in accordance with the exception in Section 5004.2, containment pallets shall comply with all of the following:

1. A liquid-tight sump ~~with access~~ accessible for visual inspection shall be provided;
2. The sump shall be designed to contain not less than 66 gallons (250L);
3. Exposed surfaces shall be compatible with material stored;
4. Containment pallets shall be protected to prevent collection of rainwater within the sump of the containment pallet.

Combustible containment pallets shall not be used inside buildings to comply with Section 5004.2 where the individual container capacity exceeds 55 gallons (208 L) or an aggregate capacity of multiple containers exceeds 1,000 gallons (3785 L) for liquids or where the individual container capacity exceeds 550 pounds (250 kg) or an aggregate of multiple containers exceeds 10,000 pounds (4540 kg) for solids.

CHAPTER 56 EXPLOSIVES AND FIREWORKS

Chapter 56 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

5601 GENERAL

5601.1.3 is amended as follows:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling, and use of fireworks, including those fireworks classified as Safe and Sane by the California State Fire Marshal, are prohibited.

Exceptions:

- ~~1. Storage and handling of fireworks as allowed in Section 5604.~~
- ~~2. Manufacture, assembly and testing of fireworks as allowed in Section 5605 and Health and Safety Code Division 11.~~
- ~~3. The use of fireworks for fireworks displays, pyrotechnics before a proximate audience and pyrotechnic special effects in motion pictures, television theatrical or group entertainment productions as allowed in Title 19, Division 1, Chapter 6 Fireworks reprinted in Section 5608 and Health and Safety Code Division 11.~~
- ~~4. The possession, storage, sale, handling and use of specific types of Division 1.4G fireworks where allowed by applicable laws, ordinances and regulations, provided that such fireworks and facilities comply with NFPA 1124, CPSC 16 CFR Parts 1500 and 1507, and DOTn 49 CFR Parts 100-185, as applicable for consumer fireworks and Health and Safety Code Division 11.~~

The use of fireworks for firework displays as allowed in Section 5608

CHAPTER 57 FLAMMABLE AND COMBUSTIBLE LIQUIDS

Chapter 57 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

5704 STORAGE

5704.2.7.5.8 is amended as follows:

5704.2.7.5.8 Overfill prevention. An approved means or method in accordance with Section 5704.2.9.7.5 shall be provided to prevent the overfill of all Class I, II and IIIA liquid storage tanks. Storage tanks in refineries, bulk plants or terminals regulated by Sections 5706.4 or 5706.7 shall have overfill protection in accordance with API 2350.

An approved means or method in accordance with Section 5704.2.9.7.5 shall be provided to prevent the overfilling of Class IIIB liquid storage tanks connected to fuel-burning equipment inside buildings.

~~Exception:~~

~~Outside above-ground tanks with a capacity of 1,320 gallons (5000 L) or less.~~

5704.2.7.5.9 is added as follows:

5704.2.7.5.9 Automatic filling of tanks. Systems that automatically fill flammable or combustible liquid tanks shall be equipped with overfill protection, approved by the fire code official, that sends an alarm signal to a constantly attended location and immediately stops the filling of the tank. The alarm signal and automatic shut off shall be tested on an annual basis and records of such testing shall be maintained on-site for a period of five (5) years.

5704.2.9.6.1 is amended as follows:

5704.2.9.6.1 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited [jurisdiction to specify] in all locations of the Town of Los Gatos, which are residential or congested commercial areas as determined by the fire code official.

5706 SPECIAL OPERATIONS

5706.2.4.4 is amended as follows:

5706.2.4.4 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks is prohibited ~~within the limits established by law as the limits of districts in which such storage is prohibited [jurisdiction to specify]~~ in all locations of the Town of Los Gatos, which are residential or congested commercial areas as determined by the fire code official.

5707 ON-DEMAND MOBILE FUELING OPERATIONS

5707.3.3 is amended as follows:

5707.3.3 Site plan. ~~Where required by the fire code official~~ A site plan shall be developed for each location at which mobile fueling occurs. The site plan shall be in sufficient detail to indicate: all buildings, structures, lot lines, property lines, and appurtenances on site and their use ~~or~~ and function; all uses adjacent to the lot lines of the site; fueling locations, the locations of all storm drain openings, and adjacent waterways or wetlands; information regarding slope, natural drainage, curbing, impounding, and how a spill will be kept on the site property; and the scale of the site plan.

CHAPTER 58 FLAMMABLE GASES AND FLAMMABLE CRYOGENIC FLUIDS

Chapter 58 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendment:

5806 FLAMMABLE CRYOGENIC FLUIDS

5806.2 is amended as follows:

5806.2 Limitations. The storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited within the limits established by law as the limits of districts in which such storage is prohibited [Jurisdiction to specify] in all locations of the Town of Los Gatos, which are residential or congested commercial areas as determined by the fire code official.

5809 MOBILE GASEOUS FUELING OF HYDROGEN-FUELED VEHICLES

5809.3.4 is amended as follows:

5809.3.4 Site plan. ~~Where required by the fire code official~~ For other than emergency roadside service, a site plan shall be developed for each location at which mobile gaseous hydrogen fueling occurs. The site plan shall be in sufficient detail to indicate; all buildings, structures, lot lines, property lines and appurtenances on site and their use and function, and the scale of the site plan.

CHAPTER 60 HIGHLY TOXIC, TOXIC AND MODERATELY TOXIC MATERIALS

Chapter 60 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

6001 GENERAL

6001.1 is amended as follows:

6001.1 Scope. The storage and use of highly toxic, toxic, and moderately toxic materials shall comply with this chapter. Compressed gases shall also comply with Chapter 53.

Exceptions:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.
2. Conditions involving pesticides or agricultural products as follows:
 - 2.1 Application and release of pesticide, agricultural products and materials intended for use in weed abatement, erosion control, soil amendment or similar applications when applied in accordance with the manufacturer's instruction and label directions.
 - 2.2 Transportation of pesticides in compliance with the Federal Hazardous Materials Transportation Act and regulations there under.
 - 2.3 Storage in dwellings or private garages of pesticides registered by the U.S. Environmental Protection Agency to be utilized in and around the home, garden, pool, spa and patio.

6004 HIGHLY TOXIC, TOXIC AND MODERATELY TOXIC COMPRESSED GASES

6004.1 is amended as follows:

6004.1 General. The storage and use of highly toxic, toxic, and moderately toxic compressed gases shall comply with this section.

6004.1.1 is amended as follows:

6004.1.1 Special limitations for indoor storage and use by occupancy. The indoor storage and use of highly toxic, toxic, and moderately toxic compressed gases in certain occupancies shall be subject to the limitations contained in Sections 6004.1.1.1 through 6004.1.1.3.

6004.1.1.1 is amended as follows:

6004.1.1.1 Group A, E, I or U occupancies. Highly toxic, toxic, and moderately toxic compressed gases shall not be stored or used within Group A, E, I or U occupancies.

Exception: Cylinders not exceeding 20 cubic feet (0.556m³) at normal temperature and pressure (NTP) are allowed within gas cabinets or fume hoods.

6004.1.1.2 is amended as follows:

6004.1.1.2 Group R occupancies. Highly toxic, toxic, and moderately toxic compressed gases shall not be stored or used in Group R occupancies.

6004.1.1.3 is amended as follows:

6004.1.1.3 Offices, retail sales and classrooms. Highly toxic, toxic, and moderately toxic compressed gases shall not be stored or used in offices, retail sales or classroom portions of Group B, F, M or S occupancies.

Exception: In classrooms of Group B occupancies, cylinders with a capacity not exceeding 20 cubic feet (0.566 m³) at NTP are allowed in gas cabinets or fume hoods.

6004.2 is amended as follows:

6004.2 Indoor storage and use. The indoor storage ~~and or~~ use of highly toxic, toxic, or moderately toxic compressed gases shall be in accordance with Sections 6004.2.1 through 6004.2.1.4.

6004.2.1 is amended as follows:

6004.2.1 Applicability. The applicability of regulations governing the indoor storage and use of highly toxic, toxic, and moderately toxic compressed gases shall be as set forth in Sections 6004.2.1.1 through 6004.2.1.4.

6004.2.1.4 is amended as follows:

6004.2.1.4 Quantities exceeding the minimum threshold quantities, but not exceeding the maximum allowable per control area. The indoor storage or use of highly toxic, toxic and moderately toxic gases in amounts not exceeding the minimum threshold quantities per control area set forth in Table 6004.2.1.4, but not exceeding maximum allowable quantity per control area set forth in Table 5003.1.1(2) shall be in accordance with Sections 5001, 5003, 6001, and 6004.1, and 6004.4.

Table 6004.2.1.4 is added as follows:

<p style="text-align: center;"><u>Minimum Threshold Quantities for Highly Toxic, Toxic and Moderately Toxic Gases for Indoor Storage and Use</u></p>

<u>Highly Toxic</u>	<u>20</u>
<u>Toxic</u>	<u>405 cubic feet</u>
<u>Moderately Toxic</u>	<u>405 cubic feet</u>

6004.4 is added as follows:

6004.4 General indoor requirements. The general requirements applicable to the indoor storage and use of highly toxic, toxic, and moderately toxic compressed gases shall be in accordance with Sections 6004.4 through 6004.4.8.2.

6004.4.1 is added as follows:

6004.4.1 Cylinder and tank location. Cylinders shall be located within gas cabinets, exhausted enclosures, or gas rooms. Portable and stationary tanks shall be located within gas rooms or exhausted enclosures.

Exceptions:

1. Where a gas detection system is provided in accordance with 6004.4.8

6004.4.2 is added as follows:

6004.4.2. Ventilated areas. The room or area in which gas cabinets or exhausted enclosures are located shall be provided with exhaust ventilation. Gas cabinets or exhausted enclosures shall not be used as the sole means of exhaust for any room or area.

6004.4.3 is added as follows:

6004.4.3. Piping and controls. In addition to the requirements of Section 5003.2.2, piping and controls on stationary tanks, portable tanks, and cylinders shall comply with the following requirements:

1. Stationary tanks, portable tanks, and cylinders in use shall be provided with a means of excess flow control on all tank and cylinder inlet or outlet connections.

Exceptions:

1. Inlet connections designed to prevent backflow.
2. Pressure relief devices.

6004.4.4 is added as follows:

6004.4.4 Gas rooms. Gas rooms shall comply with Section 5003.8.4 and both of the following requirements:

1. The exhaust ventilation from gas rooms shall be directed to an exhaust system.
2. Gas rooms shall be equipped with an approved automatic sprinkler system. Alternative fire-extinguishing systems shall not be used.

6004.4.5 is added as follows:

6004.4.5 Treatment systems. The exhaust ventilation from gas cabinets, exhausted enclosures, and gas rooms, required in Section 6004.4.1 shall be directed to a treatment system. The treatment system shall be utilized to handle the accidental release of gas and to process exhaust ventilation. The treatment system shall be designed in accordance with Sections 6004.2.2.7.1 through 6004.2.2.7.5 and Chapter 5 of the California Mechanical Code.

Exceptions:

1. Highly toxic, toxic, and moderately toxic gases - storage. A treatment system is not required for cylinders, containers, and tanks in storage where all of the following controls are provided:
 - 1.1 Valve outlets are equipped with gas-tight outlet plugs or caps.
 - 1.2 Hand wheel-operated valves have handles secured to prevent movement.
 - 1.3 Approved containment vessels or containment systems are provided in accordance with Section 6004.2.2.3.
2. Highly toxic, toxic, and moderately toxic gases —use. Treatment systems are not required for highly toxic, toxic, and moderately toxic gases supplied by stationary tanks, portable tanks, or cylinders where a gas detection system complying with Section 6004.4.8 and listed or approved automatic-closing fail-safe valves are provided. The gas detection system shall have a sensing interval not exceeding 5 minutes. Automatic-closing fail-safe valves shall be located immediately adjacent to cylinder valves and shall close when gas is detected at the permissible exposure limit (PEL) by a gas sensor monitoring the exhaust system at the point of discharge from the gas cabinet, exhausted enclosure, ventilated enclosure, or gas room.

6004.4.5.1 is added as follows:

6004.4.5.1. Design. Treatment systems shall be capable of diluting, absorbing, containing, neutralizing, burning, or otherwise processing the contents of the largest single vessel of compressed gas. Where a total containment system is used, the system shall be designed to handle the maximum anticipated pressure of release to the system when it reaches equilibrium.

6004.4.5.2 is added as follows:

6004.4.5.2. Performance. Treatment systems shall be designed to reduce the maximum allowable discharge concentrations of the gas to one-half immediate by dangerous to life and health (IDLH) at the point of discharge to the atmosphere. Where more than one gas is emitted to the treatment system, the treatment system shall be designed to handle the worst-case release based on the release rate, the quantity and the IDLH for all compressed gases stored or used.

6004.4.5.3 is added as follows:

6004.4.5.3. Sizing. Treatment systems shall be sized to process the maximum worst-case release of gas based on the maximum flow rate of release from the largest vessel utilized. The entire contents of the largest compressed gas vessel shall be considered.

6004.4.5.4 is added as follows:

6004.4.5.4 Stationary tanks. Stationary tanks shall be labeled with the maximum rate of release for the compressed gas contained based on valves or fittings that are inserted directly into the tank. Where multiple valves or fittings are provided, the maximum flow rate of release for valves or fittings with the highest flow rate shall be indicated. Where liquefied compressed gases are in contact with valves or fittings, the liquid flow rate shall be utilized for computation purposes. Flow rates indicated on the label shall be converted to cubic feet per minute (cfm/min) (m3/s) of gas at normal temperature and pressure (NTP).

6004.4.5.5 is added as follows:

6004.4.5.5 Portable tanks and cylinders. The maximum flow rate of release for portable tanks and cylinders shall be calculated based on the total release from the cylinder or tank within the time specified in Table 6004.2.2.7.5. Where portable tanks or cylinders are equipped with approved excess flow or reduced flow valves, the worst-case release shall be determined by the maximum achievable flow from the valve as determined by the valve manufacturer or compressed gas supplier. Reduced flow and excess flow valves shall be permanently marked by the valve manufacturer to indicate the maximum design flow rate. Such markings shall indicate the flow rate for air under normal temperature and pressure.

6004.4.6 is added as follows:

6004.4.6. Emergency power. Emergency power shall be provided for the following systems in accordance with Section 604:

1. Exhaust ventilation system.
2. Treatment system.
3. Gas detection system.
4. Smoke detection system.

6004.4.6.1 is added as follows:

6004.4.6.1. Fail-safe systems. Emergency power shall not be required for mechanical exhaust ventilation and treatment systems where approved fail-safe systems are installed and designed to stop gas flow.

6004.4.7 is added as follows:

6004.4.7. Automatic fire detection system. An approved automatic fire detection system shall be installed in rooms or areas where highly toxic, toxic, and moderately toxic compressed gases are stored or used. Activation of the detection system shall sound a local alarm. The fire detection system shall comply with Section 907.

6004.4.8 is added as follows:

6004.4.8. Gas detection system. A gas detection system complying with Section 916 shall be provided to detect the presence of gas at or below the PEL or ceiling limit of the gas for which detection is provided.

Exceptions:

1. A gas detection system is not required for toxic and moderately toxic gases when the physiological warning threshold level for the gas is at a level below the accepted PEL for the gas.
2. A gas detection system is not required for highly toxic, toxic, and moderately toxic gases where cylinders, portable tanks, and all non-continuously welded connects are within a gas cabinet or exhausted enclosures.

6004.4.8.1 is added as follows:

6004.4.8.1. Alarms. The gas detection system shall initiate a local alarm and transmit a signal to an approved location.

6004.4.8.2 is added as follows:

6004.4.8.2. Shut off of gas supply. The gas detection system shall automatically close the shut off valve at the source on gas supply piping and tubing related to the system being monitored for whichever gas is detected.

Exception: Automatic shutdown is not required for highly toxic, toxic, and moderately toxic compressed gas systems where all of the following controls are provided:

1. Constantly attended / supervised.
2. Provided with emergency shutoff valves that have ready access.

CHAPTER 61 LIQUEFIED PETROLEUM GASES

Chapter 61 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

6104 LOCATION OF LP-GAS CONTAINERS

6104.2 is amended as follows:

6104.2 Maximum capacity within established limits. ~~Within the limits established by law restricting~~ The storage of liquefied petroleum gas (LPG) ~~for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons (7570 L) [Jurisdiction to specify]~~ is restricted in all locations within the Town of Los Gatos that are residential or congested commercial areas as determined by the fire code official.

Exceptions: ~~In particular installations, this capacity limit shall be determined by the fire code official, after consideration of special features such as topographical conditions, nature of occupancy, and proximity to buildings, capacity of proposed LP gas containers, degree of fire protection to be provided and capabilities of the local fire department.~~ LPG may be used for industrial operations or when natural gas would not provide a viable substitute for LPG. Portable containers for temporary heating and/or cooking uses may be permitted if stored and handled in accordance with this code. Facilities in commercial areas for refueling portable or mobile LPG containers may be approved by the fire code official on a case-by-case basis.

CHAPTER 64 PYROPHORIC MATERIALS

Chapter 64 of the 2019 California Fire Code and 2018 International Fire Code is adopted with the following amendments:

6405 USE

6405.3.1 is added as follows:

6405.3.1 Silane distribution systems automatic shutdown. Silane distribution systems shall automatically shut down at the source upon activation of the gas detection system at levels above the alarm level and/or failure of the ventilation system for the distribution system.

SECTION III

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable. This Town Council hereby declares that it would have adopted this ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed and the balance of the ordinance be enforced.

SECTION IV

Except as expressly modified in this Ordinance, all other sections set forth in the Los Gatos Town Code shall remain unchanged and shall be in full force and effect.

SECTION V

This Ordinance was introduced at a regular meeting of the Town Council of the Town of Los Gatos on December 3, 2019 and adopted by the following vote as an ordinance of the Town of Los Gatos at a meeting of the Town Council of the Town of Los Gatos on December 17, 2019 and becomes effective 30 days after it is adopted.

In lieu of publication of the full text of the ordinance within fifteen (15) days after its passage a summary of the ordinance may be published at least five (5) days prior to and fifteen (15) days after adoption by the Town Council and a certified copy shall be posted in the office of the Town Clerk, pursuant to GC 36933(c)(1).

COUNCIL MEMBERS:

AYES:

NAYS:

ABSENT:

ABSTAIN:

SIGNED:

MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

ATTEST:

TOWN CLERK OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

DATE: _____

RESOLUTION 2019-
RESOLUTION OF THE TOWN COUNCIL
OF THE TOWN OF LOS GATOS
MAKING FINDINGS FOR MODIFYING THE 2019 CALIFORNIA
BUILDING AND FIRE CODES

WHEREAS, Section 17958 of the Health and Safety Code requires that cities and towns choose between adopting ordinances and regulations imposing uniform codes setting rules and regulations for building, fire, mechanical, plumbing, electrical, and housing, or submitting to the regulations adopted by the State Building Standards Commission; and

WHEREAS, the Town of Los Gatos, in Chapter 6 and Chapter 9 of the Town Code, had previously adopted the uniform codes; and

WHEREAS, the State of California Building Standards Commission adopted 12 new Parts for the California Code of Regulations, CCR Title 24, which the Town will be required to enforce as written or as adopted with local amendments; and

WHEREAS, Sections 17958.5 and 17958.7 of the Health and Safety Code permits cities and towns to modify the California Code requirements if it makes express findings that such modifications are reasonably necessary because of local climatic, geological, geographical, or topographical conditions; and

WHEREAS, the Town of Los Gatos experiences low humidity, high wind, and warm temperatures during the summer months creating conditions which are particularly conducive to the ignition and spread of grass, brush, and structure fires; and

WHEREAS, the Town of Los Gatos is situated adjacent to active earthquake faults capable of producing substantial seismic events; and

WHEREAS, the Town of Los Gatos is partially located in rugged, steep, and heavily vegetated hillsides accessible over limited roadways that are steep, narrow, and circuitous; and

WHEREAS, the Town of Los Gatos is divided by a creek, freeways and other traffic corridors, and is partially located in hillside areas with limited access, the occurrence of a major earthquake would significantly impact the ability of fire crews to respond to emergencies should one or more bridges collapse or be substantially damaged. Additionally, fire suppression

ATTACHMENT 2

capabilities will be severely limited should the water system be extensively damaged during a seismic event; and

WHEREAS, due to these climatic, geological, geographical, and topographical conditions, mitigation measures are necessary such as automatic fire suppression systems, communications systems, access to buildings, seismic protection, safety controls for hazardous materials, and other safeguards are necessary in order to minimize the risks to citizens, firefighters, and property resulting from the severity of a fire threat and potential delays in responding to such threats.

WHEREAS, the Town of Los Gatos finds that each of the amendments, additions and deletions to the California Energy Code contained in this ordinance are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, Public Resources Code Section 25402.l(h)2 and Section 10-106. of the Building Energy Efficiency Standards (Standards) establish a process which allows local adoption of energy standards that are more stringent than the statewide Standards, provided that such local standards are cost effective and the California Energy Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by the California Energy Code; and

WHEREAS, the California Codes and Standards Reach Code Program, has determined specific modifications to the 2019 State Energy Code for each climate zone that are cost effective;

WHEREAS, based upon this analysis, the Town of Los Gatos finds that the local amendments to the California Energy Code contained in this ordinance are cost effective and will require buildings to be designed to consume no more energy than permitted by the California Energy Code;

NOW, THEREFORE, BE IT RESOLVED:

That the modifications to the California Codes contained in an Ordinance introduced by the Town Council on December 3, 2019, are reasonably necessary to address the climatic, geological, geographical, and topographical conditions described herein above.

PASSED AND ADOPTED at a regular meeting of the Town Council of the Town of Los Gatos, California, held on the 3rd day of December 2019, by the following vote:

COUNCIL MEMBERS:

AYES:

NAYS:

ABSENT:

ABSTAIN:

SIGNED:

MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA




DATE: _____

ATTEST:

TOWN CLERK OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

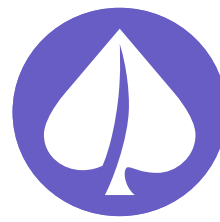
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Summary of San José's Natural Gas Infrastructure Prohibition and Reach Code Ordinances

	Natural Gas Infrastructure Prohibition Requirements	Reach Code Requirements ¹	
Occupancy Type	Requirements Supplementing Reach Code	All-Electric Building Requirements	Mixed Fuel Building Requirements
Single-family ² , Detached Accessory Dwelling Unit (ADU), and Low-rise Multi-family 	Requires all-electric building ³ <i>Not applicable to low-rise hotels/motels.</i>	Efficiency: To Code Electric Vehicle Charging Infrastructure (EVCI): Single-family: 1 EV Ready; Detached ADU: 1 EV Ready (if space is required by Code); Low-rise Multi-family: 10% EVSE, 20% EV Ready, 70% EV Capable	Efficiency⁴: EDR = min. 10 point reduction; electrification-ready EVCI: Same as All-Electric
High-rise Multi-family and Hotel/Motel 	<i>Not applicable.</i>	Efficiency⁵: To Code EVCI: High-rise Multi-family: 10% EVSE, 20% EV Ready, 70% EV Capable; Hotel/Motel: 10% EVSE, 0% EV Ready, 50% EV Capable	Efficiency⁵: 6%; electrification-ready EVCI: Same as All-Electric
Other Non-residential 	<i>Not applicable.</i>	Efficiency⁵: To Code EVCI: 10% EVSE, 0% EV Ready, 40% EV Capable	Efficiency⁵: Office & Retail: 14%; Industrial/ Manufacturing: 0%; All other non-residential occupancies: 6%; all electrification-ready EVCI: Same as All-Electric

1. Solar-readiness required for all buildings
2. By Building Energy Code definition, "single-family" includes one- and two-dwelling units (including townhomes)
3. Hardship exemption may be requested
4. Applies to mixed-fuel low-rise hotels/motels and only applies to other occupancy types if they request and are approved for an exemption from the natural gas infrastructure prohibition
5. Efficiency for non-residential occupancies refers to an energy performance requirement or a compliance margin (%) above the 2019 Building Energy Code.

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**CALIFORNIA
ENERGY**
CODES & STANDARDS

A STATEWIDE UTILITY PROGRAM

Title 24, Parts 6 and 11
Local Energy Efficiency Ordinances

2019 Cost-effectiveness Study: Low-Rise Residential New Construction

Prepared for:

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Codes and Standards Program
Pacific Gas and Electric Company

Prepared by:

Frontier Energy, Inc.
Misti Bruceri & Associates, LLC

Last Modified: August 01, 2019

LEGAL NOTICE

This report was prepared by Pacific Gas and Electric Company and funded by the California utility customers under the auspices of the California Public Utilities Commission.

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Acronyms

2020 PV\$	Present value costs in 2020
ACH50	Air Changes per Hour at 50 pascals pressure differential
ACM	Alternative Calculation Method
AFUE	Annual Fuel Utilization Efficiency
B/C	Lifecycle Benefit-to-Cost Ratio
BEopt	Building Energy Optimization Tool
BSC	Building Standards Commission
CAHP	California Advanced Homes Program
CBECC-Res	Computer program developed by the California Energy Commission for use in demonstrating compliance with the California Residential Building Energy Efficiency Standards
CFI	California Flexible Installation
CFM	Cubic Feet per Minute
CMFNH	California Multifamily New Homes
CO ₂	Carbon Dioxide
CPC	California Plumbing Code
CZ	California Climate Zone
DHW	Domestic Hot Water
DOE	Department of Energy
DWHR	Drain Water Heat Recovery
EDR	Energy Design Rating
EER	Energy Efficiency Ratio
EF	Energy Factor
GHG	Greenhouse Gas
HERS Rater	Home Energy Rating System Rater
HPA	High Performance Attic
HPWH	Heat Pump Water Heater
HSPF	Heating Seasonal Performance Factor
HVAC	Heating, Ventilation, and Air Conditioning
IECC	International Energy Conservation Code
IOU	Investor Owned Utility
kBtu	kilo-British thermal unit
kWh	Kilowatt Hour
LBNL	Lawrence Berkeley National Laboratory

LCC	Lifecycle Cost
LLAHU	Low Leakage Air Handler Unit
VLLDCS	Verified Low Leakage Ducts in Conditioned Space
MF	Multifamily
NAECA	National Appliance Energy Conservation Act
NEEA	Northwest Energy Efficiency Alliance
NEM	Net Energy Metering
NPV	Net Present Value
NREL	National Renewable Energy Laboratory
PG&E	Pacific Gas and Electric Company
PV	Photovoltaic
SCE	Southern California Edison
SDG&E	San Diego Gas and Electric
SEER	Seasonal Energy Efficiency Ratio
SF	Single Family
CASE	Codes and Standards Enhancement
TDV	Time Dependent Valuation
Therm	Unit for quantity of heat that equals 100,000 British thermal units
Title 24	Title 24, Part 6
TOU	Time-Of-Use
UEF	Uniform Energy Factor
ZNE	Zero-net Energy

1 Introduction

The California Building Energy Efficiency Standards Title 24, Part 6 (Title 24) (Energy Commission, 2018b) is maintained and updated every three years by two state agencies, the California Energy Commission (Energy Commission) and the Building Standards Commission (BSC). In addition to enforcing the code, local jurisdictions have the authority to adopt local energy efficiency ordinances, or reach codes, that exceed the minimum standards defined by Title 24 (as established by Public Resources Code Section 25402.1(h)2 and Section 10-106 of the Building Energy Efficiency Standards). Local jurisdictions must demonstrate that the requirements of the proposed ordinance are cost-effective and do not result in buildings consuming more energy than is permitted by Title 24. In addition, the jurisdiction must obtain approval from the Energy Commission and file the ordinance with the BSC for the ordinance to be legally enforceable.

This report documents cost-effective combinations of measures that exceed the minimum state requirements, the 2019 Building Energy Efficiency Standards, effective January 1, 2020, for new single family and low-rise (one-to three-story) multifamily residential construction. The analysis includes evaluation of both mixed fuel and all-electric homes, documenting that the performance requirements can be met by either type of building design. Compliance package options and cost-effectiveness analysis in all sixteen California climate zones (CZs) are presented (see Appendix A – California Climate Zone Map for a graphical depiction of Climate Zone locations). All proposed package options include a combination of efficiency measures and on-site renewable energy.

2 Methodology and Assumptions

This analysis uses two different metrics to assess cost-effectiveness. Both methodologies require estimating and quantifying the incremental costs and energy savings associated with energy efficiency measures. The main difference between the methodologies is the manner in which they value energy and thus the cost savings of reduced or avoided energy use.

- **Utility Bill Impacts (On-Bill):** Customer-based Lifecycle Cost (LCC) approach that values energy based upon estimated site energy usage and customer on-bill savings using electricity and natural gas utility rate schedules over a 30-year duration accounting for discount rate and energy cost inflation.
- **Time Dependent Valuation (TDV):** Energy Commission LCC methodology, which is intended to capture the “societal value or cost” of energy use including long-term projected costs such as the cost of providing energy during peak periods of demand and other societal costs such as projected costs for carbon emissions, as well as grid transmission and distribution impacts. This metric values energy use differently depending on the fuel source (gas, electricity, and propane), time of day, and season. Electricity used (or saved) during peak periods has a much higher value than electricity used (or saved) during off-peak periods (Horie et al., 2014). This is the methodology used by the Energy Commission in evaluating cost-effectiveness for efficiency measures in Title 24, Part 6.

2.1 Building Prototypes

The Energy Commission defines building prototypes which it uses to evaluate the cost-effectiveness of proposed changes to Title 24 requirements. At the time that this report was written, there are two single family prototypes and one low-rise multifamily prototype. All three are used in this analysis in development of the above-code packages. Table 1 describes the basic characteristics of each prototype. Additional details on the prototypes can be found in the Alternative Calculation Method (ACM) Approval Manual (Energy Commission, 2018a). The prototypes have equal geometry on all walls, windows and roof to be orientation neutral.



Table 1: Prototype Characteristics

Characteristic	Single Family One-Story	Single Family Two-Story	Multifamily
Conditioned Floor Area	2,100 ft ²	2,700 ft ²	6,960 ft ² : (4) 780 ft ² & (4) 960 ft ² units
Num. of Stories	1	2	2
Num. of Bedrooms	3	3	(4) 1-bed & (4) 2-bed units
Window-to-Floor Area Ratio	20%	20%	15%

Source: 2019 Alternative Calculation Method Approval Manual (California Energy Commission, 2018a).

The Energy Commission's protocol for single family prototypes is to weight the simulated energy impacts by a factor that represents the distribution of single-story and two-story homes being built statewide, assuming 45 percent single-story and 55 percent two-story. Simulation results in this study are characterized according to this ratio, which is approximately equivalent to a 2,430-square foot (ft²) house.¹

The methodology used in the analyses for each of the prototypical building types begins with a design that precisely meets the minimum 2019 prescriptive requirements (zero compliance margin). Table 150.1-A in the 2019 Standards (Energy Commission, 2018b) lists the prescriptive measures that determine the baseline design in each climate zone. Other features are consistent with the Standard Design in the ACM Reference Manual (Energy Commission, 2019), and are designed to meet, but not exceed, the minimum requirements. Each prototype building has the following features:

- Slab-on-grade foundation.
- Vented attic.
- High performance attic in climate zones where prescriptively required (CZ 4, 8-16) with insulation installed at the ceiling and below the roof deck per Option B. (Refer to Table 150.1-A in the 2019 Standards.)
- Ductwork located in the attic for single family and within conditioned space for multifamily.

Both mixed fuel and all-electric prototypes are evaluated in this study. While in past code cycles an all-electric home was compared to a home with gas for certain end-uses, the 2019 code includes separate prescriptive and performance paths for mixed-fuel and all-electric homes. The fuel specific characteristics of the mixed fuel and all-electric prototypes are defined according to the 2019 ACM Reference Manual and described in Table 2.²

¹ 2,430 ft² = (45% x 2,100 ft²) + (55% x 2,700 ft²)

² Standards Section 150.1(c)8.A.iv.a specifies that compact hot water distribution design and a drain water heat recovery system or extra PV capacity are required when a heat pump water heater is installed prescriptively. The efficiency of the distribution and the drain water heat recovery systems as well as the location of the water heater applied in this analysis are based on the Standard Design assumptions in CBECC-Res which result in a zero-compliance margin for the 2019 basecase model.



Table 2: Characteristics of the Mixed Fuel vs All-Electric Prototype

Characteristic	Mixed Fuel	All-Electric
Space Heating/Cooling¹	Gas furnace 80 AFUE Split A/C 14 SEER, 11.7 EER	Split heat pump 8.2 HSPF, 14 SEER, 11.7 EER
Water Heater^{1,2, 3, 4}	Gas tankless UEF = 0.81	50gal HPWH UEF = 2.0 SF: located in the garage MF CZ 2,4,6-16: located in living space MF CZ 1,3,5: located in exterior closet
Hot Water Distribution	Code minimum. All hot water lines insulated	Basic compact distribution credit, (CZ 6-8,15) Expanded compact distribution credit, compactness factor = 0.6 (CZ 1-5,9-14,16)
Drain Water Heat Recovery Efficiency	None	CZ 1: unequal flow to shower = 42% CZ 16: equal flow to shower & water heater = 65% None in other CZs
Cooking	Gas	Electric
Clothes Drying	Gas	Electric

¹Equipment efficiencies are equal to minimum federal appliance efficiency standards.

²The multifamily prototype is evaluated with individual water heaters. HPWHs located in the living space do not have ducting for either inlet or exhaust air; CBECC-Res does not have the capability to model ducted HPWHs.

³UEF = uniform energy factor. HPWH = heat pump water heater. SF = single family. MF = multifamily.

⁴CBECC-Res applies a 50gal water heater when specifying a storage water heater. Hot water draws differ between the prototypes based on number of bedrooms.

2.2 Measure Analysis

The California Building Energy Code Compliance simulation tool, CBECC-RES 2019.1.0, was used to evaluate energy impacts using the 2019 Title 24 prescriptive standards as the benchmark, and the 2019 TDV values. TDV is the energy metric used by the Energy Commission since the 2005 Title 24 energy code to evaluate compliance with the Title 24 standards.

Using the 2019 baseline as the starting point, prospective energy efficiency measures were identified and modeled in each of the prototypes to determine the projected energy (Therm and kWh) and compliance impacts. A large set of parametric runs were conducted to evaluate various options and develop packages of measures that exceed minimum code performance. The analysis utilizes a parametric tool based on Micropas³ to automate and manage the generation of CBECC-Res input files. This allows for quick evaluation of various efficiency measures across multiple climate zones and prototypes and improves quality control. The batch process functionality of CBECC-Res is utilized to simulate large groups of input files at once. Annual utility costs were calculated using hourly data output from CBECC-Res and electricity and natural gas tariffs for each of the investor owned utilities (IOUs).

³ Developed by Ken Nittler of Enercomp, Inc.



The Reach Codes Team selected packages and measures based on cost-effectiveness as well as decades of experience with residential architects, builders, and engineers along with general knowledge of the relative acceptance of many measures.

2.2.1 Federal Preemption

The Department of Energy (DOE) sets minimum efficiency standards for equipment and appliances that are federally regulated under the National Appliance Energy Conservation Act (NAECA), including heating, cooling, and water heating equipment. Since state and local governments are prohibited from adopting policies that mandate higher minimum efficiencies than the federal standards require, the focus of this study is to identify and evaluate cost-effective packages that do not include high efficiency equipment. While this study is limited by federal preemption, in practice builders may use any package of compliant measures to achieve the performance goals, including high efficiency appliances. Often, these measures are the simplest and most affordable measures to increase energy performance.

2.2.2 Energy Design Rating

The 2019 Title 24 code introduces California's Energy Design Rating (EDR) as the primary metric to demonstrate compliance with the energy code. EDR is still based on TDV but it uses a building that is compliant with the 2006 International Energy Conservation Code (IECC) as the reference building. The reference building has an EDR score of 100 while a zero-net energy (ZNE) home has an EDR score of zero (Energy Commission, 2018d). See Figure 1 for a graphical representation of this. While the Reference Building is used to determine the rating, the Proposed Design is still compared to the Standard Design based on the prescriptive baseline assumptions to determine compliance.

The EDR is calculated by CBECC-Res and has two components:

1. An "Efficiency EDR" which represents the building's energy use without solar generation.⁴
2. A "Total EDR" that represents the final energy use of the building based on the combined impact of efficiency measures, PV generation and demand flexibility.

For a building to comply, two criteria are required:

- (1) the proposed Efficiency EDR must be equal to or less than the Efficiency EDR of the Standard Design, and
- (2) the proposed Total EDR must be equal to or less than the Total EDR of the Standard Design.

Single family prototypes used in this analysis that are minimally compliant with the 2019 Title 24 code achieve a Total EDR between 20 and 35 in most climates.

This concept, consistent with California's "loading order" which prioritizes energy efficiency ahead of renewable generation, requires projects meet a minimum Efficiency EDR before PV is credited but allows for PV to be traded off with additional efficiency when meeting the Total EDR. A project may improve on building efficiency beyond the minimum required and subsequently reduce the PV generation capacity required to achieve the required Total EDR but may not increase the size of the PV system and trade this off with a reduction of efficiency measures. Figure 1 graphically summarizes how both Efficiency EDR and PV / demand flexibility EDR are used to calculate the Total EDR used in the 2019 code and in this analysis.

⁴ While there is no compliance credit for solar PV as there is under the 2016 Standards, the credit for installing electric storage battery systems that meet minimum qualifications can be applied to the Efficiency EDR.



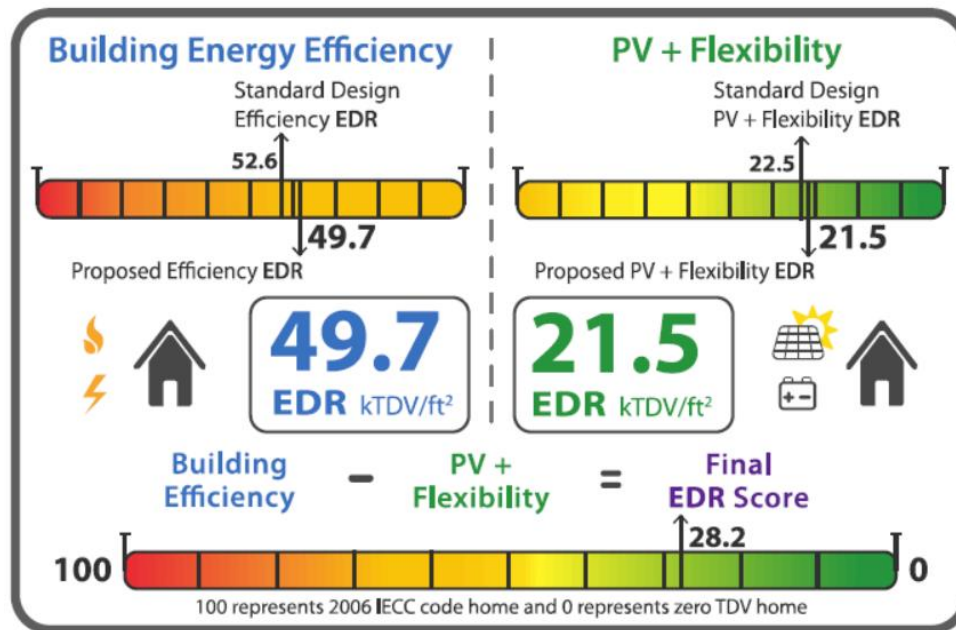


Figure 1: Graphical description of EDR scores (courtesy of Energy Code Ace⁵)

Results from this analysis are presented as EDR Margin, a reduction in the EDR score relative to the Standard Design. EDR Margin is a better metric to use than absolute EDR in the context of a reach code because absolute values vary, based on the home design and characteristics such as size and orientation. This approach aligns with how compliance is determined for the 2019 Title 24 code, as well as utility incentive programs, such as the California Advanced Homes Program (CAHP) & California Multifamily New Homes (CMFNH), which require minimum performance criteria based on an EDR Margin for low-rise residential projects. The EDR Margin is calculated according to Equation 1 for the two efficiency packages and Equation 2 for the Efficiency & PV and Efficiency & PV/Battery packages (see Section 2.3).

Equation 1

$$EDR\ Margin_{efficiency} = Standard\ Design\ \textit{Efficiency}\ EDR - Proposed\ Design\ \textit{Efficiency}\ EDR$$

Equation 2

$$EDR\ Margin_{efficiency\ \&\ PV} = Standard\ Design\ \textit{Total}\ EDR - Proposed\ Design\ \textit{Total}\ EDR$$

2.2.3 Energy Efficiency Measures

Following are descriptions of each of the efficiency measures evaluated under this analysis. Because not all of the measures described below were found to be cost-effective and cost-effectiveness varied by climate zone, not all measures are included in all packages and some of the measures listed are not included in any final package. For a list of measures included in each efficiency package by climate zone, see Appendix D – Single Family Measure Summary and Appendix F – Multifamily Measure Summary.

Reduced Infiltration (ACH50): Reduce infiltration in single family homes from the default infiltration assumption of five (5) air changes per hour at 50 Pascals (ACH50)⁶ by 40 to 60 percent to either 3 ACH50 or 2 ACH50. HERS

⁵ <https://energycodeace.com/>

⁶ Whole house leakage tested at a pressure difference of 50 Pascals between indoors and outdoors.



rater field verification and diagnostic testing of building air leakage according to the procedures outlined in the 2019 Reference Appendices RA3.8 (Energy Commission, 2018c). This measure was not applied to multifamily homes because CBECC-Res does not allow reduced infiltration credit for multifamily buildings.

Improved Fenestration: Reduce window U-factor to 0.24. The prescriptive U-factor is 0.30 in all climates. In climate zones 1, 3, 5, and 16 where heating loads dominate, an increase in solar heat gain coefficient (SHGC) from the default assumption of 0.35 to 0.50 was evaluated in addition to the reduction in U-factor.

Cool Roof: Install a roofing product that's rated by the Cool Roof Rating Council to have an aged solar reflectance (ASR) equal to or greater than 0.25. Steep-sloped roofs were assumed in all cases. Title 24 specifies a prescriptive ASR of 0.20 for Climate Zones 10 through 15 and assumes 0.10 in other climate zones.

Exterior Wall Insulation: Decrease wall U-factor in 2x6 walls to 0.043 from the prescriptive requirement of 0.048 by increasing exterior insulation from one-inch R-5 to 1-1/2 inch R-7.5. This was evaluated for single family buildings only in all climate zones except 6 and 7 where the prescriptive requirement is higher (U-factor of 0.065) and improving beyond the prescriptive value has little impact.

High Performance Attics (HPA): HPA with R-38 ceiling insulation and R-30 insulation under the roof deck. In climates where HPA is already required prescriptively this measure requires an incremental increase in roof insulation from R-19 or R-13 to R-30. In climates where HPA is not currently required (Climate Zones 1 through 3, and 5 through 7), this measure adds roof insulation to an uninsulated roof as well as increasing ceiling insulation from R-30 to R-38 in Climate Zones 3, 5, 6 and 7.

Slab Insulation: Install R-10 perimeter slab insulation at a depth of 16-inches. For climate zone 16, where slab insulation is required, prescriptively this measure increases that insulation from R-7 to R-10.

Duct Location (Ducts in Conditioned Space): Move the ductwork and equipment from the attic to inside the conditioned space in one of the three following ways.

1. Locate ductwork in conditioned space. The air handler may remain in the attic provided that 12 linear feet or less of duct is located outside the conditioned space including the air handler and plenum. Meet the requirements of 2019 Reference Appendices RA3.1.4.1.2. (Energy Commission, 2018c)
2. All ductwork and equipment located entirely in conditioned space meeting the requirements of 2019 Reference Appendices RA3.1.4.1.3. (Energy Commission, 2018c)
3. All ductwork and equipment located entirely in conditioned space with ducts tested to have less than or equal to 25 cfm leakage to outside. Meet the requirements of Verified Low Leakage Ducts in Conditioned Space (VLLDCS) in the 2019 Reference Appendices RA3.1.4.3.8. (Energy Commission, 2018c)

Option 1 and 2 above apply to single family only since the basecase for multifamily assumes ducts are within conditioned space. Option 3 applies to both single family and multifamily cases.

Reduced Distribution System (Duct) Leakage: Reduce duct leakage from 5% to 2% and install a low leakage air handler unit (LLAHU). This is only applicable to single family homes since the basecase for multifamily assumes ducts are within conditioned space and additional duct leakage credit is not available.

Low Pressure Drop Ducts: Upgrade the duct distribution system to reduce external static pressure and meet a maximum fan efficacy of 0.35 Watts per cfm for gas furnaces and 0.45 Watts per cfm for heat pumps operating at full speed. This may involve upsizing ductwork, reducing the total effective length of ducts, and/or selecting low pressure drop components such as filters. Fan watt draw must be verified by a HERS rater according to the procedures outlined in the 2019 Reference Appendices RA3.3 (Energy Commission, 2018c). New federal regulations that went into effect July 3, 2019 require higher fan efficiency for gas furnaces than for heat pumps and air handlers, which is why the recommended specification is different for mixed fuel and all-electric homes.



HERS Verification of Hot Water Pipe Insulation: The California Plumbing Code (CPC) requires pipe insulation on all hot water lines. This measure provides credit for HERS rater verification of pipe insulation requirements according to the procedures outlined in the 2019 Reference Appendices RA3.6.3. (Energy Commission, 2018c)

Compact Hot Water Distribution: Two credits for compact hot water distribution were evaluated.

1. **Basic Credit:** Design the hot water distribution system to meet minimum requirements for the basic compact hot water distribution credit according to the procedures outlined in the 2019 Reference Appendices RA4.4.6 (Energy Commission, 2018c). In many single family homes this may require moving the water heater from an exterior to an interior garage wall. Multifamily homes with individual water heaters are expected to easily meet this credit with little or no alteration to plumbing design. CBECC-Res software assumes a 30% reduction in distribution losses for the basic credit.
2. **Expanded Credit:** Design the hot water distribution system to meet minimum requirements for the expanded compact hot water distribution credit according to the procedures outlined in the 2019 Reference Appendices RA3.6.5 (Energy Commission, 2018c). In addition to requiring HERS verification that the minimum requirements for the basic compact distribution credit are met, this credit also imposes limitations on pipe location, maximum pipe diameter, and recirculation system controls allowed.

Drain Water Heat Recovery (DWHR): For multifamily buildings add DWHR that serves the showers in an unequal flow configuration (pre-heated water is piped directly to the shower) with 50% efficiency. This upgrade assumes all apartments are served by a DWHR with one unit serving each apartment individually. For a slab-on-grade building this requires a horizontal unit for the first-floor apartments.

Federally Preempted Measures:

The following additional measures were evaluated. Because these measures require upgrading appliances that are federally regulated to high efficiency models, they cannot be used to show cost-effectiveness in a local ordinance. The measures and packages are presented here to show that there are several options for builders to meet the performance targets. Heating and cooling capacities are autosized by CBECC-Res in all cases.

High Efficiency Furnace: For the mixed-fuel prototypes, upgrade natural gas furnace to one of two condensing furnace options with an efficiency of 92% or 96% AFUE.

High Efficiency Air Conditioner: For the mixed-fuel prototypes, upgrade the air conditioner to either single-stage SEER 16 / EER 13 or two-stage SEER 18 / EER 14 equipment.

High Efficiency Heat Pump: For the all-electric prototypes, upgrade the heat pump to either single-stage SEER 16 / EER 13 / HSPF 9 or two-stage SEER 18 / EER 14 / HSPF 10 equipment.

High Efficiency Tankless Water Heater: For the mixed-fuel prototype, upgrade tankless water heater to a condensing unit with a rated Uniform Energy Factor (UEF) of 0.96.

High Efficiency Heat Pump Water Heater (HPWH): For the all-electric prototypes, upgrade the federal minimum heat pump water heater to a HPWH that meets the Northwest Energy Efficiency Alliance (NEEA)⁷ Tier 3 rating. The evaluated NEEA water heater is an 80gal unit and is applied to all three building prototypes. Using the same

⁷ Based on operational challenges experienced in the past, NEEA established rating test criteria to ensure newly installed HPWHs perform adequately, especially in colder climates. The NEEA rating requires an Energy Factor equal to the ENERGY STAR performance level and includes requirements regarding noise and prioritizing heat pump use over supplemental electric resistance heating.



water heater provides consistency in performance across all the equipment upgrade cases, even though hot water draws differ across the prototypes.

2.3 Package Development

Three to four packages were evaluated for each prototype and climate zone, as described below.

- 1) **Efficiency – Non-Preempted**: This package uses only efficiency measures that don't trigger federal preemption issues including envelope, and water heating and duct distribution efficiency measures.
- 2) **Efficiency – Equipment, Preempted**: This package shows an alternative design that applies HVAC and water heating equipment that are more efficient than federal standards. The Reach Code Team considers this more reflective of how builders meet above code requirements in practice.
- 3) **Efficiency & PV**: Using the Efficiency – Non-Preempted Package as a starting point⁸, PV capacity is added to offset most of the estimated electricity use. This only applies to the all-electric case, since for the mixed fuel cases, 100% of the projected electricity use is already being offset as required by 2019 Title 24, Part 6.
- 4) **Efficiency & PV/Battery**: Using the Efficiency & PV Package as a starting point, PV capacity is added as well as a battery system.

2.3.1 Solar Photovoltaics (PV)

Installation of on-site PV is required in the 2019 residential code. The PV sizing methodology in each package was developed to offset annual building electricity use and avoid oversizing which would violate net energy metering (NEM) rules.⁹ In all cases, PV is evaluated in CBECC-Res according to the California Flexible Installation (CFI) assumptions.

The Reach Code Team used two options within the CBECC-Res software for sizing the PV system, described below. Analysis was conducted to determine the most appropriate sizing method for each package which is described in the results.

- Standard Design PV – the same PV capacity as is required for the Standard Design case¹⁰
- Specify PV System Scaling – a PV system sized to offset a specified percentage of the estimated electricity use of the Proposed Design case

2.3.2 Energy Storage (Batteries)

A battery system was evaluated in CBECC-Res with control type set to “Time of Use” and with default efficiencies of 95% for both charging and discharging. The “Time of Use” option assumes batteries are charged anytime PV generation is greater than the house load but controls when the battery storage system discharges. During the summer months (July – September) the battery begins to discharge at the beginning of the peak period at a maximum rate until fully discharged. During discharge the battery first serves the house load but will

⁸ In cases where there was no cost-effective Efficiency – Non-Preempted Package, the most cost-effective efficiency measures for that climate zone were also included in the Efficiency & PV Package in order to provide a combination of both efficiency and PV beyond code minimum.

⁹ NEM rules apply to the IOU territories only.

¹⁰ The Standard Design PV system is sized to offset the electricity use of the building loads which are typically electric in a mixed fuel home, which includes all loads except space heating, water heating, clothes drying, and cooking.

discharge to the electric grid if there is excess energy available. During other months the battery discharges whenever the PV system does not cover the entire house load and does not discharge to the electric grid. This control option is considered to be most reflective of the current products on the market. This control option requires an input for the “First Hour of the Summer Peak” and the Statewide CASE Team applied the default hour in CBECC-Res which differs by climate zone (either a 6pm or 7pm start). The Self Utilization Credit was taken when the battery system was modeled.

2.4 Incremental Costs

Table 4 below summarizes the incremental cost assumptions for measures evaluated in this study. Incremental costs represent the equipment, installation, replacement, and maintenance costs of the proposed measures relative to the base case.¹¹ Replacement costs are applied to HVAC and DHW equipment, PV inverters, and battery systems over the 30-year evaluation period. There is no assumed maintenance on the envelope, HVAC, or DHW measures since there should not be any additional maintenance cost for a more efficient version of the same system type as the baseline. Costs were estimated to reflect costs to the building owner. When costs were obtained from a source that didn’t already include builder overhead and profit, a markup of ten percent was added. All costs are provided as present value in 2020 (2020 PV\$). Costs due to variations in furnace, air conditioner, and heat pump capacity by climate zone were not accounted for in the analysis.

Equipment lifetimes applied in this analysis for the water heating and space conditioning measures are summarized in Table 3.

Table 3: Lifetime of Water Heating & Space Conditioning Equipment Measures

Measure	Lifetime
Gas Furnace	20
Air Conditioner	20
Heat Pump	15
Gas Tankless Water Heater	20
Heat Pump Water Heater	15

Source: City of Palo Alto 2019 Title 24 Energy Reach Code Cost-effectiveness Analysis Draft (TRC, 2018) which is based on the Database of Energy Efficiency Resources (DEER).¹²

¹¹ Interest costs due to financing are not included in the incremental costs presented in the Table 4 but are accounted for in the lifetime cost analysis. All first costs are assumed to be financed in a mortgage, see Section 2.5 for details.

¹² <http://www.deeresources.com>



Table 4: Incremental Cost Assumptions

Measure	Performance Level	Incremental Cost (2020 PV\$)		Source & Notes
		Single Family	Multifamily (Per Dwelling Unit)	
Non-Preempted Measures				
Reduced Infiltration	3.0 vs 5.0 ACH50	\$391	n/a	NREL’s BEopt cost database (\$0.115/ft² for 3 ACH50 & \$0.207/ft² for 2 ACH50) + \$100 HERS rater verification.
	2.0 vs 5.0 ACH50	\$613	n/a	
Window U-factor	0.24 vs 0.30	\$2,261	\$607	\$4.23/ft² window area based on analysis conducted for the 2019 and 2022 Title 24 cycles (Statewide CASE Team, 2018).
Window SHGC	0.50 vs 0.35	\$0	\$0	Data from CASE Report along with direct feedback from Statewide CASE Team that higher SHGC does not necessarily have any incremental cost (Statewide CASE Team, 2017d). Applies to CZ 1,3,5,16.
Cool Roof - Aged Solar Reflectance	0.25 vs 0.20	\$237	\$58	Costs based on 2016 Cost-effectiveness Study for Cool Roofs reach code analysis for 0.28 solar reflectance product. (Statewide Reach Codes Team, 2017b).
	0.20 vs 0.10	\$0	\$0	
Exterior Wall Insulation	R-7.5 vs R-5	\$818	n/a	Based on increasing exterior insulation from 1” R-5 to 1.5” R-7.5 in a 2x6 wall (Statewide CASE Team, 2017c). Applies to single family only in all climates except CZ 6, 7.
Under-Deck Roof Insulation (HPA)	R-13 vs R-0	\$1,338	\$334	Costs for R-13 (\$0.64/ft²), R-19 (\$0.78/ft²) and R-30 (\$1.61/ft²) based on data presented in the 2019 HPA CASE Report (Statewide CASE Team, 2017b) along with data collected directly from builders during the 2019 CASE process. The R-30 costs include additional labor costs for cabling. Costs for R-38 from NREL’s BEopt cost database.
	R-19 vs R-13	\$282	\$70	
	R-30 vs R-19	\$1,831	\$457	
	R-38 vs R-30	\$585	\$146	
Attic Floor Insulation	R-38 vs R-30	\$584	\$146	NREL’s BEopt cost database: \$0.34/ft² ceiling area
Slab Edge Insulation	R-10 vs R-0	\$553	\$121	\$4/linear foot of slab perimeter based on internet research. Assumes 16in depth.
	R-10 vs R-7	\$157	\$21	\$1.58/linear foot of slab perimeter based on NREL’s BEopt cost database. This applies to CZ 16 only where R-7 slab edge insulation is required prescriptively. Assumes 16in depth.
Duct Location	<12 feet in attic	\$358	n/a	Costs based on a 2015 report on the Evaluation of Ducts in Conditioned Space for New California Homes (Davis Energy Group, 2015). HERS verification cost of \$100 for the Verified Low Leakage Ducts in Conditioned Space credit.
	Ducts in Conditioned Space	\$658	n/a	
	Verified Low Leakage Ducts in Conditioned Space	\$768	\$110	



Table 4: Incremental Cost Assumptions

Measure	Performance Level	Incremental Cost (2020 PV\$)		Source & Notes
		Single Family	Multifamily (Per Dwelling Unit)	
Distribution System Leakage	2% vs 5%	\$96	n/a	1-hour labor. Labor rate of \$96 per hour is from 2019 RSMeans for sheet metal workers and includes an average City Cost Index for labor for California cities & 10% for overhead and profit. Applies to single family only since ducts are assumed to be in conditioned space for multifamily
	Low Leakage Air Handler	\$0	n/a	Negligible cost based on review of available products. There are more than 6,000 Energy Commission certified units and the list includes many furnace and heat pump air handler product lines from the major manufacturers, including minimum efficiency, low cost product lines.
Low Pressure Drop Ducts (Fan W/cfm)	0.35 vs 0.45	\$96	\$48	Costs assume one-hour labor for single family and half-hour per multifamily apartment. Labor rate of \$96 per hour is from 2019 RSMeans for sheet metal workers and includes an average City Cost Index for labor for California cities.
	0.45 vs 0.58	\$96	\$48	
Hot Water Pipe Insulation	HERS verified	\$110	\$83	Cost for HERS verification only, based on feedback from HERS raters. \$100 per single family home and \$75 per multifamily unit before markup.
Compact Hot Water Distribution	Basic credit	\$150	\$0	For single family add 20-feet venting at \$12/ft to locate water heater on interior garage wall, less 20-feet savings for less PEX and pipe insulation at \$4.88/ft. Costs from online retailers. Many multifamily buildings are expected to meet this credit without any changes to distribution design.
	Expanded credit	n/a	\$83	Cost for HERS verification only. \$75 per multifamily unit before markup. This was only evaluated for multifamily buildings.
Drain Water Heat Recovery	50% efficiency	n/a	\$690	Cost from the 2019 DWHR CASE Report assuming a 2-inch DWHR unit. The CASE Report multifamily costs were based on one unit serving 4 dwelling units with a central water heater. Since individual water heaters serve each dwelling unit in this analysis, the Reach Code Team used single family costs from the CASE Report. Costs in the CASE Report were based on a 46.1% efficient unit, a DWHR device that meets the 50% efficiency assumed in this analysis may cost a little more. (Statewide CASE Team, 2017a).
Federally Pre-empted Measures				
Furnace AFUE	92% vs 80%	\$139	\$139	Equipment costs from online retailers for 40-kBtu/h unit. Cost saving for 6-feet of venting at \$26/foot due to lower cost venting requirements for condensing (PVC) vs non-condensing (stainless) furnaces. Replacement at year 20 assumes a 50% reduction in first cost. Value at year 30 based on remaining useful life is included.
	96% vs 80%	\$244	\$244	
Air Conditioner SEER/EER	16/13 vs 14/11.7	\$111	\$111	Costs from online retailers for 2-ton unit. Replacement at year 20 assumes a 50% reduction in first cost. Value at year 30 based on remaining useful life is included.
	18/14 vs 14/11.7	\$1,148	\$1,148	



Table 4: Incremental Cost Assumptions

Measure	Performance Level	Incremental Cost (2020 PV\$)		Source & Notes
		Single Family	Multifamily (Per Dwelling Unit)	
Heat Pump SEER/EER /HSPF	16/13/9 vs 14/11.7/8.2	\$411	\$411	Costs from online retailers for 2-ton unit. Replacement at year 15 assumes a 50% reduction in first cost.
	18/14/10 vs 14/11.7/8.2	\$1,511	\$1,511	
Tankless Water Heater Energy Factor	0.96 vs 0.81	\$203	\$203	Equipment costs from online retailers for 40-kBtu/h unit. Cost saving for 6-feet of venting at \$26/foot due to lower cost venting requirements for condensing (PVC) vs non-condensing (stainless) furnaces. Replacement at year 15 assumes a 50% reduction in first cost.
HPWH	NEEA Tier 3 vs 2.0 EF	\$294	\$294	Equipment costs from online retailers. Replacement at year 15 assumes a 50% reduction in first cost.
PV + Battery				
PV System	System size varies	\$3.72/W-DC	\$3.17/W-DC	First costs are from LBNL's Tracking the Sun 2018 costs (Barbose et al., 2018) and represent costs for the first half of 2018 of \$3.50/W-DC for residential system and \$2.90/W-DC for non-residential system ≤500 kW-DC. These costs were reduced by 16% for the solar investment tax credit, which is the average credit over years 2020-2022. Inverter replacement cost of \$0.14/W-DC present value includes replacements at year 11 at \$0.15/W-DC (nominal) and at year 21 at \$0.12/W-DC (nominal) per the 2019 PV CASE Report (California Energy Commission, 2017). System maintenance costs of \$0.31/W-DC present value assume \$0.02/W-DC (nominal) annually per the 2019 PV CASE Report (California Energy Commission, 2017). 10% overhead and profit added to all costs
Battery	System size varies by building type	\$656/kWh	\$656/kWh	\$633/kWh first cost based on the PV Plus Battery Study report (Statewide Reach Codes Team, 2018) as the average cost of the three systems that were analyzed. This cost was reduced by 16% for the solar investment tax credit, which is the average credit over years 2020-2022. Replacement cost at year 15 of \$100/kWh based on target price reductions (Penn, 2018).



2.5 Cost-effectiveness

Cost-effectiveness was evaluated for all sixteen climate zones and is presented based on both TDV energy, using the Energy Commission's LCC methodology, and an On-Bill approach using residential customer utility rates. Both methodologies require estimating and quantifying the value of the energy impact associated with energy efficiency measures over the life of the measures (30 years) as compared to the prescriptive Title 24 requirements.

Results are presented as a lifecycle benefit-to-cost (B/C) ratio, a net present value (NPV) metric which represents the cost-effectiveness of a measure over a 30-year lifetime taking into account discounting of future savings and costs and financing of incremental first costs. A value of one indicates the NPV of the savings over the life of the measure is equivalent to the NPV of the lifetime incremental cost of that measure. A value greater than one represents a positive return on investment. The B/C ratio is calculated according to Equation 3.

Equation 3

$$\text{Benefit-to-Cost Ratio} = \frac{\text{NPV of lifetime benefit}}{\text{NPV of lifetime cost}}$$

In most cases the benefit is represented by annual utility savings or TDV savings and the cost by incremental first cost and replacement costs. However, in some cases a measure may have incremental cost savings but with increased energy related costs. In this case, the benefit is the lower first cost and the cost is the increase in utility bills. The lifetime costs or benefits are calculated according to Equation 4.

Equation 4

$$\text{NPV of lifetime cost/benefit} = \sum_{t=1}^n \text{Annual cost/benefit}_t * (1 + r)^t$$

Where:

- n = analysis term
- r = discount rate

The following summarizes the assumptions applied in this analysis to both methodologies.

- Analysis term of 30-years
- Real discount rate of 3 percent
- Inflation rate of 2 percent
- First incremental costs are financed into a 30-year mortgage
- Mortgage interest rate of 4.5 percent
- Average tax rate of 20 percent (to account for tax savings due to loan interest deductions)

2.5.1 On-Bill Customer Lifecycle Cost

Residential utility rates were used to calculate utility costs for all cases and determine On-Bill customer cost-effectiveness for the proposed packages. The Reach Codes Team obtained the recommended utility rates from each IOU based on the assumption that the reach codes go into effect January of 2020. Annual utility costs were calculated using hourly electricity and gas output from CBECC-Res and applying the utility tariffs summarized in Table 5. Appendix B – Utility Tariff Details includes the utility rate schedules used for this study. The applicable residential time-of-use (TOU) rate was applied to all cases.¹³ Annual electricity production in excess of annual electricity consumption is credited to the utility account at the applicable wholesale rate based on the approved

¹³ Under NEM rulings by the CPUC (D-16-01-144, 1/28/16), all new PV customers shall be in an approved TOU rate structure. <https://www.cpuc.ca.gov/General.aspx?id=3800>



NEM2 tariffs for that utility. Minimum daily use billing and mandatory non-bypassable charges have been applied. Future change to the NEM tariffs are likely; however, there is a lot of uncertainty about what those changes will be and if they will become effective during the 2019 code cycle (2020-2022).

The net surplus compensation rates for each utility are as follows:¹⁴

- PG&E: \$0.0287 / kWh
- SCE: \$0.0301 / kWh
- SDG&E: \$0.0355 / kWh

Utility rates were applied to each climate zone based on the predominant IOU serving the population of each zone according to Two SCE tariff options were evaluated: TOU-D-4-9 and TOU-D-PRIME. The TOU-D-PRIME rate is only available to customers with heat pumps for either space or water heating, a battery storage system, or an electric vehicle and therefore was only evaluated for the all-electric cases and the Efficiency & PV/Battery packages. The rate which resulted in the lowest annual cost to the customer was used for this analysis, which was TOU-D-4-9 in all cases with the exception of the single family all-electric cases in Climate Zone 14.

Table 5. Climate Zones 10 and 14 are evaluated with both SCE/SoCalGas and SDG&E tariffs since each utility has customers within these climate zones. Climate Zone 5 is evaluated under both PG&E and SoCalGas natural gas rates.

Two SCE tariff options were evaluated: TOU-D-4-9 and TOU-D-PRIME. The TOU-D-PRIME rate is only available to customers with heat pumps for either space or water heating, a battery storage system, or an electric vehicle and therefore was only evaluated for the all-electric cases and the Efficiency & PV/Battery packages. The rate which resulted in the lowest annual cost to the customer was used for this analysis, which was TOU-D-4-9 in all cases with the exception of the single family all-electric cases in Climate Zone 14.

Table 5: IOU Utility Tariffs Applied Based on Climate Zone

Climate Zones	Electric / Gas Utility	Electricity (Time-of-use)	Natural Gas
1-5, 11-13, 16	PG&E	E-TOU, Option B	G1
5	PG&E / SoCalGas	E-TOU, Option B	GR
6, 8-10, 14, 15	SCE / SoCal Gas	TOU-D-4-9 or TOU-D-PRIME	GR
7, 10, 14	SDG&E	TOU-DR1	GR

Source: Utility websites, See Appendix B – Utility Tariff Details for details on the tariffs applied.

Utility rates are assumed to escalate over time, using assumptions from research conducted by Energy and Environmental Economics (E3) in the 2019 study Residential Building Electrification in California study (Energy & Environmental Economics, 2019). Escalation of natural gas rates between 2019 and 2022 is based on the currently filed General Rate Cases (GRCs) for PG&E, SoCalGas and SDG&E. From 2023 through 2025, gas rates are assumed to escalate at 4% per year above inflation, which reflects historical rate increases between 2013 and 2018. Escalation of electricity rates from 2019 through 2025 is assumed to be 2% per year above inflation, based on electric utility estimates. After 2025, escalation rates for both natural gas and electric rates are assumed to drop to a more conservative 1% escalation per year above inflation for long-term rate trajectories beginning in 2026 through 2050. See Appendix B – Utility Tariff Details for additional details.

¹⁴ Net surplus compensation rates based on 1-year average February 2018 – January 2019.



2.5.2 *TDV Lifecycle Cost*

Cost-effectiveness was also assessed using the Energy Commission's TDV LCC methodology. TDV is a normalized monetary format developed and used by the Energy Commission for comparing electricity and natural gas savings, and it considers the cost of electricity and natural gas consumed during different times of the day and year. The 2019 TDV values are based on long term discounted costs of 30 years for all residential measures. The CBECC-Res simulation software outputs are in terms of TDV kBTUs. The present value of the energy cost savings in dollars is calculated by multiplying the TDV kBTU savings by a net present value (NPV) factor, also developed by the Energy Commission. The NPV factor is \$0.173/TDV kBTU for residential buildings.

Like the customer B/C ratio, a TDV B/C ratio value of one indicates the savings over the life of the measure are equivalent to the incremental cost of that measure. A value greater than one represents a positive return on investment. The ratio is calculated according to Equation 5.

Equation 5

$$TDV \text{ Benefit} - to - Cost \text{ Ratio} = \frac{TDV \text{ energy savings} * NPV \text{ factor}}{NPV \text{ of lifetime incremental cost}}$$

2.6 *Electrification Evaluation*

In addition to evaluating upgrades to mixed fuel and all-electric buildings independently that do not result in fuel switching, the Reach Code Team also analyzed the impact on construction costs, utility costs, and TDV when a builder specifies and installs electric appliances instead of the gas appliances typically found in a mixed fuel building. This analysis compared the code compliant mixed fuel prototype, which uses gas for space heating, water heating, cooking, and clothes drying, with the code compliant all-electric prototype. It also compared the all-electric Efficiency & PV Package with the code compliance mixed fuel prototype. In these cases, the relative costs between natural gas and electric appliances, differences between in-house electricity and gas infrastructure and the associated infrastructure costs for providing gas to the building were also included.

A variety of sources were reviewed when determining incremental costs. The sources are listed below.

- SMUD All-Electric Homes Electrification Case Study (EPRI, 2016)
- City of Palo Alto 2019 Title 24 Energy Reach Code Cost-effectiveness Analysis (TRC, 2018)
- Building Electrification Market Assessment (E3, 2019)
- Decarbonization of Heating Energy Use in California Buildings (Hopkins et al., 2018)
- Analysis of the Role of Gas for a Low-Carbon California Future (Navigant, 2008)
- Rulemaking No. 15-03-010 An Order Instituting Rulemaking to Identify Disadvantaged Communities in the San Joaquin Valley and Analyze Economically Feasible Options to Increase Access to Affordable Energy in Those Disadvantaged Communities (California Public Utilities Commission, 2016)
- 2010-2012 WO017 Ex Ante Measure Cost Study: Final Report (Itron, 2014)
- Natural gas infrastructure costs provided by utility staff through the Reach Code subprogram
- Costs obtained from builders, contractors and developers

Incremental costs are presented in Table 6. Values in parentheses represent a lower cost or cost reduction in the electric option relative to mixed fuel. The costs from the available sources varied widely, making it difficult to develop narrow cost estimates for each component. For certain components data is provided with a low to high range as well as what were determined to be typical costs and ultimately applied in this analysis. Two sets of typical costs are presented, one which is applied in the On-Bill cost effectiveness methodology and another applied in the TDV methodology. Details of these differences are explained in the discussion of site gas infrastructure costs in the following pages.



Table 6: Incremental Costs – All-Electric Code Compliant Home Compared to a Mixed Fuel Code Compliant Home

Measure	Incremental Cost (2020 PV\$) Single Family ¹				Incremental Cost (2020 PV\$) Multifamily ¹ (Per Dwelling Unit)			
	Low	High	Typical (On-Bill)	Typical (TDV)	Low	High	Typical (On-Bill)	Typical (TDV)
Heat Pump vs Gas Furnace/Split AC	(\$2,770)	\$620	(\$221)		Same as Single Family			
Heat Pump Water Heater vs Gas Tankless	(\$1,120)	\$1,120	\$0					
Electric vs Gas Clothes Dryer ²	(\$428)	\$820	\$0					
Electric vs Gas Cooking ²	\$0	\$1,800	\$0					
Electric Service Upgrade	\$200	\$800	\$600		\$150	\$600	\$600	
In-House Gas Infrastructure	(\$1,670)	(\$550)	(\$800)		(\$600)	(\$150)	(\$600)	
Site Gas Infrastructure	(\$25,000)	(\$900)	(\$5,750)	(\$11,836)	(\$16,250)	(\$310)	(\$3,140)	(\$6,463)
Total First Cost	(\$30,788)	\$3,710	(\$6,171)	(\$12,257)	(\$20,918)	\$4,500	(\$3,361)	(\$6,684)
Present Value of Equipment Replacement Cost			\$1,266				\$1,266	
Lifetime Cost Including Replacement & Financing of First Cost			(\$5,349)	(\$11,872)			(\$2,337)	(\$5,899)

¹Low and high costs represent the potential range of costs and typical represents the costs used in this analysis and determined to be most representative of the conditions described in this report. Two sets of typical costs are presented, one which is applied in the On-Bill cost effectiveness methodology and another applied in the TDV methodology.

²Typical costs assume electric resistance technology. The high range represents higher end induction cooktops and heat pump clothes dryers. Lower cost induction cooktops are available.

Typical incremental costs for switching from a mixed fuel design to an all-electric design are based on the following assumptions:

Appliances: The Reach Code Team determined that the typical first installed cost for electric appliances is very similar to that for natural gas appliances. This was based on information provided by HVAC contractors, plumbers and builders as well as a review of other studies. After review of various sources, the Reach Code Team concluded that the cost difference between gas and electric resistance options for clothes dryers and stoves is negligible and that the lifetimes of the two technologies are also similar.

HVAC: Typical HVAC incremental costs were based on the City of Palo Alto 2019 Title 24 Energy Reach Code Cost-effectiveness Analysis (TRC, 2018) which assumes approximately \$200 first cost savings for the heat pump relative to the gas furnace and air conditioner. Table 6 also includes the present value of the incremental replacement costs for the heat pump based on a 15-year lifetime and a 20-year lifetime for the gas furnace in the mixed fuel home.

DHW: Typical costs for the water heating system were based on equivalent installed first costs for the HPWH and tankless gas water heater. This accounts for slightly higher equipment cost but lower installation labor due to the elimination of the gas flue. Incremental replacement costs for the HPWH are based on a 15-year lifetime and a 20-year lifetime for the tankless water heater.

For multifamily, less data was available and therefore a range of low and high costs is not provided. The typical first cost for multifamily similarly is expected to be close to the same for the mixed fuel and all-electric designs. However, there are additional considerations with multifamily such as greater complexity for venting of natural gas appliances as well as for locating the HPWH within the conditioned space (all climates except Climate Zones 1, 3, and 5, see Table 2) that may impact the total costs.

Electric service upgrade: The study assumes an incremental cost to run 220V service to each appliance of \$200 per appliance for single family homes and \$150 per appliance per multifamily apartment based on cost estimates from builders and contractors. The Reach Code Team reviewed production builder utility plans for



mixed-fuel homes and consulted with contractors to estimate which electricity and/or natural gas services are usually provided to the dryer and oven. Typical practice varied, with some builders providing both gas and electric service to both appliances, others providing both services to only one of the appliances, and some only providing gas. For this study, the Reach Code Team determined that for single family homes the typical cost is best qualified by the practice of providing 220V service and gas to either the dryer and the oven and only gas service to the other. For multifamily buildings it's assumed that only gas is provided to the dryer and oven in the mixed fuel home.

It is assumed that no upgrades to the electrical panel are required and that a 200 Amp panel is typically installed for both mixed fuel and all-electric new construction homes. There are no incremental electrical site infrastructure requirements.

In-house gas infrastructure (from meter to appliances): Installation cost to run a gas line from the meter to the appliance location is \$200 per appliance for single family and \$150 per appliance per multifamily apartment based on cost estimates from builders and contractors. The cost estimate includes providing gas to the water heater, furnace, dryer and cooktop.

Site gas infrastructure: The cost-effective analysis components with the highest degree of variability are the costs for on-site gas infrastructure. These costs can be project dependent and may be significantly impacted by such factors as utility territory, site characteristics, distance to the nearest gas main and main location, joint trenching, whether work is conducted by the utility or a private contractor, and number of dwelling units per development. All gas utilities participating in this study were solicited for cost information. The typical infrastructure costs for single family homes presented in Table 6 are based on cost data provided by PG&E and reflect those for a new subdivision in an undeveloped area requiring the installation of natural gas infrastructure, including a main line. Infrastructure costs for infill development can also be highly variable and may be higher than in an undeveloped area. The additional costs associated with disruption of existing roads, sidewalks, and other structures can be significant. Total typical costs in Table 6 assume \$10,000 for extension of a gas main, \$1,686 for a service lateral, and \$150 for the meter.

Utility Gas Main Extensions rules¹⁵ specify that the developer has the option to only pay 50% of the total cost for a main extension after subtraction of allowances for installation of gas appliances. This 50% refund and the appliance allowance deductions are accounted for in the site gas infrastructure costs under the On-Bill cost-effectiveness methodology. The net costs to the utility after partial reimbursement from the developer are included in utility ratebase and recovered via rates to all customers. The total cost of \$5,750 presented in Table 6 reflects a 50% refund on the \$10,000 extension and appliance deductions of \$1,086 for a furnace, water heater, cooktop, and dryer. Under the On-Bill methodology this analysis assumes this developer option will remain available through 2022 and that the cost savings are passed along to the customer.

The 50% refund and appliance deductions were not applied to the site gas infrastructure costs under the TDV cost-effectiveness methodology based on input received from the Energy Commission and agreement from the Reach Code technical advisory team that the approach is appropriate. TDV cost savings impacts extend beyond the customer and account for societal impacts of energy use. Accounting for the full cost of the infrastructure upgrades was determined to be justified when evaluating under the TDV methodology.

¹⁵ PG&E Rule 15: https://www.pge.com/tariffs/tm2/pdf/GAS_RULES_15.pdf

SoCalGas Rule 20: <https://www.socalgas.com/regulatory/tariffs/tm2/pdf/20.pdf>

SDG&E Rule 15: http://regarchive.sdge.com/tm2/pdf/GAS_GAS-RULES_GRULE15.pdf



Less information was available for the costs associated with gas infrastructure for low-rise multifamily development. The typical cost in Table 6 for the On-Bill methodology is based on TRC's City of Palo Alto 2019 Title 24 Energy Reach Code Cost-effectiveness Analysis (TRC, 2018). These costs, provided by the City of Palo Alto, are approximately \$25,100 for an 8-unit new construction building and reflect connection to an existing main for infill development. Specific costs include plan review, connection charges, meter and manifold, plumbing distribution, and street cut fees. While these costs are specifically based on infill development and from one municipal utility, the estimates are less than those provided by PG&E reflecting the average cost differences charged to the developer between single family and multifamily in an undeveloped area (after accounting for deductions per the Gas Main Extensions rule). To convert costs charged to the developer to account for the full infrastructure upgrade cost (costs applied in the TDV methodology analysis), a factor of 2.06^{16} was calculated based on the single family analysis. This same factor was applied to the multifamily cost of \$3,140 to arrive at \$6,463 (see Table 6).

2.7 Greenhouse Gas Emissions

Equivalent CO₂ emission savings were calculated based on outputs from the CBECC-Res simulation software. Electricity emissions vary by region and by hour of the year. CBECC-Res applies two distinct hourly profiles, one for Climate Zones 1 through 5 and 11 through 13 and another for Climate Zones 6 through 10 and 14 through 16. For natural gas a fixed factor of 0.005307 metric tons/therm is used. To compare the mixed fuel and all-electric cases side-by-side, greenhouse gas (GHG) emissions are presented as CO₂-equivalent emissions per square foot of conditioned floor area.

3 Results

The primary objective of the evaluation is to identify cost-effective, non-preempted performance targets for both single family and low-rise multifamily prototypes, under both mixed fuel and all-electric cases, to support the design of local ordinances requiring new low-rise residential buildings to exceed the minimum state requirements. The packages presented are representative examples of designs and measures that can be used to meet the requirements. In practice, a builder can use any combination of non-preempted or preempted compliant measures to meet the requirements.

This analysis covered all sixteen climate zones and evaluated two efficiency packages, including a non-preempted package and a preempted package that includes upgrades to federally regulated equipment, an Efficiency & PV Package for the all-electric scenario only, and an Efficiency & PV/Battery Package. For the efficiency-only packages, measures were refined to ensure that the non-preempted package was cost-effective based on one of the two metrics applied in this study, TDV or On-Bill. The preempted equipment package, which the Reach Code Team considers to be a package of upgrades most reflective of what builders commonly apply to exceed code requirements, was designed to be cost-effective based on the On-Bill cost-effectiveness approach.

Results are presented as EDR Margin instead of compliance margin. EDR is the metric used to determine code compliance in the 2019 cycle. Target EDR Margin is based on taking the calculated EDR Margin for the case and rounding down to the next half of a whole number. Target EDR Margin for the Efficiency Package are defined based on the lower of the EDR Margin of the non-preempted package and the equipment, preempted package. For example, if for a particular case the cost-effective non-preempted package has an EDR Margin of 3 and the preempted package an EDR Margin of 4, the Target EDR Margin is set at 3.

¹⁶ This factor includes the elimination of the 50% refund for the main extension and adding back in the appliance allowance deductions.



For a package to qualify, a minimum EDR Margin of 0.5 was required. This is to say that a package that only achieved an EDR Margin of 0.4, for example, was not considered. An EDR Margin less than 0.5 generally corresponds to a compliance margin lower than 5% and was considered too small to ensure repeatable results. In certain cases, the Reach Code Team did not identify a cost-effective package that achieved the minimum EDR Margin of 0.5.

Although some of the efficiency measures evaluated were not cost-effective and were eliminated, the following measures are included in at least one package:

- Reduced infiltration
- Improved fenestration
- Improved cool roofs
- High performance attics
- Slab insulation
- Reduced duct leakage
- Verified low leakage ducts in conditioned space
- Low pressure-drop distribution system
- Compact hot water distribution system, basic and expanded
- High efficiency furnace, air conditioner & heat pump (*preempted*)
- High efficiency tankless water heater & heat pump water heater (*preempted*)

3.1 PV and Battery System Sizing

The approach to determining the size of the PV and battery systems varied based on each package and the source fuel. Table 7 describes the PV and battery sizing approaches applied to each of the four packages. For the **Efficiency Non-preempted and Efficiency – Equipment, Preempted packages** a different method was applied to each the two fuel scenarios. In all **mixed fuel cases**, the PV was sized to offset 100% of the estimated electrical load and any electricity savings from efficiency measures were traded off with a smaller PV system. Not downsizing the PV system after adding efficiency measures runs the risk of producing more electricity than is consumed, reducing cost-effectiveness and violating NEM rules. While the impact of this in most cases is minor, analysis confirmed that cost-effectiveness improved when reducing the system size to offset 100% of the electricity usage as opposed to keeping the PV system the same size as the Standard Design.

In the **all-electric Efficiency cases**, the PV system size was left to match the Standard Design (Std Design PV), and the inclusion of energy efficiency measures was not traded off with a reduced capacity PV system. Because the PV system is sized to meet the electricity load of a mixed fuel home, it is cost-effective to keep the PV system the same size and offset a greater percentage of the electrical load.

For the **Efficiency & PV case on the all-electric home**, the Reach Code Team evaluated PV system sizing to offset 100%, 90% and 80% of the total calculated electricity use. Of these three, sizing to 90% proved to be the most cost-effective based on customer utility bills. This is a result of the impact of the annual minimum bill which is around \$120 across all the utilities. The “sweet spot” is a PV system that reduces electricity bills just enough to match the annual minimum bill; increasing the PV size beyond this adds first cost but does not result in utility bill savings.



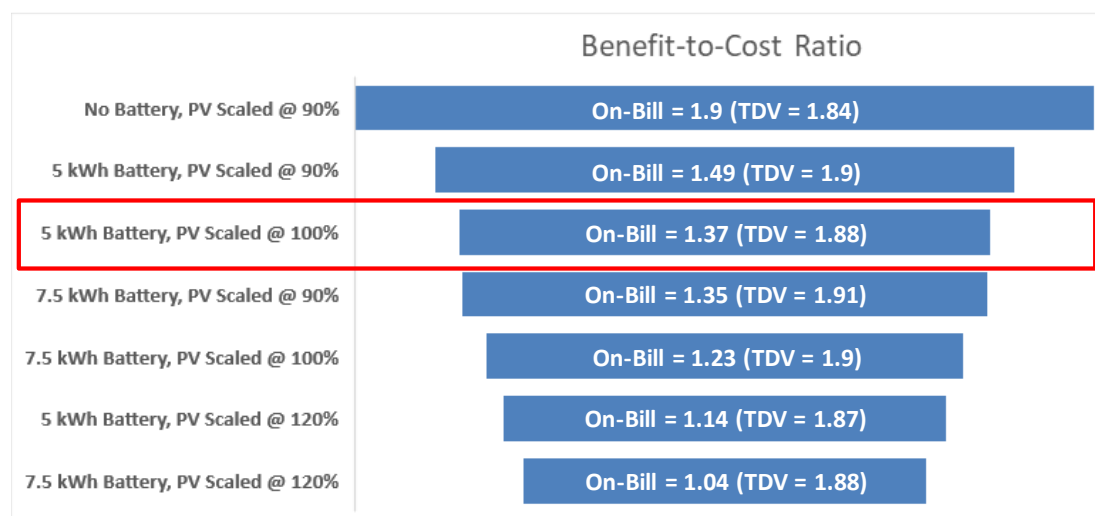
Table 7: PV & Battery Sizing Details by Package Type

Package	Mixed Fuel	All-Electric
Efficiency (Envelope & Equipment)	PV Scaled @ 100% electricity	Std Design PV
Efficiency & PV	n/a	PV Scaled @ 90%
Efficiency & PV/Battery	PV Scaled @ 100% electricity 5kWh / SF home 2.75kWh/ MF apt	PV Scaled @ 100% 5kWh / SF home 2.75kWh/ MF apt

A sensitivity analysis was conducted to determine the appropriate battery and PV capacity for the Efficiency & PV/Battery Packages using the 1-story 2,100 square foot prototype in Climate Zone 12. Results are shown in Figure 2. The current version of CBECC-Res requires a minimum battery size of 5 kWh to qualify for the self-utilization credit. CBECC-Res allows for PV oversizing up to 160% of the building's estimated electricity load when battery storage systems are installed; however, the Reach Code Team considered this high, potentially problematic from a grid perspective, and likely not acceptable to the utilities or customers. The Reach Code Team compared cost-effectiveness of 5kWh and 7.5kWh battery systems as well as of PV systems sized to offset 90%, 100%, or 120% of the estimated electrical load.

Results show that from an on-bill perspective a smaller battery size is more cost-effective. The sensitivity analysis also showed that increasing the PV capacity from 90% to 120% of the electricity use reduced cost-effectiveness. From the TDV perspective there was little difference in results across all the scenarios, with the larger battery size being marginally more cost-effective. Based on these results, the Reach Code Team applied to the Efficiency & PV/Battery Package a 5kWh battery system for single family homes with PV sized to offset 100% of the electricity load. Even though PV scaled to 90% was the most cost-effective, sizing was increased to 100% to evaluate greater generation beyond the Efficiency & PV Package and to achieve zero net electricity. These results also show that in isolation, the inclusion of a battery system reduces cost-effectiveness compared to the same size PV system without batteries.

For multifamily buildings the battery capacity was scaled to reflect the average ratio of battery size to PV system capacity (kWh/kW) for the single family Efficiency & PV Package. This resulted in a 22kWh battery for the multifamily building, or 2.75kWh per apartment.

**Figure 2: B/C ratio comparison for PV and battery sizing**

3.2 Single Family Results

Table 8 through Table 10 contain cost effectiveness findings for the single family packages. Table 8 summarizes the package costs for all of the mixed fuel and all-electric efficiency, PV and battery packages. The mixed fuel results are evaluated and presented relative to a mixed fuel code compliant basecase while the all-electric results are relative to an all-electric code compliant basecase.

Table 9 and Table 10 present the B/C ratios for all the single family packages according to both the On-Bill and TDV methodologies for the mixed fuel and the all-electric cases, respectively. Results are cost-effective based on TDV for all cases except for Climate Zone 7 where no cost-effective combination of non-preempted efficiency measures was found that met the minimum 0.5 EDR Margin threshold. Cases where the B/C ratio is indicated as ">1" refer to instances where there are incremental cost savings in addition to annual utility bill savings. In these cases, there is no cost associated with the upgrade and benefits are realized immediately.

Figure 3 presents a comparison of Total EDRs for single family buildings and Figure 4 presents the EDR Margin results. Each graph compares the mixed fuel and all-electric cases as well as the various packages. The EDR Margin for the **Efficiency Package** for most climates is between 1.0 and 5.5 for mixed fuel cases and slightly higher, between 1.5 and 6.5, for the all-electric design. No cost-effective **mixed fuel or all-electric non-preempted Efficiency package** was found Climate Zone 7.

For the **mixed fuel case, the Efficiency & PV/Battery** Package increased the EDR Margin to values between 7.0 and 10.5. Because of the limitations on oversizing PV systems to offset natural gas use it is not feasible to achieve higher EDR Margins by increasing PV system capacity.

For the **all-electric case, the Efficiency & PV** Package resulted in EDR Margins of 11.0 to 19.0 for most climates; adding a battery system increased the EDR Margin by an additional 7 to 13 points. Climate zones 1 and 16, which have high heating loads, have much higher EDR Margins for the Efficiency & PV package (26.5-31.0). The Standard Design PV, which is what is applied in the all-electric Efficiency Package, is not sized to offset any of the heating load. When the PV system is sized to offset 90% of the total electricity use, the increase is substantial as a result. In contrast, in Climate Zone 15 the Standard Design PV system is already sized to cover the cooling electricity load, which represents 40% of whole building electricity use. Therefore, increasing the PV size to offset 90% of the electric load in this climate only results in adding approximately 120 Watts of PV capacity and subsequently a negligible impact on the EDR.

Additional results details can be found in Appendix C – Single Family Detailed Results with summaries of measures included in each of the packages in Appendix D – Single Family Measure Summary. A summary of results by climate zone is presented in Appendix G – Results by Climate Zone.



Table 8: Single Family Package Lifetime Incremental Costs

Climate Zone	Mixed Fuel			All-Electric			
	Non-Preempted	Equipment - Preempted	Efficiency & PV/Battery	Non-Preempted	Equipment - Preempted	Efficiency & PV	Efficiency & PV/Battery
CZ01	+\$1,355	+\$1,280	+\$5,311	+\$7,642	+\$2,108	+\$18,192	+\$24,770
CZ02	+\$1,504	+\$724	+\$5,393	+\$3,943	+\$2,108	+\$12,106	+\$18,132
CZ03	+\$1,552	+\$1,448	+\$5,438	+\$1,519	+\$2,108	+\$8,517	+\$14,380
CZ04	+\$1,556	+\$758	+\$5,434	+\$1,519	+\$2,108	+\$8,786	+\$14,664
CZ05	+\$1,571	+\$772	+\$5,433	+\$1,519	+\$2,108	+\$8,307	+\$14,047
CZ06	+\$1,003	+\$581	+\$4,889	+\$926	+\$846	+\$6,341	+\$12,036
CZ07	n/a	+\$606	+\$4,028	n/a	+\$846	+\$4,436	+\$9,936
CZ08	+\$581	+\$586	+\$4,466	+\$926	+\$412	+\$5,373	+\$11,016
CZ09	+\$912	+\$574	+\$4,785	+\$1,180	+\$846	+\$5,778	+\$11,454
CZ10	+\$1,648	+\$593	+\$5,522	+\$1,773	+\$949	+\$6,405	+\$12,129
CZ11	+\$3,143	+\$1,222	+\$7,026	+\$3,735	+\$2,108	+\$10,827	+\$17,077
CZ12	+\$1,679	+\$654	+\$5,568	+\$3,735	+\$2,108	+\$11,520	+\$17,586
CZ13	+\$3,060	+\$611	+\$6,954	+\$4,154	+\$2,108	+\$10,532	+\$16,806
CZ14	+\$1,662	+\$799	+\$5,526	+\$4,154	+\$2,108	+\$10,459	+\$16,394
CZ15	+\$2,179	-\$936	+\$6,043	+\$4,612	+\$2,108	+\$5,085	+\$11,382
CZ16	+\$3,542	+\$2,441	+\$7,399	+\$5,731	+\$2,108	+\$16,582	+\$22,838



Table 9: Single Family Package Cost-Effectiveness Results for the Mixed Fuel Case ^{1,2}

CZ	Utility	Efficiency							Efficiency & PV/Battery			
		Non-Preempted			Equipment - Preempted			Target				Target
		Efficiency	On-Bill	TDV	Efficiency	On-Bill	TDV	Efficiency	Total	On-Bill	TDV	Total
		EDR	B/C	B/C	EDR	B/C	B/C	EDR	EDR	B/C	B/C	EDR
		Margin	Ratio	Ratio	Margin	Ratio	Ratio	Margin	Margin	Ratio	Ratio	Margin
01	PG&E	5.3	3.4	2.8	6.9	4.9	4.1	5.0	10.6	0.9	1.6	10.5
02	PG&E	3.3	1.6	1.7	3.3	3.8	3.6	3.0	10.1	0.5	1.6	10.0
03	PG&E	3.0	1.3	1.3	4.1	1.9	2.0	2.5	10.0	0.4	1.4	10.0
04	PG&E	2.5	0.9	1.2	2.7	2.4	2.7	2.5	10.1	0.3	1.5	10.0
05	PG&E	2.7	1.1	1.2	2.6	2.3	2.5	2.5	9.4	0.4	1.3	9.0
05	PG&E/SoCalGas	2.7	0.9	1.2	2.6	2.0	2.5	2.5	9.4	0.3	1.3	9.0
06	SCE/SoCalGas	2.0	0.7	1.2	2.0	1.6	2.0	1.5	9.8	0.8	1.3	9.5
07	SDG&E	0.0	-	-	1.5	1.5	1.4	0.0	9.2	0.1	1.3	9.0
08	SCE/SoCalGas	1.3	0.6	1.4	1.6	1.3	1.8	1.0	8.4	0.9	1.3	8.0
09	SCE/SoCalGas	2.6	0.7	2.0	2.9	1.8	3.7	2.5	8.8	1.0	1.5	8.5
10	SCE/SoCalGas	3.2	0.6	1.3	3.2	2.0	3.8	3.0	9.6	1.0	1.5	9.5
10	SDG&E	3.2	0.8	1.3	3.2	2.6	3.8	3.0	9.6	0.6	1.5	9.5
11	PG&E	4.3	0.8	1.2	5.1	2.5	3.7	4.0	9.2	0.4	1.5	9.0
12	PG&E	3.5	1.2	1.8	3.4	3.3	4.6	3.0	9.6	0.4	1.7	9.5
13	PG&E	4.6	0.8	1.3	5.8	5.3	8.4	4.5	9.7	0.4	1.6	9.5
14	SCE/SoCalGas	5.0	1.6	2.5	5.8	4.0	6.1	4.5	9.0	1.3	1.7	9.0
14	SDG&E	5.0	1.9	2.5	5.8	4.9	6.1	4.5	9.0	1.2	1.7	9.0
15	SCE/SoCalGas	4.8	1.0	1.6	5.0	>1	>1	4.5	7.1	1.1	1.5	7.0
16	PG&E	5.4	1.6	1.5	6.2	2.2	2.2	5.0	10.5	0.9	1.4	10.5

¹">1" indicates cases where there are both first cost savings and annual utility bill savings.

²Information about the measures included for each climate zone are described in Appendix D – Single Family Measure Summary.



Table 10: Single Family Package Cost-Effectiveness Results for the All-Electric Case^{1,2}

CZ	Utility	Efficiency							Efficiency & PV				Efficiency & PV/Battery			
		Non-Preempted			Equipment - Preempted			Target				Target				Target
		Efficiency EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio	Efficiency EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio	Efficiency EDR Margin	Total EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR Margin	Total EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR Margin
01	PG&E	15.2	1.8	1.7	6.9	2.9	2.7	6.5	31.4	1.8	1.5	31.0	41.2	1.4	1.4	41.0
02	PG&E	4.9	1.2	1.1	5.1	2.3	2.1	4.5	19.4	1.8	1.4	19.0	30.1	1.4	1.4	30.0
03	PG&E	4.7	2.6	2.4	4.4	1.8	1.6	4.0	18.5	2.2	1.7	18.0	29.3	1.5	1.6	29.0
04	PG&E	3.4	1.9	1.8	3.9	1.5	1.5	3.0	17.2	2.1	1.6	17.0	28.6	1.5	1.6	28.5
05	PG&E	4.4	2.6	2.3	4.4	1.9	1.7	4.0	18.2	2.3	1.8	18.0	28.7	1.6	1.6	28.5
05	PG&E/SoCalGas	4.4	2.6	2.3	4.4	1.9	1.7	4.0	18.2	2.3	1.8	18.0	28.7	1.6	1.6	28.5
06	SCE/SoCalGas	2.0	1.3	1.4	2.9	2.2	2.3	2.0	14.3	1.2	1.5	14.0	26.1	1.2	1.4	26.0
07	SDG&E	0.0	-	-	2.2	1.6	1.7	0.0	11.3	1.9	1.5	11.0	24.2	1.3	1.5	24.0
08	SCE/SoCalGas	1.6	0.6	1.2	1.8	2.8	3.0	1.5	10.9	1.0	1.5	10.5	21.6	1.1	1.4	21.5
09	SCE/SoCalGas	2.8	0.8	2.0	3.3	2.1	3.2	2.5	11.5	1.1	1.6	11.5	21.3	1.1	1.5	21.0
10	SCE/SoCalGas	3.1	0.9	1.5	3.4	2.3	3.2	3.0	11.1	1.1	1.5	11.0	21.2	1.1	1.5	21.0
10	SDG&E	3.1	1.1	1.5	3.4	2.6	3.2	3.0	11.1	1.7	1.5	11.0	21.2	1.4	1.5	21.0
11	PG&E	4.6	1.2	1.5	5.9	3.0	3.3	4.5	14.2	1.8	1.6	14.0	23.2	1.5	1.6	23.0
12	PG&E	3.8	0.8	1.1	5.1	2.0	2.5	3.5	15.7	1.7	1.4	15.5	25.4	1.3	1.5	25.0
13	PG&E	5.1	1.1	1.4	6.0	2.9	3.3	5.0	13.4	1.7	1.5	13.0	22.5	1.4	1.5	22.0
14	SCE/SoCalGas	5.6	1.0	1.5	6.0	2.3	3.1	5.5	15.5	1.2	1.6	15.5	23.9	1.4	1.6	23.5
14	SDG&E	5.6	1.3	1.5	6.0	2.9	3.1	5.5	15.5	1.8	1.6	15.5	23.9	1.7	1.6	23.5
15	SCE/SoCalGas	5.6	1.1	1.6	7.3	3.3	4.5	5.5	6.2	1.1	1.6	6.0	13.5	1.2	1.5	13.0
16	PG&E	9.7	1.7	1.7	4.9	2.4	2.3	4.5	27.0	2.1	1.6	26.5	35.4	1.7	1.5	35.0

¹">1" indicates cases where there are both first cost savings and annual utility bill savings.

²Information about the measures included for each climate zone are described in Appendix D – Single Family Measure Summary



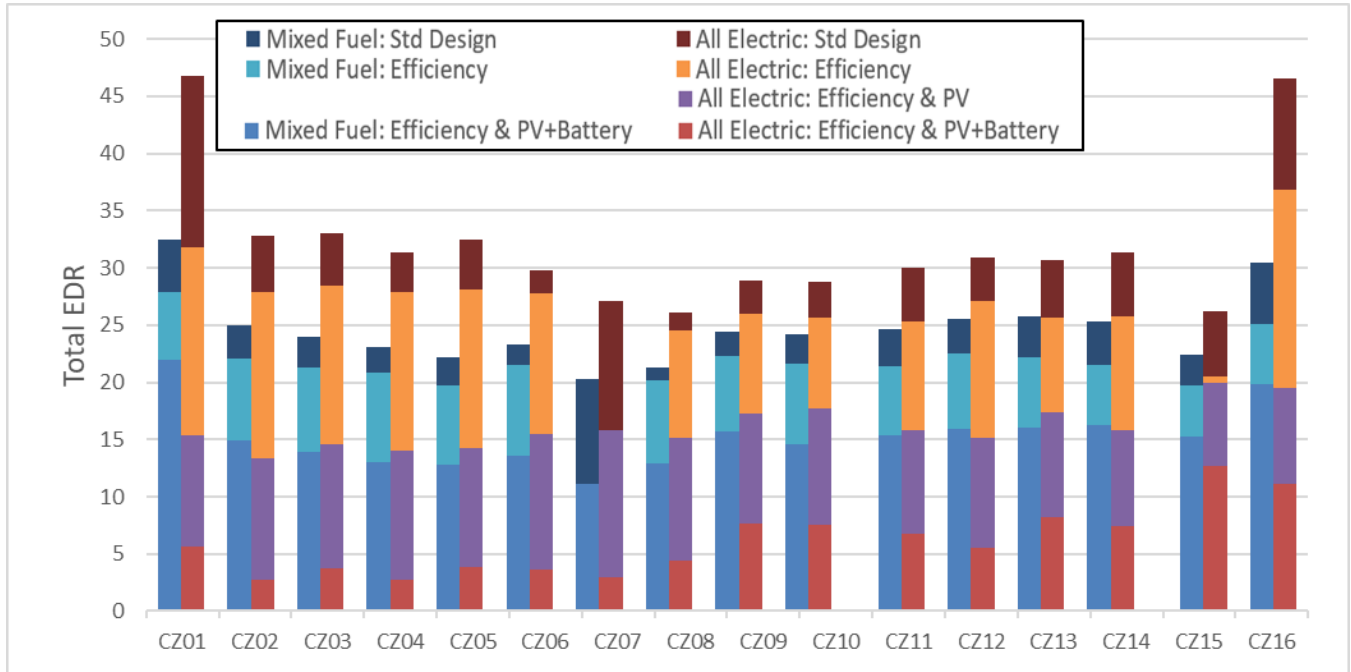


Figure 3: Single family Total EDR comparison

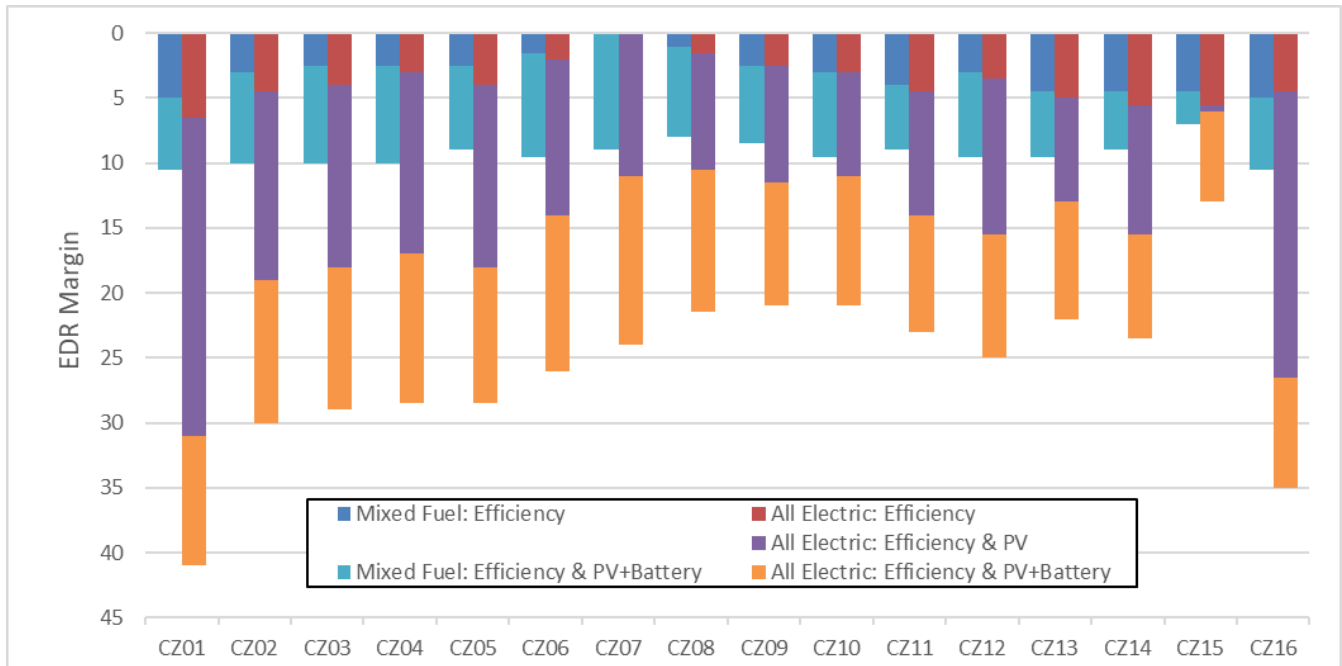


Figure 4: Single family EDR Margin comparison (based on Efficiency EDR Margin for the Efficiency packages and the Total EDR Margin for the Efficiency & PV and Efficiency & PV/Battery packages)

3.2.1 GHG Emission Reductions

Figure 5 compares annual GHG emissions for both mixed fuel and all-electric single family 2019 code compliant cases with Efficiency, Efficiency & PV and Efficiency & PV/Battery packages. GHG emissions vary by climate but are consistently higher in mixed fuel cases than all-electric. Standard Design mixed fuel emissions range from 1.3 (CZ 7) to 3.3 (CZ 16) lbs CO₂e/square foot of floor area, where all-electric Standard Design emissions range from 0.7 to 1.7 lbs CO₂e/ ft². Adding efficiency, PV and batteries to the mixed fuel code compliant prototype reduces GHG emissions by 20% on average to between 1.0 and 1.8 lbs CO₂e/ft², with the exception of Climate Zones 1 and 16. Adding efficiency, PV and batteries to the all-electric code compliant prototype reduces annual GHG emissions by 65% on average to 0.8 lbs CO₂e/ft² or less. None of the cases completely eliminate GHG emissions. Because of the time value of emissions calculation for electricity in CBECC-Res, there is always some amount of GHG impacts with using electricity from the grid.

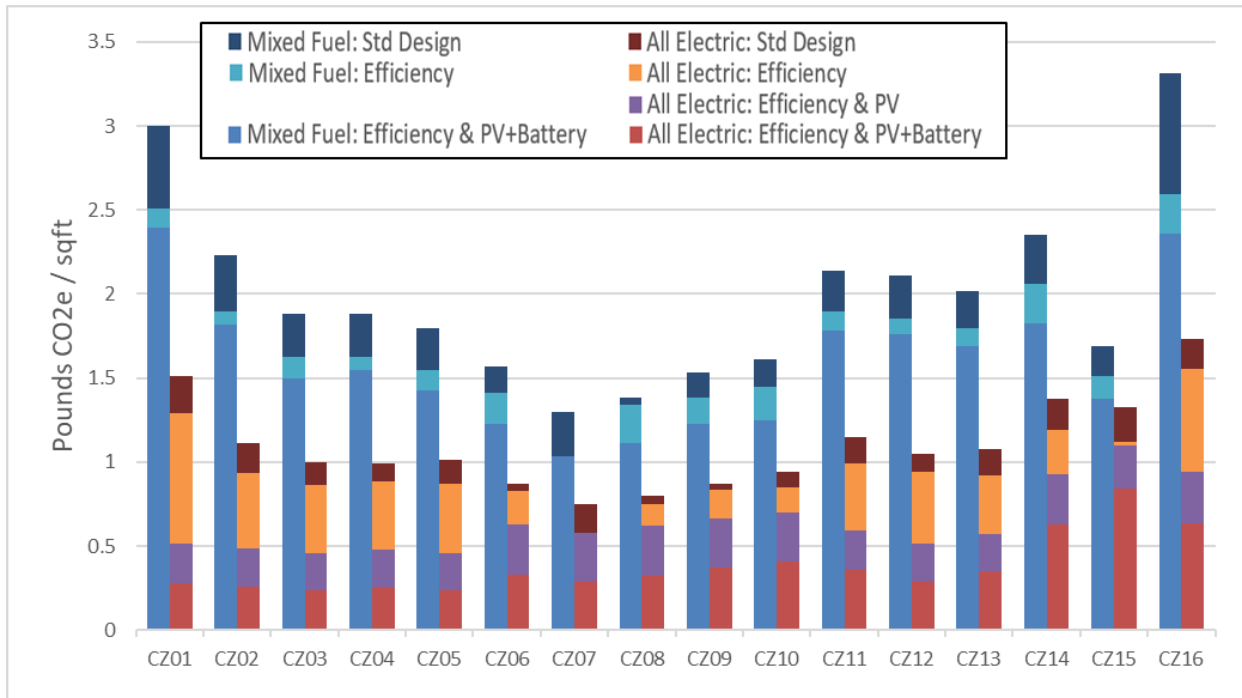


Figure 5: Single family greenhouse gas emissions comparison

3.3 Multifamily Results

Table 11 through Table 13 contain cost effectiveness findings for the multifamily packages. Table 11 summarizes the package costs for all the mixed fuel and all-electric efficiency, PV and battery packages.

Table 12 and Table 13 present the B/C ratios for all the packages according to both the On-Bill and TDV methodologies for the mixed fuel and the all-electric cases, respectively. All the packages are cost-effective based on TDV except Climate Zone 3 for the all-electric cases where no cost-effective combination of non-preempted efficiency measures was found that met the minimum 0.5 EDR Margin threshold. Cases where the B/C ratio is indicated as ">1" refer to instances where there are incremental cost savings in addition to annual utility bill savings. In these cases, there is no cost associated with this upgrade and benefits are realized immediately.

It is generally more challenging to achieve equivalent savings targets cost-effectively for the multifamily cases than for the single family cases. With less exterior surface area per floor area the impact of envelope measures



is diminished in multifamily buildings. Ducts are already assumed to be within conditioned space and therefore only one of the duct measures found to be cost-effective in single family homes can be applied.

Figure 6 presents a comparison of Total EDRs for the multifamily cases and Figure 7 presents the EDR Margin results. Each graph compares the mixed fuel and all-electric cases as well as the various packages. Cost-effective efficiency packages were found for all **mixed fuel cases**. The Target EDR Margins for the **mixed fuel Efficiency Package** are 0.5 for Climate Zones 3, 5 and 7, between 1.0 and 2.5 for Climate Zones 1, 2, 4, 6, 8 through 12 and 16, and between 3.0 and 4.0 in Climate Zones 13 through 15. For the **all-electric case, no cost-effective non-preempted efficiency packages** were found in Climate Zone 3. The Target EDR Margins are between 0.5 and 2.5 for Climate Zones 2, 4 through 10 and 12, and between 3.0 and 4.0 in Climate Zones 1, 11, and 13 through 16.

For the **mixed fuel case, the Efficiency & PV/Battery Package** results in an EDR Margin of between 8.5 and 11.5 across all climate zones. Most of these packages were not found to be cost-effective based on utility bill savings alone, but they all are cost-effective based on TDV energy savings. For the **all-electric case, the Efficiency & PV Package** resulted in EDR Margins of 10.5 to 17.5 for most climates; adding a battery system increased the EDR Margin by an additional 10 to 15 points. Climate zones 1 and 16, which have high heating loads, have much higher EDR Margins for the **Efficiency & PV package** (19.5-22.5). The Standard Design PV, which is what is applied in the **Efficiency Package**, is not sized to offset any of the heating load. When the PV system is sized to offset 90% of the total electricity use, the increase is substantial as a result. In Climate Zone 15 the Standard Design PV system is already sized to cover the cooling electricity load, which represents 30% of whole building electricity use. Therefore, increasing the PV size to offset 90% of the electric load in this climate only results in adding approximately 240 Watts of PV capacity per apartment and subsequently a much smaller impact on the EDR than in other climate zones. Because of the limitations on oversizing PV systems to offset natural gas use it is not feasible to achieve comparable EDR Margins for the mixed fuel case as in the all-electric case.

Additional results details can be found in Appendix E – Multifamily Detailed Results with summaries of measures included in each of the packages in Appendix F – Multifamily Measure Summary. A summary of results by climate zone is presented in Appendix G – Results by Climate Zone.



Table 11: Multifamily Package Incremental Costs per Dwelling Unit

Climate Zone	Mixed Fuel			All-Electric			
	Non-Preempted	Equipment - Preempted	Efficiency & PV/Battery	Non-Preempted	Equipment - Preempted	Efficiency & PV	Efficiency & PV/Battery
CZ01	+\$960	+\$507	+\$3,094	+\$949	+\$795	+\$5,538	+\$8,919
CZ02	+\$309	+\$497	+\$2,413	+\$361	+\$795	+\$3,711	+\$6,833
CZ03	+\$175	+\$403	+\$2,279	n/a	+\$795	+\$3,272	+\$6,344
CZ04	+\$329	+\$351	+\$2,429	+\$361	+\$795	+\$3,158	+\$6,201
CZ05	+\$180	+\$358	+\$2,273	+\$247	+\$795	+\$3,293	+\$6,314
CZ06	+\$190	+\$213	+\$2,294	+\$231	+\$361	+\$2,580	+\$5,590
CZ07	+\$90	+\$366	+\$2,188	+\$202	+\$361	+\$2,261	+\$5,203
CZ08	+\$250	+\$213	+\$2,353	+\$231	+\$361	+\$2,240	+\$5,249
CZ09	+\$136	+\$274	+\$2,234	+\$231	+\$361	+\$2,232	+\$5,236
CZ10	+\$278	+\$250	+\$2,376	+\$361	+\$361	+\$2,371	+\$5,395
CZ11	+\$850	+\$317	+\$2,950	+\$1,011	+\$795	+\$3,601	+\$6,759
CZ12	+\$291	+\$434	+\$2,394	+\$1,011	+\$795	+\$3,835	+\$6,943
CZ13	+\$831	+\$290	+\$2,936	+\$1,011	+\$795	+\$3,462	+\$6,650
CZ14	+\$874	+\$347	+\$2,957	+\$1,011	+\$795	+\$3,356	+\$6,380
CZ15	+\$510	-\$157	+\$2,604	+\$1,011	+\$1,954	+\$1,826	+\$5,020
CZ16	+\$937	+\$453	+\$3,028	+\$843	+\$795	+\$4,423	+\$7,533



Table 12: Multifamily Package Cost-Effectiveness Results for the Mixed Fuel Case^{1,2}

CZ	Utility	Efficiency							Efficiency & PV/Battery			
		Non-Preempted			Equipment - Preempted			Target				Target
		Efficiency	On-Bill	TDV	Efficiency	On-Bill	TDV	Efficiency	Total	On-Bill	TDV	Total
		EDR	B/C	B/C	EDR	B/C	B/C	EDR	EDR	B/C	B/C	EDR
		Margin	Ratio	Ratio	Margin	Ratio	Ratio	Margin	Margin	Ratio	Ratio	Margin
01	PG&E	3.4	1.1	1.2	2.3	1.3	1.4	2.0	11.5	0.4	1.2	11.5
02	PG&E	1.8	1.0	1.7	2.3	1.1	1.5	1.5	10.9	0.2	1.6	10.5
03	PG&E	0.6	1.0	1.1	1.6	1.1	1.2	0.5	10.3	0.1	1.4	10.0
04	PG&E	1.3	0.8	1.2	1.9	1.1	1.7	1.0	11.2	0.2	1.6	11.0
05	PG&E	0.5	1.0	1.0	1.5	1.2	1.3	0.5	9.9	0.2	1.4	9.5
05	PG&E/SoCalGas	0.5	0.8	1.0	1.5	1.1	1.3	0.5	9.9	0.1	1.4	9.5
06	SCE/SoCalGas	1.3	0.6	1.5	1.3	1.4	1.7	1.0	10.7	0.6	1.4	10.5
07	SDG&E	0.9	0.7	2.2	2.0	1.1	1.4	0.5	11.0	0.0	1.4	11.0
08	SCE/SoCalGas	1.5	0.7	1.4	1.1	1.4	1.7	1.0	9.9	0.7	1.3	9.5
09	SCE/SoCalGas	1.8	1.5	3.3	2.8	1.7	2.9	1.5	9.7	0.9	1.5	9.5
10	SCE/SoCalGas	1.7	0.8	1.7	2.9	2.0	3.3	1.5	10.4	1.0	1.6	10.0
10	SDG&E	1.7	1.1	1.7	2.9	2.6	3.3	1.5	10.4	0.2	1.6	10.0
11	PG&E	2.9	0.7	1.2	3.2	1.8	3.3	2.5	10.5	0.4	1.6	10.5
12	PG&E	1.9	1.1	2.2	2.8	1.2	2.2	1.5	10.3	0.3	1.7	10.0
13	PG&E	3.1	0.6	1.3	3.4	2.0	3.8	3.0	10.7	0.4	1.6	10.5
14	SCE/SoCalGas	3.1	0.7	1.2	3.3	2.0	3.0	3.0	9.6	1.1	1.4	9.5
14	SDG&E	3.1	0.9	1.2	3.3	2.5	3.0	3.0	9.6	0.5	1.4	9.5
15	SCE/SoCalGas	4.2	1.4	2.3	4.4	>1	>1	4.0	8.8	1.3	1.7	8.5
16	PG&E	2.4	1.1	1.2	2.9	1.8	2.1	2.0	9.9	0.5	1.3	9.5

¹">1" indicates cases where there are both first cost savings and annual utility bill savings.

²Information about the measures included for each climate zone are described in Appendix F – Multifamily Measure Summary.



Table 13: Multifamily Package Cost-effectiveness Results for the All-Electric Case^{1,2}

CZ	Utility	Efficiency							Efficiency & PV				Efficiency & PV/Battery			
		Non-Preempted			Equipment - Preempted			Target Efficiency EDR Margin				Target Total EDR Margin				Target Total EDR Margin
		Efficiency EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio	Efficiency EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio		Total EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio		Total EDR Margin	On-Bill B/C Ratio	TDV B/C Ratio	
01	PG&E	3.6	1.6	1.4	3.3	2.4	2.3	3.0	22.5	2.0	1.5	22.5	34.5	1.3	1.4	34.5
02	PG&E	1.9	1.7	2.1	3.2	1.6	1.6	1.5	17.5	2.4	1.8	17.5	30.9	1.4	1.7	30.5
03	PG&E	0.0	-	-	2.7	1.7	1.6	0.0	16.1	2.4	1.7	16.0	29.5	1.3	1.6	29.5
04	PG&E	1.4	1.4	1.5	2.2	1.2	1.1	1.0	15.0	2.4	1.8	15.0	28.9	1.3	1.8	28.5
05	PG&E	0.6	1.1	0.9	3.6	2.1	2.0	0.5	17.1	2.5	1.8	17.0	30.3	1.4	1.7	30.0
05	PG&E/SoCalGas	0.6	1.1	0.9	3.6	2.1	2.0	0.5	17.1	2.5	1.8	17.0	30.3	1.4	1.7	30.0
06	SCE/SoCalGas	1.0	0.7	1.3	2.2	1.6	1.9	1.0	13.8	1.2	1.7	13.5	27.5	1.2	1.6	27.5
07	SDG&E	0.6	0.6	1.0	1.9	1.6	1.7	0.5	12.8	2.1	1.8	12.5	27.1	1.2	1.6	27.0
08	SCE/SoCalGas	1.2	0.9	1.7	1.9	1.6	1.8	1.0	11.6	1.3	1.8	11.5	24.2	1.2	1.6	24.0
09	SCE/SoCalGas	1.6	1.3	2.7	1.5	1.6	1.6	1.5	11.3	1.3	1.9	11.0	23.3	1.3	1.7	23.0
10	SCE/SoCalGas	1.8	1.2	2.0	1.8	1.7	2.0	1.5	10.8	1.3	1.8	10.5	23.3	1.3	1.7	23.0
10	SDG&E	1.8	1.5	2.0	1.8	2.0	2.0	1.5	10.8	2.1	1.8	10.5	23.3	1.4	1.7	23.0
11	PG&E	3.5	1.4	1.6	3.9	2.0	2.3	3.5	13.4	2.2	1.8	13.0	25.3	1.4	1.8	25.0
12	PG&E	2.6	0.9	1.1	2.9	1.6	1.6	2.5	14.4	2.1	1.6	14.0	26.6	1.3	1.7	26.5
13	PG&E	3.3	1.3	1.6	3.8	2.0	2.3	3.0	12.2	2.1	1.7	12.0	23.9	1.4	1.7	23.5
14	SCE/SoCalGas	3.7	1.2	1.6	3.8	1.6	2.2	3.5	14.0	1.4	1.9	14.0	24.8	1.4	1.8	24.5
14	SDG&E	3.7	1.5	1.6	3.8	2.0	2.2	3.5	14.0	2.2	1.9	14.0	24.8	1.7	1.8	24.5
15	SCE/SoCalGas	4.4	1.5	2.3	6.4	1.2	1.7	4.0	7.1	1.4	2.1	7.0	16.9	1.3	1.8	16.5
16	PG&E	4.1	2.1	2.1	3.2	1.6	1.7	3.0	19.6	2.6	1.9	19.5	29.9	1.6	1.7	29.5

¹">1" indicates cases where there are both first cost savings and annual utility bill savings.

²Information about the measures included for each climate zone are described in Appendix F – Multifamily Measure Summary.



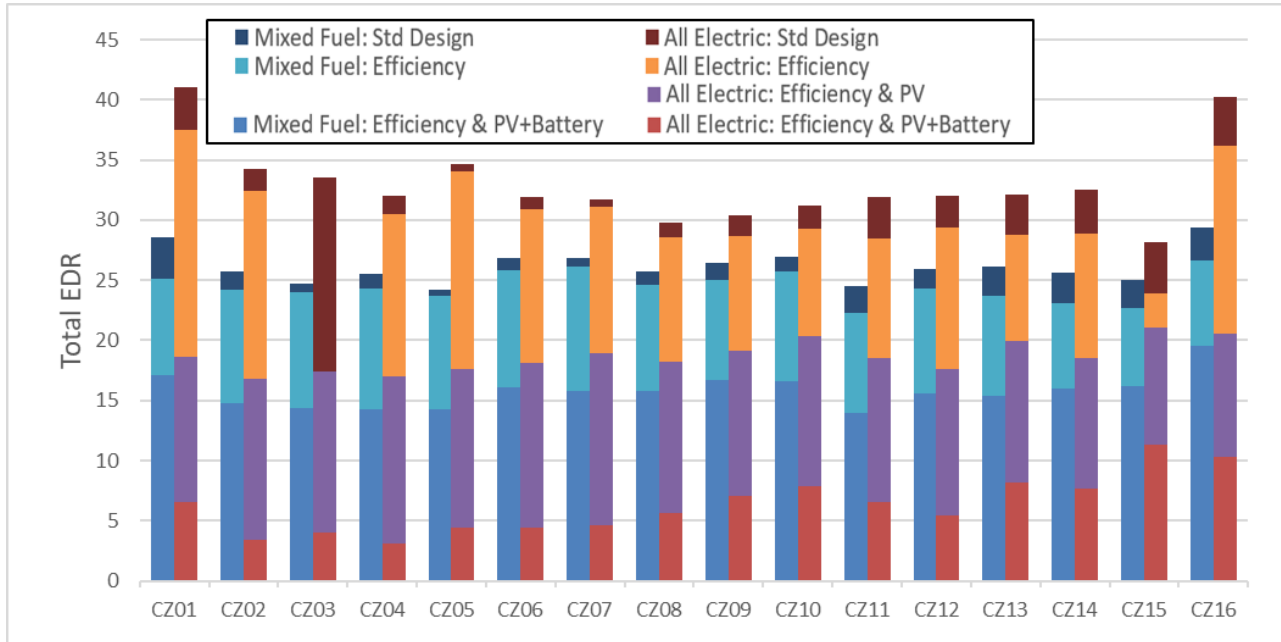


Figure 6: Multifamily Total EDR comparison

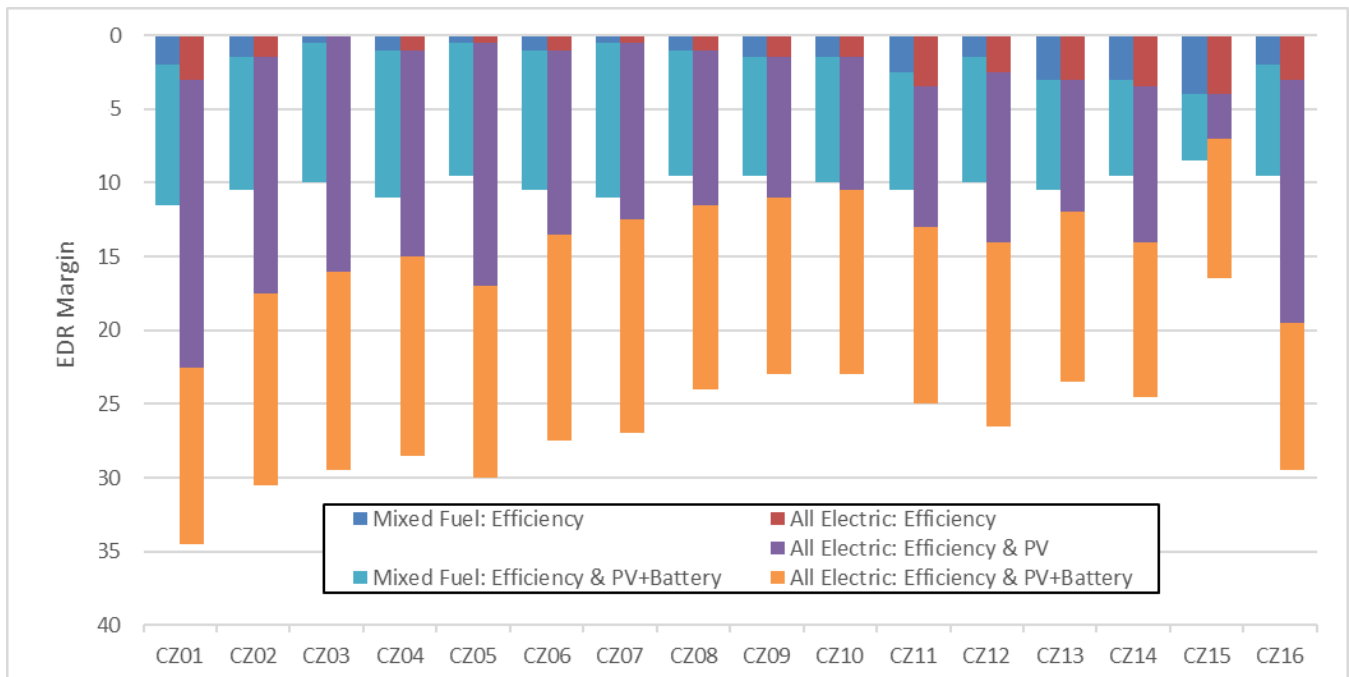


Figure 7: Multifamily EDR Margin comparison (based on Efficiency EDR Margin for the Efficiency packages and the Total EDR Margin for the Efficiency & PV and Efficiency & PV/Battery packages)

3.3.1 GHG Emission Reductions

Figure 8 compares annual GHG emissions for both mixed fuel and all-electric multifamily 2019 code compliant cases with Efficiency, Efficiency & PV and Efficiency & PV/Battery packages. GHG emissions vary by climate but are consistently higher in mixed fuel cases than all-electric. Standard design mixed fuel emissions range from 2.0 to 3.0 lbs CO₂e/square foot of floor area, where all-electric standard design emissions range from 1.2 to 1.7 lbs CO₂e/ ft². Adding PV, batteries and efficiency to the mixed fuel code compliant prototype reduces annual GHG emissions by 17% on average to between 1.7 and 2.2 lbs CO₂e/ft², except Climate Zone 16. Adding PV, batteries and efficiency to the all-electric code compliant prototype reduces annual GHG emissions by 64% on average to 0.6 lbs CO₂e/ft² or less with the exception of Climate Zones 14, 15 and 16. As in the single family case, none of the cases completely eliminate GHG emissions because of the time value of emissions calculation for electricity in CBECC-Res.

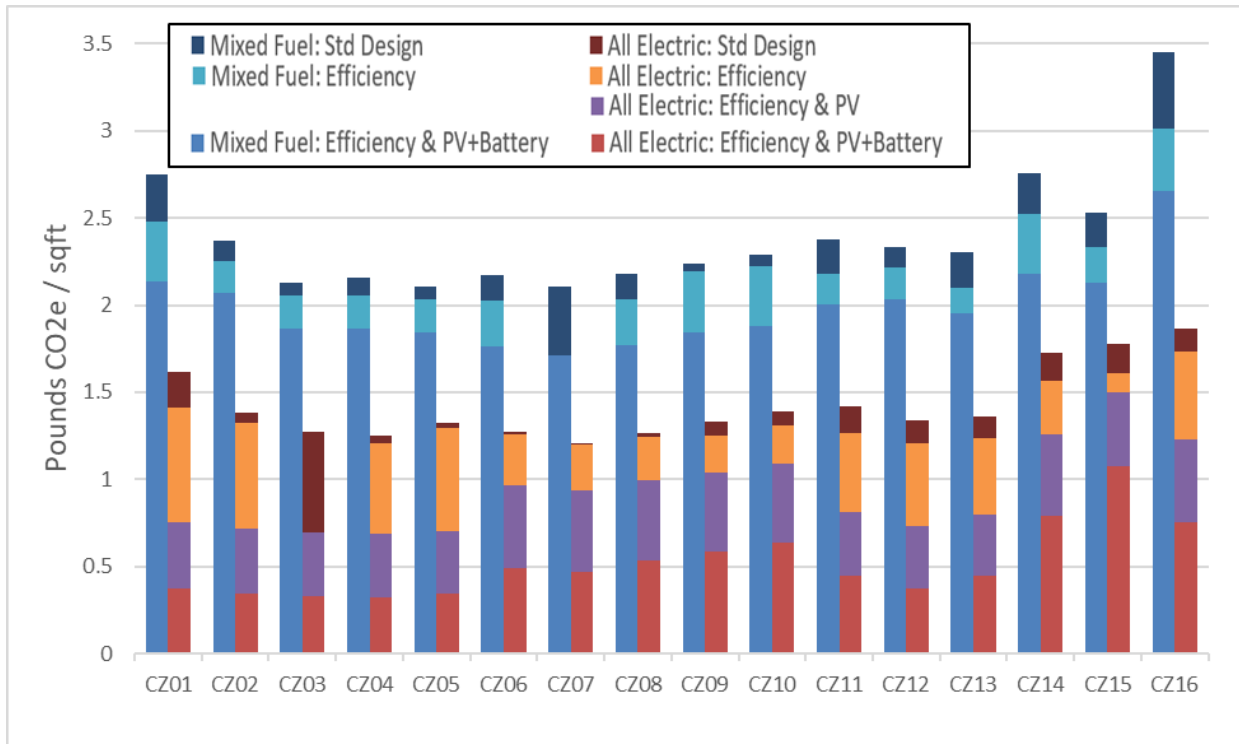


Figure 8: Multifamily greenhouse gas emissions comparison

3.4 Electrification Results

Cost-effectiveness results comparing mixed fuel and all-electric cases are summarized below. The tables show average annual utility bill impacts and lifetime utility bill impacts, which account for fuel escalation for electricity and natural gas (see Section 2.5), lifetime equipment cost savings, and both On-Bill and TDV cost-effectiveness (B/C ratio). Positive utility bill values indicate lower utility costs for the all-electric home relative to the mixed fuel case while negative values in red and parenthesis indicate higher utility costs for the all-electric case. Lifetime equipment cost savings include savings due to eliminating natural gas infrastructure and replacement costs for appliances based on equipment life. Positive values for the lifetime equipment cost savings indicate lower installed costs for the all-electric and negative values indicate higher costs. B/C ratios 1.0 or greater indicate positive cost-effectiveness. Cases where the B/C ratio is indicated as ">1" refer to instances where there was incremental cost savings in addition to annual utility bill savings. In these cases, there is no cost associated with this upgrade and benefits are realized immediately.



Three scenarios were evaluated:

1. **2019 Code Compliant:** Compares a 2019 code compliant all-electric home with a 2019 code compliant mixed fuel home.
2. **Efficiency & PV Package:** Compares an all-electric home with efficiency and PV sized to 90% of the annual electricity use to a 2019 code compliant mixed fuel home. The first cost savings in the code compliant all-electric house is invested in above code efficiency and PV reflective of the Efficiency & PV packages described above.
3. **Neutral Cost Package:** Compares an all-electric home with PV beyond code minimum with a 2019 code compliant mixed fuel home. The PV system for the all-electric case is sized to result in a zero lifetime incremental cost relative to a mixed fuel home.

3.4.1 Single Family

Table 14, Table 15, Figure 9, Figure 10, and Figure 11 present results of cost-effectiveness analysis for electrification of single family buildings, according to both the On-Bill and TDV methodologies. Based on typical cost assumptions arrived at for this analysis, the lifetime equipment costs for the single family code compliant all-electric option are approximately \$5,350 less than the mixed fuel code compliant option. Cost savings are entirely due to the elimination of gas infrastructure, which was assumed to be a savings of \$5,750. When evaluating cost-effectiveness based on TDV, the Utility Gas Main Extensions rules 50% refund and appliance allowance deduction are not applied and therefore the cost savings are twice as much.

Under the Efficiency & PV Package and the On-Bill analysis, the incremental cost of the efficiency and PV is typically more than the cost savings seen in the code compliant case, which results in a net cost increase in most climate zones for the all-electric case. In climates with small heating loads (7 and 15) there continues to be an incremental cost savings for the all-electric home. With the TDV analysis, there is still an incremental cost savings in all climates except 1 and 16 for single family.

Utility impacts differ by climate zone and utility, but utility costs for the code compliant all-electric option are typically higher than for the compliant mixed fuel design. There are utility cost savings across all climate zones and building types for the all-electric Efficiency & PV Package, resulting in a more cost-effective option.

The all-electric code compliant option is cost-effective based on the On-Bill approach for single family homes in Climate Zones 6 through 9, 10 (SCE/SoCalGas territory only), and 15. The code compliant option is cost-effective based on the TDV methodology in all climate zones except 1 and 16. If the same costs used for the On-Bill approach are also used for the TDV approach (incorporating the Utility Gas Main Extensions rules 50% refund and appliance allowance deduction), the all-electric code compliant option is cost-effective in Climate Zones 6 through 10. The Efficiency & PV all-electric option is cost-effective in all climate zones based on both the On-Bill and TDV methodologies. In many cases it is cost-effective immediately with lower equipment and utility costs.

The last set of results in Table 14 shows the neutral cost case where the cost savings for the all-electric code compliant home is invested in a larger PV system, resulting in a lifetime incremental cost of zero based on the On-Bill approach. This package results in utility cost savings in all cases except Climate Zones 1, 14 (SCE/SoCalGas territory only), and 16. For these three cases the Reach Code Team evaluated how much additional PV would be required to result in a cost-effective package. These results are presented in Table 15 and show that an additional 1.6kW in Climate Zone 1 results in a B/C ratio of 1.1. For Climate Zone 14 and 16 adding 0.25kW and 1.2kW, respectively, results in a B/C ratio of 1.2. Neutral cost cases are cost-effective based on the TDV methodology in all climate zones except 16.

3.4.2 Multifamily

Multifamily results are found in Table 16, Table 17, Figure 12, Figure 13, and Figure 14. Lifetime costs for the multifamily code compliant all-electric option are approximately \$2,300 less than the mixed fuel code compliant option, entirely due to the elimination of gas infrastructure. When evaluating cost-effectiveness based on TDV,



the Utility Gas Main Extensions rules 50% refund and appliance allowance deduction are not applied and therefore the cost savings are approximately 2.5 times higher.

With the Efficiency & PV Package and the On-Bill analysis, due to the added cost of the efficiency and PV there is a net cost increase for the all-electric case in all climate zones for except 7, 8, 9, and 15. With the TDV analysis, there is still an incremental cost savings in all climates. Like the single family results, utility costs are typically higher for the code compliant all-electric option but lower than the code compliant mixed fuel option with the Efficiency & PV Package.

The all-electric code compliant option is cost-effective based on the On-Bill approach for multifamily in Climate Zones 6 through 9, 10 and 14 (SCE/SoCalGas territory only), and 15. Based on the TDV methodology, the code compliant option for multifamily is cost-effective for all climate zones. If the same costs used for the On-Bill approach are also used for the TDV approach (incorporating the Utility Gas Main Extensions rules 50% refund and appliance allowance deduction), the all-electric code compliant option is cost-effective in Climate Zones 8 and 9. Like the single family cases, the Efficiency & PV all-electric option is cost-effective in all climate zones based on both the On-Bill and TDV methodologies.

The last set of results in Table 16 show the neutral cost case where the cost savings for the all-electric code compliant home is invested in a larger PV system, resulting in a lifetime incremental cost of zero based on the On-Bill approach. This package results in utility cost savings in all cases except Climate Zone 1. For this case the Reach Code Team evaluated how much additional PV would be required to result in a cost-effective package. These results are presented in Table 17 and show that an additional 0.3kW per apartment results in a B/C ratio of 1.1. Neutral cost cases are cost-effective based on the TDV methodology in all climate zones except 16.

Table 14: Single Family Electrification Results

		On-Bill Cost-effectiveness ¹						TDV Cost-effectiveness		
		Average Annual Utility Bill Savings			Lifetime NPV			Lifetime NPV		
			Natural Gas	Net Utility Savings	Utility Bill Savings	Equipment Cost Savings	On-Bill B/C Ratio ²	TDV Cost Savings	Equipment Cost Savings	TDV B/C Ratio
CZ	Utility	Electricity	Gas	Savings	Savings	Savings		Savings	Savings	Ratio
	2019 Code Compliant Home									
01	PG&E	-\$(\$1,194)	+\$712	-\$(\$482)	-\$(\$14,464)	+\$5,349	0.4	-\$(\$13,081)	+\$11,872	0.9
02	PG&E	-\$(\$825)	+\$486	-\$(\$340)	-\$(\$10,194)	+\$5,349	0.5	-\$(\$7,456)	+\$11,872	1.6
03	PG&E	-\$(\$717)	+\$391	-\$(\$326)	-\$(\$9,779)	+\$5,349	0.5	-\$(\$7,766)	+\$11,872	1.5
04	PG&E	-\$(\$710)	+\$387	-\$(\$322)	-\$(\$9,671)	+\$5,349	0.6	-\$(\$7,447)	+\$11,872	1.6
05	PG&E	-\$(\$738)	+\$367	-\$(\$371)	-\$(\$11,128)	+\$5,349	0.5	-\$(\$8,969)	+\$11,872	1.3
05	PG&E/SoCalGas	-\$(\$738)	+\$370	-\$(\$368)	-\$(\$11,034)	+\$5,349	0.5	-\$(\$8,969)	+\$11,872	1.3
06	SCE/SoCalGas	-\$(\$439)	+\$289	-\$(\$149)	-\$(\$4,476)	+\$5,349	1.2	-\$(\$4,826)	+\$11,872	2.5
07	SDG&E	-\$(\$414)	+\$243	-\$(\$171)	-\$(\$5,134)	+\$5,349	1.0	-\$(\$4,678)	+\$11,872	2.5
08	SCE/SoCalGas	-\$(\$347)	+\$249	-\$(\$97)	-\$(\$2,921)	+\$5,349	1.8	-\$(\$3,971)	+\$11,872	3.0
09	SCE/SoCalGas	-\$(\$377)	+\$271	-\$(\$107)	-\$(\$3,199)	+\$5,349	1.7	-\$(\$4,089)	+\$11,872	2.9
10	SCE/SoCalGas	-\$(\$403)	+\$280	-\$(\$123)	-\$(\$3,684)	+\$5,349	1.5	-\$(\$4,458)	+\$11,872	2.7
10	SDG&E	-\$(\$496)	+\$297	-\$(\$198)	-\$(\$5,950)	+\$5,349	0.9	-\$(\$4,458)	+\$11,872	2.7
11	PG&E	-\$(\$810)	+\$447	-\$(\$364)	-\$(\$10,917)	+\$5,349	0.5	-\$(\$7,024)	+\$11,872	1.7
12	PG&E	-\$(\$740)	+\$456	-\$(\$284)	-\$(\$8,533)	+\$5,349	0.6	-\$(\$6,281)	+\$11,872	1.9
13	PG&E	-\$(\$742)	+\$413	-\$(\$329)	-\$(\$9,870)	+\$5,349	0.5	-\$(\$6,480)	+\$11,872	1.8
14	SCE/SoCalGas	-\$(\$661)	+\$413	-\$(\$248)	-\$(\$7,454)	+\$5,349	0.7	-\$(\$7,126)	+\$11,872	1.7
14	SDG&E	-\$(\$765)	+\$469	-\$(\$296)	-\$(\$8,868)	+\$5,349	0.6	-\$(\$7,126)	+\$11,872	1.7
15	SCE/SoCalGas	-\$(\$297)	+\$194	-\$(\$103)	-\$(\$3,090)	+\$5,349	1.7	-\$(\$5,364)	+\$11,872	2.2
16	PG&E	-\$(\$1,287)	+\$712	-\$(\$575)	-\$(\$17,250)	+\$5,349	0.3	-\$(\$17,391)	+\$11,872	0.7



		On-Bill Cost-effectiveness ¹						TDV Cost-effectiveness		
		Average Annual Utility Bill Savings			Lifetime NPV			Lifetime NPV		
			Natural Gas	Net Utility Savings	Utility Bill Savings	Equipment Cost Savings	On-Bill B/C Ratio ²	TDV Cost Savings	Equipment Cost Savings	TDV B/C Ratio
CZ	Utility	Electricity	Gas	Savings	Savings	Savings		Savings	Savings	Ratio
	Efficiency & PV Package									
01	PG&E	-\$(\$99)	+\$712	+\$613	+\$18,398	-\$(\$12,844)	1.4	+\$13,364	-\$(\$6,321)	2.1
02	PG&E	-\$(\$89)	+\$486	+\$397	+\$11,910	-\$(\$6,758)	1.8	+\$9,307	-\$(\$234)	39.7
03	PG&E	-\$(\$87)	+\$391	+\$304	+\$9,119	-\$(\$3,169)	2.9	+\$6,516	+\$3,355	>1
04	PG&E	-\$(\$85)	+\$387	+\$302	+\$9,074	-\$(\$3,438)	2.6	+\$6,804	+\$3,086	>1
05	PG&E	-\$(\$98)	+\$367	+\$268	+\$8,054	-\$(\$2,959)	2.7	+\$5,625	+\$3,564	>1
05	PG&E/SoCalGas	-\$(\$98)	+\$370	+\$272	+\$8,148	-\$(\$2,959)	2.8	+\$5,625	+\$3,564	>1
06	SCE/SoCalGas	-\$(\$188)	+\$289	+\$102	+\$3,049	-\$(\$992)	3.1	+\$4,585	+\$5,531	>1
07	SDG&E	-\$(\$137)	+\$243	+\$106	+\$3,174	+\$912	>1	+\$2,176	+\$7,436	>1
08	SCE/SoCalGas	-\$(\$160)	+\$249	+\$89	+\$2,664	-\$(\$25)	107.9	+\$3,965	+\$6,499	>1
09	SCE/SoCalGas	-\$(\$169)	+\$271	+\$102	+\$3,067	-\$(\$429)	7.1	+\$5,368	+\$6,094	>1
10	SCE/SoCalGas	-\$(\$173)	+\$280	+\$107	+\$3,216	-\$(\$1,057)	3.0	+\$5,165	+\$5,466	>1
10	SDG&E	-\$(\$137)	+\$297	+\$160	+\$4,805	-\$(\$1,057)	4.5	+\$5,165	+\$5,466	>1
11	PG&E	-\$(\$147)	+\$447	+\$300	+\$8,988	-\$(\$5,478)	1.6	+\$9,776	+\$1,045	>1
12	PG&E	-\$(\$92)	+\$456	+\$364	+\$10,918	-\$(\$6,172)	1.8	+\$9,913	+\$352	>1
13	PG&E	-\$(\$144)	+\$413	+\$269	+\$8,077	-\$(\$5,184)	1.6	+\$8,960	+\$1,339	>1
14	SCE/SoCalGas	-\$(\$241)	+\$413	+\$172	+\$5,164	-\$(\$5,111)	1.0	+\$9,850	+\$1,412	>1
14	SDG&E	-\$(\$139)	+\$469	+\$330	+\$9,910	-\$(\$5,111)	1.9	+\$9,850	+\$1,412	>1
15	SCE/SoCalGas	-\$(\$107)	+\$194	+\$87	+\$2,603	+\$264	>1	+\$2,598	+\$6,787	>1
16	PG&E	-\$(\$130)	+\$712	+\$582	+\$17,457	-\$(\$11,234)	1.6	+\$9,536	-\$(\$4,710)	2.0
	Neutral Cost Package									
01	PG&E	-\$(\$869)	+\$712	-\$(\$157)	-\$(\$4,704)	+\$0	0	-\$(\$6,033)	+\$6,549	1.1
02	PG&E	-\$(\$445)	+\$486	+\$40	+\$1,213	+\$0	>1	+\$868	+\$6,505	>1
03	PG&E	-\$(\$335)	+\$391	+\$56	+\$1,671	+\$0	>1	+\$483	+\$6,520	>1
04	PG&E	-\$(\$321)	+\$387	+\$66	+\$1,984	+\$0	>1	+\$1,062	+\$6,521	>1
05	PG&E	-\$(\$335)	+\$367	+\$31	+\$938	+\$0	>1	-\$(\$163)	+\$6,519	40.1
05	PG&E/SoCalGas	-\$(\$335)	+\$370	+\$34	+\$1,031	+\$0	>1	-\$(\$163)	+\$6,519	40.1
06	SCE/SoCalGas	-\$(\$227)	+\$289	+\$63	+\$1,886	+\$0	>1	+\$3,258	+\$6,499	>1
07	SDG&E	-\$(\$72)	+\$243	+\$171	+\$5,132	+\$0	>1	+\$3,741	+\$6,519	>1
08	SCE/SoCalGas	-\$(\$144)	+\$249	+\$105	+\$3,162	+\$0	>1	+\$4,252	+\$6,515	>1
09	SCE/SoCalGas	-\$(\$170)	+\$271	+\$100	+\$3,014	+\$0	>1	+\$4,271	+\$6,513	>1
10	SCE/SoCalGas	-\$(\$199)	+\$280	+\$81	+\$2,440	+\$0	>1	+\$3,629	+\$6,494	>1
10	SDG&E	-\$(\$155)	+\$297	+\$143	+\$4,287	+\$0	>1	+\$3,629	+\$6,494	>1
11	PG&E	-\$(\$426)	+\$447	+\$21	+\$630	+\$0	>1	+\$1,623	+\$6,504	>1
12	PG&E	-\$(\$362)	+\$456	+\$94	+\$2,828	+\$0	>1	+\$2,196	+\$6,525	>1
13	PG&E	-\$(\$370)	+\$413	+\$43	+\$1,280	+\$0	>1	+\$1,677	+\$6,509	>1
14	SCE/SoCalGas	-\$(\$416)	+\$413	-\$(\$4)	-\$(\$107)	+\$0	0	+\$2,198	+\$6,520	>1
14	SDG&E	-\$(\$391)	+\$469	+\$79	+\$2,356	+\$0	>1	+\$2,198	+\$6,520	>1
15	SCE/SoCalGas	-\$(\$98)	+\$194	+\$97	+\$2,900	+\$0	>1	+\$2,456	+\$6,483	>1
16	PG&E	-\$(\$878)	+\$712	-\$(\$166)	-\$(\$4,969)	+\$0	0	-\$(\$8,805)	+\$6,529	0.7

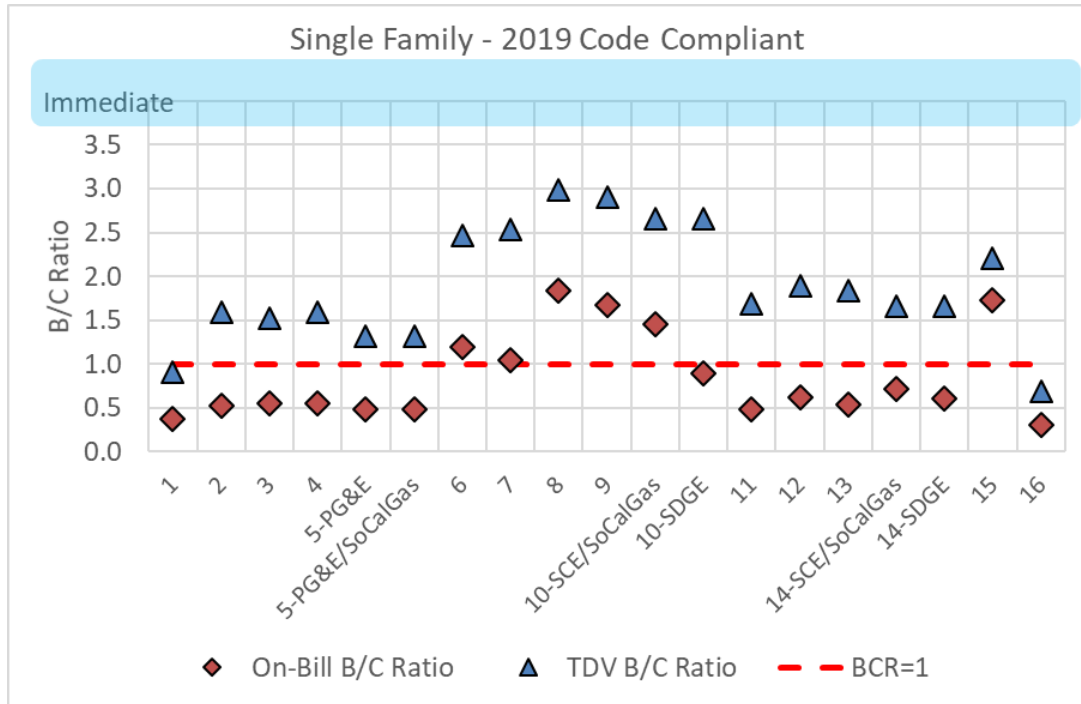
¹Red values in parentheses indicate an increase in utility bill costs or an incremental first cost for the all-electric home.

²>1" indicates cases where there are both first cost savings and annual utility bill savings.



Table 15: Comparison of Single Family On-Bill Cost Effectiveness Results with Additional PV

CZ	Utility	Neutral Cost				Min. Cost Effectiveness			
		PV Capacity (kW)	Utility Bill Savings	Equipment Cost Savings	On-Bill B/C Ratio	PV Capacity (kW)	Utility Bill Savings	Equipment Cost Savings	On-Bill B/C Ratio
01	PG&E	4.7	-\$4,704	+\$0	0	6.3	+\$6,898	-\$6,372	1.1
14	SCE/SoCalGas	4.5	-\$107	+\$0	0	4.8	+\$1,238	-\$1,000	1.2
16	PG&E	4.1	-\$4,969	+\$0	0	5.3	+\$5,883	-\$4,753	1.2

**Figure 9: B/C ratio results for a single family all-electric code compliant home versus a mixed fuel code compliant home**

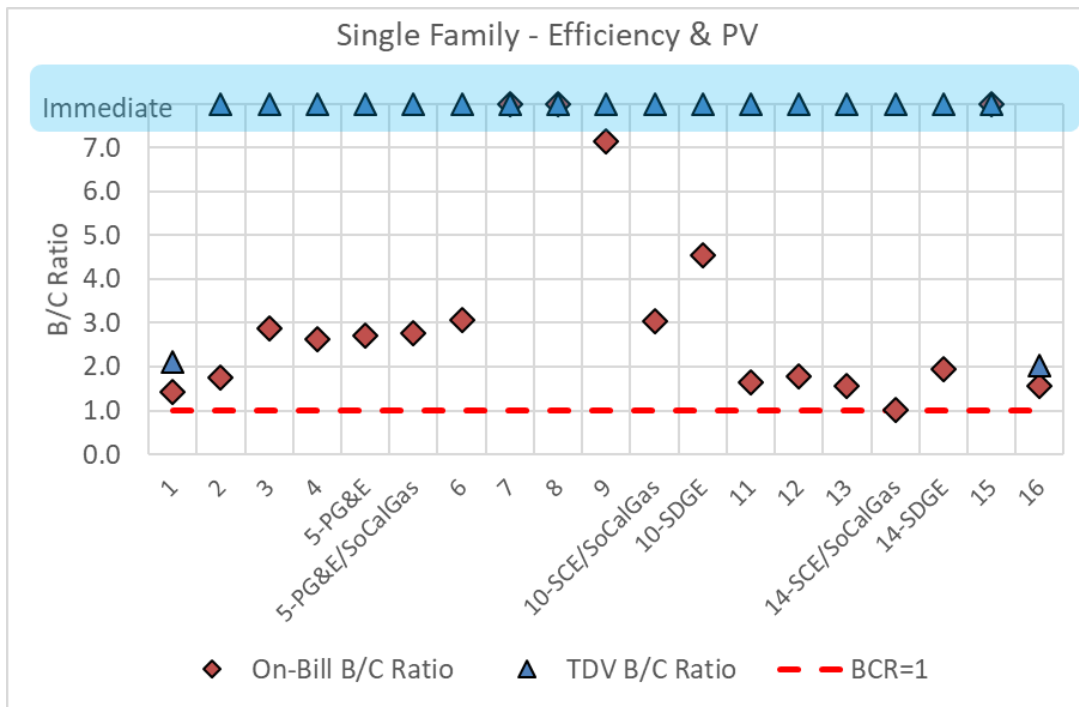


Figure 10: B/C ratio results for the single family Efficiency & PV all-electric home versus a mixed fuel code compliant home

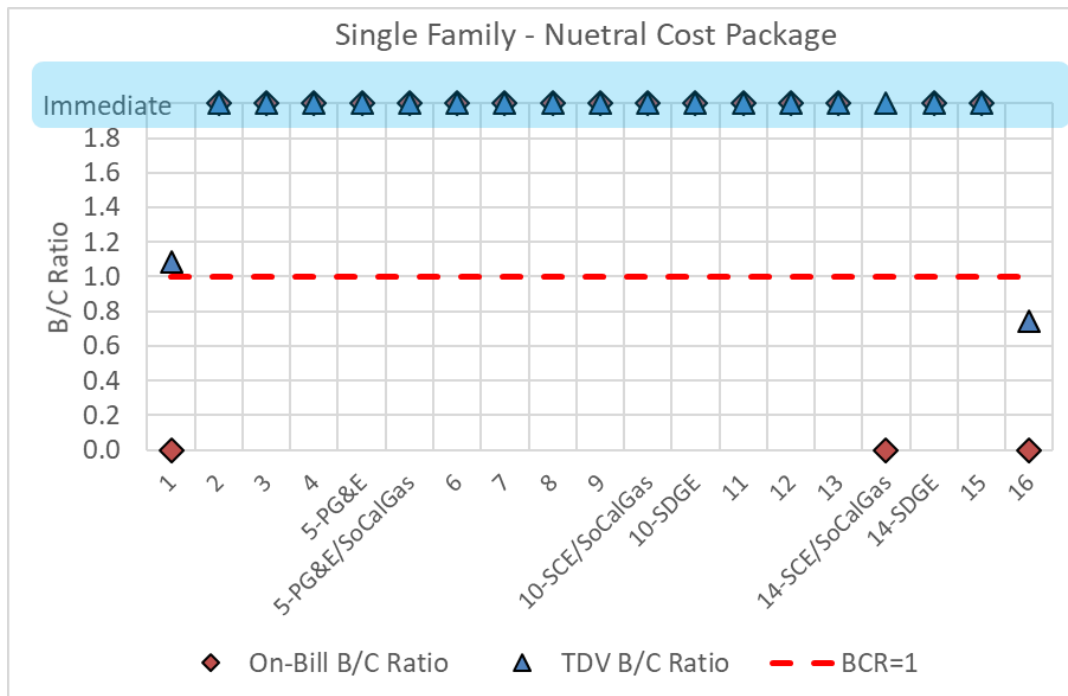


Figure 11: B/C ratio results for the single family neutral cost package all-electric home versus a mixed fuel code compliant home

Table 16: Multifamily Electrification Results (Per Dwelling Unit)

		On-Bill Cost-effectiveness ¹						TDV Cost-effectiveness		
		Average Annual Utility Bill Savings			Lifetime NPV			Lifetime NPV		
				Net		Equipment	On-Bill		Equipment	TDV
CZ	Utility	Electricity	Natural Gas	Utility Savings	Utility Bill Savings	Cost Savings	B/C Ratio ²	TDV Cost Savings	Cost Savings	B/C Ratio
	2019 Code Compliant Home									
01	PG&E	-\$(\$396)	+\$193	-\$(\$203)	-\$(\$6,079)	+\$2,337	0.4	-\$(\$5,838)	+\$5,899	1.0
02	PG&E	-\$(\$310)	+\$162	-\$(\$148)	-\$(\$4,450)	+\$2,337	0.5	-\$(\$4,144)	+\$5,899	1.4
03	PG&E	-\$(\$277)	+\$142	-\$(\$135)	-\$(\$4,041)	+\$2,337	0.6	-\$(\$4,035)	+\$5,899	1.5
04	PG&E	-\$(\$264)	+\$144	-\$(\$120)	-\$(\$3,595)	+\$2,337	0.6	-\$(\$3,329)	+\$5,899	1.8
05	PG&E	-\$(\$297)	+\$140	-\$(\$157)	-\$(\$4,703)	+\$2,337	0.5	-\$(\$4,604)	+\$5,899	1.3
05	PG&E/SoCalGas	-\$(\$297)	+\$178	-\$(\$119)	-\$(\$3,573)	+\$2,337	0.7	-\$(\$4,604)	+\$5,899	1.3
06	SCE/SoCalGas	-\$(\$191)	+\$161	-\$(\$30)	-\$(\$902)	+\$2,337	2.6	-\$(\$2,477)	+\$5,899	2.4
07	SDG&E	-\$(\$206)	+\$136	-\$(\$70)	-\$(\$2,094)	+\$2,337	1.1	-\$(\$2,390)	+\$5,899	2.5
08	SCE/SoCalGas	-\$(\$169)	+\$157	-\$(\$12)	-\$(\$349)	+\$2,337	6.7	-\$(\$2,211)	+\$5,899	2.7
09	SCE/SoCalGas	-\$(\$177)	+\$159	-\$(\$18)	-\$(\$533)	+\$2,337	4.4	-\$(\$2,315)	+\$5,899	2.5
10	SCE/SoCalGas	-\$(\$183)	+\$159	-\$(\$23)	-\$(\$697)	+\$2,337	3.4	-\$(\$2,495)	+\$5,899	2.4
10	SDG&E	-\$(\$245)	+\$139	-\$(\$106)	-\$(\$3,192)	+\$2,337	0.7	-\$(\$2,495)	+\$5,899	2.4
11	PG&E	-\$(\$291)	+\$153	-\$(\$138)	-\$(\$4,149)	+\$2,337	0.6	-\$(\$4,420)	+\$5,899	1.3
12	PG&E	-\$(\$277)	+\$155	-\$(\$122)	-\$(\$3,665)	+\$2,337	0.6	-\$(\$3,557)	+\$5,899	1.7
13	PG&E	-\$(\$270)	+\$146	-\$(\$124)	-\$(\$3,707)	+\$2,337	0.6	-\$(\$3,821)	+\$5,899	1.5
14	SCE/SoCalGas	-\$(\$255)	+\$187	-\$(\$69)	-\$(\$2,062)	+\$2,337	1.1	-\$(\$3,976)	+\$5,899	1.5
14	SDG&E	-\$(\$328)	+\$175	-\$(\$154)	-\$(\$4,607)	+\$2,337	0.5	-\$(\$3,976)	+\$5,899	1.5
15	SCE/SoCalGas	-\$(\$154)	+\$142	-\$(\$12)	-\$(\$367)	+\$2,337	6.4	-\$(\$2,509)	+\$5,899	2.4
16	PG&E	-\$(\$404)	+\$224	-\$(\$180)	-\$(\$5,411)	+\$2,337	0.4	-\$(\$5,719)	+\$5,899	1.0
	Efficiency & PV Package									
01	PG&E	-\$(\$19)	+\$193	+\$174	+\$5,230	-\$(\$3,202)	1.6	+\$2,467	+\$361	>1
02	PG&E	-\$(\$10)	+\$162	+\$152	+\$4,549	-\$(\$1,375)	3.3	+\$2,605	+\$2,187	>1
03	PG&E	-\$(\$12)	+\$142	+\$130	+\$3,910	-\$(\$936)	4.2	+\$1,632	+\$2,626	>1
04	PG&E	-\$(\$8)	+\$144	+\$136	+\$4,080	-\$(\$822)	5.0	+\$2,381	+\$2,740	>1
05	PG&E	-\$(\$19)	+\$140	+\$121	+\$3,635	-\$(\$956)	3.8	+\$1,403	+\$2,606	>1
05	PG&E/SoCalGas	-\$(\$19)	+\$178	+\$159	+\$4,765	-\$(\$956)	5.0	+\$1,403	+\$2,606	>1
06	SCE/SoCalGas	-\$(\$84)	+\$161	+\$77	+\$2,309	-\$(\$243)	9.5	+\$1,940	+\$3,319	>1
07	SDG&E	-\$(\$49)	+\$136	+\$87	+\$2,611	+\$75	>1	+\$1,583	+\$3,638	>1
08	SCE/SoCalGas	-\$(\$74)	+\$157	+\$83	+\$2,480	+\$96	>1	+\$1,772	+\$3,658	>1
09	SCE/SoCalGas	-\$(\$76)	+\$159	+\$82	+\$2,469	+\$104	>1	+\$1,939	+\$3,667	>1
10	SCE/SoCalGas	-\$(\$79)	+\$159	+\$80	+\$2,411	-\$(\$34)	70.9	+\$1,737	+\$3,528	>1
10	SDG&E	-\$(\$77)	+\$139	+\$61	+\$1,842	-\$(\$34)	54.2	+\$1,737	+\$3,528	>1
11	PG&E	-\$(\$25)	+\$153	+\$128	+\$3,834	-\$(\$1,264)	3.0	+\$2,080	+\$2,298	>1
12	PG&E	-\$(\$11)	+\$155	+\$144	+\$4,316	-\$(\$1,498)	2.9	+\$2,759	+\$2,064	>1
13	PG&E	-\$(\$26)	+\$146	+\$121	+\$3,625	-\$(\$1,125)	3.2	+\$2,083	+\$2,437	>1
14	SCE/SoCalGas	-\$(\$99)	+\$187	+\$87	+\$2,616	-\$(\$1,019)	2.6	+\$2,422	+\$2,543	>1
14	SDG&E	-\$(\$86)	+\$175	+\$88	+\$2,647	-\$(\$1,019)	2.6	+\$2,422	+\$2,543	>1
15	SCE/SoCalGas	-\$(\$67)	+\$142	+\$75	+\$2,247	+\$511	>1	+\$1,276	+\$4,073	>1
16	PG&E	-\$(\$24)	+\$224	+\$200	+\$5,992	-\$(\$2,087)	2.9	+\$2,629	+\$1,476	>1



		On-Bill Cost-effectiveness ¹						TDV Cost-effectiveness		
		Average Annual Utility Bill Savings			Lifetime NPV			Lifetime NPV		
			Natural Gas	Net Utility Savings	Utility Bill Savings	Equipment Cost Savings	On-Bill B/C Ratio ²	TDV Cost Savings	Equipment Cost Savings	TDV B/C Ratio
CZ	Utility	Electricity	Gas	Savings	Savings	Savings	Ratio ²	Savings	Savings	Ratio
	Neutral Cost Package									
01	PG&E	-\$228	+\$193	-\$35)	-\$1,057)	+\$0	0	-\$2,267)	+\$3,564	1.6
02	PG&E	-\$115)	+\$162	+\$47	+\$1,399	+\$0	>1	+\$59	+\$3,563	>1
03	PG&E	-\$81)	+\$142	+\$61	+\$1,843	+\$0	>1	+\$138	+\$3,562	>1
04	PG&E	-\$64)	+\$144	+\$80	+\$2,402	+\$0	>1	+\$983	+\$3,563	>1
05	PG&E	-\$90)	+\$140	+\$50	+\$1,490	+\$0	>1	-\$152)	+\$3,564	23.4
05	PG&E/SoCalGas	-\$90)	+\$178	+\$87	+\$2,620	+\$0	>1	-\$152)	+\$3,564	23.4
06	SCE/SoCalGas	-\$90)	+\$161	+\$71	+\$2,144	+\$0	>1	+\$1,612	+\$3,562	>1
07	SDG&E	-\$32)	+\$136	+\$105	+\$3,135	+\$0	>1	+\$1,886	+\$3,560	>1
08	SCE/SoCalGas	-\$67)	+\$157	+\$90	+\$2,705	+\$0	>1	+\$1,955	+\$3,564	>1
09	SCE/SoCalGas	-\$71)	+\$159	+\$87	+\$2,623	+\$0	>1	+\$1,924	+\$3,561	>1
10	SCE/SoCalGas	-\$78)	+\$159	+\$81	+\$2,431	+\$0	>1	+\$1,588	+\$3,561	>1
10	SDG&E	-\$71)	+\$139	+\$68	+\$2,033	+\$0	>1	+\$1,588	+\$3,561	>1
11	PG&E	-\$93)	+\$153	+\$59	+\$1,783	+\$0	>1	-\$48)	+\$3,562	74.0
12	PG&E	-\$82)	+\$155	+\$73	+\$2,184	+\$0	>1	+\$739	+\$3,564	>1
13	PG&E	-\$79)	+\$146	+\$68	+\$2,034	+\$0	>1	+\$310	+\$3,560	>1
14	SCE/SoCalGas	-\$141)	+\$187	+\$45	+\$1,359	+\$0	>1	+\$747	+\$3,562	>1
14	SDG&E	-\$137)	+\$175	+\$38	+\$1,131	+\$0	>1	+\$747	+\$3,562	>1
15	SCE/SoCalGas	-\$50)	+\$142	+\$92	+\$2,771	+\$0	>1	+\$1,738	+\$3,560	>1
16	PG&E	-\$194)	+\$224	+\$30	+\$900	+\$0	>1	-\$1,382)	+\$3,564	2.6

¹Red values in parentheses indicate an increase in utility bill costs or an incremental first cost for the all-electric home.

²">1" indicates cases where there are both first cost savings and annual utility bill savings.

Table 17: Comparison of Multifamily On-Bill Cost Effectiveness Results with Additional PV (Per Dwelling Unit)

CZ	Utility	Neutral Cost				Min. Cost Effectiveness			
		PV Capacity (kW)	Utility Bill Savings	Equipment Cost Savings	On-Bill B/C Ratio	PV Capacity (kW)	Utility Bill Savings	Equipment Cost Savings	On-Bill B/C Ratio
01	PG&E	2.7	-(\$1,057)	+\$0	0	3.0	+\$1,198	-(\$1,052)	1.1



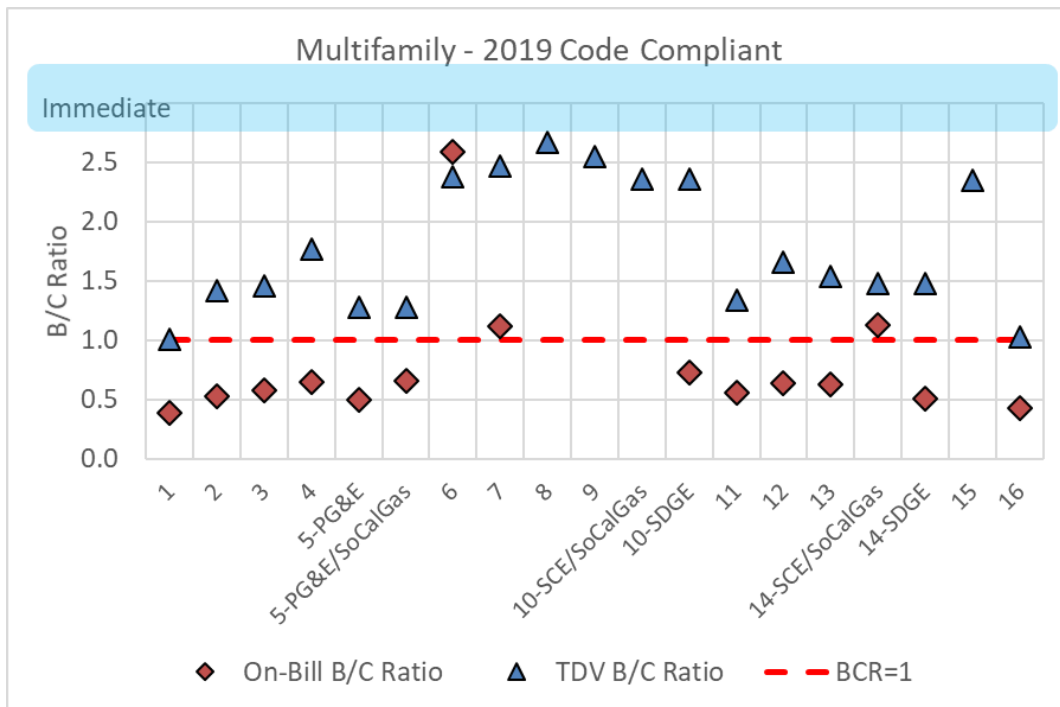


Figure 12: B/C ratio results for a multifamily all-electric code compliant home versus a mixed fuel code compliant home

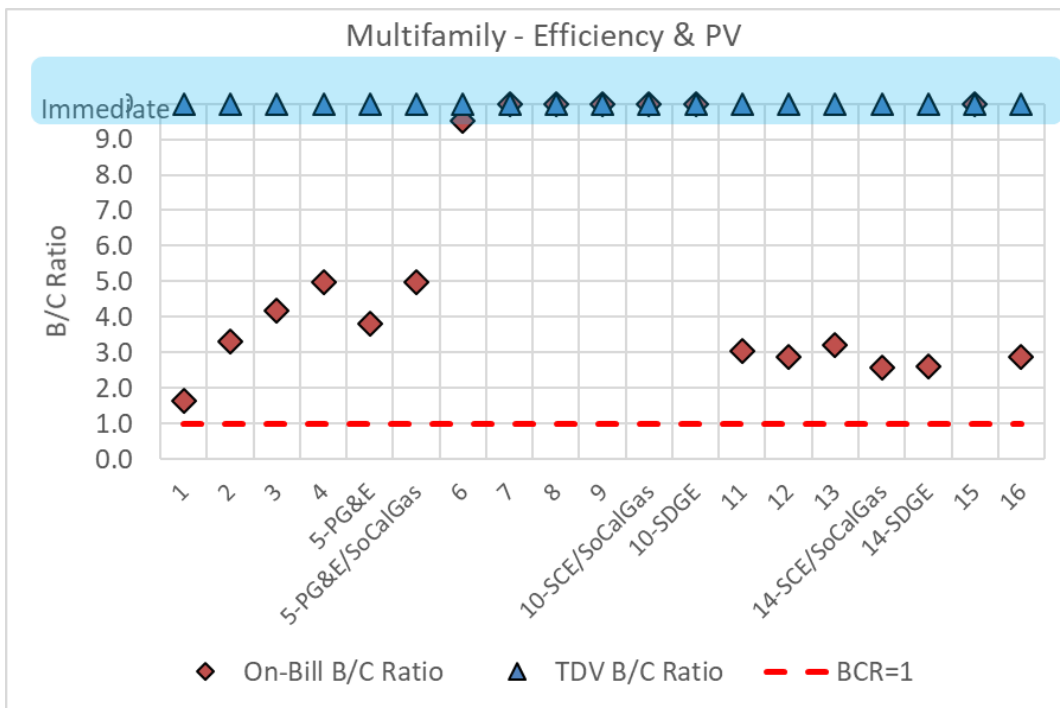


Figure 13: B/C ratio results for the multifamily Efficiency & PV all-electric home versus a mixed fuel code compliant home



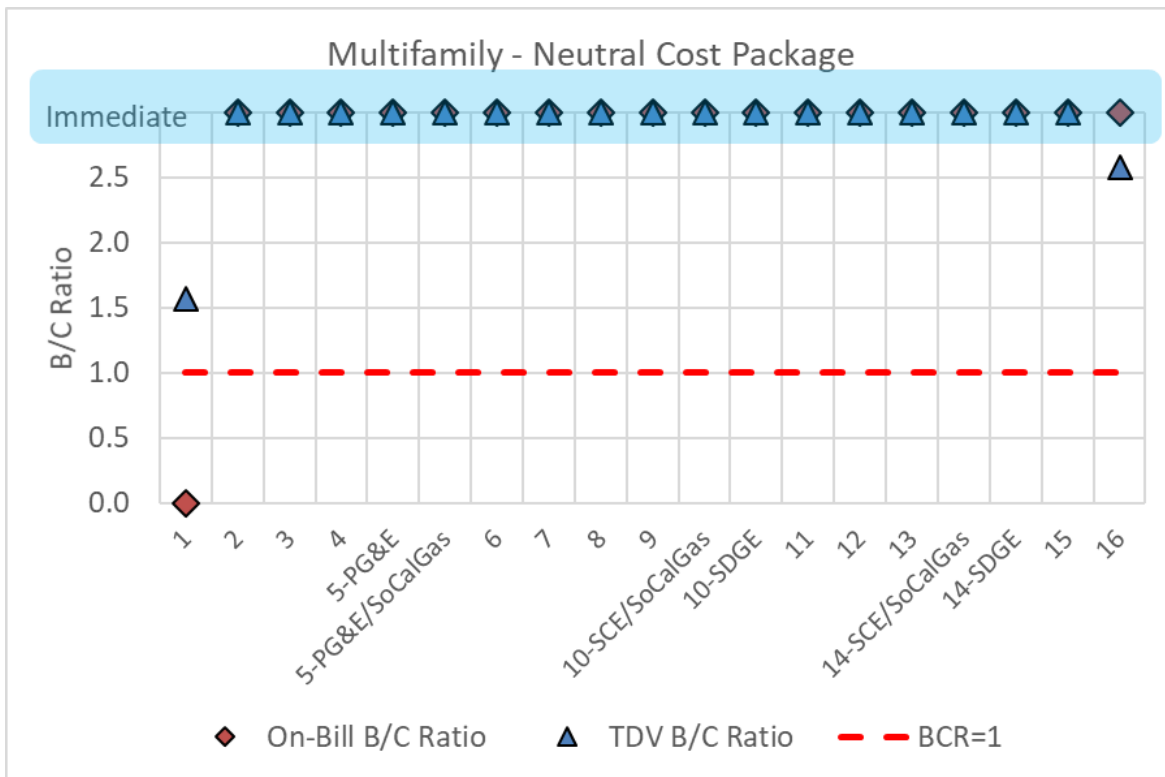


Figure 14: B/C ratio results for the multifamily neutral cost package all-electric home versus a mixed fuel code compliant home

4 Conclusions & Summary

This report evaluated the feasibility and cost-effectiveness of “above code” performance specifications through the application of efficiency measures, PV, and electric battery storage in all 16 California climate zones. The analysis found cost-effective packages across the state for both single family and low-rise multifamily buildings. For the building types and climate zones where cost-effective packages were identified, the results of this analysis can be used by local jurisdictions to support the adoption of reach codes. Cost-effectiveness was evaluated according to two metrics: On-Bill customer lifecycle benefit-to-cost and TDV lifecycle benefit-to-cost. While all the above code targets presented are based on packages that are cost-effective under at least one of these metrics, they are not all cost-effective under both metrics. Generally, the test for being cost-effective under the TDV methodology is less challenging than under the On-Bill methodology. Therefore, all packages presented are cost-effective based on TDV, and may or may not be cost-effective based on the On-Bill method. It is up to each jurisdiction to determine what metric is most appropriate for their application. A summary of results by climate zone are presented in Appendix G – Results by Climate Zone.

Above code targets are presented as Target EDR Margin, which have been defined for each scenario where a cost-effective package was identified. Target EDR Margins represent the maximum “reach” values that meet the requirements. Jurisdictions may adopt less stringent requirements. For the Efficiency Package the Target EDR Margin was defined based on the lower EDR Margin of the Efficiency – Non-Preempted Package and the Efficiency – Equipment, Preempted Package. For example, if the cost-effective Non-Preempted package has an EDR Margin of 3 and the Preempted package an EDR Margin of 4, the Target EDR Margin is set at 3.

The average incremental cost for the single family Efficiency packages is ~\$1,750. The Efficiency & PV Package average incremental cost is \$9,180 and for the Efficiency & PV/Battery Package it is approximately \$5,600 for the



mixed fuel cases and \$15,100 for the all-electric cases. The incremental costs for each multifamily apartment are approximately 30-40% lower. See Table 8 and Table 11 for a summary of package costs by case.

Table 18 and Table 19 summarize the maximum Target EDR Margins determined to be cost effective for each package for single family and multifamily, respectively. Cases labeled as “n/a” in the tables indicate where no cost-effective package was identified under either On-Bill or TDV methodology.

This analysis also looked at the GHG emissions impacts of the various packages. An all-electric design reduces GHG emissions 40-50% in most cases relative to a comparable mixed fuel design.

There is significant interest throughout California on electrification of new buildings. The Reach Code Team assembled data on the cost differences between a code compliant mixed fuel building and a code compliant all-electric building. Based on lifetime equipment cost savings (the difference in first cost for equipment and infrastructure combined with incremental replacement costs) of \$5,349 for an all-electric single family home this analysis found that from a customer on-bill perspective, the all-electric code compliant option is cost-effective in Climates Zones 6 through 9, 10 (SCE/SoCalGas territory only), and 15, and cost-effective in all climate zones except 1 and 16 based on TDV. For multifamily buildings, based on a cost savings of \$2,337 per apartment, the code compliant option is cost-effective in Climates Zones 6 through 9, 10 & 14 (SCE/SoCalGas territory only), and 15, and cost-effective based on TDV.

Adding efficiency and PV to the code compliant all-electric buildings increases the cost-effectiveness in all climate zones. The Efficiency & PV Package is cost-effective when compared to a mixed fuel code compliant building in all climate zones for both single family and multifamily buildings based on both the On-Bill and TDV methodologies. The Efficiency & PV package adds PV to offset 90% of the electricity use of the home. While this results in higher installed costs, the reduced lifetime utility costs are larger (\$0 to \$6,000 lifetime incremental equipment costs in many climates for single family homes and an associated \$4,500 to \$13,500 lifetime utility cost savings across the same cases), resulting in positive B/C ratios for all cases.

The Reach Code Team also evaluated a neutral cost electrification scenario where the cost savings for the all-electric code compliant home is invested in a larger PV system, resulting in a lifetime incremental cost of zero based on the On-Bill approach. This package results in utility cost savings and positive on-bill B/C ratio in all cases except Climate Zones 1 and 16 for single family, and Climate Zone 1 for low-rise multifamily. Increasing the PV sizes in those climates by approximately 30% resulted in positive on-bill B/C ratios, while still not resulting in oversizing of PV systems.

Other studies have shown that cost-effectiveness of electrification increases with high efficiency space conditioning and water heating equipment in the all-electric home. This was not directly evaluated in this analysis but based on the favorable cost-effectiveness results of the Equipment, Preempted package for the individual mixed fuel and all-electric upgrades it's expected that applying similar packages to the electrification analysis would result in increased cost-effectiveness.

The Reach Code Team found there can be substantial variability in first costs, particularly related to natural gas infrastructure. Costs are project-dependent and will be impacted by such factors as site characteristics, distance to the nearest gas main, joint trenching, whether work is conducted by the utility or a private contractor, and number of homes per development among other things. While the best cost data available to the Reach Code Team was applied in this analysis, individual projects may experience different costs, either higher or lower than the estimates presented here.



Table 18: Summary of Single Family Target EDR Margins

Climate Zone	Mixed Fuel		All-Electric		
	Efficiency	Efficiency & PV/Battery	Efficiency	Efficiency & PV	Efficiency & PV/Battery
01	5.0	10.5	6.5	31.0	41.0
02	3.0	10.0	4.5	19.0	30.0
03	2.5	10.0	4.0	18.0	29.0
04	2.5	10.0	3.0	17.0	28.5
05	2.5	9.0	4.0	18.0	28.5
06	1.5	9.5	2.0	14.0	26.0
07	n/a	9.0	n/a	11.0	24.0
08	1.0	8.0	1.5	10.5	21.5
09	2.5	8.5	2.5	11.5	21.0
10	3.0	9.5	3.0	11.0	21.0
11	4.0	9.0	4.5	14.0	23.0
12	3.0	9.5	3.5	15.5	25.0
13	4.5	9.5	5.0	13.0	22.0
14	4.5	9.0	5.5	15.5	23.5
15	4.5	7.0	5.5	6.0	13.0
16	5.0	10.5	4.5	26.5	35.0

Table 19: Summary of Multifamily Target EDR Margins

Climate Zone	Mixed Fuel		All-Electric		
	Efficiency	Efficiency & PV/Battery	Efficiency	Efficiency & PV	Efficiency & PV/Battery
01	2.0	11.5	3.0	22.5	34.5
02	1.5	10.5	1.5	17.5	30.5
03	0.5	10.0	n/a	16.0	29.5
04	1.0	11.0	1.0	15.0	28.5
05	0.5	9.5	0.5	17.0	30.0
06	1.0	10.5	1.0	13.5	27.5
07	0.5	11.0	0.5	12.5	27.0
08	1.0	9.5	1.0	11.5	24.0
09	1.5	9.5	1.5	11.0	23.0
10	1.5	10.0	1.5	10.5	23.0
11	2.5	10.5	3.5	13.0	25.0
12	1.5	10.0	2.5	14.0	26.5
13	3.0	10.5	3.0	12.0	23.5
14	3.0	9.5	3.5	14.0	24.5
15	4.0	8.5	4.0	7.0	16.5
16	2.0	9.5	3.0	19.5	29.5



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Appendix A – California Climate Zone Map

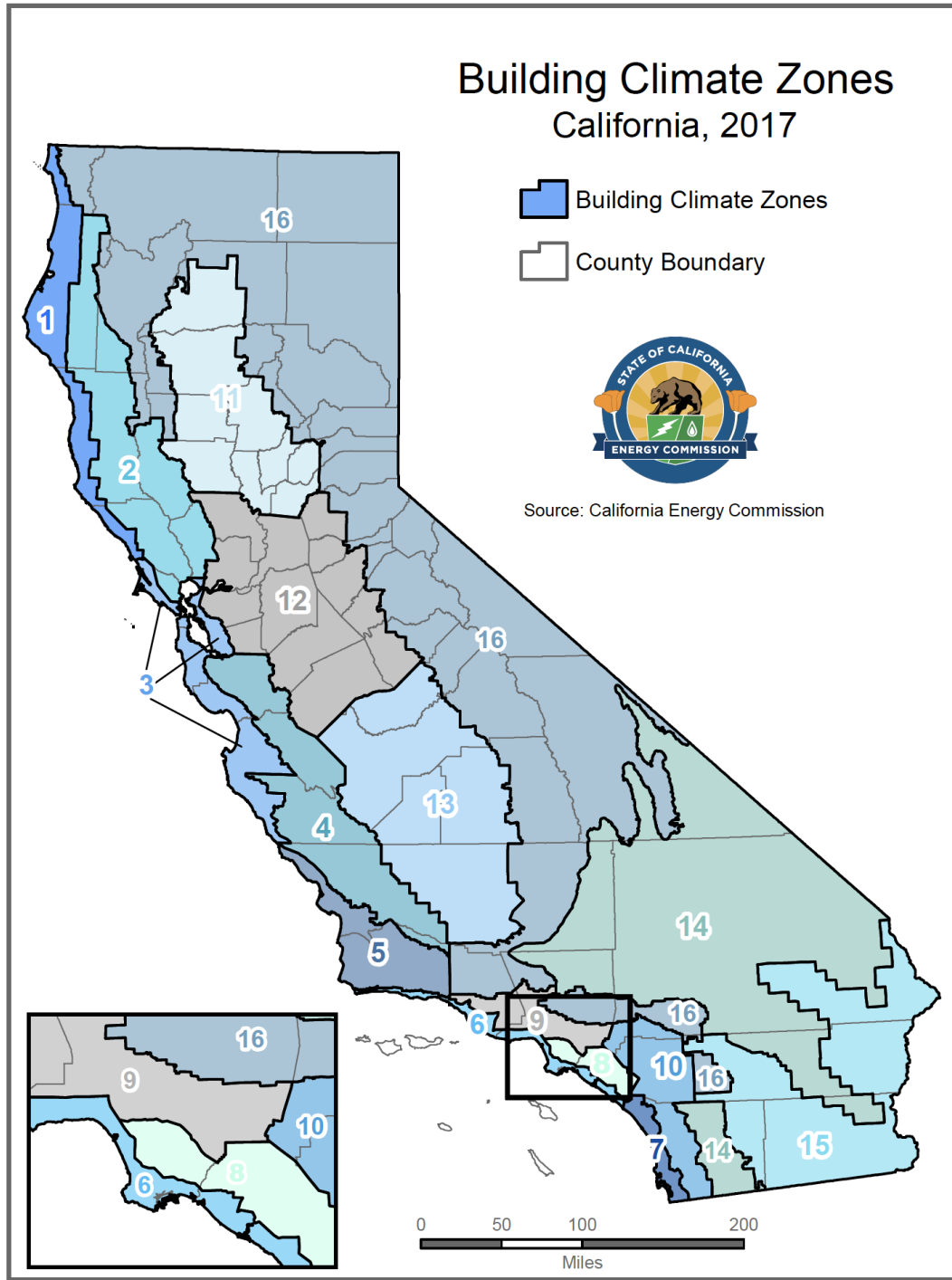


Figure 15: Map of California Climate Zones (courtesy of the California Energy Commission¹⁷)

¹⁷ https://ww2.energy.ca.gov/maps/renewable/building_climate_zones.html



Appendix B – Utility Tariff Details

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PG&E

The following pages provide details on the PG&E electricity and natural gas tariffs applied in this study. Table 20 describes the baseline territories that were assumed for each climate zone.

Table 20: PG&E Baseline Territory by Climate Zone

	Baseline Territory
CZ01	V
CZ02	X
CZ03	T
CZ04	X
CZ05	T
CZ11	R
CZ12	S
CZ13	R
CZ16	Y

The PG&E monthly gas rate in \$/therm was applied on a monthly basis for the 12-month period ending January 2019 according to the rates shown below.

Pacific Gas and Electric Company							
Residential Non-CARE and CARE Gas Tariff Rates							
January 1, 2018, to Present							
(\$/therm) ^{1/}							
Effective Date	Advice Letter Number	Minimum Transportation Charge ^{2/} (per day)	Procurement Charge	Transportation Charge ^{2/}		TOTAL Residential Non-CARE Schedules Charge ^{3/}	
				Baseline	Excess	Baseline	Excess
01/01/18	3918-G	\$0.09863	\$0.37310	\$0.91828	\$1.46925	\$1.29138	\$1.84235
02/01/18	3931-G	\$0.09863	\$0.40635	\$0.91828	\$1.46925	\$1.32463	\$1.87560
03/01/18	3941-G	\$0.09863	\$0.32103	\$0.91828	\$1.46925	\$1.23931	\$1.79028
04/01/18	3959-G	\$0.09863	\$0.34783	\$0.91828	\$1.46925	\$1.26611	\$1.81708
05/01/18	3969-G	\$0.09863	\$0.26995	\$0.91828	\$1.46925	\$1.18823	\$1.73920
06/01/18	3980-G	\$0.09863	\$0.21571	\$0.91828	\$1.46925	\$1.13399	\$1.68496
07/01/18	3984-G	\$0.09863	\$0.22488	\$0.93438	\$1.49502	\$1.15926	\$1.71990
08/01/18	3995-G	\$0.09863	\$0.28814	\$0.93438	\$1.49502	\$1.22252	\$1.78316
09/01/18	4008-G	\$0.09863	\$0.25597	\$0.93438	\$1.49502	\$1.19035	\$1.75099
10/01/18	4018-G	\$0.09863	\$0.27383	\$0.93438	\$1.49502	\$1.20821	\$1.76885
11/01/18	4034-G	\$0.09863	\$0.35368	\$0.93438	\$1.49502	\$1.28806	\$1.84870
12/01/18	4046-G	\$0.09863	\$0.42932	\$0.93438	\$1.49502	\$1.36370	\$1.92434
01/01/19	4052-G	\$0.09863	\$0.43394 ^{7/}	\$0.99414	\$1.59063	\$1.42808	\$2.02457

^{1/} Unless otherwise noted

^{2/} Effective July 1, 2005, the Transportation Charge will be no less than the Minimum Transportation Charge of \$0.09863 (per day). Applicable to Rate Schedule G-1 only and does not apply to submetered tenants of master-metered customers served under gas Rate Schedule GS and GT.

^{3/} Schedule G-PPPS (Public Purpose Program Surcharge) needs to be added to the TOTAL Non-CARE Charge and TOTAL CARE Charge for bill calculation. See Schedule G-PPPS for details and exempt customers.

^{4/} CARE Schedules include California Solar Initiative (CSI) Exemption in accordance with Advice Letter 3257-G-A.

^{5/} Per dwelling unit per day (Multifamily Service)

^{6/} Per installed space per day (Mobilehome Park Service)

^{7/} This procurement rate includes a charge of \$0.03686 per therm to reflect account balance amortizations in accordance with Advice Letter 3157-G.

^{8/} Residential bill credit of (\$29.85) per household, annual bill credit occurring in the October 2018 bill cycle, thereafter in the April bill cycle.

Seasons: Winter = Nov-Mar Summer = April-Oct





**Pacific Gas and
Electric Company**

U 39

San Francisco, California

Cancelling

Revised
Revised

Cal. P.U.C. Sheet No. 43533-E
Cal. P.U.C. Sheet No. 42728-E

**ELECTRIC SCHEDULE E-TOU
RESIDENTIAL TIME-OF-USE SERVICE**

Sheet 4

RATES:
(Cont'd.)

OPTION B TOTAL RATES

Total Energy Rates (\$ per kWh)	PEAK	OFF-PEAK
Summer (all usage)	\$0.37188 (R)	\$0.26882 (R)
Winter (all usage)	\$0.23441 (R)	\$0.21561 (R)

Delivery Minimum Bill Amount (\$ per meter per day) \$0.32854

California Climate Credit (per household, per semi-annual payment occurring in the April and October bill cycles) (\$39.42)

Total bundled service charges shown on customer's bills are unbundled according to the component rates shown below. Where the delivery minimum bill amount applies, the customer's bill will equal the sum of (1) the delivery minimum bill amount plus (2) for bundled service, the generation rate times the number of kWh used. For revenue accounting purposes, the revenues from the delivery minimum bill amount will be assigned to the Transmission, Transmission Rate Adjustments, Reliability Services, Public Purpose Programs, Nuclear Decommissioning, Competition Transition Charges, Energy Cost Recovery Amount, DWR Bond, and New System Generation Charges based on kWh usage times the corresponding unbundled rate component per kWh, with any residual revenue assigned to Distribution.***

UNBUNDLING OF OPTION B TOTAL RATES

Generation	PEAK	OFF-PEAK
Summer (all usage)	\$0.21238	\$0.10932
Winter (all usage)	\$0.10554	\$0.08674
Distribution**		
Summer (all usage)	\$0.10716 (R)	\$0.10716 (R)
Winter (all usage)	\$0.07653 (R)	\$0.07653 (R)
Transmission* (all usage)	\$0.02469 (R)	
Transmission Rate Adjustments* (all usage)	\$0.00214	
Reliability Services* (all usage)	\$0.00260	
Public Purpose Programs (all usage)	\$0.01413	
Nuclear Decommissioning (all usage)	\$0.00020	
Competition Transition Charges (all usage)	\$0.00132	
Energy Cost Recovery Amount (all usage)	(\$0.00005)	
DWR Bond (all usage)	\$0.00503 (R)	
New System Generation Charge (all usage)**	\$0.00228	

* Transmission, Transmission Rate Adjustments and Reliability Service charges are combined for presentation on customer bills.

** Distribution and New System Generation Charges are combined for presentation on customer bills.

*** This same assignment of revenues applies to direct access and community choice aggregation customers.

(Continued)

Advice	5444-E	Issued by	Submitted	December 18, 2018
Decision	18-08-013	Robert S. Kenney	Effective	January 1, 2019
		Vice President, Regulatory Affairs	Resolution	





Revised Cal. P.U.C. Sheet No. 34735-G
 Cancelling Revised Cal. P.U.C. Sheet No. 34691-G

**GAS SCHEDULE G-1
 RESIDENTIAL SERVICE**

Sheet 1

APPLICABILITY: This rate schedule¹ applies to natural gas service to Core End-Use Customers on PG&E's Transmission and/or Distribution Systems. To qualify, service must be to individually-metered single family premises for residential use, including those in a multifamily complex, and to separately-metered common areas in a multifamily complex where Schedules GM, GS, or GT are not applicable. Common area accounts that are separately metered by PG&E have an option of switching to a core commercial rate schedule. Common area accounts are those accounts that provide gas service to common use areas as defined in Rule 1.

Per D.15-10-032 and D.18-03-017, transportation rates include GHG Compliance Cost for non-covered entities. Customers who are directly billed by the Air Resources Board (ARB), i.e., covered entities, are exempt from paying AB 32 GHG Compliance Costs through PG&E's rates.² A "Cap-and-Trade Cost Exemption" credit for these costs will be shown as a line item on exempt customers' bills.^{3,4}

TERRITORY: Schedule G-1 applies everywhere within PG&E's natural gas Service Territory.

RATES: Customers on this schedule pay a Procurement Charge and a Transportation Charge, per meter, as shown below. The Transportation Charge will be no less than the Minimum Transportation Charge, as follows:

<u>Minimum Transportation Charge:</u> ⁵		<u>Per Day</u>	
		\$0.09863	
		<u>Per Therm</u>	
	<u>Baseline</u>		<u>Excess</u>
<u>Procurement:</u>	\$0.43394 (I)		\$0.43394 (I)
<u>Transportation Charge:</u>	\$0.99414 (I)		\$1.59063 (I)
<u>Total:</u>	\$1.42808 (I)		\$2.02457 (I)
California Natural Gas Climate Credit (per Household, annual payment occurring in October 2018 bill cycle, and thereafter in the April bill cycle)	(\$25.45) (I)		

Public Purpose Program Surcharge:

Customers served under this schedule are subject to a gas Public Purpose Program (PPP) Surcharge under Schedule G-PPPS.

See Preliminary Statement, Part B for the Default Tariff Rate Components.

The Procurement Charge on this schedule is equivalent to the rate shown on informational Schedule G-CP—Gas Procurement Service to Core End-Use Customers.

¹ PG&E's gas tariffs are available online at www.pge.com.

² Covered entities are not exempt from paying costs associated with LUAF Gas and Gas used by Company Facilities.

³ The exemption credit will be equal to the effective non-exempt AB 32 GHG Compliance Cost Rate (\$ per therm) included in Preliminary Statement – Part B, multiplied by the customer's billed volumes (therms) for each billing period.

⁴ PG&E will update its billing system annually to reflect newly exempt or newly excluded customers to conform with lists of Directly Billed Customers provided annually by the ARB.

⁵ The Minimum Transportation charge does not apply to submetered tenants of master-metered customers served under gas rate Schedules GS and GT.

(Continued)

<i>Advice</i>	4052-G	<i>Issued by</i>	<i>Submitted</i>	<i>December 21, 2018</i>
<i>Decision</i>	97-10-065 & 98-07-025	<i>Robert S. Kenney</i>	<i>Effective</i>	<i>January 1, 2019</i>
		<i>Vice President, Regulatory Affairs</i>	<i>Resolution</i>	



SCE

The following pages provide details on are the SCE electricity tariffs applied in this study. Table 21 describes the baseline territories that were assumed for each climate zone.

Table 21: SCE Baseline Territory by Climate Zone

	Baseline Territory
CZ06	6
CZ08	8
CZ09	9
CZ10	10
CZ14	14
CZ15	15

	Delivery	Generation	Total Rate
TOU-Default-Rate-1 (On-Peak 4:00 pm - 9:00 pm)			
Energy Charge - \$/kWh			
Summer Season - On-Peak	0.19880	0.20072	0.39952
Mid-Peak	0.19880	0.05948	0.25828
Off-Peak	0.15574	0.06023	0.21597
Winter Season - Mid-Peak	0.19880	0.08308	0.28188
Off-Peak	0.15574	0.11309	0.26883
Super-Off-Peak	0.15062	0.01344	0.16406
Basic Charge - \$/day			
Single-Family Residence	0.031	0.000	0.031
Multi-Family Residence	0.024	0.000	0.024
Minimum Charge - \$/day			
Single Family Residence	0.338	0.000	0.338
Multi-Family Residence	0.338	0.000	0.338
Baseline Credit - \$/kWh	(0.06512)	0.00000	(0.06512)



	Delivery	Generation	Total Rate
TOU-D-Rate PRIME			
Energy Charge - \$/kWh			
Summer Season - On-Peak	0.15926	0.19811	0.35737
Mid-Peak	0.15926	0.10092	0.26018
Off-Peak	0.08308	0.04687	0.12995
Winter Season - Mid-Peak	0.16268	0.16761	0.33029
Off-Peak	0.08081	0.04331	0.12412
Super-Off-Peak	0.08081	0.04331	0.12412
Customer Charge - \$/day	0.395	0.000	0.395

TOU Period	Weekdays		Weekends and Holidays	
	Summer	Winter	Summer	Winter
On-Peak	4 p.m. - 9 p.m.			
Mid-Peak		4 p.m. - 9 p.m.	4 p.m. - 9 p.m.	4 p.m. - 9 p.m.
Off-Peak	All other hours	9 p.m. - 8 a.m.	All other hours	9 p.m. - 8 a.m.
Super-Off-Peak		8 a.m. - 4 p.m.		8 a.m. - 4 p.m.

PROPOSED
(7 Year Average 2010-2016)

Summer kWh per Day			Winter kWh per Day		
Baseline Region	Basic	All Electric	Baseline Region	Basic	All Electric
05	17.2	17.9	05	18.7	29.1
06	11.4	8.8	06	11.3	13.0
08	12.6	9.8	08	10.6	12.7
09	16.5	12.4	09	12.3	14.3
10	18.9	15.8	10	12.5	17.0
13	22.0	24.6	13	12.6	24.3
14	18.7	18.3	14	12.0	21.3
15	46.4	24.1	15	9.9	18.2
16	14.4	13.5	16	12.6	23.1



SoCalGas

Following are the SoCalGas natural gas tariffs applied in this study. Table 22 describes the baseline territories that were assumed for each climate zone.

Table 22: SoCalGas Baseline Territory by Climate Zone

	Baseline Territory
CZ05	2
CZ06	1
CZ08	1
CZ09	1
CZ10	1
CZ14	2
CZ15	1

SOUTHERN CALIFORNIA GAS COMPANY Revised CAL P.U.C. SHEET NO. 55854-G
LOS ANGELES, CALIFORNIA CANCELING Revised CAL P.U.C. SHEET NO. 55828-G

Schedule No. GR <u>RESIDENTIAL SERVICE</u> (Includes GR, GR-C and GT-R Rates)				Sheet 1
APPLICABILITY				
The GR rate is applicable to natural gas procurement service to individually metered residential customers.				
The GR-C, cross-over rate, is a core procurement option for individually metered residential core transportation customers with annual consumption over 50,000 therms, as set forth in Special Condition 10.				
The GT-R rate is applicable to Core Aggregation Transportation (CAT) service to individually metered residential customers, as set forth in Special Condition 11.				
The California Alternate Rates for Energy (CARE) discount of 20%, reflected as a separate line item on the bill, is applicable to income-qualified households that meet the requirements for the CARE program as set forth in Schedule No. G-CARE.				
TERRITORY				
Applicable throughout the service territory.				
RATES				
<u>Customer Charge</u> , per meter per day:	GR 16.438¢	GR-C 16.438¢	GT-R 16.438¢	
For "Space Heating Only" customers, a daily Customer Charge applies during the winter period from November 1 through April 30 ^{1/} :	33.149¢	33.149¢	33.149¢	
<u>Baseline Rate</u> , per therm (baseline usage defined in Special Conditions 3 and 4):				
Procurement Charge: ^{2/}	41.589¢	42.676¢	N/A	R
Transmission Charge:	63.566¢	63.566¢	63.566¢	R
Total Baseline Charge:	105.155¢	106.242¢	63.566¢	R
<u>Non-Baseline Rate</u> , per therm (usage in excess of baseline usage):				
Procurement Charge: ^{2/}	41.589¢	42.676¢	N/A	R
Transmission Charge:	96.806¢	96.806¢	96.806¢	R
Total Non-Baseline Charge:	138.395¢	139.482¢	96.806¢	
^{1/} For the summer period beginning May 1 through October 31, with some exceptions, usage will be accumulated to at least 20 Ccf (100 cubic feet) before billing.				
(Footnotes continue next page.)				
(Continued)				

(TO BE INSERTED BY UTILITY)

ADVICE LETTER NO. 5410
DECISION NO.

106

ISSUED BY

Dan Skopec
Vice President
Regulatory Affairs

(TO BE INSERTED BY CAL. PUC)

SUBMITTED Jan 7, 2019
EFFECTIVE Jan 10, 2019
RESOLUTION NO. G-3351




SDG&E

Following are the SDG&E electricity and natural gas tariffs applied in this study. Table 23 describes the baseline territories that were assumed for each climate zone.

Table 23: SDG&E Baseline Territory by Climate Zone

	Baseline Territory
CZ07	Coastal
CZ10	Inland
CZ14	Mountain



San Diego Gas & Electric Company
San Diego, California

Revised Cal. P.U.C. Sheet No. 31320-E

Canceling Revised Cal. P.U.C. Sheet No. 31103-E

SCHEDULE TOU-DR1
RESIDENTIAL TIME-OF-USE

Sheet 2

RATES

Total Rates:

Description – TOU DR1	UDC Total Rate	DWR-BC Rate	EECC Rate + DWR Credit	Total Rate
Summer:				
On-Peak	0.29562	R 0.00503	R 0.35013	R 0.65078
Off-Peak	0.29562	R 0.00503	R 0.11235	R 0.41300
Super Off-Peak	0.29562	R 0.00503	R 0.05739	R 0.35804
Winter:				
On-Peak	0.32037	R 0.00503	R 0.07618	R 0.40158
Off-Peak	0.32037	R 0.00503	R 0.06762	R 0.39302
Super Off-Peak	0.32037	R 0.00503	R 0.05812	R 0.38352
Summer Baseline Adjustment Credit up to 130% of Baseline	(0.19921)	I		(0.19921)
Winter Baseline Adjustment Credit up to 130% of Baseline	(0.16853)	I		(0.16853)
Minimum Bill (\$/day)	0.329			0.329

Description – TOU DR1	UDC Total Rate	DWR-BC Rate	EECC Rate + DWR Credit	Total Rate	Total Effective Care Rate
Summer – CARE					
Rates:					
On-Peak	0.29494	R 0.00000	R 0.35013	R 0.64507	R 0.41628
Off-Peak	0.29494	R 0.00000	R 0.11235	R 0.40729	R 0.26077
Super Off-Peak	0.29494	R 0.00000	R 0.05739	R 0.35233	R 0.22483
Winter – CARE					
Rates:					
On-Peak	0.31969	R 0.00000	R 0.07618	R 0.39587	R 0.25330
Off-Peak	0.31969	R 0.00000	R 0.06762	R 0.38731	R 0.24770
Super Off-Peak	0.31969	R 0.00000	R 0.05812	R 0.37781	R 0.24149
Summer Baseline Adjustment Credit up to 130% of Baseline	(0.19921)	I		(0.19921)	(0.13028)
Winter Baseline Adjustment Credit up to 130% of Baseline	(0.16853)	I		(0.16853)	(0.11022)
Minimum Bill (\$/day)	0.164			0.164	0.164

Note:

- Total Rates consist of UDC, Schedule DWR-BC (Department of Water Resources Bond Charge), and Schedule EECC (Electric Energy Commodity Cost) rates, with the EECC rates reflecting a DWR Credit.
- Total Rates presented are for customers that receive commodity supply and delivery service from Utility.
- DWR-BC charges do not apply to CARE customers.
- As identified in the rates tables, customer bills will also include line-item summer and winter credits for usage up to 130% of baseline to provide the rate capping benefits adopted by Assembly Bill 1X and Senate Bill 695.

(Continued)

2C11

Advice Ltr. No. 3326-E

Decision No. _____

Issued by
Dan Skopec
Vice President
Regulatory Affairs

Submitted Dec 28, 2018

Effective Jan 1, 2019

Resolution No. _____





San Diego Gas & Electric Company
San Diego, California

Revised Cal. P.U.C. Sheet No. 23614-G

Canceling Revised Cal. P.U.C. Sheet No. 23601-G

SCHEDULE GR

Sheet 1

RESIDENTIAL NATURAL GAS SERVICE (Includes Rates for GR, GR-C, GTC/GTCA)

APPLICABILITY

The GR rate is applicable to natural gas procurement service for individually metered residential customers.

The GR-C, cross-over rate, is a core procurement option for individually metered residential core transportation customers with annual consumption over 50,000 therms, as set forth in Special Condition 10.

The GTC/GTCA rate is applicable to intrastate gas transportation-only services to individually metered residential customers, as set forth in Special Condition 11.

Customers taking service under this schedule may be eligible for a 20% California Alternate Rate for Energy (CARE) program discount, reflected as a separate line item on the bill, if they qualify to receive service under the terms and conditions of Schedule G-CARE.

TERRITORY

Within the entire territory served natural gas by the utility.

RATES

	<u>GR</u>	<u>GR-C</u>	<u>GTC/GTCA^{1/}</u>
<u>Baseline Rate</u> , per therm (baseline usage defined in Special Conditions 3 and 4):			
Procurement Charge: ^{2/}	\$0.41614	\$0.41614 R	N/A
Transmission Charge:	\$1.01230	\$1.01230	\$1.01230
Total Baseline Charge:	\$1.42844	\$1.42844 R	\$1.01230
<u>Non-Baseline Rate</u> , per therm (usage in excess of baseline usage):			
Procurement Charge: ^{2/}	\$0.41614	\$0.41614 R	N/A
Transmission Charge:	\$1.19980	\$1.19980	\$1.19980
Total Non-Baseline Charge:	\$1.61594	\$1.61594 R	\$1.19980
<u>Minimum Bill</u> , per day: ^{3/}			
Non-CARE customers:	\$0.09863	\$0.09863	\$0.09863
CARE customers:	\$0.07890	\$0.07890	\$0.07890

^{1/} The rates for core transportation-only customers, with the exception of customers taking service under Schedule GT-NGV, include any FERC Settlement Proceeds Memorandum Account (FSPMA) credit adjustments.

^{2/} This charge is applicable to Utility Procurement Customers and includes the GPC and GPC-A Procurement Charges shown in Schedule GPC which are subject to change monthly as set forth in Special Condition 7.

^{3/} Effective starting May 1, 2017, the minimum bill is calculated as the minimum bill charge of \$0.09863 per day times the number of days in the billing cycle (approximately \$3 per month) with a 20% discount applied for CARE customer resulting in a minimum bill charge of \$0.07890 per day (approximately \$2.40 per month).

(Continued)

IC5

Advice Ltr. No. 2735-G

Decision No.

Issued by
Dan Skopec
Vice President
Regulatory Affairs

Submitted Jan 7, 2019

Effective Jan 10, 2019

Resolution No.



Escalation Assumptions

The average annual escalation rates in the following table were used in this study and are from E3's 2019 study Residential Building Electrification in California (Energy & Environmental Economics, 2019). These rates are applied to the 2019 rate schedules over a thirty-year period beginning in 2020. SDG&E was not covered in the E3 study. The Reach Code Team reviewed SDG&E's GRC filing and applied the same approach that E3 applied for PG&E and SoCalGas to arrive at average escalation rates between 2020 and 2022.

Table 24: Real Utility Rate Escalation Rate Assumptions

	Statewide Electric Residential Average Rate (%/year, real)	Natural Gas Residential Core Rate (%/yr escalation, real)		
		PG&E	SoCalGas	SDG&E
2020	2.0%	1.48%	6.37%	5.00%
2021	2.0%	5.69%	4.12%	3.14%
2022	2.0%	1.11%	4.12%	2.94%
2023	2.0%	4.0%	4.0%	4.0%
2024	2.0%	4.0%	4.0%	4.0%
2025	2.0%	4.0%	4.0%	4.0%
2026	1.0%	1.0%	1.0%	1.0%
2027	1.0%	1.0%	1.0%	1.0%
2028	1.0%	1.0%	1.0%	1.0%
2029	1.0%	1.0%	1.0%	1.0%
2030	1.0%	1.0%	1.0%	1.0%
2031	1.0%	1.0%	1.0%	1.0%
2032	1.0%	1.0%	1.0%	1.0%
2033	1.0%	1.0%	1.0%	1.0%
2034	1.0%	1.0%	1.0%	1.0%
2035	1.0%	1.0%	1.0%	1.0%
2036	1.0%	1.0%	1.0%	1.0%
2037	1.0%	1.0%	1.0%	1.0%
2038	1.0%	1.0%	1.0%	1.0%
2039	1.0%	1.0%	1.0%	1.0%
2040	1.0%	1.0%	1.0%	1.0%
2041	1.0%	1.0%	1.0%	1.0%
2042	1.0%	1.0%	1.0%	1.0%
2043	1.0%	1.0%	1.0%	1.0%
2044	1.0%	1.0%	1.0%	1.0%
2045	1.0%	1.0%	1.0%	1.0%
2046	1.0%	1.0%	1.0%	1.0%
2047	1.0%	1.0%	1.0%	1.0%
2048	1.0%	1.0%	1.0%	1.0%
2049	1.0%	1.0%	1.0%	1.0%



Appendix C – Single Family Detailed Results

Table 25: Single Family Mixed Fuel Efficiency Package Cost-Effectiveness Results

CZ	Utility	BASECASE						Non-Preempted								Equipment - Preempted							
		Total EDR	Efficiency EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW	On-Bill B/C Ratio	TDV B/C Ratio	
1	PG&E	32.5	54.2	23	3.0	3.3	27.9	49.0	5.3	18.8%	2.5	3.2	3.4	2.8	26.0	47.3	6.9	25.1%	2.3	3.2	4.9	4.1	
2	PG&E	25.0	46.0	12	2.2	2.8	22.0	42.7	3.3	16.3%	1.9	2.8	1.6	1.7	21.8	42.6	3.3	16.4%	1.9	2.8	3.8	3.6	
3	PG&E	23.9	46.9	10	1.9	2.7	21.3	43.9	3.0	16.7%	1.6	2.7	1.3	1.3	20.1	42.8	4.1	22.8%	1.5	2.7	1.9	2.0	
4	PG&E	23.1	44.9	8	1.9	2.7	20.8	42.4	2.5	13.9%	1.7	2.7	0.9	1.2	20.5	42.2	2.7	14.9%	1.6	2.7	2.4	2.7	
5	PG&E	22.2	44.4	10	1.8	2.6	19.7	41.7	2.7	16.7%	1.6	2.5	1.1	1.2	19.7	41.7	2.6	16.2%	1.5	2.5	2.3	2.5	
5	PG&E/SoCalGas	22.2	44.4	10	1.8	2.6	19.7	41.7	2.7	16.7%	1.6	2.5	0.9	1.2	19.7	41.7	2.6	16.2%	1.5	2.5	2.0	2.5	
6	SCE/SoCalGas	23.3	49.9	10	1.6	2.7	21.5	47.8	2.0	12.1%	1.5	2.7	0.7	1.2	21.5	47.9	2.0	11.8%	1.4	2.7	1.6	2.0	
7	SDG&E	20.3	49.1	5	1.3	2.6	20.3	49.1	0.0	0.0%	1.3	2.6	-	-	18.8	47.6	1.5	12.4%	1.2	2.6	1.5	1.4	
8	SCE/SoCalGas	21.3	46.9	10	1.4	2.9	20.1	45.6	1.3	7.7%	1.3	2.9	0.6	1.4	19.7	45.3	1.6	9.4%	1.3	2.9	1.3	1.8	
9	SCE/SoCalGas	24.5	47.7	13	1.5	2.9	22.3	45.1	2.6	11.7%	1.5	2.9	0.7	2.0	21.9	44.8	2.9	13.4%	1.4	2.9	1.8	3.7	
10	SCE/SoCalGas	24.2	46.3	10	1.6	3.0	21.7	43.1	3.2	14.3%	1.5	3.0	0.6	1.3	21.5	43.1	3.2	14.6%	1.4	3.0	2.0	3.8	
10	SDG&E	24.2	46.3	10	1.6	3.0	21.7	43.1	3.2	14.3%	1.5	3.0	0.8	1.3	21.5	43.1	3.2	14.6%	1.4	3.0	2.6	3.8	
11	PG&E	24.6	44.9	11	2.1	3.6	21.3	40.6	4.3	16.4%	1.9	3.4	0.8	1.2	20.7	39.9	5.1	19.2%	1.8	3.4	2.5	3.7	
12	PG&E	25.5	44.8	12	2.1	3.0	22.5	41.3	3.5	14.9%	1.9	2.9	1.2	1.8	22.5	41.4	3.4	14.4%	1.9	3.0	3.3	4.6	
13	PG&E	25.7	46.5	11	2.0	3.8	22.2	41.9	4.6	16.9%	1.8	3.6	0.8	1.3	21.2	40.7	5.8	21.4%	1.7	3.6	5.3	8.4	
14	SCE/SoCalGas	25.3	46.3	15	2.3	3.2	21.5	41.3	5.0	18.5%	2.1	3.0	1.6	2.5	20.8	40.4	5.8	21.7%	2.0	3.0	4.0	6.1	
14	SDG&E	25.3	46.3	15	2.3	3.2	21.5	41.3	5.0	18.5%	2.1	3.0	1.9	2.5	20.8	40.4	5.8	21.7%	2.0	3.0	4.9	6.1	
15	SCE/SoCalGas	22.4	49.1	11	1.7	5.4	19.7	44.3	4.8	14.8%	1.6	5.0	1.0	1.6	19.5	44.1	5.0	15.4%	1.5	5.0	>1	>1	
16	PG&E	30.4	48.9	22	3.3	2.7	25.0	43.5	5.4	20.6%	2.6	2.7	1.6	1.5	24.8	42.7	6.2	23.5%	2.7	2.6	2.2	2.2	

">1" = indicates cases where there is both first cost savings and annual utility bill savings.



Table 26: Single Family Mixed Fuel Efficiency & PV/Battery Package Cost-Effectiveness Results

CZ	Utility	BASECASE				Efficiency & PV/Battery						
		Total EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW	Total EDR	Total EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW	On-Bill B/C Ratio	TDV B/C Ratio
1	PG&E	32.5	23	3.0	3.3	21.9	10.6	31.8%	2.4	3.3	0.9	1.6
2	PG&E	25.0	12	2.2	2.8	14.9	10.1	27.3%	1.8	2.9	0.5	1.6
3	PG&E	23.9	10	1.9	2.7	13.9	10.0	27.7%	1.5	2.8	0.4	1.4
4	PG&E	23.1	8	1.9	2.7	13.0	10.1	24.9%	1.5	2.8	0.3	1.5
5	PG&E	22.2	10	1.8	2.6	12.8	9.4	29.7%	1.4	2.6	0.4	1.3
5	PG&E/SoCalGas	22.2	10	1.8	2.6	12.8	9.4	29.7%	1.4	2.6	0.3	1.3
6	SCE/SoCalGas	23.3	10	1.6	2.7	13.6	9.8	20.1%	1.2	2.8	0.8	1.3
7	SDG&E	20.3	5	1.3	2.6	11.1	9.2	9.0%	1.0	2.7	0.1	1.3
8	SCE/SoCalGas	21.3	10	1.4	2.9	12.9	8.4	23.7%	1.1	3.0	0.9	1.3
9	SCE/SoCalGas	24.5	13	1.5	2.9	15.7	8.8	24.7%	1.2	3.0	1.0	1.5
10	SCE/SoCalGas	24.2	10	1.6	3.0	14.6	9.6	27.3%	1.3	3.1	1.0	1.5
10	SDG&E	24.2	10	1.6	3.0	14.6	9.6	27.3%	1.3	3.1	0.6	1.5
11	PG&E	24.6	11	2.1	3.6	15.4	9.2	29.4%	1.8	3.5	0.4	1.5
12	PG&E	25.5	12	2.1	3.0	15.9	9.6	28.9%	1.8	3.0	0.4	1.7
13	PG&E	25.7	11	2.0	3.8	16.1	9.7	28.9%	1.7	3.7	0.4	1.6
14	SCE/SoCalGas	25.3	15	2.3	3.2	16.3	9.0	30.1%	1.8	3.1	1.3	1.7
14	SDG&E	25.3	15	2.3	3.2	16.3	9.0	30.1%	1.8	3.1	1.2	1.7
15	SCE/SoCalGas	22.4	11	1.7	5.4	15.3	7.1	25.1%	1.4	5.1	1.1	1.5
16	PG&E	30.4	22	3.3	2.7	19.9	10.5	32.6%	2.4	2.8	0.9	1.4

">1" = indicates cases where there is both first cost savings and annual utility bill savings.



Table 27: Single Family All-Electric Efficiency Package Cost-Effectiveness Results

		BASECASE					Non-Preempted								Equipment - Preempted							
CZ	Utility	Total EDR	Efficiency EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW	On-Bill B/C Ratio	TDV B/C Ratio
1	PG&E	46.8	68.2	36	1.5	3.3	31.8	53.0	15.2	40.2%	1.0	3.3	1.8	1.7	39.9	61.3	6.9	18.3%	1.3	3.3	2.9	2.7
2	PG&E	32.8	53.7	16	1.1	2.8	27.9	48.7	4.9	20.5%	0.9	2.8	1.2	1.1	27.7	48.5	5.1	21.2%	0.9	2.8	2.3	2.1
3	PG&E	33.1	55.6	14	1.0	2.7	28.5	50.9	4.7	20.6%	0.8	2.7	2.6	2.4	28.7	51.2	4.4	19.6%	0.9	2.7	1.8	1.6
4	PG&E	31.3	52.8	12	1.0	2.7	27.9	49.4	3.4	15.5%	0.9	2.7	1.9	1.8	27.4	48.9	3.9	17.6%	0.9	2.7	1.5	1.5
5	PG&E	32.5	54.2	16	1.0	2.6	28.1	49.9	4.4	19.7%	0.9	2.6	2.6	2.3	28.0	49.8	4.4	20.3%	0.9	2.6	1.9	1.7
5	PG&E/SoCalGas	32.5	54.2	16	1.0	2.6	28.1	49.9	4.4	19.7%	0.9	2.6	2.6	2.3	28.0	49.8	4.4	20.3%	0.9	2.6	1.9	1.7
6	SCE/SoCalGas	29.7	55.8	12	0.9	2.7	27.7	53.8	2.0	10.9%	0.8	2.7	1.3	1.4	26.8	53.0	2.9	16.0%	0.8	2.7	2.2	2.3
7	SDG&E	27.1	55.3	7	0.7	2.6	27.1	55.3	0.0	0.0%	0.7	2.6	-	-	24.8	53.0	2.2	16.9%	0.7	2.6	1.6	1.7
8	SCE/SoCalGas	26.1	51.5	10	0.8	2.9	24.5	49.9	1.6	8.9%	0.8	2.9	0.6	1.2	24.4	49.7	1.8	9.7%	0.8	2.9	2.8	3.0
9	SCE/SoCalGas	28.8	51.9	13	0.9	2.9	26.0	49.1	2.8	12.5%	0.8	2.9	0.8	2.0	25.5	48.6	3.3	14.7%	0.8	2.9	2.1	3.2
10	SCE/SoCalGas	28.8	50.7	11	0.9	3.0	25.7	47.6	3.1	14.0%	0.9	3.0	0.9	1.5	25.3	47.2	3.4	15.5%	0.8	3.0	2.3	3.2
10	SDG&E	28.8	50.7	11	0.9	3.0	25.7	47.6	3.1	14.0%	0.9	3.0	1.1	1.5	25.3	47.2	3.4	15.5%	0.8	3.0	2.6	3.2
11	PG&E	30.0	50.2	12	1.1	3.6	25.4	45.6	4.6	16.2%	1.0	3.6	1.2	1.5	24.1	44.3	5.9	20.8%	0.9	3.6	3.0	3.3
12	PG&E	30.9	50.1	13	1.0	3.0	27.1	46.3	3.8	15.3%	0.9	3.0	0.8	1.1	25.8	45.0	5.1	20.4%	0.9	3.0	2.0	2.5
13	PG&E	30.7	51.5	13	1.1	3.8	25.7	46.4	5.1	17.4%	0.9	3.8	1.1	1.4	24.7	45.4	6.0	20.9%	0.9	3.8	2.9	3.3
14	SCE/SoCalGas	31.3	52.2	16	1.4	3.2	25.7	46.6	5.6	18.9%	1.2	3.2	1.0	1.5	25.3	46.2	6.0	20.5%	1.2	3.2	2.3	3.1
14	SDG&E	31.3	52.2	16	1.4	3.2	25.7	46.6	5.6	18.9%	1.2	3.2	1.3	1.5	25.3	46.2	6.0	20.5%	1.2	3.2	2.9	3.1
15	SCE/SoCalGas	26.2	52.8	8	1.3	5.4	20.6	47.2	5.6	16.8%	1.1	5.4	1.1	1.6	18.9	45.5	7.3	21.8%	1.0	5.4	3.3	4.5
16	PG&E	46.5	64.6	39	1.7	2.7	36.8	54.9	9.7	25.2%	1.4	2.7	1.7	1.7	41.6	59.7	4.9	12.7%	1.6	2.7	2.4	2.3



Table 28: Single Family All-Electric Efficiency & PV-PV/Battery Package Cost-Effectiveness Results

CZ	Utility	BASECASE				Efficiency & PV							Efficiency & PV/Battery						
		Total EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW	Total EDR	Total EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR	Total EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW	On-Bill B/C Ratio	TDV B/C Ratio
1	PG&E	46.8	36	1.5	3.3	15.4	31.4	40.2%	0.5	6.0	1.8	1.5	5.6	41.2	51.9%	0.3	6.76	1.4	1.4
2	PG&E	32.8	16	1.1	2.8	13.4	19.4	20.5%	0.5	4.9	1.8	1.4	2.7	30.1	31.5%	0.3	5.51	1.4	1.4
3	PG&E	33.1	14	1.0	2.7	14.6	18.5	20.6%	0.5	4.5	2.2	1.7	3.7	29.3	31.6%	0.2	5.10	1.5	1.6
4	PG&E	31.3	12	1.0	2.7	14.1	17.2	15.5%	0.5	4.5	2.1	1.6	2.8	28.6	26.5%	0.2	5.15	1.5	1.6
5	PG&E	32.5	16	1.0	2.6	14.3	18.2	19.7%	0.5	4.3	2.3	1.8	3.8	28.7	32.7%	0.2	4.84	1.6	1.6
5	PG&E/SoCalGas	32.5	16	1.0	2.6	14.3	18.2	19.7%	0.5	4.3	2.3	1.8	3.8	28.7	32.7%	0.2	4.84	1.6	1.6
6	SCE/SoCalGas	29.7	12	0.9	2.7	15.5	14.3	10.9%	0.6	4.1	1.2	1.5	3.6	26.1	18.9%	0.3	4.68	1.2	1.4
7	SDG&E	27.1	7	0.7	2.6	15.8	11.3	0.7%	0.6	3.7	1.9	1.5	2.9	24.2	6.7%	0.3	4.21	1.3	1.5
8	SCE/SoCalGas	26.1	10	0.8	2.9	15.1	10.9	8.9%	0.6	4.0	1.0	1.5	4.5	21.6	24.9%	0.3	4.54	1.1	1.4
9	SCE/SoCalGas	28.8	13	0.9	2.9	17.3	11.5	12.5%	0.7	4.1	1.1	1.6	7.6	21.3	25.5%	0.4	4.66	1.1	1.5
10	SCE/SoCalGas	28.8	11	0.9	3.0	17.7	11.1	14.0%	0.7	4.2	1.1	1.5	7.6	21.2	27.0%	0.4	4.78	1.1	1.5
10	SDG&E	28.8	11	0.9	3.0	17.7	11.1	14.0%	0.7	4.2	1.7	1.5	7.6	21.2	27.0%	0.4	4.78	1.4	1.5
11	PG&E	30.0	12	1.1	3.6	15.8	14.2	16.2%	0.6	5.4	1.8	1.6	6.8	23.2	29.2%	0.4	6.11	1.5	1.6
12	PG&E	30.9	13	1.0	3.0	15.2	15.7	15.3%	0.5	5.0	1.7	1.4	5.6	25.4	29.3%	0.3	5.62	1.3	1.5
13	PG&E	30.7	13	1.1	3.8	17.3	13.4	17.4%	0.6	5.4	1.7	1.5	8.2	22.5	29.4%	0.4	6.14	1.4	1.5
14	SCE/SoCalGas	31.3	16	1.4	3.2	15.8	15.5	18.9%	0.9	4.8	1.2	1.6	7.4	23.9	30.9%	0.6	5.39	1.4	1.6
14	SDG&E	31.3	16	1.4	3.2	15.8	15.5	18.9%	0.9	4.8	1.8	1.6	7.4	23.9	30.9%	0.6	5.39	1.7	1.6
15	SCE/SoCalGas	26.2	8	1.3	5.4	20.0	6.2	16.8%	1.1	5.5	1.1	1.6	12.7	13.5	27.0%	0.8	6.25	1.2	1.5
16	PG&E	46.5	39	1.7	2.7	19.6	27.0	25.2%	0.9	5.5	2.1	1.6	11.1	35.4	34.3%	0.6	6.17	1.7	1.5

">1" = indicates cases where there is both first cost savings and annual utility bill savings.



Appendix D – Single Family Measure Summary

Table 29: Single Family Mixed Fuel Efficiency – Non-Preempted Package Measure Summary

CZ	Duct	Infiltratio	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
2	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
3	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
4	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
6	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	1.0 PV scaling
8	< 12 ft ducts in attic	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
9	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
11	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
12	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
13	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
14	VLLDCS	3 ACH50	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
15	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling

VLLDCS – Verified Low Leakage Ducts in Conditioned Space



Table 30: Single Family Mixed Fuel Efficiency – Equipment, Preempted Package Measure Summary

<u>CZ</u>	<u>Duct</u>	<u>Infiltratio</u>	<u>Wall</u>	<u>Attic</u>	<u>Roof</u>	<u>Glazing</u>	<u>Slab</u>	<u>DHW</u>	<u>HVAC</u>	<u>PV</u>
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	96 AFUE, 0.35W/cfm	1.0 PV scaling
2	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	96 AFUE, 0.35W/cfm	1.0 PV scaling
3	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	96 AFUE, 0.35W/cfm	1.0 PV scaling
4	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	96 AFUE, 0.35W/cfm	1.0 PV scaling
5	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	96 AFUE, 0.35W/cfm	1.0 PV scaling
6	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	92 AFUE, 0.35W/cfm	1.0 PV scaling
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	92 AFUE, 0.35W/cfm	1.0 PV scaling
8	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	92 AFUE, 0.35W/cfm	1.0 PV scaling
9	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
10	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
11	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	18 SEER, 96 AFUE, 0.35W/cfm	1.0 PV scaling
12	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
13	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
14	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
15	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	18 SEER, 96 AFUE, 0.35W/cfm	1.0 PV scaling

LLAHU - Low Leakage Air Handling Unit

VLLDCS – Verified Low Leakage Ducts in Conditioned Space



Table 31: Single Family Mixed Fuel Efficiency & PV/Battery Package Measure Summary

CZ	Duct	Infiltration	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
2	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
3	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
4	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
6	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Basic CHW credit (0.7)	Code Min	1.0 PV scaling + 5kWh batt
8	< 12 ft ducts in attic	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
9	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
11	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
12	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
13	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
14	VLLDCS	3 ACH50	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
15	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 5kWh batt

VLLDCS – Verified Low Leakage Ducts in Conditioned Space



Table 32: Single Family All-Electric Efficiency – Non-Preempted Package Measure Summary

CZ	Duct	Infiltratio	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
2	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
3	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
4	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
6	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	Std Design PV
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Std Design PV
8	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	Std Design PV
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	Std Design PV
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
11	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
12	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
13	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
14	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
15	VLLDCS	Code Min	0.043 wall	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
16	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	Code Min	0.24/0.50 windows	Code Min	Code Min	0.45 W/cfm	Std Design PV

VLLDCS – Verified Low Leakage Ducts in Conditioned Space



Table 33: Single Family All-Electric Efficiency – Equipment, Preempted Package Measure Summary

CZ	Duct	Infiltratio	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
2	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
3	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
4	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
5	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
6	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
8	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	0.45 W/cfm	Std Design PV
9	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
10	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
11	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
12	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
13	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
14	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
15	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
16	LLAHU + 2% leakage	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV

LLAHU - Low Leakage Air Handling Unit

VVLDCS – Verified Low Leakage Ducts in Conditioned Space



Table 34: Single Family All-Electric Efficiency & PV Package Measure Summary

CZ	Duct	Infiltratio	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
2	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
3	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
4	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
6	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
8	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
11	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
12	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
13	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
14	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
15	VLLDCS	Code Min	0.043 wall	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
16	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	Code Min	0.24/0.50 windows	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling

VLLDCS – Verified Low Leakage Ducts in Conditioned Space



Table 35: Single Family All-Electric Efficiency & PV/Battery Package Measure Summary

CZ	Duct	Infiltration	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
2	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
3	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
4	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
6	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
8	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
11	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
12	VLLDCS	Code Min	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
13	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
14	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
15	VLLDCS	Code Min	0.043 wall (SF); 0.048 wall (MF)	R-38 + R-30 attic	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt
16	VLLDCS	3 ACH50	Code Min	R-38 + R-30 attic	Code Min	0.24/0.50 windows	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 5kWh batt

VLLDCS – Verified Low Leakage Ducts in Conditioned Space



Appendix E – Multifamily Detailed Results

Table 36: Multifamily Mixed Fuel Efficiency Package Cost-Effectiveness Results

Climate Zone	Utility	BASECASE					Non-Preempted								Equipment - Preempted							
		Total EDR	Efficiency EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW per Building	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW per Building	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW per Building	On-Bill B/C Ratio	TDV B/C Ratio
01	PG&E	28.6	60.7	23	2.7	15.9	25.1	57.3	3.4	19.3%	2.3	16.0	1.1	1.2	26.4	58.4	2.3	12.2%	2.5	15.9	1.3	1.4
02	PG&E	25.7	56.5	12	2.4	13.9	24.2	54.7	1.8	9.9%	2.3	13.8	1.0	1.7	23.6	54.2	2.3	12.5%	2.2	13.9	1.1	1.5
03	PG&E	24.7	57.8	10	2.1	13.5	24.0	57.2	0.6	4.7%	2.1	13.5	1.0	1.1	23.1	56.2	1.6	11.2%	1.9	13.4	1.1	1.2
04	PG&E	25.5	56.8	8	2.2	13.6	24.3	55.5	1.3	7.7%	2.1	13.5	0.8	1.2	23.8	54.9	1.9	10.9%	2.0	13.5	1.1	1.7
05	PG&E	24.2	57.4	10	2.1	12.6	23.7	56.9	0.5	4.4%	2.0	12.6	1.0	1.0	22.7	55.9	1.5	10.9%	1.9	12.6	1.2	1.3
05	PG&E/SoCalGas	24.2	57.4	10	2.1	12.6	23.7	56.9	0.5	4.4%	2.0	12.6	0.8	1.0	22.7	55.9	1.5	10.9%	1.9	12.6	1.1	1.3
06	SCE/SoCalGas	26.8	63.2	10	2.2	13.9	25.8	61.9	1.3	7.0%	2.1	13.8	0.6	1.5	25.5	61.9	1.3	7.4%	2.0	13.9	1.4	1.7
07	SDG&E	26.8	64.5	5	2.1	13.2	26.1	63.6	0.9	5.3%	2.1	13.1	0.7	2.2	25.0	62.5	2.0	12.2%	2.0	13.2	1.1	1.4
08	SCE/SoCalGas	25.7	61.8	10	2.2	14.6	24.6	60.3	1.5	7.4%	2.1	14.5	0.7	1.4	24.6	60.7	1.1	5.7%	2.0	14.6	1.4	1.7
09	SCE/SoCalGas	26.4	59.7	13	2.2	14.7	25.0	57.9	1.8	8.2%	2.2	14.4	1.5	3.3	24.1	56.9	2.8	12.9%	2.1	14.4	1.7	2.9
10	SCE/SoCalGas	27.0	58.7	10	2.3	15.1	25.7	57.0	1.7	7.7%	2.2	14.9	0.8	1.7	24.7	55.8	2.9	13.0%	2.1	14.8	2.0	3.3
10	SDG&E	27.0	58.7	10	2.3	15.1	25.7	57.0	1.7	7.7%	2.2	14.9	1.1	1.7	24.7	55.8	2.9	13.0%	2.1	14.8	2.6	3.3
11	PG&E	24.5	54.5	11	2.4	16.6	22.3	51.6	2.9	11.9%	2.2	16.3	0.7	1.2	22.2	51.3	3.2	13.2%	2.2	16.1	1.8	3.3
12	PG&E	25.9	55.3	12	2.3	14.9	24.3	53.4	1.9	8.8%	2.2	14.8	1.1	2.2	23.5	52.5	2.8	12.8%	2.1	14.7	1.2	2.2
13	PG&E	26.1	55.9	11	2.3	17.5	23.7	52.8	3.1	12.1%	2.1	17.1	0.6	1.3	23.7	52.5	3.4	13.2%	2.1	16.9	2.0	3.8
14	SCE/SoCalGas	25.6	55.9	15	2.8	14.6	23.1	52.8	3.1	12.8%	2.5	14.3	0.7	1.2	23.2	52.6	3.3	13.3%	2.5	14.2	2.0	3.0
14	SDG&E	25.6	55.9	15	2.8	14.6	23.1	52.8	3.1	12.8%	2.5	14.3	0.9	1.2	23.2	52.6	3.3	13.3%	2.5	14.2	2.5	3.0
15	SCE/SoCalGas	25.0	59.2	11	2.5	21.6	22.7	55.0	4.2	12.9%	2.4	20.4	1.4	2.3	22.6	54.8	4.4	13.5%	2.3	20.4	>1	>1
16	PG&E	29.4	57.3	22	3.5	13.4	26.6	54.9	2.4	11.3%	3.0	13.7	1.1	1.2	26.9	54.4	2.9	13.1%	3.1	13.2	1.8	2.1

">1" = indicates cases where there is both first cost savings and annual utility bill savings.



Table 37: Multifamily Mixed Fuel Efficiency & PV/Battery Package Cost-Effectiveness Results

CZ	Utility	BASECASE				Efficiency & PV/Battery						
		Total EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW per Building	Total EDR	Total EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW per Building	On-Bill B/C Ratio	TDV B/C Ratio
01	PG&E	28.6	23	2.7	15.9	17.1	11.5	29.3%	2.1	16.5	0.4	1.2
02	PG&E	25.7	12	2.4	13.9	14.8	10.9	16.9%	2.1	14.2	0.2	1.6
03	PG&E	24.7	10	2.1	13.5	14.4	10.3	10.7%	1.9	13.9	0.1	1.4
04	PG&E	25.5	8	2.2	13.6	14.3	11.2	15.7%	1.9	13.9	0.2	1.6
05	PG&E	24.2	10	2.1	12.6	14.3	9.9	9.4%	1.8	13.1	0.2	1.4
05	PG&E/SoCalGas	24.2	10	2.1	12.6	14.3	9.9	9.4%	1.8	13.1	0.1	1.4
06	SCE/SoCalGas	26.8	10	2.2	13.9	16.1	10.7	10.0%	1.8	14.2	0.6	1.4
07	SDG&E	26.8	5	2.1	13.2	15.8	11.0	7.3%	1.7	13.6	0.0	1.4
08	SCE/SoCalGas	25.7	10	2.2	14.6	15.8	9.9	13.4%	1.8	14.9	0.7	1.3
09	SCE/SoCalGas	26.4	13	2.2	14.7	16.7	9.7	15.2%	1.8	14.9	0.9	1.5
10	SCE/SoCalGas	27.0	10	2.3	15.1	16.6	10.4	13.7%	1.9	15.3	1.0	1.6
10	SDG&E	27.0	10	2.3	15.1	16.6	10.4	13.7%	1.9	15.3	0.2	1.6
11	PG&E	24.5	11	2.4	16.6	14.0	10.5	19.9%	2.0	16.7	0.4	1.6
12	PG&E	25.9	12	2.3	14.9	15.6	10.3	17.8%	2.0	15.2	0.3	1.7
13	PG&E	26.1	11	2.3	17.5	15.4	10.7	20.1%	2.0	17.5	0.4	1.6
14	SCE/SoCalGas	25.6	15	2.8	14.6	16.0	9.6	20.8%	2.2	14.7	1.1	1.4
14	SDG&E	25.6	15	2.8	14.6	16.0	9.6	20.8%	2.2	14.7	0.5	1.4
15	SCE/SoCalGas	25.0	11	2.5	21.6	16.2	8.8	18.9%	2.1	20.9	1.3	1.7
16	PG&E	29.4	22	3.5	13.4	19.5	9.9	19.3%	2.7	14.1	0.5	1.3

"inf" = indicates cases where there is both first cost savings and annual utility bill savings.



Table 38: Multifamily All-Electric Efficiency Package Cost-Effectiveness Results

CZ	Utility	BASECASE					Non-Preempted								Equipment - Preempted							
		Total EDR	Efficiency EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW per Building	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW per Building	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR	Efficiency EDR	Efficiency EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW per Building	On-Bill B/C Ratio	TDV B/C Ratio
01	PG&E	41.1	70.6	36	1.6	15.9	37.5	67.0	3.6	14.6%	1.5	15.9	1.6	1.4	37.1	67.3	3.3	18.4%	1.4	15.9	2.4	2.3
02	PG&E	34.3	63.4	16	1.4	13.9	32.4	61.5	1.9	9.1%	1.3	13.9	1.7	2.1	31.1	60.2	3.2	15.1%	1.3	13.9	1.6	1.6
03	PG&E	33.5	64.2	14	1.3	13.5	33.5	64.2	0.0	0.0%	1.3	13.5	-	-	30.4	61.5	2.7	19.5%	1.1	13.5	1.7	1.6
04	PG&E	32.0	61.4	12	1.3	13.6	30.5	60.0	1.4	8.0%	1.2	13.6	1.4	1.5	29.7	59.2	2.2	12.2%	1.2	13.6	1.2	1.1
05	PG&E	34.7	65.4	16	1.3	12.6	34.1	64.8	0.6	3.4%	1.3	12.6	1.1	0.9	30.6	61.8	3.6	23.5%	1.2	12.6	2.1	2.0
05	PG&E/SoCalGas	34.7	65.4	16	1.3	12.6	34.1	64.8	0.6	3.4%	1.3	12.6	1.1	0.9	30.6	61.8	3.6	23.5%	1.2	12.6	2.1	2.0
06	SCE/SoCalGas	31.9	65.9	12	1.3	13.9	30.9	64.9	1.0	5.9%	1.3	13.9	0.7	1.3	29.8	63.7	2.2	13.0%	1.2	13.9	1.6	1.9
07	SDG&E	31.7	66.6	7	1.2	13.2	31.1	66.0	0.6	4.6%	1.2	13.2	0.6	1.0	29.7	64.7	1.9	13.6%	1.1	13.2	1.6	1.7
08	SCE/SoCalGas	29.8	63.6	10	1.3	14.6	28.6	62.4	1.2	6.5%	1.2	14.6	0.9	1.7	27.9	61.7	1.9	10.3%	1.2	14.6	1.6	1.8
09	SCE/SoCalGas	30.4	61.9	13	1.3	14.7	28.7	60.3	1.6	8.1%	1.3	14.7	1.3	2.7	28.8	60.4	1.5	7.4%	1.2	14.7	1.6	1.6
10	SCE/SoCalGas	31.2	61.3	11	1.4	15.1	29.3	59.5	1.8	8.7%	1.3	15.1	1.2	2.0	29.3	59.5	1.8	8.6%	1.3	15.1	1.7	2.0
10	SDG&E	31.2	61.3	11	1.4	15.1	29.3	59.5	1.8	8.7%	1.3	15.1	1.5	2.0	29.3	59.5	1.8	8.6%	1.3	15.1	2.0	2.0
11	PG&E	31.9	60.6	12	1.4	16.6	28.5	57.1	3.5	13.1%	1.3	16.6	1.4	1.6	28.1	56.7	3.9	14.4%	1.3	16.6	2.0	2.3
12	PG&E	32.0	59.9	13	1.3	14.9	29.4	57.3	2.6	11.4%	1.2	14.9	0.9	1.1	29.0	57.0	2.9	13.0%	1.2	14.9	1.6	1.6
13	PG&E	32.1	60.5	13	1.4	17.5	28.8	57.2	3.3	12.6%	1.2	17.5	1.3	1.6	28.3	56.7	3.8	14.3%	1.2	17.5	2.0	2.3
14	SCE/SoCalGas	32.5	61.6	16	1.7	14.6	28.9	57.9	3.7	13.8%	1.6	14.6	1.2	1.6	28.7	57.8	3.8	14.3%	1.6	14.6	1.6	2.2
14	SDG&E	32.5	61.6	16	1.7	14.6	28.9	57.9	3.7	13.8%	1.6	14.6	1.5	1.6	28.7	57.8	3.8	14.3%	1.6	14.6	2.0	2.2
15	SCE/SoCalGas	28.2	61.0	8	1.8	21.6	23.9	56.6	4.4	14.2%	1.6	21.6	1.5	2.3	21.9	54.6	6.4	20.6%	1.5	21.6	1.2	1.7
16	PG&E	40.2	66.6	39	1.9	13.4	36.2	62.5	4.1	15.0%	1.7	13.4	2.1	2.1	37.1	63.4	3.2	11.4%	1.7	13.4	1.6	1.7

">1" = indicates cases where there is both first cost savings and annual utility bill savings.



Table 39: Multifamily All-Electric Efficiency & PV-PV/Battery Package Cost-Effectiveness Results

Climate Zone	Utility	BASECASE				Efficiency & PV							Efficiency & PV/Battery						
		Total EDR	CALGreen Tier 1 EDR Target	lbs CO2 per sqft	PV kW per Building	Total EDR	Total EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW per Building	On-Bill B/C Ratio	TDV B/C Ratio	Total EDR	Total EDR Margin	% Comp Margin	lbs CO2 per sqft	PV kW per Building	On-Bill B/C Ratio	TDV B/C Ratio
01	PG&E	41.1	36	1.6	15.9	18.6	22.5	14.6%	0.8	26.9	2.0	1.5	6.6	34.5	24.6%	0.4	30.3	1.3	1.4
02	PG&E	34.3	16	1.4	13.9	16.8	17.5	9.1%	0.7	21.9	2.4	1.8	3.4	30.9	16.1%	0.3	24.8	1.4	1.7
03	PG&E	33.5	14	1.3	13.5	17.4	16.1	2.6%	0.7	20.8	2.4	1.7	4.0	29.5	8.6%	0.3	23.6	1.3	1.6
04	PG&E	32.0	12	1.3	13.6	17.0	15.0	8.0%	0.7	20.2	2.4	1.8	3.1	28.9	16.0%	0.3	22.9	1.30	1.77
05	PG&E	34.7	16	1.3	12.6	17.6	17.1	3.4%	0.7	19.9	2.5	1.8	4.4	30.3	8.4%	0.3	22.5	1.4	1.7
05	PG&E/SoCalGas	34.7	16	1.3	12.6	17.6	17.1	3.4%	0.7	19.9	2.5	1.8	4.4	30.3	8.4%	0.3	22.5	1.4	1.7
06	SCE/SoCalGas	31.9	12	1.3	13.9	18.1	13.8	5.9%	1.0	19.5	1.2	1.7	4.4	27.5	8.9%	0.5	22.1	1.2	1.6
07	SDG&E	31.7	7	1.2	13.2	18.9	12.8	4.6%	0.9	18.1	2.1	1.8	4.6	27.1	6.6%	0.5	20.5	1.2	1.6
08	SCE/SoCalGas	29.8	10	1.3	14.6	18.2	11.6	6.5%	1.0	19.4	1.3	1.8	5.6	24.2	12.5%	0.5	22.0	1.2	1.6
09	SCE/SoCalGas	30.4	13	1.3	14.7	19.1	11.3	8.1%	1.0	19.4	1.3	1.9	7.1	23.3	15.1%	0.6	22.0	1.3	1.7
10	SCE/SoCalGas	31.2	11	1.4	15.1	20.4	10.8	8.7%	1.1	19.9	1.3	1.8	7.9	23.3	14.7%	0.6	22.5	1.3	1.7
10	SDG&E	31.2	11	1.4	15.1	20.4	10.8	8.7%	1.1	19.9	2.1	1.8	7.9	23.3	14.7%	0.6	22.5	1.4	1.7
11	PG&E	31.9	12	1.4	16.6	18.5	13.4	13.1%	0.8	22.8	2.2	1.8	6.6	25.3	21.1%	0.4	25.8	1.4	1.8
12	PG&E	32.0	13	1.3	14.9	17.6	14.4	11.4%	0.7	21.7	2.1	1.6	5.4	26.6	20.4%	0.4	24.5	1.3	1.7
13	PG&E	32.1	13	1.4	17.5	19.9	12.2	12.6%	0.8	23.3	2.1	1.7	8.2	23.9	20.6%	0.4	26.4	1.4	1.7
14	SCE/SoCalGas	32.5	16	1.7	14.6	18.5	14.0	13.8%	1.3	20.2	1.4	1.9	7.7	24.8	21.8%	0.8	22.8	1.4	1.8
14	SDG&E	32.5	16	1.7	14.6	18.5	14.0	13.8%	1.3	20.2	2.2	1.9	7.7	24.8	21.8%	0.8	22.8	1.7	1.8
15	SCE/SoCalGas	28.2	8	1.8	21.6	21.1	7.1	14.2%	1.5	23.6	1.4	2.1	11.3	16.9	20.2%	1.1	26.6	1.3	1.8
16	PG&E	40.2	39	1.9	13.4	20.6	19.6	15.0%	1.2	22.0	2.6	1.9	10.3	29.9	23.0%	0.8	24.8	1.6	1.7

">1" = indicates cases where there is both first cost savings and annual utility bill savings.



Appendix F – Multifamily Measure Summary

Table 40: Multifamily Mixed Fuel Efficiency – Non-Preempted Package Measure Summary

CZ	Duct	Infiltration	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
2	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
3	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
4	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
5	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
6	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
7	Code Min	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
8	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Enh CHW credit (0.6)	0.35 W/cfm	1.0 PV scaling
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
11	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
12	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
13	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
14	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
15	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling

VLLDCS – Verified Low-Leakage Ducts in Conditioned Space



Table 41: Multifamily Mixed Fuel Efficiency – Equipment, Preempted Package Measure Summary

CZ	Duct	Infiltratio	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
2	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
3	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	92 AFUE, 0.35W/cfm	1.0 PV scaling
4	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 0.35 W/cfm	1.0 PV scaling
5	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	92 AFUE, 0.45W/cfm	1.0 PV scaling
6	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	Code Min	1.0 PV scaling
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 0.35 W/cfm	1.0 PV scaling
8	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	Code Min	1.0 PV scaling
9	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 0.35 W/cfm	1.0 PV scaling
10	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 0.35 W/cfm	1.0 PV scaling
11	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
12	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
13	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
14	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling
15	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 0.35 W/cfm	1.0 PV scaling
16	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	95 EF, basic compact dist.	16 SEER, 92 AFUE, 0.35W/cfm	1.0 PV scaling

VLLDCS – Verified Low-Leakage Ducts in Conditioned Space



Table 42: Multifamily Mixed Fuel Efficiency & PV/Battery Package Measure Summary

CZ	Duct	Infiltration	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
2	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
3	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
4	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
5	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
6	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
7	Code Min	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
8	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Enh CHW credit (0.6)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
11	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
12	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
13	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
14	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
15	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Basic CHW credit (0.7)	0.35 W/cfm	1.0 PV scaling + 22kWh batt

VLLDCS – Verified Low-Leakage Ducts in Conditioned Space



Table 43: Multifamily All-Electric Efficiency – Non-Preempted Package Measure Summary

<u>CZ</u>	<u>Duct</u>	<u>Infiltration</u>	<u>Wall</u>	<u>Attic</u>	<u>Roof</u>	<u>Glazing</u>	<u>Slab</u>	<u>DHW</u>	<u>HVAC</u>	<u>PV</u>
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
2	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
3	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Std Design PV
4	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	Code Min	Std Design PV
6	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	Std Design PV
7	Code Min	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	Std Design PV
8	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	Std Design PV
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	Std Design PV
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
11	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
12	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
13	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
14	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
15	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	Std Design PV

VLLDCS – Verified Low-Leakage Ducts in Conditioned Space



Table 44: Multifamily All-Electric Efficiency – Equipment, Preempted Package Measure Summary

CZ	Duct	Infiltratio	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
2	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
3	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
4	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
5	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
6	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	0.45 W/cfm	Std Design PV
7	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	0.45 W/cfm	Std Design PV
8	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	0.45 W/cfm	Std Design PV
9	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	0.45 W/cfm	Std Design PV
10	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	0.45 W/cfm	Std Design PV
11	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
12	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
13	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
14	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV
15	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	18 SEER, 10 HSPF, 0.45W/cfm	Std Design PV
16	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	NEEA Tier 3 HPWH	16 SEER, 9 HSPF, 0.45W/cfm	Std Design PV

VLLDCS – Verified Low-Leakage Ducts in Conditioned Space



Table 45: Multifamily All-Electric Efficiency & PV Package Measure Summary

CZ	Duct	Infiltration	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
2	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
3	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
4	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	Code Min	0.9 PV scaling
6	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
7	Code Min	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
8	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	0.9 PV scaling
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
11	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
12	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
13	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
14	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
15	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	0.9 PV scaling

VLLDCS – Verified Low-Leakage Ducts in Conditioned Space



Table 46: Multifamily All-Electric Efficiency & PV/Battery Package Measure Summary

CZ	Duct	Infiltration	Wall	Attic	Roof	Glazing	Slab	DHW	HVAC	PV
1	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
2	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
3	Code Min	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
4	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
5	VLLDCS	Code Min	Code Min	Code Min	Code Min	Code Min	R-10 slab insulation	Code Min	Code Min	1.0 PV scaling + 22kWh batt
6	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
7	Code Min	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
8	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
9	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	Code Min	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
10	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	Code Min	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
11	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
12	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
13	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
14	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
15	VLLDCS	Code Min	Code Min	Code Min	0.25 solar reflectance	0.24/0.23 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt
16	VLLDCS	Code Min	Code Min	Code Min	Code Min	0.24/0.50 windows	R-10 slab insulation	Code Min	0.45 W/cfm	1.0 PV scaling + 22kWh batt

VLLDCS – Verified Low-Leakage Ducts in Conditioned Space



Appendix G – Results by Climate Zone

Climate Zone 1	80
Climate Zone 2	82
Climate Zone 3	84
Climate Zone 4	86
Climate Zone 5 PG&E	88
Climate Zone 5 PG&E/SoCalGas	90
Climate Zone 6	92
Climate Zone 7	94
Climate Zone 8	96
Climate Zone 9	98
Climate Zone 10 SCE/SoCalGas	100
Climate Zone 10 SDGE	102
Climate Zone 11	104
Climate Zone 12	106
Climate Zone 13	108
Climate Zone 14 SCE/SoCalGas	110
Climate Zone 14 SDGE	112
Climate Zone 15	114
Climate Zone 16	116



Climate Zone 1**Table 47: Single Family Climate Zone 1 Results Summary**

Climate Zone 1 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin⁴	PV Size Change (kW)⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel¹	Code Compliant	(0)	581	n/a	n/a	3.00	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	480	5.0	(0.08)	2.51	0.49	\$1,355	3.38	2.82
	Efficiency-Equipment	0	440	6.5	(0.07)	2.32	0.68	\$1,280	4.92	4.10
	Efficiency & PV/Battery	(28)	480	10.5	0.04	2.40	0.60	\$5,311	0.87	1.61
All-Electric²	Code Compliant	7,079	0	n/a	n/a	1.51	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	4,461	0	15.0	0.00	1.01	0.50	\$7,642	1.79	1.66
	Efficiency-Equipment	5,933	0	6.5	0.00	1.29	0.22	\$2,108	2.94	2.74
	Efficiency & PV	889	0	31.0	2.67	0.52	1.00	\$18,192	1.81	1.45
	Efficiency & PV/Battery	(14)	0	41.0	3.45	0.28	1.23	\$24,770	1.45	1.40
Mixed Fuel to All-Electric³	Code Compliant	7,079	0	0.0	0.00	1.51	1.49	(\$5,349)	0.37	0.91
	Efficiency & PV	889	0	31.0	2.67	0.52	2.48	\$12,844	1.43	2.11
	Neutral Cost	5,270	0	8.0	1.35	1.26	1.74	\$0	0.00	1.09
	Min Cost Effectiveness	3,106	0	18.0	2.97	0.95	2.04	(\$6,372)	1.08	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, Neutral Cost, and Min Cost Effectiveness packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 48: Multifamily Climate Zone 1 Results Summary (Per Dwelling Unit)

Climate Zone 1 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	180	n/a	n/a	2.75	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	147	3.0	0.00	2.31	0.44	\$960	1.10	1.18
	Efficiency-Equipment	(0)	159	2.0	(0.01)	2.48	0.27	\$507	1.29	1.41
	Efficiency & PV/Battery	(14)	147	11.5	0.07	2.13	0.61	\$3,094	0.35	1.21
All-Electric ²	Code Compliant	2,624	0	n/a	n/a	1.62	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,328	0	3.5	0.00	1.46	0.15	\$949	1.55	1.40
	Efficiency-Equipment	2,278	0	3.0	0.00	1.41	0.20	\$795	2.39	2.26
	Efficiency & PV	499	0	22.5	1.37	0.75	0.86	\$5,538	2.04	1.50
	Efficiency & PV/Battery	(7)	0	34.5	1.80	0.38	1.24	\$8,919	1.33	1.43
Mixed Fuel to All-Electric ³	Code Compliant	2,624	0	0.0	0.00	1.62	1.13	(\$2,337)	0.38	1.01
	Efficiency & PV	62	0	22.5	1.37	0.75	2.00	\$3,202	1.63	>1
	Neutral Cost	1,693	0	9.5	0.70	1.25	1.50	\$0	0.00	1.57
	Min Cost Effectiveness	1,273	0	14.0	1.01	1.09	1.66	(\$1,052)	1.14	3.76

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, Neutral Cost, and Min Cost Effectiveness packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 2**Table 49: Single Family Climate Zone 2 Results Summary**

Climate Zone 2 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin⁴	PV Size Change (kW)⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel¹	Code Compliant	(0)	421	n/a	n/a	2.23	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	360	3.0	(0.04)	1.94	0.30	\$1,504	1.63	1.66
	Efficiency-Equipment	(0)	352	3.0	(0.03)	1.90	0.33	\$724	3.77	3.63
	Efficiency & PV/Battery	(22)	360	10.0	0.06	1.82	0.41	\$5,393	0.47	1.56
All-Electric²	Code Compliant	5,014	0	n/a	n/a	1.11	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	4,079	0	4.5	0.00	0.94	0.18	\$3,943	1.21	1.07
	Efficiency-Equipment	4,122	0	5.0	0.00	0.94	0.17	\$2,108	2.25	2.10
	Efficiency & PV	847	0	19.0	2.07	0.49	0.63	\$12,106	1.83	1.38
	Efficiency & PV/Battery	(15)	0	30.0	2.71	0.26	0.86	\$18,132	1.37	1.43
Mixed Fuel to All-Electric³	Code Compliant	5,014	0	0.0	0.00	1.11	1.12	(\$5,349)	0.52	1.59
	Efficiency & PV	847	0	19.0	2.07	0.49	1.75	\$6,758	1.76	39.70
	Neutral Cost	2,891	0	9.5	1.36	0.82	1.41	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 50: Multifamily Climate Zone 2 Results Summary (Per Dwelling Unit)

Climate Zone 2 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	150	n/a	n/a	2.37	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	142	1.5	(0.02)	2.25	0.12	\$309	0.97	1.75
	Efficiency-Equipment	(0)	134	2.0	(0.01)	2.15	0.22	\$497	1.08	1.49
	Efficiency & PV/Battery	(11)	142	10.5	0.04	2.07	0.30	\$2,413	0.17	1.60
All-Electric ²	Code Compliant	2,151	0	n/a	n/a	1.38	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,038	0	1.5	0.00	1.32	0.06	\$361	1.73	2.05
	Efficiency-Equipment	1,928	0	3.0	0.00	1.25	0.13	\$795	1.56	1.56
	Efficiency & PV	476	0	17.5	1.00	0.72	0.67	\$3,711	2.42	1.82
	Efficiency & PV/Battery	(7)	0	30.5	1.36	0.35	1.04	\$6,833	1.38	1.74
Mixed Fuel to All-Electric ³	Code Compliant	2,151	0	0.0	0.00	1.38	0.99	(\$2,337)	0.53	1.42
	Efficiency & PV	60	0	17.5	1.00	0.72	1.65	\$1,375	3.31	>1
	Neutral Cost	1,063	0	10.5	0.70	0.96	1.41	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 3**Table 51: Single Family Climate Zone 3 Results Summary**

Climate Zone 3 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	348	n/a	n/a	1.88	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	296	2.5	(0.03)	1.63	0.26	\$1,552	1.28	1.31
	Efficiency-Equipment	(0)	273	4.0	(0.03)	1.52	0.37	\$1,448	1.91	1.97
	Efficiency & PV/Battery	(20)	296	10.0	0.07	1.50	0.38	\$5,438	0.38	1.38
All-Electric ²	Code Compliant	4,355	0	n/a	n/a	1.00	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,584	0	4.5	0.00	0.85	0.15	\$1,519	2.60	2.36
	Efficiency-Equipment	3,670	0	4.0	0.00	0.86	0.14	\$2,108	1.76	1.62
	Efficiency & PV	790	0	18.0	1.77	0.46	0.54	\$8,517	2.22	1.68
	Efficiency & PV/Battery	(12)	0	29.0	2.37	0.23	0.76	\$14,380	1.50	1.58
Mixed Fuel to All-Electric ³	Code Compliant	4,355	0	0.0	0.00	1.00	0.89	(\$5,349)	0.55	1.53
	Efficiency & PV	790	0	18.0	1.77	0.46	1.43	\$3,169	2.88	>1
	Neutral Cost	2,217	0	10.5	1.35	0.70	1.18	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 52: Multifamily Climate Zone 3 Results Summary (Per Dwelling Unit)

Climate Zone 3 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	133	n/a	n/a	2.13	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	127	0.5	(0.00)	2.06	0.07	\$175	1.00	1.11
	Efficiency-Equipment	(0)	119	1.5	(0.00)	1.94	0.19	\$403	1.11	1.23
	Efficiency & PV/Battery	(10)	127	10.0	0.05	1.86	0.27	\$2,279	0.11	1.41
All-Electric ²	Code Compliant	1,944	0	n/a	n/a	1.27	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,944	0	0.0	0.00	1.27	0.00	\$0	-	-
	Efficiency-Equipment	1,698	0	2.5	0.00	1.13	0.14	\$795	1.73	1.58
	Efficiency & PV	457	0	16.0	0.92	0.69	0.58	\$3,272	2.43	1.73
	Efficiency & PV/Battery	(7)	0	29.5	1.26	0.33	0.94	\$6,344	1.32	1.64
Mixed Fuel to All-Electric ³	Code Compliant	1,944	0	0.0	0.00	1.27	0.86	(\$2,337)	0.58	1.46
	Efficiency & PV	57	0	16.0	0.92	0.69	1.43	\$936	4.18	>1
	Neutral Cost	845	0	11.5	0.70	0.85	1.28	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 4**Table 53: Single Family Climate Zone 4 Results Summary**

Climate Zone 4 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	347	n/a	n/a	1.88	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	306	2.5	(0.03)	1.68	0.20	\$1,556	0.93	1.15
	Efficiency-Equipment	(0)	294	2.5	(0.02)	1.62	0.26	\$758	2.39	2.67
	Efficiency & PV/Battery	(18)	306	10.0	0.07	1.55	0.33	\$5,434	0.30	1.48
All-Electric ²	Code Compliant	4,342	0	n/a	n/a	1.00	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,775	0	3.0	0.00	0.89	0.11	\$1,519	1.92	1.84
	Efficiency-Equipment	3,747	0	3.5	0.00	0.88	0.12	\$2,108	1.52	1.52
	Efficiency & PV	814	0	17.0	1.84	0.48	0.52	\$8,786	2.13	1.62
	Efficiency & PV/Battery	(11)	0	28.5	2.44	0.25	0.75	\$14,664	1.46	1.61
Mixed Fuel to All-Electric ³	Code Compliant	4,342	0	0.0	0.00	1.00	0.88	(\$5,349)	0.55	1.59
	Efficiency & PV	814	0	17.0	1.84	0.48	1.40	\$3,438	2.64	>1
	Neutral Cost	2,166	0	10.0	1.35	0.70	1.18	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 54: Multifamily Climate Zone 4 Results Summary (Per Dwelling Unit)

Climate Zone 4 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	134	n/a	n/a	2.16	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	127	1.0	(0.01)	2.06	0.10	\$329	0.75	1.24
	Efficiency-Equipment	(0)	123	1.5	(0.01)	2.01	0.15	\$351	1.06	1.74
	Efficiency & PV/Battery	(9)	127	11.0	0.04	1.87	0.29	\$2,429	0.17	1.60
All-Electric ²	Code Compliant	1,887	0	n/a	n/a	1.25	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,794	0	1.0	0.00	1.21	0.05	\$361	1.38	1.54
	Efficiency-Equipment	1,712	0	2.0	0.00	1.15	0.10	\$795	1.23	1.09
	Efficiency & PV	453	0	15.0	0.83	0.69	0.57	\$3,158	2.43	1.81
	Efficiency & PV/Battery	(7)	0	28.5	1.17	0.32	0.93	\$6,201	1.30	1.77
Mixed Fuel to All-Electric ³	Code Compliant	1,887	0	0.0	0.00	1.25	0.90	(\$2,337)	0.65	1.77
	Efficiency & PV	57	0	15.0	0.83	0.69	1.47	\$822	4.96	>1
	Neutral Cost	767	0	11.0	0.70	0.82	1.33	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design..



Climate Zone 5 PG&E**Table 55: Single Family Climate Zone 5 PG&E Results Summary**

Climate Zone 5 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	331	n/a	n/a	1.79	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	281	2.5	(0.03)	1.55	0.24	\$1,571	1.10	1.22
	Efficiency-Equipment	(0)	279	2.5	(0.02)	1.54	0.25	\$772	2.29	2.48
	Efficiency & PV/Battery	(14)	281	9.0	0.07	1.43	0.36	\$5,433	0.37	1.32
All-Electric ²	Code Compliant	4,452	0	n/a	n/a	1.01	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,687	0	4.0	0.00	0.86	0.15	\$1,519	2.58	2.31
	Efficiency-Equipment	3,737	0	4.0	0.00	0.87	0.14	\$2,108	1.85	1.70
	Efficiency & PV	798	0	18.0	1.72	0.46	0.55	\$8,307	2.31	1.76
	Efficiency & PV/Battery	(8)	0	28.5	2.29	0.24	0.78	\$14,047	1.59	1.63
Mixed Fuel to All-Electric ³	Code Compliant	4,452	0	0.0	0.00	1.01	0.78	(\$5,349)	0.48	1.32
	Efficiency & PV	798	0	18.0	1.72	0.46	1.33	\$2,959	2.72	>1
	Neutral Cost	2,172	0	11.0	1.35	0.70	1.10	\$0	>1	40.07

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 56: Multifamily Climate Zone 5 PG&E Results Summary (Per Dwelling Unit)

Climate Zone 5 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	131	n/a	n/a	2.10	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	126	0.5	(0.00)	2.03	0.07	\$180	0.99	1.03
	Efficiency-Equipment	(0)	117	1.5	(0.00)	1.92	0.19	\$358	1.24	1.34
	Efficiency & PV/Battery	(7)	126	9.5	0.05	1.84	0.26	\$2,273	0.15	1.38
All-Electric ²	Code Compliant	2,044	0	n/a	n/a	1.32	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,990	0	0.5	0.00	1.30	0.03	\$247	1.09	0.86
	Efficiency-Equipment	1,738	0	3.5	0.00	1.15	0.17	\$795	2.15	2.03
	Efficiency & PV	465	0	17.0	0.91	0.70	0.62	\$3,293	2.53	1.82
	Efficiency & PV/Battery	(6)	0	30.0	1.24	0.34	0.98	\$6,314	1.44	1.69
Mixed Fuel to All-Electric ³	Code Compliant	2,044	0	0.0	0.00	1.32	0.78	(\$2,337)	0.50	1.28
	Efficiency & PV	58	0	17.0	0.91	0.70	1.40	\$956	3.80	>1
	Neutral Cost	874	0	12.5	0.70	0.87	1.23	\$0	>1	23.44

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 5 PG&E/SoCalGas**Table 57: Single Family Climate Zone 5 PG&E/SoCalGas Results Summary**

Climate Zone 5 PG&E/SoCalGas Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On- Bill	TDV
Mixed Fuel ¹	Code Compliant	0	331	n/a	n/a	1.79	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	281	2.5	(0.03)	1.55	0.24	\$1,571	0.92	1.22
	Efficiency-Equipment	(0)	279	2.5	(0.02)	1.54	0.25	\$772	1.98	2.48
	Efficiency & PV/Battery	(14)	281	9.0	0.07	1.43	0.36	\$5,433	0.31	1.32
All-Electric ²	Code Compliant	4,452	0	n/a	n/a	1.01	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,687	0	4.0	0.00	0.86	0.15	\$1,519	2.58	2.31
	Efficiency-Equipment	3,737	0	4.0	0.00	0.87	0.14	\$2,108	1.85	1.70
	Efficiency & PV	798	0	18.0	1.72	0.46	0.55	\$8,307	2.31	1.76
	Efficiency & PV/Battery	(8)	0	28.5	2.29	0.24	0.78	\$14,047	1.59	1.63
Mixed Fuel to All-Electric ³	Code Compliant	4,452	0	0.0	0.00	1.01	0.78	(\$5,349)	0.48	1.32
	Efficiency & PV	798	0	18.0	1.72	0.46	1.33	\$2,959	2.75	>1
	Neutral Cost	2,172	0	11.0	1.35	0.70	1.10	\$0	>1	40.07

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 58: Multifamily Climate Zone 5 PG&E/SoCalGas Results Summary (Per Dwelling Unit)

Climate Zone 5 PG&E/SoCalGas Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	131	n/a	n/a	2.10	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	126	0.5	(0.00)	2.03	0.07	\$180	0.85	1.03
	Efficiency-Equipment	(0)	117	1.5	(0.00)	1.92	0.19	\$358	1.09	1.34
	Efficiency & PV/Battery	(7)	126	9.5	0.05	1.84	0.26	\$2,273	0.14	1.38
All-Electric ²	Code Compliant	2,044	0	n/a	n/a	1.32	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,990	0	0.5	0.00	1.30	0.03	\$247	1.09	0.86
	Efficiency-Equipment	1,738	0	3.5	0.00	1.15	0.17	\$795	2.15	2.03
	Efficiency & PV	465	0	17.0	0.91	0.70	0.62	\$3,293	2.53	1.82
	Efficiency & PV/Battery	(6)	0	30.0	1.24	0.34	0.98	\$6,314	1.44	1.69
Mixed Fuel to All-Electric ³	Code Compliant	2,044	0	0.0	0.00	1.32	0.78	(\$2,337)	0.65	1.28
	Efficiency & PV	58	0	17.0	0.91	0.70	1.40	\$956	4.98	>1
	Neutral Cost	874	0	12.5	0.70	0.87	1.23	\$0	>1	23.44

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 6**Table 59: Single Family Climate Zone 6 Results Summary**

Climate Zone 6 SCE/SoCalGas Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	249	n/a	n/a	1.57	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	229	2.0	(0.02)	1.47	0.10	\$1,003	0.66	1.15
	Efficiency-Equipment	(0)	218	1.5	(0.01)	1.41	0.15	\$581	1.58	2.04
	Efficiency & PV/Battery	(13)	229	9.5	0.08	1.22	0.34	\$4,889	0.84	1.27
All-Electric ²	Code Compliant	3,099	0	n/a	n/a	0.87	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,885	0	2.0	0.00	0.83	0.05	\$926	1.31	1.41
	Efficiency-Equipment	2,746	0	2.5	0.00	0.80	0.08	\$846	2.20	2.29
	Efficiency & PV	722	0	14.0	1.37	0.63	0.24	\$6,341	1.19	1.48
	Efficiency & PV/Battery	(6)	0	26.0	1.93	0.33	0.55	\$12,036	1.15	1.43
Mixed Fuel to All-Electric ³	Code Compliant	3,099	0	0.0	0.00	0.87	0.69	(\$5,349)	1.19	2.46
	Efficiency & PV	722	0	14.0	1.37	0.63	0.93	\$992	3.07	>1
	Neutral Cost	959	0	12.0	1.36	0.67	0.89	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 60: Multifamily Climate Zone 6 Results Summary (Per Dwelling Unit)

Climate Zone 6 SCE/SoCalGas Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	114	n/a	n/a	2.17	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	112	1.0	(0.01)	2.14	0.03	\$190	0.65	1.49
	Efficiency-Equipment	(0)	103	1.0	(0.00)	2.03	0.15	\$213	1.43	1.74
	Efficiency & PV/Battery	(6)	112	10.5	0.04	1.76	0.41	\$2,294	0.56	1.35
All-Electric ²	Code Compliant	1,558	0	n/a	n/a	1.28	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,531	0	1.0	0.00	1.26	0.02	\$231	0.65	1.34
	Efficiency-Equipment	1,430	0	2.0	0.00	1.20	0.08	\$361	1.62	1.91
	Efficiency & PV	427	0	13.5	0.70	0.97	0.31	\$2,580	1.24	1.71
	Efficiency & PV/Battery	(5)	0	27.5	1.02	0.49	0.79	\$5,590	1.22	1.58
Mixed Fuel to All-Electric ³	Code Compliant	1,558	0	0.0	0.00	1.28	0.90	(\$2,337)	2.59	2.38
	Efficiency & PV	53	0	13.5	0.70	0.97	1.20	\$243	9.50	>1
	Neutral Cost	459	0	12.5	0.70	0.99	1.18	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 7**Table 61: Single Family Climate Zone 7 Results Summary**

Climate Zone 7 SDG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	196	n/a	n/a	1.30	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	196	0.0	0.00	1.30	0.00	\$0	-	-
	Efficiency-Equipment	0	171	1.5	(0.00)	1.18	0.12	\$606	1.50	1.40
	Efficiency & PV/Battery	(12)	189	9.0	0.10	1.04	0.26	\$4,028	0.06	1.32
All-Electric ²	Code Compliant	2,479	0	n/a	n/a	0.75	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,479	0	0.0	0.00	0.75	0.00	\$0	-	-
	Efficiency-Equipment	2,222	0	2.0	0.00	0.69	0.06	\$846	1.60	1.65
	Efficiency & PV	674	0	11.0	1.10	0.58	0.17	\$4,436	1.87	1.55
	Efficiency & PV/Battery	(6)	0	24.0	1.61	0.29	0.46	\$9,936	1.25	1.47
Mixed Fuel to All-Electric ³	Code Compliant	2,479	0	0.0	0.00	0.75	0.55	(\$5,349)	1.04	2.54
	Efficiency & PV	674	0	11.0	1.10	0.58	0.72	(\$912)	>1	>1
	Neutral Cost	267	0	13.5	1.35	0.55	0.75	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 62: Multifamily Climate Zone 7 Results Summary (Per Dwelling Unit)

Climate Zone 7 SDG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	110	n/a	n/a	2.11	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	108	0.5	(0.01)	2.08	0.03	\$90	0.73	2.24
	Efficiency-Equipment	(0)	99	2.0	(0.00)	1.96	0.15	\$366	1.07	1.41
	Efficiency & PV/Battery	(6)	108	11.0	0.05	1.71	0.40	\$2,188	0.03	1.40
All-Electric ²	Code Compliant	1,434	0	n/a	n/a	1.21	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,416	0	0.5	0.00	1.20	0.01	\$202	0.60	1.02
	Efficiency-Equipment	1,319	0	1.5	0.00	1.14	0.07	\$361	1.59	1.71
	Efficiency & PV	412	0	12.5	0.61	0.94	0.27	\$2,261	2.08	1.76
	Efficiency & PV/Battery	(5)	0	27.0	0.92	0.47	0.74	\$5,203	1.19	1.62
Mixed Fuel to All-Electric ³	Code Compliant	1,434	0	0.0	0.00	1.21	0.90	(\$2,337)	1.12	2.47
	Efficiency & PV	51	0	12.5	0.61	0.94	1.17	(\$75)	>1	>1
	Neutral Cost	294	0	13.5	0.70	0.91	1.20	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 8**Table 63: Single Family Climate Zone 8 Results Summary**

Climate Zone 8 SCE/SoCalGas Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	206	n/a	n/a	1.38	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	198	1.0	(0.02)	1.34	0.05	\$581	0.57	1.41
	Efficiency-Equipment	0	181	1.5	(0.01)	1.27	0.12	\$586	1.30	1.82
	Efficiency & PV/Battery	(13)	198	8.0	0.08	1.11	0.27	\$4,466	0.90	1.31
All-Electric ²	Code Compliant	2,576	0	n/a	n/a	0.80	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,483	0	1.5	0.00	0.78	0.02	\$926	0.57	1.22
	Efficiency-Equipment	2,352	0	1.5	0.00	0.75	0.05	\$412	2.82	3.03
	Efficiency & PV	703	0	10.5	1.13	0.62	0.18	\$5,373	1.00	1.48
	Efficiency & PV/Battery	(7)	0	21.5	1.67	0.32	0.48	\$11,016	1.09	1.42
Mixed Fuel to All-Electric ³	Code Compliant	2,576	0	0.0	0.00	0.80	0.58	(\$5,349)	1.83	2.99
	Efficiency & PV	703	0	10.5	1.13	0.62	0.77	\$25	107.93	>1
	Neutral Cost	439	0	11.0	1.36	0.60	0.78	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 64: Multifamily Climate Zone 8 Results Summary (Per Dwelling Unit)

Climate Zone 8 SCE/SoCalGas Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	109	n/a	n/a	2.18	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	106	1.5	(0.02)	2.13	0.05	\$250	0.70	1.36
	Efficiency-Equipment	(0)	99	1.0	(0.00)	2.04	0.14	\$213	1.37	1.67
	Efficiency & PV/Battery	(6)	106	9.5	0.03	1.77	0.41	\$2,353	0.74	1.32
All-Electric ²	Code Compliant	1,409	0	n/a	n/a	1.26	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,373	0	1.0	0.00	1.24	0.02	\$231	0.87	1.72
	Efficiency-Equipment	1,276	0	1.5	0.00	1.18	0.08	\$361	1.63	1.75
	Efficiency & PV	426	0	11.5	0.60	0.99	0.27	\$2,240	1.26	1.78
	Efficiency & PV/Battery	(5)	0	24.0	0.92	0.53	0.73	\$5,249	1.24	1.59
Mixed Fuel to All-Electric ³	Code Compliant	1,409	0	0.0	0.00	1.26	0.91	(\$2,337)	6.69	2.67
	Efficiency & PV	53	0	11.5	0.60	0.99	1.18	(\$96)	>1	>1
	Neutral Cost	309	0	12.0	0.70	0.98	1.20	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 9**Table 65: Single Family Climate Zone 9 Results Summary**

Climate Zone 9 SCE/SoCalGas Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	229	n/a	n/a	1.53	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	216	2.5	(0.04)	1.46	0.07	\$912	0.69	1.97
	Efficiency-Equipment	0	201	2.5	(0.04)	1.38	0.15	\$574	1.80	3.66
	Efficiency & PV/Battery	(14)	216	8.5	0.05	1.23	0.30	\$4,785	0.99	1.48
All-Electric ²	Code Compliant	2,801	0	n/a	n/a	0.87	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,645	0	2.5	0.00	0.84	0.04	\$1,180	0.78	1.96
	Efficiency-Equipment	2,460	0	3.0	0.00	0.80	0.07	\$846	2.11	3.22
	Efficiency & PV	745	0	11.5	1.16	0.66	0.21	\$5,778	1.08	1.64
	Efficiency & PV/Battery	(9)	0	21.0	1.72	0.37	0.50	\$11,454	1.11	1.53
Mixed Fuel to All-Electric ³	Code Compliant	2,801	0	0.0	0.00	0.87	0.66	(\$5,349)	1.67	2.90
	Efficiency & PV	745	0	11.5	1.16	0.66	0.87	\$429	7.15	>1
	Neutral Cost	594	0	10.0	1.36	0.67	0.86	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 66: Multifamily Climate Zone 9 Results Summary (Per Dwelling Unit)

Climate Zone 9 SCE/SoCalGas Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	111	n/a	n/a	2.24	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	109	1.5	(0.03)	2.19	0.05	\$136	1.46	3.35
	Efficiency-Equipment	(0)	101	2.5	(0.03)	2.08	0.16	\$274	1.66	2.87
	Efficiency & PV/Battery	(7)	109	9.5	0.03	1.84	0.40	\$2,234	0.90	1.49
All-Electric ²	Code Compliant	1,468	0	n/a	n/a	1.33	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,414	0	1.5	0.00	1.30	0.03	\$231	1.29	2.70
	Efficiency-Equipment	1,334	0	1.5	0.00	1.25	0.08	\$361	1.63	1.58
	Efficiency & PV	441	0	11.0	0.60	1.04	0.29	\$2,232	1.34	1.91
	Efficiency & PV/Battery	(7)	0	23.0	0.92	0.58	0.75	\$5,236	1.28	1.67
Mixed Fuel to All-Electric ³	Code Compliant	1,468	0	0.0	0.00	1.33	0.91	(\$2,337)	4.38	2.55
	Efficiency & PV	55	0	11.0	0.60	1.04	1.20	(\$104)	>1	>1
	Neutral Cost	331	0	11.0	0.70	1.03	1.21	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 10 SCE/SoCalGas**Table 67: Single Family Climate Zone 10 SCE/SoCalGas Results Summary**

Climate Zone 10 SCE/SoCalGas Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	239	n/a	n/a	1.61	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	217	3.0	(0.07)	1.48	0.13	\$1,648	0.63	1.33
	Efficiency-Equipment	(0)	209	3.0	(0.06)	1.45	0.16	\$593	2.05	3.84
	Efficiency & PV/Battery	(12)	217	9.5	0.03	1.25	0.36	\$5,522	1.00	1.48
All-Electric ²	Code Compliant	2,981	0	n/a	n/a	0.94	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,673	0	3.0	0.00	0.88	0.07	\$1,773	0.92	1.52
	Efficiency-Equipment	2,563	0	3.0	0.00	0.85	0.10	\$949	2.27	3.19
	Efficiency & PV	762	0	11.0	1.17	0.70	0.24	\$6,405	1.08	1.50
	Efficiency & PV/Battery	(6)	0	21.0	1.74	0.41	0.53	\$12,129	1.11	1.51
Mixed Fuel to All-Electric ³	Code Compliant	2,981	0	0.0	0.00	0.94	0.67	(\$5,349)	1.45	2.66
	Efficiency & PV	762	0	11.0	1.17	0.70	0.91	\$1,057	3.04	>1
	Neutral Cost	770	0	9.0	1.36	0.74	0.87	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 68: Multifamily Climate Zone 10 SCE/SoCalGas Results Summary (Per Dwelling Unit)

Climate Zone 10 SCE/SoCalGas Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	112	n/a	n/a	2.29	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	108	1.5	(0.02)	2.23	0.06	\$278	0.81	1.69
	Efficiency-Equipment	(0)	102	2.5	(0.04)	2.13	0.16	\$250	1.96	3.27
	Efficiency & PV/Battery	(6)	108	10.0	0.03	1.88	0.41	\$2,376	0.98	1.57
All-Electric ²	Code Compliant	1,507	0	n/a	n/a	1.39	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,425	0	1.5	0.00	1.34	0.05	\$361	1.16	2.00
	Efficiency-Equipment	1,369	0	1.5	0.00	1.31	0.08	\$361	1.71	1.98
	Efficiency & PV	450	0	10.5	0.60	1.09	0.30	\$2,371	1.31	1.79
	Efficiency & PV/Battery	(4)	0	23.0	0.93	0.63	0.76	\$5,395	1.27	1.69
Mixed Fuel to All-Electric ³	Code Compliant	1,507	0	0.0	0.00	1.39	0.90	(\$2,337)	3.35	2.36
	Efficiency & PV	56	0	10.5	0.60	1.09	1.20	\$34	70.89	>1
	Neutral Cost	372	0	10.5	0.70	1.10	1.19	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 10 SDGE**Table 69: Single Family Climate Zone 10 SDGE Results Summary**

Climate Zone 10 SDG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	239	n/a	n/a	1.61	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	217	3.0	(0.07)	1.48	0.13	\$1,648	0.80	1.33
	Efficiency-Equipment	(0)	209	3.0	(0.06)	1.45	0.16	\$593	2.64	3.84
	Efficiency & PV/Battery	(12)	217	9.5	0.03	1.25	0.36	\$5,522	0.58	1.48
All-Electric ²	Code Compliant	2,981	0	n/a	n/a	0.94	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,673	0	3.0	0.00	0.88	0.07	\$1,773	1.08	1.52
	Efficiency-Equipment	2,563	0	3.0	0.00	0.85	0.10	\$949	2.62	3.19
	Efficiency & PV	762	0	11.0	1.17	0.70	0.24	\$6,405	1.68	1.50
	Efficiency & PV/Battery	(6)	0	21.0	1.74	0.41	0.53	\$12,129	1.42	1.51
Mixed Fuel to All-Electric ³	Code Compliant	2,981	0	0.0	0.00	0.94	0.67	(\$5,349)	0.90	2.66
	Efficiency & PV	762	0	11.0	1.17	0.70	0.91	\$1,057	4.55	>1
	Neutral Cost	770	0	9.0	1.36	0.74	0.87	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 70: Multifamily Climate Zone 10 SDGE Results Summary (Per Dwelling Unit)

Climate Zone 10 SDG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	112	n/a	n/a	2.29	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	108	1.5	(0.02)	2.23	0.06	\$278	1.09	1.69
	Efficiency-Equipment	(0)	102	2.5	(0.04)	2.13	0.16	\$250	2.60	3.27
	Efficiency & PV/Battery	(6)	108	10.0	0.03	1.88	0.41	\$2,376	0.23	1.57
All-Electric ²	Code Compliant	1,507	0	n/a	n/a	1.39	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,425	0	1.5	0.00	1.34	0.05	\$361	1.53	2.00
	Efficiency-Equipment	1,369	0	1.5	0.00	1.31	0.08	\$361	2.05	1.98
	Efficiency & PV	450	0	10.5	0.60	1.09	0.30	\$2,371	2.12	1.79
	Efficiency & PV/Battery	(4)	0	23.0	0.93	0.63	0.76	\$5,395	1.44	1.69
Mixed Fuel to All-Electric ³	Code Compliant	1,507	0	0.0	0.00	1.39	0.90	(\$2,337)	0.73	2.36
	Efficiency & PV	56	0	10.5	0.60	1.09	1.20	\$34	54.15	>1
	Neutral Cost	372	0	10.5	0.70	1.10	1.19	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 11**Table 71: Single Family Climate Zone 11 Results Summary**

Climate Zone 11 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	378	n/a	n/a	2.14	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	333	4.0	(0.19)	1.90	0.24	\$3,143	0.78	1.20
	Efficiency-Equipment	0	320	5.0	(0.21)	1.83	0.31	\$1,222	2.50	3.68
	Efficiency & PV/Battery	(18)	333	9.0	(0.09)	1.78	0.36	\$7,026	0.36	1.51
All-Electric ²	Code Compliant	4,585	0	n/a	n/a	1.15	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,815	0	4.5	0.00	0.99	0.16	\$3,735	1.24	1.47
	Efficiency-Equipment	3,533	0	5.5	0.00	0.93	0.22	\$2,108	2.97	3.33
	Efficiency & PV	957	0	14.0	1.79	0.60	0.55	\$10,827	1.84	1.55
	Efficiency & PV/Battery	(13)	0	23.0	2.49	0.36	0.79	\$17,077	1.49	1.61
Mixed Fuel to All-Electric ³	Code Compliant	4,585	0	0.0	0.00	1.15	0.99	(\$5,349)	0.49	1.69
	Efficiency & PV	957	0	14.0	1.79	0.60	1.54	\$5,478	1.64	>1
	Neutral Cost	2,429	0	7.0	1.36	0.85	1.29	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 72: Multifamily Climate Zone 11 Results Summary (Per Dwelling Unit)

Climate Zone 11 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	141	n/a	n/a	2.38	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	127	2.5	(0.05)	2.18	0.20	\$850	0.65	1.17
	Efficiency-Equipment	(0)	126	3.0	(0.06)	2.16	0.22	\$317	1.84	3.29
	Efficiency & PV/Battery	(9)	127	10.5	0.01	2.00	0.38	\$2,950	0.39	1.60
All-Electric ²	Code Compliant	1,974	0	n/a	n/a	1.42	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,732	0	3.5	0.00	1.29	0.13	\$1,011	1.40	1.64
	Efficiency-Equipment	1,707	0	3.5	0.00	1.26	0.16	\$795	2.02	2.33
	Efficiency & PV	504	0	13.0	0.77	0.81	0.61	\$3,601	2.22	1.81
	Efficiency & PV/Battery	(6)	0	25.0	1.14	0.45	0.98	\$6,759	1.42	1.81
Mixed Fuel to All-Electric ³	Code Compliant	1,974	0	0.0	0.00	1.42	0.96	(\$2,337)	0.56	1.33
	Efficiency & PV	63	0	13.0	0.77	0.81	1.56	\$1,264	3.03	>1
	Neutral Cost	866	0	9.0	0.70	0.99	1.38	\$0	>1	73.96

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 12**Table 73: Single Family Climate Zone 12 Results Summary**

Climate Zone 12 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin⁴	PV Size Change (kW)⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel¹	Code Compliant	(0)	390	n/a	n/a	2.11	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	344	3.5	(0.06)	1.88	0.23	\$1,679	1.18	1.83
	Efficiency-Equipment	0	338	3.0	(0.05)	1.85	0.26	\$654	3.31	4.65
	Efficiency & PV/Battery	(23)	344	9.5	0.04	1.76	0.35	\$5,568	0.43	1.72
All-Electric²	Code Compliant	4,492	0	n/a	n/a	1.05	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,958	0	3.5	0.00	0.94	0.10	\$3,735	0.78	1.06
	Efficiency-Equipment	3,721	0	5.0	0.00	0.90	0.15	\$2,108	2.00	2.51
	Efficiency & PV	867	0	15.5	1.97	0.51	0.53	\$11,520	1.69	1.41
	Efficiency & PV/Battery	(15)	0	25.0	2.62	0.29	0.76	\$17,586	1.29	1.48
Mixed Fuel to All-Electric³	Code Compliant	4,492	0	0.0	0.00	1.05	1.07	(\$5,349)	0.63	1.89
	Efficiency & PV	867	0	15.5	1.97	0.51	1.60	\$6,172	1.77	>1
	Neutral Cost	2,374	0	8.0	1.35	0.76	1.36	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 74: Multifamily Climate Zone 12 Results Summary (Per Dwelling Unit)

Climate Zone 12 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	143	n/a	n/a	2.33	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	135	1.5	(0.02)	2.21	0.12	\$291	1.10	2.22
	Efficiency-Equipment	0	128	2.5	(0.03)	2.12	0.21	\$434	1.25	2.22
	Efficiency & PV/Battery	(11)	135	10.0	0.03	2.03	0.30	\$2,394	0.30	1.75
All-Electric ²	Code Compliant	1,963	0	n/a	n/a	1.34	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,792	0	2.5	0.00	1.24	0.09	\$1,011	0.91	1.12
	Efficiency-Equipment	1,744	0	2.5	0.00	1.21	0.13	\$795	1.56	1.63
	Efficiency & PV	472	0	14.0	0.84	0.73	0.60	\$3,835	2.08	1.65
	Efficiency & PV/Battery	(8)	0	26.5	1.20	0.38	0.96	\$6,943	1.26	1.68
Mixed Fuel to All-Electric ³	Code Compliant	1,963	0	0.0	0.00	1.34	1.00	(\$2,337)	0.64	1.66
	Efficiency & PV	59	0	14.0	0.84	0.73	1.60	\$1,498	2.88	>1
	Neutral Cost	872	0	9.5	0.70	0.92	1.42	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 13**Table 75: Single Family Climate Zone 13 Results Summary**

Climate Zone 13 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	352	n/a	n/a	2.02	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	311	4.5	(0.21)	1.80	0.22	\$3,060	0.76	1.28
	Efficiency-Equipment	(0)	292	5.5	(0.24)	1.70	0.32	\$611	5.26	8.40
	Efficiency & PV/Battery	(19)	311	9.5	(0.11)	1.69	0.33	\$6,954	0.36	1.56
All-Electric ²	Code Compliant	4,180	0	n/a	n/a	1.08	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,428	0	5.0	0.00	0.92	0.15	\$4,154	1.12	1.40
	Efficiency-Equipment	3,177	0	6.0	0.00	0.87	0.21	\$2,108	2.88	3.30
	Efficiency & PV	934	0	13.0	1.61	0.57	0.50	\$10,532	1.70	1.47
	Efficiency & PV/Battery	(11)	0	22.0	2.32	0.35	0.73	\$16,806	1.40	1.54
Mixed Fuel to All-Electric ³	Code Compliant	4,180	0	0.0	0.00	1.08	0.94	(\$5,349)	0.54	1.83
	Efficiency & PV	934	0	13.0	1.61	0.57	1.44	\$5,184	1.56	>1
	Neutral Cost	2,092	0	7.0	1.36	0.79	1.23	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 76: Multifamily Climate Zone 13 Results Summary (Per Dwelling Unit)

Climate Zone 13 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	135	n/a	n/a	2.30	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	123	3.0	(0.05)	2.12	0.18	\$831	0.63	1.27
	Efficiency-Equipment	(0)	121	3.0	(0.07)	2.10	0.21	\$290	1.95	3.75
	Efficiency & PV/Battery	(9)	123	10.5	0.00	1.95	0.35	\$2,936	0.38	1.64
All-Electric ²	Code Compliant	1,849	0	n/a	n/a	1.36	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,629	0	3.0	0.00	1.24	0.12	\$1,011	1.31	1.56
	Efficiency-Equipment	1,590	0	3.5	0.00	1.21	0.16	\$795	1.98	2.28
	Efficiency & PV	501	0	12.0	0.73	0.80	0.56	\$3,462	2.12	1.71
	Efficiency & PV/Battery	(5)	0	23.5	1.11	0.44	0.92	\$6,650	1.35	1.74
Mixed Fuel to All-Electric ³	Code Compliant	1,849	0	0.0	0.00	1.36	0.94	(\$2,337)	0.63	1.54
	Efficiency & PV	63	0	12.0	0.73	0.80	1.50	\$1,125	3.22	>1
	Neutral Cost	773	0	8.5	0.70	0.94	1.36	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 14 SCE/SoCalGas**Table 77: Single Family Climate Zone 14 SCE/SoCalGas Results Summary**

Climate Zone 14 SCE/SoCalGas Single Family		Annual Net kWh	Annual therms	EDR Margin⁴	PV Size Change (kW)⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel¹	Code Compliant	(0)	371	n/a	n/a	2.35	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	319	4.5	(0.17)	2.06	0.29	\$1,662	1.57	2.46
	Efficiency-Equipment	(0)	305	5.5	(0.19)	1.98	0.36	\$799	3.95	6.14
	Efficiency & PV/Battery	(5)	319	9.0	(0.08)	1.83	0.52	\$5,526	1.31	1.74
All-Electric²	Code Compliant	4,725	0	n/a	n/a	1.38	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,819	0	5.5	0.00	1.19	0.19	\$4,154	0.95	1.46
	Efficiency-Equipment	3,676	0	6.0	0.00	1.16	0.22	\$2,108	2.29	3.13
	Efficiency & PV	953	0	15.5	1.60	0.93	0.45	\$10,459	1.21	1.62
	Efficiency & PV/Battery	(2)	0	23.5	2.21	0.63	0.75	\$16,394	1.35	1.59
Mixed Fuel to All-Electric³	Code Compliant	4,725	0	0.0	0.00	1.38	0.97	(\$5,349)	0.72	1.67
	Efficiency & PV	953	0	15.5	1.60	0.93	1.42	\$5,111	1.01	>1
	Neutral Cost	2,299	0	8.5	1.35	1.15	1.19	\$0	0.00	>1
	Min Cost Effectiveness	1,853	0	10.0	1.61	1.12	1.23	(\$1,000)	1.24	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, Neutral Cost, and Min Cost Effectiveness packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 78: Multifamily Climate Zone 14 SCE/SoCalGas Results Summary (Per Dwelling Unit)

Climate Zone 14 SCE/SoCalGas Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	141	n/a	n/a	2.76	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	126	3.0	(0.04)	2.53	0.23	\$874	0.73	1.21
	Efficiency-Equipment	(0)	126	3.0	(0.05)	2.52	0.23	\$347	1.96	2.99
	Efficiency & PV/Battery	(3)	126	9.5	0.01	2.18	0.58	\$2,957	1.09	1.39
All-Electric ²	Code Compliant	2,022	0	n/a	n/a	1.73	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,759	0	3.5	0.00	1.58	0.15	\$1,011	1.24	1.65
	Efficiency-Equipment	1,748	0	3.5	0.00	1.56	0.16	\$795	1.59	2.20
	Efficiency & PV	504	0	14.0	0.70	1.26	0.47	\$3,356	1.39	1.91
	Efficiency & PV/Battery	(2)	0	24.5	1.03	0.79	0.94	\$6,380	1.36	1.77
Mixed Fuel to All-Electric ³	Code Compliant	2,022	0	0.0	0.00	1.73	1.03	(\$2,337)	1.13	1.48
	Efficiency & PV	63	0	14.0	0.70	1.26	1.50	\$1,019	2.57	>1
	Neutral Cost	772	0	10.0	0.70	1.41	1.35	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 14 SDGE**Table 79: Single Family Climate Zone 14 SDGE Results Summary**

Climate Zone 14 SDG&E Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	371	n/a	n/a	2.35	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	319	4.5	(0.17)	2.06	0.29	\$1,662	1.92	2.46
	Efficiency-Equipment	(0)	305	5.5	(0.19)	1.98	0.36	\$799	4.88	6.14
	Efficiency & PV/Battery	(5)	319	9.0	(0.08)	1.83	0.52	\$5,526	1.23	1.74
All-Electric ²	Code Compliant	4,725	0	n/a	n/a	1.38	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	3,819	0	5.5	0.00	1.19	0.19	\$4,154	1.30	1.46
	Efficiency-Equipment	3,676	0	6.0	0.00	1.16	0.22	\$2,108	2.92	3.13
	Efficiency & PV	953	0	15.5	1.60	0.93	0.45	\$10,459	1.80	1.62
	Efficiency & PV/Battery	(2)	0	23.5	2.21	0.63	0.75	\$16,394	1.67	1.59
Mixed Fuel to All-Electric ³	Code Compliant	4,725	0	0.0	0.00	1.38	0.97	(\$5,349)	0.60	1.67
	Efficiency & PV	953	0	15.5	1.60	0.93	1.42	\$5,111	1.94	>1
	Neutral Cost	2,299	0	8.5	1.35	1.15	1.19	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.²All reductions and incremental costs relative to the **all-electric** code compliant home.³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.⁵Positive values indicate an increase in PV capacity relative to the Standard Design.

Table 80: Multifamily Climate Zone 14 SDGE Results Summary (Per Dwelling Unit)

Climate Zone 14 SDG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	(0)	141	n/a	n/a	2.76	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	126	3.0	(0.04)	2.53	0.23	\$874	0.93	1.21
	Efficiency-Equipment	(0)	126	3.0	(0.05)	2.52	0.23	\$347	2.48	2.99
	Efficiency & PV/Battery	(3)	126	9.5	0.01	2.18	0.58	\$2,957	0.51	1.39
All-Electric ²	Code Compliant	2,022	0	n/a	n/a	1.73	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,759	0	3.5	0.00	1.58	0.15	\$1,011	1.47	1.65
	Efficiency-Equipment	1,748	0	3.5	0.00	1.56	0.16	\$795	2.00	2.20
	Efficiency & PV	504	0	14.0	0.70	1.26	0.47	\$3,356	2.16	1.91
	Efficiency & PV/Battery	(2)	0	24.5	1.03	0.79	0.94	\$6,380	1.69	1.77
Mixed Fuel to All-Electric ³	Code Compliant	2,022	0	0.0	0.00	1.73	1.03	(\$2,337)	0.51	1.48
	Efficiency & PV	63	0	14.0	0.70	1.26	1.50	\$1,019	2.60	>1
	Neutral Cost	772	0	10.0	0.70	1.41	1.35	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 15**Table 81: Single Family Climate Zone 15 Results Summary**

Climate Zone 15 SCE/SoCalGas Single Family		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	149	n/a	n/a	1.69	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	141	4.5	(0.43)	1.56	0.13	\$2,179	1.00	1.58
	Efficiency-Equipment	(0)	132	4.5	(0.45)	1.51	0.18	(\$936)	>1	>1
	Efficiency & PV/Battery	(3)	141	7.0	(0.34)	1.38	0.32	\$6,043	1.15	1.51
All-Electric ²	Code Compliant	2,149	0	n/a	n/a	1.32	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	1,230	0	5.5	0.00	1.12	0.20	\$4,612	1.12	1.58
	Efficiency-Equipment	866	0	7.0	0.00	1.04	0.28	\$2,108	3.30	4.47
	Efficiency & PV	1,030	0	6.0	0.12	1.10	0.22	\$5,085	1.12	1.57
	Efficiency & PV/Battery	(2)	0	13.0	0.83	0.84	0.48	\$11,382	1.16	1.54
Mixed Fuel to All-Electric ³	Code Compliant	2,149	0	0.0	0.00	1.32	0.37	(\$5,349)	1.73	2.21
	Efficiency & PV	1,030	0	6.0	0.12	1.10	0.59	(\$264)	>1	>1
	Neutral Cost	23	0	6.0	1.36	1.13	0.57	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 82: Multifamily Climate Zone 15 Results Summary (Per Dwelling Unit)

Climate Zone 15 SCE/SoCalGas Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	93	n/a	n/a	2.53	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	92	4.0	(0.15)	2.42	0.11	\$510	1.35	2.28
	Efficiency-Equipment	0	86	4.0	(0.16)	2.33	0.20	(\$157)	>1	>1
	Efficiency & PV/Battery	(3)	92	8.5	(0.10)	2.13	0.40	\$2,604	1.29	1.70
All-Electric ²	Code Compliant	1,243	0	n/a	n/a	1.78	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	954	0	4.0	0.00	1.61	0.17	\$1,011	1.50	2.28
	Efficiency-Equipment	764	0	6.0	0.00	1.50	0.29	\$1,954	1.24	1.72
	Efficiency & PV	548	0	7.0	0.24	1.50	0.28	\$1,826	1.43	2.07
	Efficiency & PV/Battery	(3)	0	16.5	0.62	1.08	0.70	\$5,020	1.34	1.80
Mixed Fuel to All-Electric ³	Code Compliant	1,243	0	0.0	0.00	1.78	0.75	(\$2,337)	6.36	2.35
	Efficiency & PV	68	0	7.0	0.24	1.50	1.03	(\$511)	>1	>1
	Neutral Cost	78	0	7.5	0.70	1.48	1.05	\$0	>1	>1

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Climate Zone 16**Table 83: Single Family Climate Zone 16 Results Summary**

Climate Zone 16 PG&E Single Family		Annual Net kWh	Annual therms	EDR Margin⁴	PV Size Change (kW)⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel¹	Code Compliant	(0)	605	n/a	n/a	3.31	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	0	454	5.0	0.01	2.59	0.72	\$3,542	1.62	1.46
	Efficiency-Equipment	0	474	6.0	(0.08)	2.66	0.65	\$2,441	2.19	2.20
	Efficiency & PV/Battery	(18)	454	10.5	0.10	2.36	0.95	\$7,399	0.87	1.37
All-Electric²	Code Compliant	7,694	0	n/a	n/a	1.73	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	5,696	0	9.5	0.00	1.38	0.35	\$5,731	1.72	1.69
	Efficiency-Equipment	6,760	0	4.5	0.00	1.55	0.18	\$2,108	2.36	2.32
	Efficiency & PV	1,032	0	26.5	2.75	0.94	0.79	\$16,582	2.09	1.62
	Efficiency & PV/Battery	(11)	0	35.0	3.45	0.64	1.09	\$22,838	1.71	1.55
Mixed Fuel to All-Electric³	Code Compliant	7,694	0	0.0	0.00	1.73	1.58	(\$5,349)	0.31	0.68
	Efficiency & PV	1,032	0	26.5	2.75	0.94	2.37	\$11,234	1.55	2.02
	Neutral Cost	5,398	0	8.5	1.35	1.51	1.80	\$0	0.00	0.74
	Min Cost Effectiveness	3,358	0	16.0	2.56	1.32	1.99	(\$4,753)	1.24	1.40

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, Neutral Cost, and Min Cost Effectiveness packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



Table 84: Multifamily Climate Zone 16 Results Summary (Per Dwelling Unit)

Climate Zone 16 PG&E Multifamily		Annual Net kWh	Annual therms	EDR Margin ⁴	PV Size Change (kW) ⁵	CO2-Equivalent Emissions (lbs/sf)		NPV of Lifetime Incremental Cost (\$)	Benefit to Cost Ratio (B/C)	
						Total	Reduction		On-Bill	TDV
Mixed Fuel ¹	Code Compliant	0	206	n/a	n/a	3.45	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	(0)	172	2.0	0.03	3.02	0.44	\$937	1.11	1.19
	Efficiency-Equipment	(0)	183	2.5	(0.02)	3.12	0.33	\$453	1.76	2.15
	Efficiency & PV/Battery	(9)	172	9.5	0.08	2.65	0.80	\$3,028	0.47	1.28
All-Electric ²	Code Compliant	2,699	0	n/a	n/a	1.86	n/a	n/a	n/a	n/a
	Efficiency-Non-Preempted	2,329	0	4.0	0.00	1.70	0.16	\$843	2.08	2.05
	Efficiency-Equipment	2,470	0	3.0	0.00	1.74	0.13	\$795	1.59	1.70
	Efficiency & PV	518	0	19.5	1.07	1.23	0.63	\$4,423	2.58	1.89
	Efficiency & PV/Battery	(6)	0	29.5	1.42	0.75	1.11	\$7,533	1.65	1.69
Mixed Fuel to All-Electric ³	Code Compliant	2,699	0	0.0	0.00	1.86	1.59	(\$2,337)	0.43	1.03
	Efficiency & PV	65	0	19.5	1.07	1.23	2.22	\$2,087	2.87	>1
	Neutral Cost	1,518	0	10.0	0.70	1.56	1.90	\$0	>1	2.58

¹All reductions and incremental costs relative to the **mixed fuel** code compliant home.

²All reductions and incremental costs relative to the **all-electric** code compliant home.

³All reductions and incremental costs relative to the **mixed fuel** code compliant home except the EDR Margins are relative to the Standard Design for each case which is the **all-electric** code compliant home. Incremental costs for these packages reflect the costs used in the On-Bill cost effectiveness methodology. Costs differ for the TDV methodology due to differences in the site gas infrastructure costs (see Section 2.6).

⁴This represents the Efficiency EDR Margin for the Efficiency-Non-Preempted and Efficiency-Equipment packages and Total EDR Margin for the Efficiency & PV, Efficiency & PV/Battery, and Neutral Cost packages.

⁵Positive values indicate an increase in PV capacity relative to the Standard Design.



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**International
Electrical**



**Brotherhood
Workers**

AFL-CIO

Local Union No. 332

2125 CANOAS GARDEN AVENUE, SUITE 100

SAN JOSE, CALIFORNIA 95125

Telephone: (408) 269-4332

Fax: (408) 979-5500

November 7, 2019

Re: 2019 California Energy Code - Local Amendments (Reach Codes)

Dear City Council Member:

Each local government is required by law to adopt new changes to the California Building Standards Code every three years (known as code cycles) proposed by the State. The next code cycle will take effect January 1, 2020. This creates an opportunity to simultaneously adopt optional local building code amendments (known as Reach Codes) that exceed state code standards.

Historically, cities/counties sometimes adopt amendments to the Energy (Title 24, Part 6) and California Green Building Standards - CAL Green (Title 24, Part 11) codes to meet local environmental goals or aspirations.

This creates a significant Reach Code opportunity to reduce future GHG in new buildings by discouraging or eliminating the use of natural gas. This can be accomplished by incentivizing and/or requiring new buildings to use more electric appliances to utilize the clean renewable electricity available rather than natural gas.

Cities across the region are recognizing that all-electric homes and EVs reduce production of greenhouse gases (CHG) and provide healthier and safer homes and transportation at reduced cost.

Moving to all-electric homes is an important step for our economy and IBEW Local 332 is taking aggressive steps to ensure that we have trained workforce to address this need.

The IBEW Local 332 has been training men and women as electricians for over 100 years in Santa Clara County. The training requirements to become a journeyman electrician is based on a five (5) year apprenticeship program that focuses on installation, safety, compliance with Federal, State and County Codes and design of all electrical systems. As the future unfolds, IBEW Local 332 is transforming training objectives to meet with the innovations for electrification of homes with a conscious focus on controlling cost and energy. How is this being done? Through training in smarter, controlled based devices in lighting, which consumes 48% of the energy in a home. Through training and installation of advance designs and control of HYAC systems and home appliance, which are the highest consumers of energy in homes. Through training on the installation and maintenance of solar panels that can now be integrated into the roof designs of homes. Finally, through the installation of electric vehicle charging stations, since the growth of electric cars is predicted to increase from the current 3 million to 125 million cars by 2030 according to the International Energy Agency.



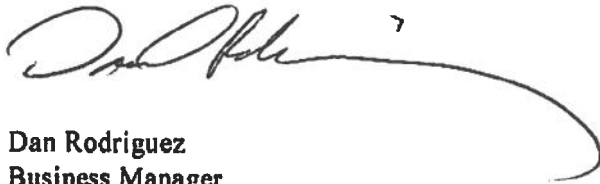
Each one of these areas represent only a small portion of the training each electrician receives as an apprentice and through journeymen upgrade courses. Additionally, IBEW Local 332 journeymen meet the State of California requirements for certification to work on homes, industrial/commercial buildings, and public transportation sites and receive added certifications for specialized training on lighting controls, electric vehicle charging stations, building automations, and the list goes on.

We are pleased to be at the forefront of the effort to ensure that Santa Clara County will have the workforce needed to deliver high quality electrical service and installation of innovative technologies such as heat-pump water heaters, induction stoves, and electric vehicle charging to meet these needs.

We encourage the City Council to adopt building reach codes to accelerate cleaner, safer and lower cost homes and transportation.

Thank you for your consideration of this request. If there is any way that IBEW 332 can be of assistance on this or other matters, please do not hesitate to call.

Thank you,

A handwritten signature in black ink, appearing to read 'Dan Rodriguez', with a long, sweeping horizontal line extending to the right.

Dan Rodriguez
Business Manager
IBEW Local 332



Redwood Energy

1887 Q Street
Arcata, CA 95521

Sean Armstrong-Partner and Project Manager
707.826-1450
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Michael Winkler-Partner and Energy Analyst
707.822.1857
mwinkle@yahoo.com

November 5, 2019

To Whom it May Concern,

I have learned that some Bay Area development community members are worried about upsized transformers due to water heating requirements. My consulting firm has worked with dozens of affordable housing developers on more than 200 developments. There is no need to upsize transformers for all-electric buildings—there are better design alternatives.

One local developer with examples of how to design all-electric without upsizing a transformer is RCD, a large affordable housing provider headquartered in Berkeley, who is developing the all-electric Quetzal Gardens in San Jose and the all-electric Coliseum Place in Oakland—both 6 stories and for low income families with ground floor commercial space and parking lots. During design development we encountered thresholds of power use that would trigger an additional \$35k transformer for the building. For Domestic Hot Water, we made different choices at each project to avoid the transformer threshold:

At Quetzal Gardens, instead of using 50 gallon, 30 Amp heat pump water heaters we selected 65 gallon, 15 Amp heat pump water heaters.

At Coliseum Place, instead of using 50 gallon, 30 Amp heat pumps water heaters, we shared 30 Amp, 80 gallon tanks between 2-3 apartments and elevated the hot water temperature 15F, from 125F to 140F, with safety mixing valves.

The choice to use 65 gallon tanks provided tenants with 2 more hot showers in the morning, while the 50 gallon tanks, even with 30 Amps of Power, could only produce 1 more hot shower in the morning. The choice to share tanks between apartments was to reduce costs, but with the increased temperature and volume of hot water the same amount of hot water service was provided.

For a different reason, in the end RCD did choose to install a second transformer at Quetzal Gardens. This was to allow for electric car chargers to be built out into the entire parking garage, which used a car lift to fit more vehicles into the space. The car lift uses almost no power (surprisingly), and actually the car garage fans used more power. The \$35k cost increase to the \$65M development of Quetzal Gardens represents .06% of the budget--a vanishingly small amount to ensure the parking garage can support the continued electrification of vehicles in the Bay Area.

Quetzal Gardens was RCD's first all-electric apartment complex design, but quickly followed by the low income family housing at Coliseum Place in Oakland. Katie Ackerly of David Baker Architects, the Architect for both, reported to me last week, "I don't think we'll ever be asked to do a building with gas again" because every developer who has approached David Baker Architects in the last year has requested an all-electric building.

Sincerely,

Sean Armstrong
Managing Principal and Co-Founder

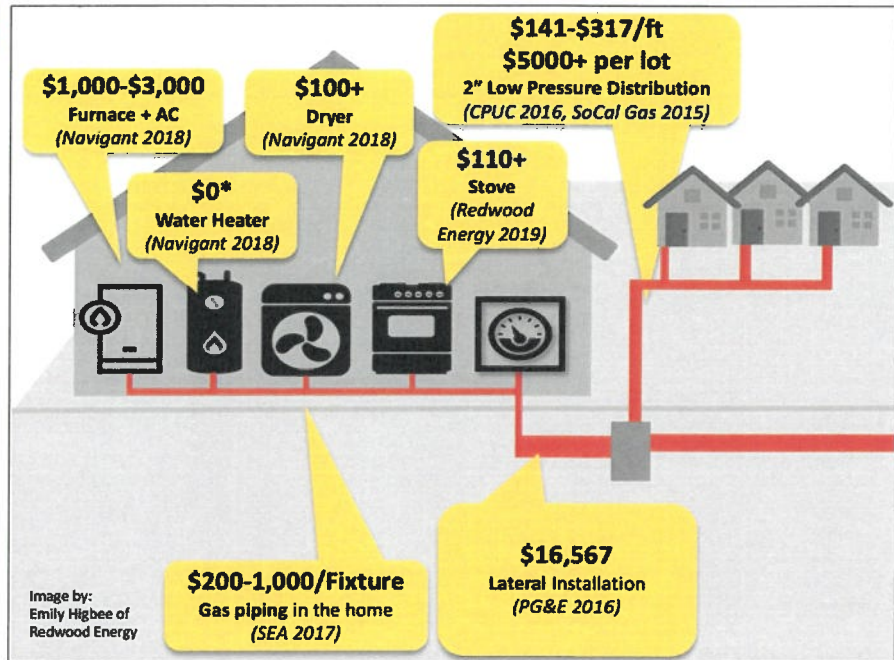
"It's a no brainer. The cost of bringing gas to your site is expensive. In our developments we see it is less expensive to build all-electric and as efficient, or more efficient, in operations. If I built a new house for myself, I would build it all-electric: you can't generate gas onsite, but you can generate electricity."

-Chris Dart, President of Danco Communities, Humboldt County's largest Affordable Housing developer

Bay Area Gas Costs Fact Sheet



Accidents locating gas lines have severe consequences for contractors.



Consultants working for both PG&E and SoCalGas have found more than \$20,000 in developer-paid cost increases from gas appliances, plumbing and infrastructure.

Local HVAC Bids: Electric vs. Gas in Single Family Homes



Your One Stop Contractor
HVAC, Solar, Windows, Insulation, Water Heaters
CSLB #719381

Whole House HVAC Bids from A-1 Guaranteed.
Provided Sept 16, 2019 by Larry Waters.

Furnace + AC
\$13,308 (Lafayette)
\$14,650 (Vacaville)

Heat Pumps
\$11,460 (Albany)
\$12,670 (Berkeley)

Gas Savings Documented at Local Developments



BLH Construction—Built three apartment complexes in Calistoga (2015), Cloverdale (2016), and Ukiah (2019), with one planned in Windsor (2020). **Avoided Gas lateral savings were \$15,000 per building, up to \$45,000 per site.**

-Brian Holland, Chief Operations Officer. Sept 18, 2019.



Wolff Contracting built 14 Tiny Homes for homeless veterans in Santa Rosa (2019). **Gas lateral savings to site and 14 tiny homes was \$30,000.**

-John Morgan, Project Manager. June, 2018.

PG&E Residential Rule 16 Gas and Electric Single Service Extensions*

November 21, 2016

[Redacted Address] LAFAYETTE, CA 94549

Re: [Redacted]

Dear [Redacted]:

We are writing to let you know Pacific Gas and Electric Company (PG&E) will extend electric service to the project address listed above. This letter, including PG&E's terms and conditions below, will serve as our contract. As required by the California Public Utilities Code, this contract is handled in a separate contract. Please complete the following three steps to execute this contract:

1 Review the following project cost summary information.

	GAS	ELECTRIC
Total Service Costs	\$14,768.82	\$0.00

PG&E lateral pricing to a standard lot in Richmond, CA was \$14,770 (2016)



Robert S. Kenney
Vice President
State and Regulatory Affairs

P. O. Box 77000
San Francisco, CA 94177-0001
Mail Code B23A
(415) 973-2500
Robert.Kenney@pge.com

November 5, 2019

VIA EMAIL TO: council@losgatosca.gov

Town Council
Town of Los Gatos
110 East Main Street
Los Gatos, CA 95030

Dear Honorable Town Council Members:

Pacific Gas and Electric Company (PG&E) is proud to provide electric and natural gas service to the Town of Los Gatos of this commitment, PG&E welcomes the opportunity to support the Town of Los Gatos' efforts to promote efficient, all-electric new construction, when it is cost-effective.

PG&E strongly supports California's climate and clean air goals. We recognize that achieving these goals requires a range of approaches and tools, including increasing the use of energy-efficient electric appliances in buildings when cost-effective. PG&E welcomes the opportunity to avoid investments in new gas assets that might later prove underutilized as local governments and the state work together to realize long-term decarbonization objectives. With all this in mind, PG&E supports local government policies that promote all-electric new construction when cost effective.

Beyond new construction, PG&E believes a multi-faceted approach is needed to cost-effectively achieve California's broader economy-wide long-term GHG reduction objectives, including both electrification and decarbonizing the gas system with renewable natural gas and hydrogen. As California's decarbonization policies evolve, PG&E will continue to ensure the safe and reliable operation of the electric and gas systems to continue supporting the customers that depend on us.

PG&E appreciates the partnership with the Town of Los Gatos during its policy development process, which allows us to prepare for the future and continue providing the best service possible to customers. PG&E continuously forecasts load in its service territory and implements upgrades to the distribution grid to meet the demand. PG&E fully expects to meet the needs that all-electric buildings will require. PG&E remains ready to engage with our customers, local government, businesses, and community members to meet their needs safely, reliably, affordably, and with clean energy.

PG&E looks forward to continuing to work with the Town of Los Gatos to accomplish its policy goals.

Thank you, and have a safe day.

Sincerely,

A handwritten signature in blue ink that reads "Robert S. Kenney". The signature is written in a cursive style with a large, stylized 'R' and 'K'.

Robert S. Kenney
Vice President

cc: Marico Sayoc, Town Council Member [msayoc@losgatosca.gov]
Aimee Bailey, PhD, Director of Decarbonization and Grid Innovation, Silicon Valley Clean
Energy [aimee.bailey@svcleanenergy.org]
Daniel Cedeno, Government Relations Representative [Daniel.Cedeno@pge.com]
Darin Cline, Sr. Manager, Government Relations, PG&E [Darin.Cline@pge.com]

Robert Gray

Subject: FW: All-Electric Reach Code

From: Pete Gang <pete@commonsensedesign.com>

Sent: Tuesday, November 05, 2019 1:15 PM

To: Council <Council@losgatosca.gov>

Subject: All-Electric Reach Code

Dear Council members,

I am writing with regards to consideration of an **all-electric reach code**, (tentatively?) scheduled for the November 5th, 2019 Los Gatos City Council meeting.

As a California-licensed general building contractor (#B-504,602) and architect (#C-22,447) with over 30 years experience designing zero net energy (ZNE) and low-energy buildings, I would like to offer the following in strong support of “decarbonizing” our building stock, both new and existing:

My Top Twelve Arguments Against Natural Gas

1. All of the current literature substantiates the fact that all-electric new homes are less expensive to build than mixed-fuel homes. The most significant cost savings result from the avoided costs of installing the underground gas piping (from the gas main to the gas meter) and the gas piping inside the home.

According to the [2019 Cost-effectiveness Study: Low Rise Residential New Construction, released by California Energy Codes and Standards](#), incremental cost savings for an all-electric new single-family home (compared to a mixed-fuel new home) are estimated to be \$6,171.

According to an April 2019 study funded by Southern California Edison, SMUD, and the LA Department of Water and Power titled [Residential Building Electrification in California](#), initial cost savings are estimated to be in the range of \$3,000 to \$10,000.

According to a September 2018 report prepared by TRC Solutions for the City of Palo Alto titled, “[City of Palo Alto 2019 Title 24 Energy Reach Code Cost Effectiveness Analysis DRAFT](#),” the **costs saved by not installing natural gas in residential new construction** — including plan review, street cut fee, connection charge to existing main, gas meter, gas piping within the residence, and the cost of appliances — total **\$6,314** (assuming iron piping).

2. [Applies in Sonoma County]: Even greater cost savings are available to fire survivors who choose to rebuild all-electric: the [Advanced Energy Rebuild program](#) (offered jointly by Sonoma Clean Power, PGE, and BAAQMD) offers financial incentives of up to \$17,500 per home.

3. Many builders conflate discussion of optional all-electric reach codes with discussion of mandatory changes in the upcoming 2019 CA Energy Codes (which take effect January 1, 2020). The 2019 Energy Codes will require installation of a PV system of sufficient size to provide for the electric needs of a mixed-fuel home (typically a ~2.5 kW system). Even though this added feature has been proven cost-effective over a 30-year timeframe, it is expected to add around \$10,000 to the cost of a new home (at approximately \$4 per watt).

4. Not only does all-electric construction result in **reduced initial costs, homeowners will see reduced ongoing utility costs** due to efficiencies of 300% or more that are typical of electric heat-pump technologies used for heating/cooling and water heating. In contrast, gas appliances have a theoretical maximum efficiency of only 100%.

5. Builders also mention that their customers don't like cooking on electric stoves. They are thinking of the old radiant coil electric cooktops. Few of these customers are familiar with electric induction cooktops, which are the new standard. [Sacramento Municipal Utility District \(SMUD\)](#) reports that 91% of people who try cooking on an electric induction cooktop, prefer it over gas.

6. **Replacing gas appliances with electric appliances results in healthier indoor environments.** We are required to install carbon monoxide (CO) detectors in all new residential construction due to the hazards associated with combustion byproducts. Electric appliances do not carry similar hazards.

7. The California Energy Commission acknowledges that we are moving inexorably toward all-electric buildings and away from using natural gas.

8. PGE acknowledges that we are moving inexorably toward all-electric buildings and away from using natural gas. In a letter dated August 21, 2019 to Windsor Town Manager Ken McNab, PGE Vice President Robert S. Kenney states, ***"PG&E welcomes the opportunity to avoid investments in new gas assets that might later prove underutilized as local governments and the state work together to realize long-term decarbonization objectives. With all this in mind, PG&E supports local government policies that promote all-electric new construction when cost effective."***

9. When builders attempt to compare the greenhouse gas emissions of gas appliances with those of electric appliances, they typically limit their discussion to CO₂ emissions and neglect to mention emissions of CH₄, or methane, which comprises ~85% of natural gas. We now understand that **methane is a relatively short-lived greenhouse gas with over 100 times the heat-trapping potential of CO₂ on an annual basis**. Fugitive emissions of methane occur at all points in the production, distribution, and storage of natural gas and are currently conservatively estimated to be around 3% of production.

10. 90% of the natural gas used in California is imported from out of state and obtained through **hydraulic fracturing, or fracking**. It is now widely understood that fracking is associated with a long list of catastrophic consequences, including aquifer depletion, aquifer contamination, destruction of landscapes, air pollution, and widespread physical and mental health consequences.

11. Builders sometimes suggest that instead of working to reduce or eliminate the use of natural gas in buildings we should work on reducing emissions from the transportation sector. It's not an "either-or." We need to do **all of the above**.

12. Builders sometimes bemoan the fact that these proposed changes are happening so fast. The reason that we are calling it a climate emergency is because **it is an emergency**. One responds to an emergency with appropriate alacrity.

Thank you for your vision and your courage!

Toward a livable planet for all future generations,

Pete Gang, Architect
707-338-7111

Robert Gray

Subject: FW: Reach Codes

From: Laurel Prevetti <LPrevetti@losgatosca.gov>
Sent: Thursday, November 07, 2019 9:50 AM
To: BSpector <BSpector@losgatosca.gov>
Cc: Joel Paulson <jpaulson@losgatosca.gov>
Subject: RE: Reach Codes

We are happy to include it. Thank you.

From: BSpector <BSpector@losgatosca.gov>
Sent: Thursday, November 07, 2019 8:35 AM
To: Laurel Prevetti <LPrevetti@losgatosca.gov>
Subject: Fw: Reach Codes

This Menlo Park information would be helpful to our consideration.

B.

From: John Shepardson
Sent: Thursday, November 7, 2019 7:58 AM
To: Steven Leonardis <SLeonardis@losgatosca.gov>; BSpector <BSpector@losgatosca.gov>; Rob Rennie <RRennie@losgatosca.gov>; Steven Leonardis <SLeonardis@losgatosca.gov>; Marcia Jensen <MJensen@losgatosca.gov>; Marico Sayoc <MSayoc@losgatosca.gov>
Subject: Reach Codes

Leaders:

<https://www.almanacnews.com/news/2019/09/03/city-plans-to-require-most-new-commercial-buildings-to-be-all-electric>

City plans to require most new commercial buildings to be all-electric

by Kate Bradshaw / Almanac

23 comments. See comments.

Every three years, California updates its building codes. While those codes have become increasingly stringent and focused on environmental sustainability, the state permits cities to adopt their own amendments to them, so long as those policies exceed the state's sustainability standards.

The Menlo Park City Council on Aug. 27 decided to adopt several such amendments, called "reach codes," that will make the city one of the state's most pioneering jurisdictions in promoting greener buildings, requiring the vast majority of

new nonresidential buildings to be all-electric. The decision is set to be finalized with a formal vote and first reading of the ordinance scheduled for the council's Sept. 10 meeting.

While the council initially recommended an exception for for-profit restaurants, it ultimately agreed to eliminate the exception.

Staff members reported that they had conducted market research and argued that using electric induction stoves is an increasing trend in the food service industry; they are safer, two to three times more efficient, and offer higher performance than gas and traditional electric cooktops.

Switching to all-electric systems can offer major construction and operational savings, staff reported. The switch could save a hotel up to \$1.3 million in construction costs and \$1.24 million in operational costs, staff said.

The council agreed to offer an appeal process for businesses that can demonstrate that using induction stoves instead of gas-powered ones would be a hardship.

Exceptions will be offered to life sciences buildings for space heating purposes only, due to their reliance on precise temperature-controlled environments for lab work. However, following the recommendation of commenter Scott Shell, an architect, the council agreed to require life sciences buildings to install wiring that will make the building ready to convert to all-electric when better electric heating technology comes along.

Emergency operation centers, such as fire stations and police and community centers, would also be exempt from the all-electric rule, since it is critical that those facilities be able to access natural gas during an emergency or disaster when electricity is not available.

In addition, the council agreed to require new nonresidential buildings and high-rise residential buildings to have solar panels that generate a minimum of 3 kilowatts for buildings under 10,000 square feet and 5 kilowatts for buildings greater than or equal to 10,000 square feet.

These steps are expected to help the city keep its commitment to reduce greenhouse gas emissions by 27% from 2005 levels by 2020. Building energy usage made up about 55% of the city's overall greenhouse gas emissions in 2013, according to staff.

Adam Stern, former executive director of local environmental nonprofit Acterra, noted while speaking in public comment that as the Amazon rainforest burns, "It's very easy to think that climate change is a problem we can't get our hands around. ... The new reach code, reviewed by many stakeholders, is an ideal opportunity to put a stake in the ground and say Menlo Park is going to lead on the path toward carbon neutrality and (advance) our policies to reduce greenhouse gases."

If passed as expected, the new building codes will be effective Jan. 1, 2020.

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Comments

11 people like this

Posted by **Joseph E. Davis**

a resident of Woodside: Emerald Hills

on Sep 3, 2019 at 3:44 pm

I can't get over the seemingly unbounded arrogance of Menlo Park's city council as they seek to manage how the residents of Menlo Park should live and work. Disturbing.

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25 people like this

Posted by **Birdnscrap**

a resident of Portola Valley: Central Portola Valley

on Sep 3, 2019 at 5:11 pm

Birdnscrap is a registered user.

Excellent leadership by Menlo Park.

Great to see that forward thinking by the town.

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11 people like this

Posted by **Peter Carpenter**

a resident of Atherton: Lindenwood

on Sep 3, 2019 at 7:24 pm

Peter Carpenter is a registered user.

I presume that the City will be providing emergency power to any resident who requires it for medical reasons when PG&E utilizes their new policy of unsupervised and prolonged service interruptions.

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9 people like this

Posted by **Menlo Voter.**

a resident of Menlo Park: other

on Sep 4, 2019 at 8:04 am

Menlo Voter. is a registered user.

So the city requires all commercial buildings to be all electric. Then what?

Unintended consequence number 1: the owners DO NOT install solar and use power from the grid. 45% of power in this

state is generated by burning natural gas. It's more efficient to burn natural gas to heat water on site than it is to heat it with electricity. So, we actually end up with MORE CO2 in the air than if all electric wasn't required.

Unintended consequence number 2: Building owners install back up generators to deal with likely power outages. What do those generators run on? Natural gas or diesel. So every time the power goes out we have commercial buildings spewing CO2 into the air.

Way to go council. Do you people actually think these things through when you propose them or do you just put them forward so you can be seen as "doing something"?

Never mind. I already know the answer.

How about this. STICK TO DEALING WITH THE ACTUAL PROBLEMS OF THIS CITY INSTEAD OF THIS KIND OF BS. This kind of garbage is NOT what I voted for you for.

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11 people like this
Posted by **Thank you!**
a resident of Atherton: Lindenwood
on Sep 4, 2019 at 1:19 pm

You'll get my vote again!

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6 people like this
Posted by **Brian**
a resident of Menlo Park: Felton Gables
on Sep 4, 2019 at 1:54 pm

Why doesn't the city do something useful --- like undergrounding utilities like Palo Alto did?
instead of unsightly utility poles?

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2 people like this
Posted by **Menlo Voter.**
a resident of Menlo Park: other
on Sep 5, 2019 at 8:26 am
Menlo Voter. is a registered user.

Thank you! How did you vote for Menlo Park council members? You live in Atherton.

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Thank you! How did you vote for Menlo Park council members? You live in Atherton.

Posted by **randyw**
a resident of another community
on Sep 5, 2019 at 10:13 am

Menlo Voter - You are factually wrong on several points. Over 85 percent of PG&E's power in come from greenhouse-gas free resources, this number will continue to grow. New projects with electric heat use heat pumps. Heat pumps are more efficient than gas - it moves heat rather than generates it. In commercial situations the heat can be moved to the office space(which always need to be cooled)so provide even more efficiency. Further most commercial building have substantial roof and parking areas available for solar.

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4 people like this
Posted by **snowflakes**
a resident of Menlo Park: The Willows
on Sep 5, 2019 at 11:58 am

po' peeps who object so strenuously to fighting a global problem - not in my backyard!!

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4 people like this
Posted by **Menlo Voter.**
a resident of Menlo Park: other
on Sep 5, 2019 at 12:13 pm
Menlo Voter. is a registered user.

randyw:

The power mix has changed then as it used to be about 45% gas fired power plants. Solar panels are very expensive. While commercial buildings may have very large roofs for panels, if you fill a roof with panels you're looking at a very large cost. A system to power a large residence of around 4000sf runs around \$150,000 to \$175,000. for a house. That's about 2000sf or a little less of panels. Heating water with heat pump water heaters is a lousy way to heat water. I've installed them. The recovery rate is awful compared to gas. Heat pumps are good at cooling. Not so good at heating. That's why most split systems using heat pumps in commercial situations end up having heat strips added to the system to provide additional heat. Believe it or not, commercial buildings actually require heat during the winter, not cooling.

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15 people like this
Posted by **San Mateo County**
a resident of Menlo Park: Downtown
on Sep 5, 2019 at 12:45 pm

Actually in San Mateo County the energy mix coming from the San Mateo PCE is 50 percent renewable and 80% carbon free. And it's cheaper than PGE. For a little more cost, 1cent more per kilowatt hour than PG&E, you can upgrade to 100% carbon free.

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10 people like this

Posted by **West Menlo**

a resident of Menlo Park: Sharon Heights

on Sep 5, 2019 at 1:00 pm

@Randy and @Menlo Voter: you are both kind of correct. 15% of PG&E electricity comes from coal and gas. 34% comes from nuclear. The remainder comes from other sources (wind, solar, hydro, etc). My problem is that a local government dictates what we do from an energy standpoint. I believe it's none of their business. What's next? Telling us what kind of car to drive? What kind of food to eat? Where does the insanity and intrusion into our lives stop? Also, we pay the highest rates in the country for electricity. That will likely be going up as well in the near term. Why doesn't council start working on things like dealing with the homeless problem in MP, balancing the mix of housing versus new business permits, getting our fair share of transit dollars to help with our traffic issues caused in part (you guessed it) by our inept city council allowing for too much business development versus housing developments. Yes, I agree that City Council kind of sucks, but we voted them in. Let's vote this group out and get some folks in who will concentrate on fixing some local issues.

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8 people like this

Posted by **San Mateo County**

a resident of Menlo Park: Downtown

on Sep 5, 2019 at 1:31 pm

The City Council largely responsible for development was voted out in the last election. This Council actually is working to address development issues in their subcommittees.

Web Link

Web Link

Web Link

This City Council also is working on homeless issues:

Web Link

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14 people like this

Posted by **San Mateo County**

a resident of Menlo Park: Downtown

on Sep 5, 2019 at 1:38 pm

@westmenlo: the Council is addressing zoning for new construction that is going to be built in the City of Menlo Park, most immediately much of which is slated near Facebook. The developers of those projects appeared at the hearing and spoke in favor of the zoning in Reach Codes. These Reach Codes were created by the State of California to be adopted by local cities. It's not like the council created them out of thin air. They came from the State. The only way they can be

adopted is through local municipality adoption. Your summary of the Council doing work somehow out of their job, or without stakeholder support, is just inaccurate.

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18 people like this
Posted by **randyw**
a resident of another community
on Sep 5, 2019 at 3:13 pm

Menlo Voter --

What the power mix used to be seems irrelevant. Same with your accounting of the first cost of solar system. I just installed solar, and the pay off is less than 7 years, if the commercial building lasts more than that they can simply get a loan and they will save money.

Almost all commercial buildings are cooling load dominant. Go into an office building after closing and they get warm even without the main source of heat (people) just from the equipment. Pumping that heat into water doubles efficiency. Residential Hybrid hot water heaters (heat-pump plus electric strip boosters) are typically more than 50% more efficient than direct elec. heating (which are close to 100%).

Low recover rates are not a problem since there is even loading through the day(few bathtubs to fill.)

West Menlo --

This is exactly where regulation makes most sense. First costs are higher but life cycle costs are dramatically lower. Additionally the impact of inaction are borne by society broadly, so regulation prevents the developer and tenant from shifting costs to others. This requirement lowers total cost for the building and society.

Even if you are a libertarian - the cost impacts of global warming are real, and so if you drive an inefficient car or use an incandescent light bulb, your \$ costs are not the full costs of your choice. In this case, the regulation saves everyone money.

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4 people like this
Posted by **West Menlo**
a resident of Menlo Park: Sharon Heights
on Sep 5, 2019 at 5:00 pm

@Randy

If the costs are less, as you say, then the market will adjust to the more efficient solution over time. The government should not be forcing these issues, choosing winners and losers, and forcing people to buy what they dictate. What's next? Telling me I have to buy an electric car? I will do that if and when I want, and when I choose. Otherwise, we are getting dangerously close to living in a totalitarian state—and California is getting way too close to that for my liking.

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7 people like this

Posted by **Menlo Boomer**
a resident of Menlo Park: Linfield Oaks
on Sep 5, 2019 at 8:02 pm

Why should I have to ~adjust my behavior and preferences in an inconsequential way~ just because it would "contribute to solving an existential crisis"?!?!

Ridiculous.

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6 people like this
Posted by **randyw**
a resident of another community
on Sep 5, 2019 at 8:06 pm

West Menlo -- Even if your bogus rational choice economic theory was true - which a thousand examples prove it is not. If the decision is made by the developer doesn't pay the utilities and who doesn't pay to rebuild the burnt down town of Paradise.

Yes California has lots of regulations. We also have one of the most successful economy's in the country AND lowest pollution per capita. Co2 per capita is less than 60% the national average.

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4 people like this
Posted by **West Menlo**
a resident of Menlo Park: Sharon Heights
on Sep 5, 2019 at 8:22 pm

@menlo Boomer

This is why. If it's an existential crisis (very debatable, by the way), then you HAVE to buy an electric car, you CAN'T eat any meat, you can't build any more wind turbines (the manufacture of the concrete pylons and plastics and mining of ores for metals are net positive carbon producing), you can't manufacture any more batteries for electric cars (check out WSJ article on what it takes to generate the 1000 pounds of rare earth metals for the batteries, from China which produces HUGE amounts of carbon in the manufacturing process). CAN'T fly anymore airplanes (not even Al Gore and his private jet—especially Al Gore and his private jet). No more trucks because they are all diesel. So, no food deliveries...

And you're telling me that the people in Menlo Park can't use gas for cooking and heat when the impact on Mother Gaia is absolutely NOT MEASURABLE. Yes, I agree that the decision to force people in MP off of gas is ridiculous, and verging on totalitarian.

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7 people like this
Posted by **Force?**
a resident of Menlo Park: Downtown
on Sep 5, 2019 at 8:51 pm

The zoning rules only apply to new construction. Not remodels. No one currently on gas is being forced off of it.

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4 people like this

Posted by **Alan**

a resident of Menlo Park: Belle Haven

on Sep 6, 2019 at 11:06 am

We put in a heat pump into our new in-law unit in the back yard (used as an office); the cost of power used is trivial. In a mild climate like ours, heat pumps that just have an exterior unit work very well. If we had bitter cold winters, that would be another matter, but in Menlo Park, it's ideal, competitive with gas.

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4 people like this

Posted by **Alan Brown**

a resident of Menlo Park: Belle Haven

on Sep 6, 2019 at 11:21 am

When I used to live in apartments and a condo, almost all have electric heat (some heat pump, others baseboard - not particularly efficient). The concern about outages ... well, if it's for a few hours, in our mild climate, it's bearable for most people; keep the doors closed. If it's for multiple days - such as after an earthquake - I'm not sure natural gas won't be cut off also.

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3 people like this

Posted by **Joan**

a resident of Menlo Park: Central Menlo Park

on Sep 6, 2019 at 12:55 pm

When I moved into this house, the water heater was electric and I couldn't believe the utility bill. I switched to a gas water heater and my bill dropped by half. Electric rates have increased dramatically since then and I would not want to go back.

I agree with West Menlo. This is far too much intrusion into our lives. It may be commercial buildings today but down the road it will likely apply to private homes as well.

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Comment: *

Verification code: [] *

Enter the verification code exactly as shown, using capital and lowercase letters, in the multi-colored box.

*Required Fields

[Submit]

<https://www.bayrencodes.org/reachcodes/>

<https://eecoordinator.info/reach-codes-fact-sheet-available/>

<https://peninsulareachcodes.org/>

<https://www.peninsulacleanenergy.com/reach-codes/>

Reach Codes

Peninsula Clean Energy (PCE), the San Mateo County Office of Sustainability (OOS), and Silicon Valley Clean Energy (SVCE) are supporting our municipalities to adopt building codes that will result in safer and more comfortable buildings, increase our electric vehicle charging infrastructure, and reduce our carbon footprint.

In support of municipalities and counties in PCE and SVCE service territory, PCE and SVCE are providing extensive technical assistance plus a \$10,000 incentive to each city that brings reach codes to their councils. For more information, please visit PeninsulaReachCodes.org.

Robert Gray

Subject: FW: Revising Chapter 9 Fire Prevention and Protection
Attachments: 8.36.010__Title. County of Napa fire hazard abatement ordinance (003).pdf; 325.2.1 __Clearances..doc - Los Angeles County.pdf; Codes Display Text State of Calif 51175 - 51189 (003).pdf; Los Angeles County Fire Clearance Diagram.pdf; Pages from Annex_9 _Town_of_Los_Gatos_2017 (003)-2.pdf; Pages from AgendaPacket-Council Meeting- November 5, 2019 7.00 PM.pdf

From: Phil Koen <pkoen@monteropartners.com>
Sent: Sunday, November 24, 2019 11:31 AM
To: Robert Gray <RGray@losgatosca.gov>
Cc: Robert Schultz <RSchultz@losgatosca.gov>; Laurel Prevetti <LPrevetti@losgatosca.gov>; Arn Andrews <aandrews@losgatosca.gov>
Subject: Revising Chapter 9 Fire Prevention and Protection

Dear Robert,

I understand that you have been designated as the Town employee receiving public comment regarding proposed changes to Chapter 9, Fire Prevention and Protection. I am writing to you to request that the Town review the proposed changes to Chapter 9 of the Town of Los Gatos Municipal Code as submitted to the Town Council at their November 5, 2019 meeting and make all necessary changes to require 100 foot defensible zone for all lots (whether improved or unimproved) within the very high fire hazard severity zone as determined by the Town of Los Gatos (LRA). I have attached the most recent map that the Town has published which shows the Town's very high fire hazard severity zone (LRA). As you can see over 60% of all property in Los Gatos is within the VHFHSZ.

I have also attached pages 150 – 152 of the November 5 agenda packet that outlined the proposed amendments to Chapter 49 of the 2019 California Fire Code. The proposed amendments, as highlighted by the red box, refer the reader to the State Government Code sections 51175-51189 for definitions of the required defensible zone for "buildings and structure" within the VHFHSZ. As a side comment, I would suggest that the Town code incorporate this language directly in the ordinance so the reader does not have to go to the State Government Code to determine local fire prevention requirements.

I have attached the State Government Code sections 51175-51189 which addresses VHFHSZ requirements. The Government Code states that local agencies have the authority to impose more restrictive fire and public safety requirements.

Here is where I believe the problem lies. The State Government Code section 51182 (1) mandates a 100 foot defensible zone on any person who owns an "occupied dwelling" within a VHFHSZ, **buy not beyond the property line**. There is an exception called out in paragraph 2, which states that a greater distance beyond the property line **may only be required if "local ordinance" includes a findings that the clearing is necessary to significantly reduce the risk of transmission of flame sufficient to ignite the structure.**

From my review of the Town's Municipal code it appears the Town does not have any such local ordinance. Therefore the defensible zone for an "occupied dwelling" in the Town of Los Gatos currently terminates at the property line. I believe this needs to be changed since fire does not know property lines **and an adjacent property should be held to a proper fire prevention standard for the good of all residents.**

I have also attached fire codes from the County of Napa and Los Angeles County which have adopted **100 foot defensible zones across property lines**. I would draw your attention to the County of Napa's ordinance which clearly details the responsibility of adjacent property owners to clear their property of combustible vegetation when an occupied building is less than 100 feet from the property line. **This is only common sense and a similar requirement needs to be included in the Town's Chapter 9 Fire and Protection Code.**

Lastly I have attached a diagram that was drawn by the Los Angeles County which shows the defensible zone crossing property lines.

I would greatly appreciate the Town implementing a 100 foot defensible zone for all property (whether improved or unimproved) within the Town's designated VHFHSZ (LRA). This requirement apparently does not exist today and needs to be adopted so the Town has the same 100 foot defensible zone standard the counties of Napa and Los Angeles have mandated.

Thank you.

Phil Koen

Chapter 8.36 - FIRE PROTECTION—WEED AND RUBBISH ABATEMENT

Sections:

8.36.010 - Title.

This chapter shall be known and may be referred to as the Napa County Fire Hazard Abatement Ordinance.

(Ord. 1303 § 1 (part), 2008; Ord. 1290 § 1 (part), 2007)

8.36.020 - Purpose of provisions—Public nuisance findings.

Pursuant to and in accordance with the determination made and the authority granted by the state under Section 14930 of the Health and Safety Code, the board of the county makes the following findings and declarations:

- A. The uncontrolled growth and/or accumulation of combustible vegetation or rubbish on parcels as defined in this chapter is hereby found to create a condition that is a fire hazard and potentially injurious to the health, safety, and general welfare of the public.
- B. The presence of such combustible vegetation or rubbish, is hereby declared to be a public nuisance which may be abated in accordance with the provisions of this chapter. Nothing in this chapter shall replace or conflict with the authority of the county agricultural commissioner to eradicate noxious weeds under applicable sections of the California Food and Agricultural Code.

(Ord. 1303 § 1 (part), 2008; Ord. 1290 § 1 (part), 2007)

8.36.030 - Definitions.

"Combustible vegetation" means material that in its natural state will readily ignite, burn and transmit fire from native or landscape plants to any structure or other vegetation. Combustible vegetation includes, but is not limited to, dry grass, brush, weeds, green waste, dead or dying trees, litter or other flammable vegetation that create a fire hazard.

"Defensible space" means that area described in the Napa County Defensible Space Guidelines which is adjacent to each side of a building or structure and must be cleared of all brush, flammable vegetation, or combustible growth, subject however to the exceptions set forth in the Napa County Defensible Space Guidelines.

"Enforcement officer" means the fire marshal, assistant fire marshal or fire inspector of the county. In the case of enforcement by a fire district, "enforcement officer" means the fire chief of the fire district.

"Fire hazard" shall mean any condition, arrangement, act or omission which:

1. Increases, or may cause an increase of hazard or menace of fire to a greater degree than that customarily recognized as normal by persons in the public service regularly engaged in preventing, suppressing or extinguishing fire; or
2. May obstruct, delay, hinder or interfere with the operations of a fire department or the egress of occupants in the event of fire.

"Green waste" means and includes, but is not limited to, organic material such as yard trimmings, plant waste, untreated wood wastes, paper products, natural fiber products, mulch and compost, but does not include growing plants.

"Occupied building" means a structure or building either potentially or actually occupied by persons on either a permanent or temporary basis including but not limited to residences or businesses.

"Parcel" means any contiguous quantity of land in the possession of, owned by, or recorded as the property of, the same person or entity, and which is located in the unincorporated area of the county of Napa.

"Prohibited materials" means combustible vegetation, green waste, rubbish or weeds.

"Rubbish" means and includes all the following types of waste, but is not restricted to nonputrescible wastes: paper, cardboard, grass clippings, tree or shrub trimmings, wood, bedding, crockery, rubber tires, construction waste and similar waste materials.

"Structure" means any building or structure used for support or any use or occupancy.

"Weeds," as used in this chapter, means and includes any of the following:

1. Weeds which bear seeds of a downy or wingy nature;
2. Sagebrush, chaparral, and any other brush or weeds which attain such hard growth as to become, when dry, a fire hazard;
3. Weeds and grasses which are otherwise noxious;
4. Poison oak and poison ivy when the conditions of growth are such as to constitute a menace to the public health;
5. Dry grass, stubble, brush, litter, or other flammable plant material which endangers the public safety by creating a fire hazard.

(Ord. 1303 § 1 (part), 2008: Ord. 1290 § 1 (part), 2007)

8.36.040 - Applicability of article.

This chapter shall be applicable to all unincorporated areas of the county. It shall also apply within those unincorporated areas in independent fire districts having governing bodies other than the board provided the governing body takes action to enforce this chapter by adopting an appropriate resolution authorizing the fire chief of the district to enforce the requirements of this chapter. If any part of this chapter is in conflict with any other part of this code the more restrictive provision(s) shall control.

(Ord. 1290 § 1 (part), 2007)

8.36.050 - Enforcement.

The enforcement officer shall have the duty and power to enforce the provisions of this chapter.

(Ord. 1290 § 1 (part), 2007)

8.36.060 - Public nuisances.

The following are declared to be public nuisances within the unincorporated areas of the county and it shall be the responsibility of the owner of the property, upon which such nuisance exists, to abate such nuisances at his or her own expense whenever they may exist during each fire season declared by the California Department of Forestry and Fire Protection:

- A. The accumulation of combustible vegetation or rubbish within one hundred feet, or to the property line, whichever is less of any unoccupied structure;
- B. The accumulation of combustible vegetation or rubbish within one hundred feet of any occupied building;
- C. The accumulation of combustible vegetation or rubbish on undeveloped parcels one acre or less in size;
- D. The accumulation of combustible vegetation or rubbish that contribute to the fuel load or hinder the clearing of properties or delay fire fighting operations on any parcel when such accumulations create a fire hazard as determined by the enforcement officer;
- E. A portion of any tree that extends within ten feet of the outlet of any chimney or stovepipe;
- F. The accumulation of dead or dying wood in any tree adjacent to or overhanging a structure;
- G. The accumulation of combustible vegetation or leaves on a structures roof or in the gutters;
- H. The absence of a screen, constructed of nonflammable material with openings of not more than one-half inch in size, on any outlet of a chimney or stovepipe.

(Ord. 1303 § 2 (part), 2008: Ord. 1290 § 1 (part), 2007)

8.36.070 - Duty to remove—Date of removal of nuisances.

Removal of public nuisances described in Section 8.36.060 of this code shall be accomplished by June 1st of every year and such obligation continues until the end of the fire season as declared by the California Department of Forestry and Fire Protection. The Napa County Defensible Space Guidelines have been adopted to establish guidelines for fuel treatments that comply with the requirements of Section 8.36.060.

(Ord. 1303 § 2 (part), 2008; Ord. 1290 § 1 (part), 2007)

8.36.080 - Adjacent property owner's responsibilities.

When an occupied building is less than one hundred feet from a property line and combustible vegetation on an adjacent parcel presents a fire hazard for the occupied building the owner of the parcel where the fire hazard exists shall be responsible for clearing the area on that owner's land which is within one hundred feet of the occupied structure and is needed to provide the necessary fire protection in the manner and to the extent required by the Napa County Defensible Space Guidelines.

(Ord. 1303 § 2 (part), 2008; Ord. 1290 § 1 (part), 2007)

8.36.090 - Order to abate.

The enforcement officer may issue an order of abatement of a nuisance to the owner of the affected property in the manner set forth in Section 8.36.110 of this chapter. The property owner shall have twenty-one calendar days from the date of the order of abatement to abate the nuisance.

(Ord. 1290 § 1 (part), 2007)

8.36.100 - Abatement by county personnel or private contractors.

If the property owner fails to comply with the order of abatement, then the enforcement officer may cause the weeds, combustible vegetation, green waste, rubbish, and other such accumulations to be removed by county personnel. Alternatively, the county may elect to contract with private contractors to remove the weeds, combustible vegetation, green waste, rubbish, and other such accumulations.

(Ord. 1290 § 1 (part), 2007)

8.36.110 - Notices to abate—Service of notice.

- A. Following a determination that a public nuisance of the type described in Section 8.36.060 exists, notice to abate the fire hazard shall be provided by the enforcement officer or designee in the following manner:
1. By personal delivery to the owner of the affected property; or
 2. By certified or registered mail, postage prepaid, to the owner of the affected property as the owner's address appears upon the current county equalized assessment; or
 3. By conspicuously posting upon the affected property.
- B. The failure of the owner or any other person to receive any notice required by this chapter to be given shall not affect the validity of any proceedings taken pursuant thereto.
- C. The notice shall be titled with the words "Notice to Abate Fire Hazard." The notice shall be in substantially the following form:

[MONTH DAY YEAR]

You are hereby notified that there is a condition that constitutes a fire hazard on the following described property owned by you:

(Describe property by owner's address (if available) AND APN Number as it appears upon the current county equalized assessment roll)

The nature of the fire hazard is as follows:

(Describe nature of fire hazard)

You are hereby notified that the Board of Supervisors has declared that such fire hazard constitutes a public nuisance and you are required to remove said fire hazard within twenty-one (21) calendar days of the date of this notice. If you fail to do so, the fire hazard will be removed by the County of Napa and the cost of removal shall be assessed against your property and will constitute a lien upon said real property until paid. This charge representing the cost of removal will be in addition to the administrative charge imposed by section 8.36.160 of the Napa County Code.

- D. An appeal of the decision of the enforcement officer to abate the property may be filed in accordance with the procedures set forth in Section 8.36.130 of the Napa County Code.
- E. A request for extension of time may be made in accordance with the procedures set forth in Section 8.36.120 of the Napa County Code.

(Ord. 1303 § 3, 2008; Ord. 1290 § 1 (part), 2007)

8.36.120 - Requests for extension of time.

The owner of the parcel affected by the notice may request an extension of time for the removal of prohibited materials. Said request shall be submitted to the enforcement officer within ten calendar days of the date the notice was sent. The enforcement officer shall notify the property owner, in writing, within ten calendar days of the date of request for extension whether or not the extension shall be granted and, if granted, the new date by which the abatement shall take place.

(Ord. 1290 § 1 (part), 2007)

8.36.130 - Appeal of decision of enforcement officer.

The owner of the parcel who wishes to contest the decision of the enforcement officer to abate may file a written appeal to the fire chief. Any such appeal shall be filed with the clerk of the board within ten days of the date the notice was sent. The written appeal shall include a statement of all facts supporting the appeal. The fire chief or its designee shall respond within ten calendar days of the filing of the appeal and the decision of the fire chief or its designee shall be in writing. An appeal to the fire chief is not deemed filed until it is delivered to the clerk of the board. The filing of such notice of appeal shall stay the effectiveness of the order of abatement until the appeal has been decided.

(Ord. 1303 § 4, 2008; Ord. 1290 § 1 (part), 2007)

8.36.140 - Appeals of abatement determination.

The owner of the parcel who wishes to contest the decision of the fire chief may file an appeal with the county safety officer. Any such appeal shall be filed with the clerk of the board within ten calendar days of the decision of the fire chief pursuant to Section 8.36.130 of this chapter. The county safety officer shall schedule a hearing date that is not more than ten calendar days following the filing of the appeal with the clerk of the board. The county safety officer shall render a decision at the conclusion of the hearing or within seven calendar days of the conclusion of the hearing. The decision of the county safety officer shall be in writing and shall be final with no right of further appeal notwithstanding any other provision of this code. An appeal to the county safety officer is not deemed filed until it is delivered to the clerk of the board. The filing of such notice of appeal shall stay the effectiveness of the order of abatement until the appeal has been decided.

(Ord. 1290 § 1 (part), 2007)

8.36.150 - Abatement by county.

Unless a timely appeal is made, heard and allowed by the fire chief and safety officer, as the case may be, the county may have the public nuisance removed pursuant to Section 8.36.100 of this chapter.

(Ord. 1290 § 1 (part), 2007)

8.36.160 - Cost of abatement.

Any expense including administrative expenses which the county incurs as a result of having weeds, combustible vegetation, green waste, rubbish, or other similar accumulations removed, shall be charged to the parcel owner. The enforcement officer shall keep an itemized account of the cost of enforcing the provisions of this chapter. Upon completion of abatement, the enforcement officer shall prepare and serve upon the owner of the parcel as shown on the last equalized assessment roll, anyone known by the board to be in possession of the parcel, and all lien holders of record, a cost bill specifying:

- A. The work done, whether by county personnel or private contractors;
- B. The costs of administering the abatement including but not limited to the costs relating to the protest and appeals hearings;
- C. An itemized account of the costs and receipts of performing the work;
- D. The street address, assessor parcel number, or other description sufficient to identify the property affected;
- E. The amount of the assessment proposed to be levied against the property;
- F. A statement that if an appeal is filed the county hearing officer will hear and consider objections and protests to the account and proposed assessment.

(Ord. 1290 § 1 (part), 2007)

8.36.170 - Cost of abatement—Work by owner prior to county removal of nuisance.

Any person may have the public nuisance removed at his or her own expense if it is done prior to the arrival of the person or persons the county has designated to remove the nuisance. However, in any case

in which an order to abate has been issued, the owner of the parcel shall be liable for the reasonable cost incurred by the county enforcing the abatement of the parcel(s) involved, including investigation, boundary determination, measurement, clerical and other costs. The provisions of Section 8.36.180 of this chapter apply to any such costs.

(Ord. 1290 § 1 (part), 2007)

8.36.180 - Appeal from determination of cost.

The owner of the property may appeal the cost bill (total abatement expenses). Such appeal shall be in writing and must be filed with the clerk of the board within thirty calendar days of the date of the mailing of the notice required by Section 8.36.160. An appeal hearing shall be set within fifteen calendar days of the filing of the appeal. Pursuant to subsection (i) of Government Code Section 25845, the county hearing officer is delegated the power and duty to hear these appeals. At the conclusion of the hearing, the county hearing officer may make such modifications and revisions of the proposed account and assessment as it deems just, and may order the account and proposed assessment confirmed or denied, in whole or in part, or as modified and revised. The county hearing officer shall render a written decision, including any findings or conclusions required and file the decision and record with the clerk of the board. The determination of the county hearing officer as to all matters contained in the order is final. An appeal to the county hearing officer is not deemed filed until it is delivered to the clerk of the board. The filing of such notice of appeal shall stay the effectiveness of the order of abatement until the appeal has been decided.

(Ord. 1290 § 1 (part), 2007)

8.36.190 - Placement of lien on property in event of non-payment.

If the owner does not pay the cost of the abatement expenses ("cost bill") within forty-five days after being billed or within fifteen days after an order of the county hearing officer affirming or amending the cost bill, then a copy of the cost bill shall be sent to the county auditor by the tenth day of August following the expiration of the period within which the cost bill must be paid. The auditor shall thereupon enter the amount of the cost bill, or such amount of the cost bill that has not been paid, as an assessment against the affected parcels of land as they appear on the current assessment roll. The county tax collector shall include the amount of the assessment on the bills for taxes levied against the respective parcels of land. Thereafter, the amount of the assessment shall be collected at the same time and in the same way as county taxes are collected. The owner is subject to the same penalties, procedure, and sale as in the case of delinquency for non-payment of ordinary county taxes. All laws applicable to the levy, collection and enforcement of county ad valorem taxes are applicable to these assessments, except that if any real property to which such lien would attach has been transferred or conveyed to a bona fide purchaser for value, or if a lien of a bona fide encumbrancer for value has been created and attached thereon, prior to the date on which the first installment of such taxes would become delinquent, then the lien which would otherwise be imposed by this section shall not attach to such real property and the cost bill relating to such property shall be transferred to the unsecured roll for collection.

(Ord. 1290 § 1 (part), 2007)

8.36.200 - Enforcement—Extent of duty to enforce.

Nothing in this chapter shall be construed as imposing on the enforcement officer or the county any duty to issue an order to abate a fire hazard and neither the enforcement officer nor the county shall be held liable for failure to issue an order to abate a fire hazard nor for failure to abate any fire hazard.

(Ord. 1290 § 1 (part), 2007)

Division IV. Agricultural Nuisances

Code: Section: [Up^](#)[Add To My Favorites](#)**GOVERNMENT CODE - GOV****TITLE 5. LOCAL AGENCIES [50001 - 57550]** (Title 5 added by Stats. 1949, Ch. 81.)**DIVISION 1. CITIES AND COUNTIES [50001 - 52203]** (Division 1 added by Stats. 1949, Ch. 81.)**PART 1. POWERS AND DUTIES COMMON TO CITIES AND COUNTIES [50001 - 51298.5]** (Part 1 added by Stats. 1949, Ch. 81.)**CHAPTER 6.8. Very High Fire Hazard Severity Zones [51175 - 51189]** (Chapter 6.8 added by Stats. 1992, Ch. 1188, Sec. 1.)**51175.** The Legislature hereby finds and declares as follows:

(a) Wildfires are extremely costly, not only to property owners and residents, but also to local agencies. Wildfires pose a serious threat to the preservation of the public peace, health, or safety. The wildfire front is not the only source of risk since embers, or firebrands, travel far beyond the area impacted by the front and pose a risk of ignition to a structure or fuel on a site for a longer time. Since fires ignore civil boundaries, it is necessary that cities, counties, special districts, state agencies, and federal agencies work together to bring raging fires under control. Preventive measures are therefore needed to ensure the preservation of the public peace, health, or safety.

(b) The prevention of wildland fires is not a municipal affair, as that term is used in Section 5 of Article XI of the California Constitution, but is instead, a matter of statewide concern. It is the intent of the Legislature that this chapter apply to all local agencies, including, but not limited to, charter cities, charter counties, and charter cities and counties. This subdivision shall not limit the authority of a local agency to impose more restrictive fire and public safety requirements, as otherwise authorized by law.

(c) It is not the intent of the Legislature in enacting this chapter to limit or restrict the authority of a local agency to impose more restrictive fire and public safety requirements, as otherwise authorized by law.

(Amended by Stats. 2008, Ch. 366, Sec. 1. Effective January 1, 2009.)

51176. The purpose of this chapter is to classify lands in the state in accordance with whether a very high fire hazard is present so that public officials are able to identify measures that will retard the rate of spread, and reduce the potential intensity, of uncontrolled fires that threaten to destroy resources, life, or property, and to require that those measures be taken.

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51177. As used in this chapter:

(a) "Defensible space" means the area adjacent to a structure or dwelling where wildfire prevention or protection practices are implemented to provide defense from an approaching wildfire or to minimize the spread of a structure fire to wildlands or surrounding areas.

(b) "Director" means the Director of Forestry and Fire Protection.

(c) "Fuel" means any combustible material, including petroleum-based products and wildland fuels.

(d) "Fuel management" means the act or practice of controlling flammability and reducing resistance to control of fuels through mechanical, chemical, biological, or manual means or by fire, in support of land management objectives.

(e) "Local agency" means a city, county, city and county, or district responsible for fire protection within a very high fire hazard severity zone.

(f) "Single specimen tree" means any live tree that stands alone in the landscape so as to be clear of buildings, structures, combustible vegetation, or other trees, and that does not form a means of rapidly transmitting fire from the vegetation to an occupied dwelling or structure or from an occupied dwelling or structure to vegetation.

(g) "State responsibility areas" means those areas identified pursuant to Section 4102 of the Public Resources

Code.

(h) "Vegetation" means all plants, including trees, shrubs, grass, and perennial or annual plants.

(i) "Very high fire hazard severity zone" means an area designated by the director pursuant to Section 51178 that is not a state responsibility area.

(j) "Wildfire" means an unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to extinguish the fire.

(Amended by Stats. 2009, Ch. 208, Sec. 1. (SB 833) Effective January 1, 2010.)

51178. The director shall identify areas in the state as very high fire hazard severity zones based on consistent statewide criteria and based on the severity of fire hazard that is expected to prevail in those areas. Very high fire hazard severity zones shall be based on fuel loading, slope, fire weather, and other relevant factors including areas where Santa Ana, Mono, and Diablo winds have been identified by the Department of Forestry and Fire Protection as a major cause of wildfire spread.

(Amended by Stats. 2008, Ch. 366, Sec. 3. Effective January 1, 2009.)

51178.5. Within 30 days after receiving a transmittal from the director that identifies very high fire hazard severity zones, a local agency shall make the information available for public review. The information shall be presented in a format that is understandable and accessible to the general public, including, but not limited to, maps.

(Added by Stats. 1994, Ch. 843, Sec. 1. Effective September 27, 1994.)

51179. (a) A local agency shall designate, by ordinance, very high fire hazard severity zones in its jurisdiction within 120 days of receiving recommendations from the director pursuant to subdivisions (b) and (c) of Section 51178.

(b) A local agency may, at its discretion, include areas within the jurisdiction of the local agency, not identified as very high fire hazard severity zones by the director, as very high fire hazard severity zones following a finding supported by substantial evidence in the record that the requirements of Section 51182 are necessary for effective fire protection within the area.

(c) The local agency shall transmit a copy of an ordinance adopted pursuant to subdivision (a) to the State Board of Forestry and Fire Protection within 30 days of adoption.

(d) Changes made by a local agency to the recommendations made by the director shall be final and shall not be rebuttable by the director.

(e) The State Fire Marshal shall prepare and adopt a model ordinance that provides for the establishment of very high fire hazard severity zones.

(f) Any ordinance adopted by a local agency pursuant to this section that substantially conforms to the model ordinance of the State Fire Marshal shall be presumed to be in compliance with the requirements of this section.

(g) A local agency shall post a notice at the office of the county recorder, county assessor, and county planning agency identifying the location of the map provided by the director pursuant to Section 51178. If the agency amends the map, pursuant to subdivision (b) or (c) of this section, the notice shall instead identify the location of the amended map.

(Amended by Stats. 2018, Ch. 641, Sec. 2. (AB 2911) Effective January 1, 2019.)

51180. For the purposes of Division 3.6 (commencing with Section 810) of Title 1, vegetation removal or management, undertaken in whole or in part, for fire prevention or suppression purposes shall not be deemed to alter the natural condition of public property. This section shall apply only to natural conditions of public property and shall not limit any liability or immunity that may otherwise exist pursuant to this chapter.

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51181. The director shall periodically review the areas in the state identified as very high fire hazard severity zones pursuant to this chapter, and as necessary, shall make recommendations relative to very high fire hazard severity zones. This review shall coincide with the review of state responsibility area lands every five years and, when possible, fall within the time frames for each county's general plan update. Any revision of areas included in a very high fire hazard severity zone shall be made in accordance with Sections 51178 and 51179.

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51182. (a) A person who owns, leases, controls, operates, or maintains an occupied dwelling or occupied structure in, upon, or adjoining a mountainous area, forest-covered land, brush-covered land, grass-covered

land, or land that is covered with flammable material, which area or land is within a very high fire hazard severity zone designated by the local agency pursuant to Section 51179, shall at all times do all of the following:

(1) Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in paragraph (2). The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion.

(2) A greater distance than that required under paragraph (1) may be required by state law, local ordinance, rule, or regulation. Clearance beyond the property line may only be required if the state law, local ordinance, rule, or regulation includes findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure. Clearance on adjacent property shall only be conducted following written consent by the adjacent landowner.

(3) An insurance company that insures an occupied dwelling or occupied structure may require a greater distance than that required under paragraph (1) if a fire expert, designated by the fire chief or fire official from the authority having jurisdiction, provides findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure. The greater distance may not be beyond the property line unless allowed by state law, local ordinance, rule, or regulation.

(4) Remove that portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe.

(5) Maintain a tree, shrub, or other plant adjacent to or overhanging a building free of dead or dying wood.

(6) Maintain the roof of a structure free of leaves, needles, or other vegetative materials.

(7) Prior to constructing a new dwelling or structure that will be occupied or rebuilding an occupied dwelling or occupied structure damaged by a fire in that zone, the construction or rebuilding of which requires a building permit, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable state and local building standards, including those described in subdivision (b) of Section 51189, and shall provide a copy of the certification, upon request, to the insurer providing course of construction insurance coverage for the building or structure. Upon completion of the construction or rebuilding, the owner shall obtain from the local building official, a copy of the final inspection report that demonstrates that the dwelling or structure was constructed in compliance with all applicable state and local building standards, including those described in subdivision (b) of Section 51189, and shall provide a copy of the report, upon request, to the property insurance carrier that insures the dwelling or structure.

(b) A person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels, nor is a person required to enter upon or to alter property that is owned by any other person without the consent of the owner of the property.

(c) The Department of Forestry and Fire Protection shall develop, periodically update, and post on its Internet Web site a guidance document on fuels management pursuant to this chapter. Guidance shall include, but not be limited to, regionally appropriate vegetation management suggestions that preserve and restore native species, minimize erosion, minimize water consumption, and permit trees near homes for shade, aesthetics, and habitat; and suggestions to minimize or eliminate the risk of flammability of nonvegetative sources of combustion such as woodpiles, propane tanks, decks, and outdoor lawn furniture.

(Amended by Stats. 2009, Ch. 208, Sec. 2. (SB 833) Effective January 1, 2010.)

51183. (a) The local agency may exempt from the standards set forth in Section 51182 structures with exteriors constructed entirely of nonflammable materials, or conditioned upon the contents and composition of the structure, and may vary the requirements respecting the management of fuels surrounding the structures in those cases. This subdivision does not authorize a local agency to vary a requirement that is a building standard subject to Section 18930 of the Health and Safety Code, except as otherwise authorized by law.

(b) An exemption or variance under subdivision (a) shall not apply unless and until the occupant of the structure, or if there is no occupant, then the owner of the structure, files with the local agency a written consent to the inspection of the interior and contents of the structure to ascertain whether Section 51182 is complied with at all times.

(Amended by Stats. 2008, Ch. 366, Sec. 5. Effective January 1, 2009.)

51183.5. (a) A transferor of real property that is located within a very high fire hazard severity zone, designated pursuant to this chapter, shall disclose to any prospective transferee the fact that the property is located within a very high fire hazard severity zone, and is subject to the requirements of Section 51182.

(b) Disclosure is required pursuant to this section only when one of the following conditions is met:

(1) The transferor, or the transferor's agent, has actual knowledge that the property is within a very high fire hazard severity zone.

(2) A map that includes the property has been provided to the local agency pursuant to Section 51178, and a notice is posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the map and any information regarding changes to the map received by the local agency.

(c) In all transactions that are subject to Section 1103 of the Civil Code, the disclosure required by subdivision (a) of this section shall be provided by either of the following means:

(1) The Local Option Real Estate Disclosure Statement as provided in Section 1102.6a of the Civil Code.

(2) The Natural Hazard Disclosure Statement as provided in Section 1103.2 of the Civil Code.

(d) If the map or accompanying information is not of sufficient accuracy or scale that a reasonable person can determine if the subject real property is included in a very high fire hazard zone, the transferor shall mark "Yes" on the Natural Hazard Disclosure Statement. The transferor may mark "No" on the Natural Hazard Disclosure Statement if he or she attaches a report prepared pursuant to subdivision (c) of Section 1103.4 of the Civil Code that verifies the property is not in the hazard zone. Nothing in this subdivision is intended to limit or abridge any existing duty of the transferor or the transferor's agents to exercise reasonable care in making a determination under this subdivision.

(e) Section 1103.13 of the Civil Code shall apply to this section.

(f) The specification of items for disclosure in this section does not limit or abridge any obligation for disclosure created by any other provision of law or that may exist in order to avoid fraud, misrepresentation, or deceit in the transfer transaction.

(Amended by Stats. 1999, Ch. 876, Sec. 7. Effective January 1, 2000.)

51184. (a) Section 51182 shall not apply to any land or water area acquired or managed for one or more of the following purposes or uses:

(1) Habitat for endangered or threatened species, or any species that is a candidate for listing as an endangered or threatened species by the state or federal government.

(2) Lands kept in a predominantly natural state as habitat for wildlife, plant, or animal communities.

(3) Open space lands that are environmentally sensitive parklands.

(4) Other lands having scenic values, as declared by the local agency, or by state or federal law.

(b) This exemption applies whether the land or water area is held in fee title or any lesser interest. This exemption applies to any public agency, any private entity that has dedicated the land or water areas to one or more of those purposes or uses, or any combination of public agencies and private entities making that dedication.

(c) This section shall not be construed to prohibit the use of properly authorized prescribed burning to improve the biological function of land or to assist in the restoration of desired vegetation.

(d) In the event that any lands adjacent to any land or water area described in subdivision (a) are improved such that they are subject to Section 51182, the obligation to comply with Section 51182 shall be with the person owning, leasing, controlling, operating, or maintaining the occupied dwelling or occupied structure on the improved lands. All maintenance activities and other fire prevention measures required by Section 51182 shall be required only for the improved lands, not the land and water areas described in subdivision (a).

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51185. (a) A violation of Section 51182 is an infraction punishable by a fine of not less than one hundred dollars (\$100) nor more than five hundred dollars (\$500).

(b) If a person is convicted of a second violation of Section 51182 within five years, that person shall be punished by a fine of not less than two hundred fifty dollars (\$250) nor more than five hundred dollars (\$500).

(c) If a person is convicted of a third violation of Section 51182 within five years, that person is guilty of a misdemeanor and shall be punished by a fine of not less than five hundred dollars (\$500).

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51186. The local agency having jurisdiction of property upon which conditions regulated by Section 51182 are being violated shall notify the owner of the property to correct the conditions. If the owner fails to correct the

conditions, the local agency may cause the corrections to be made, and the expenses incurred shall become a lien on the property that is the subject of the corrections when recorded in the county recorder's office in the county in which the real property is located. The priority of the lien shall be as of the date of recording. The lien shall contain the legal description of the real property, the assessor's parcel number, and the name of the owner of record as shown on the latest equalized assessment roll.

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51187. Any violation of Section 51182 may be considered a public nuisance pursuant to Section 38773.

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51188. In the instance of conflict between this chapter and any provision of state law that allows a regional planning agency to regulate very high fire hazard severity zones, this chapter shall prevail.

(Added by Stats. 1992, Ch. 1188, Sec. 1. Effective January 1, 1993.)

51189. (a) The Legislature finds and declares that site and structure defensibility is essential to reduce the risk of structure ignition as well as for effective fire suppression by firefighters. This need to establish defensibility extends beyond the site fuel management practices required by this chapter, and includes, but is not limited to, measures that increase the likelihood of a structure to withstand ignition, such as building design and construction requirements that use fire resistant building materials, and provide standards for reducing fire risks on structure projections, including, but not limited to, porches, decks, balconies and eaves, and structure openings, including, but not limited to, attic, foundation, and eave vents, doors, and windows.

(b) No later than January 31, 2020, the State Fire Marshal, in consultation with the Director of Forestry and Fire Protection and the Director of Housing and Community Development, shall, pursuant to Section 18930 of the Health and Safety Code, recommend updated building standards that provide for comprehensive site and structure fire risk reduction to protect structures from fires spreading from adjacent structures or vegetation and to protect vegetation from fires spreading from adjacent structures, based on information learned from the 2017 wildfire season.

(c) (1) No later than January 31, 2020, the State Fire Marshal, in consultation with the Director of Forestry and Fire Protection and the Director of Housing and Community Development, shall develop a list of low-cost retrofits that provide for comprehensive site and structure fire risk reduction to protect structures from fires spreading from adjacent structures or vegetation and to protect vegetation from fires spreading from adjacent structures. The department shall incorporate the list in its fire prevention education and outreach efforts.

(2) In addition to the requirements of paragraph (1), the list shall include a guidance document, including regionally appropriate vegetation management suggestions that preserve and restore native plant species that are fire resistant or drought tolerant, or both.

(Amended by Stats. 2018, Ch. 641, Sec. 3. (AB 2911) Effective January 1, 2019.)

*Santa Clara County Community Wildfire Protection Plan
Annex 9 – Town of Los Gatos*

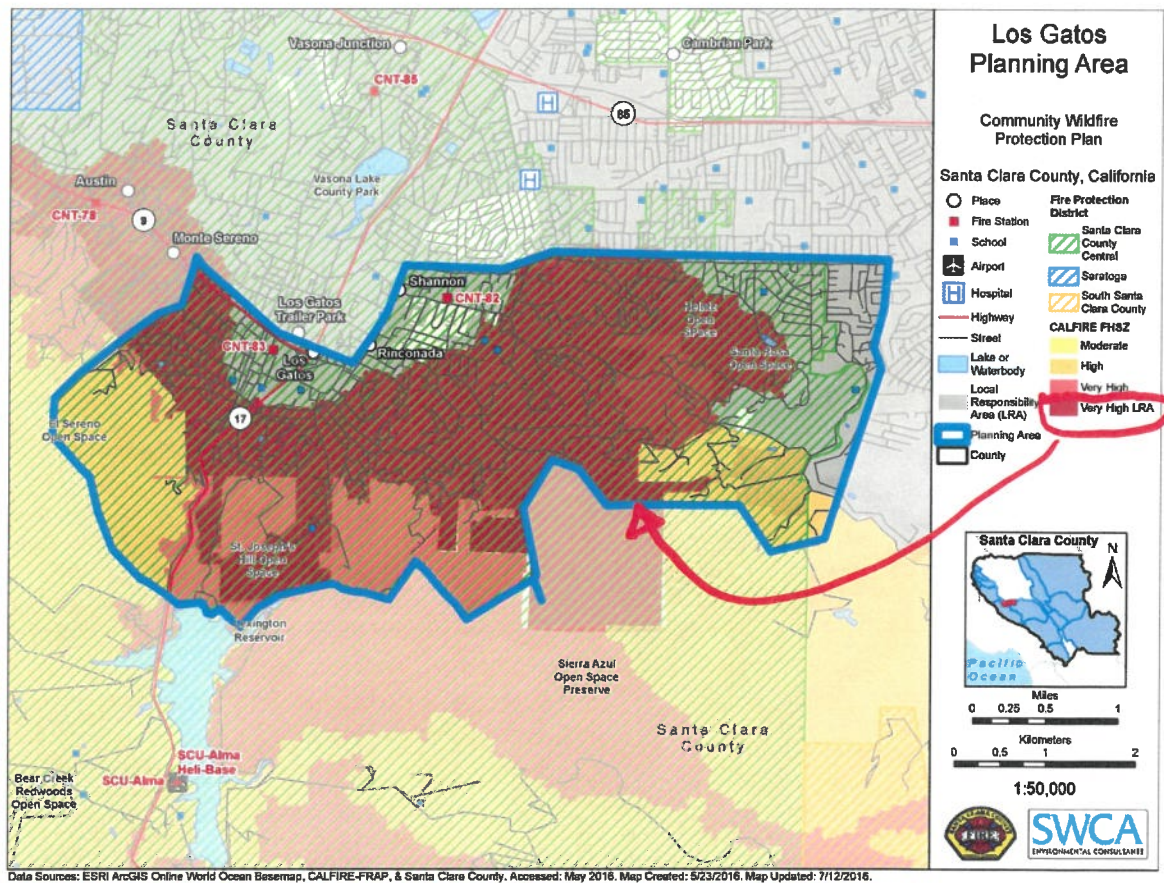


Figure 9.1. Los Gatos planning area.

325.2 - Structures.

325.2.1 - Clearances.

Any person owning, leasing, controlling, operating, or maintaining any building, structure, or apiary upon or adjoining any mountainous, or forest or brush-covered land or land covered with flammable growth, and any person owning, leasing, or controlling any land adjacent to such structures, shall at all times:

1. Place or store firewood, manure, compost, and other combustible materials a minimum of 30 feet (9.14 m) from any building, structure, or apiary.
2. Maintain around and adjacent to such building, structure, or apiary an effective fire protection or firebreak made by removing and clearing away, for a distance of not less than 30 feet (9.14 m) on each side thereof, all flammable vegetation or other combustible growth. This includes ornamental plants and trees known to be flammable, including but not limited to acacia, cedar, cypress, eucalyptus, juniper, pine, and pampas grass.

Exceptions:

1. Ornamental plants and trees that are individually planted, spaced, and maintained in such a manner that they do not form a means of transmitting fire from native growth to the structure.
2. Cultivated ground cover such as green grass, ivy, succulents, or similar plants provided that they are maintained in a condition that does not form a means of transmitting fire from native growth to the structure.
3. When the fire code official or commissioner finds that because of extra hazardous conditions, a firebreak of only 30 feet (9.14 m) around such building, structure, or apiary is not sufficient to provide reasonable fire safety, the person owning, leasing, controlling, operating, or maintaining the building, structure, or apiary shall maintain around or adjacent to any building, structure, or apiary an additional fire protection or firebreak made by removing all brush, flammable vegetation, or combustible growth located from 30 to 100 feet (9.14 to 30.48 m) from such building, structure, or apiary, as may be required by the fire code official or commissioner. Grass and other vegetation located more than 30 feet (9.14 m) from such building, structure, or apiary and less than 18 inches (45.72 cm) in height above the ground, may be maintained where necessary to stabilize the soil and prevent erosion.
4. That portion of any tree which extends within 10 feet (3.05 m) of the outlet of any chimney shall be removed.
5. Maintain any tree adjacent to or overhanging any building, structure, or apiary free of dead wood.
6. Maintain the roof of any building, structure or apiary free of leaves, needles, or other dead vegetative growth.
7. Nothing contained in this section shall be construed to require any person to maintain any clearing on land where such person does not have the legal right to maintain such clearing, nor shall any provision of this ordinance be construed to require any person to enter upon or to damage property of another without the consent of the owner thereof.

(Ord. 2017-0003 § 81, 2017.)

325.2.2 - Extra Hazard.

The governing body finds that in many cases because of extra hazardous situations, a firebreak around buildings, structures, or apiaries of only 30 feet (9.14 m) is not sufficient and that a firebreak of 50 feet (15.24 m) or more may be necessary. If the fire code official or commissioner finds that because of the location of any building, structure, or apiary and because of other conditions, a 30-foot (9.14-m) firebreak around such building, structure, or apiary as required by Section 325.2.1 is not sufficient, the fire code official or commissioner may notify all owners of the properties affected that they must clear all flammable vegetation and other combustible growth or reduce the amount of fuel content for a distance greater than 30 feet (9.14 m), but not to exceed 200 feet (60.96 m).

(Ord. 2017-0003 § 81, 2017.)

325.5 - Right of Entry Upon Private Property.

The fire code official or commissioner or their assistants, deputies, employees, or contracting agents, or other representatives may enter upon private property for the purpose of inspecting and/or removing vegetation pursuant to Sections 104.3 and 104.3.1 of this code.

(Ord. 2017-0003 § 81, 2017.)

325.10 - Roadway Clearance.

The fire code official or commissioner may require removal and clearance of all flammable vegetation or other combustible growth for a minimum of 10 feet (3.05 m) on each side of every roadway, whether public or private. The fire code official or commissioner may enter upon

private property to inspect, remove, and clear vegetation and growth as required by this section and may charge the responsible party for the cost of such action. This section shall not apply to single specimens of trees, ornamental shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground cover, provided that they do not form a means of readily transmitting fire. As used in this section, "roadway" means that portion of a highway or private street improved, designed, or ordinarily used for vehicular travel. The minimum clearance of 10 feet (3.05 m) may be increased if the fire code official determines additional distance is required to provide reasonable fire safety.

(Ord. 2017-0003 § 81, 2017.)

326.14 - Roadway Clearance.

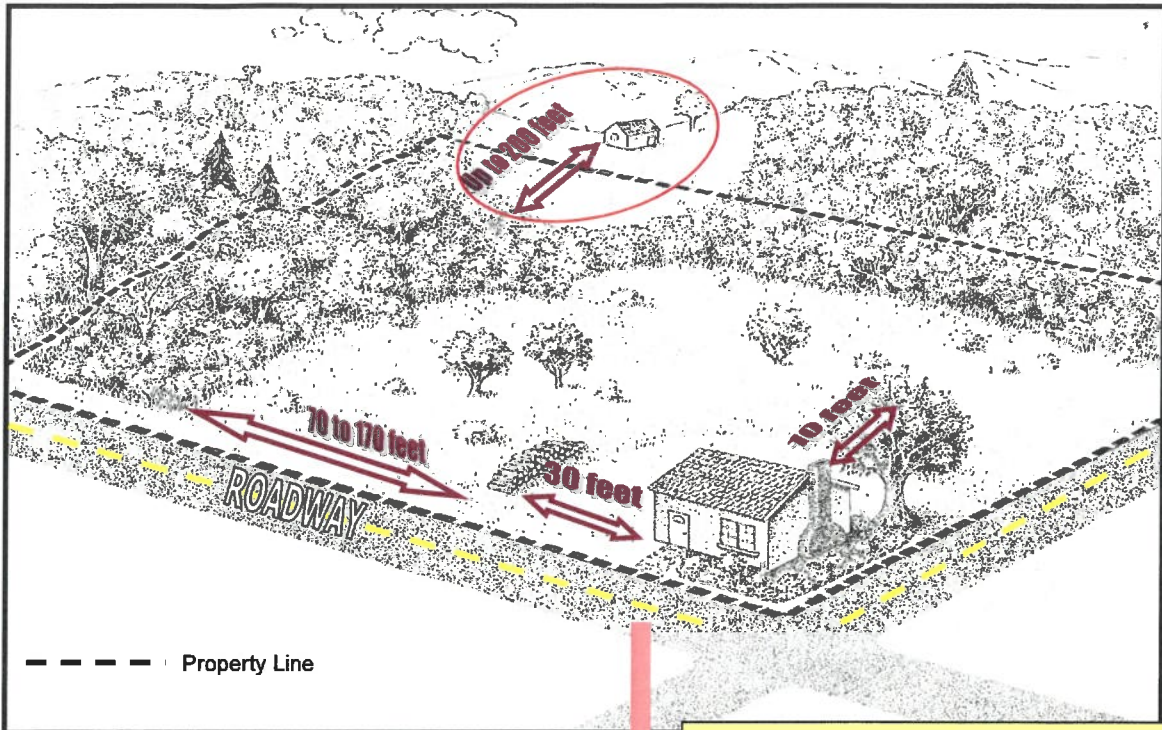
1. Clearance of brush or vegetative growth from roadways shall be in accordance with Section 325.10 of this code.
2. If the fire code official determines in any specific case that difficult terrain, danger of erosion, or other unusual circumstances make strict compliance with the provisions of this code undesirable or impractical, the fire code official may suspend enforcement thereof and require reasonable alternative measures.

(Ord. 2017-0003 § 82, 2017.)

326.15 - Illegal Dumping.

No person shall place, deposit, or dump any garbage, cans, bottles, papers, ashes, refuse, trash, rubbish, or combustible waste materials in or upon any hazardous fire area. No person shall dump such materials in, upon, or along any trail, roadway, or highway in any hazardous fire area. Dumping in areas approved by the Fire Department for this use shall not be deemed to be in violation of this section. This section may be enforced by the commissioner.

(Ord. 2017-0003 § 82, 2017.)



County of Los Angeles
Department of Agricultural
Commissioner/Weights
and Measures

Weed and Brush CLEARANCE REQUIREMENTS

IMPORTANT! Thinning or removal of vegetation an additional 70 to 130 feet (100 to 200 feet total) from structures may be required! Please contact your Zone Inspector! (626) 575-5484 <http://acwm.lacounty.gov> Grass and other vegetation located more than 30 feet from structures and less than 18 inches in height may be maintained where necessary to stabilize soil and prevent erosion. (County Code sec. 325.2.1 EXCEPTIONS (3))

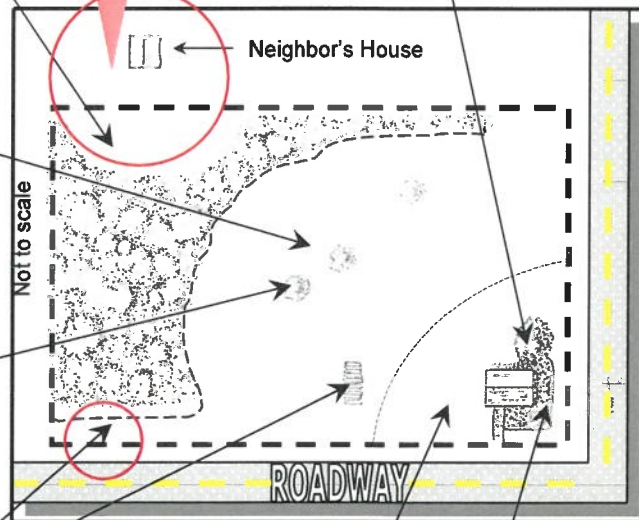
Space trees and shrubs a minimum of 15 feet or three times their diameter from other shrubs. Trees should be spaced to allow a minimum of 30 feet between canopies at maturity. For trees taller than 18 feet, prune lower branches within 6 feet of the ground. For trees and shrubs less than 18 feet, prune lower branches to 1/3 of their height. Choose landscaping plants that are fire resistant and maintain all plants regularly removing dead branches, leaves, etc. (Go to <http://fire.lacounty.gov/FromChief.asp> and scroll down the page and click on the link on the left entitled "Ready! Set! Go! Wildfire Action Plan".)

Roadway clearance, minimum of 10 feet clearance for all flammable vegetation or other combustible growth. (County Code sec. 325.10)

Firewood, manure, compost or other combustible materials must be placed or stored a minimum of 30 feet from any building or structure. (County Code sec. 325.2.1 (1))

IMPORTANT! Clearance requirements apply to your property even if the structure being protected is not on your property!

Okay to have ornamental plants and trees if individually planted, spaced and maintained so they do not form a means of transmitting fire from native growth to the structure. No portion of a tree may extend within 10 feet of the outlet of a chimney and it must be free of dead wood. (County Code sec. 325.2.1 EXCEPTIONS (1))



Remove/clear away all flammable vegetation or combustible growth for a distance of not less than 30 feet from any structure. This includes ornamental plants known to be flammable. (County Code sec. 325.2.1 (2))

NATIVE PLANTS CAN BE FLAMMABLE EVEN IF GREEN!

Okay to have cultivated ground cover provided they are maintained in a condition that does not form a means of transmitting fire from native growth to the structure. (County Code sec. 325.2.1 EXCEPTIONS (2))

CHAPTER 49
REQUIREMENTS FOR WILDLAND-URBAN INTERFACE FIRE AREAS

Chapter 49 of the 2019 California Fire Code is adopted with the following: amendments:

Amend Section 4902 as follows:

SECTION 4902 DEFINITIONS

Amend definition of Wildland-Urban Interface Fire Area as follows:

Wildland-Urban Interface Fire Area A geographical area identified by the state as a " Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. The Wildland-Urban Interface Fire Area shall be defined as all areas within the Town of Los Gatos as set forth and delineated on the map entitled "Wildland-Urban Interface Fire Area" which map and all notations, references, data and other information shown thereon are hereby adopted and made a part of this chapter. The map properly attested, shall be on file in the Office of the Town Clerk of the Town of Los Gatos.

SECTION 4906 HAZARDOUS VEGETATION AND FUEL MANAGEMENT

Amend Section 4906.2 to read:

4906.2 Application. Buildings and structures located in the following areas shall maintain the required hazardous vegetation and fuel management:

1. All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Areas (SRA) including:
 - 1.1. Moderate Fire Hazard Severity Zones
 - 1.2. High Fire Hazard Severity Zones
 - 1.3. Very-high Fire Hazard Severity Zones
2. Land designated as a Very-high Fire Hazard Severity Zone or as a Wildland Urban Interface Fire Area the Town of Los Gatos.

SECTION 4907 DEFENSIBLE SPACE

Amend Section 4907.1 to read:

4907.1 General. Defensible space will be maintained around all buildings and structures in Sate Responsibility Area (SRA) as required in Public Resources Code 4290 and "SRA Fire Safe Regulations" California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 2, Section 1270.

Buildings and structures within the Very-High Fire Hazard Severity Zones of a Local Responsibility Area (LRA) shall maintain defensible space as outlined in Government Code 51175 - 51189 and any local ordinance of the authority having jurisdiction .

Persons owning, leasing, controlling, operating or maintaining buildings or structures in the locally adopted Wildland-Urban Interface Fire Area but that are not within the Very-High Fire Hazard Severity Zone and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times:

1. Maintain an effective defensible space by removing and clearing away flammable vegetation and combustible growth from areas within 30 feet (9144 mm) of such buildings or structures.

Exception: Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.

2. Maintain additional effective defensible space by removing brush, flammable vegetation and combustible growth located 30 feet to 100 feet (9144 mm to 30480 mm) when required by the fire code official due to steepness of terrain or other conditions that would cause a defensible space of only 30 feet (9144 mm) to be insufficient.

Exception: Grass and other vegetation located more than 30 feet (9144 mm) from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

3. Remove portions of trees, which extend within 10 feet (3048 mm) of the outlet of a chimney.
4. Maintain trees adjacent to or overhanging a building free of deadwood; and
5. Maintain the roof of a structure free of leaves, needles or other dead vegetative growth.
6. Defensible space shall also be provided around water tank structures, water supply pumps and pump houses.
7. Remove flammable vegetation a minimum of 10 feet around liquefied petroleum gas tanks/containers.
8. Firewood and combustible materials shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other

projections or overhangs. The storage of firewood and combustible material within the defensible space shall be located a minimum of 30 feet (6096 mm) from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet (4572 mm).

Exception: Firewood and combustible materials not for consumption on the premises shall be stored as approved by the fire code official.

9. Clear areas within 10 feet (3048 mm) of fire apparatus access roads and driveways of non- fire-resistive vegetation growth.

Exception: Single specimens of trees, ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents or similar plants used as ground cover, provided they do not form a means of readily transmitting fire.

Add Section 4907.2 to read:

4907.2 Corrective actions. The executive body is authorized to instruct the fire code official to give notice to the owner of the property upon which conditions regulated by Section 4907.1 exist to correct such conditions. If the owner fails to correct such conditions the executive body is authorized to cause the same to be done and make the expense of such correction a lien upon the property where such conditions exist.

Add section 4908 to read:

SECTION 4908 FIRE PROTECTION PLAN

4908.1 General. When required by the code official, a fire protection plan shall be prepared.

4908.2 Content. The plan shall be based upon a site-specific wildfire risk assessment that includes considerations of location, topography, aspect, flammable vegetation, climatic conditions and fire history. The plan shall address water supply, access, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space and vegetation management.

4908.3 Cost. The cost of fire protection plan preparation and review shall be the responsibility of the applicant.



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 18

ADDENDUM

DATE: December 2, 2019

TO: Mayor and Town Council

FROM: Laurel Prevetti, Town Manager

SUBJECT: 2019 California Building, Fire, and Reach Codes

1. Introduce an ordinance repealing and replacing Chapter 6, Building Regulations, and Chapter 9, Fire Prevention and Protection, of the Town of Los Gatos Municipal Code with the new 2019 California Building and Fire Codes, as amended, including reach codes. (Town Code Amendment Application A-19-009. Project Location: **Town Wide.**)
2. Adopt a resolution making findings for modifying the 2019 California Building and Fire Codes.

REMARKS:

Attachment 6 includes a table that was not included in the draft Ordinance (Attachment 1). If the Council introduces the draft Ordinance, then Attachment 6 should be included by reference.

Attachment 7 includes Public comments received between 11:01 a.m. Wednesday, November 27, 2019 and 11:00 a.m. Monday, December 2, 2019.

Based on Council direction, the proposed Reach Code would ban all gas appliances on the interior and exterior of a home. This includes but not limited to, pool and spa heaters, outdoor barbeques, outdoor fireplaces, and outdoor fire pits. Staff suggests that the Council discuss these outdoor installations and determine if they should remain in the Reach Code.

Attachments previously received with the December 3, 2019 Staff Report:

1. Ordinance adopting new Building and Fire Codes
2. Resolution making Findings for modifying California Codes
3. City of San Jose Summary of Reach Codes
4. 2019 Cost-effectiveness Study: Low-Rise Residential New Construction
5. Public comments received by 11:00 a.m. Wednesday, November 27, 2019

PREPARED BY: Robert Gray
Building Official

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

PAGE 2 OF 2

SUBJECT: Town Code Amendments

DATE: December 2, 2019

Attachments received with this Addendum:

6. Table 105.6.8 of the California Fire Code to be inserted at 105.6.8 Compressed gases, page 22 of 61
7. Public comments received between 11:01 a.m. Wednesday, November 27, 2019 and 11:00 a.m. Monday, December 2, 2019

Amend Table 105.6.8 to read:

PERMIT AMOUNTS FOR COMPRESSED GASES

TYPE OF GAS	AMOUNT cubic feet at NTP
Carbon dioxide used in carbon dioxide enrichment systems	875 (100 lbs.)
Carbon dioxide used in insulated liquid carbon dioxide beverage dispensing applications.	875 (100 lbs.)
Corrosive	200
Flammable (except cryogenic and liquefied petroleum gases)	200
Highly toxic	Any amount
Inert and simple asphyxiant	6,000
<u>Moderately toxic</u>	<u>Any amount</u>
<u>Other health hazard</u>	<u>200</u>
Oxidizing (including oxygen)	504
Pyrophoric	Any amount
Toxic	Any amount

For SI: 1 cubic foot = 0.02832 m³

Robert Gray

Subject: Reducing Carbon Pollution - Vote for a strong reach code this Tuesday

-----Original Message-----

From: bruce@preville.net <bruce@preville.net>
Sent: Friday, November 29, 2019 8:58 PM
To: Council <Council@losgatosca.gov>; Town Manager <Manager@losgatosca.gov>
Subject: Reducing Carbon Pollution - Vote for a strong reach code this Tuesday

Dear Mayor Jensen, Vice Mayor Spector, and Council Members Leonardis, Rennie, and Sayoc:

As a father and Los Gatos resident, I am happy to see a Reach Code vote on Tuesday's agenda, and I urge you to vote to adopt a strong Reach Code ASAP. Buildings are a significant source of carbon pollution emissions in the Bay Area, and we have the opportunity to significantly reduce these emissions through adopting a strong a Reach Code.

We absolutely cannot afford to put new gas infrastructure into our homes and into the ground. Any new gas lines that we build would be an expensive mistake that we will pay for down the road, especially when electricity becomes so much less expensive than "natural" (fracked methane) gas. It is also a threat to the health and safety of our families, since natural gas burned in homes pollutes indoor air with harmful chemicals and causes nearly half of all residential fires.

We should be building all-electric new construction. All-electric buildings are cheaper to build, healthier and safer to live in, and will greatly reduce gas emissions. 100% clean electricity is already available to Los Gatos homes and businesses through Silicon Valley Clean Energy.

The science is clear and the engineering is ready. All we need now is political willpower. I hope you act now to protect our future generations.

Sincerely,
Bruce Preville
101 El Porton, Los Gatos 95032

Robert Gray

Subject: Vote for a strong reach code this Tuesday

From: Alaina Beeman <alaina.beeman@gmail.com>

Sent: Saturday, November 30, 2019 2:26 PM

To: Council <Council@losgatosca.gov>; Town Manager <Manager@losgatosca.gov>

Subject: Vote for a strong reach code this Tuesday

Dear Mayor Jensen, Vice Mayor Spector, and Council Members Leonardis, Rennie, and Sayoc:

As a mother and Los Gatos resident, I am happy to see a Reach Code vote on Tuesday's agenda, and I urge you to vote to adopt a strong Reach Code ASAP. Buildings are a significant source of greenhouse gas emissions in the Bay Area, and we have the opportunity to significantly reduce these emissions through adopting as strong a Reach Code as possible.

We absolutely cannot afford to put new gas infrastructure into our homes and into the ground. Any new gas lines that we build are an expensive mistake that we will pay for down the road. They are also a threat to the health and safety of our families, since "natural" (fracked methane) gas burned in homes pollutes indoor air with harmful chemicals and causes nearly half of all residential fires.

We should be building all-electric new construction. All-electric buildings are cheaper to build, healthier and safer to live in, and will greatly reduce greenhouse gas emissions. 100% clean electricity is already available to Los Gatos homes and businesses through Silicon Valley Clean Energy.

The science is clear and the engineering is ready. All we need now is political willpower. I hope you act now to protect our future generations.

Sincerely,

Alaina Beeman
16218 George St
Los Gatos, CA 95032

Robert Gray

Subject: Support for Los Gatos Reach Code!

From: Yen, Natasha <21natashay@students.harker.org>

Sent: Saturday, November 30, 2019 2:36 PM

To: Council <Council@losgatosca.gov>

Subject: Support for Los Gatos Reach Code!

Dear Councilmembers Rennie, Sayoc, Jensen, Spector, and Leonardis,

As a youth, I urge you to pass a strong all-electric reach code this month. It's vital for the health and safety of my future and the generations after me that all new buildings be powered by clean, renewable energy, not harmful, polluting fossil fuels. Building all-electric buildings is actually less expensive, too. So, please show climate leadership and join the wave of Bay Area cities and towns passing strong reach codes and gas bans this year.

Thank you!

- Natasha

--

"Believe you can and you're halfway there." - Theodore Roosevelt

Robert Gray

Subject: Vote in favor of reach code!

From: Melanie Wendt <melanie_wendt@icloud.com>

Sent: Saturday, November 30, 2019 10:54 PM

To: Town Manager <Manager@losgatosca.gov>; Council <Council@losgatosca.gov>

Subject: Vote in favor of reach code!

Dear Mayor Jensen, Vice Mayor Spector, and Council Members Leonardis, Rennie, and Sayoc:

As a resident of Los Gatos, I am happy to see a Reach Code vote on Tuesday's agenda, and I urge you to **vote to adopt a strong Reach Code ASAP**. Buildings are a significant source of greenhouse gas emissions in the Bay Area, and we have the opportunity to significantly reduce these emissions through adopting as strong a Reach Code as possible.

We absolutely cannot afford to put new gas infrastructure into our homes and into the ground. Any new gas lines that we build are an expensive mistake that we will pay for down the road. **They are also a threat to the health and safety of our families**, since "natural" (fracked methane) gas burned in homes pollutes indoor air with [harmful chemicals](#) and causes nearly [half of all residential fires](#).

We should be building all-electric new construction. All-electric buildings are cheaper to build, healthier and safer to live in, and will greatly reduce greenhouse gas emissions. 100% clean electricity is already available to Los Gatos homes and businesses through Silicon Valley Clean Energy.

The science is clear and the engineering is ready. All we need now is political willpower. I hope you act now to protect our future generations.

Sincerely,
Melanie Wendt

17800 Foster Road

Los Gatos, CA 95030

Sent from my iPhone

Robert Gray

Subject: Vote for a strong reach code this Tuesday

From: Thomas Wendt <tom_wendt@me.com>

Sent: Saturday, November 30, 2019 10:59 PM

To: Council <Council@losgatosca.gov>; Town Manager <Manager@losgatosca.gov>

Subject: Vote for a strong reach code this Tuesday

Dear Mayor Jensen, Vice Mayor Spector, and Council Members Leonardis, Rennie, and Sayoc:

As a Dad and Los Gatos resident, I am happy to see a Reach Code vote on Tuesday's agenda, and I urge you to **vote to adopt a strong Reach Code ASAP**. Buildings are a significant source of greenhouse gas emissions in the Bay Area, and we have the opportunity to significantly reduce these emissions through adopting as strong a Reach Code as possible.

We absolutely cannot afford to put new gas infrastructure into our homes and into the ground. Any new gas lines that we build are an expensive mistake that we will pay for down the road. **They are also a threat to the health and safety of our families**, since "natural" (fracked methane) gas burned in homes pollutes indoor air with [harmful chemicals](#) and causes nearly [half of all residential fires](#).

We should be building all-electric new construction. All-electric buildings are cheaper to build, healthier and safer to live in, and will greatly reduce greenhouse gas emissions. 100% clean electricity is already available to Los Gatos homes and businesses through Silicon Valley Clean Energy.

The science is clear and the engineering is ready. All we need now is political willpower. I hope you act now to protect our future generations.

Sincerely,
Tom Wendt

Robert Gray

Subject: Presentation for Dec 3 Town Council Meeting
Attachments: Lipp REACH Presentation.pdf

From: Robert Lipp <ebob@2lipps.com>
Sent: Sunday, December 01, 2019 4:22 PM
To: Clerk <Clerk@losgatosca.gov>
Cc: Council <Council@losgatosca.gov>
Subject: Presentation for Dec 3 Town Council Meeting

I wish to present a short overview of the attached presentation at the Dec 3 Council Meeting for discussion on the REACH agenda item. item.

Please confirm receipt of this material and distribute it to the Council

Thank you

Robert Lipp

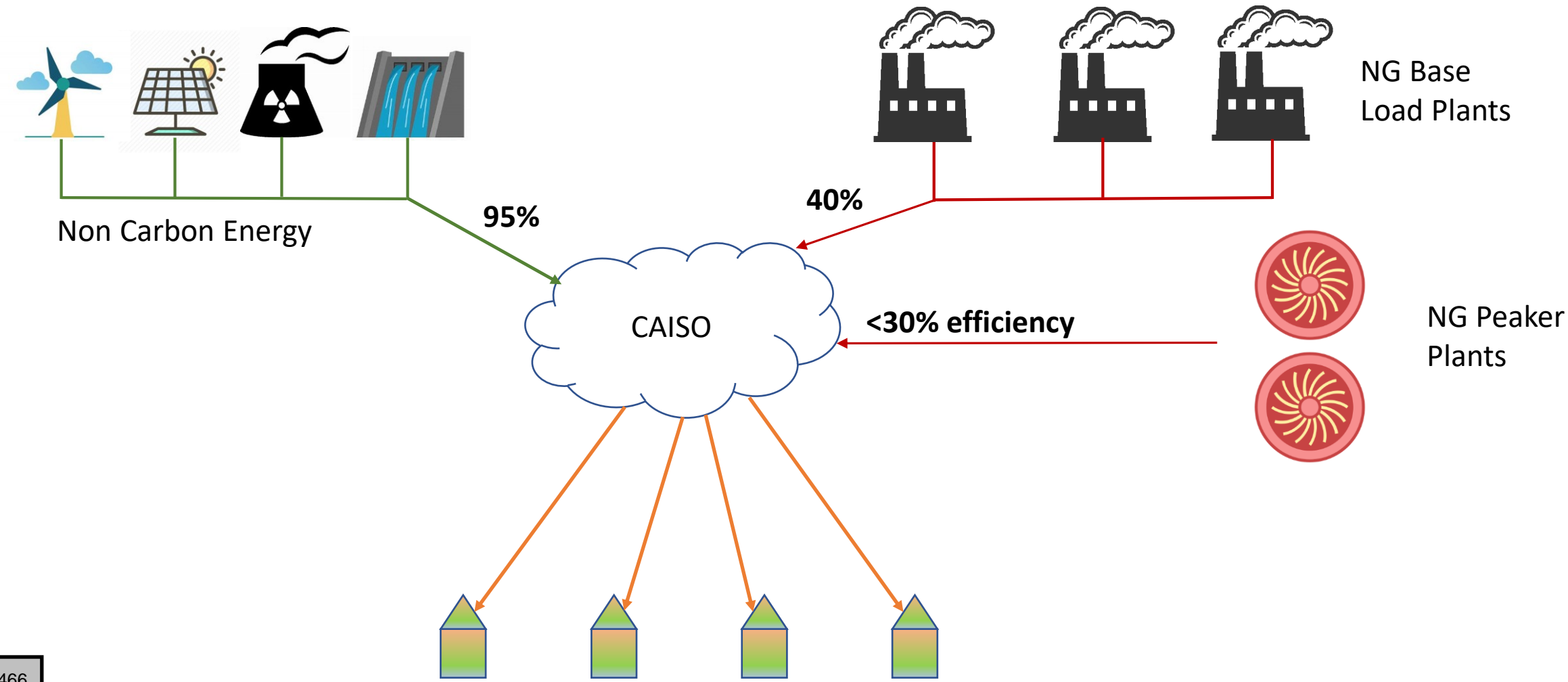
Thoughts on REACH

**“The world has just over a decade to get
climate change under control”**

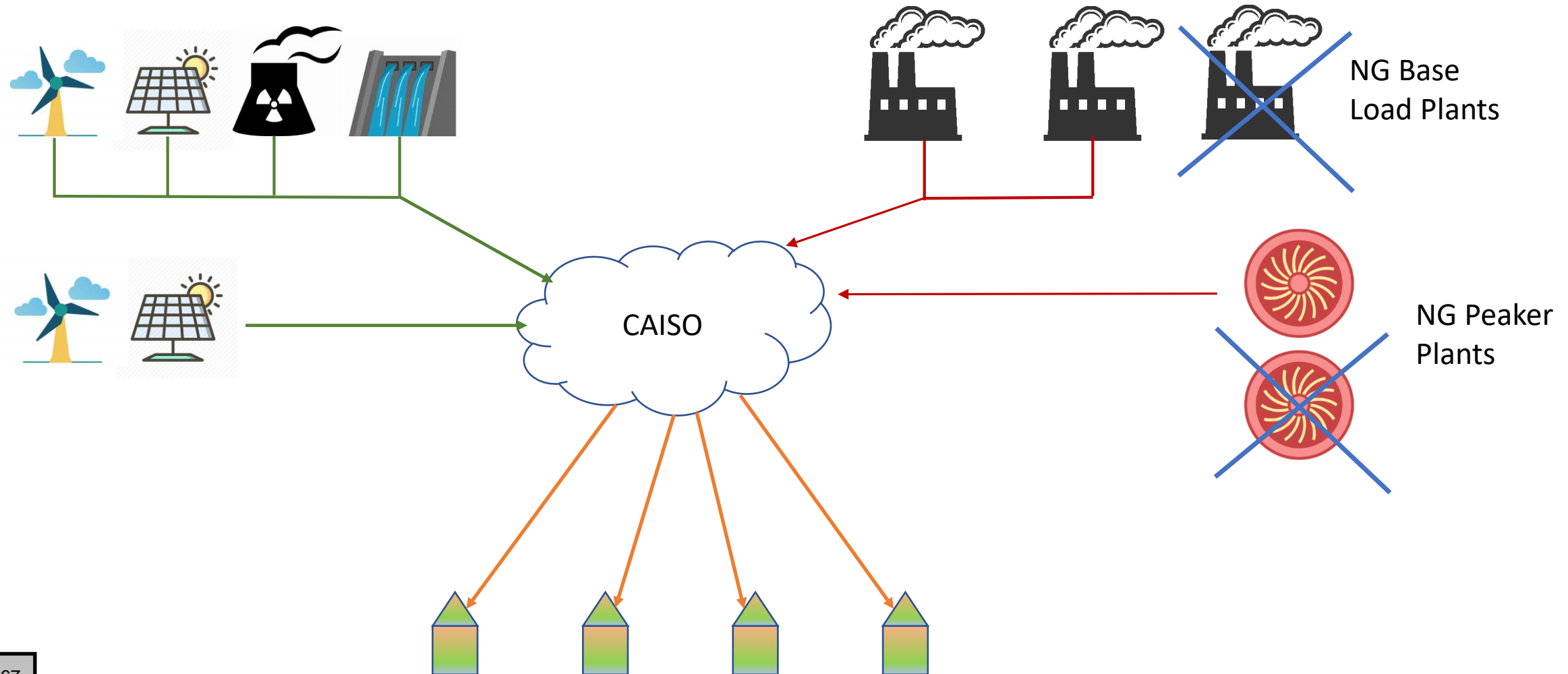
U.N. Intergovernmental Panel on Climate Change

REACH would increase Energy Consumption
– Where would that energy come from?

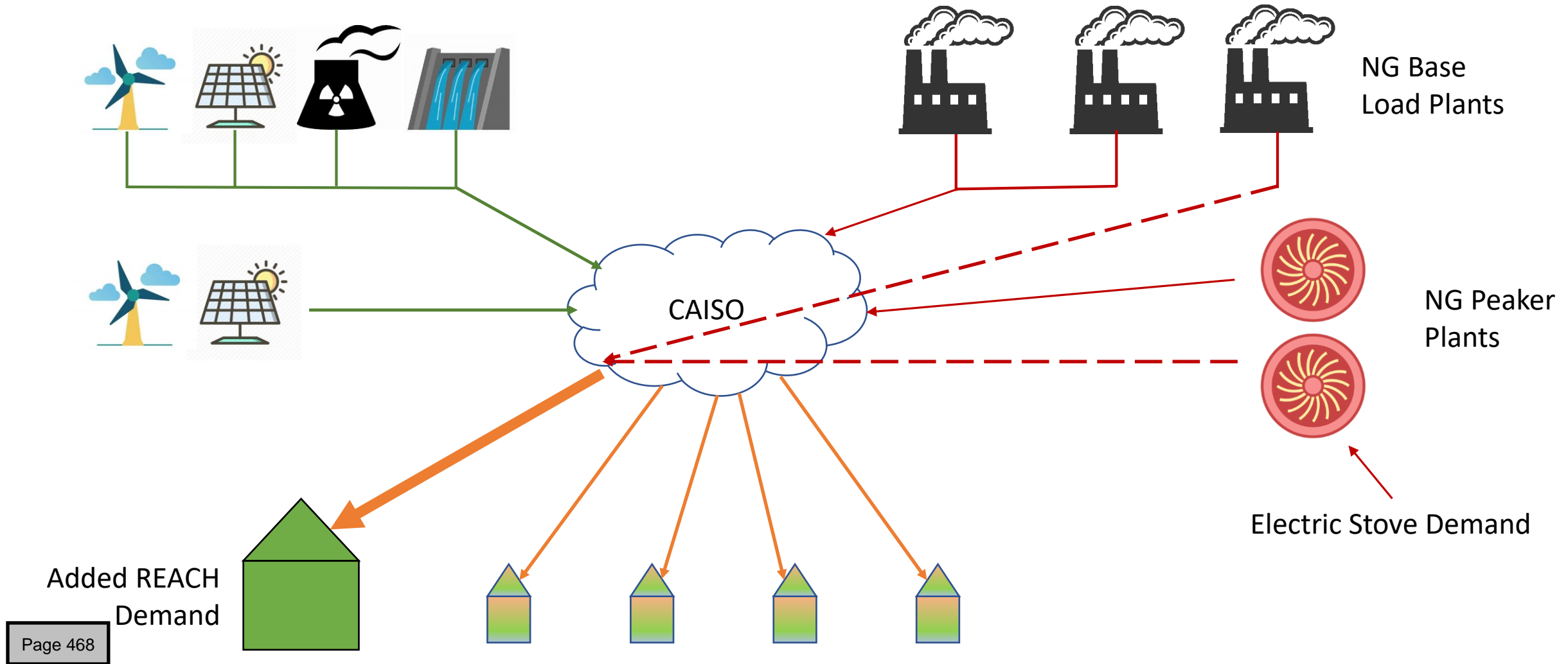
Today's Electrical Grid



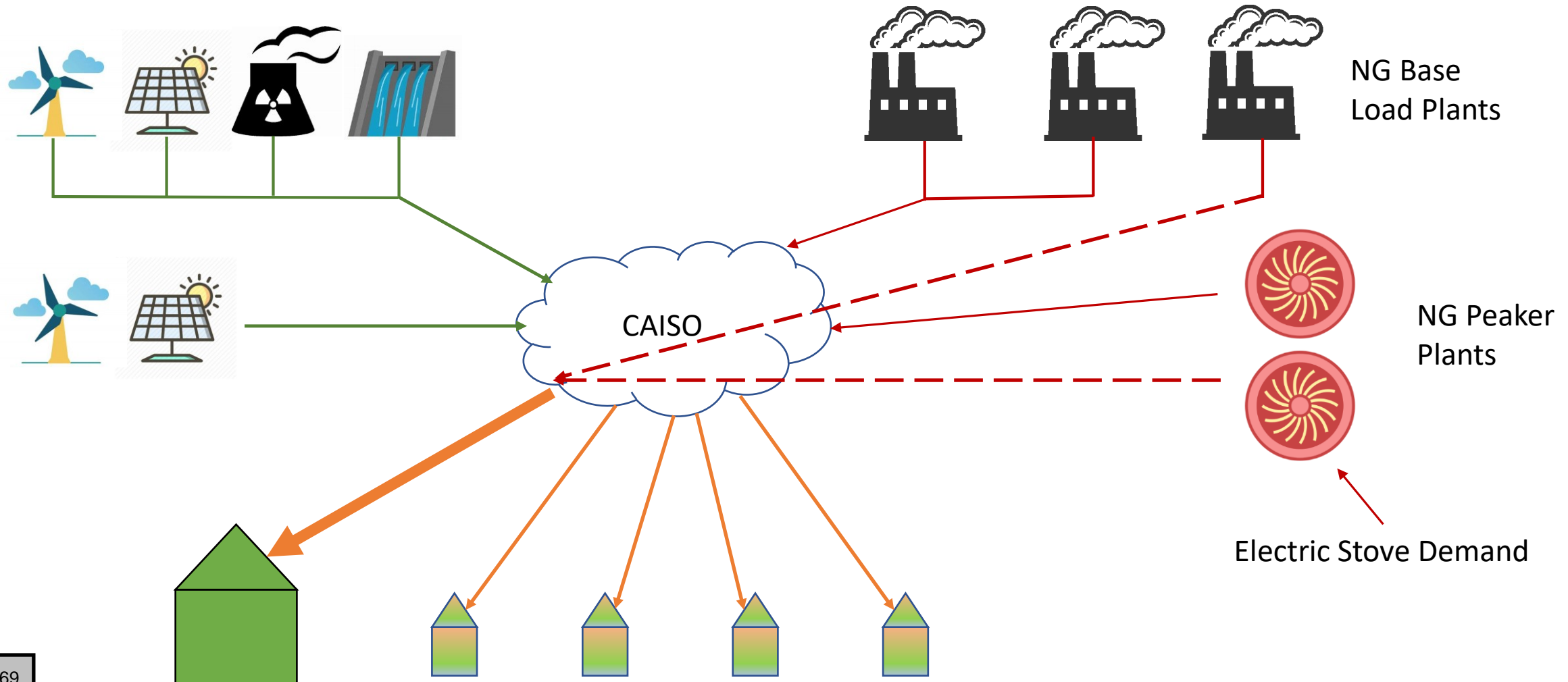
Current Trend without REACH by 2030



Consequences of Implementing REACH



Purchasing 100% Green is only Paperwork Transaction



Energy Myths

Electricity is Green & Clean

Can Purchase 100% Green Energy

Electricity More Efficient than NG

Electricity costs comparable to NG

Energy Truths

~~Electricity is Green & Clean~~

CA Electricity is only 30% Renewables

Can Purchase 100% Green Energy

Electricity More Efficient than NG

Electricity costs comparable to NG

Energy Truths

~~Electricity is Green & Clean~~

CA Electricity is only 30% Renewables

~~Can Purchase 100% Green Energy~~

Can't Get It Delivered to Our Homes

Electricity More Efficient than NG

Electricity costs comparable to NG

Energy Truths

~~Electricity is Green & Clean~~

CA Electricity is only 30% Renewables

~~Can Purchase 100% Green Energy~~

Can't Get It Delivered to Our Homes

~~Electricity More Efficient than NG~~

Not for Most Residential Uses

Electricity costs comparable to NG

Energy Truths

~~Electricity is Green & Clean~~

CA Electricity is only 30% Renewables

~~Can Purchase 100% Green Energy~~

Can't Get It Delivered to Our Homes

~~Electricity More Efficient than NG~~

Not for Most Residential Uses

~~Electricity costs comparable to NG~~

Electricity 6-12x More Expensive

Fruitless Future-Proofing

Remodeled home 20 years ago - added Cat 5 internet & phone lines

Today Exclusively WIFI & cell phones

Same professionally: I almost always guessed wrong!



Recommended Actions

- Do no harm
- Do not mandate fully electric
- Require minimum futureproofing without too many specifics
 - e.g. run EV conduits but not wiring
 - Consider dual meters to allow mixed tariffs for different applications
- Work toward big wins – REACH Further
 - Work with other cities and agencies (CEC, PUC, SVCE, EPA) to promote better tariffs
 - Insist bankrupt PG&E terminate long term contracts for dirty energy
 - Speed up Green Energy Deployment
- Give mountain people a break – unreliable PG&E, fires, mudslides earthquakes are hazards. Never insist upon full electric for remote areas. They need their propane for cooking, boiling water and heat in an emergency.

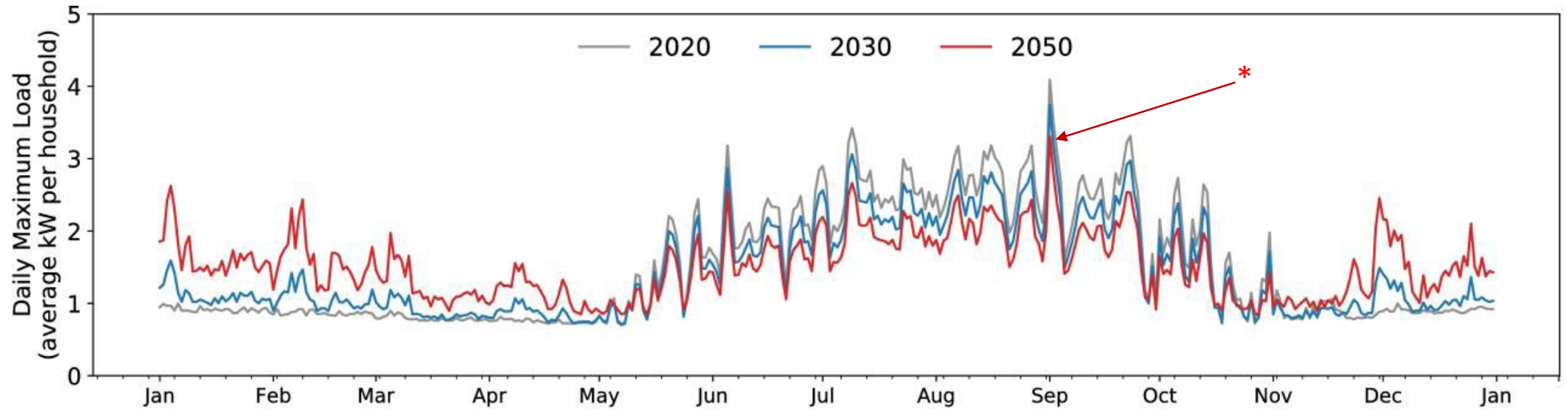
Backup Slides

Other Myths and Reality

- Natural gas leaks increase methane emissions and GHG
 - Yes, but mostly upstream. Very little escapes in residences. REACH does not address upstream
 - But, residential refrigerant losses from heat pumps are also a GHG source
- Natural gas pollutes indoor air more than electric cooking
 - Rubbish! Unvented electric ovens and spatters on electric elements are way more polluting

CEC chart

Figure 3-32: Daily average household maximum loads from electrifying all end uses in a high building electrification scenario



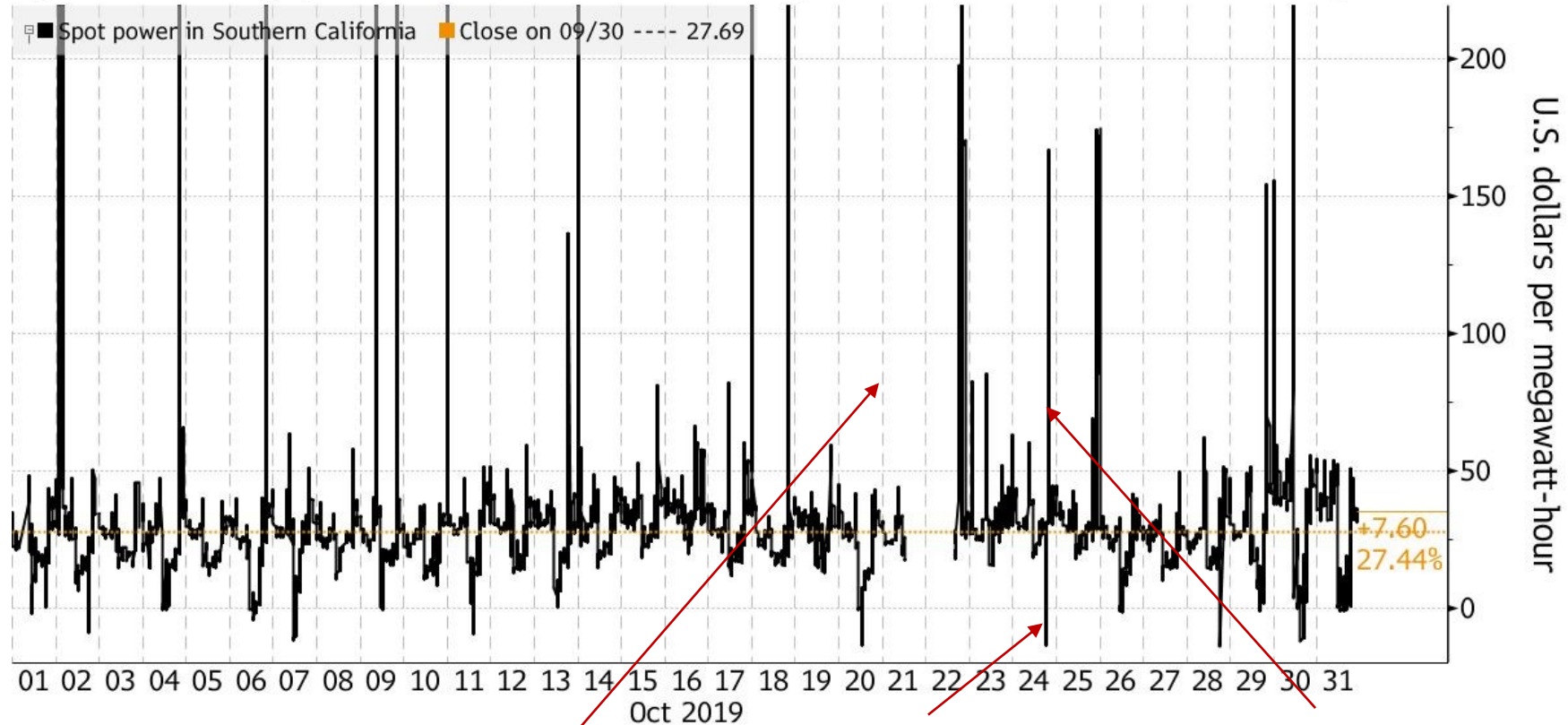
* The average load per household reflects a changing share of natural gas-fueled vs. all-electric homes

- Change appliances from gas to electric and somehow electric usage goes down!

** Very questionable assumption that peak loads are dramatically reduced in 2050 as more homes are fully electrified, and a couple of EVs are added*

Solar's Power

Spot electricity prices in California often dip below zero on excess solar power



Source: Data compiled by Bloomberg

Windy during
peak hours

Negative Pricing
- Too Much Solar,
too little storage

Electric Stoves Turning On a Couple
of Hours Later?

Primarily supplied by low efficiency
Peaker Plants

Greatest mismatch in usage/generation occurs on a hot September
afternoon during sunset as solar generation declines but AC is still
on and cooking starts – how is that peak mismatch generated?

Generating Heat from Electricity

It's basically crazy to burn NG to generate steam to spin a turbine then send it tens to hundreds of miles through lossy transformers and transmission lines

Using a 40% efficiency of the heat content of NG delivered to the consumer:

Compared to NG:

- An electric dryer generates 250% more GHG
- A conventional water heater generates 200% more; a heat pump based water heater generates 50% less
 - But, heat pump water heaters cost about \$1,000 more, cost twice as much to operate, and chill the room they are in – which may lead to increased space heating – e.g. using an electric space heater in that garage workshop

Cooking with Electricity

A Dirty Way to Go

- A conventional electric stove generates 135% more GHG than NG at base load times
 - Efficiency per CEC : NG 40%, resistive electric 74%, inductive electric 84%
 - Really? They can calculate this down to 1% accuracy? Huge variation based on pan sizes and cooking temperatures
- Cooking that evening meal during peak usage times (4-8PM) requires deployment of low efficiency peaker plants
 - A conventional electric stove actually generates 200% more GHG at peak hours
- An electric oven generates 250% more GHG than NG
- Imagine how many low efficiency peaking generators would go off line if everyone cooked with NG!

Heat Pump Space Heating

- A potentially very big win in our climate
- COP* can be as high as 5 (though typically <4 in real life operations)
 - e.g. dirt accumulation and defrost cycling
- However, current tariffs penalize heat pumps - both tiered pricing and time-of-day
 - Electrical energy costs over 6x more than NG
 - Tier prices designed to reduce energy usage make heat pumps an expensive proposition
 - If I want to cook with gas I cannot get the fully electric tier tariff, a huge disincentive for heat pump heating!
 - Heat pumps should be operated without large rapid changes in temperature
 - Engages resistive heating to meet sudden demand
 - Turning down the thermostat way down while away at work, nights or during peak pricing periods may actually increase electrical usage rather than save it.

Axioms

- Grid operators will always use available green energy first unless forced otherwise by long term contracts as the variable cost is near zero. All demand above that will be supplied by NG
- Less than 40% of the energy content of power plant fuel gets delivered to your home (basic thermodynamics puts a strict limit on this)
 - For the common NG turbine peaking plants (jet engines) it is under 30%
- Increased REACH demands will be met by slowing down retirement of NG fired plants since the supply of green energy at any time is finite
 - Essentially all new (i.e. REACH electrification) demand will be supplied from existing dirty energy sources!
- Other GHGs such as NG leaks and refrigerant leaks happen but pretty much net out on overall tradeoffs according to CEC estimates

A Personal Aside

- I changed my kitchen from fully electric to a NG stove. I think anyone doing a major remodel wouldn't seriously worry about the reverse - running electric wires on a kitchen remodel if they were changing from NG to electricity. It's a small expense in the scheme of things.
- I installed a fancy electric wall oven. It is unvented and fills the house with cooking fumes. It is too far from my super large 1,200cfm stove fan. The manufacturer says it cannot be vented. My guess is a NG stove would have to be vented by code. I waste a huge amount of energy (fan power and heat/AC loss) by running the fan on high trying to reduce the fumes (a double whammy on energy efficiency).
- Having had both electric and NG kitchens, my experience is electric cooking is a far greater contributor to in-house pollution than gas
 - Spatters smoke on conventional electric stoves, while a spatter on a NG stove is unlikely to hit the hot flames and when it does it is consumed.
 - Electric broilers are essentially unusable due to grease spatters on the elements. NG broilers consume most of the fumes from cooking and don't have much of a spatter issue.

Electric Car Hookups

- Electric cars are a big win as conventional gas engines are only 20% efficient and use high carbon fuel
- Dual meters are interesting – one for electric car charging so better tariffs can be developed for them (but, who knows what will happen!)
 - Electric cars are potentially a big win but need to be better integrated with the grid operation and grid pricing
 - New meters are an expensive retrofit
- Wait for more standards before making possibly counterproductive rules
 - Faster charging options may be developed
 - Electric cars may someday be integrated with grid storage
 - Whatever is done now will be obsolete

Residential Batteries

- Storage is a big issue with renewables
- Large scale grid battery storage can be implemented at a fraction of the cost of residential batteries and be better maintained and integrated with grid operations and pricing
- Residential batteries a marginal idea
 - A 10kW \$3,500 Tesla battery stores less than \$0.30 worth of electricity at normal wholesale prices (~\$3 at peak prices)

Robert Gray

Subject: PLEASE vote for a strong reach code this Tuesday

From: Deborah Johnson <dejohs70@gmail.com>

Sent: Sunday, December 01, 2019 10:06 PM

To: Council <Council@losgatosca.gov>; Town Manager <Manager@losgatosca.gov>

Subject: PLEASE vote for a strong reach code this Tuesday

Dear Mayor Jensen, Vice Mayor Spector, and Council Members Leonardis, Rennie, and Sayoc:

As a mother and Los Gatos resident, I am happy to see a Reach Code vote on Tuesday's agenda, and I urge you to **vote to adopt a strong Reach Code ASAP**. Buildings are a significant source of greenhouse gas emissions in the Bay Area, and we have the opportunity to significantly reduce these emissions through adopting as strong a Reach Code as possible.

We absolutely cannot afford to put new gas infrastructure into our homes and into the ground. Any new gas lines that we build are an expensive mistake that we will pay for down the road. **They are also a threat to the health and safety of our families**, since "natural" (fracked methane) gas burned in homes pollutes indoor air with [harmful chemicals](#) and causes nearly [half of all residential fires](#).

We should be building all-electric new construction. All-electric buildings are cheaper to build, healthier and safer to live in, and will greatly reduce greenhouse gas emissions.

100% clean electricity is already available to Los Gatos homes and businesses through Silicon Valley Clean Energy.

The science is clear and the engineering is ready. All we need now is political willpower. I hope you act now to protect our future generations.

Sincerely,

Deborah Johnson

150 Robin Way, Los Gatos, 95032

Sent from my iPad

Robert Gray

Subject: Council Hearing Re: Reach Codes

From: Terry Martin <terry@tma-arch.com>
Sent: Monday, December 02, 2019 12:19 PM
To: Robert Gray <RGray@losgatosca.gov>
Subject: Council Hearing Re: Reach Codes

Mr Gray,

I received an email from one of my colleagues today in regards to the adoption of the 2019 CBC and CRC along with the other codes as they have been thoroughly reviewed and vetted over the last three year though IBC and all of their partners.

My concern is that the reach codes are just being tacked into approval without proper review and due process.

There has been no reach out to the local architects or the AIASVC in regards to the reach codes prior to this proposal.

San Jose adopted these codes with no process in place to deal with the issues involved with electric only buildings and the implications with designing and processing these buildings. Please understand that as an architect that any residential building that I would have to be submitting in January or February would already need to be in my cue going through the state Title 24 and Cal Green process which does not allow for the reach codes today.

My concern is that Los Gatos is going down the same process.

When I look at the state mandates and where we are going and how CalGreen is working with Title 24 energy to ultimately be Net zero (No Gas) over the next 10 years, I am not sure why the town would ignore this trusted system and try to implement something early. The industry as a whole is not ready for these Reach Codes.

My recommendation is that you have council pull the reach code add from the approval of the 2019 CBC adoption on Dec 3rd town council hearing.

Sincerely

Terry Martin
CA Architect Lic C23221

Terry J Martin AIA
TMA ARCHITECTS
Commercial & Residential Architecture
61 East Main Street, Suite D
Los Gatos, California 95030
408.395.8016
terry@tma-arch.com
Certified Green Point Rater



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 18

DESK ITEM

DATE: December 3, 2019

TO: Mayor and Town Council

FROM: Laurel Prevetti, Town Manager

SUBJECT: 2019 California Building, Fire, and Reach Codes

1. Introduce an ordinance repealing and replacing Chapter 6, Building Regulations, and Chapter 9, Fire Prevention and Protection, of the Town of Los Gatos Municipal Code with the new 2019 California Building and Fire Codes, as amended, including reach codes. (Town Code Amendment Application A-19-009. Project Location: **Town Wide.**)
2. Adopt a resolution making findings for modifying the 2019 California Building and Fire Codes.

REMARKS:

Attachment 8 includes public comments received between 11:01 a.m. Monday December 2, 2019 and 11:00 a.m. Tuesday, December 3, 2019

Attachments previously received with the December 3, 2019 Staff Report:

1. Ordinance adopting new Building and Fire Codes
2. Resolution making Findings for modifying California Codes
3. City of San Jose Summary of Reach Codes
4. 2019 Cost-effectiveness Study: Low-Rise Residential New Construction
5. Public comments received by 11:00 a.m. Wednesday, November 27, 2019

Attachments previously received with the December 2, 2019 Addendum:

6. Table 105.6.8 of the California Fire Code to be inserted at 105.6.8 Compressed gases, page 22 of 61
7. Public comments received between 11:01 a.m. Wednesday, November 27, 2019 and 11:00 a.m. Monday, December 2, 2019

PREPARED BY: Robert Gray
Building Official

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

PAGE 2 OF 2

SUBJECT: Town Code Amendments

DATE: December 3, 2019

Attachments received with this Desk Item:

8. Public comments received between 11:01 a.m. Monday, December 2, 2019 and 11:00 a.m. Tuesday, December 3, 2019

Robert Gray

Subject: FW: Vote for a strong Reach Code this Tuesday

From: Mathias Fleck <msfleck@gmail.com>

Sent: Monday, December 2, 2019 3:32 PM

To: Council <Council@losgatosca.gov>; Town Manager <Manager@losgatosca.gov>

Subject: Vote for a strong Reach Code this Tuesday

Dear Mayor Jensen, Vice Mayor Spector, and Council Members Leonardis, Rennie, and Sayoc,

As a father of a 5-year-old at Van Meter and a Los Gatos resident, I am happy to see a Reach Code vote on Tuesday's agenda, and I urge you to vote to adopt a strong Reach Code as soon as possible.

I think this is an important action to take to be responsible about our emissions and the future of our children.

Thank you very much,

Mat Fleck

111 Ohlone Ct, Los Gatos, CA 95032

Robert Gray

Subject: ADOPT STRONG REACH CODE

From: Jenifer Cramer <jlsbasalt@gmail.com>

Sent: Tuesday, December 3, 2019 9:55 AM

To: Council <Council@losgatosca.gov>; Town Manager <Manager@losgatosca.gov>

Subject: ADOPT STRONG REACH CODE

Dear Mayor Jensen, Vice Mayor Spector, and Council Members Leonardis, Rennie, and Sayoc:

First, I greatly appreciate the time and energy you give in serving the town of Los Gatos. It is a beautiful place. My three children have each had the incredible opportunity to come before you and lead in the Pledge of Allegiance and I have spoken before to you on safety issues related to walking children to school along Los Gatos Boulevard.

Today, I am writing you about my concerns over our changing climate and the dramatic impacts human decisions and actions are making. Our very ability to breath oxygen is even at risk when we look at the impact of warming on our oceans and one of the tiniest organisms, phytoplankton, the basis of the food web and largest producer of oxygen. As we all have witnessed and as is being cited by thousands of climate scientists around the globe, severe and unprecedented weather is caused by our choice to continue to emit carbon dioxide and methane into our biosphere.

Today, you have a choice. Today, you can make Los Gatos a leader in making a positive change by **adopting a strong Reach Code**. As you know, buildings are a significant source of greenhouse gas emissions and we have the opportunity to significantly reduce these emissions, in part through adopting as strong a Reach Code as possible. As a family, we have invested in 100% solar for our home power and in our vehicle and largely eat a vegetarian diet.

Being efficient and reducing waste (including emissions) is a smart way to lead a thriving economy. This strategy will produce a healthy community where children can grow up and their children can again come before you to lead the Pledge of Allegiance for our town in our great country that leads the world toward a beautiful, fossil free future. This is possible, if we make good decisions—now.

Thank you again for your time and your leadership in sustainability and environmental restoration.

JENIFER SEAL CRAMER
PO Box 1578
Los Gatos CA 95031-1578

In my lifetime, human population has more than doubled to 7.6 billion; use of food and water has more than tripled; and use of fossil fuels has more than quadrupled. Since 1751, approximately 356 billion metric tonnes of carbon has been

released into the atmosphere from burning fossil fuels. **The world's leading climate scientists have warned we must triple our efforts to avoid near term catastrophic environmental breakdown of our living planet.** The average American produces about 130 pounds of trash a month. In America, 22% of children live below the poverty line. The world is facing the largest humanitarian crisis since WWII with people facing starvation in Yemen, South Sudan, Somalia, and Nigeria. **We are empowered to make positive change to create a more life-sustaining, beautiful and just world. ACTION not fear or despair.**

Robert Gray

From: Bryan Mekechuk <bryan.mekechuk@comcast.net>
Sent: Tuesday, December 03, 2019 10:49 AM
To: Robert Gray
Cc: BSpector; Steven Leonardis; Marico Sayoc; Marcia Jensen; Rob Rennie
Subject: Support Los Gatos Reach Codes

Hi Robert,

I own a townhouse at 55 Roberts Road, which I purchased in 2013.

Since I may not be able to attend the Town Council meeting tonight, please include this email showing my support for the Reach Codes as proposed in the Staff Report.

With the proposed Reach Codes, Los Gatos is helping to reduce our reliance on fossil fuels, both for transportation (through electric car charging) and for residential space and water heating. Both of my children are worried about climate change for their generation and that they will live to see the negative impacts of climate change. Although burning fossil fuels may not be the cause of climate change, they do not want to take chances that could accelerate climate change.

Although I support the proposed Reach Codes, I would also support allowing natural gas outside the home for heating of swimming pools, fire pits, and outdoor grills.

Since many people park their cars outside, especially if they have ADUs, I would support requiring at least one 40 amp receptacle inside the garage with another 40 amp receptacle outside the garage. This would provide occupants with car charging alternatives to make the adoption of electric vehicles easier, especially for subsequent owners of the property.

Again, I support the Reach Codes for Los Gatos.

Best regards,

Bryan

Bryan Mekechuk
408.655.0400



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 19

DATE: December 3, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Approve the “El Gato” Design by Artist Matt Babcock for the Pilot Los Gatos Gateway Marker as Recommended by the Arts and Culture Commission

RECOMMENDATION:

Approve the “El Gato” design by artist Matt Babcock for the pilot Los Gatos Gateway Marker as recommended by the Arts and Culture Commission.

BACKGROUND:

On January 31, 2017 at a Council Priority Setting Session, Council approved allocating \$25,000 to the ACC for use in a project supporting public arts. The ACC returned to Council on April 10, 2017 proposing to use the funds to install gateway monuments or markers at various ingress and egress points in Town. The long-term vision of the project as defined by the ACC was to create distinctive, “selfie-worthy”, artistic gateways which would eventually be installed at five to seven different high-traffic locations in Town. The proposal presented here is for an initial monument at a specific location to test or pilot a gateway program.

The ACC worked with Parks and Public Works staff to identify and assess over a dozen potential locations around Town including Highway 17 onramp approach/South Santa Cruz Avenue and Wood Road, Highway 85/Samaritan Drive and Los Gatos Boulevard, Winchester Boulevard and Knowles Drive, and others. Sites with pending street work, traffic issues, right-of-way agreements with CalTrans, or other logistical considerations were excluded as the pilot site, though will be considered again at a future time as the project expands. The center median at Highway 9 and Alberto Way east of the Highway 17 onramp and offramp was ultimately selected as the pilot location due to it being both high traffic and free of additional logistical or safety concerns.

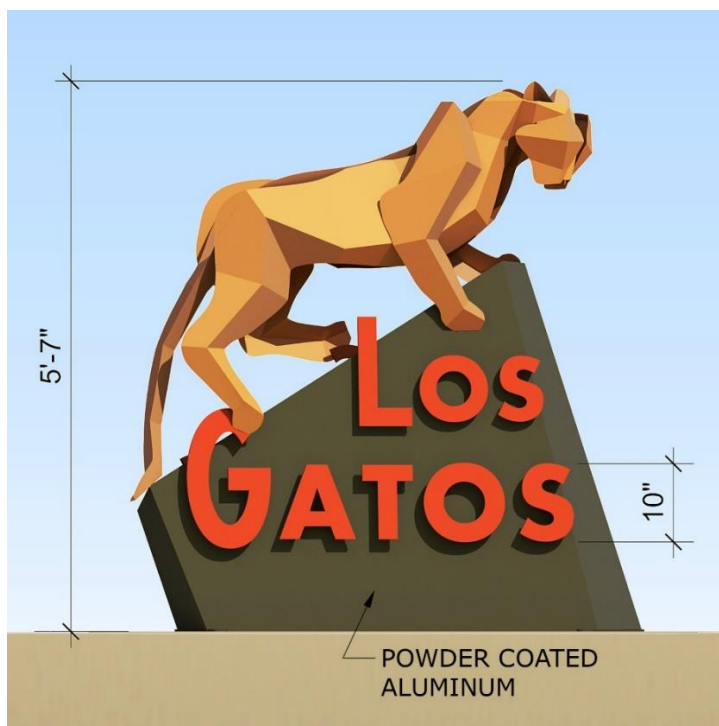
PREPARED BY: Ryan Baker
Library Director, Staff Liaison for Arts and Culture Commission

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

DISCUSSION:

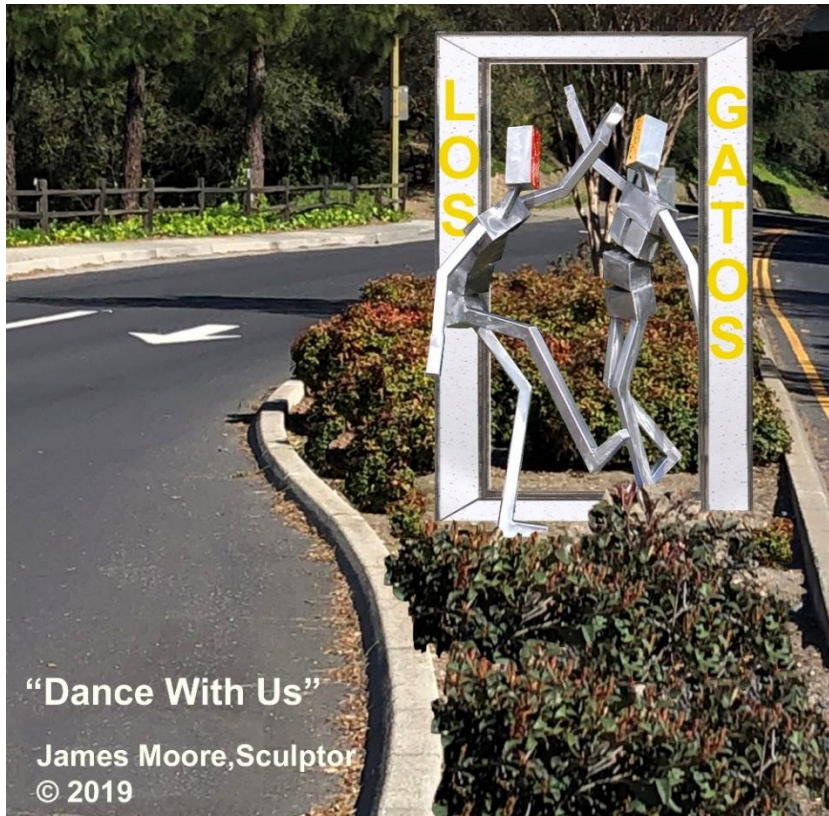
The ACC created a competitive selection process that involved a Call for Artists/Request for Qualifications (RFQ) which was released on September 26, 2018 and closed after an extended deadline of December 28, 2018. It was advertised on State and national call for artist outlets as well as promoted to local residents through direct communication and outreach with local art organizations and galleries, postings on Nextdoor, Town social media, and Chamber of Commerce social media. A competitive award of a flat \$20,000 commission to include all of the artist's costs up to the point of on-site delivery was offered to the final selected artist. At the close of the extended deadline, a total of 14 portfolio applications received met the professional background and experience criteria defined in the RFQ. There were no gateway renderings as part of the initial submittals.

The ACC used a standardized rubric working within the Town's Public Art Selection Policy to assess the portfolio applications and past art installation experience of the qualified artists. The three highest-scoring finalists were invited to design and propose a site-specific gateway monument. These proposals were presented by the artists at a special meeting of the ACC on September 18, 2019. The proposals submitted from the three finalists were: "El Gato" proposed by Washington-based artist Matt Babcock; "Dance with Us" proposed by San Jose-based artist James Moore; and "Cougar" proposed by Washington-based artist team White and McJunkin. Additional details of their proposals are contained in Attachment 1.



Proposal by artist Matt Babcock. "El Gato"

DISCUSSION (continued):



Proposal by artist James Moore. "Dance with Us"



Proposal by artist team White & McJunkin. "Cougar"

DISCUSSION (continued):

To gather public input on the submitted designs, the ACC arranged to create a display in the Library from September 19 to October 16, 2019 showcasing the three proposed designs. The designs were also posted on the ACC's page of the Town's website with an invitation to submit comments. 193 comments were submitted by members of the public at the Library. No electronic comments or emails were received. At the subsequent regular meeting of the ACC on October 16, 2019, the ACC reviewed all public comments which showed 60% in support of the proposal submitted by Matt Babcock, 11% in support of the proposal submitted by artist team White and McJunkin, and 8% in support of the proposal by artist James Moore. Of the remaining comments, 3% expressed general support of the proposals without committing to a top choice, 12% expressed support of the project in general but expressed dislike of the presented proposals, and 6% expressed disapproval of the project in general.

At the same meeting the ACC took into account multiple aspects of the three final proposals in addition to the public comment received. The ACC discussed artistic expression as it represents a wide variety of ages and opinions, character fit for the Town, long term maintenance, and cultural relevance.

At its October 16, 2019 meeting, the ACC voted unanimously in favor to recommend commissioning the concept proposal by Matt Babcock titled "El Gato" to be produced as the first gateway marker.

Under the Town's Public Art Selection Policy, final selection approval for the commission of any public artwork does not rest with the ACC. Rather, Council must make a final selection approval.

CONCLUSION AND NEXT STEPS:

If Council approves the ACC's recommendation, the Town will enter into an agreement with the artist regarding the production of the piece, which is within the financial authority of the Town Manager. The ACC will work with the artist to refine project details. Parks and Public Works (PPW), including the Town's Traffic Engineer, will work with the artist to refine any logistical and safety details, timeline, and delivery. PPW will undertake the on-site installation once the artwork is received and Town will be responsible for the long-term maintenance of the piece.

Should the Council not be in favor of the ACC's recommendation, Council may wish to commission the artwork from one of the other two final artists. In the event that Council does not wish to approve any of the submitted proposals, the ACC would reconsider the parameters of the project and return to Council at a later date with an alternative plan for moving forward. In such case, the ACC would welcome any additional direction Council may have regarding the parameters or scope of the project.

CONCLUSION AND NEXT STEPS (continued):

The ACC expresses its thanks to the Town Council for their support of this project.

ALTERNATIVES:

1. The Council may choose to support the ACC's recommendation as presented in this staff report to commission the proposal presented by Matt Babcock.
2. The Council may choose to deny the ACC's recommendation and award a commission to one of the other two artist proposals.
3. The Council may choose to deny the ACC's recommendation and additionally not award a commission to any of the presented artists.

FISCAL IMPACT:

Costs associated with the project are already included in the FY19-20 Capital Improvement budget.

ENVIRONMENTAL ASSESSMENT:

This is not a project defined under CEQA, and no further action is required.

Attachment:

1. Artist Proposal Materials [Includes Site Design Proposal, Artist Statement, Public Art Curriculum Vitae (CV), and Portfolio Sample]

Arts and Culture Commission Gateway Recommendation

ATTACHMENT 1

- a. Proposal materials by artist Matt Babcock
- b. Proposal materials by artist James Moore
- c. Proposal materials by artist team White & McJunkin

ATTACHMENT 1

Arts and Culture Commission Gateway Recommendation

Proposal materials by artist Matt Babcock



POWERPOINT AND DOCUMENT DOWNLOADS:

<https://tinyurl.com/Babcock-Cat>



MATT BABCOCK
el Gato de Los Gatos
PUBLIC ART PROPOSAL

Page 503

10748 Dayton Ave. N
Seattle, WA 98133
206-743-4445
www.mattbabcock.com
sculpture@mattbabcock.com

A
9/18/2019



POSSIBLE COLOR SCHEMES

MATT BABCOCK
LOS GATOS
GATEWAY PUBLIC ART INSTALLATION



10748 Dayton Ave. N
Seattle, WA 98133
206-743-4445
www.mattbabcock.com
sculpture@mattbabcock.com

PROJECT BUDGET

Materials	
6061 aluminum	\$1,350
consumables (welding supplies, abrasives)	250
hardware	50
Contract work	
laser cutting	1,300
powder coating	1,100
Shipping	
crate	1,000
truck freight	600
local delivery	300
Travel	
airfare	200
lodging, car rental, per diem	150
Overhead (rent, insurance, admin)	500
Labor	11,200
Artist fee	2,000
TOTAL	\$20,000

ESTIMATED SCHEDULE

Contract signed	0 weeks
Preparation of drawings for review	2 weeks
Review and approval	4 weeks
Materials lead time	2 weeks
Fabrication	5 weeks
Finishing	2 weeks
Crating and shipping	2 weeks
TOTAL	17 weeks

MATT BABCOCK
LOS GATOS
GATEWAY PUBLIC ART INSTALLATION



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LETTER OF INTEREST

I want to approach this project as a way to reflect the identity of Los Gatos, to make something local residents will be proud of, and to create a functional sign that is also an object of interest for drivers. The project is a great fit for my background and the type of work that I do.

My work is aerial calligraphy that captures gestures, bridging between representation and abstraction with a unique distillation of form and movement. For this project my artwork will convey a welcome to Los Gatos in a simple, iconic form that reads well from moving vehicles.

I aim to spark curiosity with sculptures that reward inspection, encourage conversation, and help people connect with something larger than themselves. Often "something larger" is the natural environment as it relates to the site and community. Many of my pieces celebrate native species that are sources of local interest and enjoyment. The bobcats that Los Gatos was (indirectly) named for suggest a subject that's right up my alley.

As a welder with a background in outdoor sign fabrication and engineering, I will deliver artwork that is legible, durable, well-crafted, and very low maintenance.

As an architect I designed and managed several multi-family and mixed-use projects from initial research through construction. I have the skills to communicate effectively and work on complex endeavors with a project team. I look forward to working with the Arts and Cultural Commission and Town Staff on matters related to design, engineering, and installation.

I applied my collaborative skill set recently on the *Otters* installation, which involved working closely with the state arts commission and the school district where the piece is located, as well as architects, contractors, engineers, conservators, and others. I've completed a number of large-scale public art projects and have pieces on display in many parks and cities.

Site-specificity is important to me. *Crane in its Vigilance* is a good example of my approach to site-specific public art. It is located at the Kirkland Justice Center, which houses the police and municipal court. The title and form honor the work done at the Justice Center by referring to an ancient symbol of vigilance. The wetland bird subject also relates to the rain garden landscaping that surrounds it. In many cultures cranes are symbols of good fortune; thus the piece is a positive, encouraging sign to people from the culturally diverse community arriving at the facility.

Thank you for your consideration.



ARTIST STATEMENT

I focus on public art because I believe it's important to reach out and enrich the lives of as many people as possible across diverse populations. One of the key things I do as a public artist is foster connections between people and something larger than themselves: a neighborhood, a community, a town, a history, a landscape.

I create complex, changing impressions using simple forms, primarily in metal. I like to explore the interplay between abstraction and representation, but it's important to me that my subjects can be recognized and my work understood by people of all ages and diverse backgrounds.

My work expresses my interest in the ways things are made. I draw as much on my background in industry and engineering as on formal art training, creating pieces that are durable, well crafted, and elegant.

I also draw heavily on my background in architecture, which involves numerous skills that transfer well to the practice of public art, like research, analysis of context (physical, historical, and cultural), permitting, coordination, collaboration, documentation, and public presentation.

Public art is a significant cultural contribution because it can reflect the ways people and communities think of themselves in relation to others. I look forward to contributing to the Town of Los Gatos.

MATT BABCOCK
LOS GATOS
GATEWAY PUBLIC ART INSTALLATION



10748 Dayton Ave. N
Seattle, WA 98133
206-743-4445
www.mattbabcock.com
sculpture@mattbabcock.com

RESUME

WORK EXPERIENCE

- 1986 - **SCULPTOR**, Babcock Artworks LLC, Seattle, WA.
Public art, metal fabrication, functional artworks, freestanding and suspended sculpture, kinetic art, and CAD documentation.
- 1988 - 1991 **SIGN FABRICATOR**, Huron Sign Company, Ypsilanti, MI.
Welding, wiring, painting, and assembly of custom outdoor signs.
- 1995 - 2008 **ARCHITECT**, Snell Partnership, Seattle, WA.
Design, project management, consultant coordination, construction administration, public presentations, research, permitting.

PUBLIC SCULPTURE COMMISSIONS

- 2019 **BOLT** sculpture/seating installation, Castle Rock, CO
(finalist, proposal under review).
- 2019 **SCRATCH** sculpture/seating installation, Missoula, MT
- 2018 **SNOWSHOE** outdoor sculpture for transit stop, Anchorage, AK.
- 2018 **OTTERS** sculpture/seating installation for Washington State Arts Commission and North Mason School District, Belfair, WA.
- 2016 **CRANE IN ITS VIGILANCE** outdoor sculpture, Justice Center, Kirkland, WA.
- 2016 **MOUNTAIN GOATS** site design and sculpture/seating installation, McCall, ID.
- 2015 **GREAT BLUE** illuminated street clock for community center, Port Townsend, WA.
- 2013 **KRILL, EGG, and FALL** kinetic sculptures, Edmonds, WA.
- 2012 **MOOSE** sculptural bike racks, Lewiston, ID.

OUTDOOR SCULPTURE EXHIBITS

- 2019 - 2020 **ART FOR AWHILE**, Broomfield, CO.
- 2017 - 2019 **SAN JUAN ISLANDS SCULPTURE PARK**, Roche Harbor, WA.
- 2015 - 2018 **INTERURBAN ARTSCAPE**, Shoreline, WA.
- 2016 - 2019 **GALLATIN ART CROSSING**, Bozeman, MT.
- 2016 - 2018 **CITY HALL SCULPTURE GARDEN**, Milwaukie, OR.
- 2015 - 2019 **ART OF COMMUNITY**, Hood River, OR.
- 2014 - 2016 **CIVIC CENTER PARK**, Newport Beach, CA.
- 2013 - 2015 **GALLERY WITHOUT WALLS**, Lake Oswego, OR.
- 2012 - 2016 **FRANCONIA SCULPTURE PARK**, Franconia, MN.
- 2012 - 2015 **ARTCURRENTS**, Coeur d'Alene, ID.
- 2011 - 2020 **ART ON THE AVENUES**, Wenatchee, WA.
- 2011 - 2014 **HEART OF PHINNEY PARK**, Seattle, WA.

AWARDS

- 2018 **PEOPLE'S CHOICE**, Gallatin Art Crossing, Bozeman, MT.

JURIED PUBLIC ART ROSTERS

WASHINGTON STATE ARTS COMMISSION AIPP ROSTER

OREGON STATE AIPP ROSTER

CITY OF PALO ALTO PRE-QUALIFIED ARTIST POOL

CITY OF SAN ANTONIO PUBLIC ART QUALIFICATIONS PRE-QUALIFIED LIST

IOWA ART IN STATE BUILDINGS PROGRAM

OKLAHOMA CITY PRE-QUALIFIED ARTIST POOL

PRIVATE SCULPTURE COMMISSIONS

2017 CROW outdoor kinetic sculpture, Seattle, WA.

WORK IN PUBLIC COLLECTIONS

2016 SAMARAS outdoor sculpture, Wenatchee, WA.

OTHER EXHIBITS

2018 THE CROW SHOW, Studio Door Gallery, San Diego, CA.

2017 NORTHWEST FINE ARTS COMPETITION, Phinney Center, Seattle, WA.

2014, 2017 JURIED ART AUCTION, Pratt Fine Arts Center, Seattle, WA.

2014 CITY HALL GALLERY, Shoreline, WA.

2013 - 2016 KESTREL suspended mobile, Pybus Public Market, Wenatchee, WA.

2013, 2015, 2017 JURIED ART AUCTION, Artist Trust, Seattle, WA.

EDUCATION

1991 - 1994 MASTER OF ARCHITECTURE, University of Colorado, Denver, CO.

1987 - 1988 WELDING MAINTENANCE MECHANIC CERTIFICATE,
Washtenaw Community College, Ann Arbor, MI.1986 - 1990 BACHELOR OF ARTS, University of Michigan, Ann Arbor, MI.
Major: History of Art. Other concentrations: Physics, Math.
Honors: Phi Beta Kappa.**SPECIAL COURSEWORK**2004 - 2013 PRATT FINE ARTS CENTER, Seattle, WA.
Sand cast bronze, investment casting, kinetic sculpture, drawing,
woodworking, neon signs, steel sculpture, flameworked glass.2009 - 2010 NORTH SEATTLE COLLEGE, Seattle, WA.
Structural engineering.1993 UNIVERSITY OF COLORADO, Smichov, Czech Republic.
Urban/landscape design studio.**RESIDENCIES**

2012 FRANCONIA SCULPTURE PARK, Franconia, MN.

PROFESSIONAL AFFILIATIONS

PRATT FINE ARTS CENTER

PACIFIC NORTHWEST SCULPTORS

MATT BABCOCK
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REFERENCES

MARISSA LAUBSCHER

ArtsWA Project Manager

marissa.laubscher@arts.wa.gov

360-586-2419

c/o Washington State Arts Commission, PO Box 42675, Olympia, WA 98504

Title of work is *Otters*, located at North Mason School District in Belfair, WA.

Marissa was the project manager for my client (WSAC). I provided an installation of outdoor seating and sculpture, completed in 2018.

PERRI HOWARD

Arts Management Services for City of Kirkland

vmgworks@gmail.com

206-617-7686

c/o Velocity Made Good, 4701 SW Admiral Way #114, Seattle, WA 98116

Title of work is *Crane in its Vigilance*, located at the Justice Center in Kirkland, WA.

Perri managed the selection process and served as my liaison with the city throughout this outdoor sculpture commission completed in 2016.

KENNETH CLOW

City of Port Townsend Public Works Director

kclow@cityofpt.us

360-379-5090

c/o City of Port Townsend, 250 Madison Street #2R, Port Townsend, WA 98368

Title of work is *Great Blue*, located on Tyler St. in Port Townsend, WA.

Ken was my point of contact for a public illuminated street clock commission completed in 2015.

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PROJECT BUDGET

Materials (metal, consumables, hardware)	\$1,500
Contract work (waterjet cutting, powder coating)	2,500
Crating and shipping	2,000
Travel (finalist presentation, site visit)	500
Overhead (rent, insurance, admin)	500
Labor	11,000
Artist fee	2000
TOTAL	\$20,000

ESTIMATED SCHEDULE



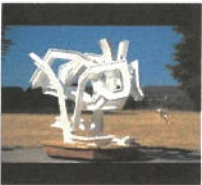


Contract signed	0 weeks
Preparation of drawings for review	2 weeks
Review and approval	4 weeks
Materials lead time	2 weeks
Fabrication	5 weeks
Finishing	2 weeks
Crating and shipping	2 weeks
TOTAL	17 weeks

MATT BABCOCK LOS GATOS GATEWAY PUBLIC ART INSTALLATION



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IMAGE LIST

IMAGE	TITLE/LOC.	MEDIA	SIZE/BUDGET	YEAR
	1 <i>Otters</i> Belfair, WA	painted aluminum, granite	3'-6"H x 17'W x 14"D \$55,000	2018
	2			
	3 <i>Snowshoe</i> Anchorage, AK	thermoplastic coated aluminum	6'H x 7'W x 5'D \$35,000	2018
	4			
	5 <i>Mountain Goats</i> McCall, ID	powder coated aluminum, granite	6'H x 26'W x 13'D \$30,000	2016

for WA State Arts Commission and North Mason School District

The campus where this piece is located is a community gathering place where people meet for school, athletics, church, and other activities. The subject is a family of river otters exploring their surroundings. The subject suggests themes such as play, curiosity, active outdoor pursuits, and family, which reflect how the campus is used.

The layout of the installation provides seating that allows for group interaction as well as individual reflection. Concrete paving and benches will be installed per my site plan in late 2018.

For Municipality of Anchorage 1% for Art

The sculpture will be installed at a transit stop in the summer of 2019. It will appear to be running to catch a bus, as shown in the rendering. Humor is one of the ways I like to engage with viewers.

As with many of my artworks, this piece is meant to recognize and foster connections between people and nature by celebrating a native species that is a source of local pride and enjoyment. Snowshoe hares are among the surprising variety of wild animals living in Anchorage.

For City of McCall

I provided site design, metal sculptures, and stone seating elements for this new public plaza. Design and installation were coordinated with a larger public works project. I have the skills and experience to work effectively with public agencies, designers, and other stakeholders.










IMAGE	TITLE/LOC.	MEDIA	SIZE/BUDGET	YEAR
	6 <i>Crane in its Vigilance</i> Kirkland, WA	bronze, gfrc	17'H x 11'W x 5'D \$135,000	2016
	<i>for Kirkland Cultural Arts Commission</i> Site specific artwork that tells a story, honoring the work done by the police and municipal court by referring to an ancient legend and symbol of vigilance. In many cultures cranes are symbols of good fortune, so the piece serves as an encouraging welcome to the culturally diverse community.			
	7	Since the underlying legend concerns a sentry who never sleeps, nighttime lighting was critical. My experience as an architect has proven to be excellent preparation for managing large, multifaceted public art projects.		
	8 <i>Great Blue</i> Port Townsend, WA	powder coated steel, clock	13'H x 7'W x 3'D \$36,000	2015
	<i>For Port Townsend Arts Commission</i> Street clock commissioned for a community gathering place. The area is known for bird life, particularly herons.			
	9	Adds some jazz to the streetscape in a town that hosts a number of music festivals. <i>Great Blue</i> required careful coordination to address technical and regulatory challenges like traffic sightlines and electrical access. Complex miter joints and exposed welds highlight the craftsmanship typically expressed in my work.		
	10 <i>Big Wet Dog</i> Bozeman, MT	powder coated steel	52"H x 92"W x 28"D \$14,000	2014
	<i>On loan to Gallatin Art Crossing</i> Movement study of a vigorous subject; aerial calligraphy that captures both action and image. A popular attraction at an off-leash dog run. This piece demonstrates my ability to convey dynamic movement and emotional state (in this case joie de vivre) with an economy of means.			

IMAGE	TITLE/LOC.	MEDIA	SIZE/BUDGET	YEAR
	11 <i>Crow</i> Seattle, WA	powder coated aluminum, blown glass	kinetic; typical size 11'H x 5'W x 2'D \$32,000	2018
	<i>Private commission</i> Wind-driven kinetic sculpture designed for a site where it will usually be seen silhouetted against a bright sky. Introducing blown glass turned this challenge into an asset. Creative problem solving and attention to site context are skills I bring to the table.			
	12			
	As the two heads turn independently, the moon disk occasionally eclipses the sun disk. Video of this piece in motion can be seen on my website (LINK) .			
	13 <i>Equestrian</i> Hood River, OR	steel	57"H x 63"W x 18"D \$11,000	2013
	<i>On loan to Art of Community</i> Based loosely on the equestrian statue of Jahnsi Ki Rani in Gwalior, India. I sometimes take inspiration from historical styles and works, but always focus on revealing something new.			
	14 <i>Moose</i> Lewiston, ID	galvanized steel	10'H x 14'W x 10'D \$16,000	2012
	<i>for Beautiful Downtown Lewiston</i> Bicycle racks on a downtown street corner. Life size representations of Alaskan Moose.			
	15			
	The baby moose was added in response to the community's request for a special place for kids' bikes. My goal is to create public art that reflects community values and takes stakeholder input into account. And I like making things that reach out to kids.			

Arts and Culture Commission Gateway Recommendation

Proposal materials by artist James Moore

**Town of Los Gatos
Gateway Public Art Sculpture**

Proposed Sculpture by James Moore

“Dance With Us”

This is a sculpture about community and connection. It’s intended to be accessible to the entire Los Gatos Community no matter their age or background.

The sculpture includes two metal figures standing on either side of an opening. This opening may be interpreted as a “doorway” suggesting the idea of home. It may also be interpreted as a “portal” or passageway between home and the broader world. The figures are captured in the act of dancing - perhaps in celebration of an event, or maybe just for the fun of it. This sculpture is intended to spark a feeling of joy and suggests that perhaps life can be more like a dance and less like a struggle.

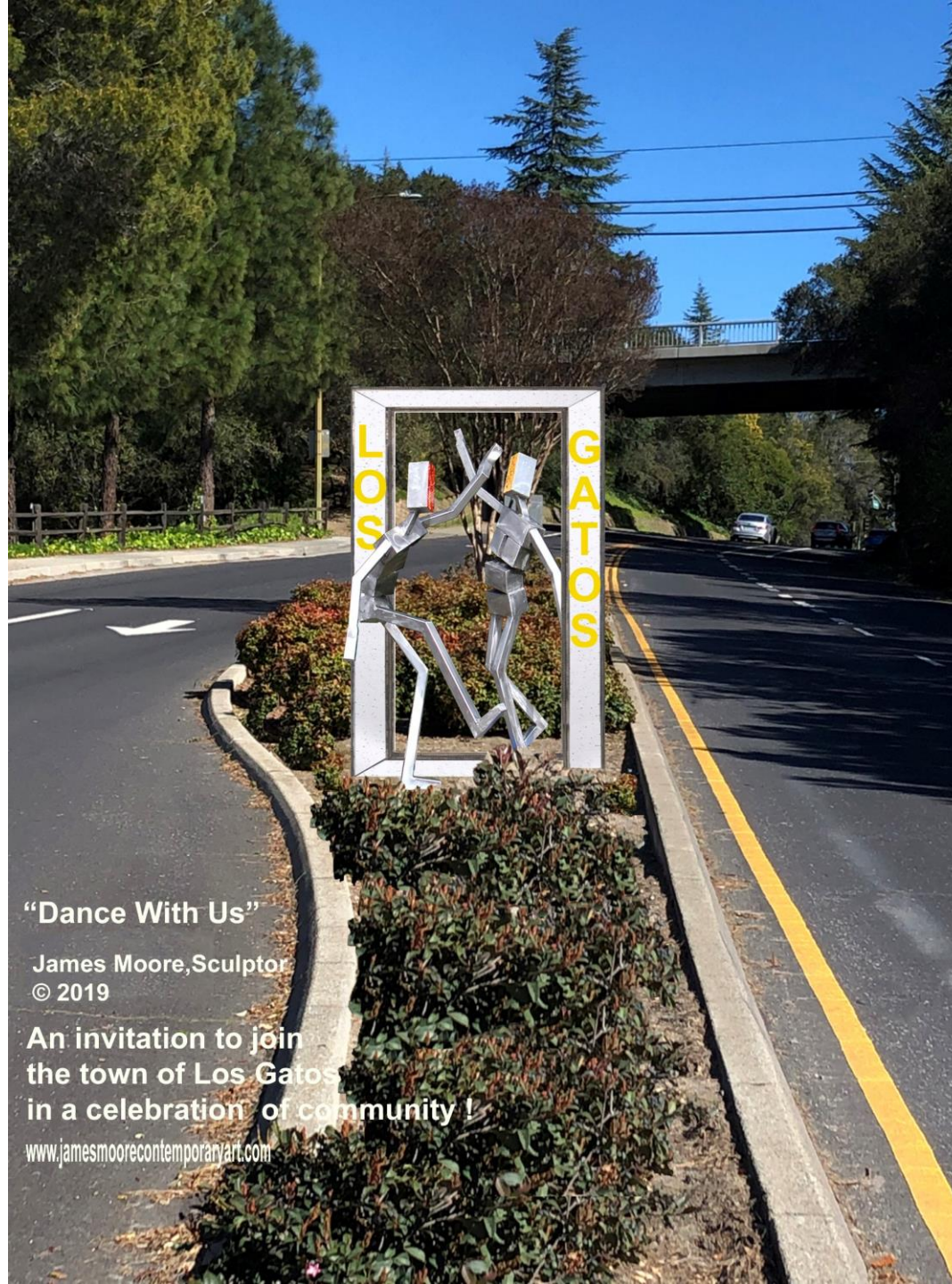
On another level the sculpture suggests, in a playful way, that there’s always a way to push through the presumed barriers that sometimes separate us. And it hints at the truth that moving through those barriers is really the only way for us to support and uplift one another.

This work would be fabricated from stainless steel and aluminum. Color would be added using high-grade automotive paints together with a protective automotive clear coat.

The principle of informed simplicity guides my work. Einstein said it best: “Everything should be made as simple as possible, but not simpler.” For me this project that means providing the viewer with a visual experience that sparks joy while leaving room for them to bring their own experience to it.

James Moore, Sculptor

www.jamesmoorecontemporaryart.com • (415)497-1441



“Dance With Us”

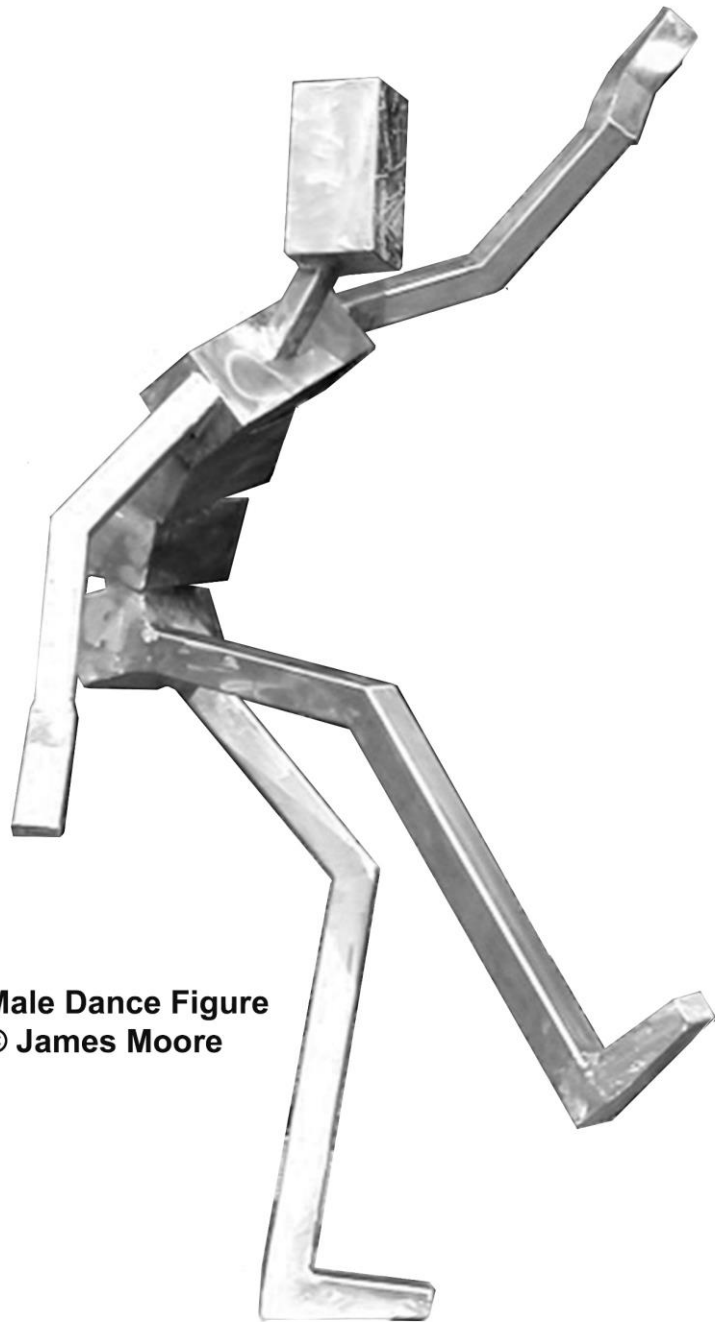
James Moore, Sculptor
© 2019

An invitation to join
the town of Los Gatos
in a celebration of community!

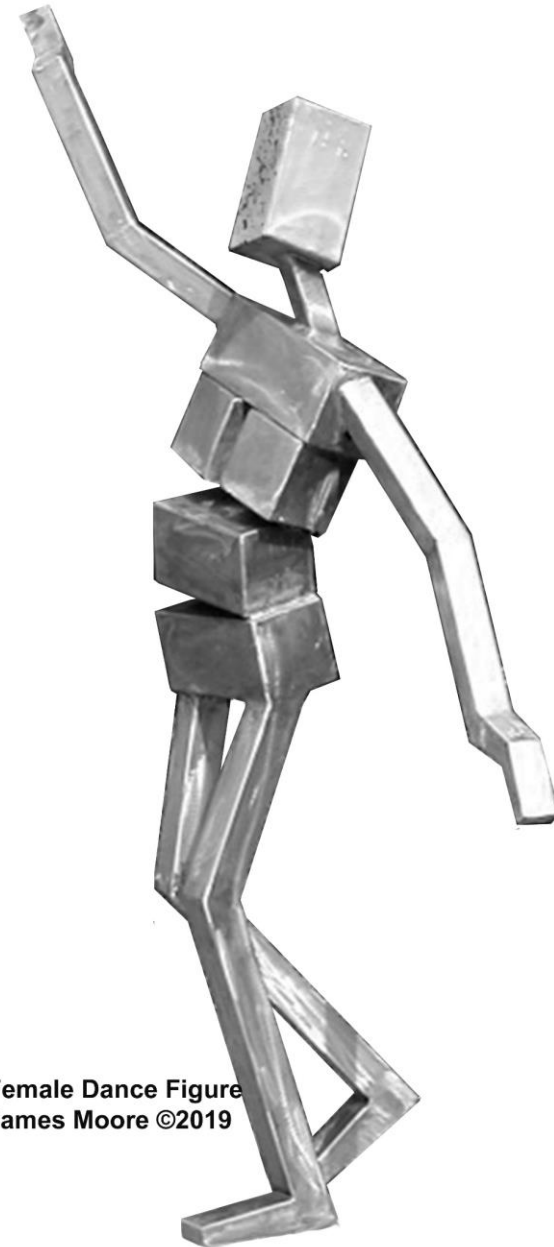
www.jamesmoorecontemporaryart.com



"Dance With Us"
James Moore
©2019



Male Dance Figure
© James Moore



Female Dance Figure
James Moore ©2019

Los Gatos Gateway Public Art Project

Artist Statement

On a blistering summer day more than 40 years ago, I found myself sitting in the shade of an old walnut tree. My attention was drawn to a discarded, weathered section of branch. Somehow I could see the image hidden inside, and with an old carpenter's hammer and chisel I intuitively began removing bark and wood to reveal the face that lay within. My life as an artist had begun.

Ever since that day, I've been inspired to look for the essence of the things, ideas, and experiences I encounter on life's journey. Along the way I've discovered an important truth that deeply informs my life as a public artist; every community has a story to tell and art can help tell it. I've found this to be true whether that community is specific or more fluidly defined.

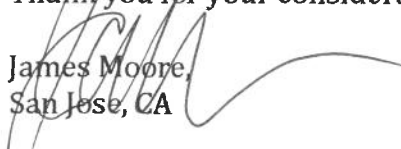
The artwork I create is welcoming, accessible and signals a focus towards the future. Working in highly durable materials, I'm guided by the principle of informed simplicity. This principal is perhaps best described in the quote by Einstein - "Everything should be made as simple as possible, but not simpler." I use a visual influenced by both the figurative and minimalist traditions. The combination enables me to create work that's accessible to a broad audience. It can be both fun and didactic.

My approach to public art begins with understanding the values and intentions expressed by the project's stakeholders. I carefully review the RFQ to understand the values of the stakeholders and, when possible, spend time exploring the site on foot and talking with the community to understand what they consider unique or important about the place they call home. Having worked with a variety of stakeholders I've developed an active and empathetic approach to stakeholder engagement. I'm able to anticipate and bridge gaps in opinions and viewpoints as we collaboratively work to meet the project's objectives.

I'm inspired by projects that align with my personal and professional values. And I'm especially excited by opportunities to foster connections between people of all ages, and abilities as they share public spaces. At its core, my work is about exploring that timeless question of what it means to be a human being. While the scope of that question is vast, the answer has to do with our connection to community. And this idea of connection to community is the basis for my purpose, my goal, and my joy as a public artist.

Thank you for your consideration.

James Moore,
San Jose, CA



Los Gatos Gateway Public Art

Letter of Interest

I'm inspired by this project because it aligns with my personal and professional values. My purpose as a public artist is to foster connections between people of varied backgrounds as they share public spaces. I accomplish this by providing communities with public artwork that's uplifting, accessible, and durable – work that gives the viewer a reason to smile.

My body of work is guided by the principle of informed simplicity. Einstein said it best: "Everything should be made as simple as possible, but not simpler." For me this means providing the viewer with a visual experience that sparks joy while leaving room for them to bring their own experience to it.

I've successfully worked with a variety of stakeholders. Through thoughtful and empathetic engagement I'm able to anticipate and bridge gaps in opinions and viewpoints as I work to meet the project's objectives.

I recently spent some time at the site and I would welcome the opportunity to present the ideas that visit inspired.

Sincerely,

James Moore



James Moore – Image List

Image 1

Helium (Figures with helium molecule)

Welded stainless steel

11' x 13' x 12

2007, Foothill College, Los Altos Hills, CA

Commissioned by Foothill College. Helium (representation of a helium molecule) stands at the entrance to the colleges newly constructed Physical Sciences and Engineering Complex. The sculpture celebrates the interaction of humans with science and underscores the importance of joyful exploration – even within the sciences.

Image 2

Star Gazers (To Think, To Dream, To Be)

Welded structural aluminum

16' x 4' x 4' (each)

2018, Hyatt House, Cupertino, CA

Commissioned by Cupertino Property Development II, LLC.

Star Gazers is a public artwork created to welcome world travelers to Silicon Valley's newest extended stay property. It captures the spirit of this dynamic region expressed here as the spirit "to think, to dream, to be."

Image 03

Balancing Act

Poly-chromed Stainless Steel

8.5'h x 3'w x 2.5'd

2011, City of San Carlos

Commissioned by the San Carlos Arts and Culture Commission.

Balancing Act stands at the entrance to Laurel Street Park in Downtown San Carlos where people from varied backgrounds gather for cultural activities, relax, , and hangout. The sculpture reminds us that life is a balancing act.

Image 04

Fisherman,

Welded Stainless Steel

12'h x 5'w x 3'd

2014, Allied Capital & Development, Jupiter FL

Public commission, Harbourside Place Development

This work was commissioned for a new mixed-use development in Jupiter Florida. This work speaks to an important aspect of this community's relationship to its water. This work demonstrates my ability to tap into shared experiences to create a visual experience that can be shared within and beyond the community. Value:

Image 5

Figures With Carbon Unit

Welded Stainless Steel

4.5' x 7' x 2.5'

2014, Los Altos Hills, CA

Commissioned by Foothill College. This work is the representation of a carbon unit. It's sited in the inner courtyard of the colleges Physical Sciences and Engineering Complex. Carbon Unit celebrates the interaction of humans with science and underscores the importance of joyful exploration and cooperation

Image 06

Kids at Play (Figures with ball)

Welded Stainless Steel

10' x 4' x 3'

2007, Woodside, CA

Privately funded commission for Dominic Orr. This sculpture tells the story of his two children and their ongoing yet goodhearted sibling rivalry.

Image 07

Family at Play

Welded Stainless steel (two adult figures with one child figure)

9' x 14' x 4'

2008, Avondale, AZ

This sculptural tableau was created as the centerpiece for Avondale's Civic Center. It depicts the purpose of Avondale's City's Civic Center - to serve and support families and the community.

Image 08

Bliss in The Moment

Welded stainless steel

7' x 6' x 3'

2010, Palo Alto, CA

Commissioned by Palo Alto Arts Commission as a tribute to bicycle activist William Bliss. His efforts were instrumental in establishing the City's biking trails. This work sits at the entrance to the hiking trails for the Palo Alto wetlands area.

Image 09

David

Welded stainless steel

6.5' x 2' x 2'

2018, Atherton, CA

Private collection – A contemporary take on Michelangelo's "David".

Image 10

Search For Self

Welded stainless steel

10 x 4' x 3'

2007, Orinda, CA

Private Collection – This work symbolizes our eternal search for meaning.

Selected Exhibitions and Public Commissions

Selected Commissions & Public Placements

Hyatt House Cupertino, CA, (2018 –anticipated completion date)
Harbourside Place , Jupiter, FL (2014)
Foothill College, - Lead Artist - Los Altos Hills, CA, (2013)
City of San Carlos, CA, 2011
City of Palo Alto, CA 2010
City of Orinda, CA 2010
City of San Rafael, City Hall 2009
City of Los Altos, CA Hill View Community Center, 2008
City of Avondale, AZ City Civic Center 2008
Perella, Weinsberg, Partners, LLC Austin TX 2008
DPS Telecom, Fresno, CA 2008
The Wiseman Group, San Francisco, CA 2006
Mr. and Mrs. Ron and Nan Chapman, Saratoga, CA 2005
Goodland Landscape and Construction, San Ramon, CA 2005
Creative Marketing Concepts, San Francisco, CA 2004
Chillag and Associates, Palo Alto, CA 2002
Kaiser Permanente, Oakland, CA 1994

Selected Exhibitions

Sculpturesite / A New Leaf Gallery, /Sonoma, CA – 2005-present
Gallery of Modern Masters, Sedona, AZ 2009-Present
Dennis Rae Fine Arts, San Francisco, CA 2010-present
Red Door Designs, Lagos State, Nigeria group show 2013
Thelma Harris Gallery, Oakland, CA 2007-2012
Artscape Gallery, Walnut Creek, CA 2003-2007
John Pense Gallery, San Francisco, CA 1997
MOCHA Museum of Children's Art, Oakland, CA 1995
American Institute of Architecture, Oakland, CA 1995
ACCI Gallery, Berkeley, CA 1995, Featured Artist
Center for the Visual Arts, Oakland, CA 1993
Pro Arts Gallery, Oakland, CA 1992
Davis Art Center, Davis CA 1991, Juried Competition
Galleria Mesa, Mesa AZ 1990, Juried competition

Gallery Representation

Sculpturesite Gallery

www.sculpturesite.com

Dennis Rae Fine Art, San Francisco, CA
www.dennisraefineart.com

Dennis Rae Fine Arts, St. Helena, CA
www.dennisraefineart.com

Gallery of Modern Masters, Sedona, AZ
www.galleryofmodernmasters.com

Red Door gallery, Lagos, Nigeria
www.reddoorgallery.com

Professional References

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M: (407) 780-4502

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250 Hamilton Ave
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Brigitte Micmacker, co-owner
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info@sculpturesite.com
(707) 933-1300

James Moore
P.O. Box 720294
San Jose, CA 95172
415-497-1441 (direct)
jamesmooreca@earthlink.net

Los Gatos Gateway Artwork

Budget Estimate

Based on the budget and other parameters of set out in the RFQ for this project, I estimate the budget would break down as follows:

Artist Fee.....	10%
Fabrication.....	65%
Delivery.....	5%
Overhead & Administrative	
-Professional Fees.....	5%
-Documentation of Artwork.....	3%
-Insurance.....	1%
-Travel.....	1%
Contingencies.....	10%
<hr/>	
Total.....	<u>100%</u>

Los Gatos Gateway Art Project Estimated Timeline

Initial designs7-10 days from date of signed contract

Stakeholder's approval of design....10 days from design presentation

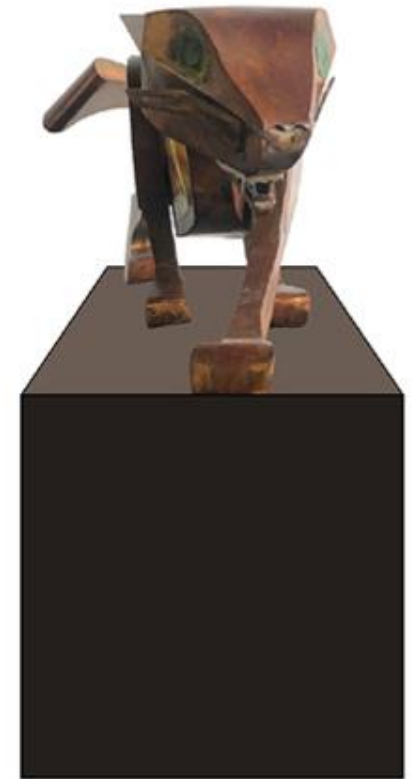
Fabrication45-60 days from approval of designs

Installation Date.....to be determined by stakeholders and
artist.

James Moore
415-497-1441

Arts and Culture Commission Gateway Recommendation

Proposal materials by artist team White & McJunkin



Maquette of "Cougar" - final size is 7' (l) x 4' (h) x 3' (w)

Front view





Page 533

Kiln-carved glass sample for "Cougar"



Fused glass insert for steel cut-out

White+McJunkin

Background: Glass artist Lin McJunkin has an emotional connection to the Los Gatos area. The San Francisco native grew up in Los Altos and as a child, visited her grandmother's family prune orchard business in nearby Gilroy. On the way, her family always stopped in Los Gatos to eat. As an adult, she visited her favorite Mexican restaurant there on her way to Santa Cruz where she attended the University of California to do graduate work in Comparative Arts. She still has family in San Jose and continues to visit the area frequently.

Now, Lin and her metal partner, Milo White, specialize in collaborating with commissioning agencies and the public to create inviting entrances to municipal spaces that reflect the natural and human history of the sites. One of their professional goals is to create new commissioned work outside their current home area in Washington State where they are known for designing and fabricating work that becomes a destination for visitors and an attraction for commissioning cities. So they are excited by the challenge of creating a place-marker that distinguishes Los Gatos as the charming small town in a beautiful setting with a visual history that has become as vibrant as its evolution through Native American to Spanish to high-tech influences.

Experience: For a dozen years, they've leased their sturdy, low-maintenance work to unsupervised outdoor sculpture programs from snowy Bozeman to Tucson's deserts, while their permanent installations greet visitors to homes, offices, boardwalks, a library, hospital, art alley, and a large apartment complex in Washington state.

Metal sculptor Milo White has 25 years' experience as a residential and commercial contractor and has successfully downsized to creating more intimately-scaled sculpture. He is expert at the computer design, plasma-cutting, metal layering, patination and installation work he now does on metal sculptures. He works with a variety of materials into which he cuts intricate designs that glass artist Lin McJunkin often fills with thickly-cast glass whose colors and textures enhance the pieces, as does optional lighting.

Lin has 35 years' experience as a glass artist, with work in private and public indoor and outdoor collections around the world. Her cast glass resonates with its colorful kiln-carved (embossed) narratives that help tell local stories. Lin serves as Project Manager for all their jobs, and enjoys coordinating the work of everyone involved in their commissions.

Achieving mutual goals is as important to them as is producing high quality results, and their references attest to how efficiently and pleasantly their team works. This is what they propose to create with the Los Gatos Art Commission as they develop site-specific work.

Proposed materials: The team works in mild or stainless steel, Corten and aluminum, whichever is most aesthetically and structurally appropriate for a project. They can also add cast glass elements, with or without embossed narrative detailing, or work only in metal without the glass.

Lin and Milo are excited at the prospect of creating a site-specific sculpture for an important place in her childhood memories of sun, food, cats and fun. Thank you for considering our qualifications.

Town of Los Gatos Arts and Cultural Commission:
Milo White + Lin McJunkin, Metal + Glass
Artists' Statement

Skagit County, Washington, metal sculptor Milo White and glass artist Lin McJunkin have been regular collaborators for 5 years. While we both continue to pursue our own separate art careers, we often team up to transform sheets of steel and chunks of glass into a unique hybrid of sculptural elements. White often begins our collaborations with a metal framework that McJunkin fills with fused or cast glass. She adds more color and texture to their vivid creations that investigate the play of light over and through layers of metal and glass. In other situations, McJunkin begins the work and White creates the metal to her specifications. Regardless of who does the physical labor on each section, both artists are fully involved in all design decisions. Our work is shown at various galleries in the Pacific Northwest, and leased or in permanent outdoor city or private installations.

As creators of welcoming municipal place-markers, we focus our work on the interplay between a site's natural and human histories. In our design process, we consider these 3 main principles of place-making to create a collaborative vision for the project:

1. The community is the expert – seek their input to create a vision.
2. Observe how the space is currently used.
3. Create a place, not a design.

We are interested in the intersection between rural and urban communities, the natural and designed worlds, the human and material spheres that comprise the cultural lives of a community. We have built a highly-skilled team that sources local material and labor where possible to help us build quality products, on time and within budget, while also building close relationships with all stakeholders.

For nearly three decades, **White** designed and built custom residential and commercial buildings, then transitioned into building commercial steel boats. But for the past few years, he's been scaling down to create more personal metal art sculpture for indoor and outdoor display. Using a computer, a CNC plasma cutter and welding equipment, White experiments with the interaction of light on layered metal shapes. A variety of patinas and the inclusion of neon and LED lighting allow him to enhance that interplay. In collaboration with glass sculptor Lin McJunkin, he adds highly colored and textured glass shapes to the metal frameworks, creating a hybrid new art form.

He shows his work in various commercial outlets and gallery settings, and his commissioned pieces are displayed in numerous private settings. This has been a successful and gratifying transition from architectural to art sculpture and he hopes to inspire others with the results.

During those same 30 years, **McJunkin** enjoyed parallel careers as a glass artist and science educator. Her commitment to raising people's awareness of their impact on the environment is apparent in her work. Early on, she created her own method of working with open-worked copper-foiled glass, then switched to glass fusing. With the addition of welded steel and experimentations begun at Pilchuck International Glass School, she was able to enliven her work with 3-D elements. McJunkin's work is held in private, corporate and public collections around the world.

We value the human process, as well as the ideas, designs and materials, of a project. With every project, we expand our skill set and team of consultants, while strengthening community relationships, a worthy goal for this project.

Town of Los Gatos: Gateway Public Art Project- Estimated Budget –

White + McJunkin

Without a detailed proposal and plan for fabrication, it is not possible to provide an accurate budget.

So we are submitting a sample budget based on an actual completed project ("Project A") to give you an idea of the scope of our work. We realize that the figure for the upper range of our sample is above your budget of \$20,000, so we would adjust our budget for the Los Gatos project to fit into that constraint.

We usually ask for a 50% deposit to begin fabrication after design acceptance, and the balance when the completed piece is delivered.

See attached page for sample.

	<u>Mild Steel</u>	<u>Stainless steel</u>
STEEL		
<u>Materials</u>		
Steel	\$2,000	\$6,000
Welding supplies		
Silicone gaskets		
Installation hardware, bolts		
Signage		
<u>Time</u>	\$6,500	\$6,500
Enlarge design, maquettes to full scale		
Source, collect materials		
Source, supervise processing: steel- roll, cut, weld, powder-coat, assemble, finish		
Signage		
Travel: consult with CG Engineering, LAC; final installation		
<u>Processing</u>		
Steel Rolling	\$ 500	\$ 500
Steel powder coating: anti- graffiti	\$1,000	----
Subtotal for this category:	\$10,000	\$13,000
GLASS		
<u>Materials</u>	\$ 500	\$ 500
Fusing glass		
Embellishments		
Kiln supplies		
Kiln electricity costs		
<u>Time</u>	\$3500	\$3500
Project management, administrative oversight		
Create designs		
Glass- source, procure, cut, mold, fire, clean, assemble, finish		
Processing: Kiln time, assemble and adhere silicone gaskets		
Travel: consult with CG Engineering, LAC; final installation		
Subtotal for this category:	\$4,000	\$4,000
LIGHTING – price is similar for conventional lighting		
<u>Solar Engineer</u> : consultation on PV/LED usage	\$ 500	\$ 500
<u>Materials</u> : Photo voltaic collector, batteries, bulbs	\$1,000	\$1,000
<u>Time</u> : source, purchase, install	\$ 800	\$ 800
Subtotal for this category:	\$2,300	\$2,300
FEES & INSURANCE – 1 yr. liability rider to existing insurance	\$1500	\$1500
Permits, engineering stamps, etc.		
DOCUMENTATION		
<u>Photography</u> : on site, for use on LAC website, CG promo, etc.	\$ 200	\$ 200
POTENTIAL COST OVER-RUN	\$1,000	\$1,000
Subtotal for these categories	\$2,700	\$2,700
Grand subtotal	\$19,000	\$22,000
SALES TAX 9.5% City X WA State	+ 1,700	+ 1,900
TOTAL RANGE:	\$20,700	\$23,900

Town of Los Gatos: Gateway Public Art Project- Estimated Schedule –

White + McJunkin

We run very active studios, with many projects in current planning and production stages. We also have several projects pending, with decisions to be made early next year about our acceptance.

Therefore, it is difficult to create a precise timeline but we can offer these estimates, based on the timelines we adhered to in previous similar commissions. Dates are subject to changes in the scheduling of projects planned before this one, and also subject to the Town's needs. Should we not be chosen for some of the pending commissions, we would be able to deliver much sooner than these outside estimates:

Design and maquette - ready for delivery and display for the Art Commission/Town Council/Citizens review and approval within 2 months of our acceptance by the Town as the finalist team.

Fabrication – all metal and glass work will begin once the deposit is received by the Artists (usually 50%) and will be completed within one year of written acceptance of our design. Our team will provide frequent updates in the form of digital photos and text on our progress.

Delivery – within 1 month of acceptance by the designated stakeholders of our final product, weather permitting. Final payment is due at this time.

Installation – at the Town's discretion.

White + McJunkin Resumé

Contact: Lin McJunkin PO Box 333, Conway, WA 98238 360-941-6742 lin@mcjunkinglass.com

www.mcjunkinglass.com

Public Art Commissions

- 2019 City of Anacortes, WA – Art Commission Purchase
- 2018 Mount Vernon, WA – Riverfront Park
- 2017 Lynnwood, WA - CityCenter Apartments
- 2016 Langley, WA - Clyde Alley Archway
- 2009 Skagit Valley Hospital Foundation, Mt. Vernon, WA

Public Art Commission - finalists

- 2018 City of Olympia, WA: Gateways – design 8 pairs of related street sculpture (decision in Jan. 2019)

Public Installations- on loan

- 2018 WA: Bainbridge, Auburn; OR: Lake Oswego
- 2017 WA: Olympia, Langley; OR: Lake Oswego; ID: Coeur d'Alene; MT: Bozeman
- 2016 WA: Des Moines, La Conner, Olympia, Shoreline; OR: Lake Oswego
- 2015 Outdoor Sculpture Exhibitions: Kirkland, Olympia, and Shoreline, WA.
- 2014 Des Moines, WA, Art on Poverty Bay Sculpture Walk

Private Art Commissions

- 2019 Beltsville, MD – NextCure, Inc.
Hickel Residence, Camano Island, WA
- 2016 Clark Residence, Lake Sammamish, WA
- 20166 Barker Residence, Lake Stevens, WA

Gallery Exhibitions

- 2019 Scott Milo Gallery (Feb), Tacoma Community College (Sept – Nov)
- 2018, 19 "Sculpture in the Park," Loveland High Plains Art Council, Loveland, CO
- 2018 "NW Associate Sculptors' Show, Allied Arts, Bellingham, WA
- 2016 "Elemental" and "Kinetics" Shows, Sculpture Northwest, Bellingham, WA
 - "Art and Architecture," GBD Architects, Portland, OR
 - "Time Lives Us," Scott Milo Gallery, Anacortes, WA
- 2015 "Imagining It Gone," Childhood's End Gallery, Olympia, WA
 - "The Geometry of Change," Karla Matzke Fine Art Gallery, Camano Island, WA
 - "Six Journeys," Karla Matzke Fine Art Gallery, Camano Island, WA
 - "Narrating Earth," Burien, WA Art Center,
 - "Art at the Schoolhouse," Christianson's Nursery, Mt. Vernon, WA

Publications

"Rainbow Arch brings color, connection to Langley"- *S. Whidbey Record*, June 25, 2016

Presentations

- 2016 "Cross Pollination: artists in collaboration" – City of Shoreline

Current Gallery Representation

Childhood's End Gallery, Olympia, WA
Karla Matzke Fine Art Gallery and Sculpture Park, Camano Island, WA
Scott Milo Gallery, Anacortes, WA

References

William King, Director, Parks and Enrichment, City of Mount Vernon, WA williamk@mountvernonwa.gov 360-336-6215
Carmel Gregory, Engineer CityCenter Apartment Project, Lynnwood, WA carmelg@cgengineering.com 425-778-8500

Lin McJunkin Resumé

PUBLIC ART COMMISSIONS

- 2018 "Valley of Our Spirits" with Milo White & Jay Bowen, Riverwalk Park, Mount Vernon, WA
- 2017 "*Apiarium major*" with Milo White, CityCenter Apartments, Lynnwood, WA
- 2016 "Inferred" with Milo White, Clyde Art Alley, Langley, WA
- 2014 "Kelp Totem: Carved," Town of La Conner, WA
- 2013 "Riparian Totem," City of Auburn, WA
- 2011 "Ring of Life," Unitarian Universalist Fellowship, Sequim, WA
- "My Funny Valentines," Cardiology Dept., Skagit Valley Hospital, Mt. Vernon, WA
- "Baby on My Mind, Womb of My Own," SW Regional Office of Planned Parenthood, Eugene, OR
- "Ice Cores," WA State Dept. of Ecology, Lacey, WA
- 2009 "The Healing Gifts" (with printmaker Christie Houston) Skagit Valley Hospital, Mt. Vernon, WA
- 2008 "Healing Skagit," Skagit Valley Hospital, Mt. Vernon, WA

PUBLIC INSTALLATIONS on loan

- 2017 WA: Langley, Olympia; OR: Lake Oswego; ID: Coeur d'Alene; MT: Bozeman
- 2016 WA: Des Moines, La Conner, Olympia; OR: Lake Oswego; MT: Bozeman
- 2015 Outdoor WA Sculpture Exhibitions: Auburn, Kirkland, Olympia, Pt. Angeles, San Juan Island, Shoreline. Tucson Jewish Community Center, AZ, Coeur d'Alene, Idaho
- 2014 Gallery Without Walls, Lake Oswego, OR + "Studio to Sidewalk" demonstration and display
- 2013 Des Moines, WA Art on Poverty Bay Sculpture Walk
- 2012,13 &14 Shoreline, WA Sculpture
- 2014 Pt. Angeles, WA, Fine Arts Center, "Art Outside" – Invitational, 15th anniversary year
- 2013 Shunpike Storefronts Project, Mt. Vernon, WA
- Percival Plinth Project, Olympia, WA
- 2013-15 San Juan Island, WA Sculpture Park (Roche Harbor) Coeur d'Alene, ID Outdoor Sculpture Exhibit
- 2009 &13 Art on the Ave, Anacortes, WA
- 2012 Auburn, WA Downtown Sculpture Gallery –People's Choice Purchase
- Award Kruckeberg Botanical Gardens, Shoreline, WA
- Gig Harbor, WA Sculpture Walk
- 2011 & 12 La Conner, WA Outdoor Sculpture Walk

GROUP EXHIBITIONS - juried (since 2005 only)

- 2015-19 "Surge" Exhibitions, Museum of NW Art, La Conner: "Local Issues in Climate Change"
- 2017 "Objectification 10," Smith and Vallee Gallery, Edison, WA
- 2015 "Disruption," Grounds for Sculpture, International Sculpture Center, Hamilton, NJ
- "Zeitgeist," Anacortes, WA, Arts at the Port, Juror: Stefano Catalani, Curator of Bellevue Art Museum
- "Saving the Environment: Sustainable Art," Schack Art Center, Everett, WA
- "Six Journeys," Karla Matzke Fine Art Gallery, Camano Island, WA
- "3rd Clay and Glass Biennial," Brea, CA
- 2014 "International Emergents," Galerie Myrtis, Baltimore, MD "Fire and Water," Lake Oswego, OR, Festival of the Arts
- "July Glass Invitational," MUSEO Gallery, Langley, WA
- "Nature Unbalanced," Orcas Island, WA Art Center- with painter Ann Vandervelde
- "100 Northwest Artists Book Exhibit," Karla Matzke Fine Art & Sculpture Park, Camano Island, WA
- "6 NW Designer Craftsmen Celebrate @ 60," Anchor Art Space, Anacortes, WA
- 2013 "Objectification 6," Smith and Vallee Gallery, Edison, WA
- "Arts at the Port," Anacortes, WA
- "Art of the Garden," Schack Art Center, Everett, WA
- "Vanishing Ice," Whatcom Museum, Bellingham, WA
- 2012 "Guest Gallery," Columbia City Gallery, Seattle, WA
- "Touchables," Maude Kern Art Center, Eugene, OR with Northwest Designer Craftsmen
- 2011 18th Juried Exhibition, Schack Art Center, Everett, WA
- "The Fate of the Forest," Whatcom Museum, Bellingham, WA

- 2010 "Unveiling Climate Change," WA State Dept. of Ecology Earth Day Show, Olympia, WA
- 2010 "Grand Openers," EAFA Gallery, Seattle Design Center, Seattle, Washington
- 2008 "Postcards from the EDGE," Seattle City Hall, Washington
- 2005 "Transformed by Fire: Glass Today," Target Gallery at the Torpedo Factory, Alexandria, VA

GRANTS

- 2012 George McLean Project Grant, Seattle Metals Guild

AWARDS

- 2018 Festival Best of Show Award, Anacortes, WA Arts at the Port (with John Webster, glass artist)
- 2013 People's Choice Purchase Award, City of Auburn, WA Downtown Sculpture Gallery
- 2011 People's Choice, Silver and Jurors' Honorable Mention –Schack Art Center, Everett, WA
- 2010 People's Choice, Silver – Anacortes, WA – Art on the Ave

REFERENCES –

- Frank Rose, Director of Art Commission, Langley, WA frankirose798@gmail.com 360-730-6483
- Wendy Ragusa, Director Skagit Valley, WA Hospital Foundation, wragusa@skagitvalleyhospital.org 360-814-5747

Milo White Resumé

Work Experience

- 7 years: independent art welder for self and local artists
- 5 years: Dakota Creek Industries, Anacortes, WA – ship building
- 20+ years: home designer/builder/contractor, Glencrest Homes and PMW Design, La Conner, WA

Gallery Exhibitions

- 2018 "Associates Show," Sculpture Northwest, Allied Arts, Bellingham, WA with glass artist Lin McJunkin
- 2016 "Kinetics" and "Elemental" Shows, Sculpture Northwest Gallery, Bellingham, WA with Lin McJunkin
- "Art and Architecture," GBD Architects, Portland, OR, with Lin McJunkin
- "Time Lives Us," Scott Milo Gallery, Anacortes, WA, with Lin McJunkin
- 2015 "The Geometry of Change," Karla Matzke Fine Art Gallery, Camano Island, WA, with Lin McJunkin, painter Ann Vandervelde & poet Anne McDuffie
- "Six Journeys," Karla Matzke Fine Art Gallery, Camano Island, WA, with Lin McJunkin
- "Narrating Earth," Burien, WA Art Center, with Lin McJunkin, painter Ann Vandervelde & poet Anne McDuffie
- "Art at the Schoolhouse," Christianson's Nursery, Mt. Vernon, with glass sculptor Lin McJunkin

Public Art Collections - solo

- 2015 Burlington, WA, Public Library

Public Art Commissions –with Lin McJunkin

- 2018 Mount Vernon, WA Riverwalk, also with Jay Bowen
- 2017 Lynnwood, WA CityCenter Apartments
- 2016 Langley, WA Clyde Alley Archway

Public Installations – with Lin McJunkin

- 2017 Outdoor Sculpture Exhibitions: Olympia, WA and Lake Oswego, OR
- 2016 Outdoor Sculpture Exhibitions: La Conner, Des Moines, WA and Lake Oswego, OR
- 2015 Outdoor Sculpture Exhibitions: Kirkland, Olympia, and Shoreline, WA.
- 2014 Outdoor Sculpture Exhibitions: Des Moines, WA

Lin McJunkin PO Box 333, Conway, WA 98238 360-941-6742 lin@mcjunkinglass.com www.mcjunkinglass.com

Current Projects as owner of Willowsteel Garden Art www.willowsteel.com

Neon signs & wall art
Landscape sculpture
Sculptural art forms

Outlets for Artwork

Private commissions: Washington and Manitoba (Canada)
Azusa Nursery, Burlington, WA
Flora's Garden Supply, Smokey Point, WA
Garden Spot, Bellingham, WA
Sky Nursery, Seattle, WA
Snow Goose, Mt. Vernon, WA
Trumpeter Gallery, La Conner, WA

Collaborations

Lin McJunkin- fused glass artist
John McLean- fine woodworker
John Webster – cast glass artist

Education

2009-2010 Skagit Community College Photography Studies
1991-92 Lake Washington Vocational Tech Auto cad courses
1988-89 WSU engineering understudies
1988 High school grad

References

Frank Rose, Director of Art Commission, Langley, WA frankirose798@gmail.com 360-730-6483
Karla Matzke, Owner Matzke Fine Art Gallery and Sculpture Park, Camano Island, WA matzke@camano.net 360-387-2759

White + McJunkin: Reference contact info

References – all of our references can attest to how much they “appreciate (Lin) and Milo being so attentive to detail and responsive to our requests.” (Carmel Gregory) They also know that we adhere to the deadlines we are given and conform to budget requirements, while enhancing client relationships. Since Milo was a contractor/builder for over 20 years, our team is also known for its precise, secure and aesthetically pleasing installation techniques, regardless of size or location.

William E. King, Director

Parks and Enrichment Services, City of Mount Vernon
1717 South 13th St., Mount Vernon, WA. 98274
williamk@mountvernonwa.gov 360.336.6245

Bill was responsible for the 2018 purchase by the City of Mount Vernon, WA of our 23' steel and glass totem commemorating the dual contributions to the town of Native Tribes and local towns people.

Carmel Gregory - CG Engineering

250- 4th Ave. S. Ste. 200, Edmonds, WA 98020
CarmelG@cgengineering.com 425-778-8500

Carmel was the lead on our 20' steel and glass tower project for the Lynnwood, WA CityCenter Apartments, installed August 28, 2017. She is very familiar and pleased with our process and can speak to how well we communicate and keep the commission apprised of our progress with samples and ½-scale models of our work. She is eager to work with us on any other project that presents itself.

Frank Rose - Director of Art Commission, Langley, WA

City of Langley, P.O. Box 366, Langley, WA 98260
frankirose798@gmail.com 360-730-6483

Frank directed the entire smooth process of our 2016 installation of a commissioned steel and glass archway for the Town of Langley, WA and was so satisfied with the results that he has asked us to submit designs for other park projects in Langley.

Karla Matzke, Owner

Matzke Fine Art Gallery & Sculpture Park
2345 Blanche Way, Camano Island, WA 98282
matzke@camano.net 360-387-2759

Karla has diligently advocated for us by showing both our indoor and outdoor sculpture for nearly 10 years, coordinating acquisitions of our work by public entities, and advising on commission processes. This has been a highly successful working relationship with our participation in several large and small group shows at the gallery. Lin has also given several presentations to large groups about her working process at the gallery, and at local art centers and museums with Karla to demonstrate an effective artist/gallerist relationship.

Lin McJunkin PO Box 333, Conway, WA 98238 360-941-6742 lin@mcjunkinglass.com mcjunkinglass.com

Town of Los Gatos Arts and Cultural Commission:
Milo White + Lin McJunkin, Metal + Glass

IMAGE DESCRIPTION LIST



- 01 "Valley of Our Spirits" 20x 4 x 4' Corten & stainless steel, cast glass \$35,000 from City of Mt. Vernon + private funds Purchased by the City of Mount Vernon, WA for its new Riverfront Park, 2018

Layered steel and glass figures of salmon, otter and bear chase each other up this totem topped with an imposing eagle. The piece forms a welcoming structure for the City's new Riverfront Park and honors the historical and current contributions of the Tribes to local life. This celebration of our community was designed in collaboration with Upper Skagit tribal member Jay Bowen and every opening in the steel figures has cast glass inserts in traditional shades of black, white, red and teal.

Detail: double layered salmon with glass roe in the upper, cut-out layer. The glass is permanently adhered to the metal with elastomeric silicone. The figures are attached with $\frac{3}{4}$ " hollow rods welded to the animals that fit over solid rods on the totem. They are fastened with security bolts behind the figures, giving the whole piece a clean look with no fasteners apparent. The entire piece is lit at night with a series of hidden double sconces, making it welcoming by both night and day, with many visitors pausing to have their pictures taken at the base of the piece.



- 02 "Apiarium major" Steel tower with colored glass inserts 2017 with lighting embedded in circular base.
20 x 5 x 5' \$30,000 + private funding. Lynnwood, WA CityCenter Apartments, CG Engineering Project Planner, Edmonds, WA.

As requested by the Commissioners, we created this iconic emblem of communication & transportation symbolized through the use of stylized honeycombs. We also wished to honor bees who are suffering worldwide from Colony Collapse Syndrome. The red glass shaded to yellow signifies the rising global temperatures that are threatening bees and our food supply.

Lin McJunkin PO Box 333, Conway, WA 98238 360-941-6742 lin@mcjunkinglass.com www.mcjunkinglass.com



- 03 "Inferred" 2016 Steel and cast glass 9'x12' x 3' \$5000 plus private donations Commissioned by the Town of Langley, WA as the entrance to Clyde Art Alley.

"Coral" shaped cut-outs of this implied spiral, half implied below ground, are a reminder of the harm caused by our warming oceans in typically unseen or unnoticed places.

Detail: glass inserts adhered to steel cutout with elastomeric Lexel silicone. The sturdy base can be seen where it attaches to the pre-formed concrete pads, all designed by Milo and created to his specifications



- 04 "Healing Skagit" 36 x 48 x 1" kiln-carved glass, stainless steel 2008 \$5000 Commissioned by Skagit Valley Hospital for their new emergency center entry.

Each of the 9 glass panels is kiln-carved or embossed with patterns chosen by the Hospital Foundation to represent iconic snow geese, Skagit River, Mt. Baker and the poplars of their logo. A recycled concrete window casing holds the piece which mimics the surrounding concrete structures. The artists have been gratified to observe patients and waiting relatives relaxing on the concrete ledge under the glass.



- 05 "Kelp Totem I: Carved" 2012 96x18x6" Steel, glass, stone \$5000 Purchased by the Town of La Conner, WA for their new Boardwalk.

The 4 glass sections feature kiln-carved designs formed by kiln firing glass until it slumps down over patterns of special fire-proof fiber paper. The figures are Lin's interpretation of Coast Salish designs of actual carved wood or bone artefacts. The sections are securely held by elastomeric Lexel in the steel framework. Detail shows a bear paw in the mountains.

Lin McJunkin PO Box 333, Conway, WA 98238 360-941-6742 lin@mcjunkinglass.com www.mcjunkinglass.com



- 06 "Riparian Totem" 79x36x36" 2012 \$12,000 Purchased as People's Choice Award Winner and placed at the Dept. of Justice Building, Auburn, WA

Each metal strand of river grass contains panels of kiln-carved glass with embossed symbols important to a busy Washington city: feathers for the aviation industry; hops & berries from agriculture; cow udders for their dairy past; & salmon, all in Lin's translation of traditional Coast Salish designs.



- 07 "Fossil IV" 80 x 20 x 14" double strands Steel, cast glass \$4500 2017 Purchased by City of Anacortes, WA Arts Commission for placement in their outdoor sculpture park

Cast glass hexagons fill the metal forms with nature's colors of aquamarine and spring green. It is our sincere hope that a solution is found to the Colony Collapse Syndrome experienced world-wide by beekeepers, before bees become "fossils" themselves.



- 08 "Iris Flare" Powder-coated steel, fused cluster glass 90x36x20" 2015 \$6000 Burlington, WA Public Library purchase (by private donor)

The colored glass insert really powers up the negative space left by the silver shape removed from the purple background figure.

Lin McJunkin PO Box 333, Conway, WA 98238 360-941-6742 lin@mcjunkinglass.com www.mcjunkinglass.com



- 09 "Fire and Ice" Steel and fused cluster glass 80 x 30 x 15" 2016 \$4500 Private collection, Oklahoma

. Climate extremes of drought and rising sea levels are alluded to in this fiery but icy piece.



- 10 "Circle Flower Wall" Corten steel, cast glass 4' x 20' x ½" 2016 \$3500 Private commission, Lake Stevens, WA

Cut-out leaves stand away from the background to create depth while colorful cast glass enlivens the flowers of this privacy screen.



- 11 We haven't had a commission to include signage in our large sculptures yet, but part of Milo's business includes sign-making. I have included 3 sign samples here with different font types and graphic designs ranging from simple cutouts to layered pieces.



- 12 Three more sign samples with different font types and graphic designs ranging from simple cutouts to layered pieces, all incorporating the owners' style and business product. The "Krebsbach" sign is the most complex with 4 layers and several metal types featured.

Lin McJunkin PO Box 333, Conway, WA 98238 360-941-6742 lin@mcjunkinglass.com www.mcjunkinglass.com



**TOWN OF LOS GATOS
COUNCIL AGENDA REPORT**

MEETING DATE: 12/03/2019

ITEM NO: 19

DESK ITEM

DATE: December 3, 2019
TO: Mayor and Town Council
FROM: Laurel Prevetti, Town Manager
SUBJECT: Approve the "El Gato" Design by Artist Matt Babcock for the Pilot Los Gatos Gateway Marker as Recommended by the Arts and Culture Commission

REMARKS:

Attachment 2 includes a public comment received on Tuesday, December 3, 2019 prior to 11:00 a.m.

Attachment previously received with the December 3, 2019 Staff Report:

1. Artist Proposal Materials [Includes Site Design Proposal, Artist Statement, Public Art Curriculum Vitae (CV), and Portfolio Sample]

Attachment received with this Desk Item:

2. Public Comment received on Tuesday, December 3, 2019 prior to 11:00 a.m.

PREPARED BY: Ryan Baker
Library Director, Staff Liaison for Arts and Culture Commission

Reviewed by: Town Manager, Assistant Town Manager, Town Attorney, and Finance Director

To: The Mayor and Town Council
From: Maureen Cappon-Javey
Re: Comment for ACC Gateway Recommendation

I was looking forward to attending this evening's Council meeting. Unfortunately, I have a commitment that I'm not able to reschedule and so this late desk item submission will have to do.

I'd like to congratulate my fellow commissioners, our Mayor and Town Council members, Town Staff, and especially the Parks and Public Works Team and Ryan Baker, Library Director and assigned Town staff member to the Arts and Culture Commission (ACC).

It's closing in on 2 years since the ACC, with the support and well wishes of the Town Council, embarked on this exciting project to commission a new public art work for our Town. Being a part of this project has been an honor. I have the utmost respect for my fellow commissioners who have worked diligently and enthusiastically throughout the process. And to be presenting the results and recommendations of our effort is indeed a proud moment. I fully support the Commission's recommendation to select the "El Gato" Gateway Public Art design submitted by artist Matt Babcock, for your review and consideration.

Most sincerely,

Maureen Cappon-Javey
Vice-Chair, Arts and Culture Commission

ATTACHMENT 2