



AGENDA
CITY OF LAKE WORTH BEACH
UTILITY CITY COMMISSION MEETING - DELETIONS
CITY HALL COMMISSION CHAMBER
TUESDAY, OCTOBER 25, 2022 - 6:01 PM

ROLL CALL:

DELETION:

- A. [Demand Response Program Consulting Support](#)

The City Commission has adopted Rules of Decorum for Citizen Participation (See Resolution No. 81-2022). The Rules of Decorum are posted within the City Hall Chambers, City Hall Conference Room, posted online at: <https://lakeworthbeachfl.gov/government/virtual-meetings/>, and available through the City Clerk's office. Compliance with the Rules of Decorum is expected and appreciated.

If a person decides to appeal any decision made by the board, agency or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. (F.S. 286.0105)

STAFF REPORT UTILITY MEETING

AGENDA DATE: October 25, 2022

DEPARTMENT: Electric Utility

TITLE:

Demand Response Program Consulting Support

SUMMARY:

Retention of Quanta Technology to conduct a demand response study.

BACKGROUND AND JUSTIFICATION:

Demand Response refers to a process by which an electric utility can exercise limited control of customer-owned equipment to remotely turn equipment off during periods of high electric demand to effect reductions in electric system demand. Demand Response has been identified as having potential benefit to the City's electric utility in reducing system demand and is included as a potential resource in the City's Electric Utility Integrated Resource Plan (IRP).

In order to better understand the costs and benefits of deploying such a program Staff obtained multiple proposals and has selected Quanta Technology to perform Phase I of the study which will include:

- Collection of data from the City's electric utility system to determine how much demand is available for reduction or shifting load
- Defining program potential benefits
- Conducting a technology assessment to evaluate choices technology to be employed
- Detailing anticipated impacts and costs

The Phase I study will allow us to quantify how much demand reduction potential exists in our customer base, which types of customer-owned equipment is most viable for inclusion in the program, the technology by which the equipment will be controlled, and the capital and operating costs associated with deployment and operation of the program. A Phase I study was included in the Electric Utility Fiscal Year 2023 approved budget.

It is contemplated that should the Phase I study yield a compelling business case, that Phases II and III would follow and would include the development of RFPs for program deployment and actual deployment.

MOTION:

Move to approve/disapprove retaining Quanta Technology at a cost of \$50,000 to conduct Phase I of the Demand Response Study

ATTACHMENT(S):

Quanta Technology Proposal

FISCAL IMPACT ANALYSIS

Five Year Summary of Fiscal Impact:

Fiscal Years	2023	2024	2025	2026	2027
Inflows					
Program Income	0	0	0	0	0
Grants	0	0	0	0	0
In Kind	0	0	0	0	0
Outflows					
Operating	50,000	0	0	0	0
Capital	0	0	0	0	0
Net Fiscal Impact	50,000	0	0	0	0
No. of Addn'l Full-Time Employee Positions	0	0	0	0	0

Contract Award - Existing Appropriation	
	Expenditure
Department	Electric Utility
Division	Power Generation
GL Description	Contractual Services
GL Account Number	401-6031-531-34-50
Project Number	N/A
Requested Funds	50,000

PROFESSIONAL SERVICES AGREEMENT
(Electric Demand Response Consulting Services)

THIS PROFESSIONAL SERVICES AGREEMENT (“Agreement”) is entered on _____, by and between the **City of Lake Worth Beach**, a Florida municipal corporation (“City”) and **Quanta Technology, LLC**, a State of North Carolina limited liability company registered to do business in the State of Florida (“CONSULTANT”).

RECITALS

WHEREAS, the City is in need of a consultant to provide demand response consulting services to the City’s Electric Utility in its effort to define and characterize a Demand Response program that will provide involvement opportunities to City residents and yield operational benefits to the City of Lake Worth Beach with a goal of achieving a 5 MW or similar target demand reduction; and

WHEREAS, the CONSULTANT has significant experience in assisting municipal organizations in demand response program development;

WHEREAS, the Consultant has provided the City with a cost proposal dated August 31, 2022 to provide the needed consulting services; and

WHEREAS, the City’s procurement code, section 2-112(c), authorizes the selection of a consultant to provide professional services with a distinctive field of expertise without competitive selection; and

WHEREAS, the purpose of this Agreement is to set forth certain terms and conditions for the provision of services by the CONSULTANT to the City; and,

WHEREAS, the City finds entering this Agreement with the CONSULTANT serves a valid public purpose.

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained, the sufficiency of which is hereby acknowledged by the parties, the City and the CONSULTANT agree as follows:

SECTION 1: INCORPORATION OF RECITALS. The foregoing Recitals are incorporated into this Agreement as true and correct statements.

SECTION 2: CONSULTANT’S SERVICES. The CONSULTANT shall provide demand response consulting services to the City’s Electric Utility in its effort to define and characterize a Demand Response program that will provide involvement opportunities to City residents and yield operational benefits to the City of Lake Worth Beach with a goal of achieving a 5 MW or similar target demand reduction, provide strategy sessions, project management and related services.

SECTION 3: INDEPENDENT CONTRACTOR RELATIONSHIP. No relationship of employer or employee is created by this Agreement, it being understood that CONSULTANT will act hereunder as an independent contractor and none of the CONSULTANT’s, officers, directors, employees, independent contractors, representatives or agents performing services for CONSULTANT pursuant to this Agreement shall have any claim under this Agreement or otherwise against the City for compensation of any kind under this Agreement. The relationship between the City and CONSULTANT is that of independent contractors, and neither shall be considered a joint venturer, partner, employee, agent, representative or other relationship of the other for any purpose expressly or by implication.

SECTION 4: TERM, TIME AND TERMINATION.

(a) Term. The term of this Agreement shall commence upon the approval of this Agreement and shall be for the term necessary to complete all services as set forth in the Consultant's proposal (Exhibit "A") unless earlier terminated as stated herein. The term may be extended by written agreement of the parties for further services related to those services identified herein.

(b) Time for Completion. Time is of the essence in the performance of this Agreement. The CONSULTANT shall at all times carry out its duties and responsibilities as expeditiously as possible and in accordance with the project schedule set forth by the City.

(c) Force Majeure. Neither party hereto shall be liable for its failure to perform hereunder due to any circumstances beyond its reasonable control, such as acts of God, wars, riots, national emergencies, sabotage, strikes, labor disputes, accidents, and governmental laws, ordinances, rules, or regulations. The CONSULTANT or City may suspend its performance under this Agreement as a result of a force majeure without being in default of this Agreement, but upon the removal of such force majeure, the CONSULTANT or City shall resume its performance as soon as is reasonably possible. Upon the CONSULTANT's request, the City shall consider the facts and extent of any failure to perform the services and, if the CONSULTANT's failure to perform was without its or its sub-consultants' fault or negligence, the schedule and/or any other affected provision of this Agreement may be revised accordingly, subject to the City's rights to change, terminate, or stop any or all of the services at any time. No extension shall be made for delay occurring more than seven (7) days before a notice of delay or claim therefore is made in writing to the City. In the case of continuing cause of delay, only one (1) notice of delay or claim is necessary.

(d) Termination without cause. Either party may terminate this Agreement at any time with or without cause by giving not less than thirty (30) days written notice of termination.

(e) Termination for cause. Either party may terminate this Agreement at any time in the event that the other party engages in any act or makes any omission constituting a material breach of any term or condition of this Agreement. The party electing to terminate this Agreement shall provide the other party with written notice specifying the nature of the breach. The party receiving the notice shall then have three (3) days from the date of the notice in which to remedy the breach. If such corrective action is not taken within three (3) days, then this Agreement shall terminate at the end of the three (3) day period without further notice or demand.

(f) Early Termination. If this Agreement is terminated before the completion of all services by either party, the CONSULTANT shall:

1. Stop services on the date and to the extent specified including without limitation services of any sub-consultants.
2. Transfer all work in progress, completed work, and other materials related to the terminated services to the City in the format acceptable to City.
3. Continue and complete all parts of the services that have not been terminated.

(g) Effect of Termination. Termination of this Agreement shall not affect any rights, obligations, and liabilities of the parties arising out of transactions which occurred prior to termination. Notwithstanding the foregoing, the parties acknowledge and agree that the City is a municipal corporation and political subdivision of the state of Florida, and as such, this Agreement is subject to budgeting and appropriation by the City of funds sufficient to pay the costs associated herewith in any fiscal year of the City. Notwithstanding anything in this Agreement to the contrary, in the event that no funds are appropriated or budgeted by the City's governing board in any fiscal year to pay the costs associated with the City's obligations under this Agreement, or in the event the funds budgeted or appropriated are, or are estimated

by the City to be, insufficient to pay the costs associated with the City's obligations hereunder in any fiscal period, then the City will notify CONSULTANT of such occurrence and either the City or CONSULTANT may terminate this Agreement by notifying the other in writing, which notice shall specify a date of termination no earlier than twenty-four (24) hours after giving of such notice. Termination in accordance with the preceding sentence shall be without penalty or expense to the City of any kind whatsoever; however, City shall pay CONSULTANT for all services performed under this Agreement through the date of termination.

SECTION 5: COMPENSATION.

(a) **Task Order(s).** This non-exclusive Agreement does not guarantee that the City will utilize CONSULTANT in any capacity or for any services identified herein. When the City identifies a need for the CONSULTANT's services, the City will request a proposal from the CONSULTANT to provide the services requested. The CONSULTANT's proposal shall be submitted in the format of the sample task order, attached hereto and incorporated herein as **Exhibit "A"** and shall be based on the CONSULTANT's currently hourly fee set forth in the CONSULTANT's proposal and attached hereto as **Exhibit "B"**. If a sub-consultant(s) is to be utilized for services under a task order, the CONSULTANT shall obtain a written proposal from the sub-consultant(s) and attach the same with to the CONSULTANT's proposal submitted to the City. Upon receipt of the CONSULTANT's proposal, the City shall decide in its sole discretion whether to award the task order to the CONSULTANT. Depending on the lump sum, not to exceed amount of each proposed task order, the task order may be awarded by the City Manager (if within her purchasing authority of \$50,000 or less) or the City Commission. If the task order is awarded to the CONSULTANT, the CONSULTANT shall commence the identified services upon receipt of a Notice to Proceed from the City or upon the CONSULTANT's receipt of a fully executed task order for the services. The City reserves the right to reject any and all proposals submitted by the CONSULTANT.

(b) **Invoices.** Unless otherwise agreed in an issued Task Order, the CONSULTANT shall render monthly invoices to the City for services that have been rendered in conformity with this Agreement in the previous month. The invoices shall specify the services performed and the time spent on such work. All reimbursable expenses shall also be clearly identified on the invoice with supporting documentation. Invoices will normally be paid within thirty (30) days following the City's receipt of the CONSULTANT's invoice.

SECTION 6: INDEMNIFICATION. The CONSULTANT, its officers, employees and agents shall indemnify and hold harmless the City, including its officers and employees from liabilities, damages, losses, and costs, including but not limited to, reasonable attorney's fees (at the trial and appellate levels), to the extent caused by the negligence, of the CONSULTANT, its officers, directors, employees, representatives and agents employed or utilized by the CONSULTANT in the performance of the services under this Agreement. The City agrees to be responsible for its own negligence. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the City or the CONSULTANT, nor shall this Agreement be construed as a waiver of sovereign immunity for the City beyond the waiver provided in section 768.28, Florida Statutes.

SECTION 7: COMPLIANCE AND DISQUALIFICATION. Each of the parties agrees to perform its responsibilities under this Agreement in conformance with all laws, regulations and administrative instructions that relate to the parties' performance of this Agreement.

SECTION 8: PERSONNEL. The CONSULTANT represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this Agreement. Such personnel shall not be employees of or have any contractual relationship with the City. All of the services required hereunder shall be performed by the CONSULTANT or under its supervision, and all personnel engaged in performing the

services shall be fully qualified and authorized or permitted under federal, state and local law to perform such services.

SECTION 9: SUB-CONSULTANTS. The City reserves the right to accept the use of a sub-consultant or to reject the selection of a particular sub-consultant and approve all qualifications of any sub-consultant in order to make a determination as to the capability of the sub-consultant to perform properly under this Agreement. All sub-consultants providing professional services to the CONSULTANT under this Agreement will also be required to provide their own insurance coverage identical to those contained in this Agreement. In the event that a sub-consultant does not have insurance or does not meet the insurance limits as stated in this Agreement, the CONSULTANT shall indemnify and hold harmless the City for any claim in excess of the sub-consultant's insurance coverage, arising out of the negligent acts, errors or omissions of the sub-consultant.

SECTION 10: FEDERAL AND STATE TAX. The City is exempt from payment of Florida State Sales and Use Tax. The CONSULTANT is not authorized to use the City's Tax Exemption Number.

SECTION 11: INSURANCE. Prior to commencing any services, the CONSULTANT shall provide proof of insurance coverage as required hereunder. Such insurance policy(s) shall be issued by the United States Treasury or insurance carriers approved and authorized to do business in the State of Florida, and who must have a rating of no less than "excellent" by A.M. Best or as mutually agreed upon by the City and the CONSULTANT. All such insurance policies may not be modified or terminated without the express written authorization of the City.

<u>Type of Coverage</u>	<u>Amount of Coverage</u>
Professional liability/ Errors and Omissions	\$1,000,000 per occurrence
Commercial general liability (Products/completed operations Contractual, insurance broad form property, Independent CONSULTANT, personal injury)	\$1, 000,000 per occurrence \$2,000,000 annual aggregate
Automobile (owned, non-owned, & hired)	\$ 1,000,000 single limits
Worker's Compensation	\$ statutory limits

The commercial general liability and automobile policies will name the City as an additional insured on primary, non-contributory basis and proof of all insurance coverage shall be furnished to the City by way of an endorsement to same or certificate of insurance prior to the provision of services. The certificates shall clearly indicate that the CONSULTANT has obtained insurance of the type, amount, and classification as required for strict compliance with this section. Failure to comply with the foregoing requirements shall not relieve CONSULTANT of its liability and obligations under this Agreement.

SECTION 12: SUCCESSORS AND ASSIGNS. The City and the CONSULTANT each binds itself and its partners, successors, executors, administrators, and assigns to the other party of this Agreement and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement. Except as agreed in writing by all parties, this Agreement is not assignable.

SECTION 13: DISPUTE RESOLUTION, LAW, VENUE AND REMEDIES. All claims arising out of this Agreement or its breach shall be submitted first to mediation. The parties shall share the mediator's fee equally. The mediation shall be held in Palm Beach County. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof. This Agreement shall be governed by the laws of the State of Florida. Any and all legal action necessary to enforce the Agreement

will be held in Palm Beach County. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

SECTION 14: WAIVER OF JURY TRIAL. TO ENCOURAGE PROMPT AND EQUITABLE RESOLUTION OF ANY LITIGATION, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A TRIAL BY JURY IN ANY LITIGATION RELATED TO THIS AGREEMENT.

SECTION 15: ACCESS AND AUDITS. The CONSULTANT shall maintain adequate records to justify all payments made by the City under this Agreement for at least three (3) years after completion of this Agreement and longer if required by applicable federal or state law. The City shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours, at the CONSULTANT's place of business. In no circumstances will CONSULTANT be required to disclose any confidential or proprietary information regarding its products and service costs.

SECTION 16: NONDISCRIMINATION. The CONSULTANT warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, or sexual orientation.

SECTION 17: AUTHORITY TO PRACTICE. The CONSULTANT hereby represents and warrants that it has and will continue to maintain all licenses and approvals required to conduct its business and provide the services required under this Agreement, and that it will at all times conduct its business and provide the services under this Agreement in a reputable manner. Proof of such licenses and approvals shall be submitted to the City upon request.

SECTION 18: SEVERABILITY. If any term or provision of this Agreement, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, to remainder of this Agreement, or the application of such terms or provision, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Agreement shall be deemed valid and enforceable to the extent permitted by law.

SECTION 19: PUBLIC ENTITY CRIMES. CONSULTANT acknowledges and agrees that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a CONSULTANT, supplier or sub-CONSULTANT under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list. The CONSULTANT will advise the City immediately if it becomes aware of any violation of this statute.

SECTION 20: NOTICE. All notices required in this Agreement shall be sent by hand-delivery, certified mail (RRR), or by nationally recognized overnight courier, and if sent to the CITY shall be sent to:

City of Lake Worth Beach
Attn: City Manager
7 N. Dixie Highway
Lake Worth Beach, FL 33460

and if sent to the CONSULTANT, shall be sent to:

Quanta Technology, LLC
Attn: Diana Prkacin
Jesus Gonzales
4020 Westchase Boulevard, Ste 300
Raleigh, NC 27607

The foregoing names and addresses may be changed if such change is provided in writing to the other party. Notice shall be deemed given upon receipt.

SECTION 21: ENTIRETY OF AGREEMENT. The City and the CONSULTANT agree that this Agreement sets forth the entire agreement between the parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Agreement may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto.

SECTION 22: WAIVER. Failure of a party to enforce or exercise any of its right(s) under this Agreement shall not be deemed a waiver of that parties' right to enforce or exercise said right(s) at any time thereafter.

SECTION 23: PREPARATION AND NON-EXCLUSIVE. This Agreement shall not be construed more strongly against either party regardless of who was more responsible for its preparation. This is a non-exclusive Agreement and the City reserves the right to contract with individuals or firms to provide the same or similar services.

SECTION 24: MATERIALITY. All provisions of the Agreement shall be deemed material. In the event CONSULTANT fails to comply with any of the provisions contained in this Agreement or exhibits, amendments and addenda attached hereto, said failure shall be deemed a material breach of this Agreement and City may at its option provide notice to the CONSULTANT to terminate for cause.

SECTION 25: LEGAL EFFECT. This Agreement shall not become binding and effective until approved by the City. The Effective Date is the date this Agreement is executed by the City.

SECTION 26: NOTICE OF COMPLAINTS, SUITS AND REGULATORY VIOLATIONS. Each party will promptly notify the other of any complaint, claim, suit or cause of action threatened or commenced against it which arises out of or relates, in any manner, to the performance of this Agreement. Each party agrees to cooperate with the other in any investigation either may conduct, the defense of any claim or suit in which either party is named, and shall do nothing to impair or invalidate any applicable insurance coverage.

SECTION 27: SURVIVABILITY. Any provision of this Agreement which is of a continuing nature or imposes an obligation which extends beyond the term of this Agreement shall survive its expiration or earlier termination.

SECTION 28: COUNTERPARTS. This Agreement may be executed in one or more counterparts electronically, each of which shall be deemed an original, and will become effective and binding upon the parties as of the effective date at such time as all the signatories hereto have signed a counterpart of this Agreement.

SECTION 29: PALM BEACH COUNTY IG. In accordance with Palm Beach County ordinance number 2011-009, the CONSULTANT acknowledges that this Agreement may be subject to investigation and/or audit by the Palm Beach County Inspector General. The CONSULTANT has reviewed Palm Beach County

ordinance number 2011-009 and is aware of its rights and/or obligations under such ordinance.

SECTION 30: AGREEMENT DOCUMENTS AND CONTROLLING PROVISIONS. This Agreement consists of this Agreement and any City issued Task Orders. The parties agree to be bound by all the terms and conditions set forth in the aforementioned documents. To the extent that there exists a conflict between the terms and conditions of this Agreement, Exhibit ‘A’ and a City issued Task Order, the terms and conditions of this Agreement shall prevail with the City issued Task Order next taking precedence. Wherever possible, the provisions of such documents shall be construed in such a manner as to avoid conflicts between provisions of the various documents.

SECTION 31: OWNERSHIP OF DELIVERABLES. The deliverables, work product, specifications, calculations, supporting documents, or other work products which are listed as deliverables by the CONSULTANT in a City issued Task Order shall become the property of the City. The CONSULTANT may keep copies or samples thereof and shall have the right to use the same for its own purposes. The City accepts sole responsibility for the reuse of any such deliverables in a manner other than as initially intended or for any use of incomplete documents.

SECTION 32: REPRESENTATIONS AND BINDING AUTHORITY. By signing this Agreement, on behalf of the CONSULTANT, the undersigned hereby represents to the City that he or she has the authority and full legal power to execute this Agreement and any and all documents necessary to effectuate and implement the terms of this Agreement on behalf of the CONSULTANT for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in this Agreement.

SECTION 33: PUBLIC RECORDS. The CONSULTANT shall comply with Florida’s Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the City as provided under section 119.011(2), Florida Statutes, specifically agrees to:

- (a) Keep and maintain public records required by the City to perform the service.
- (b) Upon request from the City’s custodian of public records or designee, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of this Agreement and following completion of this Agreement if the CONSULTANT does not transfer the records to the City.
- (d) Upon completion of this Agreement, transfer, at no cost, to the City all public records in possession of the CONSULTANT or keep and maintain public records required by the City to perform the service. If the CONSULTANT transfers all public records to the City upon completion of the Agreement, the CONSULTANT shall destroy any duplicate public records that are exempt or confidential or exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon completion of the Agreement, the CONSULTANT shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City’s custodian of public records or designee, in a format that is compatible with the information technology systems of the City.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT’S DUTY TO PROVIDE PUBLIC RECORDS

RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (561) 586-1660, CITYCLERK@LAKEWORTHBEACHFL.GOV, OR 7 NORTH DIXIE HIGHWAY, LAKE WORTH BEACH, FLORIDA 33460.

SECTION 34: CONFIDENTIAL AND PROPRIETARY INFORMATION. Each party (the “Receiving Party”) will keep confidential and not disclose to any other person or entity or use (except as expressly and unambiguously authorized by this Agreement) information, technology or software (“Confidential Information”) obtained from the other party (the “Disclosing Party”); provided, however, that the Receiving Party will not be prohibited from disclosing or using information (i) that at the time of disclosure is publicly available or becomes publicly available through no act or omission of the Receiving Party, (ii) that is or has been disclosed to the Receiving Party by a third party who is not under, and to whom the Receiving Party does not owe, an obligation of confidentiality with respect thereto, (iii) that is or has been independently acquired or developed by the Receiving Party without access to the Disclosing Party’s Confidential Information, (iv) that is already in the Receiving Party’s possession at the time of disclosure, or (v) that is required to be released by law.

SECTION 35: EXPORT ADMINISTRATION. Each party agrees to comply with all export laws and regulations of the United States (“Export Laws”) to assure that no software deliverable, item, service, technical data or any direct product thereof arising out of or related to this Agreement is exported directly or indirectly (as a physical export or a deemed export) in violation of Export Laws.

SECTION 36: NO THIRD-PARTY BENEFICIARIES. There are no third-party beneficiaries under this Agreement.

SECTION 37: SCRUTINIZED COMPANIES. The CONSULTANT certifies that it and its sub-consultants are not on the Scrutinized Companies that Boycott Israel List and are not engaged in the boycott of Israel. Pursuant to section 287.135, Florida Statutes, the City may immediately terminate this Agreement at its sole option if the CONSULTANT or any of its sub-consultants are found to have submitted a false certification; or if the CONSULTANT or any of its sub-consultants, are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of this Agreement.

SECTION 38: E-VERIFY. To the extent applicable, pursuant to Section 448.095(2), Florida Statutes, beginning on January 1, 2021, the CONSULTANT shall register with and use the E-Verify system to verify the work authorization status of all newly hired employees and require all sub-consultants (providing services or receiving funding under this Agreement) to register with and use the E-Verify system to verify the work authorization status of all the sub-consultants’ newly hired employees. A violation of Section 448.09, Florida Statutes (Unauthorized Aliens; Employment Prohibited), shall be grounds for termination of this Agreement and the CONSULTANT may not be awarded a contract for at least one (1) year after the date on which the Agreement is terminated and will be liable for any additional costs incurred by the City as a result of the termination of the Agreement.

REMAINDER OF PAGE IS INTENTIONALLY LEFT BLANK
SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereto have made and executed this Professional Services Agreement for Electric Demand Response Consulting Services as of the day and year set forth above.

CITY OF LAKE WORTH BEACH, FLORIDA

ATTEST:

By: _____
Betty Resch, Mayor

By: _____
Melissa Ann Coyne, City Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

APPROVED FOR FINANCIAL
SUFFICIENCY

By: _____
Glen J. Torcivia, City Attorney

By: _____
Bruce T. Miller, Financial Services Director

CONSULTANT: **Quanta Technology, LLC**

By: _____

[Corporate Seal]

STATE OF NORTH CAROLINA)
COUNTY OF _____)

THE FOREGOING instrument was acknowledged before me by means of • physical presence or • online notarization on this ____ day of _____, 2022, by **Quanta Technology, LLC**, a State of North Carolina limited liability company, who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONSULTANT to the same.

Notary Public Signature

Notary Seal:

EXHIBIT "A"
(Sample Task Order)
TASK ORDER No.

PROFESSIONAL SERVICES
(Electric Demand Response Consulting Services)

THIS TASK ORDER FOR PROFESSIONAL SERVICES ("Task Order") is made on the day of _____, 2022, between the **City of Lake Worth Beach**, a Florida municipal corporation ("City") and **Quanta Technology, LLC**, a State of North Carolina limited liability company ("CONSULTANT").

1.0 Project Description:

The City desires the CONSULTANT to provide those services as identified herein for the Project. The Project is described in the CONSULTANT's Proposal, dated _____ and services are generally described as: _____ (the "Project").

2.0 Scope

Under this Task Order, the CONSULTANT will provide the City of Lake Worth Beach Electric Utility with demand response consulting services for the Project as specified in the **CONSULTANT's proposal attached hereto and incorporated herein as Exhibit "1"**.

3.0 Schedule

The services to be provided under this Task Order shall be completed within _____ calendar days from the City's approval of this Task Order or the issuance of a Notice to Proceed.

4.0 Compensation

This Task Order is issued for a lump sum, not to exceed amount of _____. The attached proposal identifies all costs and expenses included in the lump sum, not to exceed amount.

5.0 Project Manager

The Project Manager for the CONSULTANT is _____, phone (_____; email: _____; and, the Project Manager for the City is _____, phone: _____; email: _____.

6.0 Progress Meetings

The CONSULTANT shall schedule periodic progress review meetings with the City Project Manager as necessary but every 30 days as a minimum.

7.0 Authorization

This Task Order is issued pursuant to the Professional Services Agreement (Electric Demand Response Consulting Services) between the City of Lake Worth and the CONSULTANT, dated _____ ("Agreement" hereafter). If there are any conflicts between the terms and conditions of this Task Order and the Agreement, the terms and conditions of the Agreement shall prevail.

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. _____ as of the day and year set forth above.

CITY OF LAKE WORTH BEACH, FLORIDA

By: _____
Carmen Y. Davis, City Manager

ATTEST:

By: _____
Melissa Ann Coyne, City Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

APPROVED FOR FINANCIAL
SUFFICIENCY

By: _____
Glen J. Torcivia, City Attorney

By: _____
Bruce T. Miller, Financial Services Director

CONSULTANT: **Quanta Technology, LLC**

By: **DO NOT SIGN – SAMPLE ONLY** _____

[Corporate Seal]

STATE OF NORTH CAROLINA)
COUNTY OF _____)

THE FOREGOING instrument was acknowledged before me by means of • physical presence or • online notarization on this ____ day of _____, 2022, by **Quanta Technology, LLC**, a State of North Carolina limited liability company, who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONSULTANT to the same.

Notary Public Signature

Notary Seal:

Exhibit “B”

Consultant’s Hourly Rates

4.4 Hourly Rate Schedule

Quanta Technology Standard Hourly Rates are shown below.

Table 4-2. Quanta Technology Standard Hourly Rates for 2022

Title	Standard Rates (Shown in USD)
Executive Advisor	\$342
Principal Advisor	\$288
Senior Advisor	\$244
Senior AMI Project Manager / Technical Advisor	\$244
Senior Engineer	\$147

These rates are exclusive of taxes, which are the customer’s sole responsibility.



QUANTA
TECHNOLOGY

PROPOSAL

Demand Response Consulting Support

PREPARED FOR

City of Lake Worth Beach

DATE

August 31, 2022

INTERNAL REFERENCE NUMBER

22G008

PREPARED BY

Jesus Gonzalez
jgonzalez@Quanta-Technology.com
(919) 428-9332

Diana Prkacin
dprkacin@Quanta-Technology.com
(919) 737-5519

QUANTA TECHNOLOGY, LLC

4020 Westchase Boulevard, Suite 300, Raleigh, NC 27607 USA

RALEIGH (HQ) | TORONTO | SAN FRANCISCO BAY AREA | SOUTHERN CALIFORNIA | CHICAGO

www.Quanta-Technology.com

Quanta Technology, LLC is a wholly-owned subsidiary of Quanta Services, Inc. (NYSE: PWR)

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VERSION HISTORY:

Version	Date	Description
1.0	8/31/2022	Initial submission



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1 COVER LETTER

Ed Liberty
Director, Electric Utilities
City of Lake Worth Beach

Dear Ed,

Quanta Technology welcomes the opportunity to work with the City of Lake Worth Beach Electric Utility to define and characterize a Demand Response program that will provide involvement opportunities to residents and yield operational benefits to the City of Lake Worth Utility with the goal of achieving a 5 MW or similar target demand reduction as was discussed at our recent meeting.

We are an **independent** and diverse consulting company with approximately 300 experienced consultants and industry experts headquartered in Raleigh, NC, with supporting offices in Illinois, California, and Canada. Our experts can help you with your Demand Response Program feasibility assessment, definition, and implementation. We also offer numerous related services that you can also take advantage of including Grid Modernization, AMI, T&D, Protection, Renewables, Energy storage, Electric Vehicles, and many more.

We have structured our proposal to line up with our discussions to essentially divide the scope of work into three phases:

- Phase 1 (Conduct DR Study): Provide a technology and cost assessment defining the most practical way to achieve the targeted DR reduction with a goal of 5 MW
- Phase 2 (RFP Development/Vendor Selection): Develop the RFP and support vendor bid responses, evaluation, and recommended selection
- Phase 3 (PM Oversight): Provide Project Management Oversight throughout Phase 2 and subsequent implementation and commissioning of the program ensuring that desired results are achieved.

We are providing pricing on Phase 1 and budgetary estimates for Phase 2 to help in your planning process. We also include our recommended Project Management approach. We will be happy to work with you to refine these estimates as the project is better defined.

We believe we are the best fit for this project based on our experience, proven methodology, and our past work and relationship with the City of Lake Worth Beach. Feel free to reach out to our team with any clarifying questions. We are also very open to adapting our proposal further if needed to meet your needs.

We offer a full spectrum of services in the following:

- Grid Modernization & Business Strategy
- Regulatory Compliance
- Advanced Metering Infrastructure (AMI)
- Smart Water Solutions
- Non-revenue water
- Leak Detection, pressure monitoring
- Transmission & Distribution
- Automation & Testing
- Asset Operations
- Protection & Control
- Asset Management
- Enterprise Integration
- Smart Grid Strategies
- Applied R&D
- Renewables Integration
- Energy Storage
- Microgrids



2 SCOPE OF WORK / ADVISORY SERVICES

2.1 Phase 1: Demand Response Study

Phase 1 involves conducting a Demand Response Study primarily aimed at:

- Collecting and analyzing current relevant data from the City of Lake Worth Beach (LWB) System
- Defining system demand response program potential benefits which drive success factors
- Conducting a technology assessment evaluating technology choices
- Detailing anticipated impacts and costs

This phase should result in defining the most practical way of achieving the target demand reduction (e.g. 5 MW or target) while primarily focusing on the residential sector allowing the LWB residents to engage in transformative Energy Programs.

Table 1 below provides an overview of anticipated services performed during this project phase.

Table 1: Phase 1 Proposed Services

Service Breakdown	Description	Notes
Data Collection / Analysis	<p>Obtain and analyze current available data from the City including:</p> <ul style="list-style-type: none"> • Distribution of Customer Types and end use services (e.g. AC, Pool Pump, Water Heater, etc.) • Demand and Load Profiles • System operations and power purchase costs <p>Obtain other available relevant data such as:</p> <ul style="list-style-type: none"> • Experiences with other utilities/customers in FL 	Helps answer: How much is available for reducing, shifting, or increasing load?
System Benefits	<p>Work with the City to define the desired system benefits derived from the Demand Response program. Potential benefits include:</p> <p>Planning:</p> <ul style="list-style-type: none"> • Deferring upgrades <p>Operations:</p>	Helps answer: How can the load be used to create benefits?



	<ul style="list-style-type: none"> Controlling power purchase costs, e.g., demand charges (peak shaving) 	
Conceptual DR Programs (Technology Assessment)	<p>Design potential DR programs options, for example</p> <p>Residential Program options:</p> <ul style="list-style-type: none"> Smart thermostats or other HVAC controls Remote controlled services (water heating, pool pumps, other) Smart EV charging <p>C&I Program Concepts (Palm Beach State College)</p> <ul style="list-style-type: none"> Chilled water loop <p>Other Factors to Consider:</p> <ul style="list-style-type: none"> Communications and control platform Interactions with AMI Experiences with other utilities 	Helps Answer: What technology choices are available for implementation?
Assessment of Impact and Costs	<p>Estimate program benefits and cost. Expected elements include:</p> <ul style="list-style-type: none"> Participation rates and anticipated evolution Load shape impacts, dispatchable loads (daily, seasonal, and/or quarterly) and anticipated C/B Equipment, installation, communication infrastructure, integration, marketing, and SAAS/maintenance costs Customer and Utility Costs (including Incentives) Measurement and evaluation approach Leveraging costs of EE & financing programs 	Helps Answer: Cost / Benefit considerations



2.1.1 Anticipated Schedule

It is anticipated that Phase 1 could take 8 – 12 weeks of duration.

2.2 Phase 2: RFP Development / Vendor Selection

Phase 2 of the project provides the following services associated with RFP development and vendor selection:

Table 2: Phase 2 Proposed Services

Service Breakdown	Description
RFP Development	Development of an RFP Functional Specification detailing system requirements.
RFP Issuance	The City would combine its Terms and Conditions with the RFP Specification and issue the RFP using its preferred method. Quanta Technology would provide oversight and support.
Support for Vendor Questions	Provide answers to vendor questions during the prescribed Q/A period. Responses to be distributed to all bidders.
Compliance review of Bidder Responses	Quanta Technology will develop a compliance matrix with essential elements required for all proposals. An initial compliance review will be conducted to ensure that only compliant bidder responses are forwarded to the Evaluation Team for consideration.
Bidder Proposal Evaluations / Ranking	Quanta Technology will provide rating/ranking matrix allowing for vendor scoring and weighting to be utilized to determine vendor scores.
Shortlist Vendor Interviews	Short-list vendor interviews (up to 2 hours each) are scheduled to allow vendors to present any key items as well as Best and Final Offer considerations.
Final Recommendation	Quanta Technology will consolidate scoring and data gathered during the evaluation process and present a final recommendation to the City. The City will make the final selection.



2.2.1 Anticipated Schedule

This project phase can take between 12 – 14 weeks of elapsed time primarily driven by the following high-level estimates:

- RFP Development: 4 weeks
- Vendor Q/A Period: 1 week (in parallel to Vendor Response period)
- Vendor Response Period: 4 weeks
- Vendor Compliance Review: 1 week
- Vendor Evaluation: 2 weeks – 3 weeks
- Final Recommendation / Wrap up: 1 week

2.3 Phase 3: Project Management Support

Phase 3 involves Project Management (PM) Oversight and Technical Advisement during the system implementation and field rollout phase. The PM will ensure that the program is implemented and will help drive and quantify system benefits, essentially evaluating and achieving the desired results.

Quanta Technology can provide an experienced Senior AMI PMP Certified Project Manager located in Raleigh, NC, to serve as the City's Deployment Program/Project Manager for the project on a T&M basis. The project manager would be responsible for project planning, communication, risk management, action tracking, problem resolution, and financial support. A detailed budgetary estimate can be provided upon a further understanding the selected Demand Response option and chosen technology.



3 PROJECT TEAM

Our assigned project team comprises experts who have previously worked together on similar projects. This section details their qualifications, how they will be organized, and who will work on what aspects of the City’s project. Detailed resumes can be found in Appendix I. The proposed personnel for this project and their roles and responsibilities are shown below

Table 1: Project Team Roles & Contributions

Name	Title	Relevant Experience	Role	Involvement Level	Project Contribution
Jesus Gonzalez, PMP	Principal Advisor	11+ yrs. Utility 24+ yrs. PM	Project Manager	Heavy Participation	Project Management; Team Lead; Customer Prime
Veronika Rabl, PhD	Executive Advisor	40+ yrs. Energy	Subject Matter Expert	Medium Participation	Technical Prime; Advisement
Robert Dumas, PhD	Principal Advisor	40+ yrs. Utility	Subject Matter Expert	Medium Participation	Technical Prime; Advisement
David Uy	Principal Engineer	27+ yrs. Utility Electric	Engineering & Project Support	Heavy Participation	Data Analysis; Project Support
Chad Abbey, PhD	Executive Advisor	19+ yrs. Utility	Subject Matter Expert	Support Role	Technical Prime; Advisement

3.1 Project Organization

Figure 2-2 (below) shows the proposed working structure for this project. Jesus Gonzalez, PMP, will serve as the project manager, overseeing all the activities, the project schedule, work assignments, on-time delivery, quality assurance, and coordination with the customer.

As noted above, the entire team will not be dedicated full-time to your project. The project’s scope will determine the level of involvement in any given phase. This involvement can increase or decrease as needed by the City, but the resource allocation will always be appropriate for the level of effort required on the project. Quanta Technology has sufficient resources to meet the need.

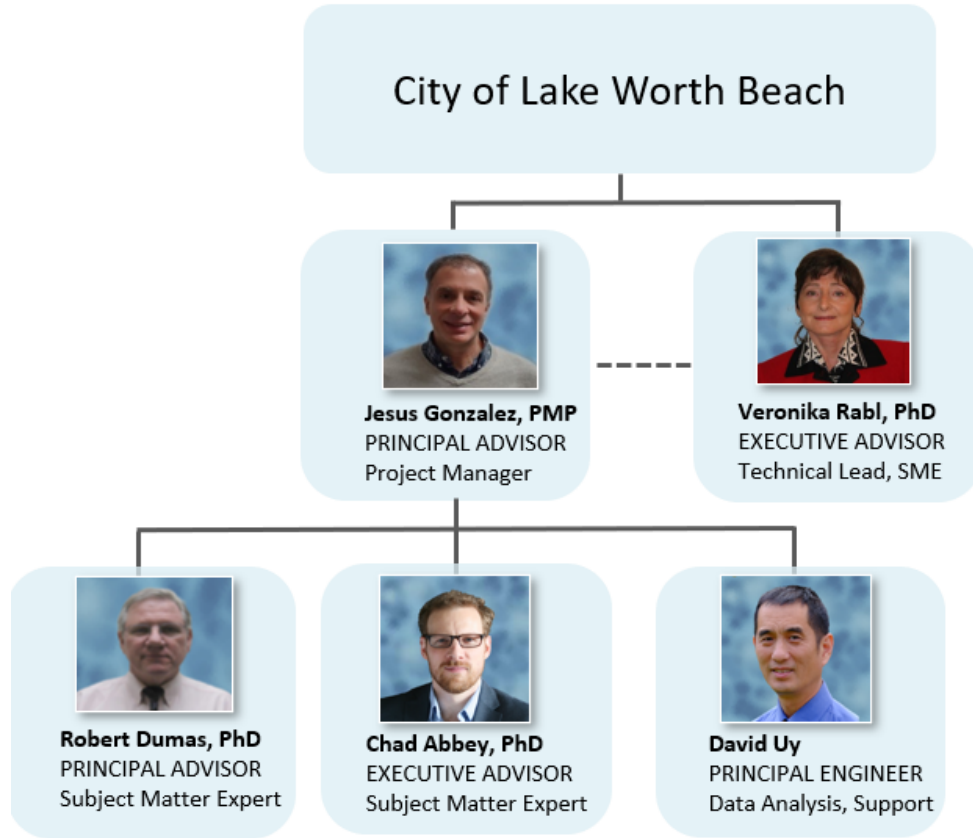


Figure 2-2. Project Organization Chart



4 COST

4.1 Phase 1: Demand Response Study (T&M)

Phase 1 will be billed on a T&M basis. It is anticipated that most of the work will be conducted remote with onsite meetings only conducted as requested by the City. Expenses for requested travel will be billed on an "At Cost" basis with no markup.

Advisory Services	Estimated Cost
Phase 1:	
<ul style="list-style-type: none"> Data Collection System Benefits Conceptual DR Programs (Technology Assessment) Assessment of Impacts and Costs 	\$49,948

4.2 Phase 2: RFP Development / Vendor Selection (budgetary estimate)

A budgetary estimate is provided for Phase 2 activities to help with the City’s planning activities. A formal estimate will be provided upon request once Phase 1 is more clearly understood.

Advisory Services	Budgetary Estimate
Phase 2:	
<ul style="list-style-type: none"> RFP development RFP issuance Support for Vendor Q/A Bid Response Compliance Review Vendor Bid Evaluation /Ranking Shortlist Vendor Interviews Final Recommendation 	\$45,970



4.3 Travel

Travel, lodging, and materials will be billed at cost. Typical travel trips required to support the project implementation are shown below. All other travel tied to T&M-provided services will be rendered as required by the project and billable at cost.

Table 4-1. Proposed Travel Expense Cost Estimate

Item	Trips	Days	Staff	Cost Estimate
PH1: Onsite review meeting	1	2	2	\$1,740
			Total	\$1,740

4.4 Hourly Rate Schedule

Quanta Technology Standard Hourly Rates are shown below.

Table 4-2. Quanta Technology Standard Hourly Rates for 2022

Title	Standard Rates (Shown in USD)
Executive Advisor	\$342
Principal Advisor	\$288
Senior Advisor	\$244
Senior AMI Project Manager / Technical Advisor	\$244
Senior Engineer	\$147

These rates are exclusive of taxes, which are the customer’s sole responsibility.

4.5 Assumptions

No.	Assumption
General	
1	There is a fixed start date within 14 days of contract signing. Possible start of September 15 th .
2	If the project scope or duration changes, we will work with the City team to assess impacts and work through a documented change order process accordingly.
3	Out-of-scope activities would be handled via a documented change order.
Phase 1: Demand Response Study	
4	City will upload all related data and deliver electronically
5	Quanta Technology will not be conducting Market Research. Focus groups can be added as an optional service.
6	Customer data is available and segmented by building type, equipment, saturation/penetration or City will help define estimates.
Phase 2: RFP Development / Vendor Selection	
7	Assumes RFP will be sent out to vendors and up to 6 vendors are evaluated post compliance review
8	Quanta Technology will use existing tools for the bidder RFP evaluation with minimal modification. Customization will be scoped separately.
9	Based on the City’s evaluation, Quanta Technology will make the final vendor recommendation under standard services. The City will make the final vendor selection.



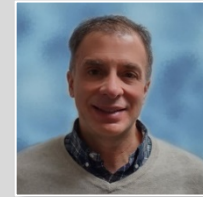
No.	Assumption
10	The budgetary estimate provided does not include support for contract negotiations with vendors. These services can be provided as requested.
11	The City will follow Quanta Technology's recommended review process, including its SharePoint approach to bid management.



APPENDIX I: STAFF RESUMES

JESUS GONZALEZ, PMP

JESUS GONZALEZ, PMP, PRINCIPAL ADVISOR, Protection, Control & Automation, has over 30 years of professional experience spanning the utility and telecommunications sectors and 24 years of project management experience. His utility experience includes over ten years of advanced metering infrastructure (AMI) deployments with Honeywell (formerly Elster Solutions & ABB). He led numerous deployment projects across a broad customer base consisting of municipal cooperatives and IOUs in North America and Mexico. He holds a master’s degree in Information and Computer Science from the Georgia Institute of Technology in Atlanta and has been a certified Project Management Professional for 15 years.



Areas of Expertise

- Advanced Metering Infrastructure (AMI) electric, water, and gas system deployments
- Project management planning and governance, risk analysis/management, cost control
- Project management office portfolio management, Clarity PPM

Experience and Background

- Years of experience in the utility industry 2011–Present
- Principal Advisor, Protection, Control & Automation, Quanta Technology 2022–Present
- Manager Customer Delivery, Honeywell/Elster Solutions 2015–2021
- Senior Project Manager, Customer Delivery, Elster Solutions 2011–2015
- Years of experience in the telecommunications industry 2011–1987

Relevant Field Deployment Projects:

- City of Newberry AMI Deployment, Water: 2.1K, Elec: 1.9, AMI meter deployment (Quanta Technology)
- Entergy, Electric 3.0M, Gas 200K, AMI meter deployment (Honeywell)
- City of Tallahassee, Water: 87K, Electric 113K, Gas 24K, AMI meter deployment (Honeywell)
- City of Fort Collins, Water: 31K, Elec: 68K, AMI meter deployment (Honeywell)
- Lafayette Utilities Sys. (LUS), Water 56K, Electric: 65K, AMI meter deployment (Honeywell)

Accomplishments and Industry Recognition

- Project Management Professional, PMP since 2007
- Six Sigma Green Belt, Villanova University

Education

- MS, Information and Computer Science, Georgia Institute of Technology, 1988
- BS, Electrical and Computer Engineering, University of Miami, 1987



VERONIKA A. RABL, PHD

VERONIKA A. RABL, PhD, EXECUTIVE ADVISOR, Distribution, is an energy systems and markets expert. Her energy career started in solar, energy conservation, and environmental areas at Argonne National Laboratory. She led work in the modelling of community-size energy systems—from generation to service delivery. She managed technical/economic assessments of energy storage technologies while on assignment to U.S. DOE. Until 2001, Dr. Rabl served as General Manager and Director at the Electric Power Research Institute (EPRI). She established EPRI’s demand response research program and technology portfolio, including energy storage, energy management, and distributed load control systems. Veronika’s work includes policy papers on energy efficiency, electric transportation, clean power supply, and electric grid modernization, as well as energy and environmental life cycle assessments. She has recently been a team lead and coauthor of the IEEE PES (Power and Energy Society) Energy Storage Primer. She helped launch the Engineering Founder Societies’ Technology for Carbon Management Grand Challenge Initiative; assessed EPA Clean Power Plan implementation options; reviewed ISO/RTO market rules and processes; served as co-chair of IEEE Joint Task Force on the U.S. DOE Quadrennial Energy Review; and co-chaired e-demand management alternatives for the Commonwealth of Virginia. Currently, she is a consultant specializing in energy and technology policy.



Areas of Expertise

- Skilled in and extensive experience with energy efficiency and demand-response technology, benefits, and applications on both sides of the meter
- Demonstrated expertise in policy analysis and strategy development, reflecting a synthesis of information on technologies, customers, and economic/regulatory environments
- Broad understanding of technology and energy issues in all sectors. Familiar with power system technology, planning, and operations

Experience and Background

- Executive Advisor, Quanta Technology 2020–Present
- Principal, Vision & Results 2005–Present
- Senior Subject Matter Expert, Energetics, Inc. 2012–2017
- Director, Energy Management Consulting, Aspen Systems 2002–2004
- General Manager, Retail Energy Products & Services, EPRI 1981–2001
- Office of Energy Systems Research, U.S. Department of Energy (DOE) 1980–1981
- Assistant Environmental Systems Engineer, Argonne National Laboratory 1974–1979

Accomplishments and Industry Recognition

- Chair, IEEE-USA Energy Policy Committee, 2012–2014,



- IEEE Lead Technical Member of the Engineering Founder Societies' Technology for Carbon Management Initiative, 2009–2014
- Member, DOE/NETL Carbon Capture Peer Review Panel, 2011, 2013
- Recipient of IEEE-USA Professional Achievement Award for Individuals, 2011

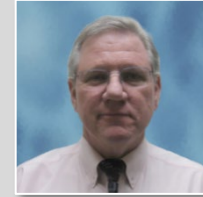
Education

- PhD, Ohio State University, 1974



ROBERT DUMAS, PHD

ROBERT DUMAS, PHD, PRINCIPAL ADVISOR, Protection, Control & Automation, has over 40 years of experience with increasing levels of organizational responsibility in electrical, nuclear, mechanical, and environmental engineering positions associated with electric utility generation, transmission operations, and advanced metering infrastructure (AMI) smart-grid solutions for some of the largest utilities in the US and internationally.



This experience includes 17+ years with Virginia Power Nuclear Design Engineering and 17 years in the AMI industry with Elster Solutions (formerly ABB) and Itron Inc. With Quanta Technology. He has been responsible for project execution of the multi-million-dollar Wide-Area Protection project for National Grid Saudi Arabia and ongoing AMI consulting projects. He continues with Quanta Technology as a senior AMI subject matter expert.

Areas of Expertise

- Project and program management
- Advanced metering infrastructure (AMI)
- Smart metering (electric, water, gas)
- Meter data management systems
- GIS system application
- Utility operations
- Resource planning
- Nuclear plant instrumentation and control
- Nuclear and EMS SCADA systems

Experience and Background

- Years of experience in the electric power industry 1977–Present
- Principal Advisor, Lead AMI, PCA, Quanta Technology 2016, 2018–Present
- Director, Solution Delivery, Itron Inc. 2017–2018
- Managing Partner, Smart Grid Consulting Associates, LLC 2015–2016
- Vice President, Program Implementation, Elster Solutions (formerly ABB) 1999–2014
- Senior Researcher and Doctoral Student, Environmental Engineering, NCSU 1995–1999
- Senior Staff Engineer, Nuclear Design and Power Supply, Virginia Power 1977–1994

Relevant Field Deployment Projects:

- City of Newberry AMI Deployment, Water: 2.1K, Elec: 1.9, AMI meter deployment (Quanta Technology)
- City of Tallahassee, Water: 87K, Electric 113K, Gas 24K, AMI meter deployment (Honeywell)
- City of Fort Collins, Water: 31K, Elec: 68K, AMI meter deployment (Honeywell)
- KCBPU, Water: 54K, Elec: 67K, AMI meter deployment (Honeywell)
- Peterborough, Water: 22K, Elec: 37K, AMI meter deployment (Honeywell)

Education

- PhD, Environmental Engineering, North Carolina State University (NCSU), 1999
- MS, Environmental Engineering, North Carolina State University (NCSU), 1996
- BS, Nuclear Engineering, North Carolina State University (NCSU), 1977



DAVID UY, PE

DAVID UY, PE, SENIOR ENGINEER, Protection, Control & Automation, is an accomplished engineer with expertise in designing and developing customer-focused solutions using customer requirements, system specifications, test and field data, and root cause analysis. He has expertise in developing, producing, and supporting power system protection, automation, energy measurement, and control products. David is also adept at managing projects and deploying efficient customer solutions.



Areas of Expertise

- Advanced metering infrastructure (AMI)
- Advanced meter reading (AMR)
- ANSI C12.18/21/22, DNP 3.0, Modbus, TCP/IP
- Power system protection
- Process management
- Data analysis
- Root cause analysis
- Project management
- Testing

Experience and Background

- Years of experience in the electric power industry 1995–Present
- Senior Engineer (Associate), Quanta Technology 2020–Present
- Sr. Advanced Embedded Engineer, Honeywell International 2016–2019
- Principal Engineer, Elster Solutions 2001–2016
- Senior R&D Engineer, ABB Electric Systems Technology Institute 1997–2001
- R&D Engineer, ABB Transmission Technology Institute 1995–1997

Accomplishments and Industry Recognition

- Licensed Professional Engineer, North Carolina (No. 027004)
- IEEE member, 1983–Present
- Seven patents (four in AMI and three in distribution system protection and monitoring)

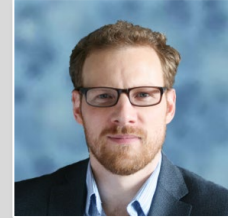
Education

- MS, Electrical Engineering (Power System Reliability), Missouri University of Science and Technology (University of Missouri-Rolla), 1991
- BS, Electrical Engineering, Michigan Technological University, 1988



CHAD ABBEY, PhD

CHAD ABBEY, PhD, SENIOR DIRECTOR, Advisory Services, is an international expert with over eighteen years of industry experience in grid modernization, utility operations, and renewable-energy and energy-storage integration. He has helped utilities and developers navigate the distributed generation (DG) interconnection process, deploy innovative solutions to accelerate and reduce the cost of DG interconnection, and integrate distributed energy resources (DER) into distribution system operations. These projects have included design, specification, and subsequent deployment of distributed energy resource management systems (DERMS) and advanced laboratory testing using real-time simulation of emerging distribution architectures and technologies, including high-penetration DER control, OpenFMB, microgrids, and hierarchical control architectures. Chad has extensive experience with power systems analysis tools such as CYMDIST, Synergi, OpenDSS, EMTP-RV, and OPAL-RT. He has worked on augmenting these commercial tools through integration with Python and historical data for advanced distribution planning, including data analytics and probabilistic planning methods.



Areas of Expertise

- Distributed generation interconnection, DER integration, and Non-Wire Alternatives
- Grid modernization architectures and technologies (DERMS, ADMS, DA)
- Operational data analytics (historian data, AMI, DA device, outage data)
- Software (Python, Matlab, OpenDSS, CYMDIST, OSISOFT PI, EMTP-RV, Power BI)

Experience and Background

- Years of experience in the electric power industry 2003–Present
- Senior Director, Advisory Services, Quanta Technology 2022–Present
- Executive Advisor, Advanced Technology Integration (ATI), Quanta Technology 2020–2022
- Principal Advisor, Advanced Technology Integration (ATI), Quanta Technology 2018–2020
- VP Power Systems, Smarter Grid Solutions 2014–2018
- Smart Grid Engineer, Hydro-Quebec Research Institute 2009–2014
- Engineer and Project Manager, CanmetENERGY, Natural Resources Canada 2004–2009
- Contractor, TransEnergie Technologie 2003–2004

Accomplishments and Industry Recognition

- Working Group Member of IEEE 1547.4, IEEE 1547.8, IEEE P2030.4, IEEE 2030.11, and contributing author to the IEEE Standards Association Power 2050 Vision
- CIGRE C6.11 Active Distribution Networks, WG Secretary
- EPRI Smart Grid Demonstration Innovation Award for Hydro-Quebec Smart Zone
- Published over ten papers in peer-reviewed journals (*IEEE Transactions*, *Elsevier*, *IEEE Power*, and *Energy Magazine*), and over fifty papers in conference proceedings

Education



- PhD, Electrical Engineering, McGill University, 2009
- MEng, Electrical Engineering, McGill University, 2004
- BSc, Electrical Engineering, University of Alberta, 2002

TASK ORDER No. _____

**PROFESSIONAL SERVICES
(Electric Demand Response Consulting Services)**

THIS TASK ORDER FOR PROFESSIONAL SERVICES (“Task Order”) is made on the day of _____, 2022, between the **City of Lake Worth Beach**, a Florida municipal corporation (“City”) and **Quanta Technology, LLC**, a State of North Carolina limited liability company (“CONSULTANT”).

1.0 Project Description:

The City desires the CONSULTANT to provide those services as identified herein for the Project. The Project is described in the CONSULTANT’s Proposal, dated August 31, 2022 and services are generally described as: Demand Response Study, Phase 1 (the “Project”).

2.0 Scope

Under this Task Order, the CONSULTANT will provide the City of Lake Worth Beach Electric Utility with demand response consulting services for the Project as specified in the CONSULTANT’s proposal attached hereto and incorporated herein as Exhibit “1”.

3.0 Schedule

The services to be provided under this Task Order shall be completed within 8 to 12 weeks from the City’s approval of this Task Order or the issuance of a Notice to Proceed.

4.0 Compensation

This Task Order is issued for a lump sum, not to exceed amount of \$ **49,948.00**. The attached proposal identifies all costs and expenses included in the lump sum, not to exceed amount.

5.0 Project Manager

The Project Manager for the CONSULTANT is Jesus Gonzales, phone (919) 428 - 9332; email: jgonzales@quanta-technology.com ; and, the Project Manager for the City is Edward Liberty, phone: (561)586 - 1670; email:eliberty@lakeworthbeachfl.gov.

6.0 Progress Meetings

The CONSULTANT shall schedule periodic progress review meetings with the City Project Manager as necessary but every 30 days as a minimum.

7.0 Authorization

This Task Order is issued pursuant to the Professional Services Agreement (Electric Demand Response Consulting Services) between the City of Lake Worth and the CONSULTANT, dated _____ (“Agreement” hereafter). If there are any conflicts between the terms and conditions of this Task Order and the Agreement, the terms and conditions of the Agreement shall prevail.

IN WITNESS WHEREOF, the parties hereto have made and executed this Task Order No. 1 as of the day and year set forth above.

CITY OF LAKE WORTH BEACH, FLORIDA

By: _____
Carmen Y. Davis, City Manager

ATTEST:

By: _____
Melissa Ann Coyne, City Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

APPROVED FOR FINANCIAL
SUFFICIENCY

By: _____
Glen J. Torcivia, City Attorney

By: _____
Bruce T. Miller, Financial Services Director

CONSULTANT: **Quanta Technology, LLC**

By: _____

[Corporate Seal]

STATE OF NORTH CAROLINA)
COUNTY OF _____)

THE FOREGOING instrument was acknowledged before me by means of • physical presence or • online notarization on this ____ day of _____, 2022, by **Quanta Technology, LLC**, a State of North Carolina limited liability company, who is personally known to me or who has produced _____ as identification, and who did take an oath that he or she is duly authorized to execute the foregoing instrument and bind the CONSULTANT to the same.

Notary Public Signature

Notary Seal:

Exhibit “1”



2 SCOPE OF WORK / ADVISORY SERVICES

2.1 Phase 1: Demand Response Study

Phase 1 involves conducting a Demand Response Study primarily aimed at:

- Collecting and analyzing current relevant data from the City of Lake Worth Beach (LWB) System
- Defining system demand response program potential benefits which drive success factors
- Conducting a technology assessment evaluating technology choices
- Detailing anticipated impacts and costs

This phase should result in defining the most practical way of achieving the target demand reduction (e.g. 5 MW or target) while primarily focusing on the residential sector allowing the LWB residents to engage in transformative Energy Programs.

Table 1 below provides an overview of anticipated services performed during this project phase.

Table 1: Phase 1 Proposed Services

Service Breakdown	Description	Notes
Data Collection / Analysis	<p>Obtain and analyze current available data from the City including:</p> <ul style="list-style-type: none">• Distribution of Customer Types and end use services (e.g. AC, Pool Pump, Water Heater, etc.)• Demand and Load Profiles• System operations and power purchase costs <p>Obtain other available relevant data such as:</p> <ul style="list-style-type: none">• Experiences with other utilities/customers in FL	Helps answer: How much is available for reducing, shifting, or increasing load?
System Benefits	<p>Work with the City to define the desired system benefits derived from the Demand Response program. Potential benefits include:</p> <p>Planning:</p> <ul style="list-style-type: none">• Deferring upgrades <p>Operations:</p>	Helps answer: How can the load be used to create benefits?



2 SCOPE OF WORK / ADVISORY SERVICES

2.1 Phase 1: Demand Response Study

Phase 1 involves conducting a Demand Response Study primarily aimed at:

- Collecting and analyzing current relevant data from the City of Lake Worth Beach (LWB) System
- Defining system demand response program potential benefits which drive success factors
- Conducting a technology assessment evaluating technology choices
- Detailing anticipated impacts and costs

This phase should result in defining the most practical way of achieving the target demand reduction (e.g. 5 MW or target) while primarily focusing on the residential sector allowing the LWB residents to engage in transformative Energy Programs.

Table 1 below provides an overview of anticipated services performed during this project phase.

Table 1: Phase 1 Proposed Services

Service Breakdown	Description	Notes
Data Collection / Analysis	<p>Obtain and analyze current available data from the City including:</p> <ul style="list-style-type: none"> • Distribution of Customer Types and end use services (e.g. AC, Pool Pump, Water Heater, etc.) • Demand and Load Profiles • System operations and power purchase costs <p>Obtain other available relevant data such as:</p> <ul style="list-style-type: none"> • Experiences with other utilities/customers in FL 	Helps answer: How much is available for reducing, shifting, or increasing load?
System Benefits	<p>Work with the City to define the desired system benefits derived from the Demand Response program. Potential benefits include:</p> <p>Planning:</p> <ul style="list-style-type: none"> • Deferring upgrades <p>Operations:</p>	Helps answer: How can the load be used to create benefits?

4.1 Phase 1: Demand Response Study (T&M)

Phase 1 will be billed on a T&M basis. It is anticipated that most of the work will be conducted remote with onsite meetings only conducted as requested by the City. Expenses for requested travel will be billed on an "At Cost" basis with no markup.

Advisory Services	Estimated Cost
Phase 1: <ul style="list-style-type: none">• Data Collection• System Benefits• Conceptual DR Programs (Technology Assessment)• Assessment of Impacts and Costs	\$49,948