## TASK ORDER NO. 4

## Electrical Transmission & Generation Options Services – Transmission Line Distribution Underbuild Engineering & Design

THIS TASK ORDER ("Task Order") is made on the \_\_\_\_\_\_, 2021, between the **City of Lake Worth Beach**, a Florida municipal corporation located at 7 North Dixie Highway, Lake Worth, Florida 33460 ("City") and <u>Power Engineers, Inc.</u>, a Florida corporation ("Consultant").

## 1.0 <u>Project Description</u>:

The City desires the Consultant to provide those services as identified herein and generally described as: <u>Transmission Line Distribution Underbuild - Engineering & Design Services</u> (the "Project"). The Project is described in the consultant's proposal, dated <u>June 3<sup>nd</sup>, 2021</u>, and is attached hereto as Exhibit "1" and incorporated herein.

## 2.0 <u>Scope</u>

Under this Task Order, the Consultant will provide professional services to the City as detailed in the **Consultant's proposal attached hereto and incorporated herein as Exhibit "1".** 

## 3.0 <u>Schedule</u>

The services to be provided under this Task Order shall be completed within <u>684</u> calendar days from the City's approval of this Task Order or the issuance of a Notice to Proceed.

## 4.0 <u>Compensation</u>

This Task Order is issued for a time and expense, not to exceed amount, of **<u>\$327,350</u>**. The attached proposal identifies all costs and expenses anticipated in the time and expense, not to exceed amount.

## 5.0 Project Manager

## 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 <u>Limitation of Liability</u>

The City agrees to limit CONSULTANT's liability, to the City and to those under contract with the City to perform the work under the scope of the Project, for insurable events arising from the CONSULTANT's performance under this Task Order to <u>One Million Dollars</u> (\$1,000,000.00). Except for the CONSULTANT's agreement and obligation to indemnify and Page 1 of 4

hold harmless under the Agreement, the CONSULTANT's liability for non-insurable events including breach of contract shall not exceed <u>\$327,350</u> under the proposed Task Order for this project.

## 8.0 <u>Authorization</u>

This Task Order is issued in compliance with the Consultants' Competition Negotiation Act, section 287.055, Florida Statutes, and pursuant to the Agreement for Professional Services between the City of Lake Worth and the Consultant, dated <u>May 1<sup>st</sup>, 2018</u> ("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; however, the specific scope of services set forth in this Task Order shall take precedence over any other more general description of services.

## **REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK**

IN WITNESS WHEREOF the parties hereto have made and executed this Task Order on the day and year first above written.

## **CITY OF LAKE WORTH BEACH, FLORIDA**

By: \_\_\_\_

By:

Betty Resch, Mayor

ATTEST:

By:

Deborah M. Andrea, City Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

APPROVED FOR FINANCIAL SUFFICIENCY

By:

Glen J. Torcivia, City Attorney

Power Engineers, Inc.

By:		Digitally signed by Alan Sowell
Print Name: Alan	Sowell	E=alan sowell@powereng.com
Title:		Date: 2021.06.04 08:04:22-04'00'

Bruce T. Miller, Financial Services Director

[Corporate Seal]

STATE OF Florida COUNTY OF Orange

CONTRACTOR:

The foregoing instrument was acknowledged before me this $\frac{U}{May}$ day of $\underline{June}$ , by $\underline{Alan}$ source $l$ , who was physically present, as $\underline{VP}$ <u>Anger</u> $\underline{Mag}$ (fitle), of H Engineers, Inc., which is authorized to do business in the State of Florida, and who is personal terms in the state of Florida.	ower
known to me or who has produced the following	as

Notary Public

Print Name? <u>Lize He Martivez</u> My commission expires: <u>17-27-23</u>

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EXHIBIT "1" Contractors Proposal



POWER ENGINEERS, INC.

1060 MAITLAND CENTER COMMONS SUITE 110 ORLANDO, FL 32751 USA

> PHONE 207-869-1200 FAX 207-869-1299

June 03, 2021

Paul Nicholas Engineering Manager - Special Projects City of Lake Worth Beach 1900 2nd Avenue North Lake Worth Beach, FL 33461

## Subject: New Distribution Underbuild - Engineering and Design Proposal

Dear Mr. Nicholas:

Thank you for the opportunity to provide a proposal to City of Lake Worth Beach (CLWB) for the upcoming transfer of CLWB's existing distribution line to the new FPL Transmission Facilities. We propose to provide the required distribution engineering and design services to complete the necessary Issue for Construction (IFC) plans for this project. We have revised our proposal submitted on May 05, 2021, based on CLWB feedback obtained during our conference call on June 1, 2021.

POWER's proposed pricing for this project is outlined in tabular form later in this proposal. Pricing provided is predicated on a time and expense approach with billing rates governed by our existing POWER's Electric Transmission and Generation Options Services Agreement (RFQ No. 18-302) with City of Lake Worth Beach.

We look forward to your review of our proposal. If you have any questions, please contact me at 407-341-6907. Our team is available to meet with you anytime to discuss our approach and proposal in detail. Thank you once again for this opportunity to work with City of Lake Worth Beach.

Sincerely,

Ivette Sanchez, PMP Project Manager



# **NEW DISTRIBUTION UNDERBUILD WORK PLAN**

# **PROJECT DESCRIPTION**

Provide engineering services for the following projects:

- Transfer existing City of Lake Worth Beach's Distribution line to New FPL Transmission Underbuild.
  - New FPL transmission line route is still undetermined; therefore, this engineering design estimate will be based on an approximate worst-case scenario on the CLWB distribution line poles count being impacted by either relocation or requiring some level of work as follows:
    - Sixty (60) distribution poles will need to be removed and transferred to FPL transmission structures.
    - One-hundred and five (105) additional distribution poles will need to be evaluated to determine impact and work required.
  - Evaluate existing pole line and update facilities to updated CLWB standards.
  - Modify pole locations affected by new 138kV transmission line.
  - Relocate approximately 2.8 miles of the existing 26kV feeder line into the new Canal 138kV Transmission Switchyard.
  - Street lighting requirements coordination with FPL, Palm Beach County (PBC) and consulting engineering firms working with FDOT and PBC on roadway improvement projects along Lake Worth Road and Melaleuca Ln.
  - This proposal assumes no re-conductoring
  - Provide coordination with CLWB & FPL on distribution underbuild for two new 138kv transmission lines as needed
  - Provide coordination with FPL on road and environmental permitting for transmission underbuild for two new 138kV transmission lines into the new Canal transmission switchyard. Permits will be submitted by FPL transmission group. POWER distribution group will coordinate with FPL transmission group.
  - Provide completed construction package.

- Number of standards to be created or to modify existing ones are approximate as follows:
  - Develop five (5) new transmission underbuild standards.
  - Modify five (5) existing standards as required
- Development of hardware material specifications are not a part of the scope.
- Development of pole specifications are not a part of the scope.
- Provide As-Built drawings upon construction completion.

## POWER'S WORK PLAN FOR THIS PROJECT

This section presents our work plan prepared specifically for your project. Our work plan does the following:

- Defines the scope of work so you know exactly what we intend to do.
- Lists the deliverables that you will receive.
- Identifies your key project concerns and our proposed solutions.
- Serves as a ready-made project control system when the project begins.
- Becomes the foundation for project scheduling and budgeting throughout the project life.

## A BASIS FOR PROJECT REPORTING

With this work plan, we can track tasks, subtasks and deliverables throughout the life of the project. Project status reports and project review checklists assist us in communicating and coordinating internally throughout the project.

## **CLWB AND POWER REVIEW**

We invite you to review and revise this document with us before the project starts. This joint review will provide optimum coordination among all involved parties as the project progresses.

# TASK OUTLINE

<b>Task</b> Subtask		<b>Project Management</b> Project Supervision and Control
<b>Task</b> Subtask	-	<b>Distribution Pre-Design Activities</b> Design Criteria Site Visit
Task	2	Overhead Construction Standards Update
Subtask	2.1	Transmission Underbuild Standards
<b>Task</b> Subtask	<b>3</b> 3.1 3.2 3.3 3.4	<b>Distribution Line Design</b> Pre-Design PoleForeman Design Transformer Sizing and Design
<b>Task</b> Subtask		Permitting Activities Permits
<b>Task</b> Subtask	<b>5</b> 5.1	Material Procurement Material List
<b>Task</b> Subtask	<b>6</b> 6.1	<b>Construction Drawings</b> Plan Drawings
<b>Task</b> Subtask	<b>7</b> 7.1	Quality Assurance Quality Assurance
<b>Task</b> Subtask	<b>8</b> 8.1 8.2 8.3	<b>Construction Activities</b> Issued for Construction Documents Pre-Construction Meeting Engineering Support during Construction
<b>Task</b> Subtask	<b>9</b> 9.1	<b>Post-Construction Activities</b> Record Drawings

## TASK 0

## **PROJECT MANAGEMENT**

## Objective(s):

- To manage POWER's scope of services per City of Lake Worth Beach (CLWB)'s expectations and POWER's procedures.
- To coordinate with CLWB and to direct the smooth flow of project communications.
- To coordinate with POWER's Overhead Transmission Engineering team designing the FPL 138kV Canal Transmission project
- To manage the work plan, schedule, and budgets for on-time completion of the project within approved parameters.

#### Prerequisite(s):

- Purchase Order (P.O.)
- Notice to Proceed

# SUBTASK 0.1 PROJECT SUPERVISION AND CONTROL

## **Responsibility:** POWER

#### Deliverable(s):

• Supervision Management

Communicate, supervise and coordinate project participants (within POWER's purview) to complete all tasks and activities as outlined in the approved scope of work. Establish and maintain with CLWB the project schedule for engineering related tasks. Track deliverables progress and completion relative to schedule. Monitor the work and budget and document work scope variances, if there are any, for CLWB's review. Prepare a Monthly Status Report to be attached to the Monthly Invoice which will summarize the status of deliverables, schedule and cost. Summarize the work performed in the reported billing period as well as work expected to be performed in the next billing period. Address problems, risks, trends and/or delays and the actions being taken to bring those areas back on schedule or budget.

Direct and coordinate POWER's project team with emphasis on:

- Compliance with CLWB's stated procedures and standards
- Adherence to budget, scope, and schedule
- Compliance with the Project Procedures and Design Criteria
- Adherence to POWER's Quality Control and Quality Assurance procedures.

#### Assumption(s):

• The 138kV Canal Transmission project is awarded to PEI.

- This project will be in parallel with the 138kV Canal Transmission project. Meetings and project report costs were captured in the 138kV Canal Transmission project.
- Budget includes project team members' attendance at one (1) hour project progress weekly conference calls for the duration of the project.
- Budget includes project team members' attendance at one (1) hour project progress biweekly conference calls for the duration of the project to coordinate with FPL.
- Meeting agendas and notes will be prepared to run meetings effectively.
- Project duration approximately of 18 months (05/2021 through 11/2022) from design start to post-construction activities.

## TASK 1

## **DISTRIBUTION PRE-DESIGN ACTIVITIES**

## **OBJECTIVE(S)**:

• To identify, define, and secure City of Lake Worth Beach approval of the parameters necessary to proceed with the line design for the project.

## PREREQUISITE(S):

• Notice to Proceed

## SUBTASK 1.1 DESIGN CRITERIA

**Responsibility:** POWER

## DELIVERABLE(S):

• Design Criteria

Review the information from the project initiation meeting and data acquisition. Compile and issue the project conceptual for City of Lake Worth Beach review, revision, and approval. Summarize the proposed final design procedures and criteria including the proposed applicable design standards.

Ensure that the scope and content of the Design Criteria, as approved by City of Lake Worth Beach, serves as the basis for the detailed design engineering. Maintain and update the Design Criteria, during the life of the project.

#### ASSUMPTION(S):

• POWER will incorporate City of Lake Worth Beach's standards wherever possible.

## SUBTASK 1.2 SITE VISIT

**Responsibility:** City of Lake Worth Beach/POWER

#### Deliverable(s):

• Meeting Notes

Review the maps or drawings for overhead electric provided by City of Lake Worth Beach.

Use data obtained from the facilities maps during design to select and review routes/locations for line design to minimize possible interference between new, existing, and future utilities.

#### ASSUMPTION(S):

- Preliminary Scope has been approved
- Right-of-Entry has been granted

# TASK 2 OVERHEAD CONSTRUCTION STANDARDS UPDATE

## Objective(s):

- To create City of Lake Worth Beach's transmission underbuild construction standards under the scope of this project.
- Standards will be updated to reflect NESC 250B Extreme Wind loading with a system voltage of 26.4kV.

## Prerequisite(s):

• Review of existing standards

## SUBTASK 2.1 TRANSMISSION UNDERBUILD STANDARDS

**Responsibility:** City of Lake Worth Beach/POWER

#### **DELIVERABLE(S)**:

• AutoCAD drawings and pdfs

To create City of Lake Worth Beach's Transmission Underbuild construction standards. Standards will be updated to reflect NESC 250B Extreme Wind loading with a system voltage of 26.4kV.

## ASSUMPTION(S):

- Transmission Underbuild standards for three-phase construction in AutoCAD drawings.
- Existing City of Lake Worth Beach standards will be the baseline.
- Only standards relevant to the Underbuild work will be updated/created.
- Budget includes creation of five (5) transmission underbuild standards and modification of five (5) existing standards as required. Any additional standards will be performed on a time-and-expense basis.
- 35kV insulators and 26.4kV system voltage will be used.
- City of Lake Worth Beach will provide documents detailing approved City of Lake Worth Beach stock numbers including approved vendor part numbers.

# TASK 3 DISTRIBUTION LINE DESIGN

## Objective(s):

- To determine the pole locations and pole class, prepare plan drawings.
- To compile the constraining factors that determine the final line design and use this information to establish the final pole and conductor configurations to suit the specific requirements for the line.
- To prepare and document the design for the poles and conductors.
- Budget includes project team members' attendance at one (1) hour project progress weekly conference calls for the duration of the project.
- Budget includes project team members' attendance at one (1) hour project progress biweekly conference calls for the duration of the project to coordinate with FPL.
- Project duration approximately of 18 months (05/2021 through 11/2022) from design start to post-construction activities.

## Prerequisite(s):

- Design Criteria
- Site Visit
- Overhead Construction Standards
- PoleForeman Client File

## SUBTASK 3.1 PRE-DESIGN

**Responsibility:** City of Lake Worth Beach/POWER

#### **DELIVERABLE(S)**:

• Schedule of deliverables

Following the site visit of Canal Substation Expansion and meeting with the City of Lake Worth Beach to discuss standards, a schedule will be created. The schedule will include both the Transmission Underbuild design and the delivery of design standards and will be broken out by month.

#### ASSUMPTION(S):

• The schedule will be in parallel with the 138kV Canal Transmission project.

## SUBTASK 3.2 POLEFOREMAN

**Responsibility:** POWER

## Deliverable(s):

• Pole Foreman Results for all distribution poles (pdf and pole foreman .pft files)

Input material specifications into PoleForeman for all relevant material, including:

- Insulators
- Concrete Poles
- Wood Poles
- Conductor

- Guys
- Anchors
- Reclosers
- Transformers

Design structures to the loading conditions identified in the Design Criteria. Reference standards and use PoleForeman client file for design and loading

## Assumption(s):

- Pole Foreman will be run on all distribution poles.
- Budget is based on 60 poles. Additional work will be billed on a timeand-expense basis.
- Distribution will coordinate with transmission on all underbuild poles. Transmission is responsibility for structural loading on their poles. PoleForeman will not be run on the transmission poles
- City of Lake Worth Beach to provide all known material specifications and preferred vendor information (conductor, transformers, reclosers, disconnects and pole information).
- City of Lake Worth Beach to provide specifications and vendor preferences for all other material.

## SUBTASK 3.3 DESIGN

## **Responsibility:** POWER

## Deliverable(s):

• Pole Class, Pole Height, Equipment Size, Design, and Specification

Design structures to the loading conditions identified in the Design Criteria. Reference City of Lake Worth Beach standards and use PoleForeman results to assist in design.

Determine and select the location and sizing for each required component (guys, anchors, insulators, line hardware, risers, cap banks, etc.) or member in conformance with applicable codes and design constraints.

Design will involve hardening the circuit and consist of:

- Transferring existing distribution line to new FPL Transmission Poles
- Structural analysis on all midspan poles. Any failing pole will be replaced.
- Replacing any damaged poles, insulators, braces, etc. discovered during the site visit.
- Replacing out of standard insulators with 35kV polymer insulators.
- Updating lightning protection and grounding to meet updated standards.
- Replacing transformers with 26kV transformers
- Replace Underground riser facilities
- Replace Overhead equipment per City of Lake Worth Beach's standards.

## Assumption(s):

- City of Lake Worth Beach will provide any as built information of existing underground facilities.
- Conductor size will be provided by City of Lake Worth Beach.
- Budget is based on 105 poles. Additional work will be billed on a time-and-expense basis.

## SUBTASK 3.4 TRANSFORMER SIZING AND DESIGN

**Responsibility:** City of Lake Worth Beach/POWER

## Deliverable(s):

- Polemount Transformer Size, Design, and Specification
- Padmount Transformer Size, Design, and Specification

Review the design criteria and gather details to design the transformer size/voltage and location.

Identify transformer location and configurations. Consider the type of building (commercial, office, residence, etc.), and location of primary feed. Replace and size transformers considering the square footage or load analysis provided by City of Lake Worth Beach. Provide engineering calculations related to transformer sizing and prepare preliminary drawings to document design.

- POWER will replace any existing TX with equivalent KVA size.
- City of Lake Worth Beach will provide existing transformer sizes.
- City of Lake Worth Beach approved transformers and standard design will be used for sizing and locating.
- Any calculations will be performed on a time-and-expense basis.

# SUBTASK 3.5 STREET LIGTHING COORDINATION

**Responsibility:** City of Lake Worth Beach/POWER

## Deliverable(s):

• Identify street light installation requirements and locations along the new FPL transmission line and CLWB distribution poles and include in final plans

Street lighting requirements coordination with FPL, Palm Beach County (PBC) and consulting engineering firms working with FDOT and PBC on roadway improvement projects along Lake Worth Road and Melaleuca Ln.

## Assumption(s):

• FPL, FDOT, PBC and City of Lake Worth to provide street lighting requirements and drawings

# TASK 4 PERMITTING ACTIVITIES

## Objective(s):

- To identify other agencies or utilities that may be affected by the proposed project.
- To secure permits required for the proposed project.

## Prerequisite(s):

- Site Visit
- Notice to Proceed

## SUBTASK 4.1 PERMITS

**Responsibility:** FPL/POWER

Review project and determine what road permits and environmental permits are required.

- Distribution will coordinate with FPL transmission on all permits.
- If needed, construction print will be used for permitting. If additional permit drawings are needed, they will be performed on a time-and-expense basis.
- If environmental permit drawings are needed, they will be performed on a time-and-expense basis.
- FPL will perform or subcontract all environmental services required to secure permits.
- FPL will submit all permit applications, pay permit fees and track the procurement of the permits.
- Construction permits required by state and local agencies for access off highways, driveway permits, traffic control, de-watering, burning, etc., will be prepared, submitted and acquired by City of Lake Worth Beach's construction contractor.

# TASK 5 MATERIAL PROCUREMENT

## Objective(s):

• To develop items required for the procurement phase of the project.

## Prerequisite(s):

- Overhead Construction Standards
- Line Design

## SUBTASK 5.1 MATERIAL LIST

**Responsibility:** City of Lake Worth Beach/POWER

#### Deliverable(s):

- Overall Material List
- Material List by Location

Using City of Lake Worth Beach master material list from previous projects, a material list will be created for all locations. A total material list will include an appropriate multiplier to cover loss and breakage.

- City of Lake Worth Beach is responsible for selecting vendor and ordering all material.
- City of Lake Worth Beach will provide their most up to date master material list.
- Technical specifications will not be required for purchase of miscellaneous material.
- Technical material specifications, if required, will be performed on a time-and-expense basis.
- For any needed material not on the City of Lake Worth Beach's master list, Lake Worth Beach will be responsible to select a vendor and part number.
- City of Lake Worth Beach will provide commercial conditions, solicit bids, and award contract for materials.

# TASK 6 CONSTRUCTION DRAWINGS

## Objective(s):

• To generate the drawings required during the construction phase of the project.

## Prerequisite(s):

• Line Design

## SUBTASK 6.1 PLAN DRAWINGS

**Responsibility:** POWER

## Deliverable(s):

• Plan Drawings

Prepare final Plan Drawings at one inch equal to forty feet (1"=40') unless otherwise specified by City of Lake Worth Beach. Profile drawings will only be created in critical areas. Depict information required for bidding, construction, and recording of the line including the following as applicable:

- Crossings
- Cable Phasing
- Transmission Locations
- Right of Way Boundaries
- Environmental Areas
- Termination Structures

- Data shown in the plan view of the drawings will be limited to the detail delivered from the City of Lake Worth Beach GIS system export.
- City of Lake Worth Beach to provide electronic version of the completed substation general arrangement drawing.
- Profile and supplemental drawings will be created only in critical areas on a time-and-expense basis.
- Drawing format to be created by POWER and approved by City of Lake Worth Beach.

- Facility backgrounds will be easily exportable from the GIS system. If a background will need to be created from scratch, it will be created on a time-and-expense basis.
- Data shown in the plan view of the drawings will be limited to the detail retrieved from the City of Lake Worth Beach GIS system export.

# TASK 7 QUALITY ASSURANCE

## Objective(s):

• To meet the quality objectives established for the project.

#### Prerequisite(s):

- Line Design
- Material Procurement
- Construction Drawings

## SUBTASK 7.1 QUALITY ASSURANCE

**Responsibility:** POWER

#### Deliverable(s):

- Green Book Design Summary
- Independent Review of Material List
- Independent Review of PoleForeman Structure Calculations
- Independent Review of Construction Drawings
- Independent Review of Construction Package

Assemble project-related design data, during the course of the project, into a three-ring binder, referred to within POWER as the Green Book. Prepare cover sheets for each major set of calculations or design data included in the document as well as a table of contents summarizing the Green Book content. Include the following: Design Criteria, Supporting Calculations, Structure Design, Equipment Sizing. Assemble a complete set of the documents making up the construction package. Perform a detailed independent review of the construction drawings looking for check print history of changes, records of picking up client requested changes, overall content quality and drafting standards. Perform a detailed independent review of the complete construction package focusing on the minimum amount of information needed to bid and construct project, as well as overall constructability issues. Address each of the reviewer's comments and incorporate changes into the documents as appropriate.

## Assumption(s):

- POWER will submit digital copies to City of Lake Worth Beach at the completion of the project upon request.
- All design documents will be stored in a shared location accessible to both City of Lake Worth Beach and POWER throughout the life of the project.
- POWER'S QA/QC procedures will be followed unless City of Lake Worth Beach has additional requirements.

Budget includes 2 revisions with City of Lake Worth Beach reviewers. Any additional revisions will be performed on a time-and-expense basis.

## TASK 8 CONSTRUCTION ACTIVITIES

## Objective(s):

- To develop the documents that will be required during the construction phase of the project.
- To provide engineering support during the construction phase.

## Prerequisite(s):

• Pre-Construction Activities

SUBTASK 8.1 "ISSUED FOR CONSTRUCTION" DOCUMENTS

**Responsibility:** POWER

#### Deliverable(s):

• "Issued For Construction" Drawings

#### Assumption(s):

- One (1) hard copy and one (1) electronic copy of the "Issued For Construction" Drawings will be prepared and submitted to CLWB.
- The construction specification will not be re-issued.

## SUBTASK 8.2 PRE-CONSTRUCTION MEETING

**Responsibility:** POWER

#### Deliverable(s):

• Pre-Construction Meeting Minutes

Schedule, attend, and document a Pre-Construction Meeting between CLWB, Contractor and POWER. Review the construction documents, project schedule, project contacts for involved parties and the detailed scope of the project. Issue Pre-Construction Meeting Minutes. Issue any applicable changes to the Contract documents.

## Assumption(s):

• Two (2) POWER representative will attend construction preconstruction meeting.

# SUBTASK 8.3 ENGINEERING SUPPORT DURING CONSTRUCTION

**Responsibility:** POWER

## Deliverable(s):

• Engineering Support During Construction

Provide technical support to the City of Lake Worth Beach and Construction Crew during construction.

- Up to 128 hours of engineer time to provide office support for construction activities will be budgeted.
- Up to two (2) full day field trips will be budgeted in the event that is needed during construction progress.
- Project construction duration 8 months
- Field trips and/or hours required in excess of the limit specified above will be performed on a time-and-expense basis.

# TASK 9 POST-CONSTRUCTION ACTIVITIES

## Objective(s):

- To update the construction drawings with any changes that occurred during construction.
- To assist City of Lake Worth Beach with project close-out documentation.

## Prerequisite(s):

- Construction Completion
- Construction As-Built Mark-Ups

## SUBTASK 9.1 RECORD DRAWINGS

Responsibility: City of Lake Worth Beach/POWER

## Deliverable(s):

• Construction Drawings "As-Built"

Incorporate the changes received during construction and furnish a complete set of drawings to reflect the "As-Built" condition when the project is completed.

- A set of red-lined drawings, depicting construction changes, will be submitted to POWER by City of Lake Worth Beach or their representative within 30- days of construction completion.
- It will not be necessary for POWER to field review the construction changes.
- One (1) electronic copy of the Record Issue Construction Drawings will be prepared and submitted.
- A field trip to walk through the completed project, if required, will be performed on a time-and-expense basis.

# ENGINEERING BUDGET

POWER proposes to perform these engineering and design services on a time and Time and Material basis, in accordance with POWER's Electric Transmission and Generation Options Services Agreement (RFQ No. 18-302) with City of Lake Worth Beach. A breakdown of our budget is as follows:

BUDGET SUMMARY BY CATEGORY AND TASK										
PROJECT MANAGEMENT										
Task	Description	Hours	Labor \$	Expense \$	Total \$					
0	Project Management	222	\$41,790	\$500	\$42,290					
	SUB - TOTAL	222	\$41,790	\$500	\$42,290					
DISTRIBUTION LINE ENGINEERING										
Task	Description	Hours	Labor \$	Expense \$	Total \$					
1	Pre-Design Activities	108	\$15,702	\$2,740	\$18,442					
2	OH Const. Standards Update	276	\$34,536	\$0.00	\$34,536					
3	Distribution Line Design	767	\$103,910	\$0.00	\$103,910					
4	Permitting Activities	32	\$4,288	\$0.00	\$4,288					
5	Material Procurement	100	\$12,300	\$0.00	\$12,300					
6	Construction Drawings	220	\$21,940	\$0.00	\$21,940					
7	Quality Assurance	280	\$41,380	\$0.00	\$41,380					
8	Construction Activities	224	\$32,784	\$3,160	\$35,944					
9	Post-Construction Activities	104	\$12,320	\$0.00	\$12,320					
	SUB - TOTAL	2,111	\$279,160	\$5,900	\$ 285,060					
	GRAND TOTAL	2,333	\$ 320,950	\$6,400	\$ 327,350					