

# Anguilla Electricity Company Limited

## Request for Proposal

# Battery System



Anguilla Electricity Company Limited  
P.O. Box 400  
The Valley  
Anguilla

### Request for Proposal Schedule

**Release Date:** June 20, 2017

**Modified/Extended on July 17, 2017**

**Deadline for Submitting Questions:** ~~July 7, 2017~~ July 21, 2017 4:00 PM (AST)

**Response Due Date:** ~~July 21, 2017~~ August 18, 2017 4:00 PM (AST)

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# 1. Background

Anguilla Electricity Company Limited (ANGLEC) is a company duly incorporated under the laws of Anguilla having its Registered Office at Hannah-Waver House, The Valley, Anguilla. ANGLEC is the sole provider of electricity in Anguilla and presently does so using diesel generators and a solar farm. The power is produced by a single generating power plant (Corito Power Station), containing 11 turbo-diesel generating units and a 1.1 Megawatt solar farm. The output voltage and frequency of the plant is 13.8kv and 60Hz respectively. The installed capacity of the generating plant is 26.8 megawatts. The peak load is 15.5 MW and has an average annual growth rate of 1%. On Sundays (i.e. on the days of minimum demand) the average load is 10 MW. The Company's transmission and distribution (T&D) system is comprised of a 34.5kv transmission line (that feeds a 13.8kv substation on the Western end of Anguilla); and a 13.8kv distribution network that emanates directly from Corito Power Station. Future plant requirements are determined by load projections and plant firm capacity. Plant firm capacity is based on dispatchable generating plant (using the n-2 method) to ensure a reliable supply of electricity after allowance for breakdown and scheduled maintenance. Capacity planning also considers a 10% to 15% spinning reserve policy. The actual spinning reserve varies from 0% to 15%. More information on ANGLEC is available at [www.anglec.com](http://www.anglec.com).

## 1.1 Scope of Services Required

The objective of this Request for Proposal (RFP) is to select the most qualified bidder for a turnkey construction and delivery of a battery system. Bidders should quote on the following options:

- Approximately 300 kw and 150 kwh
- Approximately 400 kw and 200 kwh

The battery system shall be a fully integrated containerized product capable of interconnecting to the existing 13,800 volts utility infrastructure and functioning in conjunction with the existing diesel generation system and the existing 1.1 megawatt PV system. This battery system is intended to typically feed-in power to compensate load steps due to sudden curtailment of the solar PV system output (cloud), allowing for smoother handling of the diesel gen sets.

The battery system shall consist of the battery supply, a suitable size inverter, control systems and all other necessary accessories. The battery system must have a performance warranty for at least 10 years.

When a stable AC input power source is present, (from existing Solar Plant) the rectifier/charger shall simultaneously supply the inverter with DC power and recharge the battery. This shall be an automatic function and shall cause no disturbance to the loads.

Bidders must ensure that the Battery plant can safely and reliably connect to ANGLEC's three phase, 60Hz, 13.8kv distribution grid located at the connection point that will be provided by ANGLEC. Proposals must be received by ANGLEC's Contact (described in Section 6) by **4:00 p.m. (AST) before August 18, 2017**. ANGLEC reserves the right in its sole discretion to modify this deadline or accept late bids based upon extenuating circumstances.

The scope of services provided by the bidder shall include all tasks required including the design, fabrication, delivery, installation, and commissioning the battery system. The scope of services shall also include, but not be limited to all labor, taxes, services, equipment, and staff training necessary to produce a fully reliable and operational battery supply.

## ***2. Eligible Proposals, Instructions and Minimum Requirements***

### **2.1 General Minimum Eligibility Requirements**

In addition to the commercial operation date and capacity requirements identified above, proposals must meet the general minimum eligibility requirements described herein. ANGLEC will screen all proposals for compliance with these requirements. Proposals that fail to meet one or more of the general minimum eligibility requirements will be disqualified from further consideration.

#### **2.1.2 Quality Standards**

The following data is required for the Battery system Supply

- I. Quality norm
- II. Useable capacity
- III. End of Life capacity
- IV. DC/DC round trip efficiency on system level
- V. Design cycling capacity shall be above 4000 cycles

#### **2.1.3 Low Voltage Disconnect**

Should the battery voltage reach the discharge limit, the battery system shall disconnect from the critical load to safeguard the battery.

#### **2.1.4 Battery System Drawings**

Detail drawings consisting of a complete list of equipment and materials, manufacturer's descriptive and technical literature, battery sizing calculations per IEEE 485, installation instructions, single-line diagrams, ladder-type schematic diagrams, elevations, layout drawings, and details required to demonstrate that the system has been coordinated and will function properly as a unit.

#### **2.1.5 Performance Test Plan**

Submit test plans and procedures at least 15 calendar days prior to the start of field tests. Provide detailed description and dates and times scheduled for performance of tests, and detailed description of test Procedures, including test equipment (list make and model and provide functional description of the test instruments and accessories) and setups of the tests to be conducted to ensure the battery system meets the performance specification. Explain the test methods to be used.

#### **2.1.6 Environmental Conditions**

The battery system shall be capable of withstanding any combination of the following external environmental conditions without mechanical or electrical damage or degradation of operating characteristics.

- a. Operating altitude: Sea level.
- b. Operating ambient temperature range: 32 to 104 degrees F. Range for batteries are 50 to 86 degrees F.
- c. Non-operating and storage ambient temperature range: Minus 4 to plus 122 degrees F.
- d. Operating relative humidity: 0 to 95 percent, without condensation.

### **2.1.7 Delivery and Storage**

Equipment placed in storage shall be protected from humidity and temperature variations, moisture, water intrusion, dirt, dust, or other contaminants. In harsh environments where temperatures exceed non-operational parameters established within this specification, the equipment storage facility shall be environmentally controlled to ensure temperature parameters are within equipment specification.

### **2.1.8 Sound Pressure Levels**

Sound pressure levels produced by the battery system, when operating under full rated load, at five (5) feet in any direction from the perimeter of the unit, shall not exceed 75 dB as measured on the A scale of a Type 1 sound level meter at slow response conforming to ASA S1.4.

### **2.1.9 Hurricane Rating**

The battery container must be able to withstand sustained wind speeds of 140 mph in any direction for a minimum of one hour, and withstand wind-borne debris to ASTM 1996-06 (Test method ASTM E1886-05).

### **2.1.10 OPERATION AND MAINTENANCE MANUALS**

- a. Battery System Operation and Maintenance Manuals
- b. Prices for spare parts and supply list.
- c. Routine and field acceptance test reports.
- d. Date of Purchase.
- e. Corrective maintenance procedures.
- f. Test measurement levels with specific test points.

## **2.2 Firm, Binding Prices**

Proposals must include pricing that is firm and not subject to unilateral revision during ANGLEC's evaluation and negotiation process. A bidder's pricing may be indexed to publicly-published indices acceptable to ANGLEC; however, the formulaic adjustment of indexed prices must be clearly described in the proposal and the formulaic mechanism itself may not be subject to unilateral revision during ANGLEC's evaluation and negotiation process. All prices must be in United States dollars and not subject to currency exchange rate adjustment. The proposal must be signed by an officer of the bidding firm who is duly authorized to commit the firm to carry out the proposed power supply should ANGLEC accept the proposal. All prices must be firm and binding for 90 days.

## **2.3 Legal Certifications**

A bidder must certify that: The bidder has not directly or indirectly induced or solicited any other respondent to submit a false or sham proposal, the bidder has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal, and the bidder has not sought by collusion to obtain any advantage over any other respondent.

## 2.4 Additional Eligibility Considerations

Proposals must include sufficient information to allow ANGLEC to evaluate an offer. Section 6.2 (Proposal Content) includes further instructions on what must be included in the proposal. Proposals that are deficient or incomplete will be rejected by ANGLEC.

## 2.5 Proposal Submission Requirements

To be eligible for consideration, a duly signed proposal must be physically received by ANGLEC's Contact by the Proposal Submission Deadline stated in the Schedule outlined in Section 4, and in accordance with the Proposal Content highlighted in Section 6.

## 3. Point of Delivery/Siting/Interconnection/Firm Transmission

The Point of Delivery shall be the existing 13.8 kv switchgear from Anglec's existing and adjacent solar plant. All installation works up to the Point of Delivery shall be the responsibility of the bidder and must be included in the bidder's proposed pricing.

Point of Delivery <http://google-maps.pro/satellite/Anguilla#18.201739,-63.053006,19>

### 3.1 Voltage and Frequency

Voltage and frequency required at the Point of Delivery are 13.8kV and 60Hz respectively.

### 3.2 Preferred Site for Battery Resource

The preferred site for the Photovoltaic plant is in close proximity (within 300 feet) to the Point of Delivery. Bidders may arrange with the ANGLEC contact person (in Section 5) for a visit of the proposed site in order to conduct any site-specific surveys that they require.

## 4. Schedule

ANGLEC's expected time-line for conducting this resource solicitation is as follows:

1. Queries should be submitted before – ~~July 07, 2017~~ July 21, 2017 (AST 16:00 HRS)
2. Deadline for receipt of proposals – ~~July 21, 2017~~ August 18, 2017 (AST 16:00 HRS)
3. Completion of negotiations and contract award – ~~September 29, 2017~~ October 27, 2017 (AST 16:00 HRS)
4. Battery System Commissioning – by February 1, 2018 (AST 16:00 HRS)

ANGLEC reserves the right to modify this schedule as circumstances warrant and/or as ANGLEC deems appropriate.

## 5. Communication with ANGLEC

All questions regarding the RFP shall be submitted in written form and shall be sent to the following person(s):

Mr. Sylvan Brooks  
Anguilla Electricity Company Limited  
P.O. Box 400  
The Valley, Anguilla, AI2640  
Phone: +1 (264) 497-5200  
Email: [sylvan@anglec.com](mailto:sylvan@anglec.com)

All email communications should be copied to [david@anglec.com](mailto:david@anglec.com);

## 6. Proposal Submission

### 6.1 Proposal Submission Requirements

By the Proposal Submission Deadline identified in Section 4, bidders must submit sealed packages that include:

1. Proposal original, designated “Original Tender”
2. One additional copy of the proposal
3. One electronic copy of all bid documents

The proposal package must be received via mail or courier, or hand-delivered to:

Mr. David Gumbs  
Chief Executive Officer  
Anguilla Electricity Company Limited  
P.O. Box 400  
The Valley, Anguilla, AI2640  
Phone: +1 (264) 497-5200

The package must be sealed and clearly labeled “ANGLEC Battery Project Proposal”.

### 6.2 Proposal Content

The proposal must contain a cover letter bearing the company letterhead providing information regarding the firm and its ability to perform the requirements outlined in this RFP. The cover letter must be signed by an officer of the bidding firm who is duly authorized to commit the firm to the execution of the proposal.

The cover letter must include the following table:

**Name of Firm:**

**Company Background Information:**

**Description of the Organization:** *Corporation, Limited Liability Company, Sole Proprietorship, etc.*

**Full Address:**

**Country:**

**Main Telephone:**

**Contact Name:**

**Contact Telephone:**

**Contact Facsimile:**

**Contact Email Address:**

**Partner(s) & Subcontractor(s) Information** (please include all partners and subcontractors expected to work on this project):

Name of Firm:

Company Background Information:

Description of the Organization: *Corporation, Limited Liability Company, Sole Proprietorship, etc.*

Full Address:

Country:

Main Telephone:

Contact Name:

In the event of any discrepancy in the content of the copies, the copy marked “Original Tender” shall prevail. **Faxed or emailed submissions will not be accepted.** Proposals not adhering to this protocol will

be deemed non-responsive. Proposals received after the stated time and date, will be considered late and will be rejected. Please allow ample time for delivery of your proposals by the stated due date. Proposal emphasis should be on completeness and clarity of content with sufficient detail to allow for accurate evaluation and comparative analysis. Proposals shall be clear, accurate, and comprehensive. A material departure from the format requirements listed herein will render the proposal as non-responsive. The proposal shall be organized in separate sections tabbed with the corresponding section numbers and related headings in the order presented below:

### **6.2.1 Project team qualification and experience**

Bidders must state the technical qualification and experience of the principal members of the project team. In addition to the O&M issues, proposals must also include information on who will be responsible for design, siting, and construction of the facility. Each member that will lead key aspects of the project must have experience in leading those tasks on previous projects that are similar to the proposed project. Bidders must list these members. Proposals must include descriptions of these previous projects for each key team member and references who may be contacted by ANGLEC's evaluation team.

### **6.2.3 Project schedule and project milestones**

Proposals must include a detailed project schedule that show the expected commencement, duration, and completion of all significant project milestones.

### **6.2.4 Design and construction plan**

Bidders should provide information on what firm(s) will be involved with the design and construction of the facility and describe any relevant issues that may positively or negatively influence the project's design and construction.

## **7. The Evaluation Process**

ANGLEC will undertake an evaluation of power supply proposals that will involve the following steps:

1. Screening for completeness and compliance with minimum eligibility requirements
2. Non-economic/risk assessment
3. Further due diligence
4. Final selection

### **7.1 Screening for completeness/compliance with minimum eligibility requirements**

ANGLEC's evaluation team will perform an initial screening of each proposal to ensure that the proposal is complete and complies with minimum eligibility requirements. Proposals with substantial deficiencies will be rejected. For proposals with marginal deficiencies, ANGLEC may request that the bidder promptly provide missing information or appropriate clarifications; failure to provide such information may result in a proposal being rejected. All proposals that are deemed to be reasonably complete and compliant will be passed to the economic and non-economic/risk assessment processes.

### **7.2 Non-economic/risk assessment**

In parallel with the economic assessment, ANGLEC's evaluation team will also assess each resources or portfolio's non-economic characteristics and risks. Such analysis will involve a qualitative consideration of such issues as:

1. Bidder's project team experience and financial strength
2. Independent ranking or performance reviews of proposed technology
3. Feasibility of schedule and current status
4. Interconnection complexities
5. Quality and cost of O&M plan

ANGLEC's evaluation team will rank the projects by levelized total system cost and supplement each project's place in the ranking with a qualitative assessment of the above risks in developing a final ranking.

### 7.3 Additional due diligence

ANGLEC reserves the right to conduct additional due diligence on all shortlisted parties as it deems necessary. It is anticipated that any bidder that is selected will employ all reasonable efforts to complete negotiations with ANGLEC and execute by the dates specified in section 4 above.

## 8. Reservations

ANGLEC makes the following reservations in undertaking this power supply solicitation:

- I. ANGLEC reserves the right to modify or withdraw this Request for Proposal.
- II. ANGLEC reserves the right to reject any and all responses to this Request for Proposal.
- III. All proposal preparation costs must be borne by the bidder.
- IV. Proposals will not be returned to the bidders.
- V. ANGLEC may select proposals that total more or less than the stated need.
- VI. ANGLEC may accept other than the lowest cost proposal(s).
- VII. ANGLEC may seek clarification from bidders and may request additional information from bidders beyond that which is specifically identified in this document.
- VIII. ANGLEC reserves the right to waive bidder noncompliance with any aspect of this request.
- IX. ANGLEC may conduct negotiations with selected bidders and may terminate negotiations at any time.
- X. Any and all decisions are conditioned on the approval of ANGLEC's management and Board of Directors as well as all required regulatory and other approvals.
- XI. ANGLEC reserves the right to modify or supplement this request at any time during this process. Any such modifications or supplements shall become part of this process and shall be addressed as part of any proposal submitted.

## 9. Project Location

<http://google-maps.pro/satellite/Anguilla#18.202114,-63.053068,18>

