



APUA Request for Expression of Interest (REOI)

Electricity
Business Unit

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1.0. Background Information:

The Antigua Public Utilities Authority (APUA) is a statutory body in Antigua and Barbuda, with responsibilities to provide electricity, water and telecommunication services to customers in the twin Island State. Within the APUA structure, the Electricity Business Unit (EBU) has the responsibility to provide electricity services to consumers.

The peak load on Island in August of 2019 was 57MW and this load is fed by the Power Grid consisting of 77MW of Generation capacity. The generated power is at 11KV and this is stepped up to 69KV and transmitted to seven substations around the Island in a ring configuration. The power is then reduced again to 11KV at the substations through power transformers, and distributed throughout the Island via twenty five (25) distribution Feeders.

The Electricity supply has been quite reliable for the past few years. However with aging Gen-sets and steady load growth, it has become necessary to provide additional generation to satisfy the present and future demands on Island. The present Generation portfolio consists of:

Blackpine Power Plant

The Blackpine Power Plant consists of four Diesel Gen-sets (DG), with Heavy Fuel Oil (HFO) being the primary source of fuel. DG-1 (6MW) and DG-2(6MW) were installed in 1996 and DG-3(7.5MW) and DG-4 (7.5MW) were installed in 2004, with total Plant capacity of 27MW. This Plant is owned by the APUA and there is presently an operation and maintenance contract (O&M) Contract with a Private Company.

Independent Power Producer (IPP) Power Plant

There is an IPP owned Power Plant consisting of four Gen-sets, carrying a total capacity of 50MW, with HFO being the primary fuel. DG-1 (17MW) was installed in 2006, whilst DG-2, 3 and 4 (11MW each) were installed in 2010. This Plant is owned and operated by the IPP and energy is sold to the APUA through a Power Purchase agreement (PPA).

WPP Power Plant

This Power Plant is owned by the APUA and was constructed in 2011 with a total capacity of 30MW, but has not performed to expectation and therefore the present firm capacity can be considered to be zero. There is presently 10MW (2-5MW Gen-sets) that is available but due to the unreliability of the Plant, APUA cannot consider this Plant to contribute to the firm capacity in the future,

Renewable Energy

There is presently a project to install a total of 10MW of Solar Power, of which there are 3MW and 4MW Ground-mounted Plants already installed at two locations, and a total of 1.3MW roof top units on Government buildings. The remaining 1.7MW would be installed by the end of 2020. There is a total of 2MW of Customer solar Power connected to the grid, in addition to the 10MW mentioned above. There is a plan to install a total of 4.1MW of Wind Power at two different locations on Island, and this should be completed by the end of 2021. There are also plans to install 11MWHs of battery on the grid to assist with stabilizing the grid, as a result of instabilities caused by the intermittency of the solar systems. This battery installation is expected to be completed by mid- 2021.

2.0. Introduction:

The APUA is requesting Expressions of Interest (EOI) for the addition of 25 MW to 30 MW of natural gas fueled power generation capacity to be integrated to the APUA power grid. The Plant should also be able to operate on Liquefied Petroleum gas (LPG) as a secondary fuel. The proposed power generation facility will be located on the Crabbs peninsula on the Island. The power generation facility site will be located a distance of less than 1/2-kilometer from fuel import facilities.

FUEL SUPPLY

Natural gas will be delivered into the power generation plant under a long-term LNG fuel supply and handling agreement. LNG fuel suppliers will own and operate all fuel handling and storage equipment and deliver natural gas to the Power Plant at a metered location on a segment of gas pipeline near the inlet of the power generation facility. The fuel supplier will employ staff to monitor, operate, and maintain LNG storage, vaporization, automated metering, and automated safety measures between the LNG storage tanks and the metered point on the power plant supply pipeline.

POWER PLANT

The power plant will consist of reciprocating engines manufactured by Wartsila, MAN, or Caterpillar and has a power generation capacity of between 7,000 kW and 11,000 kW each with a total plant capacity of between 25,000 kW and 30,000 kW. Only EOIs with consideration given to a new Power Plant with new engines and other new equipment will be accepted. The scope of work would also include substation equipment (Power transformer etc.) to accommodate the interconnection of the Power Plant to APUA's Electrical grid. APUA would assume ownership of all Interconnection Equipment after installation and will operate and maintain all these substation/Interconnection equipment throughout the life of the PPA.

Please note that EOIs would be accepted for any of three options:

- 1. The delivery of fuel to the Plant,**
- 2. The construction of the Power Plant and a PPA for a period to be agreed later and**
- 3. The delivery of fuel, the construction of the Power plant and a PPA with APUA.**

1. Interested party’s overview of expertise and relevant experience

Respondents should provide company’s background information outlining competence and experience in relevant areas including curriculum vitae of key personnel (to be involved in the project) and featured projects or customers. The information provided should focus on Fuel delivery to similar Power Plants and the delivery of Power Plants, especially Plants with LNG being the primary fuel and LPG the secondary fuel.

2. Technical Capacity – Fuel supply and Power Generation

Statement of interested party’s experience relevant to delivery of fuel and construction and operation of Power Plant of similar capacity in the Caribbean, Central American, and South American or relatively small markets similar to this project. Delivery of Power Plants using LNG and/or LPG would be of particular interest to the APUA. Interested parties should provide the fuel used in each of the Power Plant projects that the Company would have delivered and under what form of commercial arrangement e.g. BOOT etc.

Interested Party should present a Power generation development plan that includes Power generation equipment which includes preliminary list of main equipment manufacturers, e.g. engine manufacturer etc.

3. Financial Feasibility

Each proponent will provide statements and documentation that verify their ability to meet the financial requirements commensurate with the interested party’s activities.

4. Interested Party Financial Capacity

Interested parties must provide summary information from 2019 financial statements certifying financial capacity to perform. The Financial performance of the company for the last five (5) years should also be presented.

4.0. Evaluation of EOI's:

In the assessment of submissions, consideration will be given to technical competence, qualifications and experience (especially related experience on similar projects), financial capability and existing commitments. All information must be submitted in English. Further information may be obtained from the address listed below between 09:00 and 16:00 hours Monday to Friday.

ONE electronic copy, in Portable Document Format (PDF), and ONE hard copy of the Expressions of Interest must be received at the email and address provided below no later than **16:00 hours on July 31, 2020**. The submission should include the name and address of the applicant and shall be clearly marked for the three options mentioned above;

1. **“Expression of Interest – Delivery of LNG Fuel to 25-30MW Power Plant”.**
2. **“Expression of Interest – Delivery of 25-30MW of LNG Power Plant”.**
3. **“Expression of Interest – Delivery of LNG Fuel and delivery of 25-30MW Power Plant”.**

EOIs should be sent to:

Mr. Andre Matthias

Electricity Business Unit Manager

Antigua Public Utilities Authority

Tel. Office 268-4807460

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5.0. Conclusion:

Following the assessment of submissions, a short-list of not less than three and not more than six suitable applicants will be provided with full terms of reference and invited to submit technical and financial proposals to undertake the assignment. APUA reserves the right to accept or reject late applications or to cancel the present invitation partially or in its entirety. It will not be bound to assign any reason for not short-listing any applicant and will not defray any costs incurred by any applicant in the preparation and submission of Expressions of Interest