



Bartica RFP Responses #2

Responses to questions received in relation to:

**MINISTRY OF PUBLIC INFRASTRUCTURE (MOPI)
REQUEST FOR RENEWABLE ENERGY PROPOSALS
GUYANA POWER & LIGHT INC. - BARTICA POWER SYSTEMS**

Question:

1. What is the Milestone Schedule for this RFP process from request for proposals to indicative project commission date? Specifically:

- The solar energy proposals having been submitted by February 15, 2016 and those for the other technologies by June 30, 2016, when will the short list of companies be determined and engaged?

Response:

Within three months of the date of submission.

Question:

2. When will the shortlisted companies be required to submit full comprehensive proposals?

Response:

Within 1 to 12 months since this will be dependent on the energy source and the level of data available for the respective energy source.

Question:

3. What parameters will govern the submission of full proposals? Will the two envelope system be utilized at that stage?

Response:

If the process remains competitive at that stage, tender procedures would be utilized.

Question:

4. When will the companies selected to move to implementation be advised?

Response:

Within three months of receipt of the Full Comprehensive Proposal.

Question:

5. What is the negotiation period?

Response:

A period of three months is contemplated.

Question:

6. What is the indicative commission date for projects?

Response:

Within 1 to 4 years of the submission date since this will be dependent on the energy source.

Question:

7. When it is anticipated that the project will be transferred in the BOOT process?

Response:

There is no need for "transfer" as the entire process would be based on the BOOT arrangement. Firms are expected to propose a sufficient period (up to 25 years) to recover their investments with the expected returns on those investments.

Question:

8. Is there a draft Power Purchase Agreement (PPA) which MOPI proposes to use in this process? If so, please provide a copy.

Response:

This draft is not currently available.

Question:

9. The RFP stipulates a Build, own, operate and transfer (BOOT) modality and the

GoG shall be the owner of any renewable energy and/or carbon credits generated by the facility. Based on these facts, please elaborate on the financing arrangements for these projects, specifically, does the Government of Guyana have funding secured or is the proposer expected to identify funding sources?

Response:

The RFP contemplates the project being fully funded by the prospective Independent Power Producer.

Question:

10. Should the latter be required, would the Government of Guyana be willing to provide a guarantee for project financing?

Response:

No Government of Guyana guarantee will be provided on the off-taker's payment obligations under the PPA, however, contractual arrangements for a first charge on and assignment of receivables of the off-taker to meet PPA payment obligations can be agreed upon.

Question:

11. At the initial proposal stage, is the proposer required to provide evidence of funding availability? Would a Letter of Intent suffice for financing at this stage?

Response:

Please comply with the requirements of the RFP. Evidence of Funding is not required for the initial proposal.

Question:

12. In which currency will the PPA payments for energy provided be denominated?

Response:

This will be subject to PPA negotiations, but will likely be in US Dollars.

Question:

13. The RFP states that the peak energy consumption in Bartica is 11,760MWh as at December 2015. What is the annual estimated energy consumption for Bartica from 2016-2036 (i.e., the project life cycle)?

Response:

This information is not available at this time.

Question:

14. Have there been any official determinations of the percentage of energy, which it is proposed each technology shall contribute to the Bartica grid?

Response:

No.

Question:

15. Are two years' wind data available for Bartica? If so, how could proposers access this information?

Response:

Check with the local Hydromet Office.

Question:

16. WRT to other technologies, are there any estimates of the feedstock currently available and estimated during the project life cycle? For example, can GPL provide the monthly quantity of feedstock for bio-mass available for a plant?

Response:

This will be part of your company's due diligence.

Question:

17. For Waste-to-Energy (WTE) projects, a firm commitment is required from the owners of the waste. Is the waste in Bartica municipal? Specifically, who owns this waste and what are the current and estimated volumes for the next 10-20 years?

Response:

This will be part of your company's due diligence.

Question:

18. The RFP states that proposers should assume that suitable land will be made available by the Government of Guyana at no cost to the developer. Please confirm that the Government of Guyana will also be financially responsible for the preparation of the site as required including clearing, terracing, drainage, supply and installation of perimeter fencing and security lighting etc.

Response:

Our response to this question will be provided shortly, and to accommodate this delay, the EOI shall be extended for a further two (2) weeks.

Question:

19. Will the Government of Guyana provide accommodation for energy management systems and system administration or should the build out include financial provisions for these facilities?

Response:

All management and administration costs shall be borne by the Developer.

Question:

20. Given that at the initial stage, proposers will apparently not know where the land is located, please confirm that the Government of Guyana will also undertake and be responsible for the preparation of any required Environmental Impact Assessments and Environmental Compliance Plans for the proposed projects.

Response:

As stated in the RFP:

The proposing party shall be responsible for applying and obtaining all necessary permits and licenses at its own cost to construct, operate and sell electricity from the proposed facility.

Question:

21. Please advise where proposers could locate an official document which outlines the process and cost of applying and obtaining all necessary permits and licenses to construct, operate and sell electricity from the proposed facility. It would be useful if this could be provided instead of each potential proposer doing own research on these matters.

Response:

Pursuant to the Electricity Sector Reform Act 1999, the successful IPP from the process would require the approval of the Public Utilities Commission (PUC) of the negotiated PPA between the IPP and GPL for the supply of electricity to the GPL Bartica supply system. The IPP thereafter is required to apply to the Minister of Public Infrastructure, who is also the Minister responsible for the energy sector, for a licence to supply electricity for public purposes. The PPA approved by the PUC is to be submitted with the application for the licence. The application processing fee is G\$5,000 and the licencing fee is US\$5,000. Licence application forms are available on the Hinterland Electrification Company Inc. website: electricity.gov.gy

In applying for the licence, the applicant must satisfy all environmental laws which at a minimum require the developer having been granted an environmental permit.

Question:

22. Please define the corporate and import duty context of this project. Please advise the tax incentive regime which will govern these projects and confirm that plant, related equipment and supplies shall be granted import tax exemptions and be imported duty free.

Response:

All renewable energy equipment is exempted from import tax and duty following an application to the GRA. Further, under the current tax regime, upon application, full exemption from corporation taxes, withholding taxes and property taxes may be granted for 10 or more years.

Question:

23. Please advise if GPL is the only entity currently licensed to transmit, distribute and supply electricity in Bartica?

Response:

Yes.

Question:

24. What are the current commercial and residential energy prices per kWh charged by GPL?

Project Design – Interconnection with GPL etc

Response:

Please review the GPL website:

<http://www.gplinc.net/domestic/rates>

Question:

25. Please provide details, including a map, indicating characteristics of the Bartica grid. In particular, please identify the location and load capacity of substations, including the one to which it is proposed that each of the renewable energy projects will interconnect and identify the voltages and carrying capacity of the lines. Please identify transmission and distribution substations. Is there a requirement for building out transmission facilities for connecting for example, the solar plant to the grid substation?

Response:

This is part of the company's due diligence.. The primary distribution voltage of the distribution network at Bartica is 13.8 kV. The system to be proposed is to connect to this distribution network. The community is small and the demand is low, there is only one substation which is located in the generation station.

Question:

26. What are the planned and anticipated upgrades to each of the Bartica substations over the next 5-20 years? Please also identify the delivery station (billing point of the project) on the map.

Response:

This is not available.

Question:

27. WRT interconnection agreements, please advise:

- Which entity assumes responsibility for potential upgrades of the grid over the duration of the project;

Response:

This is subject to the negotiated PPA.

Question:

28. Which entity assumes the risk in case of late delivery of the grid connection?

Response:

This is subject to the negotiated PPA.

Question:

29. What are the operations and maintenance conditions on the interconnection line (in the case of line breakage, who assumes the losses?)

Response:

This is subject to the negotiated PPA.

Question:

30. What is the interconnection requirement for connecting to the grid i.e. what are the Dynamic VARs that will be required for interconnection? Please provide the full interconnection requirement i.e. the technical documentation or advise where this could be located.

Response:

This is subject to the negotiated PPA.

Question:

31. The battery storage requirement is 15 minutes for the purpose of system stability and the energy storage capacity shall be calculated using Bartica's peak load. Energy Storage Platforms commonly called energy storage have become an important energy element within a microgrid in a smart grid environment for the acceptance of renewable energy elements such as wind and solar systems.

Energy storage operates in two modes, i.e,

Grid support mode, which provides three support functions:

- Frequency Support - by injecting active power based on the grid's frequency deviation from nominal. If the grid frequency is below nominal then power is injected into the grid;
- Voltage support function - which implements a form of reactive drop control. Capacitive VARs (volt-ampere reactives) are injected into the grid if the voltage is lower than desired and inductive VARs if the grid voltage is higher; and
- Disturbance feed - forward function - which reduces system disturbances, both in voltage and frequency, by injecting real and reactive power proactively based on fluctuating load or renewable energy source measurements; and

Virtual Generator mode (RE mode only) In Virtual Generator Mode (VGM), energy storage operates as a generator.

Please state definitively which mode is needed for the 15 minutes battery storage capacity.

Response:

With the PV option, and with the absence of other technologies, the system will, essentially, be a PV-Diesel hybrid system. An automated system is envisaged where the PV supply is optimized for the maximum amount of diesel savings. The integrated storage (batteries) is to ensure grid stability with the intermittent PV source and varying load. Therefore, the batteries are only to bridge short-term reduction in PV production, not to extend the period of availability of PV generation. Note that during the nights, generation will be all-diesel.

Question:

Submission of Initial Proposals

32. How many copies should be submitted of the initial proposals due in February and June 2016 respectively? Is there also a requirement for an electronic copy?

Response:

Please follow the instructions of the RFP.

Question:

33. What is the weighting of the Evaluation Criteria mentioned at page 2 of the RFP?

Response:

- *How well the proposed project is defined and the likelihood of it reaching the minimum energy output target. (20%)*
- *The energy price compared to other proposals and GPL's avoided cost for its Bartica operations. (25%)*
- *How quickly the project can supply electricity to the Bartica Grid. (10%)*
- *The guaranteed firm capacity and availability of the system. (20%)*
- *The proposer's experience in power generation using the proposed renewable energy technology or technologies. (25%)*

Question

34. What is the duration of the evaluation process for the initial submissions?

Response:

Within three months of the date of submission.