

OFFICE OF UTILITIES REGULATION

Pre-bid Meeting – Request for Proposals for Renewable Energy Generation Projects

PCJ Auditorium – Friday May 02, 2008

Pre-bid Meeting to respond to questions on Request for Proposals (RFP) for the supply of electricity from Renewable Energy Sources on a Build, Own and Operate basis.

Opening Remarks: Mr. Raymond Silvera – Meeting Chairman

The meeting commenced at 9:40 a.m. with Mr. Raymond Silvera, Deputy Director General of the Office of Utilities Regulation (“OUR”) welcoming everyone present and introducing the OUR, as well as Petroleum Corporation of Jamaica (“PCJ”) representatives. He also announced the following:

- The RFP document has been posted on the OUR website and otherwise available.
- An attendance sheet was circulated to obtain the name, organization, position, telephone number and e-mail address of each participant representing the interest of prospective bidders and others in attendance.
- Answers to the questions raised will be placed on the OUR website at the earliest possible time.

He further stated that the procedure would be a simple one and participants should raise questions for which answers would be provided. He then opened the floor for questions, comments and responses.

Question 1: As the regulatory body, what is the OUR’s function in the bidding process?

Answer: The OUR has responsibility for regulating the electricity sector and is involved with the tender proceedings for the purpose of transparency. The Organization is providing oversight of the tender process by issuing the bid document and will also oversee the tender evaluation exercise which will examine submissions for the broad cross-section of Renewable Energy technologies for power generation.

Question 2: Is Waste-to-Energy included in the present RFP and will there be provision of more information on developments?

Answer: Yes, waste-to-energy is included; this process involves the use of garbage (municipal waste)/biomass to produce some form of fuel, which can then be used to produce electricity. PCJ is managing the fuel aspect of the waste-to-energy developments, where the garbage or waste is used to produce fuels such as, methane, ethanol, or syngas. However, it should be noted that the best proposal in respect of the fuel component is not necessarily the best economic option for electricity generation.

Question 3: What is PCJ's role in the waste-to-energy programme and its inter-relation with the OUR's RFP for Renewable Energy projects?

Answer: The waste-to-energy programme is somewhat separate from the OUR's RFP. PCJ is directly managing the fuel aspect of this indigenous energy resource. More details will be provided on the OUR website. It should be noted that there could be more than one solid waste bid based on the availability of a number of separate sites along with other considerations.

Question 4: How will the process work as it relates to the purchase price of renewable energy as this was not clearly defined in the RFP?

Answer: This question basically relates to the level of generation tariff which is economically acceptable from the perspective of the electricity customer. However, before such determination can be made an evaluation process would have to be carried out to:

- Assess the financial viability of the entity
- Look at the technical feasibility of the project.

The criteria for both requirements must be satisfied and accepted. The successful project proposal is then rigorously evaluated using long-term generation planning software simulations (WASP – Wein Automatic System Planning software), which examines investments for the next 20 years to determine the most economic cost. The inputs to this exercise involve details on the net energy generation, the capacity factor of plants, levels of plant dispatch over a given period, etc. Information presented in these results will be used as determinants in ranking bids submitted and in deriving the generation tariff to be charged.

Question 5: Based on the arrangement described in the answer for Question 4, would this serve as a disadvantage to some of the bidders?

Answer: No. However, the process involved is not that straight forward and has a certain level of complexity. Technical assumptions will be made and other decisions will have to be taken by the technical team evaluating the bids.

Question 6: In regard to the bid proposals, what is the timeline for carrying out the evaluation process?

Answers: The answer to this question resides in the RFP document – Page 11, which states that:

- Submission of proposals by Bidders - June 12, 2008
- Completion of evaluation and Approvals - July 30, 2008

However, it should be noted that various factors will affect these dates such as the number of bids submitted and the processing of the relevant stages of the evaluation exercise. The evaluation process will be conducted by independent consultants under the ambit of the OUR. Negotiations will commence with the highest ranked bidder.

The successful entity will be required to establish a Power Purchase Agreement (PPA) with JPS (if JPS is the favored bidder, a separate approach in compliance with the Licence granted to JPS will be followed). The OUR's role basically, is to identify the most favourable proposal, set the stage and then move away from the process. The OUR will be responsible for approving the tariff after the process is complete.

Question 7: Will there be multiple winners?

Answer: In order to satisfy the Government's Policy target of 15% of net generation by 2015, it is unlikely that the estimated 70 MW of renewable energy generation will come from one source.

Question 8: In the process of determining the least cost price discussed earlier using the evaluation tools mainly available to the OUR and JPS, will an open-book situation exist?

Answers: The first part of the question relates to the issue of generation avoided costs. There seems to be some misunderstanding of the concept of generation avoided costs of which are two (2) types:

“Utility avoided costs” - which refers to the grid operator current avoided fuel cost and “long run marginal cost” (LRMC) - which is determined from the calculated charge for electrical energy supplied from base-load plants utilizing technologies such as coal and natural gas, over the long-term planning horizon, i.e. 20 years.

In general, projects may be categorized as “energy only” or “energy plus firm capacity”.

The tariff for the majority of Renewable Energy generators will be on an “energy only” basis. Wind for example, has intermittent properties and it would therefore be difficult to deliver “firm capacity” in such a situation. Hydro plants may also have a similar problem based on the effects of seasonal variation on the hydrological cycle.

In respect of the OUR declaration of generation avoided costs, the current document that is shown on the OUR’s website is being updated and should be available by May 15, 2008. Based on Government Policy, a 15% premium is allowed on the generation avoided cost for renewable projects. The OUR derived generation avoided cost is “indicative” and prospective bidders need to bear this in mind. The real issue is what consumers will have to pay per kilowatt hour from the renewable energy source.

In relation to the WASP programme, Argonne Laboratories has only made the program available to electricity grid operators and regulatory organizations to facilitate the long-term generation planning process and for that reason JPS and the OUR are the only current owners of the programme at present. The process of determining the least cost for bid evaluations will be carried out by the evaluation committee but the results will not be disclosed as there is need to keep the information confidential. For transparency, it is important to ensure that a third party conduct the evaluation, which has caused the OUR to set up an independent evaluation team managed by overseas consultants.

Question 9: Will PCJ make available potential sites for renewable energy projects?

Answer: PCJ wishes to respond to this question separately and will address the issue on the OUR and PCJ websites.

Question 10: Will bidders (local or Foreign) be required to submit TCC documents?

Answer: No, this is not a requirement under the bid.

Question 11: Is the 70 MW referred to in the RFP installed capacity?

Answer: Because we are dealing with renewable energy, it is a bit difficult to define but essentially it represents an equivalent capacity if the system was considered to be traditional technology. What is important to consider though is the 640,000 MWh energy requirement. The 70 MW is only a basic estimate as to what is required, which will give bidders a feel of capacity needs.

Question 12: The Bid Document mentions 4 different types of technologies which includes waste-to-energy, is there any indication of the mix required?

Answer: We have not set any limits on the bids for any one area. It's difficult to say at this time, but based on indications from the market, wind and biomass seem to be getting the most attention from potential investors.

Question 13: If the 70 MW comes from wind only, will the door be closed to other options?

Answer: Some discretion will have to be exercised where that is concerned. Presently wind tends to be the most feasible and economically viable source of renewable energy. Based on the results of the tender, the bidding exercise may have to be repeated within a year to accommodate some projects which may still be at the feasibility study stage at the time of tender submission.

Question 14: Is the 70 MW an aggregated generation amount?

Answer: Yes it is and represents the sum total of all projects meeting the Government's 15% target.

Question 15: What is the bid bond and what is the rationale of having the value 1% of plant cost?

Answer: This is to ensure that bidders are serious and committed. After selection the bidder will be required to provide a performance bond. The bid bond does not have to be a cash placement; it could be a security document from a bonding company. However, the OUR reserves the right to determine the validity of such bond.

Question 16: For an average capacity of 70 MW of wind the actual installed capacity will be approximately 200MW, which means that in some instances there may be 200 MW of wind coming into the grid. How will this situation be addressed?

Answer: It is doubtful that the full 70 MW capacity will be obtained from wind power alone. However, special consideration may need to be given in such event given the rising price of fuel oil on the world market.

Question 17: How does site location and associated costs factor into the evaluation process?

Answer: For traditional generation technologies, it may be an issue but for renewable energy it should not be. PCJ will provide details on sites on the OUR website. According to PCJ, the development of renewable energy

will be treated as a priority by the Government, and if potential sites exist the necessary arrangements will be made to make them available to investors.

Question 18: Requirements set out in the RFP are too aggressive and may be endangering the development of renewable energy. Example, the security requirement asked for in the document is a cash payment or letter of credit from financial institution (these are both cash based securities), there are no options for other forms of security, e.g. performance bond.

Answer: The OUR will take this concern into consideration. If there are any other concerns that might be affecting prospective bidders these should be put in writing as soon as possible.

Question 19: What is the timeframe for responses from the OUR with respect to the bond issue?

Answer: This will be treated as a matter of priority and responses will be posted on the website within two (2) weeks of this meeting or by May 15, 2008.

Question 20: Will there be an avenue for PPAs or spot market selling/purchasing arrangements? Spot market in the sense of selling energy outside of the PPA in the future.

Answer: Energy sales/purchases will be primarily through PPAs and there will not be a spot market arrangement.

Question 21: Would future developments with coal plants or natural gas combined cycle gas turbines affect the price for renewable energy?

Answer: No. These developments should already have been considered in least cost planning studies.

Question 22: Will bidders be able to install 60-cycle equipment?

Answer: JPS and the country are presently locked into a 50-cycle system and it does not make sense considering 60-cycle machinery at this time.

Question 23: If waste-to-energy is a winning bid, would material be guaranteed from NSWMA?

Answer: It will be mandatory for proposals to be sent to NSWMA for the purchase/issue of waste material. Arrangements would have to be worked out with the investor.

Question 24: Will investors be able to bring in equipment into the country duty-free?

Answer: It is the intention of the Government to waive duty on all equipment brought into the country for renewable energy projects.

Question 25: Requirement set out in section 3.7.1 is a mechanism for disqualification, need explanation?

Answer: The information in the Bid Document will be examined to determine where explanations can be improved.

Question 26: How can land be acquired for a large solar farm?

Answer: See answer under **Question 17** above.

Question 27: Based on the minimum requirement of 1 MW electricity generation capacity for IPPs, can someone who is able to generate less supply power to a community?

Answer: That would constitute a breach of the All-Island Electricity Licence granted to JPS. JPS is the designated sole retailer of electricity to consumers. An entity/person may generate electrical power for its/his own consumption but not retail it.

Question 28: Is there any intention to develop legislation for renewable energy?

Answer: There is a need for new legislation for the electricity sector. The existing Electric Lighting Act (ELA) is outdated. The new act would have provisions embedded for electricity generated from renewable energy sources.

Question 29: What is the waste potential for electricity generation at Riverton City dump?

Answer: This is available in the PCJ Information Document which is posted on the OUR and PCJ websites stating the sites and volumes of waste in the country.

Question 30: With regard to the PCJ Information Document, can there be further desegregation of the figures given?

Answer: Information is available on the OUR and PCJ websites. PCJ may also be contacted directly for further information.

Question 31: Are sea water turbines being considered?

Answer: Yes, sea water turbines would be considered, however, a close look at the disadvantages such as hurricane impacts, would be undertaken.

Question 32: Based on the feasibility study in the RFP Document, the timeframe for submitting proposals for hydro and wind seems short as there is insufficient information available. Will there be an extension?

Answer: In the case of hydro there are feasibility studies which were undertaken on projects in the past although these would now need updating. Any request for extension of the bid submission date must be put in writing outlining the reason for the extension, for consideration by the OUR.

Attendees were advised that prospective bidders may also submit further questions in writing, which will be posted on the OUR's website along with the answers.

With no other questions raised, Mr. Silvera thanked everyone for their participation and adjourned the meeting at 11:10 a.m.