

## Responses to Questions from Vendors

### RFI for Installation of Solar Energy Projects, National and Dulles Airports

Wednesday, July 1, 2009

**The following list of questions on the RFI for Installation of Solar Energy Projects, National and Dulles Airports, is from both questions asked at the pre-submission meeting and submitted online:**

Q1: What is the size of the system - roof top, carport or ground-mount system? If roof top what is the projected square feet? Ground systems- what is the projected square feet?

A1: We are willing to consider proposals for rooftop, ground mounted or carport-type systems. There are opportunities to mount the units on roofs of such facilities as the cargo buildings, office rooftops, the structured parking garages (Daily Garages 1 and 2 at IAD; Garages A, B or C at DCA), or on the ground. The size of the array is dependent on the project location, but some of the cargo building rooftops are as large as 5 acres in size and the parking structures at Dulles are up to 8 acres in footprint.

There are open areas on the grounds of Dulles Airport that provide unshaded access to the sun and are 15 acres in size or larger. Specific areas have not been identified at this time but will be as the scope of the solar energy project is further developed.

We are not dictating a size for the proposed system, but any installation will have to be coordinated with the Authority's Planning staff to assure that there are no impacts to aviation or objections from the various historic preservation agencies that have jurisdiction over National and Dulles Airports.

Q2: Would an electrical contractor interested in providing any required electrical contracting services such as the underground feeder distribution systems for these proposed photo voltaic systems be a welcome respondent/partner to this RFI?

A2: All responses will be evaluated for pertinent information, but we encourage the respondent to have identified partners prior to submitting their response to this RFI. One of the objectives of the RFI is to solicit information from team(s) that can present a coordinated approach.

Q3: Can a vendor submit two proposals, one for each site location?

A3: A vendor can submit multiple responses to the RFI.

Q4: Would you also be interested in co-generation?

A4: The Authority intends to issue a separate RFP for a co-generation facility at a later date.

Q5: Does the 25 page limit include case studies (past performances), resumes and other support materials?

A5: For the purposes of brevity, a 25-page limit is preferred for the proposals. Contact us if that will be difficult to achieve. The RFI provides a mechanism for submission of additional information in the form of a CD.

- Q6: Is the MWAA working with a consultant for the solar projects? If so, please indicate who the consultant is.
- A6: The Authority is working with Parsons Management Consultants and with their subconsultant, Amdyne, in preparation of the RFI.
- Q7: Has the MWAA received any unsolicited proposals for solar projects? If so, who were they from?
- A7: None have been received.
- Q8: What was the basis of the example medium-size project as shown on page 2 of the Solar Energy Projects RFI?
- A8: The basis of the example for a medium sized solar installation came from Adelaide Airport in Adelaide, Australia. 760 BP Solar panels were installed on the Terminal 1 roof in 2008, and the 114 kilowatt system generates 160 megawatt hours annually.
- Q9: Are there small or minority business contracting requirements for the project?
- A9: An analysis will be performed before an RFP is issued. This RFI has no requirement.
- Q10: Will MWAA consider other renewable projects such as solar hot water heating or solar tube lighting?
- A10: We will, if it is relevant to the RFI. We also expect other RFI's to be issued at a later date for which these products may be more germane.
- Q11: Does the MWAA anticipate or require a PPA for the small, proof of concept project?
- A11: The Authority does not require a PPA, but does require that the capital investment for the demonstration project be borne by the proposer rather than the Authority.
- Q12: What are the specific evaluation criteria that will be used in evaluating RFI responses for passing to the RFP phase?
- A12: The follow-up Request for Proposal will provide more information in regard to the evaluation criteria. The intent of the RFI is to gather information to enable the Authority to develop a Request for Proposal.
- Q13: Who will be responsible for permit and grid interconnection?
- A13: The contractor will be responsible - including preparation of design drawings.
- Q14: What is the estimated voltage range for grid connection?
- A14: The incoming primary voltage at DCA is 34.5 kV and 4.16 kV. At IAD the incoming primary voltage is 13.2 kV. At Dulles Airport, our distribution voltage is 13.8KV, and there are also some 35 KV circuits.
- Q15: Are there any historical soils report available for potential ground mount sites?
- A15: This will be dependent on the site being proposed. There are geotechnical reports for certain parts of National and Dulles Airports. This information would be provided in the follow-on RFP.

Q16: What is your current electricity rate?

A16: We are on Dominion Va. Power rate schedule GS-4. Breakdown is available from Dominion VA power website. On average we pay \$0.05 cents per kilowatt-hour.

Q17: What is your projected electrical rate for next 15 years?

A17: It is estimated to be between \$0.05 to \$0.10 cents per kilowatt-hour. This estimate is highly dependent on various factors such as Dominion Virginia Power's fuel cost, rate adjustment approval, use of renewables, etc.

Q18: What is your electricity consumption?

A18: Our annual consumption at Dulles has been 2007 - 205,236,277 Kilowatt hours; and for 2008 the consumption was 210,347,104 Kilowatt hours.

Q19: When will your current PPA end?

A19: MWAA does not have a PPA. The present contract with Dominion Virginia Power has a yearly option to renew. We are currently on the third year of a five year contract, if all of the options are exercised. .

Q20: How can I schedule a site visit to see potential sites?

A20: You can freely access open areas of the airport. To gain access to secure areas you can contact Geoff Baskir at (703) 572-1255 through the question form on the website and it can be arranged. You will need to provide details about exactly what areas you would like to access and an escort will be made available to take you there. It will be helpful if multiple responders could be shown around at the same time.

Q21: Are there any issues with taking pictures around the airport?

A21: Pictures are generally acceptable except for security areas, such as passenger screening areas however significant picture taking of the airport may draw suspicion. Contact MWAA in advance if you intend on taking a significant number of pictures.

Q22: What are the electricity usage and billing rates?

A22: See answers to questions 16 and 18.

Q23: Are both airports technically located in VA? Is it correct that VA does not have RECs?

A23: Both airports are in VA. We are exploring the ability to develop RECs at both airports and the opportunities that may exist.

Funding and/or stimulus funds for renewable energy projects are available at the Federal and State level. The Airports Authority will want to utilize this funding to greatest extent possible to off-set capital costs.

Q24: Can you make forecasts for current and future electricity use available?

A24: See questions 16 and 18 for historic energy usage. Energy usage forecasts are not readily available but the historic usage can be used as a baseline.

The DCA Master Plan does not project construction of new facilities that would dramatically increase energy usage.

The IAD Master Plan identifies three new concourses and a south terminal in its future development. In the near term, the first phase of the Automated People Mover system is expected to be operational during the 3<sup>rd</sup> quarter of 2009.

Q25: Do you have an agreement with Dominion in terms of this upcoming spike in electricity?

A25: They are aware of master plans and the increase, although there is no specific agreement.

Q26: How many new concourses will be added at Dulles?

A26: Tier 2 (to replace Concourse C/D), 3 & 4 and a South Terminal are included in the Master Plan. None are currently scheduled for construction.

Q27: When would the RFP be issued?

A27: 4<sup>th</sup> quarter of this year.

Q28: Has MWAA confirmed that they have the ability to enter into a long term PPA?

A28: The Authority is not aware of anything that can prevent us from entering into a long term PPA. The federal government owns the airport properties and MWAA operates under a long term lease agreement through 2067. The land lease allows the Authority to operate, develop, and maintain the airports. The Airports Authority has a long successful history of entering into long-term financial agreements including issuance of revenue bonds.

Q29: Is there a minimum amount you would issue bonds for projects?

A29: It is our intent not to pay any out-of-pocket costs for this project.

Q30: Could a small solar project get into a bond bundle?

A30: Yes, if it was a capital project. Capital projects need to be included in our Budget which requires both senior management and Board approvals.

Q31: Does MWAA own the Dulles access highway?

A31: MWAA has the same lease agreement with the federal government for the access highway to Dulles and the toll road. That area is available for a solar initiative.

Q32: Is there a reason why parking garages seem to be the desired location for a solar array and not rooftops?

A32: There is no reason, but parking lots are more commonly used for solar arrays in other projects. Roofs can be used, as long as it is determined that the buildings won't be demolished during the lifetime of the array, it will not have a negative impact on historic structures, and does not present a navigation hazard.

Q33: Could a historic areas map be issued?

A33: Yes

Q34: Does this project intend to be net metered?

A34: This is an open question to be answered in the RFI responses.

- Q35: How long is a typical SHPO (State Historic Preservation Office) process?
- A35: Depends on the project, but it can be 2-9 months.
- Q36: Should we form a team at this point or should we wait until the RFP stage?
- A36: This is your business decision, but we recommend forming a team for the RFI.
- Q37: Are there different rate schedules at IAD and DCA airports and where are the meters? Specifics are helpful for utility tie-in.
- A37: This information will be provided in the RFP at a later date. See answer to question 16. .
- Q38: Could the specific information on metering be obtained?
- A38: MWAA will provide it in the future RFP.
- Q39: What are potential navigational issues?
- A39: FAR Part 77 Surfaces should not be impacted and areas surrounding radars, glide slopes, and other navigational aids should be kept clear.
- Q40: Could a plan pointing out potential areas for solar installations be provided?
- A40: MWAA will provide this in the future RFP. At this time it should be assumed that all of the airport land is open for the solar project. The land use plan and ALP (Airport Layout Plan) can be accessed on the Authority website.