March 1, 2017

SUBJECT: Letter of Clarification No. 1

REFERENCE: RFI No.: H37-EPIAH-2017-018; Energy Initiatives Project at George Bush Intercontinental Airport (IAH)

To: All Prospective Respondents:

This Letter of Clarification is issued for the following reason: to answer questions posed by prospective respondents.

The following are questions posed by prospective respondents and the Houston Airport System (HAS) response:

**Question No. 1:** With regard to the HAS owned electrical distribution system, what is the estimated timeline for turnover to HAS?

**Response No. 1:** This matter will be addressed in the follow-on RFQ/P.

**Question No. 2:** What is the desired term for the Public Private Project structure?

**Response No. 2:** A decision on the delivery method, or the term of a potential contract for the Energy Initiatives Project has not been made at this time. HAS and the City of Houston are interested in considering all options proposed in response to this RFI.

**Question No. 3:** Are there any ownership structure restrictions put in place by the Airport/City of Houston?

**Response No. 3:** This matter will be addressed in the follow-on RFQ/P.

**Question No. 4:** Would the airport consider applying for FAA AIP/VALE grant funds for a solar project with the goal of co-investing grant money?
- 2010: Albuquerque International Sunport
- 2011: Duluth International Airport, Lovell Field (2011 & 2012), Manchester-Boston Regional
- 2012: Tucson International Airport
Response No. 4: HAS and the City of Houston are interested in considering all options proposed in response to this RFI.

Question No. 5: Has the airport taken into consideration the impact of emissions from an on-site cogeneration facility in conjunction with aircraft emissions with respect to the budgeted amount of emissions for a nonattainment area?
Response No. 5: This matter will be taken into account when evaluating the potential options for energy supply.

Question No. 6: Will HAS’ environmental plan (if applicable) be provided?
Response No. 6: This matter will be addressed in the follow-on RFQ/P.

Question No. 7: Will the airport be providing information on their energy time of use profiles?
Response No. 7: Further information, such as load profiles, will be provided in the follow-on RFQ/P.

Question No. 8: With regard to an on-site generation solution, will the Intercontinental & Greens Road Substations be appropriate points of delivery.
Response No. 8: Presently, the Intercontinental Substation only is being considered as a delivery point.

Question No. 9: Will interconnection standards be dictated by the airport or Centerpoint?
Response No. 9: This matter will be addressed in the follow-on RFQ/P.

Question No. 10: With regard to an on-site solution, will existing civil, topographical, geotechnical, soil, and foundation studies be provided by the airport if requested?
Response No. 10: This matter will be addressed in the follow-on RFQ/P.

Question No. 11: Asides from FAA regulations, which special airport permitting and/or procedures for on-site construction should we be aware of?
Response No. 11: This matter will be addressed in the follow-on RFQ/P.

Question No. 12: **Re: Grid Power Supply Questions (A – G):**

A. How long is the contract term between the City and its third party?
B. What contract structure (Fixed, Block & Index, or Floating) does the City of Houston have with its third party?
C. What is the price, currently and projected going forward?
D. Would the contract be adversely impacted if IAH installed a cogen/CHP or another form of "self-supply?"
E. Are there contractual or political obligations that require HAS to purchase power from the City; i.e. could HAS or IAH disaggregate?
F. What is the City’s current procurement process to secure electric supply?
G. Has the City considered wholesale market participation?
Response No. 12: (A – G) A decision on the delivery method, including the term of a potential contract, for the Energy Initiatives Project has not been made at this time. Further details with respect to the identified delivery option(s) will be provided in the follow-on RFQ/P.

Question Nos. 13 – 18 Re: Energy Load Profiles:

Question No. 13: While there is some load profile data in the Utilities Master Plan, Appendix D, please provide overall annual average, peak and minimum potential heating/chilling loads that could be served with waste heat from a CHP plant, say, for years 2020, 2025 and 2030. This would include steam for direct heating, hot water production and steam turbine driven chilling, as well as directly fired hot water production (if any) and current/planned electric driven chilling, from the expanded CUP.

Response No. 13: Further information, such as load and load profiles, will be provided in the follow-on RFQ/P.

Question No. 14: We noted the analysis for economics of electric driven vs. steam turbine driven chillers. Would HAS consider keeping or adding to steam turbine driven chilling based on availability of cogenerated (vs. gas boiler-generated) steam?

Response No. 14: Response: HAS and the City of Houston are interested in considering all options proposed in response to this RFI.

Question No. 15: Also, for the same years 2020, 2025 and 2030, please provide overall annual average, peak and minimum onsite, aggregated electric loads that could be served by a new CHP plant through the new EPS, excluding any export to the grid.

Response No. 15: Response: Further information, such as energy loads and load profiles, will be provided in the follow-on RFQ/P.

Question No. 16: Please clarify the amounts of electrical energy and capacity needed to serve IAH loads. If the EPS is designed for about 40 MW, then it would seem this is the maximum electrical capacity required onsite. The Peak Utility Demands table on p. 49 of the 2014 Utilities Master Plan also confirms an aggregate demand, considering the assumed diversity factor, from all the terminals of about 41 MW. However, Para. 1.1 of the RFI document refers to potential IAH loads of 45-75 MW. What additional loads are included in the extra 35 MW?

Response No. 16: Response: The EPS will be sized based on the on-site electrical demand. The loads defined in the RFI are to be used in response to this RFI. The additional 35MW represents an estimate of future Airport loads.

Question No. 17: On p. 12 of the Project Overview – Energy Infrastructure dated 12/6/2016, there is a reference to an additional 5 MW UAL load, not included in the Central Terminal Area. Please confirm that this is not fed through the EPS but is connected separately. If so, has HAS considered how to serve this load directly from an onsite CHP/power generation unit, e.g., would power have to be delivered over existing third party cables or a new dedicated feeder?

Response No. 17: Response: All loads in the Central Terminal Area, including the UAL load is planned to be serviced through the EPS.
**Question No. 18:** Re: Physical Layout - Does IAH have a known limit on stack height from a new CHP/power generation unit at the proposed location near the existing CUP?

**Response No. 18:** Determination of the allowable stack height will be based on the siting of a potential plant should this solution be selected for the Energy Infrastructure Project.

When issued, Letter(s) of Clarification (LOC) shall automatically become part of the solicitation documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the Letter(s) of Clarification. LOC(s) will be incorporated into the Agreement as applicable. It is the responsibility of the respondent(s) to ensure that it has obtained all such letter(s). By submitting a Submittal on this project, Respondent(s) shall be deemed to have received all LOC(s) and to have incorporated them into this solicitation.

If further clarification is needed regarding this solicitation, please contact Andre' Morrow, Sr. Procurement Specialist, via email at Andre.Morrow@houstontx.gov.

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cc: File  