



GUAM POWER AUTHORITY

ATURIDÁT ILEKTRESEDÁT GUAHAN
P.O. BOX 2977 HAGÁTÑA, GUAM U.S.A. 96932-2977

February 5, 2019

AMENDMENT NO.: XI

TO

INVITATION FOR MULTI-STEP BID NO.: GPA-034-18

FOR

**BUILD, OPERATE & TRANSFER CONTRACT FOR 180MW OF NEW GENERATION CAPACITY
STEP 2 – TECHNICAL SPECIFICATIONS**

Step 1 Qualified Bidders are hereby notified of the following changes and responses to inquiries received from the following:

CHANGES:

Table 12.1: Procurement and Development Milestones

Milestone No.	Milestones	Durations	Cumulative Duration	Expected Completion
1	IFB Issued to Potential Bidders			10/1/2018
2	Pre-Bid Meeting with Bidders	1	1	11/5/2018
3	Site Visit	1	2	11/6/2018 9:00 A.M.
4	Cut-Off Date for Receipt of Questions	1	3	12/19/2018 5:00 P.M.
	STEP 2 - TECHNICAL PROPOSAL EVALUATION			
5	Bid Date - Envelope I and II with exception of Fixed Cap Charge submitted to GPA.	143	146	3/21/2019 4:00 P.M. (Guam Standard Time)
6	Complete Evaluation of Technical Proposals & Notify Bidders	45	191	5/6/2019
7	Submittal of Price Proposal Deadline Fixed Capacity Charge (Envelope III)	1	192	4/29/2019 4:00 P.M. (Guam Standard Time)

Milestone No.	Milestones	Durations	Cumulative Duration	Expected Completion
	STEP 3 - PRICE PROPOSAL EVALUATION			
8	Conduct Envelope II & III Public Bid Opening Meeting	1	193	5/20/2019 2:00 P.M. (Guam Standard Time)
9	Complete Evaluation of Envelope II & III; Invite the First-Ranked Bidder to Clarification Meeting	14	207	6/3/2019
10	Conduct Clarification Meeting(s) with First-Ranked Bidder and other top-ranked Bidders as required and selection of the Selected Bidder.	28	235	7/1/2019
11	Complete Negotiations of ECA with the Selected Bidder.	70	305	9/9/2019
12	Obtain CCU and PUC approval	52	357	10/30/2019
13	Sign the ECA with the Selected Bidder.	1	359	10/31/2019
14	IPP achieves financial close and starts construction.	180	538	4/28/2020

Qualified Bidder #3 dated 12/05/2018:

QUESTION:

- Regarding the Pre-Existing Site Condition mentioned in Amendment VII (pdf page 13): GPA directs the bidders to Article 6.6 of the draft ECA; however, there is no Article 6.6 in the draft ECA. The ECA included in the July CCU meeting materials (on the CCU website) has an Article 6.6 dealing with Pre-Existing Site Condition; however, that language has been deleted from the draft ECAs included with the IFB and provided with Amendment V. Please clarify.

ANSWER:

This was addressed in **AMENDMENT NO.: X** dated January 22, 2019.

QUESTION:

- Regarding the natural gas pressure at the interface point between GPA and the project (i.e., the site boundary) provided in IFB Section A, Information to Bidders, section 9.2 Natural Gas (pdf page 27): We assume the 60 bar value was selected with turbine projects in mind and that bidders of engine-based projects can make their own assumptions regarding gas pressure at the interface point. Please confirm.

ANSWER:

The pressure of natural gas delivered from the LNG regasification facility will eventually will be established based on the power plant requirements during the LNG terminal procurement process. The pressure in the IFMSB is an indicative pressure. The purpose of including the gas pressure information is to indicate to the Bidders that they will likely not be required to provide natural gas compressors as part of the Project.

QUESTION:

3. Some power generation technologies require a high fuel gas pressure and others do not. How will GPA evaluate competing proposals from the perspective of the different levels of parasitic energy used to provide turbines or engines with the required levels of fuel gas compression?

ANSWER:

Difference in natural gas pressure requirements will not be factored in the evaluation.

QUESTION:

4. Some bidders will model the proposed gas pipeline to develop cost estimates. Their model inputs will include an assumption regarding natural gas heating value. Page 196 of the IFB suggests 950 Btu/scf at 14.7 psia dry. Page six of Amendment VII suggests 1,000 Btu/cf. Page 25 of Amendment VII directs readers back to the IFB for information regarding natural gas properties. Please indicate the value that bidders should assume for natural gas heating value and whether it is LHV or HHV.

ANSWER:

All bidders will use the natural gas properties table listed below:

Constituent	Range
Nitrogen N	0.014 to 0.32%
Methane CH ₄	87.8-91.2%
Ethane C ₂ H ₆	4.2-8.6%
Propane C ₃ H ₈	1.6-3.0%
n-Butane C ₄ H ₁₀	0.24-0.7%
n- Pentane C ₅ H ₁₂	0.01-0.02%
HHV BTU/SCF	1115-1142
HHHV MJ/scm	41.5-42.5

QUESTION:

5. We are still not clear on the required fuel storage tank capacity. We know the intent is 30 days of operation, but we would appreciate it if you would clarify what capacity factor (i.e., percent of full electrical energy output) to assume when sizing their fuel storage capacity.

ANSWER:

The storage capacity must be for 30 days with the plant running at full load (100% capacity factor).

QUESTION:

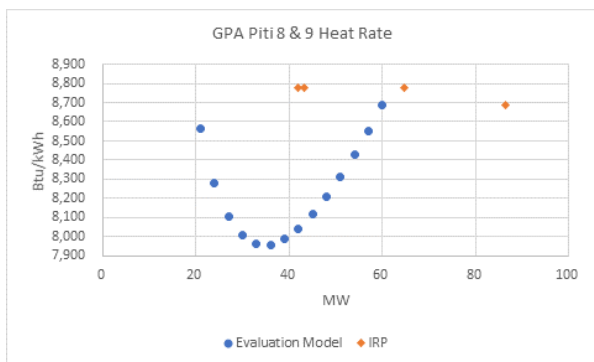
6. GPA's answer, on page 3 of Amendment VII, to a bidder's response time question is unclear to us:
 - a. Our interpretation of the IFB led us to believe that the response time requirement applied to a "unit" as defined on page 22 of the IFB (an individual engine or turbine), not the entire facility. Have we misunderstood the IFB or has GPA changed the requirement?
 - b. GPA's response includes guidance values for ESS performance, including 15 MW for 30 minutes if the ESS will be used to provide spinning reserve. Does GPA plan to modify the spinning reserve assumption in the Evaluation Model in cases where a bidder proposes an ESS for spinning reserve?

ANSWER:

- a. Response shall be forthcoming.
- b. Response shall be forthcoming.

QUESTION:

7. Regarding the Evaluation Model's characterization of GPA's Piti 8 & 9:
 - a. The combined output of the two units expressed in the Evaluation Model's characterization of GPA's Piti 8 & 9 appears to be very different than the outputs shown in GPA's 2013 IRP. Please clarify.
 - b. The heat input coefficients in the model appear to yield a heat rate curve (blue circles in the chart below) that is very different than the heat rates provided in the IRP (red diamonds in chart below). Please clarify.
 - c. The model seems to show that the units are burning 82 MMBtu/h of fuel when they are offline. Is that correct?



ANSWER:

- a. Response shall be forthcoming.
- b. Response shall be forthcoming.
- c. Response shall be forthcoming.

QUESTION:

8. Please provide a copy or link to the World Health Organization (WHO) guideline document(s) that form the basis for GPA's requirement that sound levels at the project boundary not exceed 45 dB(A) so that bidders can fully understand the methodology that will be used in determining compliance with this provision.

ANSWER:

GPA is commissioning a background noise survey that will be provided to bidders by the end of January. The noise requirement will be adjusted to the World Bank Group International Finance Corporation EHS Guidelines Noise 1.7 (Kindly refer to AMENDMENT NO.: X dated January 22, 2019). Bidders must apply appropriate noise control methods to assure compliance.

9. The World Health Organization noise guidelines that we have seen (Environmental Noise Guidelines for the European Region, ISBN 978 92 890 5356 3) provide noise guidance values measured outdoors at settings where people spend a significant portion of their time, such as residences, educational institutions, workplaces, etc. In other words, the guidelines are for noise exposure at the receptor, not at the source. Is there a regulation or policy guidance document that has led GPA to set 45 dB(A) as a "not-to-exceed" limit at the 25-acre site boundary rather than at the nearest noise-sensitive receptor?

ANSWER:

Kindly refer to **ANSWER** of Question 8 above.

QUESTION:

10. Regarding the 45 dB(A) background noise requirements mentioned in Amendment VII (pdf page 7):
- a. Does GPA have data or an analysis that shows that the current background noise is at or below 45 dB(A) under all conditions? If so, please provide it.
 - b. Our informal average sound level measurements made during the week of November 5th suggest that the background noise levels are, at times, already above GPA's stipulated maximum. If a bidder believes that the existing background noise already exceeds 45 dB(A), how does GPA suggest the bidder demonstrate compliance with the requirement in its proposal?

ANSWER:

- a. Kindly refer to **ANSWER** of Question 8 above.
- b. Kindly refer to **ANSWER** of Questions 8 above.

Qualified Bidder #5 dated 12/07/2018:

1. Application of Availability in the Sample Evaluation model Amendment V

In the Sample Evaluation Model, the dispatchable capacity for the new plant is multiplied by the annual availability and then a 15 MW is subtracted for "spinning reserve." E.g. for a 100 MW plant with an annual availability of 90%, the maximum dispatchable load is 75 MW (100 MW*90%-15 MW). This dispatched capacity is currently used to calculate fuel consumption which includes an unusual application of availability.

Please re-consider the application of availability in the Sample Evaluation Model. The availability is currently impacting the fuel calculation in the methodology employed. The availability should impact the net energy output in a Contract Year, but does not have any impact on the dispatched load which is used to calculate the fuel consumption and associated cost.

ANSWER:

The Availability as defined in Section A of the IFMSB includes both outages and deratings. Please note that the availability guarantee and plant heat rates are requested for the entire plant, so depending on plant's configuration and a number of units it may be possible that the plant's heat rate at partial load calculated by multiplying Contracted Capacity by availability guarantee is equal or very close to the heat rate of the plant operating at full load. GPA is interested in evaluating the projected cost of electricity generated by the plant based on the entire load range at which the plant is expected to be dispatched during the term of the ECA, and given the current trend of increased penetration of renewable generation, it may be expected that the plant will have to operate at partial loads more in the future. Based on that, the Evaluation Model considers the availability guarantee by reducing capacity of the plant evenly through the year.

QUESTION:

2. Start-up Fuel Consumption

From these definitions in the IFMSB:

Startup - The process of starting up a Unit or the Facility until its synchronization with the Grid System

Unit – For fossil fuel fired components of a Facility, each individual Diesel Engine Generator or Combustion Turbine Generator with appropriate auxiliaries.

We understand that after Phase 2 COD, the intent is operate the plant on combined cycle operation and we assume that the heat rates applied at this stage will reflect combined cycle efficiencies. The current definitions in the IFMSB doesn't address the incremental fuel consumption that would occur during a combined cycle start during STG roll. Could GPA kindly clarify the mechanism that they envision for recovery of this cost? Should the incremental differences be entered as start-up fuel consumption?

ANSWER:

The cost of fuel spent during STG roll should be recovered via a Fuel Charge component of the tariff. The heat rate table for a combined cycle should include the heat rate associated with the load corresponding to the gas turbines being synchronized and generating electricity while warming up and starting steam turbine.

ANSWER:

3. Fuel Charge Correction Factors
Amendment VI; Page Number 19

QUESTION:

32. Section B, 4.4.2, Page Number 68

Fuel Charge

Additionally, the Bidders shall submit heat rate correction curves to account for changes in ambient temperature, as specified in Section D, Envelope II.

The mechanism for calculating the Fuel Charge would need to be amended to account for the following:

- Ambient pressure
- Relative humidity
- Efficiency degradation
- Frequency
- Power factor

In Section D referenced here (pg. 461-462), however, correction curves for the above is required to be submitted. Please clarify all the correction curves submitted in Section D, 8.7, will be considered to calculate the Fuel Charge.

ANSWER:

Please see Section B, Article 4.4.2 for the Fuel Charge formula. The only correction used in the formula for calculating Fuel Charge under the ECA is correction for ambient temperature. No amendment for Fuel Charge calculations will be considered by GPA. The Guaranteed Heat Rate values proposed by the Bidder and specified in Section D, Form 15.5 must account for variations of other parameters (ambient pressure, relative humidity, degradation, frequency, and power factor).

Please re-consider the position taken by GPA in this response to the clarification. Correction curves for factors that are beyond the reasonable control of the Developer. It is not in GPA's economic interest to have the Developers assume these risks would negatively impact potential GHRs provided by the Bidders. This may also cause challenges with developing a financeable project.

ANSWER:

No correction for heat rate degradation will be considered; allowance for degradation must be included in the guaranteed heat rates. Although heat rate impact from variations in ambient pressure, relative humidity, frequency and power factors are substantially lower than that from dispatch load and ambient temperature (and will complicate ECA administration during the operating phase of the Project), GPA will be willing to consider including these correction factors in the Fuel Charge calculation. This issue will be finalized during the document finalization after award in discussions with the winning Bidder.

QUESTION:

4. Environmental Permitting

Amendment VII; Page Number 11

Plant will be permitted as minor source therefore, whatever is required to reach minor source status levels should be done. Emissions must be below 250 tons per year of NO_x, SO_x, CO, particulates, ozone, and lead.

Guam EPA states the threshold for Major Source Permits (instead of Minor Source) is more than 100 tons per year of criteria pollutant and more than 250 tons per year of criteria pollutant requires review and approval by both Guam EPA and U.S. EPA. (<http://epa.guam.gov/documents-before-import/air-permits-and-compliance-monitoring-before-import/>)

This seems to imply that the threshold for Minor Source permit is below 100 tons per year of criteria pollutant.

Please confirm and clarify.

ANSWER:

The project may be permitted as a minor source project ONLY if the SO_x emissions are less than 100 tpy (for all types of units), and emissions are either:

- (1) less than 100 tpy for all other pollutants if the source consists of a "fossil fuel-fired steam electric plants" or "fossil fuel boilers" of more than 250 MMBTU/hr heat input (i.e., a combined cycle gas turbine, boiler or other co-generation plant), or
- (2) less than 250 tpy for all other pollutants for other types of combustion equipment (i.e., IC engine, simple cycle turbine).

If the potential emissions from the proposed project will exceed any of these major source thresholds, then a permit must be obtained from EPA for the major source pollutant and any pollutants with a significant emission increase (as defined in 40 CFR 52.21(b)(23)). As stated in the previous responses the Project Company must provide the necessary emission control system that will meet the requirements for the Minor Source Permit.

QUESTION:

5. Site Surveys

Section C, 5.6; Page Number 164

5.6 Geotechnical Conditions

GPA will complete a preliminary geotechnical survey to be provided during this procurement period.

Please provide the site soil investigations, biological survey and cultural survey.

Bidders requires this information ASAP to incorporate into their bids.

ANSWER:

The boring logs from the preliminary geotechnical survey was provided in Amendment No.: X. The biological survey is provided in the attached- Biological Survey Report_11Jan2019.pdf. The archeological survey and preliminary geotechnical survey are forthcoming.

QUESTION:

6. Environmental Requirements

Amendment VII; Page Number 11

Plant will be permitted as minor source therefore, whatever is required to reach minor source status levels should be done. Emissions must be below 250 tons per year of NOx, Sox, CO, particulates, ozone, and lead.

Based on preliminary calculation, we understand to achieve a minor source status, certain post-combustion environmental emission controls are required. In order to ensure a leveled bid comparison amongst Bidders, could GPA kindly confirm that all Bidders must consider a selective catalytic reduction (SCR) system for denitrification and a CO catalyst in their bids.

ANSWER:

GPA could not confirm the type of emission control system. The Project Company should be the one to determine or select the system to use.

QUESTION:

7. Natural gas specifications

Natural Gas- means natural gas meeting the Fuel quality specifications contained in Section C.

Amendment V, Pg. 6,

Question: Please provide Natural Gas Specification

A common basis of design for natural gas is required to set performance capacities (contracted and dependable) and reduce assumptions among bidders.

- Composition including HHV, Temperature, Pressure at terminal point, etc.

GPA's Answer: Response shall be forthcoming.

In the absense of natural gas specifications, could GPA kindly confirm that all Bidders should use the following natural gas specifications for the purposes of bidding and GPA will procure to this quality during the Term of the ECA:

Total supply temperature at the Site Boundary		250	0.0000
Fluegas Pressure at Site Boundary		0.0	0.0000
Fluegas Temperature at Site Boundary		0.0	0.0000
Fluegas Velocity at Site Boundary		0.0	0.0000
Total acid rainwater transferred to CDR		0.0	0.0000
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ANSWER:

Please use the range of natural gas composition shown in table below.

Constituent	Range
Nitrogen N	0.014 to 0.32%
Methane CH ₄	87.8-91.2%
Ethane C ₂ H ₆	4.2-8.6%
Propane C ₃ H ₈	1.6-3.0%
n-Butane C ₄ H ₁₀	0.24-0.7%
n- Pentane C ₅ H ₁₂	0.01-0.02%
HHV BTU/SCF	1115-1142
HHHV MJ/scm	41.5-42.5

QUESTION:

8. Water Storage Requirements

Section C, 1.2.5; Page Number 96

Water storage tanks (e.g. raw water, dedicated fire water, service water, potable water, etc.) as required. There shall be 7 days of water storage for cycle makeup and cooling tower makeup if cooling tower is required.

Please confirm if each tank listed in this required should each have 7 days capacity? (e.g. 7 days raw water storage, 7 days of service water, 7 days of potable water, etc.). Could the Bidders decide the preferred sizing of the water tanks and which are needed to mitigate operational risks? As GPA well knows, it is impractical and costly to have a cooling water storage tank with the capacity of 7-day storage.

Please clarify the distinction considered for raw water, service water, and potable water and their envisioned sources.

ANSWER:

Service water and potable water do not require 7 days storage. Only the grey water requires on site storage due to the intermittency of GWA's treatment and discharge.

QUESTION:

9. Natural Gas Terminal Point at the GPA Bulk Storage Terminal

Section A, 9.2; Page Number 27

GPA may develop a LNG receiving facility to supply natural gas to the Project under a separate procurement process to be held in the future. GPA, via the selected LNG provider, will be responsible for development of the LNG delivery, storage and regasification facilities including construction of a gas supply pipeline to deliver natural gas from the LNG terminal to the Project Site.

Please provide a specification for the exact terminal point of the gas pipeline at the Bulk Fuel Storage Facility. Please include a drawing, pictures and drawings of the exact terminal point location for the natural gas pipeline that GPA envisioned for the future LNG provider.

ANSWER:

Natural gas exact terminal details are currently unknown. Terminal point will be near GPA Bulk Fuel Storage Facility near Apra.

QUESTION:

10. Power Factor Requirements

Section C, 3.2.2; Page Number 33

d. Minimum power factor: 0.80 lagging. The generators full dynamic range should be available at the Point of Interconnection (allowing for offset to reactive losses from generator terminals to the Point of Interconnection), including at full load. Under no circumstances should the dynamic power factor range at the POI be less than +/- 0.85.

Please confirm the Voltage range at the POI that this requirement applies to.

ANSWER:

The voltage at POI is 115 kv. GPA can provide the voltage range that they have measured.

QUESTION:

11. Security standard

Section C, 1.2.5; Page Number 97

B. Scope of Supply for Fossil Fuel Fired Component

Security provisions compliant with NERC CIPS and US Navy

Does this requirement is stated for CCTV, access control, etc.? If it is correct, please inform which standard number should be referred to for security provisions.

ANSWER:

Response shall be forthcoming.

QUESTION:

12. Standards

Section C, 3.2.1; Page Number 197

Only one set of standards shall be applied throughout the Facility.

Please clarify GPA's intention of using one set of standards throughout the Facility. As GPA well knows, depending on the equipment, the standards applicable for design will be different according to prudent Utility Practices. For example, ASME which will be used for mechanical design in general is not applicable for electrical design.

ANSWER:

Asian or international standards cannot be intermingled with US standards.

QUESTION:

13. Fuel Facility

Section C, Clause 1.3.1; Page Number 102

1.3 Terminal Points

1.3.1 Fuel

A. ULSD

If ULSD is selected by Project Company as a fuel source, the Project Company is responsible for the design and construction of ULSD supply infrastructure including any modifications at the GPA Bulk Fuel Storage Facility Bulk Fuel Storage Facility and the new pipeline that will be built to transport ULSD from the GPA Bulk Fuel Storage Facility to the plant site.

1.2 ULSD Scope of Supply

The ULSD pipeline is to be constructed, as much as is reasonably possible, in the existing 8" RFO pipeline easement. The existing 8" pipeline is no longer active and the Project Company is to remove and replace with the new ULSD pipeline. Additional easement will need to be acquired to route the pipeline to the new power generation plant site. New pipeline routing shall follow existing pipeline corridors and access roads where possible.

.....

Section C, Appendix B 1.2; Page 194

The natural gas pipeline is to be constructed, as much as is reasonably possible, in the existing 8" RFO pipeline easement. As with the ULSD pipeline, the existing easement shall be utilized to the extent physically possible. Additional easement will need to be acquired to route the pipeline to the new power generation plant site. New pipeline routing shall follow existing pipeline corridors and access roads where possible. GPA will assist the Project Company with acquisition of all new easements for the pipeline. Project Company will have ultimate responsibility and assumes associated risks.

For design of new ULSD & Natural Gas pipeline, please provide detailed information such as existing underground utilities layout, existing pipe section drawing, existing pipe encasement design, etc.

ANSWER:

This was addressed in **AMENDMENT NO.: VIII** dated December 20, 2018.

QUESTION:

14. AGC by GPA

Section C, 3.2 subsection 4; Page Number 116

Automatic Generation Control will be performed by GPA AGC system

Please provide additional details on GPA's AGC system.

ANSWER:

The GPA AGC system is anticipated to be a system that performs calculations every 2 seconds and performs control every 4 seconds. Control can be exerted by way of variable width pulses or set-point control. The system keeps a running count on the control action of every real power unit on the GPA system and determines the real power output compared to the calculated output based on pulse counts or set-point control. The use of plant controllers is prohibited in the GPA system. Each unit must have a governor capable of accepting either pulse or set-point control for the unit. If the unit utilizes pulse control, the unit pulses will be essentially two different pulses, a short pulse for normal regulation and a long-pulse for transient conditions that require rapid movement of the unit or an emergency assist mode using long pulses. Under long-pulse control, the unit's response will not be accelerated at the same ramp rate as the short-pulse control but will ramp at the maximum allowable ramp rate for the unit under AGC control. If set-point control is used, the unit governor must accelerate for changes in set-point control during an off-frequency condition outside of a settable limit that provides an emergency assist rate for the unit.

QUESTION:

15. Power revenue metering

Section C, 3.2 subsection 6&7; Page Number 116

6. Power revenue metering requirements (accuracy class, number of tariffs that can be programmed in the metering system, data logging and storage requirements, software for remote billing requirements, etc.).

7. Information and requirements for the Electrical Interconnection Facilities (voltage level and location of the GPA substation to be used to for power evacuation, one-line diagram and layout of the substation, specifying whether it is single or double circuit).

These are listed as "Electrical Plant and System Requirements, but it's unclear what the specific requirements are. Is additional information required, such as:

- 1) What is the requirement for number of tariffs that can be programmed in the metering system?
- 2) What are the data logging and storage requirements?
- 3) What are the software requirements for remote billing?

ANSWER:

- 1) Utilize SEL-735 (with MV90 compliant) meter to meet the requirement for tariffs. MV-90 is Itron's meter data collection and processing application. It is used by over 600 utilities in North America.
- 2) Utilize SEL-735 (with MV90 compliant) meter to meet the requirements for data logging and storage.
- 3) Utilize SEL-735 (with MV90 compliant) meter to meet the requirement for remote billing.

QUESTION:

16. GWA water system model
Section C, 3.3.2; Page Number 131
Civil studies need to include a 'GWA water system model'

Please clarify what a GWA water system model is.

ANSWER:

The GWA water system model is no longer required.

QUESTION:

17. definition of "owner"
Section C, 3.4.9, B.1.; Page Number 140
1. All steel shall be shop primed. Finish color will be selected by owner.

For the avoidance of doubt, please clarify the reference to "owner". Is this the Project Company or GPA?

ANSWER:

The finish color should be selected by the Project Company and approved by GPA.

QUESTION:

18. Standard code
Section C, 3.5.1, B.; Page Number 141
Guam Power Authority Standard Specifications as applicable (for Substation)

Please provide applicable Guam Power Authority Standard Specifications

ANSWER:

This was addressed in **AMENDMENT NO.: X** dated January 22, 2019.

QUESTION:

19. Communication Protocol
Section D, 8.9.8, 8; Page Number 465
Provide a description of the overall control system used for the Project equipment, including all local, centralized and remote controlling including the proposed means to communicate with the GPA control center to follow its instructions

Please provide communication protocol and details of GPA control center

ANSWER

Kindly refer to **AMENDMENT NO.: VIII** dated December 20, 2018.

QUESTION:

20. Synchronizing and Load Pick Up Times

Section D, 8.14.2, Table 8.12; Page Number 474

Reference is made to "minutes to Achieve Action After Shutdown:" in the table for Synchronizing and Load Pick Up Times (Table 8.12)

The reference point for determining synchronization and load pick up times is listed as "minutes to achieve action after shutdown". Should the reference point be "after command for startup is initiated"?

ANSWER:

Response shall be forthcoming.

QUESTION:

21. ECA draft Article 9; Page Number 558

Project Company shall pay to GPA, as liquidated damages, an amount equal to US\$ [TBD] per kW of the shortfall between the most recently determined Initial Dependable Capacity and the Contracted Phase 1 Capacity.

Project Company shall pay to GPA, as liquidated damages, an amount equal to US\$ [TBD] per kW of the shortfall between the most recently determined Initial Dependable Capacity and the Contracted Phase 2 Capacity.

Why are the LD levels highlighted in yellow? Does the Bidder need to propose?

ANSWER:

Kindly refer to the revised ECA for liquidated damages amounts that was addressed in **AMENDMENT NO.: X** dated January 22, 2019.

QUESTION:

22. Cross-reference in the Bid Guarantee

Attachment 1A

In the form of Bid Guarantee (Attachment 1A in the bid package), the cross-reference in the footer is broken. The broken cross-references can be seen in the correct form in the MS Word version of the forms that GPA circulated together with Amendment No. 6.

Please confirm that the broken cross-reference in the footer should refer to Form 13.1.

ANSWER:

Form 13.1 is correct.

QUESTION:

23. Article 6.6 of the draft ECA

GPA's answers to Bidder #6's questions 5, 25 and 28 of Amendment VII; Page Numbers 13, 20 and 21 of Amendment VII

In answers to Bidder #6's questions 5, 25 and 28 of Amendment VII by the GPA, the Bidders are directed to Article 6.6 as the relevant ECA clause.

As Article 6.6 in the draft ECA is not used, please clarify which provision GPA wishes to reference in response to these questions from Bidder #6 included in Amendment VII.

ANSWER:

This was addressed in **AMENDMENT NO.: X** dated January 22, 2019.

QUESTION:

24. \$50 million lump-sum payment

Article 14.2 of the draft ECA; GPA's answers to Bidder #4's questions 11 and 12; Page Number 28 and 29 of Amendment VII

QUESTION:

11.[A] 2.1; Lump sum payment means the lump sum payment in the amount of USD 50 million to be made by GPA to the Project Company upon Phase II Commercial Operation Date.

1) What forms of cash will be paid to the Project Company as Lump sum payment? Equity, Loan without Interest or Advance Payment?

ANSWER:

GPA will make a cash payment to the Project Company with an intent to lower the Fixed Capacity Charge proposed by the Bidders. It is Bidders decision to incorporate this payment into their financing plan in such a way that it would result in the Bidders offering to GPA the lowest possible Price while continuing to comply with the equity contribution requirement (the total equity should not be less than 20% of the total Project cost both prior to and after receipt of the lump sum payment).

QUESTION:

12. [EGA] 14.2; Lump sum payment GPA intends to make an initial lump sum payment of approximately \$50 million upon COD to reduce interest fees and payments over the contract term.

2) Qualified Bidder would like to know the reason of the lump sum payment

ANSWER

GPA has insurance proceeds associated with a previous fire at the Cabras plant that has to be applied to construction of a new power generating plant. GPA considers that providing the Lump Sum payment to the Project Company will result in lower proposed Fixed Capacity Charge and the resulting reduction in the Price of electricity purchased from the Facility would allow to lower the tariff paid by GPA customers.

Can GPA confirm the insurance company has agreed that paying the lump sum to the Project after completion as compensation under the ECA counts as using such insurance proceeds for construction?

14.2 indicates that the lump sum will be paid at "COD" – is this referring to Phase 1 COD or Phase 2 COD?

Can GPA confirm that the winning Bidder will be able to revise 14.2 to include more specific mechanics as to e.g., when and how the lump sum will be paid, how the proceeds should to be applied by the Project, etc.?

ANSWER:

1. GPA has received the insurance proceeds from the Insurance company that the lump sum payment will come from.
2. Section A defines the lump sum payment as follows: Lump Sum Payment – means the lump sum payment in the amount of USD 50 million to be made by GPA to the Project Company upon Phase II Commercial Operation Date. This definition could also be added to the final version of the ECA during document finalization with the winning Bidder.
3. GPA will reasonably consider potential revisions to Article 14.2 regarding the mechanics of making the lump sum payment after award and during document finalization with the winning Bidder.

QUESTION:

25. Response time of synchronous condenser

GPA's answers to Bidder #1's question 19-b); Page Number 35 of Amendment VI

GPA'S ANSWER in 19-b)

If the response of the synchronous condenser is needed in order to meet the required response of the plant to transient conditions, the transition must occur within the required response time of the plant.

Please clarify what GPA means by "synchronous condenser is needed in order to meet the required response of the plant to transient conditions". Does the required response of the plant to transient conditions mean RFP requirement of transient response: The governor transient response shall be fast enough such that following a frequency disturbance a change of at least 5% of a single unit's capability shall be achievable within 1 second, and at least 10% of single unit's capability shall be achievable within 2 seconds following the disturbance?

ANSWER:

The synchronous condensers are expected to provide both inertia and reactive power support, during the transient. If synchronous condensers are proposed, they would not be expected to provide any real power support during a transient, other than due to the temporary inertial response. The reactive power response is expected to be achievable very quickly, through the AVR and excitation systems, as is the case for conventional generation.

QUESTION:

26. Transient Response

Section C, 2.2.4; Page Number 107

The governor transient response shall be fast enough such that following a frequency disturbance a change of at least 5% of a single unit's capability shall be achievable within 1 second, and at least 10% of single unit's capability shall be achievable within 2 seconds following the disturbance.

In order for bidders to guarantee that bidder meet the requirement of transient response, bidder needs additional input from GPA to make a proper analysis. Please advise magnitude and profile of frequency disturbance (step or other). Then, bidder can generate simulation of active power response based on the boundary conditions to assure that bidder comply with the requirement.

ANSWER:

Response shall be forthcoming.

QUESTION:

27. Notarized affidavit (Form 4-A)

Is there a template that GPA requires bidders to use for Form 4-A - Certificate of Availability of Bank Guarantee? Or is acceptable for each bank to provide its own form?

ANSWER:

Kindly refer to **AMENDMENT NO.: VI** dated November 27, 2018.

28. Notarized affidavit (Form 4-A)

Would be RFP response be non-conforming should a notarized affidavit (Form 4-A) not be provided as part of the response given that certain Bidders may choose to project finance at the SPV level and provide a performance bond only at time of the SPV's financial close?

ANSWER:

A Proposal that does not include a notarized affidavit as requested in Form 4-A will be considered as non-responsive.

All other Terms and Conditions in the bid package shall remain unchanged and in full force.


JOHN M. BENAVENTE, P.E.
General Manager