

## **APPENDIX F**

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### **PERFORMANCE COMPENSATION AND GUARANTEES**

## **1. Performance Compensation Specifications**

### **1.1. Overview**

The PMC Compensation shall consist of annual fixed management fees and reimbursable O&M spending not to exceed the annual O&M Spending Budget.

The BIDDER may specify the Fixed Management Fee as either constant or escalated at a BIDDER-specified positive annual escalation rate. The BIDDER must also propose the Annual O&M Spending Budget for each contract year.

The BIDDER must specify their Equivalent Availability Factor (EAF) Minimum Performance Guarantees that meet or exceed GPA's Minimum Performance Standard for EAF performance measure for each contract year. Considerable flexibility will be given to the BIDDER in tailoring their Minimum Performance Guarantees, but GPA's Minimum Performance Standards should be met or exceeded. The BIDDER shall be disqualified for non-compliance with GPA's Minimum Performance Standard requirement.

GPA will specify the Minimum Performance Standards for Heat Rate Performance Measure for the first contract year, based on the 2009 Performance Test results. Subsequent years' Heat Rate Minimum Performance Standards will be based on the results of annual performance testing.

### **1.2. Fixed Compensation**

Proposed fixed management fees shall be specified for each contract year for the standard "five-year" contract period. "Front-end loaded", declining fees are expressly prohibited.

The official proposed annual management fees for each contract year shall equal the calculated annual management fee rounded off to the nearest thousand dollars per year.

### **1.3. Reimbursable Compensation**

Proposed O&M Spending Budget shall be specified for each contract year.

GPA will pay the PMC for actual O&M expenses on a reimbursable basis not to exceed the annual O&M Spending Budget. Request for payments must be accompanied with certification and receipts indicating the cost of goods and services. Certification may require statements regarding status or completion of services.

The PMC shall also furnish satisfactory evidence that all O&M expenses have been paid and delivered on site, or that all services related to O&M expenses have been completed to be qualified for compensation.

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## **1.4. Performance Guarantees**

### **1.4.1 GPA Minimum Performance Standards**

GPA will specify the Minimum Performance Standards for EAF for the standard five-year contract period.

GPA shall also specify the Heat Rate Performance Standards for the first contract year, which shall be based on the 2009 Performance Test Results. Subsequent contract years' Heat Rate Performance Standards will be based on the results of Performance Test to be conducted every year.

### **1.4.1 Bidder Proposals for Minimum Performance Standards**

The BIDDER shall propose Performance Guarantees for Equivalent Availability Factor (EAF) in the Price Proposal Evaluation spreadsheet (Excel). These guarantees shall be based solely on the proposed annual O&M Budget.

GPA expects the PMC to develop proposals for Capital Improvement Projects (CIPs) and Performance Improvement Projects (PIPs) that will improve plant performance. The PMC shall propose estimated incremental improvement for Heat Rate and EAF that will result from these projects. Upon completion of the CIP/PIPs (excluding CIP/PIPs not directly affecting performance, such as building repairs, vehicles, etc.), the PMC's Performance Guarantees will be adjusted to the proposed incremental Heat Rate and EAF improvements. The BIDDER should consider the GPA-recommended CIP/PIPs proposed for completion during the next PMC contract listed in Vol. III.

The BIDDER would be required to submit an estimated incremental improvement for Heat Rate and EAF, and the list of projects they believe would be required to achieve this. These may be used to identify funding requirements for PMC CIP and PIPs, but will not necessarily be used in the bid selection.

## **2. Performance Measures & Guarantees**

### **2.1. Performance Measures**

#### **2.1.1. Equivalent Availability**

The Equivalent Availability Performance Measure shall be measured bi-annually for each contract year by:

- Measuring the individual unit equivalent availability factor (EAF) expressed in percentage for each unit (Cabras 3, Cabras 4) for the contract year;
- Taking the weighted average of the individual unit equivalent availabilities using the units' maximum rated operation capacities as weighting factors to calculate Plant Equivalent Availability Factor.

The individual unit equivalent availabilities shall be calculated in accordance with standard NERC GADS definitions including the effects of all full and partial, scheduled and maintenance outages, and planned and forced deratings.

### **2.1.2. Equivalent Forced Outage Rate**

The Equivalent Forced Outage Rate Performance Measure shall be measured for each contract year by:

- Measuring the individual unit equivalent forced outage rate (EFOR) expressed in percentage of each unit (Cabras 3, Cabras 4) for the contract year;
- Taking the weighted average of the individual unit equivalent availabilities using the units' maximum rated operation capacities as weighting factors to calculate Plant Equivalent Forced Outage Rate.

The individual unit equivalent forced outage rate shall be calculated in accordance with standard NERC GADS definitions.

### **2.1.3. Relative Heat Rate**

The Relative Heat Rate (RHR) Performance Measure shall be measured bi-annually by calculating the ratio (expressed in percentage) of the actual plant average heat rate divided by the Guaranteed Plant Heat Rate, to be calculated using data from the most recent performance test.

### **2.1.4. Emissions Guarantees**

As indicated in Volume III, air permitting conditions limit excessive emissions to certain parameters in the operation permit. A continuous emissions monitoring system (CEMS) is installed and has been recommissioned to provide continuous monitoring as required by EPA. The PMC shall be responsible for monitoring and reporting as required by EPA. It is expected that the PMC will comply with EPA limits at all times. Penalty fees shall be shouldered by the PMC.

The PMC shall monitor the CEMS data daily. A monthly summary report shall be submitted by the PMC. An emissions test, in accordance to operation permit requirements, shall be conducted during all performance tests to confirm CEMS readings and results.

### **2.1.5. Lubrication Consumption**

The PMC shall be required monitoring of the Cylinder and Engine lubrication oil as a performance measure. Cylinder Oil and Engine Oil consumption shall be monitored and reported monthly, and will be included during Performance Tests of the Engine. It is expected that the PMC will practice efficient consumption of Cylinder and Engine lubrication oil.

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### 2.1.5.1. Cylinder Lube Oil

The consumption of cylinder lube oil shall be calculated using the difference in volume of the service tank over the unit production during a specified period of time.

The PMC is expected to maintain and calibrate all required meters and related equipment to ensure the accurate measurement of cylinder lube oil consumption.

### 2.1.5.2. Engine Lube Oil

The consumption of engine lube oil shall be calculated using the difference in volume of the service tank over the unit production during a specified period of time.

The PMC is expected to maintain and calibrate all required meters and related equipment to ensure the accurate measurement of engine lube oil consumption.

## 2.2. Minimum Performance Guarantee

GPA has specified the Minimum Acceptable Performance Standard parameter for each performance measure. Each BIDDER must specify performance guarantees for each adopted performance measure for each contract year of the contract period. The Minimum Acceptable Performance Standard specify the acceptable performance and will constrain the PMC's Proposed Minimum Performance Guarantee. The Minimum Performance Guarantees are derived as weighted averages of unit level specifications. Furthermore, the Equivalent Availabilities of each unit are entered in terms of unit forced and scheduled outage rates. The unit level specification is done to facilitate a general understanding of the basis for the plant level specifications. Such understanding is expected to be helpful in any future negotiated adjustments to these specifications.

The Minimum Performance Guarantee values are shown in the following tables.

### 2.2.1. Performance Measure – Equivalent Availability

GPA sets its Minimum EAF Guarantee at 91%. PMCs can meet the minimum or propose a higher EAF Guarantee. Appendix G discusses bonus and penalties associated with EAF Guarantees.

Table F-1 Equivalent Availability Factor Performance Guarantees

|   | Contract Year | Cabras 3 | Cabras 4 | Plant |
|---|---------------|----------|----------|-------|
| 1 | 2010          | 91%      | 91%      | 91%   |
| 2 | 2011          | 91%      | 91%      | 91%   |
| 3 | 2012          | 91%      | 91%      | 91%   |
| 4 | 2013          | 91%      | 91%      | 91%   |
| 5 | 2014          | 91%      | 91%      | 91%   |

**2.2.2. Performance Measure – Relative Heat Rate**

The Relative Heat rate will be established by performance tests to be conducted twice every contract year. Actual Heat Rate will be compared with the Baseline Heat Rate value from the Performance Test Result (Guaranteed Heat Rate) to obtain the Relative Heat Rate (RHR) expressed in percentage.

$$\text{RHR} = \text{Actual Heat Rate} / \text{Guaranteed Heat Rate}$$

For the first performance period, the baseline heat rate shall be calculated using the 2009 Performance Test Results. The PMC shall be given a no-penalty bandwidth of 2%, that is, RHR of up to 102% will have no penalties. Bonus will be given for RHRs lower than 100%.

For succeeding performance periods, the baseline heat rate shall be calculated using the previous year’s Performance Test Results. For example, the baseline heat rate for Contract Year 2011 will be from 2010 Performance Test Results, and so on. The PMC will be given a bandwidth of 1% for each contract year – that is, RHRs between 99% and 101% will receive no bonus or penalties. Any RHR exceeding 101% is subject to penalty, and any RHR below 99% is subject to bonus.

Results of the 2009 Performance Test will be provided at a later time.

**2.2.3. Performance Measure – Emissions**

Emissions shall not exceed permit conditions as indicated in the tables provided below.

Guam EPA Emissions Limit (as of January 2004)

|                                    | TEST METHOD    | EMISSIONS LIMIT                                 |
|------------------------------------|----------------|---|
| Particulates                       | EPA Method 5B  | 93 lb/hr  |
| SO <sub>2</sub>                    | EPA Method 6C  | 737 lb/hr                                       |
| NO <sub>x</sub> as NO <sub>2</sub> | EPA Method 7E  | 1219 lb/hr                                      |
| NO <sub>x</sub>                    | EPA Method 7E  | 950 ppm   |
| CO                                 | EPA Method 10  | 110 lb/hr                                       |
| VOC                                | EPA Method 25A | 96 lb/hr  |
| Opacity                            | EPA Method 9   | 20%   |
| Water-to-Fuel Injection Rate       |                | 33% by volume                                   |
| Sulfur Content in No. 6 Fuel Oil   |                | 2.0 % by weight (HSF)<br>1.19 % by weight (LSF) |

**2.2.3. Performance Measure – Lubrication Consumption**

**Cylinder Lube Oil**

The design consumption rate guarantee, as provided by the unit manufacturer, is  $1.53 \times 10^{-3}$  L/kwh ( $4.83 \times 10^{-5}$  gal/kwh).

Results from the most recent performance test will be the baseline for the performance measure for Cylinder Lube Oil Consumption. Consumption will be included in monitoring the plant performance, and for evaluation purposes.

#### **Engine Lube Oil**

The design consumption rate guarantee, as provided by the unit manufacturer, is  $1.83 \times 10^{-4}$  L/kwh.

Results from the most recent performance test will be the baseline for the performance measure for Engine Lube Oil Consumption. Consumption will be include in monitoring the plant performance, and for evaluation purposes.

#### **2.2.4. Weighting Factors**

Unit Maximum Rate Operating Capacities are used as the weighting factors for developing the plant weighted averages of unit level specifications. The respective specified weighting factors are:

- Cabras Unit 3: 39.3 Net MW
- Cabras Unit 4: 39.3 Net MW

### **3. Performance Guarantee Accounting**

#### **3.1. Measurement of Actual Performance**

##### **3.1.1. Overview**

This section describes the official measurement of actual performance for the adopted performance measures and of actual experience for the adopted external influences. The measurement of the performance measures shall be consistent with their definitions as specified elsewhere.

##### **3.1.2. Actual Performance**

###### **3.1.2.1. EAF and EFOR**

The individual unit Equivalent Availability Factors and Equivalent Forced Outage Rates shall be calculated in accordance with standard NERC GADS definitions and shall be based on actual unit availabilities and outages.

Measurement shall be consistent with procedure as described in Section 2. Actual Performance shall be compared with the minimum performance guarantee, and shall be subject to bonuses and penalties as applicable.

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**3.1.2.2. Heat Rates**

The Guaranteed and Actual Heat Inputs by Higher Heating Value (HHV, or Higher Calorific Value, HCV) shall be calculated bi-annually using the applicable Performance Test Results and the method described in Appendix G.

Deviations from the minimum performance guarantee shall be subject to bonuses and penalties as applicable.

Heating Values shall be obtained from the most recent third party fuel test result. Average Fuel Costs shall be obtained from GPA's Finance Department.

**3.1.2.3. Fuel Consumption**

The PMC shall provide GPA with their Standard Operating Procedure for Fuel Consumption Measurement.

Fuel Consumption shall be compared bi-annually using the method described in Appendix G.

**3.1.3. Externalities**

GPA will track the externalities that influence the value of the PMC Performance.

**3.1.2.1. Average Fuel Prices**

GPA shall determine actual monthly average fuel prices in \$/Mbtu for #6 high sulfur oil, #6 low sulfur oil and diesel (#2) oil based on documented purchase costs and sample heat content measurements.

Such determinations shall exclude the effects of financial hedges unless such hedges directly impact the incremental cost of fuel, i.e. the cost of the last Mbtu of fuel burned.

Average fuel prices for each contract year shall equal the weighted average of the monthly prices, where the weighting factors are the actual monthly system-wide fuel consumption in Mbtu. The average fuel price for #6 oil for the contract year shall be the weighted average of the contract year average fuel prices of #6 high sulfur and #5 low sulfur fuels, where the weighting factor is the fiscal year system-wide MBTU consumption of each of the fuel types.

**3.1.2.2. Average System Load**

GPA shall determine actual average system load (MW) based on the documented measured total system-wide net generation output (MWh) for the contract year divided by the number of hours in the contract year.

**3.1.2.3. Average Baseload Generation**

GPA shall determine actual average baseload generation (MW) based on the documented measured total net generation output (MWh) of all baseload units for the contract year divided by the number of hours in the contract year. Baseload units include MEC Units 8 & 9, Cabras Units 1 & 2, Cabras Units 3 & 4 and any othe units dispatched before Cabras Units 1&2.