

**Invitation for Multi-Step Bid**

**No. GPA-013-07**

**PERFORMANCE MANAGEMENT CONTRACT**

**FOR THE**

**GUAM POWER AUTHORITY  
CABRAS #1 & #2 STEAM POWER PLANT**



**Volume II**

**Technical & Functional Requirements**

**FEBRUARY 2007**

---

1.	Introduction .....	1
2.	Financing .....	1
2.1.	Performance Management Contractor Financing Responsibilities .....	1
2.1.1.	Capital and Expense Funding.....	1
2.1.2.	Working Capital .....	1
2.1.3.	Document the Management of Operations and Maintenance .....	1
2.1.4.	Performance Management Contractor Expenses .....	1
2.2.	Guam Power Authority Financing Responsibilities.....	1
2.2.1.	Guam Power Authority Capital and Expense Funding Intent .....	1
2.2.2.	Reimbursement of Contractor for Procurement of O&M Materials and Contracts.....	2
2.2.3.	Reimbursement of Contractor for Performance Improvement Projects (PIP) and Capital Improvement Projects (CIP).....	2
3.	Budget.....	2
3.1.	Performance Management Contractor Budget Responsibilities .....	2
3.1.1.	Optimize Spending Within Authorized Limits .....	2
3.1.2.	Historical Data .....	3
3.2.	Guam Power Authority Budget Responsibilities .....	3
3.2.1.	Authorize O&M Spending Budget.....	3
4.	Staffing.....	3
4.1.	GPA Employees & PMC Management (Proposal A) .....	3
4.1.1.	Performance Management Contractor Staffing Responsibilities .....	3
4.1.2.	Guam Power Authority Staffing Responsibilities .....	8
5.	Training.....	11
5.1.	Performance Management Contractor Training Responsibilities .....	11
5.1.1.	Operational Line of Progression (Traditional & On-the-Job Training).....	12
5.1.2.	Maintenance Apprenticeship Style Training (Traditional & OJT).....	12
5.1.3.	Leadership – Management.....	13
5.1.4.	Five Year Targeted Personnel Development Plan .....	13
5.2.	Guam Power Authority Training Responsibilities.....	13
5.2.1.	Establish Cross Training between Power System Operators & Generation Plant Control Room Operators (CRO) .....	13
6.	Operations .....	14
6.1.	Performance Management Contractor Operations Responsibilities .....	14
6.1.1.	Use of the Computerized Maintenance Management System (CMMS).....	14
6.1.2.	Environmental Compliance .....	14
6.1.3.	Manage Waste Oil Handling System.....	14
6.1.4.	Performance Management Contractor Responsibility for Maintaining Proper Water Quality .....	15
6.1.5.	Improve Existing Operating Procedures .....	15
6.1.6.	Create Additional Operational Procedures (OP's) as required to Cover all Major Operating Functions.....	15
6.1.7.	Plant Operating Procedure Multimedia and Content Format .....	15
6.1.8.	Internet File Formats .....	16
6.1.9.	Transformer Maintenance.....	16
6.1.10.	Physical Boundaries of Cabras 1 & 2.....	16
6.1.11.	Minimize the Start-up Times and Ramp Rates.....	16
6.1.12.	Compliance with Quality Management Plan for Prudent Fuel Use / LEAC Plan for Performance Goals .....	16

---

---

6.2.	Guam Power Authority Operations Responsibilities.....	17
6.2.1.	Provide Start-up Power & Aux. Power during Outages .....	17
7.	Maintenance .....	17
7.1.	Performance Management Contractor Maintenance Responsibilities .....	17
7.1.1.	Maintain Required Spare Parts Inventory .....	17
7.1.2.	Recommended Store's Inventory Optimization.....	17
7.1.3.	Quality of Refurbishing of Stock Items after Usage .....	18
7.1.4.	Account for the "Whereabouts of" Specialized Tools & Assets.....	18
7.1.5.	Create Improved Outage Planning Process Procedures .....	19
7.1.6.	Optimize Outage Scheduling & Planning.....	19
7.1.7.	Procure OEM & Non-OEM Support as Required.....	20
7.1.8.	Create a Quality Improvement / Root Cause Analysis Culture.....	20
7.2.	Guam Power Authority Maintenance Responsibilities .....	20
7.2.1.	Assignment of Central Maintenance Services Support .....	20
7.2.2.	Tool and Equipment inventory.....	21
7.2.3.	Parts Warehouse Supervision.....	21
8.	Performance Improvement Projects (PIP) .....	21
8.1.	PMC Performance Improvement Project Responsibilities .....	21
8.1.1.	Identify and Recommend Additional Performance Improvement Projects .....	21
8.1.2.	Identify and Recommend Additional Capital Improvement Projects .....	22
8.1.3.	Project Management for All Accepted PIP's / CIP's.....	22
8.1.4.	Field Installation .....	23
8.1.5.	Acceptance Testing .....	23
8.1.5.	Associated Outage Scheduling.....	23
8.2.	Guam Power Authority Performance Improvement Project Responsibilities .....	23
8.2.1.	Provide Listing of Recommended Performance Improvement Projects (Including Capital Improvement Projects).....	24
8.2.2.	Updated Performance Improvement Plan.....	24
8.2.3.	PIP/CIP Funding and Project Oversight.....	24
8.2.4.	Compensation.....	24
9.	Procurement Authority .....	24
9.1.	Performance Management PMC Procurement Outsourcing Responsibilities .....	24
9.1.1.	Operations and Maintenance Outsourcing.....	24
9.1.2.	Recommend & Pre-qualify Vendors for Authorization .....	25
9.1.3.	Procure Operating & Maintenance Supplies .....	25
9.1.4.	Third-Party O&M Outsource Contracts.....	25
9.1.5.	Create or Improve Procurement Procedures to Expedite Repairs .....	25
9.1.6.	Performance Testing .....	25
9.1.7.	Right to Performance Testing Results .....	26
9.2.	Guam Power Authority Procurement Responsibilities .....	26
9.2.1.	Fuel Procurement and Delivery, Including Quality Assurance.....	26
9.2.2.	Recommendation Listing of Available Local Vendors .....	27
9.2.3.	Authorize Recommended Vendors.....	27
10.	Communications and Reporting.....	28
10.1.	Performance Management Contractor Communications and Reporting Responsibilities ..	28
10.1.1.	Auditable Reporting of Performance Measurements.....	28
10.1.2.	Weekly and Monthly Performance Improvement Project Status .....	28

---

---

10.1.3.	Monthly Expenditures.....	28
10.1.4.	Incentive/Penalty Calculations .....	28
10.1.5.	Personnel Performance Reviews .....	28
10.1.6.	Documentation in Support of Disciplinary Procedures.....	29
10.1.7.	Conduct Spare Parts Inventory & Variance Reporting .....	29
10.1.8.	Improve Communications with System Dispatch .....	29
10.1.9.	Provide “Off Spec Conditions” & Variance Reporting.....	29
10.2.	Guam Power Authority Responsibilities.....	29
10.2.1.	Monthly Review of Reported Performance Measurements .....	29
10.2.2.	Compensation - External Influences .....	29
10.2.3.	Incentive/Penalty Calculations Review .....	30
10.2.4.	Improve Communication with System Dispatch.....	30
11.	Contract Fees .....	30
11.1.	Proposed Fixed Management Fees.....	30
11.2.	Proposed O&M Spending Budget .....	30
12.	Contract Terms.....	31
12.1.	Contract Period.....	31
12.2.	Optional Five-Year Contract Extension .....	31
12.3.	Renewal of the Agreement .....	31
12.4.	Performance Management Contractor Contract Responsibilities .....	31
12.4.1.	Comply with Annual Quality Audit within Plant .....	31
12.4.2.	Use of English & Other US Standards.....	31
12.4.3.	Use of Compatible Software and Electronic Formats .....	31
12.4.4.	Availability/Outage Definition Standards .....	32
12.4.5.	Identify Optimum Requirements for the Plant .....	32
12.5.	Guam Power Authority Contract Responsibilities .....	32
12.5.1.	Timely Payments.....	32
12.6.	Exception Petition Procedure .....	33
13.	Instrumentation .....	33
14.	Plant Engineering .....	33
14.1.	Program Description .....	35
14.2.	Recent University Graduates.....	36
14.3.	University Seniors.....	36
14.4.	Experienced Practicing Engineers.....	37
14.5.	Program Graduates.....	37
14.6.	First Right to Hire Program Graduates .....	37
15.	Reporting.....	37
16.	Assessment of GPA Capability to Replace Functional Duties Currently Outsourced to the PMC .....	38

---

## **1. Introduction**

This document describes the functional and technical requirements of the Performance Management Contract. It establishes the rules of engagement and delineates the responsibilities between the Guam Power Authority (GPA) and the Performance Management Contractor (PMC or CONTRACTOR).

## **2. Financing**

### **2.1. Performance Management Contractor Financing Responsibilities**

#### **2.1.1. Capital and Expense Funding**

Guam Power Authority (GPA) may from time to time negotiate with the PMC for short-term debt financing for necessary capital or expense expenditures. This participation may include direct loans and/or indirect involvement through guarantees or some other form of participation. GPA includes the scoring of this option in the qualitative portion of the Proposal review.

#### **2.1.2. Working Capital**

The PMC shall have sufficient working capital to support its cash flow requirements including any cash flow requirements associated with its operations and maintenance (O&M) procurement responsibilities as defined elsewhere. The minimum working capital acceptable during each contract period shall be no less than 50% of the agreed combined O&M and CIP budgets for the respective period. The PMC is responsible to fund all operation, maintenance, and capital improvements and will be reimbursed by the Authority upon the successful documentation of such expenditures.

#### **2.1.3. Document the Management of Operations and Maintenance**

The PMC shall optimally manage the O&M spending not to exceed the authorized budget amount for each contract year. The PMC shall provide appropriate justifications and auditable records of all O&M procurement activities.

#### **2.1.4. Performance Management Contractor Expenses**

All PMC direct and indirect expenses and taxes, including all PMC employees related expenses and taxes are the sole responsibility of the PMC.

## **2.2. Guam Power Authority Financing Responsibilities**

### **2.2.1. Guam Power Authority Capital and Expense Funding Intent**

GPA intends to totally fund all capital and O&M expenditures, but reserves the option to seek funding assistance from the PMC. In the event that the PMC provides funding assistance, the PMC and GPA shall negotiate a mutually acceptable compensation structure.

**2.2.2. Reimbursement of Contractor for Procurement of O&M Materials and Contracts**

GPA will make timely reimbursements to the PMC for the expenses incurred by the PMC in conjunction with the PMC's O&M procurement responsibilities. The PMC shall include invoices, certifications, receipts, and proof of payment and delivery on site of materials and services in order to be entitled for reimbursable compensation. The PMC shall invoice GPA for these expenses no more than once monthly.

**2.2.3. Reimbursement of Contractor for Performance Improvement Projects (PIP) and Capital Improvement Projects (CIP)**

Payments for PIP and CIP will be made on a reimbursable basis. GPA will make timely reimbursements to the PMC for actual cost and a charge for administration, finance fees and interest not to exceed five percent (5%) cumulatively of the actual project cost. Payments shall not exceed the amounts agreed to and approved by GPA and the PMC or as otherwise agreed to by the parties through a change order. The PMC shall invoice GPA for progress payments for work completed upon such PIP or CIP no more than once monthly.

**3. Budget**

**3.1. Performance Management Contractor Budget Responsibilities**

**3.1.1. Optimize Spending Within Authorized Limits**

The PMC shall optimize O&M spending (excluding Cabras 1&2 Employees base salaries, premiums and benefits but including overtime) for each contract year within authorized limits.

The PMC shall optimize overtime at Cabras 1&2 to lower total plant costs. As a guide, overtime for Cabras 1&2 Employees shall not exceed 15% of base annual salaries, except during emergency response for force majeure situations, such as Typhoon Recovery and other critical support periods, which does not constitute normal operations. The allowance for overtime during these situations will require approval from GPA for Cabras 1&2 employees. The PMC shall track and report overtime expenses to GPA monthly and at the end of each contract year.

### **3.1.2. Historical Data**

The PMC shall track all O&M costs based on the format provided in Volume III Historical Expenses by Object Code. The PMC shall track O&M expenses against the GPA approved budget and submit data to GPA monthly and at the end of each contract year.

## **3.2. Guam Power Authority Budget Responsibilities**

### **3.2.1. Authorize O&M Spending Budget**

GPA shall authorize the proposed O&M spending budgets for each contract year by the PMC. GPA reserves the right to negotiate bid amounts prior to contract commencement. The negotiated amounts shall establish the maximum spending limit for O&M expenses.

The PMC will prepare and submit to GPA a five-year plant budget beginning with the next fiscal year by March 31 of each contract year. GPA shall review and negotiate the next fiscal year budget with the PMC by June 30 of each contract year.

## **4. Staffing**

### **4.1. GPA Employees & PMC Management (Proposal A)**

#### **4.1.1. Performance Management Contractor Staffing Responsibilities**

##### **4.1.1.1. PMC Utilization of Existing GPA Employees**

The PMC shall utilize all Cabras 1&2 employees beginning on the Commencement Date and continuing through the Termination Date of the Contract.

##### **4.1.1.2. Adjust Staffing Levels**

The PMC has the responsibility to adjust staffing levels, with GPA's approval, for optimal operation and maintenance of the plant. Staffing level shall not exceed the Full Time Employees (FTEs) currently employed at Cabras Units #1 & #2.

##### **4.1.1.3. Performance Management PMC Staffing Level**

The PMC shall provide appropriate staffing levels of PMC employees to provide overall plant management, resident technical expertise for steam power plant operation and maintenance, procurement oversight, engineering, and administrative support as necessary. The Qualitative Scoring will evaluate the PMC's proposed staffing level.

---

#### **4.1.1.4. Line Management Responsibility**

The PMC management is responsible for supervising the Cabras 1&2 classified work force. The PMC shall have the authority, with consultation and coordination with GPA, to establish work rules, assign and direct the work of the GPA work force, make work schedules, establish safety procedures, prescribe training and approve attendance at training, and any other necessary management actions in performing the requirements of this contract. The PMC shall have discretion in selecting methods and means in the management of GPA employees to accomplish the repair, operation, and maintenance of the plant.

#### **4.1.1.5. Chain of Command**

The PMC, in dialog with and with the consent of GPA, will be responsible for creating an appropriate reporting structure that is consistent with the established organization chart of the FTE assigned to the power plant.

#### **4.1.1.6. Employee Performance Review**

The PMC will have the authority and discretion to counsel or issue written warnings to individual employees for unsatisfactory work performance and violations of work rules, conduct rules, safety procedures, or other conduct the PMC determines to be detrimental to the safe and efficient repair, management, operation, and maintenance of the Cabras 1&2 Plant. The disciplinary action procedure will be implemented through the Authority's established Personnel Rules and Regulations.

At its sole discretion, GPA may take disciplinary actions it deems appropriate. The PMC shall cooperate and assist GPA by providing such witnesses and evidence as GPA may reasonably request to support any disciplinary action. The PMC may request disciplinary action but shall not have authority to initiate or direct disciplinary action against any individual GPA employee; provided, however, that GPA shall use its best efforts to proceed promptly, diligently, and thoroughly to process all requests and take such disciplinary action as requested by the PMC if reasonable under the circumstances, including, but not limited to the immediate suspension of GPA employees during the notice period of GPA's disciplinary procedures, or placing employee on administrative leave pending adverse action, if their continued presence would interfere with the safe and efficient operation of Cabras 1&2 Plant or the safety and health of persons or if the suspension was necessary to eliminate the possibility of deliberate damage to equipment, property, or important documents.

The PMC will conduct regular performance reviews of each employee, which will be coordinated with GPA Human Resources Division. In addition, the PMC will provide

input for setting annual personnel development goals. The employee performance reviews and development goals setting made by the PMC do not replace the formal performance reviews performed by GPA supervisors. However, they provide one of the key inputs to the formal GPA review process. These PMC inputs will drive promotion and demotion decisions and standards for job performance. Documentation of both good and unacceptable employee performance shall be the responsibility of the PMC and/or those GPA employees that report directly to the PMC.

The PMC, at its own discretion, may have the authority to make cash awards or other means of compensation to GPA employees using PMC funds as an incentive for superior work performance or other significant contribution by an individual GPA employee to the safe and efficient repair, management, operation, and maintenance of the Cabras Steam Power Plant at the discretion of the PMC. The cost of which is not reimbursable by GPA.

#### **4.1.1.7. Responsibility for Direct Hires from Outside the Guam Power Authority**

The PMC must participate in the interview and selection process of all new Cabras Units #1 & #2 employees for positions not filled by the normal internal transfer of employees by GPA but rather through direct hire from the outside labor pool. The PMC will have a voice in the interview and selection process of the new employee, including but not limited to the use of standardized aptitude testing. This action is subject to the standard Government of Guam hiring practices in accordance with local and federal laws, personnel rules and regulations, and other administrative orders, policies and procedures.

The PMC is encouraged to review and suggest changes in job position descriptions and in the recommendation of the application of any testing to the interview and selection process.

#### **4.1.1.8. Authority to Promote and Demote Personnel**

The PMC may provide GPA recommendations for appropriate promotions or demotions. GPA shall retain all authority and responsibility for promotions and demotions – recognizing PMC recommendations, GPA system needs and Guam civil service rules and regulations. The PMC shall establish a standardized procedure documenting the promoting and demoting of employees at the plant.

#### **4.1.1.9. Safety Compliance Personnel**

The PMC is responsible for air quality monitoring. This is specifically referring to the confined / enclosed space issues as defined by OSHA/GOSHA. The PMC will not rely on GPA for these type of services unless in the case of an emergency. However, all safety equipment and test procedures shall be reviewed and approved by GPA Safety Division.

In addition, the PMC shall allow GPA Safety Division Inspectors to conduct periodic scheduled and unscheduled facilities inspections to detect potential hazards so that proper remediation activities can be implemented. GPA Safety Division Inspectors shall document and forward all inspection results through GPA and the PMC chain of command. The PMC shall be responsible to properly address and make correction to discrepancies as noted by the GPA Safety Division Inspectors.

#### **4.1.1.10. Manage Scheduling of Leave Time**

The PMC will manage and approve the scheduling of vacation, holiday and other leave time to minimize overtime and other O&M costs, subject to the constraints of GPA Leave Policies and in accordance with Personnel Rules & Regulations, public laws and executive orders as amended or established. The PMC will also have authority to schedule extended hours, staggered hours, flexible hours and Sunday working hours as the PMC may determine necessary to ensure the safe and efficient management, operation, maintenance and repair of Cabras 1&2 Plant.

The PMC shall not unreasonably deny employee requests for authorized absence. PMC's disapproval of GPA employee requests for authorized absence shall be based solely upon scheduling needs to ensure the safe and efficient repair, management, operation, and maintenance of the plant.

#### **4.1.1.11. Overtime**

In the event that PMC requires GPA personnel to perform overtime, PMC shall follow established GPA personnel rules and regulations, policies and procedures, guidelines, and applicable local and federal laws in the requesting and reporting of overtime.

#### **4.1.1.12. Equipment Clearance System – Safety**

The PMC will develop and train employees on the use of GPA's established equipment clearance system. This clearance system shall apply to all equipment associated with units 1 & 2 except for the following:

- 1) The line of demarcation regarding the high voltage transformer and natural areas of O&M responsibility shall be defined; and,
- 2) Some overlap of equipment commonly used for combined systems such as the oil handling or condensate production for Cabras 1 & 2 and Cabras 3 & 4 that may require careful coordination.

This training shall adhere to the OSHA/GOSHA mandated training program peculiar to the employees' job and environment, operating practices and procedures with a practical understanding of prevention strategies.

The PMC shall design the training program in a manner that will instruct employees in the safe and healthful performance of their work.

The PMC shall tailor this training and evaluation to the employee's job requirements and level of responsibility.

The PMC shall keep all Occupational Safety and Health training records for the contract duration. As a minimum, the training records shall indicate the following information:

- Subject matter;
- Duration; start and stop time;
- Names of attendees;
- Date of Training.

The PMC shall ensure that all employees, upon assignment to positions involving potential exposures to hazardous or toxic substances, including asbestos exposure equal to or exceeding the permissible exposure limits (PEL) undergo proper medical examination and are entered into a medical surveillance program as required by GOSHA.

The PMC shall ensure that all employees assigned to positions involving potential exposures to hazardous or toxic substances are issued and are required to wear equipment and/or devices such as (but not limited to):

- Welding or wire mesh gloves;
- Respirators;
- Hard hats;
- Goggles;
- Foot protection;
- Face shields;
- Rubber gloves and coveralls;
- Safety glasses.

#### **4.1.1.13. Disciplinary Action Documentation**

The PMC will document and forward recommendations of any suggested disciplinary action to the Assistant General Manager of Operations through the Manager of Generation. All recommendations for disciplinary action must comply with requirements set forth by the GPA Personnel Rules & Regulations, Civil Service laws and other administrative policies as amended or established. The Manager of Generation shall make

recommendation to The Assistant General Manager of Operations who in turn will forward such recommendations to the General Manager of GPA for further disposition as required.

**4.1.1.14. Dispute Resolution Process Usage**

Should the PMC have a problem that is not resolved to their satisfaction, regarding personnel or disciplinary action, it will have the right to have the issue reviewed as part of the dispute resolution process.

**4.1.1.15. Utilization of Employees/Consultants**

PMC may, with approval from GPA, have PMC employees or consultants perform functions, duties, and responsibilities at the Cabras Units #1 & #2 plant as the PMC determines in accordance with the scope of this contract. Reimbursement for salaries and benefits shall be based on the rates approved by GPA. The PMC shall demonstrate due process to ensure the credibility of the personnel identified to fulfill these responsibilities. Reimbursement shall only be for the period the PMC hired Employees/Consultants are employed and performing work up to the termination date of their employment/contract with PMC.

**4.1.1.16. Cooperation with GPA Personnel Administration**

PMC shall cooperate with GPA in GPA's personnel administration to the extent that PMC has a role in the supervisory process.

**4.1.2. Guam Power Authority Staffing Responsibilities**

**4.1.2.1. Personnel Administration**

GPA shall, perform all personnel administration functions for GPA employees assigned to the Cabras Units #1 & #2 plant. GPA shall have access to its employees assigned to the Cabras Units #1 & #2 plant for the purpose of performing its administrative functions. Personnel administration functions shall include, but not be limited to:

- (a) Computation and payment of compensation as authorized by administrative laws, rules, policies and procedures; GPA shall retain its standard responsibilities for all GPA employee payroll expenses and disbursements;

- (b) Administration of sick leave, maternity leave, paternity leave, annual leave, military leaves of absence and such other programs providing GPA employees authorized absences;
- (c) Recruitment, examination and appointment of new hires;
- (d) Administration of employee benefit plans, health insurance, retirement plans, worker compensation plans, the Drug Free Workplace Policy, and such other programs for the welfare of GPA employees;
- (e) In-service training programs and such other training programs for which GPA employees are eligible; and,
- (f) Such other personnel matters not related to the maintenance, operation, and repair of the Transportation section.

#### **4.1.2.2. Select, Provide, Promote and Demote All Classified Employees**

GPA shall select, provide, promote and demote all classified employees for normal operation and maintenance of the plant, in accordance with Civil Service Commission policies, personnel rules and regulations, administrative orders, local and federal laws. The CONTRACTOR may submit recommendations for promotions and demotions of classified employees.

#### **4.1.2.3. Administer Salary, Benefits & Disciplinary Actions**

While GPA is not responsible for the direct line management of the O&M of the facility, it is responsible for functions such as disciplinary action. All salary and benefit administration will continue to be the responsibility of the GPA and consistence with other standard practices. GPA supervision will continue to have the same responsibility to enforce disciplinary action type issues as present.

#### **4.1.2.4. Cross Training of Transitional Employees**

The responsibility for any cross training of transitional employees will reside in the GPA divisions that utilize them.

#### **4.1.2.5. Resource Allocation of Central Maintenance Personnel**

The PMC will have an opportunity to utilize the Central Maintenance section personnel subject to GPA's specified minimum and maximum acceptable performance standards. GPA shall provide reasonable support from the Central Maintenance Section to the PMC

under the direct authorization of the Manager of Generation. The PMC must follow GPA guidelines in the reporting and request of overtime or off-shift work.

#### **4.1.2.6. Resource Allocation of Plant Engineering Personnel**

At the PMC's request, GPA may supply Plant Engineering Personnel services as required on a case-by-case basis consistent with the GPA Generation Department mission and availability of staff and skill sets. In the event that the PMC requires the need for overtime or off-shift work from GPA Plant Engineering Personnel, the associated overtime or shift differential pay (based on prevailing rates) shall be treated as cost adders to the actual O&M Spending Budget. The PMC must follow GPA guidelines in the reporting and request of overtime or off-shift work.

#### **4.1.2.7. Resource Allocation of Planning Personnel**

GPA will provide two (2) full time equivalents of Plant Planning Personnel each year. In the event that the PMC requires the need for overtime or off-shift work from GPA Plant Planning Personnel, the associated overtime or shift differential pay (based on prevailing rates) shall be treated as cost adders to actual O&M Spending Budget. The PMC must follow GPA guidelines in the reporting and request of overtime or off-shift work.

#### **4.1.2.8. Resource Allocation of Engineering Department Personnel**

At the PMC's request, GPA may supply Engineering Department project management and other engineering and technical services as required on a case-by-case basis consistent with the GPA Engineering Department mission and availability of staff and skill sets. The labor costs (based on prevailing rates) of such additional utilization shall also be treated as cost adders to the actual O&M Spending Budget.

#### **4.1.2.9. Grievance Reporting Procedure and Arbitration**

GPA will provide copies of the Grievance reporting and resolution procedures to the PMC. Disputes will be handled in accordance with the existing GPA policies. GPA will develop a specific process of handling higher-level disputes between the PMC and GPA personnel. Cost associated with disputes requiring payment to non-PMC employees may require the PMC to adjust the monthly invoice payments

#### **4.1.2.10. Disciplinary Actions and Procedures, Including Poor Performance**

GPA will be responsible for administering disciplinary actions against GPA employees per GPA standard policies and procedures. GPA management will determine and apply the degree of penalty to employees as appropriate. Should the PMC's O&M activities be

impacted, then the degree of required payment will be discussed with GPA and possibly adjusted to reimburse the PMC for only fair actual losses, not to include the loss of production or electrical output or consequential damages.

#### **4.1.2.11. Communicating of Reporting Structure**

GPA shall communicate and inform all employees of the newly adopted and reporting system and the associated process to handle and resolve any possible future disciplinary action processes.

#### **4.1.2.12. Replacement of Employees**

GPA shall use best efforts to replace all employees who resign, retire, transfer or upon any official personnel action that will cause departure. The required replacement date shall be twenty-four (24) weeks from the departure of the predecessor employee or upon any official personnel action that will cause the departure. In cases of emergency, GPA may at its discretion, assign GPA employees on a temporary basis to the Cabras Units #1 & #2 plant until vacant positions are filled with permanent employees.

GPA shall notify the PMC thirty (30) days prior to the final replacement date that GPA's best efforts to replace employees were unsuccessful. Upon receipt of this notice, PMC may hire personnel, upon mutual agreement, to replace GPA employees at wage rates and benefits subject to approval by GPA. Reimbursement shall only be for the period of time PMC hired employees are employed and performing work up to the termination date of their employment with PMC.

#### **4.1.2.13. Guam Power Authority Employee Payroll**

GPA shall retain its standard responsibilities for all employee payroll expenses and disbursements.

### **5. Training**

#### **5.1. Performance Management Contractor Training Responsibilities**

The PMC shall be responsible for all training and associated costs necessary to perform contract obligation, adhere to OSHA or GOSHA requirements, or other courses for personnel enhancement or certification for GPA employees or others under PMC management. The PMC shall include estimated training costs in their proposal for GPA's consideration and approval.

The PMC shall participate and support GPA's Apprentice program to ensure a work force is available and that positions vacated due to termination, resignation or other reasons would not compromise the ability to operate and maintain the power plant. This program shall incorporate the operations and maintenance sections of the plant and shall be in accordance to the U.S. Department of Labor standards of an Apprenticeship program, to include theory courses and on the job training.

The PMC shall be responsible to provide Trade Theory courses quarterly specific to the Operations and Maintenance of the Power Plant and retain training records and certificates of all GPA employees under PMC Management. The PMC shall submit copies of GPA employees' records, including but not limited to certificates, recordings of actual training hours per event (OJT and/or classroom training), individual training assessments, progress reports, evaluations and other related documents upon completion of each training activity for filing into employees' official personnel files. Upon PMC's completion of Contract, all original documents, i.e. training certificates, recordings of training hours, individual assessments, progress reports, evaluations and other related forms will be turned over to GPA.

**5.1.1. Operational Line of Progression (Traditional & On-the-Job Training)**

The PMC will be required to develop the elements required for a successful operational line of progression for non-supervisory personnel. This standard will then be used to develop the procedure to govern this activity. Each operating position shall have a specific check listing of duties requiring support from both formal training (CD interactive or traditional class environment) and on the job training (OJT). Subject to civil service rules and regulations, employees will be required to successfully pass and progress to the highest level of each position and not be allowed to "Freeze" themselves in a lower position.

**5.1.2. Maintenance Apprenticeship Style Training (Traditional & OJT)**

Trade Theory support to the Apprenticeship employee development program for the Operator, Mechanical, Electrical and Instrument & Control maintenance functions. This program shall have specific training aspects associated with achievement and not be a time based only, system. The program should have a blend of practical and theoretical concepts and exercises that are demonstrative and reflective of the responsibilities of the specific target audience. It is envisioned that this can be accomplished through a combination of the class environment (CD, interactive) and on the job training (OJT). Subject to civil service rules and regulations, employees will be required to successfully pass and progress to the highest level of each position and not be allowed to "Freeze" themselves in a lower position. Formal and documented training courses shall be implemented quarterly.

### **5.1.3. Leadership – Management**

It is recognized that the production shift leaders, maintenance leaders (mechanical, electric and I&C) will benefit from specialized training focused on leadership. The PMC shall organize and present to GPA the content, activities, proposed time frame and deliverables of a training program to increase the “Leadership Skills” of these important plant leaders. The PMC shall institute the training program and complete it within the first 18 months of the contract. The same training / development program will be provided to all future permanent “leader” personnel (temporary rotation of personnel will not be included if anticipated to be less than 6 months in duration) who enter these positions during the term of the contract. The PMC may offer this training to selective personnel, to be determined at their discretion, even though they may not hold any of these positions, since those personnel may provide relief functions of the leaders.

### **5.1.4. Five Year Targeted Personnel Development Plan**

The PMC shall summarize the individual aspects of the training modules, as outlined in the individual items of training responsibility described elsewhere, into an all-inclusive comprehensive five year training program. This five-year view of the total training needs will be reviewed with GPA personnel to monitor the progression of the training activities, in meeting the needs of the plant personnel. Successes and failures of the overall training efforts, along with the rate of completion, will be measured and documented as part of the incentive payout system.

## **5.2. Guam Power Authority Training Responsibilities**

### **5.2.1. Establish Cross Training between Power System Operators & Generation Plant Control Room Operators (CRO)**

To better understand the complexities and demands of each others work, a cross training program between the Cabras 1&2 Control Room Operators and the Power System Operators is desired. This activity is intended to help each group better understand the demands of each other’s work and improve short and long term communications. GPA will be responsible for establishing the details, time frame and specific activities to be included in the cross-training activities. GPA will further require flexibility of personnel availability in order to schedule personnel into and out of the station in order to fulfill the training needs.

## **6. Operations**

### **6.1. Performance Management Contractor Operations Responsibilities**

#### **6.1.1. Use of the Computerized Maintenance Management System (CMMS)**

The PMC must utilize the GPA Computerized Maintenance Management System (CMMS).

#### **6.1.2. Environmental Compliance**

The PMC shall operate in compliance with all environmental requirements and shall be responsible for compliance in the following areas:

- Comply with the Consent Decree requirements in the Fuel Switching Enforcement Action (Appendix J);
- Document and review emission test data and take corrective action;
- Monitor emission tests and results to be in compliance with all applicable rules and regulations;
- Conduct testing on all water and air sources to comply with all Standard Operating Procedures and develop Standard Operating Procedures as required;
- Monitor all low volume waste streams to be within compliance with all local, federal and international regulations;
- Comply with all existing environmental permits and plans that include, but are not limited to, the PSD permit, NPDES permit, SPCC plan and BMP plan.
- Remediation of all oil spill incidents to the satisfaction of local and federal regulatory bodies.

#### **6.1.3. Manage Waste Oil Handling System**

The PMC shall manage and refine GPA policies and procedures in the operation and maintenance of the Cabras 1 & 2 waste oil-handling system. Operation and Maintenance of this system is critical to the cost-effective performance of the Cabras 1 & 2, Cabras 3 & 4 and MEC Units 8 & 9 facilities.

It is estimated that this operation requires one full-time person working approximately three to four days each week during normal day shift to handle the waste oil. The PMC shall train, assign and manage normal shift personnel to this duty. In addition, the PMC shall properly dispose of this waste oil in a safe manner consistent with GPA agreements, local and federal environmental regulations and industry best practices. This may include incineration by the Cabras 1&2 generation units only if it does not materially impair plant safety, operational integrity and efficiency.

#### **6.1.4. Performance Management Contractor Responsibility for Maintaining Proper Water Quality**

The PMC will be responsible for properly operating and maintaining the existing water production facility. GPA fully anticipates that a new water treatment facility is required to replace the existing water production facility. The procurement of this new facility will be one of the first priorities for the PMC to be completed no later than the second year of the contract period. GPA had conducted significant research and evaluated multiple options ranging from a one-to-one replacement to a Reverse Osmosis System. The information related to this evaluation shall be available to the PMC for their use. GPA has already gained approval with the Public Utilities Commission (PUC) for the execution of this project and shall work aggressively with the PMC to front-end this procurement early in the PMC contract. The PMC shall ensure that the quality of the output from the new facility performs to designed specifications and shall contact the designated vendor in the event of problems.

#### **6.1.5. Improve Existing Operating Procedures**

The PMC shall audit all operational procedures turned over at time of contract award, revise to proper “best in class” operating standards, train employees to the proper use of all procedures, audit employees to their use of all procedures and take corrective action of variances relating to operational performance deficiencies.

#### **6.1.6. Create Additional Operational Procedures (OP’s) as required to Cover all Major Operating Functions**

The PMC shall develop new operating procedures throughout the term of the contract as required. All operating procedures generated by the PMC will become the property of the GPA. The PMC will grant GPA access rights to all procedures during the term of the contract for review, usage and possible replication at other operating units. . The PMC shall conduct annual review of the OP to validate their applicability and effectiveness as new technologies are introduced into the power plant as part of the modernization of the plant.

#### **6.1.7. Plant Operating Procedure Multimedia and Content Format**

The PMC shall provide GPA with five bound, high-quality hardcopies of all Plant Operating Procedures. In addition, all Plant Operating Procedures shall be available on CD-ROM format. Content format shall be optimized for the latest version of Microsoft Internet Explorer and for development using Macromedia Contribute 3.

Two sets of Plant Operating Procedures will be kept at all times in the Cabras 1&2 control room. One set each will be given to the following:

- Assistant General Manager, Operations;
- Manager of Engineering;
- Manager of Generation;
- Manager of Strategic Planning and Operations Research.

#### **6.1.8. Internet File Formats**

All Plant Procedures shall make use of the following Internet file formats: Hypertext mark-up language (HTML), Joint Photographers Expert Group (JPEG), Graphic Interchange Format (GIF), Shockwave Flash (SWF) and Realmedia files (RM). The PMC shall supply all code and software required to produce and edit the Plant Procedure files.

#### **6.1.9. Transformer Maintenance**

The PMC shall perform all transformer maintenance regardless of voltage level. In the interest of cost savings, the PMC is encouraged to utilize GPA T&D Substation personnel as an available resource.

#### **6.1.10. Physical Boundaries of Cabras 1 & 2**

The attached edited map identifies the physical boundaries of the Cabras 1 & 2 units. The PMC is responsible for the upkeep of the property grounds, associated buildings, and janitorial services. The electrical demarcation is such that PMC will be responsible for all equipment associated with the plant. Although plant electrical maintenance personnel are only qualified to handle equipment with an operating voltage of 5000 volts and below, the PMC shall be responsible to ensure that other capable and qualified personnel, whether from GPA T&D section or private companies, maintain, repair, and/or reset all other electrical equipment.

#### **6.1.11. Minimize the Start-up Times and Ramp Rates**

The PMC shall optimize unit startup and ramp rates while preventing any short or long term damage to the equipment. The PMC will describe industry “best practices” in its proposal. The PMC shall inform system operators and the GPA Strategic Operations Committee of any revisions to these operating restrictions.

#### **6.1.12. Compliance with Quality Management Plan for Prudent Fuel Use / LEAC Plan for Performance Goals**

The PMC shall comply with the criteria defined within the Quality Management Plan for Prudent Fuel Use and LEAC Plan for Performance Goals.

## **6.2. Guam Power Authority Operations Responsibilities**

### **6.2.1. Provide Start-up Power & Aux. Power during Outages**

GPA will provide all power for start-up and outage related activities.

## **7. Maintenance**

### **7.1. Performance Management Contractor Maintenance Responsibilities**

#### **7.1.1. Maintain Required Spare Parts Inventory**

The PMC will manage the spare parts associated with the Cabras 1 & 2 facility. This will require the PMC to replace all material, parts, components and equipment currently placed in stock as it is used at the facility. Any spare parts consumed by any plant other than Cabras 1 & 2 will be responsible for replacing these items in the same fashion as the PMC. The PMC shall be responsible for the management of the spare parts inventory and for replacing any losses. The PMC will be responsible for the security and proper storage of the spare parts. The PMC will be responsible for annual inventory counts and will report the year prior as well as current year's inventory to GPA. The PMC shall use the same standards for inventory valuation and item count currently used by GPA. Large items removed from stock such as motors, pump assemblies, circuit breakers, etc. shall be repaired to like new condition and returned to stock if the repair option is the best option in support of the plant's operation. If the original item removed from the plant is not repairable, then new or like new equipment or parts must be procured by the PMC to replenish the stock items.

The PMC shall determine whether items in the inventory are "active" or "inactive". The PMC may sell off the inactive items if they have no value to the GPA or station, and only after it has secured GPA's agreement to do so. The PMC shall use proceeds of the sale to secure needed items for stock. Lastly, the PMC shall take all active inventory items and tie them to the equipment as listed in the CMMS. This tying of items and their description to specific equipment will aid the planners efforts in better matching materials to maintenance requirements

#### **7.1.2. Recommended Store's Inventory Optimization**

The PMC shall be responsible for the following actions to optimize the inventory for Cabras Units #1 & #2:

- Review and provide a recommended list of spare parts and inventory requirements for all systems associated with Cabras Units #1 & #2.

- Determine inventory requirements to ensure continuous rotation, refurbishment, and/or replacement of parts.
- Identify and make necessary adjustments to the existing safety stock levels and ordering schedules.
- Track and account all inventory proceedings,
- Ensure parts specifications are updated for system upgrades.
- Correct discrepancies related to all inventory issues.

GPA and the PMC shall discuss and agree, in writing, on all inventory proceedings. For example: Prior to any decision not to reorder any stock item, both parties must fully discuss the matter and both, in writing, must agree to such decisions. If both parties mutually agree not to reorder an item, the PMC must still keep detailed records for future usage in the event that the item is required in future years. These records must accompany a copy of the written agreement of both parties, including those responsible parties involved in the decision. The records must continue to reflect the equipment details in order to support reordering. The PMC shall not remove these items from the inventory master listing. However, the PMC must code these items to reflect the inventory level at zero.

All inventories at the beginning and end of the contract duration will be the property of the GPA.

#### **7.1.3. Quality of Refurbishing of Stock Items after Usage**

The PMC shall carefully consider the quality of all refurbishment activities performed on items returned to stock. Quality of repairs often times will not be realized until the component is placed into service. This activity often times is many years past the date of the actual repair. The PMC shall keep record of any associated warranties and request extended warranties where applicable, based on commencement from “In service” dates not delivered dates. All warranties shall be transferred to GPA at the end of the contract period.

#### **7.1.4. Account for the “Whereabouts of” Specialized Tools & Assets**

The PMC and GPA shall perform an inventory of all tools, non-stock parts, material and equipment assigned to the plant, at the time of turn over of management responsibilities. The PMC will be responsible for the safe use and control of all tooling during the contract terms. Should additional tooling or equipment be required the PMC may first request to use tooling from the central maintenance group or other GPA sites, however GPA is not obligated to supply such tooling or devices if they need such for other GPA projects. The PMC may be required to secure tooling and equipment on its own to support the safe and reliable O&M practices of the plant.

#### **7.1.5. Create Improved Outage Planning Process Procedures**

The PMC will be required to develop outage-planning procedures and utilize best-in-class aspects of planning, managing, controlling and financial management of outages. Successful outage planning will result in improved equivalent availability performance and thereby be recognized in the compensation structure. Additionally, the PMC shall work with the Authority's Planning Group to account for the dollar value of early or late completion of outages.

The PMC will track and report the cumulative net savings or loss due to early or late planned outage completion.

#### **7.1.6. Optimize Outage Scheduling & Planning**

The PMC will be responsible for the outage scheduling and planning. The PMC will be required to manage outages to the mutually agreed upon schedule. Should the outage schedules slip it will be the responsibility of the PMC to inform GPA. Should this occur, the PMC shall exercise the best possible option to pull the outage back to, or as close to the originally agreed to schedule as possible. The PMC will be primarily responsible for planning the outage but may ask for and shall receive input from knowledgeable GPA personnel.

The PMC shall provide a daily and annual Plant Outage schedule to the Manager of Generation and post this schedule on the Authority's web site using Macromedia Contribute 3. The schedule must account for planned and actual performance, as well as net savings or losses due to early or late completion of planned outages."

"The Authority's Planning Group (SPORD) will provide access to the Authority's web site for these purposes."

The Unit Commitment information shall include the following information for each generation unit:

- Heat Rate Variances (MBTU/MWh);
- Capacity Derations (MW); And,
- Upper and Lower unit commitment levels (MW);
- Forbidden Regions;
- Any Conditions That May Limit The Dispatching Of The Unit.

The PMC is required to:

- Make Critical Path Management (CPM) part of all Project Planning
- Train Plant Maintenance Planners and plant managers in project management.

- Provide incentives (Performance Bonuses) for GPA personnel to obtain or renew Project Management Institute certification ([http://www.pmi.org/info/PDC\\_CertificationsOverview.asp?nav=0401](http://www.pmi.org/info/PDC_CertificationsOverview.asp?nav=0401)).

#### **7.1.7. Procure OEM & Non-OEM Support as Required**

The PMC will be required to procure all OEM and Non-OEM assistance it requires to support the daily operation and maintenance of the plant. GPA personnel may assist the PMC with issues and historical perspective, but their availability cannot be guaranteed.

#### **7.1.8. Create a Quality Improvement / Root Cause Analysis Culture**

GPA requires the PMC to institute a training program to introduce and establish a Quality Improvement Process for the plant personnel. The PMC shall structure this process to minimize the “rework” of items and have a high focus on “Prevention” techniques. The PMC shall structure quality improvement techniques around proven Deming type principles of:

- 1) Reason for Improvement;
- 2) Current Situation Documentation;
- 3) Analysis;
- 4) Countermeasures;
- 5) Results;
- 6) Standardization; and,
- 7) Future Plans.

These seven steps shall employ proven statistical processes and improve employee skill in determining the root cause of failures. Failures may occur with equipment, people, process, materials, or many other items. Once training has been completed, the PMC must actively support this aspect of the plant culture and report on the success or failures to the GPA oversight team. The PMC must provide follow up training in future years based on employee knowledge retention and employee turnover.

### **7.2. Guam Power Authority Maintenance Responsibilities**

#### **7.2.1. Assignment of Central Maintenance Services Support**

GPA will provide timely and effective service support from Central Maintenance in accordance with the Central Maintenance utilization requirements described elsewhere. This support shall report to the PMC or plant personnel as requested in accordance with GPA’s guidelines for requesting overtime or off-shift work. If the support personnel do not report as required, the PMC may exercise options to obtain support services from alternative resources. GPA and the PMC shall resolve the cost of these alternative resources in accordance with the proper dispute resolution procedures.

### **7.2.2. Tool and Equipment inventory**

GPA shall inventory all tools, equipment and vehicles, and develop a master inventory listing prior to the arrival of the PMC. The final proposal package shall include this listing.

### **7.2.3. Parts Warehouse Supervision**

GPA shall continue to provide warehouse supervision as currently being provided. The PMC is encouraged to utilize this level of support.

## **8. Performance Improvement Projects (PIP)**

Performance Improvement Projects (PIPs) are defined as major non-routine maintenance projects that are not classified as Capital Expenses under Generally Accepted Accounting Principals. PIPs shall not be treated as normal O&M expenses and shall be approved by GPA prior to their commencement. PIPs and Capital Improvement Projects (CIPs) are discussed in more detail in Volume III.

The PMC and the Authority's Planning Group (SPORD) will evaluate all proposed PIPs for review by the Authority's Central Project Review Committee. The PMC in coordination with GPA must provide a well-thought out business case for performing each project over \$100,000.

In cases where the value of the project approaches the Guam Public Utility Review Protocol amount currently set at \$1,500,000, the Authority demands greater diligence in the planning, and documenting of the business case. GPA may require the PMC to provide expert testimony in support of the business case.

### **8.1. PMC Performance Improvement Project Responsibilities**

#### **8.1.1. Identify and Recommend Additional Performance Improvement Projects**

The PMC shall identify and bring to GPA's attention future PIP requirements. The proposed PIP's will become the basis for further refinement of both the O&M Expense Budget and the Capital Budget. Annual dialog among GPA and PMC representatives will determine which items GPA will fund. GPA and PMC personnel shall use quality improvement techniques along with financial analysis to determine which proposed activities would provide the greatest return to the GPA customer.

The PMC and GPA shall perform all economic feasibility studies with respect to additional Performance Improvement Projects together. Financial analysis shall include the use of GPA's planning tools and internal cost models wherever appropriate. The PMC

will provide GPA with adequate information to develop and maintain its models. GPA will perform any needed simulations using its planning tools.

The economic analysis methodologies used to gauge the return on investment shall include an assessment of costs and benefits within the context of dynamic power system requirements. In addition, the analytical methodologies shall account for the sensitivities of the preferred decisions with respect to externalities such as fuel prices, system demand and energy requirements and any other variables as the PMC and GPA may wish to investigate.

### **8.1.2. Identify and Recommend Additional Capital Improvement Projects**

The PMC is responsible for identifying and recommending to GPA all future Capital Improvement Projects (CIP's). If a CIP contributes to performance improvement then it will also be included in the list of PIP's; however, not all CIP's are PIP's. The proposed CIP's will become the basis for further refinement of GPA's Capital Budget. Annual dialog between GPA and PMC representatives will determine which items GPA will fund. GPA and PMC personnel shall use quality improvement techniques along with financial analysis to determine which proposed activities would provide the greatest return to the GPA.

The economic analysis methodologies used to gauge the return on investment shall include an assessment of costs and benefits within the context of dynamic power system requirements. In addition, the analytical methodologies shall account for the sensitivities of the preferred decisions with respect to externalities such as fuel prices, system demand and energy requirements and any other variables and scenarios the PMC and GPA may wish to investigate.

The PMC and the Authority's Planning Group (SPORD) will evaluate all proposed PIPs for review by the Authority's Central Project Review Committee. The PMC in coordination with GPA must provide a well-thought out business case for performing each project over \$100,000.

In cases where the value of the project approaches the Guam Public Utility Review Protocol amount currently set at \$1,500,000, the Authority expects a high degree of professional diligence in the planning, and documenting of the business case.

### **8.1.3. Project Management for All Accepted PIP's / CIP's**

The PMC shall accept project management duties for all PIP's and CIP's. Should the PMC elect to hire a third party to perform this activity, the PMC will be fully responsible for the third party's actions, performance and payment under the PMC's fixed management fee. Payment for such election is not reimbursable by GPA.

#### **8.1.4. Field Installation**

The PMC bears the responsibility for field installation-type activities of all assigned PIP and CIP items. In the event of CIP items, the GPA Engineering Department has first right of refusal to perform this function. Should the PMC elect to hire a third party to perform this activity, the PMC will be fully responsible for the PMC's actions, performance and payment.

#### **8.1.5. Acceptance Testing**

The PMC will be responsible for performing acceptance testing for PIP and CIP items. Acceptance testing must include a detailed written planning document with structured and non-structured procedures with pass/fail criteria for all important elements of the PIP or CIP. The PMC shall submit electronic and hard copies of the proposed acceptance test document sufficiently in advance of actual testing to the following:

- Assistant General Manager – Operations
- Manager of Generation
- Manager of Engineering
- Manager of Strategic Planning and Operations Research (SPORD).

The Authority shall provide a timely review and approval of these documents in a reasonable time frame.

For any CIP activities managed by the GPA Engineering Department, the GPA Engineering Department will perform this acceptance testing function. Should the PMC elect to hire a third party to perform this activity, the PMC will be fully responsible for the third-party's actions, performance and payment.

#### **8.1.5. Associated Outage Scheduling**

The PMC will coordinate the scheduling of all its outage requirements through the Manager of Generation which will be in turn coordinated with the GPA Power System Control Center (PSCC). Total system wide demands will primarily dictate the optimal dates for scheduling outages. The "major outage" dates must be established (between GPA and PMC) and planned for, far enough in advance, that they will support quality outage planning efforts as described elsewhere.

GPA and PMC shall agree to major outage dates based on analysis performed by the Authority's Planning Group (SPORD). This process is required to optimize outage costs.

### **8.2. Guam Power Authority Performance Improvement Project Responsibilities**

**8.2.1. Provide Listing of Recommended Performance Improvement Projects (Including Capital Improvement Projects)**

Both GPA and the PMC shall re-evaluate the list and upon the recommendation with the incoming PMC shall mutually agree to the overall priority and scheduling of these activities. The goals of 1) safety and insurance issues 2) minimization of total cost to the GPA, 3) Improvement of plant reliability and/or efficiency and 4) Effective outage scheduling, shall drive the PIP and CIP activities and their schedule.

**8.2.2. Updated Performance Improvement Plan**

GPA reserves the right to change the projected Performance Improvement Plan project schedule prior to Phase Two Proposal submittals.

**8.2.3. PIP/CIP Funding and Project Oversight**

GPA has the responsibility for PIP and CIP project funding. However, expensed PIP's shall be funded through the O&M expenditures. In the event of project overruns, the PMC can issue a compensation exception petition to GPA for review. Should both parties not be able to resolve the issue, both parties shall enter into a dispute resolution process as discussed elsewhere.

**8.2.4. Compensation**

Payments for CIPs will be made on a reimbursable basis. GPA will reimburse the PMC for actual cost and a charge for administration, finance fees and interest not to exceed five percent (5%) of the actual project cost. Payments shall not exceed the amounts agreed to and approved by GPA and the PMC or as otherwise agreed to by the parties through a change order.

**9. Procurement Authority**

**9.1. Performance Management PMC Procurement Outsourcing Responsibilities**

**9.1.1. Operations and Maintenance Outsourcing**

The PMC shall implement procurement methods to ensure cost controls remain within the authorized O&M Spending Budget. The PMC shall allow GPA access to all procurement and cost records. All procurement and cost records and processes are subject to audit by GPA.

**9.1.2. Recommend & Pre-qualify Vendors for Authorization**

PMC shall frequently provide a listing of those vendors who they have experienced solid success with and wish for GPA to allow bidding on upcoming work required by the PMC. This pre-qualification of vendors will expand the normally available pool of high quality vendors and ensure these vendors are informed of GPA's intent to bid out work in their core competency.

**9.1.3. Procure Operating & Maintenance Supplies**

The PMC will require normal as well as special materials to support the operation and maintenance of the facility. These supplies in most all cases will be pre-qualified and approved in the budget process. Those items that are pre-qualified and approved will be processed through the normal PMC directed process.

The PMC will obtain the best terms, conditions, pricing, and availability to meet the needs of the station and ensure high levels of reliability as well as keep outages to a minimum with this process.

**9.1.4. Third-Party O&M Outsource Contracts**

The PMC will have unilateral freedom to develop relationships with external third-party resources to support the O&M needs of the plant. The PMC will direct the procurement functions as required and utilize what ever third-parties as best required, when required. The PMC will be responsible for payment of these third-parties.

The PMC will obtain the best terms, conditions, pricing, and availability to meet the needs of the station and ensure high levels of reliability as well as keep outages to a minimum.

**9.1.5. Create or Improve Procurement Procedures to Expedite Repairs**

The PMC will develop its own internal procurement procedures to support the purchase and acquisition of emergency materials and professional services. The PMC will direct the procurement functions as required and utilize what ever outside PMCs as best required, when required. The PMC will be responsible for payment of these PMCs.

The PMC will obtain the best terms, conditions, pricing, and availability to meet the needs of the station and ensure high levels of reliability as well as keep outages to a minimum.

**9.1.6. Performance Testing**

The PMC will procure performance testing services for each unit at the beginning of the first contract year and within 30 days of the contract year anniversary date to establish

performance baselines. The PMC and GPA will agree on the testing scope and on the selection of the third-party firm to perform the services prior to contracting these services.

The minimum tests include:

- Fuel oil sampling testing
- Net and gross heat rate at minimum, 50%, 75% and maximum unit loading using boiler losses and input/output methods under test and normal operating conditions
- Air Heater Leakage and Boiler Performance
- Boiler Feed Pump Performance
- Condenser and Steam Turbine Performance
- Feedwater Heater Performance
- Ramping Rate.

All testing must conform to all applicable ANSI and ASME standards. Additionally, this scope must include the identification of any operational issues associated with performance below design specifications. The scope must include detailed recommendations for bringing systems back to design conditions. Furthermore, the recommendations must include the following:

- An engineering estimate of the life cycle cost of remediation or upgrade;
- A planning schedule for implementing each recommendation;
- An engineering estimate of the benefits for each recommendation;
- Estimation of life expectancy for each recommendation;
- Expected degradation of benefits over recommendation lifecycle;
- An engineering estimate of affect on heat rate, FOR/EFOR, AF/EAF and other performance indicators;
- Categorization of costs as O&M or Capital.

#### **9.1.7. Right to Performance Testing Results**

GPA shall have full rights to all testing results without modification from the independent third-party contractor.

### **9.2. Guam Power Authority Procurement Responsibilities**

#### **9.2.1. Fuel Procurement and Delivery, Including Quality Assurance**

GPA will provide procurement and delivery services of fuel to the PMC for Cabras 1 & 2. This service will include and guarantee the fuel's quality in such a manner that it will not disrupt the normal operation of the plant. Problems with the fuel's quality, if any, shall be well documented and submitted by the PMC to GPA, along with the cost impact and any problems.

GPA will cover all costs associated with the delivery of required fuels, and guarantee in uninterrupted fuel delivery.

Fuel analysis conducted by GPA through its contractors will be accepted as the sole authority on all fuel issues.

**9.2.2. Recommendation Listing of Available Local Vendors**

GPA will provide a complete listing of all vendors, suppliers and consulting organizations utilized in the past two years, to the PMC for their consideration and use. The listing shall include company name, address, and phone and fax numbers. A summary of the basic services provided will be included in the listing of vendors and any basic rates charged to GPA in the past two years.

**9.2.3. Authorize Recommended Vendors**

GPA will determine and create a listing of those vendors it has authorized and recommends to perform services as well as supply goods for the PMC. This listing should contain only those vendors who have actually performed work in the past two years and who have achieved good performance ratings.

GPA shall document, certify and store the mode of selection of these vendors and all supporting documents related to the recommendation or non-recommendation of vendors.

## **10. Communications and Reporting**

### **10.1. Performance Management Contractor Communications and Reporting Responsibilities**

#### **10.1.1. Auditable Reporting of Performance Measurements**

The PMC shall provide comprehensive weekly and monthly reporting of actual historical measurements for all performance measures and information on fuel deliveries and consumption. The report shall include detailed explanations of any violations of minimum guaranteed performance.

#### **10.1.2. Weekly and Monthly Performance Improvement Project Status**

The PMC will incorporate a full or adapted Critical Path Method (CPM) project management methodology. As part of this, the PMC shall provide Gantt charts identifying task level percent-completion and critical paths. The PMC shall provide these Gantt charts with annotations using Microsoft Project. If the PMC should chose to deliver these charts using other acceptable project management software, it shall provide a copy of the software to GPA, and provide training in the use of this software without charge. The PMC shall provide monthly project status reports during the planning stage and weekly project status reports during the actual project implementation until the completion of the project.

#### **10.1.3. Monthly Expenditures**

The PMC shall provide summaries of compliance/non-compliance regarding monthly expenditures. The accounting and reporting of these monthly expenditures shall conform to generally accepted accounting standards.

#### **10.1.4. Incentive/Penalty Calculations**

The PMC shall provide monthly reports with detailed calculations of incentive / penalty payments for GPA's review and approval.

#### **10.1.5. Personnel Performance Reviews**

The PMC shall provide regular personnel performance reviews as required by standard GPA / Government of Guam rules and regulations. The PMC shall coordinate these regular reviews with the GPA Human Resource Division.

**10.1.6. Documentation in Support of Disciplinary Procedures**

The PMC shall document and archive all evidence supporting all recommendations for disciplinary action against GPA personnel under their purview as required by standard GPA / Government of Guam rules and regulations.

**10.1.7. Conduct Spare Parts Inventory & Variance Reporting**

The PMC shall conduct annual reporting of spare parts inventory and variances in accordance with generally accepted accounting standards. Schedule of annual inventory shall be coordinated with GPA Accounting.

**10.1.8. Improve Communications with System Dispatch**

The PMC shall strive to improve communications with system dispatch – especially with regard to achieving the optimal economic dispatch and/or reliability dispatch of Cabras units 1 and 2 and thereby minimization of overall system production cost.

**10.1.9. Provide “Off Spec Conditions” & Variance Reporting**

The PMC shall provide the power system operators with the minimum and maximum unit commitment capabilities for the next 24 hours everyday at midnight. The PMC shall provide detailed explanations of any inability to meet desired operational levels – e.g. partial forced or scheduled capacity derations.

**10.2. Guam Power Authority Responsibilities**

**10.2.1. Monthly Review of Reported Performance Measurements**

GPA or a mutually acceptable third party will verify the PMC’s actual performance and the PMC’s adherence to best practices in order to assure long-term plant viability. Thus, GPA or a third party shall critically review, in cooperation with the PMC, the PMC’s reported measured performance in order to reach agreement on the actual level of achieved performance improvement. Discovered variances may trigger compensation dispute procedures or, in an extreme case, contract termination procedures.

**10.2.2. Compensation - External Influences**

GPA shall monitor, record and report the observed measurements of all external variables that are used in the determination of PMC compensation. GPA and the PMC shall identify these exogenous variables.

### **10.2.3. Incentive/Penalty Calculations Review**

GPA will review and verify the PMC's calculations of incentive / penalty payments. GPA and the PMC shall, in their best efforts, reach an agreement on the actual incentive penalty payments. Discovered variances may trigger compensation dispute procedures or, in an extreme case, contract termination procedures.

### **10.2.4. Improve Communication with System Dispatch**

GPA shall seek to improve communications between system dispatch and Cabras 1 and 2 operations and maintenance – especially in the areas that directly impact the PMC's ability to implement performance improvements and to measure actual performance.

## **11. Contract Fees**

### **11.1. Proposed Fixed Management Fees**

A portion of the PMC's compensation may be in the form of fixed monthly management fees. The PMC may propose either a constant fee for the life of the contract, or an escalating fee. Front-end loaded fees will be expressly prohibited. Higher proposed management fees will result in lower scoring in the IFB process.

Services to be provided under the Fixed Management Fee include:

- On-site Technical and Management Services
- Office Space (if not available on-site)
- Office expenses
- Engineering Services for CIP/PIP development & feasibility studies
- Etc..

Specialized technical services required to directly support projects such as technical support for boiler chemical cleaning shall be included in the project cost.

### **11.2. Proposed O&M Spending Budget**

The PMC shall propose an O&M Spending Budget, based on the object codes specified in Volume III for each contract year. Compensation for O&M Spending will be made on a reimbursable basis not to exceed the proposed Annual O&M Spending Budget. Cost plus reimbursement is not allowed. Higher proposed O&M Spending Budget will result in lower scoring in the IFB process.

## **12. Contract Terms**

### **12.1. Contract Period**

GPA intends for this contract to be a minimum of five years with an option for a **five-year** contract extension. Bidders may propose additional contract years, however this will require review and approval by GPA.

### **12.2. Optional Five-Year Contract Extension**

GPA shall give appropriate notice of its intentions regarding its option to exercise the five-year contract extension. At the beginning of the 5<sup>th</sup> contract year GPA and the PMC shall negotiate the contract extension terms based on the requirements specified in Paragraph 12.4.5. Final confirmation by mutual agreement between GPA and the PMC for contract extension shall be given after completion of negotiation no less than six months prior to the end of the contract term. However, GPA may elect to reverse its decision without penalty at any time within six months of the end of the contract period based on poor PMC performance during this period.

### **12.3. Renewal of the Agreement**

GPA and the PMC may renew this agreement upon the mutual agreement of the parties. If the Agreement shall be renewed, then the parties shall meet and discuss the new terms and conditions of the Agreement six months before Termination Date.

### **12.4. Performance Management Contractor Contract Responsibilities**

#### **12.4.1. Comply with Annual Quality Audit within Plant**

The PMC shall comply with all GPA or authorized third party quality audits.

#### **12.4.2. Use of English & Other US Standards**

All communications, correspondence, reports, engineering calculations and drawings, O&M records, documentation and other forms of verbal, electronic and written communications shall be in English language and other US standard units of measure, forms and formats.

#### **12.4.3. Use of Compatible Software and Electronic Formats**

All communications, correspondence, reports, engineering calculations and drawings, O&M records, documentation and other forms of electronic and written communications shall conform to formats used by the following software:

- AutoCAD;
- Microsoft Word;
- Microsoft Excel;
- Microsoft Front Page;
- Microsoft Power Point;
- Microsoft Project.

#### **12.4.4. Availability/Outage Definition Standards**

The PMC shall calculate all availability and outage performance measurements in accordance with NERC GADS definitions.

#### **12.4.5. Identify Optimum Requirements for the Plant**

The PMC shall identify all requirements to optimize or maintain the plant performance by the beginning of the 5<sup>th</sup> contract year. These requirements shall be considered as starting negotiation points between GPA and the PMC, should GPA elect to exercise the additional five-year contract extension. GPA and the PMC may renegotiate fees, projects, and contract structure upon mutual agreement. Otherwise, both parties may agree to keep the existing contract structure. The optimal requirements to be identified by the PMC shall include, but not limited to, the following:

- PMC Fixed Management Fees
- O&M Spending Budget
- CIP/PIP Requirements
- Training Requirements
- PMC Staff Requirements
- Cabras 1&2 Staff Requirements.

The PMC shall determine cost savings in each requirement for the Contract to yield a high positive Net Present Value to GPA.

### **12.5. Guam Power Authority Contract Responsibilities**

#### **12.5.1. Timely Payments**

GPA shall provide prompt payments to the PMC for costs and services rendered in accordance with the Contract. Said payment shall be made within thirty (30) days of being invoiced. Should part of the invoice be challenged, GPA will at a minimum pay the unchallenged portions of the invoice under the same terms. Should GPA fail to make any payments due to the PMC under the Contract, GPA shall pay interest to the PMC in

accordance with the provisions of the Prompt Payment Act, 5 GCA Sections 22502-22507.

#### **12.6. Exception Petition Procedure**

The PMC or GPA may at times wish to petition for special exceptions to the standard implementation of the agreed upon compensation structure. Such petitions would generally be made where there is a belief that extraordinary circumstances beyond the control of either party have led to extreme positive or negative variations in actual measured performance. A procedure will need to be developed to provide for the resolution of such petitions. At a minimum, the process should require the petitioner to perform a root cause analysis, of the alleged extraordinary event, prior to and in support of its petition. If the petition procedure fails to achieve a resolution that is satisfactory to both parties, then the petitioning party may choose to enter into a dispute resolution in accordance with the Dispute Resolution Procedure discussed elsewhere. All face-to-face negotiations shall be conducted on Guam and in accordance with Guam Law.

#### **13. Instrumentation**

The PMC shall make full use of the Mark V Historian and available instrumentation to collect key performance information. Proponents must provide the list and periodicity of key performance data collected at similar plants under their operation. Additionally, each Proponent must provide what analyses are performed using this information. Hourly readings are not sufficient to fulfill this requirement. Proponents must ensure that all instruments that can be made capable of electronic download and storage are made capable of this function. All performance information must be made available to the Authority's Generation and Planning Group (SPORD) business units for independent analysis. If required, the PMC must provide any software, equipment, and training to Authority staff to access, manipulate and analyze this information.

All key performance information shall be archived appropriately in electronic form.

#### **14. Plant Engineering**

The PMC must provide a training program and recruit among the following groups in order to build a highly trained, experienced and competent plant engineering capability within the Authority:

- Recent university graduates of ABET 4-year accredited Engineering Programs within the United States
- University seniors in good standing of an ABET 4-year accredited Engineering Programs within the United States who will graduate at the end of the current semester

- Experienced practicing Engineers with an Engineer-in-Training plus graduation from an ABET 4-year accredited Engineering Programs within the United States or Professional Engineering Registration in any State.

The PMC must propose a testing program for aptitude, attitude, motivation, good health, and suitability for plant engineering work at the high levels of responsibility and technical capability. Each PMC must propose a training program that prepares selected candidates for plant engineering duties. This curriculum must include:

- Steam Power Plants
    - Steam Fundamentals
    - Basic Power Plant Design
    - Steam Generators
    - Boilers
      - Principles of Heat Transfer
      - Boiler Design and Construction
    - Boiler Auxiliaries
    - Cooling Towers, Air-Cooled Condensers, Cooling Systems
    - Water Treatment
  - Prime Movers
    - Steam-Turbine Fundamentals
    - Steam Turbine Design
    - Combustion Turbine Fundamentals
    - Combustion Turbine Design
    - Reciprocating Engines
  - Plant Electric Systems
    - AC Generators and Generator Protection
    - Transformers and Transformer Protection
    - Electrical Interconnections
    - In-Plant Electrical Distribution
    - AC motors and their Applications
    - Busway Applications
    - Cable Applications
  - Instrumentation and Control
    - Powerplant Instruments
    - Combustion Control and Burner Management
    - Turbine and Engine Governors
    - Key Systems and Components
    - Human Engineering: Human Machine Interface
  - Pumps
  - Plant Operations and Maintenance
  - Environmental controls
    - Environmental Legislation and Regulation
    - Air Emission Controls
-

- Water Emission Controls
- Solid Waste Management
- Powerplant Noise and its Control
- Combustion of Fuels
  - Combustion Process
  - Theory of Combustion
  - Air Supply
  - Coal
  - Fuel Oil
  - Combustion Process Control
- Plant Management
  - Inventory Systems
  - Supervision and Management
  - Plant Finance
  - Just-in-Time Operations
  - Total Quality Management
  - Project Management – Critical Path Management
  - Outage Planning
  - Statistical Process Controls.
- Root Cause Analysis
- Business Continuity Planning
- Predictive Maintenance
- Technical Trade Work
  - Welding
  - Rigging
  - Others
- Industry “Best” practices
- Other material as determined by the PMC or GPA.

The PMC must recruit four individuals meeting all requirements for this program. After testing and finding acceptable candidates within this class of locally available individuals, the PMC and the Authority will form an interview panel including one and two representatives from each group respectively to select candidates for this program. This interview panel will select the participants for this program. The number of program participants hired will be at the discretion of GPA. The candidates chosen for inclusion in the program will be hired as contract employees of the Guam Power Authority reporting directly to the PMC for work at Cabras 1&2. Preference will be given to local residents of Guam in expectation that these individuals would more likely remain on Guam after graduating from this program.

#### **14.1. Program Description**

Training for this program must include formal classroom training delivered on Guam or through distance learning such as the Internet under the supervision of a qualified

instructor. Training does not need to be held during working hours. The program expects at least twenty-five hours per week outside of class devoted to class assignments from each participants. All work must be graded. Participants will not be financially compensated for these hours. The PMC and GPA shall define in advance the pass/fail criteria for this work. Participants are expected to devote time outside of their normal working hours to studying, attending classes, taking tests, and performing class assignments. These study hours are not paid hours.

Additionally, program participants must complete a slate of on-the-job (OJT) training assignments emphasizing materials learned in class. The Authority will compensate these employees for hours worked on these assignments. The PMC must directly supervise at all of the OJT completed by program participants.

This program supplements coursework with real world problems and projects for the Authority. These projects must be approved by the PMC and Authority. Participants are compensated for hours worked on these projects. This program must emphasize work at Cabras 1&2. These engineers will be part of the plant staff and work under the supervision of the PMC.

Program participants must complete this program within three years or reimburse the Authority for all expenses including program administration costs. Upon graduating from the program, the Authority will hire program participants as Plant Engineers or Senior Plant Engineers at a salary comparable to the median compensation provided to similar job holders within the United States given comparable experience and training. Program graduates are expected to obtain professional engineering registration on Guam within two years of graduating from this program.

#### **14.2. Recent University Graduates**

These program participants must provide the Authority five years of service to the Authority or reimburse the Authority for all expenses including program administration costs.

#### **14.3. University Seniors**

The Authority will award program participants who are still working towards their degree with a full scholarship to complete their undergraduate or in special cases their graduate engineering program. These program participants must provide the Authority six years of service to the Authority or reimburse the Authority for all expenses including program administration costs.

#### **14.4. Experienced Practicing Engineers**

These program participants must provide the Authority five years of service to the Authority or reimburse the Authority for all expenses including program administration costs.

#### **14.5. Program Graduates**

GPA and the PMC will define the position descriptions and requirements for the Plant Manager Position prior to the expected graduation of the program candidates. Furthermore, the PMC must account for and identify in their bid for Program Graduates taking over functions supplied by the PMC as an option exercised at the discretion of GPA.

GPA reserves the right to assign program graduates to work directly under the Assistant Manager of Generation and may assign them to various plants other than Cabras 1&2. In the event that a Plant Superintendent Position is available, The Authority may create a Plant Manager Position in lieu of the Plant Superintendent and fill the Plant Manager position with one of the Senior Plant Engineers. In essence, the end goal is to get seasoned, qualified engineers supporting, managing and operating key generation plants whether at Cabras 1&2 or other plants.

#### **14.6. First Right to Hire Program Graduates**

Guam Power Authority will have first rights to hire Program Graduates. The PMC and its subcontractors will not recruit Program Graduates away from GPA for a period not less than five years after graduation from this program. Otherwise, GPA is entitled to the twice all related costs for putting the individual through this training.

### **15. Reporting**

The PMC is responsible for providing regular reports including but not limited to the following:

- Operations and maintenance activities
- Project Management
- Plant Operational Costs including but not limited to providing a model for operational costs in the following forms:
  - $\text{Operational Costs} = \text{Fixed Costs} + (\text{Variable Cost Factor} * \text{Energy Production}) + (\text{Semi-Variable Costs})$

**16. Assessment of GPA Capability to Replace Functional Duties Currently Outsourced to the PMC**

By the third-year of the Contract, the PMC and GPA will assess the capability of GPA personnel to assume functional duties currently outsourced to the PMC. The assessment will include a schedule, projects, and process that will allow GPA to takeover any functional duties identified. This effort will result in a check-off list of capabilities, training, processes, etc that GPA must complete prior to any takeover.