

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

IN THE MATTER OF:)
) GPA DOCKET 12-07
)
THE APPLICATION OF THE GUAM)
POWER AUTHORITY REQUESTING) ORDER
APPROVAL AND USE OF 1999 BOND)
FUNDS FOR THE CABRAS 1 & 2)
DISTRIBUTED CONTROL SYSTEM)
(DCS) CONVERSION)
_____)

INTRODUCTION

1. This matter comes before the Guam Public Utilities Commission [“PUC”] upon the Guam Power Authority’s [“GPA”] Petition for approval and use of 1999 Bond Funds for the Cabras 1 & 2 Distributed Control System (DCS) Conversion.¹

BACKGROUND

2. The existing pneumatic control systems at the Cabras 1 & 2 power plant are the original controls systems installed in 1975 and are now obsolete.²
3. Taiwan Electrical and Mechanical Engineering Services, Inc. [TEMES] is the Performance Management Contractor for GPA for Cabras Units 1 & 2.³
4. TEMES has submitted a feasibility study and cost estimate for upgrade of the controls at Cabras 1 & 2 to a distributed control system.⁴The new DCS will allow the plant to operate within tighter control set points on key parameters including superheater temperature, reheater temperature, steam pressure, oxygen levels and combustion control, and respond more quickly to system changes. The result is the more efficient operation of the plant resulting in improvement in heat rate. The DCS will also provide improvements in data acquisition, data logging, trending and alarms which allow operators to be more proactive in responding to potential system failures, leading to improved plant availability.⁵

¹ GPA Petition for Approval and Use of 1999 Bond Funds for the Cabras 1 & 2 Distributed Control System Conversion, GPA Docket 12-07, filed June 29, 2012.

² Guam Consolidated Commission on Utilities Resolution No. 2012-32, adopted June 5, 2012.

³ Id. at p. 1.

⁴TEMES, DCS & BMS Proposal for Cabras Units 1 & 2 (May 2012).

⁵GPA Cost-Benefit Analysis [Justification] attached to GPA Petition in GPA Docket 12-07, and filed June 29, 2012.

5. GPA, through the support of its Program Management Office (PMO) R.W. Armstrong, has evaluated the TEMES proposal and determined that the scope and cost is fair and reasonable; the estimated total cost for the project is \$6M.⁶
6. GPA indicates that the project was originally approved as part of the 1999 bond series in the amount of \$1.3M.⁷
7. GPA now requests that the PUC approve the use of additional excess 1999 bond funds to fully fund this DCS project in the total amount of \$6M; the Consolidated Commission on Utilities has approved the request and authorized GPA to Petition for use of 1999 bond funds for the \$6M project.⁸

DETERMINATIONS

9. GPA has presented a convincing justification to the project. The pneumatic systems are obsolete, expensive to replace, and limit the ability to operate the plant within the original design parameters due to slower controller response times. Conversion from pneumatic controls to a DCS should generate savings through improved heat rate, reduced operations and maintenance costs, and improvements in availability resulting in payback in less than 4 years.⁹
10. If no action is taken, operation and maintenance costs associated with the pneumatic system will continue to increase as these parts become obsolete and more costly to replace, resulting in unplanned downtime.¹⁰
11. TEMES represents that a major benefit provided by DCS & BMS is the reduction in fuel use. It guarantees that plant efficiency will be increased by 1.17% and the savings for this improvement is estimated to be \$1,197,259 USD annually after the project is completed.¹¹

⁶Guam Consolidated Commission on Utilities Resolution No. 2012-32, adopted June 5, 2012, at p.1.

⁷ GPA Petition for Approval and Use of 1999 Bond Funds for the Cabras 1 & 2 Distributed Control System Conversion, GPA Docket 12-07, filed June 29, 2012, at p. 1.

⁸ Id. at p. 2.

⁹ Id [Justification], at p.1.

¹⁰ Id [Alternative], at p.2.

¹¹ TEMES, DCS & BMS Proposal for Cabras Units 1 & 2, at p.1-1.

12. The DCS project will contribute to the efficient operation of the Cabras Power Plants.¹²

ORDERING PROVISIONS

After review careful review and consideration of the above determinations, the GPA Petition for Approval and Use of 1999 Bond Funds for the Cabras 1 & 2 Distributed Control System Conversion, the PUC Counsel Report, and the record herein, for good cause shown, on motion duly made, seconded and carried by the undersigned Commissioners, the Guam Public Utilities Commission **HEREBY ORDERS** that:

1. GPA's Petition to use 1999 Bond Funds for the Cabras 1 & 2 Distributed Control System [DCS] Conversion is hereby approved.
2. The PUC finds that the replacement of the existing pneumatic control systems at the Cabras 1 & 2 power plant are "reasonable, prudent, and necessary", as the old system is now obsolete.
3. GPA is authorized to expend up to the amount of \$6M from the 1999 series bonds for this project.
4. GPA is ordered to pay the Commission's regulatory fees and expenses, including, without limitation, consulting and counsel fees and the fees and expenses of conducting the hearing proceedings. Assessment of PUC's regulatory fees and expenses is authorized pursuant to 12 GCA §§12002(b) and 12024(b), and Rule 40 of the Rules of Practice and Procedure before the Public Utilities Commission.

Dated this 30th day of July, 2012.

Jeffrey C. Johnson
Chairman

Rowena E. Perez
Commissioner

Joseph M. McDonald
Commissioner

Michael A. Pangelinan
Commissioner

¹² GPA Petition, GPA Docket 12-07, Id. at p. 3.

Order
GPA Petition for Use of 1999
Bond Funds for DCS
GPA Docket 12-07
July 30, 2012

Filomena M. Cantoria
Commissioner