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BEFORE THE ARIZONA CORPORATION

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**COMMISSIONERS**

KRISTIN K. MAYES - Chairman  
GARY PIERCE  
PAUL NEWMAN  
SANDRA D. KENNEDY  
BOB STUMP

2010 DEC 22 P 1:36

AZ CORP COMMISSION  
DOCKET CONTROL

IN THE MATTER OF THE APPLICATION OF  
UNS ELECTRIC, INC. FOR THE  
ESTABLISHMENT OF JUST AND  
REASONABLE RATES AND CHARGES  
DESIGNED TO REALIZE A REASONABLE  
RATE OF RETURN ON THE FAIR VALUE  
OF THE PROPERTIES OF UNS ELECTRIC,  
INC. DEVOTED TO ITS OPERATIONS  
THROUGHOUT THE STATE OF ARIZONA.

DOCKET NO. E-04204A-09-0206

**NOTICE OF ERRATA**

Staff of the Arizona Corporation Commission ("Staff") hereby gives notice of filing of Errata Exhibit A. Staff inadvertently omitted the referenced exhibits in the evaluation and recommendation regarding Black Mountain Generating Station prepared by W. Michael Lewis and Kenneth Strobl that was docketed on December 21, 2010, and sent the report using an incomplete service list. These exhibits are attached hereto. In addition, Staff has sent this notice using the correct service list.

RESPECTFULLY SUBMITTED this 22<sup>nd</sup> day of December, 2010.

  
Wesley C. Van Cleve, Staff Counsel  
Maureen A. Scott, Senior Staff Counsel  
Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007  
(602) 542-3402

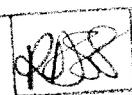
Original and thirteen (13) copies  
of the foregoing filed this  
22<sup>nd</sup> day of December, 2010 with:

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Arizona Corporation Commission

**DOCKETED**

DEC 22 2010

DOCKETED BY 

1 **Copy of the foregoing mailed this**  
2 **22<sup>nd</sup> day of December, 2010 to:**

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**UNS ELECTRIC, INC.'S RESPONSE TO  
STAFF'S TWENTY-FIFTH SET OF DATA REQUESTS  
DOCKET NO. E-04204A-09-0206  
November 1, 2010**

**STF 25.1** Please provide a listing of the hourly generation of each generating unit (Unit #1 and Unit #2) for the time period of September 1, 2009 through September 30, 2010. If hourly data is not available, please provide on a daily basis the total energy; the peak one-hour output; and the total time of operation for each of Unit #1 and Unit #2.

**RESPONSE:** Please see the attached file, STF 25.1 BMGS Hourly Generation.xls, for the date/time, generating time, generating rate, generation, heat input and heat rate for each hour for the time period between September 1, 2009 and September 30, 2010 for BMGS Units 1 and 2.

**RESPONDENT:** Mark Mansfield

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**STF 25.2**

Please describe and/or provide the warranty provisions pertaining to all of the major equipment for each of the Units as of October 1, 2010 including terms and conditions of repair, replacement, etc. and the expiration date of each warranty.

**RESPONSE:**

The Unit 1 turbines were under warranty from March 2008 through June 2010. The recent repairs to Unit 1 were made pursuant to this warranty. This warranty has since expired, however, and thus there are no warranties presently in place on major equipment as of October 1, 2010.

**RESPONDENT:**

Don Gin

**UNS ELECTRIC, INC.'S RESPONSE TO  
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**STF 25.3**

Please provide the budgeted amounts for the operation and maintenance of the BMGS for the present Calendar Year or Fiscal Year, as may be the case. Also, please provide the actual expenditures for operation and maintenance for the most recent 12 month period for which there is data available. Please separate these recent costs as to what were considered to be fixed costs of operation and scheduled preventive maintenance and costs of repairs.

**RESPONSE:**

Please see the attached file, STF 25.3 BMGS Budget and Actual O&M Expenses (Confidential).xls, for the requested operation and maintenance expenses.

The attached Excel file contains confidential information and is being provided pursuant to the terms of the Protective Agreement.

**RESPONDENT:**

Mark Mansfield

**UNS ELECTRIC, INC.'S RESPONSE TO  
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**STF 25.4**

In the original proposed procurement of the BMGS (understood to be a “turnkey” project), was title to the land included as a part of the purchase price? If so, what was the acreage and price of the land to be included? If not, what was the acreage of land to be purchased separately and at what price? Please identify the current owner of the land that is currently being used by the BMGS?

**RESPONSE:**

UNS Electric is the current owner of the land being used by BMGS. Therefore, no purchase or lease of the land is necessary.

**RESPONDENT:**

Bill DeJulio

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**STF 25.5**

As of a date certain, what will be the price that UED is willing to accept from UNSE for the purchase of the BMGS? Please include in this response, the date certain and descriptions of any contingencies, etc. that affect the price of the purchase.

**RESPONSE:**

As described on page 3 of the Direct Testimony of UNS Electric witness Kentton C. Grant, UNS Electric proposed to purchase the BMGS for \$62.0 million, which is based on the December 31, 2008 net book value of \$61,970,352. Assuming the purchase can be completed in 2011, the Company is not aware of any contingencies that would affect either the purchase price or the willingness of UED to complete the sale at this price.

**RESPONDENT:**

Mark Mansfield

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**STF 25.6**

Please provide a listing and description of UNSE's recommended annual and/or periodical preventive maintenance measures and inspections for the major equipment at BMGS, including the turbines, generators, substation equipment, piping, etc. Please provide UNSE's best estimate of the time required for each these activities.

**RESPONSE:**

Annual and/or periodical preventive maintenance measures and inspections for major equipment include the following:

- Full bore scope and package inspection each fall (after the summer run season). This includes instrumentation calibration and checks and takes approximately two days per machine;
- Possible bore scope each spring depending on run hours and starts during the winter. This requires approximately one day per machine;
- Generator inspection at 8000 operating hours requiring approximately two days per machine;
- Chiller inspections each spring and fall requiring one day per unit per inspection. Spring inspection includes cleaning of tube bundles; and
- Prefilters changed twice a year requiring approximately two hours per change out.

The attached file, STF 25.6 BMGS Preventative Maintenance.xls, shows the preventive maintenance intervals as scheduled throughout the year.

**RESPONDENT:** Mark Mansfield

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**STF 25.7**            Is BMGS equipped with the necessary tools, fixtures, instruments, and other ancillary items to perform all of the recommended maintenance activities? Are these equipment and instrumentation included in the contemplated purchase price by UNSE from UED?

**RESPONSE:**        BMGS is equipped with all tools, fixtures, and instruments necessary to perform the recommended maintenance activities; this equipment is included in the purchase price.

**RESPONDENT:**     Mark Mansfield

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**STF 25.8**                      What was the cause(s) of the recent blade failures of Generating Unit #1?

**RESPONSE:**                Root cause analysis (RCA) by General Electric concluded that damage to the high pressure compressor 3<sup>rd</sup> row blade was caused by either foreign object damage (FOD) or domestic object damage (DOD). FOD originates from objects external to engine and DOD from objects internal to engine.

**RESPONDENT:**            Don Gin

**UNS ELECTRIC, INC.'S RESPONSE TO  
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**STF 25.9**                      Subsequent to the discovery of the blade failures in Generating Unit #1, have there been changes made to the vibration monitoring set points or to the vibration sensors on the generating units? If so, what were the changes or modifications made, the cost of the changes, and identify the entity that paid for the changes, etc.?

**RESPONSE:**                      No changes or modifications have been made to vibration monitoring set points or to the vibration sensors because Unit 1's set points and vibration sensors are in accordance with manufacturers recommendations.

**RESPONDENT:**                  Don Gin

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**STF 25.10** Please provide a description and cost of additions, replacements, modifications, etc. to the facilities at BMGS (generation units and ancillary plant and equipment) over the period October 2009 to the present? Please identify the entity that paid for the facility additions, replacements, modification, etc.

**RESPONSE:** Please see the attached file, STF 25.10 Description and Cost of BMGS Facilities 10-2009 to 10-25-2010 (Confidential).xls, for the requested information.

The attached Excel file contains confidential information and is being provided pursuant to the terms of the Protective Agreement.

**RESPONDENT:** Mark Mansfield

**UNS ELECTRIC, INC.'S RESPONSE TO  
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**STF 25.11** Please list the time periods from September 1, 2009 to the present during which either or both generating units were unavailable and indicate if such was planned for maintenance or were forced outages. Please include in this response the reason(s) for each of the time periods a Unit was not available.

**RESPONSE:** Please see the attached file, STF 25.11 BMGS Unit Outages.xls, for a list of the times that (from September 1, 2009 forward) the generating units were unavailable, including the reasons the units were unavailable.

**RESPONDENT:** Mark Mansfield

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**STF 25.12** Please state the heat rate (BTU/Kwh) for each of the generating units at rated load. Also, please describe how and when this rate was determined.

**RESPONSE:** For Unit 1 at the rated load of 46.5 MWe, the heat rate would be: 9159 Btu/kWh for time period listed above.

For Unit 2 at the rated load of 46.5 MWe, the heat rate would be: 8779 Btu/kWh for the time period listed above.

The gross heat rate for each is calculated on a real-time, a one-minute, a one-hour, a daily, a monthly and a yearly basis. To determine heat rate, the load, the natural gas flow, and the natural gas GCV (or HHV) are monitored and recorded in the database on a one-minute basis. Real time heat rate is done in the Programmable Logic Controller (PLC). The formula used to calculate heat rate is as follows: *Heat Input in Btu / Gross Load in kWh.*

The formula for Heat Input is as follows: *Natural Gas Flow in scfh \* Gross Calorific Value in Btu/scf.*

**RESPONDENT:** Mark Mansfield

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**STF 25.13**            What is the auxiliary power usage (“station usage”) of the BMGS with both generating units at full load? At 50% load?

**RESPONSE:**        The auxiliary power usage for both units at full load is 3.8 MWe. The auxiliary power usage at 50% load (one unit on line) is 1.9 MWe.

**RESPONDENT:**     Mark Mansfield

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**STF 25.14**            What was the capacity factor of each of the Units #1 and #2 for the most recent twelve (12) months?

**RESPONSE:**        For BMGS Unit 1, the capacity factor for the most recent twelve months is 11.34%. For BMGS Unit 2, the capacity factor is 10.50%.

**RESPONDENT:**     Mark Mansfield