

DATA REQUEST– Set MPSC_20080924

Case: ER-2009-0090

Date of Response: 10/16/2008

Information Provided By: John Weisensee

Requested by: Hyneman Chuck

Question No. : 0135

1. For the period 2002 through current date, please provide a copy of all analyses, work papers, reports, communications, etc. related to the decision not to write down the recorded asset value for the Crossroads facility. 2. Did Aquila's outside auditors support Aquila's management decisions not to write down the value of the Crossroads facility on its books and records for the period 2002 through the current date? If not, please explain. 3. Please provide a copy of any and all correspondence between Aquila's outside auditors and its management or board of directors concerning a potential write down of the recorded asset value of the Crossroads facility.

Response:

1. Please see for the fiscal periods ending December 31, 2003 through 2007 the memo documenting the analysis of FAS 144 Accounting for the Impairment or Disposal of Long-Lived Assets. The memo documentation is attached in the following files:
 - Q0135 FAS 144 2003
 - Q0135 FAS 144 2004
 - Q0135 FAS 144 2005
 - Q0135 FAS 144 2006
 - Q0135 FAS 144 2007
2. Yes. The outside auditors were in agreement.
3. Please see for the fiscal periods ending December 31, 2003 through 2007 the Management Representation Letters sent to Aquila, Inc.'s outside auditors, KPMG, indicating that according to FAS 144 no asset impairment was necessary on the Crossroads Energy Center. The Management Representation Letters are in the following files:
 - Q0135 2003 MRL
 - Q0135 2004 MRL
 - Q0135 2005 MRL
 - Q0135 2006 MRL
 - Q0135 2007 MRL

In addition, please see the attached file titled "Q0135 Feb 2008 Audit Comm Rep" which contains the cover page and page 13 of the Audit Committee report which details no impairment required for the Crossroads Energy Center.

Attachments: See list below:

- Q0135 FAS 144 2003
- Q0135 FAS 144 2004
- Q0135 FAS 144 2005
- Q0135 FAS 144 2006
- Q0135 FAS 144 2007
- Q0135 2003 MRL
- Q0135 2004 MRL
- Q0135 2005 MRL
- Q0135 2006 MRL
- Q0135 2007 MRL
- Q0135 Feb 2008 Feb 2008 Audit Comm Rep

Response by: Ron Klote and Mark Foltz



FAS 144: Accounting for the Impairment or Disposal of Long-Lived Assets

Crossroads Energy Center

Period Ending December 31, 2007

Date: January 3, 2008

From: Mike Meyer, Director Accounting Services

In accordance with generally accepted accounting principles and FAS 144.8, “a long-lived asset shall be tested for recoverability whenever events or changes in circumstances indicate that its carrying amount may not be recoverable”.

Aquila last tested the recoverability of the Crossroads Energy Center (Crossroads) for the period ending December 31, 2006, in accordance with FAS 144.16-21 *Estimates of Future Cash Flows Used to Test a Long-Lived Asset for Recoverability*.

Since December 31, 2006, there are “no events or changes in circumstances to indicate the carrying amount of Crossroads may not be recoverable”.

- Crossroads continues to generate operating and cash flow losses. This is not a change in events or circumstances from the prior test and assumptions.
- An analysis regarding potential changes in the market price of Crossroads was completed indicating **favorable changes since December 31, 2006**. The analysis was limited to the percentage change in Implied Heat Rate (from 2006 to 2007).
 - Implied Heat Rate = Average Power Price / Gas Price
 - Power Price = SERC-Entergy On-Peak and Off-Peak as published at www.cera.com
 - Gas Price = Real Henry Hub as published at www.cera.com
 - Higher Power Price / Lower Gas Price = Higher Potential Value
 - % Change X 2006 Gross Margin = 2007 Forecasted Gross Margin
 - 2005 Gross Margin determined by an in-house risk valuation and www.cera.com prices
 - 2006 based on 2005 Gross Margin X 2006 % change in Implied Heat Rate
- Management continues to evaluate options for Crossroads. However, there are currently no plans to sell or otherwise dispose of this asset before the end of its estimated useful life.

Given these events and circumstances, there is no indication that (1) a test is required or (2) the carrying amount may not be recoverable.

cc: Beth Armstrong, Mark Foltz

FAS 144.8 - A long-lived asset shall be tested for recoverability whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. The following are examples of such events or changes in circumstances:

144.8.a - A significant decrease in the market price of a long-lived asset.

FALSE - Market prices have actually improved during 2006 with gas prices falling and power prices rising.

144.8.b - A significant adverse change in the extent or manner in which a long-lived asset is being used or in its physical condition.

FALSE - Crossroads was constructed for generating electricity during peak demand times at market based rates and no impairments exist in its physical condition.

144.8.c - A significant adverse change in the legal factors or in the business climate that could affect the value of a long-lived asset, including an adverse action or assessment by a regulator.

FALSE - The business climate has not significantly changed since 12/31/04.

144.8.d - An accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset.

FALSE - The construction costs for the peaking plants did not significantly exceed the planned amounts.

144.8.e - A current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset.

TRUE - Due to market conditions, the prohibitive historical cost of natural gas, and potential transmission constraints, this facility has been unable to produce sufficient profit to cover the idle operating and maintenance costs. It is forecasted that these losses will continue for the next few years.

144.8.f - A current expectation that, more likely than not, a long-lived asset will be sold or otherwise disposed of significantly before the end of its previously estimated life.

FALSE - Although management continues to look for options related to this asset, there are currently no plans to sale or otherwise dispose of it.

FAS 144.16-21 *Estimates of Future Cash Flows Used to Test a Long-Lived Asset for Recoverability.*

144.16 - Estimates of future cash flows used to test the recoverability of a long-lived asset shall include only the future cash flows (cash inflows less associated cash outflows) that are directly associated with and that are expected to arise as a direct result of the use and eventual disposition of the asset. Those estimates shall exclude interest charges that will be recognized as an expense when incurred.

144.30 - A long-lived asset to be sold shall be classified as held for sale in the period in which ALL of the following criteria are met:

144.30.a - Management, having the authority to approve the action, commits to a plan to sell the asset.

FALSE – Management has not committed to such a plan.

144.30.b - The asset is available for immediate sale in its present condition subject to terms that are usual and customary for sales of such assets.

TRUE - Subject only to customary regulatory approvals.

144.30.c - An active program to locate a buyer and other actions required to complete the plan to sale the asset have been initiated.

FALSE - Although management continues to look for options related to this asset, there are currently no active programs in place to locate a buyer for it.

144.30.d - The sale of the asset is probable, and transfer of the asset is expected to qualify for recognition as a completed sale, within one year, except as permitted.

FALSE – The sale probability is unknown since management has not committed to a plan to sell.

144.30.e - The asset is being actively marketed for sale at a price that is reasonable in relation to its current fair value.

FALSE - Although management continues to look for options related to this asset, there are currently no active programs in place to locate a buyer for it.

144.30.f - Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or the plan will be withdrawn.

FALSE - Management has not committed to a plan to sale.

**Crossroads Energy Center
FAS 144 "What-If Tested" Analysis**

<u>\$-Thousands</u>	<u>Heat Rate Change</u>	<u>Gross Margin</u>	<u>Operating Expense</u>	<u>Future Cash Flow</u>	<u>%</u>	<u>Weighted Total</u>
As of 12/31/07						
Mercury Rising	14.0%	\$ 975,399	\$ 118,224	\$ 857,175	30.0%	\$ 257,153
Global Fissures	1.5%	392,144	118,224	273,920	30.0%	82,176
Asian Phoenix	-7.1%	304,044	118,224	185,820	30.0%	55,746
Sale Value (<i>MW x \$/MW</i>)		340	148	50,177	10.0%	5,018
Average Future Cash Flow	2.5%	417,982	88,705	341,773	100%	400,092
Book Value						112,204
Coverage (Below 1.0x = Potential Impairment)						3.57x

As of 12/31/06						
Mercury Rising		\$ 849,629	\$ 125,128	\$ 724,502	22.5%	\$ 163,013
Technology (Dropped)		607,035	125,128	481,907	22.5%	108,429
Global Fissures		382,770	125,128	257,643	22.5%	57,970
Asian Phoenix		325,289	125,128	200,161	22.5%	45,036
Sale Value (<i>MW x \$/MW</i>)		340	148	50,177	10.0%	5,018
Average Future Cash Flow		433,013	100,132	342,878	100%	379,466
Book Value						118,855
Coverage (Below 1.0x = Potential Impairment)						3.19x

Average Peaker Plant Asset Sales

<u>Buyer</u>	<u>Seller</u>	<u>Facility</u>	<u>MW</u>	<u>Proceeds</u>	<u>\$/MW</u>
Ameren	Aquila	Goose	510	\$ 105,000	\$ 206
Ameren	Aquila	Raccoon	340	70,000	206
Bukeye Power	DPL	Greenville	200	49,200	246
American Electric Power	DPL	Darby	450	102,000	227
Average			375	81,550	221
Crossroads Transmission Constraint Estimated Adjustment			340	(25,000)	(74)
Adjusted Average					\$ 148

AQUILA, INC.
CASE NO. ER-2004-0034
MISSOURI PUBLIC SERVICE COMMISSION
DATA REQUEST NO. MPSC-299

DATE OF REQUEST: September 19, 2003
DATE RECEIVED: September 19, 2003
DATE DUE: October 9, 2003
REQUESTOR: Mark Oligschlaeger
BRIEF DESCRIPTION: Aries Operational Issues

QUESTION:

Did MPS or any Aquila entity consider the option of taking over or acquiring the power plant assets that Aquila Merchant once had possession of or had rights to, but chose to sell within the last 12-18 months? If not, why not, and provide any supporting documentation for the decision.

RESPONSE: Aquila Networks did review the location and possible use of the facilities to meet the load requirements of our customers, but, except for the Aries plant which is the subject of responses to numerous other data requests, the location and distance from the service territory would not make ownership practical.

ATTACHMENT:

ANSWERED BY: John W. McKinney

John W. McKinney
SIGNATURE OF RESPONDENT

Case No. ER-2024-0189

SCHEDULE KM-r3

and

SCHEDULE KM-r4

HAVE BEEN DEEMED

CONFIDENTIAL

IN THEIR ENTIRETY

**UTILICORP UNITED
CASE NO. ER-01-672
DATA REQUEST NO. MPSC-236**

DATE OF REQUEST: September 4, 2001

DATE RECEIVED: September 4, 2001

DATE DUE: September 26, 2001

REQUESTOR: Sheldon Wood

QUESTION:

- 1) In reference to the Greenwood Generating Unit lease, please provide all economic analyses performed by UtiliCorp or Missouri Public Service or any other UCU subsidiary or entity, detailing the cost savings or benefit to the Missouri Public Service Division if MOPub purchased the Greenwood Units and/or leased the Greenwood Units.
- 2) Please provide all economic analyses as to the benefits of a UCU subsidiary buying the Greenwood unit and then leasing the unit to the Missouri Public Service Division.

RESPONSE: Three (3) attachments are provided

ATTACHMENTS: 1) Evaluation of Greenwood Combustion Turbines by Fern Engineering dated July 9, 1999.
2) Purchase Greenwood Turbines Economic Analysis
3) Greenwood 1&2 Revenue Requirement Spreadsheet

ANSWERED BY: Dennis Greashaber

FERN ENGINEERING, INC.

REPORT NO. 5694-08-1

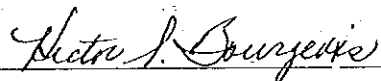
TO

UTILICORP UNITED

FOR

EVALUATION OF GREENWOOD COMBUSTION TURBINES

July 9, 1999



Hector S. Bourgeois



FERN ENGINEERING, INC.

REPORT NO. 5694-08-1

EVALUATION OF GREENWOOD COMBUSTION TURBINES

SUMMARY

The power output of the Greenwood units is down approximately 8% and the heat rate is up approximately 4% when compared to new and clean condition.

The average cost to purchase and install turbine units of the same configuration and accumulated running history is approximately \$12,627,000 each.

The average price the current owner can expect to receive if the turbines were sold and moved is \$6,500,000 USD each.

BACKGROUND

Utilicorp United currently leases and operates 4 x GE MS7001B gas turbine generator sets at their Greenwood Energy Center site. The lease term will be expiring shortly and Utilicorp is examining the option of re-leasing or purchasing the units. To support this effort Utilicorp desires to confirm the condition and to establish the current value of these units.

The pertinent information for each unit is contained in the following table. All are simple cycle units that are used mostly for peaking requirements.

Unit	S/N	Model	Date	Rating	Hours	Starts
1	238030	MS7001B	May 1975	59.0 MW	3332	1256
2	238031	MS7001B	June 1975	60.1 MW	3544	999
3	248862	MS7001B/C	June 1977	60.1 MW	4143	1028
4	248897	MS7001B/C	June 1979	59.9 MW	3599	784

DISCUSSION

The objective of this evaluation is to confirm the condition of the units and to establish a reasonable purchase price considering the current market and the units condition.

Condition

The performance of each unit was calculated and adjusted to ISO conditions using data provided by Utilicorp. For comparison the expected performance of a new and clean MS 7001B with the site conditions of Greenwood was also calculated. The power and heat rate are listed below along with the percentage change from the new condition.

	New	New	Current		Current	
	Power	Heat Rate	Power	% Chg	Heat Rate	% Chg
Unit 1	60.3	10950	55.2	-8.5	11368	+3.8
Unit 2	60.3	10950	55.1	- 8.6	11400	+ 4.1
Unit 3	60.3	10950	55.9	- 7.3	N/A	---
Unit 4	63.1	10720	60.6	- 4	11170	+ 4.2

Most often the performance changes are attributable to compressor degradation from fouling. Unit #4 has a higher expected rating because of the addition of high flow inlet guide vanes.

Since the Greenwood units are used mainly as peaking units, they have not accumulated a lot of time but they have accumulated a reasonable number of cycles. According to GE, the recommended maintenance/inspection intervals for a combustion inspection (CI), hot gas path inspection (HGPI), and a major inspection (major) are 800, 1200, 2400 starts respectively. See attached copy of General Electric report GER-3620C figure 35 defining these inspection intervals. Accordingly, unit #1 is due for a hot gas path inspection and the other units have used up from 65% to 85% of the allowed starts before needing a hot gas path inspection.

Valuation

To establish the value of an installed GE MS 7001B gas turbine, several suppliers of used turbines, installation contractors, and repair shops were contacted and questioned regarding current pricing and availability. The turbine suppliers were contacted to get the typical price range for an MS 7001B gas turbine. The contractors were contacted to get the typical price range for installing a MS 7001 B gas turbine. And the repair shops were contacted to get the typical inspection and overhaul price so that the Greenwood units could be debited for the time and cycles that have been used up since new or the last inspections.

A total of four used turbine suppliers were contacted. One supplier reported recently purchasing 8 x MS7001B turbines from Korea in "as is" condition for \$6,500,000 USD. As quoted further on in this report, the cost to conduct a major inspection adds \$1,800,000, raising the cost of a newly majored "B" model to \$8,300,000. This translates to \$140 / kW. All other respondents quoted between \$9,500,000 and \$12,500,000 USD for newly majored and uprated turbines to "EA" standards with dry low emission (DLE) combustion systems. The "EA" version produces more power, approximately 70 MW which translates to an average of \$157/ kW. This higher premium reflects the added cost of the DLE combustion system.

Three installation contractors were contacted and queried about installation costs. There was considerable variation between respondents some of which is accountable to differences in location, reusable components, number of turbines per site, etc. The installation quotes varied from \$1,500,000 to \$7,000,000 USD. The low end price was a bare bones installation with no building, used inlet and exhaust components, single fuel, permitting by others, multiple turbines, etc. The high end price was for a single turbine installation with a comprehensive scope of supply that included permitting, shipping, installation, gas fuel with compression, distillate fuel with tankage and fuel forwarding, new inlet filter house, exhaust stacks, and enclosing pre-engineered metal building but not including electrical substation or water storage and water treatment equipment. For the Greenwood site a good installation cost estimate would be \$5,500,000 per turbine since it is a multiple turbine site and no gas pressure boosting is required.

Two repair shops plus MS 7001 operators that have recently undergone inspections were contacted. The average cost reported for inspections including labor , parts and repairs to parts were:

Combustion inspection.....	\$200,000
Hot gas path inspection (includes comb. insp.).....	\$1,200,000
Major inspection (includes hot gas path and comb.).....	\$1,800,000
Upgrade combustion system to a DLE version.....	\$2,000,000

Based on the above prices each start cycle depreciates the turbines value by \$ 1250 per cycle.

Based on the above information if 4 gas turbine units were to be installed today with a turbines of the same configuration and accumulated time the cost would be:

Unit #1

Base "B" model engine with new major inspection.....	\$8,300,000
Installation similar to Greenwood site with dual fuel and building enclosure.....	\$5,500,000
Debit for cycles used (1256 cycles x \$1,250).....	-\$1,570,000

Estimated value of Unit #1.....	\$12,230,000

Unit #2

Same as unit #1 except debit for cycles used (999 cycles x \$1250 = \$ 1,248,750 instead of \$1,570,000). Estimated value of Unit #2.....	\$12,551,250
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Unit #3

Same as unit #1 except debit for cycles used (1028 cycles x \$1250 = \$ 1,285,000. instead of \$1,570,000). Estimated value of Unit #3.....	\$12,515,000
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Unit #4

Same as unit #1 except debit for cycles used (784 cycles x \$1250 = 980,000 instead of \$1,570,000). Plus adder for IGV and "E" model 1st Stg turb blades (2800 kW x \$140 / kW = \$392,000). Estimated value of Unit #4.....	\$13,212,000
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The average of the above values is \$12,627,000.

Other Considerations

Most often when the ownership of a power plant changes, e.i., it is sold but is not relocated, the permitting is transferred to the new owner. However, occasionally it is not. We have heard that some states occasionally apply pressure to upgrade the combustion system of resold turbines to "BACT" standards citing "good neighbor" policy and as an inducement to transfer the existing permits. As noted earlier upgrading to DLE combustion system can cost \$2,000,000 USD per turbine. Fern does not know the rules and regulations regarding the transfer of permits in Missouri and Utilicorp should seek advice from the state permitting agency regarding this issue.

The current market for used turbines is inflated due to the shortage of generating capacity and the resulting demand for generating units. Discussions with suppliers reveals that the demand should remain strong for at least another year and maybe two until the demand abates and the supply catches up with the demand.

The valuation quoted for the turbines assumes that turbine units of the same model and accumulated start cycles are purchased and installed with similar features to the Greenwood turbines. The price that the current owner could get for these turbines assuming they were sold and relocated is considerably less, in fact approximately half. This is something to keep in mind when negotiating a purchase price.

Case No. ER-2024-0189

SCHEDULE KM-r6

through

SCHEDULE KM-r11

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