



STOLL · KEENON · OGDEN
PLLC

2000 PNC PLAZA
500 WEST JEFFERSON STREET
LOUISVILLE, KY 40202-2828
MAIN: (502) 333-6000
FAX: (502) 333-6099
www.skofirm.com

KENDRICK R. RIGGS
DIRECT DIAL: (502) 560-4222
DIRECT FAX: (502) 627-8722
kendrick.riggs@skofirm.com

April 23, 2008

RECEIVED

APR 23 2008

PUBLIC SERVICE
COMMISSION

VIA HAND DELIVERY

Stephanie L. Stumbo
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601

RE: The Application of Big Rivers Electric Corporation for: (i) Approval of Wholesale Tariff Additions for Big Rivers Electric Corporation, (ii) Approval of Transactions, (iii) Approval to Issue Evidences of Indebtedness, and (iv) Approval of Amendments to Contracts; and of E.ON U.S. LLC, Western Kentucky Energy Corp., and LG&E Energy Marketing, Inc. for Approval of Transactions
Case No. 2007-00455

Dear Ms. Stumbo:

Enclosed please find and accept for filing the original and ten copies each of the unexecuted Rebuttal Testimonies of Paul W. Thompson and Ralph Bowling on behalf of E.ON U.S. LLC in the above-referenced matter. Verified signature pages will be filed with your Office on or before Friday, April 25, 2008. Please confirm your receipt of this filing by placing the stamp of your Office with the date received on the enclosed additional copies and return them to me in the enclosed self-addressed stamped envelope.

Should you have any questions please contact me at your convenience.

Yours very truly,

Kendrick R. Riggs

KRR:ec

cc: Parties of Record

400001 358719/521579 1

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

RECEIVED

APR 23 2008

PUBLIC SERVICE
COMMISSION

In the Matter of:

**THE APPLICATION OF BIG RIVERS)
ELECTRIC CORPORATION FOR:)
(I) APPROVAL OF WHOLESALE TARIFF)
ADDITIONS FOR BIG RIVERS ELECTRIC)
CORPORATION, (II) APPROVAL OF)
TRANSACTIONS, (III) APPROVAL TO ISSUE)
EVIDENCES OF INDEBTEDNESS, AND)
(IV) APPROVAL OF AMENDMENTS TO)
CONTRACTS; AND)
E.ON U.S. LLC, WESTERN KENTUCKY ENERGY)
CORP., AND LG&E ENERGY MARKETING,)
INC. FOR APPROVAL OF TRANSACTIONS)**

CASE NO: 2007-00455

**REBUTTAL TESTIMONY OF
RALPH BOWLING
VICE PRESIDENT, POWER OPERATIONS
E.ON U.S. LLC**

Filed: April 23, 2008

1 **Q. Please state your name, position and business address.**

2 A. My name is Ralph Bowling. I am Vice President, Power Operations for Energy Services
3 for E.ON U.S. LLC, which provides services to Western Kentucky Energy Corp.
4 (“WKE”) and LG&E Energy Marketing, Inc. My business address is 220 West Main
5 Street, Louisville, Kentucky 40202.

6 I am, and have been, responsible for operating the generation facilities the control
7 of which is to be transferred to Big Rivers pursuant to the transactions that are the subject
8 of this case.

9 **Q. What is the purpose of your rebuttal testimony?**

10 A. The purpose of this testimony is to correct certain inaccuracies in the Direct Testimony of
11 David Brevitz on behalf of the Attorney General of the Commonwealth of Kentucky filed
12 on April 3, 2008, in this proceeding. Specifically, I will address Mr. Brevitz’s testimony
13 on the condition of the facilities.

14 **Q. Upon what did Mr. Brevitz base his testimony regarding the conditions of the
15 facilities?**

16 A. Mr. Brevitz cites Stone & Webster Management Consultants, Inc.’s *Final Report:
17 Technical Assessment of Reid Station, Henderson Station Two, Green Station, K.C.
18 Coleman Station, D.B. Wilson Station*, dated March 24, 2008, and submitted to Alcan
19 Primary Products Corporation and Century Aluminum of Kentucky (the “Stone &
20 Webster Report”).¹

21 **Q. Has E.ON been made privy to all of Mr. Brevitz’s testimony concerning the Stone &
22 Webster Report and the technical concerns relating to it?**

¹ Direct Testimony of David Brevitz at 23-25.

1 A. No. Large portions of Mr. Brevitz's testimony were considered confidential to the
2 Smelters or to Big Rivers and its member cooperatives and were therefore redacted from
3 the copy of the testimony served upon E.ON. However, WKE has been operating the
4 facilities involved since 1998, and has been given a copy of the Stone & Webster Report.
5 After reviewing the report, I prepared the Errata Report attached to this testimony as
6 Exhibit A. Ordinarily, WKE, as the operator, would have been given an opportunity to
7 review a technical assessment of the facilities prior to a consultant's finalizing its report.
8 However, as the Stone & Webster report was prepared for the Smelters, there was no
9 opportunity for WKE to correct the report before it was finalized.

10 **Q. What sorts of errors are included in the Stone & Webster Report?**

11 A. A summary of the errors found is included in Exhibit A to my testimony. However, the
12 errors range from the relatively minor (reporting a low water event in the wrong unit) to
13 the relatively serious (finding that WKE's philosophy of maintenance has been "reactive"
14 rather than "proactive" with regard to preventive maintenance, even though the Reid and
15 Henderson plants have over 1,400 preventive maintenance procedures in the work
16 management system).

17 **Q. How would you characterize WKE's operation of the facilities during the lease
18 period?**

19 A. WKE's operation of the facilities has at all times been in accordance with the principles
20 of prudent utility practice, as documentation demonstrates. These prudent practices
21 resulted in excellent performance: the performance of the units during WKE's tenure
22 exceeds industry averages for units of similar size and vintage. In addition, the units'
23 performance under WKE management has at a minimum matched the performance of

1 these same units during Big Rivers' tenure prior to July 15, 1998. Exhibit B to my
2 testimony compares the performance of the facilities during WKE's tenure to (a) the
3 industry average, and (b) the performance of the units under Big Rivers' management.

4 **Q. To your knowledge, has Big Rivers properly assessed the condition of the facilities?**

5 A. It certainly has. These facilities are the property of Big Rivers. It operated the facilities
6 previously, and will operate them again. Big Rivers is familiar with the facilities and
7 their capabilities, and has monitored their condition over the entire lease period. Big
8 Rivers had a right of access to and inspection of the generation facilities at all times
9 during the lease period, and exercised these rights continuously during the lease period.

10 **Q. Given Big Rivers' familiarity with its facilities and with their current condition, do
11 you believe that the additional due diligence efforts recommended by Mr. Brevitz
12 should be a precondition to the Commission's approval of the transactions?**

13 A. No. As I have explained, Big Rivers has remained apprised of the condition of its
14 property during the entire lease period, and has individuals assigned to monitor plant
15 condition and operation at each facility.

16 **Q. Does this conclude your rebuttal testimony?**

17 A. Yes, it does.

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Ralph Bowling**, being duly sworn, deposes and says he is the Vice President, Power Operations for Energy Services for E.ON U.S. LLC, that he has personal knowledge of the matters set forth in the foregoing rebuttal testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

RALPH BOWLING

Subscribed and sworn to before me, a Notary Public in and before said County and State, this _____ day of April, 2008.

Notary Public

My Commission Expires:

EXHIBIT A

RE: Stone & Webster Report - Errata Information

Prepared by: Western Kentucky Energy Corp.

Date: April 10, 2008

Representatives of Western Kentucky Energy have reviewed the report titled "Technical Assessment of Reid Station, Henderson Station Two, Green Station, K.C. Coleman Station , and D.B. Wilson Station" dated March 24, 2008 and authored by Stone & Webster Management Consultants, Inc.

Upon review of this report, it was noted to contain certain inaccurate and inconsistent information. The information in question can be identified with corrections in the following text. The report headings listed with the existing numerical outline are used as a guide to identify the information in question.

1 Introduction

- *The generating units range in size from 65 MW (i.e. Reid 1). not from 150 MW (RE: Page 1, Paragraph 1)*

2 Findings and Conclusions

- *The Wilson FGD has not been a contributor to EFOR (RE: Page 3, paragraph 2)*
- *The report states that there appears to exist a philosophy of 'reactive' maintenance as opposed to a 'proactive' approach in the planning process for maintenance issues, however the Reid/HMPL plants have over 1,400 preventive maintenance procedures in the Work Management system, and the monthly reports indicate that nearly half of the work orders completed by the maintenance departments are preventive maintenance (44.6% PM Work Orders vs. 55.4% all other Work Order types) This is representative of all locations. (RE: Page 3, paragraph 3)*
- *The low water event occurred on Henderson Unit 1 in August of 2004 not Henderson Unit 2. (RE: Page 3, paragraph 5)*

2.1 Reid Station/Henderson

2.1.1 Reid Station Unit 1

- *Reid Unit 1, with a five year average net capacity factor of 57.7%, is operated over six months per year instead of two or three months per year as stated. (RE: Page 4, Paragraph 1)*

- *The generator field on Reid Unit 1 was not rewound in 2001 as stated. The generator field on the Reid Gas Turbine was rewound in November of 1999, and remains the only unit at Sebree Station that has had a generator field rewind. (RE: Page 5, Paragraph 4)*
- *The corrugated sheet metal roof over Reid Unit 1 boiler has already been removed (RE: Page 5, Paragraph 5)*

2.1.2 Henderson – Units 1 and 2

- *The low water event occurred on Henderson Unit 1 on January 29, 2007 not Henderson Unit 2 (RE: Page 5, Section 2 1 2, Paragraph 1)*
- *The projected outage schedule for the boilers at Henderson is on a two (2) year alternating pattern not a two to four-year alternating pattern. (RE: Page 5, Section 2 1 2, Paragraph 3)*

2.2 Green Station Units 1 and 2

- *No leaks have occurred on G1 or G2 water walls above the overlay. Reheater replacement on G1 occurred spring 2007 G2 Reheater is scheduled for spring 2009. (RE: Page 6, Section 2.2, Paragraph 4)*
- *G1 last overhaul completed 2007 Retaining Rings were replaced in 1997 (RE: Page 6, Section 2.2, Paragraph 6)*
- *G2 Turbine Overhaul completed January, 2001. (RE: Page 7, Section 2 2, Paragraph 6)*

2.3 K. C. Coleman Station

- *WKE is not aware of inner cylinder distortion that requires correction. (RE: Page 7, Section 2.3, paragraph 3)*
- *The generators, exciters, and voltage regulators are inspected and tested in accordance with the OEM testing procedures using qualified technicians and are maintained based on OEM recommendations (RE: Page 7, Section 2 3, paragraph 6)*
- *A new start-up transformer was installed in January 2006 and since that time, dissolved gas analysis indicated excellent results with the presence of less than 1ppm acetylene (RE: Page 8, Section 2 3, paragraph 1)*
- *A new start-up transformer was installed January 2006. The generators, exciters, and voltage regulators are inspected and tested in accordance with the OEM testing procedures using qualified technicians and are maintained based on OEM recommendations (RE: Page 8, Section 2 3, paragraph 2)*

2.4 D B. Wilson Station

- *The Wilson FGD has not been a contributor to EFOR. (RE: Page 8, Section 2.4, paragraph 1)*

- *Boiler outages are on a 2 year cycle and the turbine-generator is on an 8 year cycle starting in 2009. (RE: Page 8, Section 2.4, paragraph 1)*
- *Lead time for a replacement rotor has been estimated to be 24 to 36 months. (RE: Page 8, Section 2.4, paragraph 3)*
- *The generator rewind and retaining ring replacement is not in WKE's plan. All testing and inspection reports and records are available. (RE: Page 8, Section 2.4, paragraph 4)*
- *The most recent dissolved gas analysis did not indicate an issues relating to acetylene gases. (RE: Page 8/9, Section 2.4, paragraph ending on page 9)*
- *The Wilson FGD only has 4 absorber modules and is operating with sulfur levels in the normal operating range. WKE has assumed a renovation cost of \$750 per kW based on 2007 estimates. (RE: Page 9, Section 2.4, paragraph 1)*
- *WKE assumes the referenced work scope includes replacing the HP-IP rotor, FGD renovation, and the SCR catalyst management process. (RE: Page 9, Section 2.4, paragraph 3)*

2.5 Common

2.5.1 Staffing and Training

- *The "Plant Black Start" procedure does not call for the small auxiliary diesel generator at the Sebree site to start the combustion turbine. This small emergency generator is not capable of providing enough power to crank the combustion turbine. Power to start the combustion turbine must come from the Big Rivers switchyard. This generator is used only for emergency power to the battery chargers, turning gears, and the unit elevator. (RE: Page 10, Section 2.5.1, Paragraph 1)*
- *WKE has developed a core work group at each station with major project and major PM work outsourced. (RE: Page 10, Section 2.5.1, paragraph 4)*

2.6 Big Rivers Plant Aging Impacts

2.7 Big Rivers Risk Analysis

- *The turbine high-vibration trips are active on all Coleman Units. (RE: Page 11, Section 2.7, paragraph 2)*
- *WKE has a comprehensive program of transformer gas analysis program with analysis performed on a bi-annual basis. (RE: Page 12, Section 2.7, paragraph 2)*
- *Trending information for transformers is available through BRECC. (RE: Page 12, Section 2.7, paragraph 4)*

2.7.1 High Energy Piping

- *Wilson Station performed a high energy piping creep analysis during the 2008 outage. (RE: Page 12, Section 2.7.1, paragraph 1)*

- *G2 will have FAC inspections completed during the 2009 spring outage. (RE: Page 12, Section 2.7.1, paragraph 2)*

2.7.2 High Temperature Headers

2.7.3 Petroleum Coke

- *The Green and Wilson units are reported to burn as much as 40% pet coke blend, not the Henderson Units as stated. (RE: Page 13, Section 2.7.3, paragraph 1)*
- *This should refer to Green and Wilson, not the Henderson units. (RE: Page 13, Section 2.7.3, paragraph 5)*
- *This already has been demonstrated at Green and Wilson with the specific repair plans being implemented, not the Henderson Units as stated (RE: Page 14, Section 2.7.3, paragraph 1)*

2.7.4 Pulverizers

3 Reid Station/Henderson Station Two

- *Reid, Henderson, and Green Units comprise what is known as the Sebree Complex, not just Reid & Henderson as stated (RE: Page 15, paragraph 1)*

3.1 Condition Assessment

3.1.1 Boilers

Reid Station

Henderson– Units 1 and 2

- *The Henderson Units have never burned a pet coke blend higher than 30% by weight (RE: Page 16, Section 3.1.1, paragraph 2)*
- *The Henderson Unit Boilers combustion system was not upgraded in 2000 to accommodate natural gas/coal dual fuel capability as stated. (RE: Page 16, Section 3.1.1, paragraph 2)*

Unit 1

- *Bullet Point 2: The Unit 1 air heater baskets were modified and replaced with the enamel coated element surface in 2003 instead of 2002 as stated.*

Unit 2

- *Bullet Point 9: The furnace water seal system was replaced on Henderson Unit 1 in fall 2007, not Unit 2 as stated*
- *Bullet point 12 ~ Major projects planned for the fall 2008 Unit 2 outage include ...*

- *Bullet point 1. The lower waterwall arch tubes are not scheduled for replacement during the fall 2008 Unit 2 outage as stated.*
- *Bullet point 8. Major reconstruction of furnace bottom is not planned or required for Henderson Unit 2 as stated*
- *The last pressure part inspection occurred on Unit 1 in October, 2007 not between January 2006 and January 2007 as stated. (RE: Page 18, paragraph 1)*
- *The Unit 2 reheater was replaced in November, 2007. There are no plans to replace the reheater during the 2008 outage as stated. (RE: Page 18, paragraph 4)*

3.1.2 Boiler Auxiliary Systems

Reid Unit 1

- *The 2002 air heater inspection report referenced was not for Reid Unit 1. No diaphragm cracks have been reported for this unit (RE: Page 18, Paragraph 1)*

Henderson – Units 1 and 2

- *Both air heater rotors were replaced on Henderson Unit 1 in 2003 and the Henderson Unit 2 air heater rotors were replaced in 2004. The Henderson Unit 1 enamelized cold end baskets were replaced in 2005 and the Henderson Unit 2 enamelized cold end baskets are scheduled to be replaced in 2008. (RE: Page 18, Paragraph 1)*
- *The Unit 1 deaerator and FD fans were UT inspected for anomalies during the 2007 outage not Unit 2 equipment as stated. (RE: Page 18, Third Paragraph)*

3.1.3 Air Pollution Control Equipment

Particulate Matter

- *During the fall 2008 outage, a major project is scheduled for only Henderson Unit 2 ESPs to allow continued operation within regulatory guidelines, not to both units as stated. Henderson Unit 1 has ESP repairs scheduled for 2009. (RE: Page 19, second paragraph)*

NOx and SO2

- *Low NOx burners (without over fire air) were installed on the Henderson Units in 1994, but the modification in 2000 to allow firing natural gas was not installed on the Henderson units as implied, only on Reid Unit 1 (RE: Page 19, Paragraph 1)*

- *The FGD Systems bypass stack inspection referenced is for the Henderson 1 and 2 Units only, not Henderson and Green as stated (RE: Page 19 Paragraph 4)*

3 1.4 Steam Turbines

Reid Unit 1

Henderson

Henderson - Unit 1

Henderson - Unit 2

3 1.5 Generators

Reid Unit 1

- *The generator rotor on Reid Unit 1 was not rewound in 2001 as stated (RE: Page 21, Paragraph 1)*

Henderson Units 1 and 2

3.1.6 Electrical and Controls

Reid Unit 1

- *The station batteries were replaced again in 2007. (RE: Page 22, Paragraph 1)*
- *All critical motors on Reid Unit 1 are overhauled per a preventive maintenance schedule with a repair scope and service frequency that is based on individual equipment maintenance requirements. (RE: Page 22, Paragraph 1)*

Henderson Units 1 and 2

3.1.7 Feedwater Heaters

Reid Unit 1

- *Should read Unit 1 instead of Unit 2. (RE: Page 23, Paragraph 2)*

Henderson Unit 1

- *The No. 5 feedwater heater was retubed in 2005, not 2001 as stated. (RE: Page 23, Paragraph 1)*
- *The No. 6 feedwater heater was retubed in 2001, not 2003. (RE: Page 23, Paragraph 1)*

Henderson Unit 2

- *The No. 6 feedwater heater was not retubed in 2004 as stated. (RE: Page 23, Paragraph 1)*
- *The deaerator was thoroughly inspected in the fall 2004 outage and again in 2006. (RE: Page 23, Paragraph 1)*

3.1.8 Cooling Towers

Henderson North

Henderson South

- *The cooling tower distribution decks on both Henderson Units are scheduled to be replaced in 2008 and 2009 for \$400,000, not \$300,000 as stated. (RE: Page 23, Paragraph 1)*

3.1.9 High Energy Piping

Reid Unit 1

Henderson – Units 1 and 2

4 Green Station

4.1 Condition Assessment

4.1.1 Boilers

- *Average BTU for Green Units Coal is 10,800 Btu. (RE: Page 25, Paragraph 2)*
- *G1 pressure parts inspected spring 2007. G2 Completed 2005, with next inspection scheduled for 2009. (RE: Page 25, Paragraph 2)*
- *Economizer Inlet header was not inspected for ligament cracking with the Hone and Glow testing by B&W. The Secondary and Reheater outlet headers on G1 were completed. G2 scheduled for 2009. (RE: Page 25, Paragraph 3)*
- *G1 Overlay was completed with Inconel 622. G2 was completed with Alloy 33. (RE: Page 25, Paragraph 6)*
- *G1 Reheater replaced in 2007. G2 is scheduled for replacement in 2009. (RE: Page 26, Paragraph 1)*
- *Installed Coal Reburn and OAF on G1 and G2. SCR's not installed. (RE: Page 26, Paragraph 1)*
- *Upgrade of coal piping to ceramic elbows completed pre WKE. (RE: Page 26, Paragraph 1)*
- *G1 Boiler Chemical cleaning completed in 1997. G2 in 1990. (RE: Page 26, Paragraph 1)*
- *Tube sampling is performed on 2 year outage intervals. (RE: Page 26, Paragraph 3)*
- *Boiler load is not limited due to boiler slugging conditions on G1 and G2. (RE: Page 26, Paragraph 6)*
- *G2 Reheater replacement is scheduled for 2009. (RE: Page 26, Paragraph 6)*

4.1.2 Boiler Auxiliary Systems

- *Rotor replacements have not been recommended. Green units do not have element tightness installed on the air heater elements. Both G1 and G2 have non enamel coated cold end basket installed. (RE: Page 27, Paragraph 1)*
- *Inspections are performed for pulverizers every 4000 hours. Overhauls are completed every 28,000 hours. Reports are available. (RE: Page 27, Paragraph 1)*

4.1.3 Air Pollution Control Equipment

Particulate Matter

NOx and SO2

- *This refers to SCR's; Green units do not have SCR's. (RE: Page 27, Paragraph 2)*

4.1.4 Steam Turbines

Unit 1

Unit 2

- *The Green units are fully compliant with water induction technology. (RE: Page 29, Paragraph 3)*
- *The G2 turbine overhaul completed January 2001. (RE: Page 30, Paragraph 1)*

4.1.5 Generators

Unit 1

- *Generator "Hit Skid" test for the stator windings was completed and passed testing per General Electric during the 2007 overhaul. Currently the generator has no leaks. (RE: Page 29, Paragraph 1)*
- *Green Unit 1 Generator Retaining Rings replaced in 1997 with 18/18 material supplied by General Electric. (RE: Page 29, Paragraph 1)*

Unit 2

- *The G2 turbine overhaul was completed January 2001. (RE: Page 30, Paragraph 1)*

4.1.6 Electrical and Controls

- *Trending information for transformers is available through BREC. (RE: Page 30, Paragraph 1)*

4.1.7 Feedwater Heaters/Deaerator/Condenser

Unit 1

Unit 2

4.1.8 Cooling Towers

Unit 1

- *During scheduled outages, the Cooling Tower Wood Structure is inspected and all noted deficiencies are addressed. (RE: Page 31)*

Unit 2

- *During scheduled outages, the Cooling Tower Wood Structure is inspected and all noted deficiencies are addressed. (RE: Page 31)*

4.1.9 High Energy Piping

5 K.C. Coleman Station

5.1 Condition Assessment

5.1.1 Boilers

- *This report incorrectly states that unit 3 is equipped with 4 spindle mills. The unit actually has 2 Riley ball tube mills. (RE: Page 33, Section 5.1.1, paragraph 2)*
- *This report incorrectly states Coleman units' fuel design is 9,800 Btu/lb. The correct design fuel is 11,200 Btu/lb (RE: Page 33, Section 5.1.1, paragraph 3)*
- *This report incorrectly states that Coleman Units have fired Petroleum Coke between 20 and 50% by weight since 1998. The Coleman Units have never fired Petroleum Coke during the lease. (RE: Page 33, Section 5.1.1, paragraph 3)*
- *The correct dates for OFA systems installation are: for C1 - 2002, for C2 - 2003, and for C3 - 2004 (RE: Page 33, Section 5.1.1, paragraph 3)*
- *This report states the Coleman units have been plagued with tube failures. Granted, Coleman Units do experience tube failures but tube failures have not prevented the Units from meeting EFOR targets since 1998 (RE: Page 33, Section 5.1.1, paragraph 5)*
- *The report does not mention the environmental control addition of an FGD system. (RE: Page 33, Section 5.1.1, paragraph 6)*
- *C2 weld overlay was performed in 2007, not 2006 (RE: Page 34, Section 5.1.1, 3rd bullet)*
- *Does not include replacement of all PA fans, C1 2005 and C2 2004. (RE: Page 34, Section 5.1.1, bullets)*
- *Unit 1 outage was not fall 2007, it was spring 2005. (RE: Page 34, Section 5.1.1, 13th bullet)*
- *Projecting to 2009, C2 outage is planned for 2010 not 2009. (RE: Page 33, Section 5.1.1, paragraph 3)*
- *C2 rear wall was weld overlaid from the bottom of nose arch to upper bend of lower slope (RE: Page 33, Section 5.1.1, paragraph 3)*

- *References no records of periodic metallurgical tube testing available and last sentence states that metallurgical tube testing is completed periodically to establish the need for chemical cleaning etc. (tube test results are completed by Coleman and available for review) (RE Page 33, Section 5.1.1, paragraph 3)*
- *Weld overlay not warranted and deferred until the next scheduled outage. (RE: Page 35, Unit 3, 8th bullet)*

5.1.2 Boiler Auxiliary Systems

- *2B FD fan motor has ball bearing, other FD fan motors are sleeved bearings. We recondition FD fan motors on a 3-year cycle and a spare motor is available on site. (RE: Page 36, Section 5.1.2, paragraph 3)*
- *Coleman Station does not have ID fans (RE: Page 36, Section 5.1.2, paragraph 4)*

5.1.3 Air Pollution Control Equipment

Particulate Matter

- *Coleman Station does not have a major outage to make numerous repairs and modifications to the ESP's to allow for continued operation within regulatory guidelines. Coleman ESP's are in good operating condition. This statement may be confused with another station? (RE: Page 36 and top of page 37)*

NOx and SO2

- *Low NOx burners were installed in 1993 & 1996 and AFOA systems installed C1 2002, C2 2003, and C3 2004 (RE: Page 37, Section 5.1.3, NOx and SO2, paragraph 1)*

5.1.4 Steam Turbines

- *Net rating for C2 is 138 not 150, (reduced 12 mw's by FGD) (RE: Page 37, Section 5.1.4, paragraph 1)*

Unit 1

Unit 2

Unit 3

5.1.5 Generators

- *The generators, exciters, and voltage regulators are inspected and tested in accordance with the OEM testing procedures using qualified technicians and are maintained based on OEM recommendations (RE: Page 40, section 5.1.5)*

- *Voltage regulators were replaced on C3 in 2006 and C2 in 2007. C1 is planned for 2008 (RE: Page 41, Section 5.1.5, paragraph 1)*

5.1.6 Electrical and Controls

- *Start-up transformer was replaced in January 2006. Acetylene analysis are now <1 PPM (RE: Page 41, Section 5.1.6, paragraph 1)*

5.1.7 Feedwater Heaters/Deaerator

Unit 1

Unit 2

Unit 3

5.1.8 High Energy Piping

6 D.B. Wilson Station

6.1 Condition Assessment

6.1.1 Boiler

- *The boiler was designed to fire fuel with 3.5% or 6.5 lbs per mm BTU SO₂ at 10,600 Btu/lb (RE: Page 44, Section 6.1.1, paragraph 2)*
- *The boiler waterwall tube panels were weld overlaid with Alloy 33 in 2008, 622 in 2006, and 625 circa 1990's (RE: Page 44, Section 6.1.1, paragraph 4)*
- *Wilson Station is on a 2-Year boiler outage interval (RE: Page 44, Section 6.1.1, paragraph 5)*

Unit 1

- *Burner registers have been permanently fixed (2002) Burners optimized by regulating air hoods.*
- *Rotating throat rings have been installed on 4 mills with remaining mill scheduled for the fall of 2008.*
- *Chemical clean performed in 1997.*
- *Primary and finishing superheater replacement tentative pending results of tube metal analysis in 2008.*
- *Coal silo corrosion is extensive but localized in specific areas on each of the 5 silos. Continued mapping will be performed to determine future needs in this area.*
- *Heating surface was also added to the reheat section in 2002.*

- *Weld overlay in 2008 was 2k sq/ft.*

(All comments RE Page 44/45, Section 6.1.1, bullet list)

- *Header analysis began during the 2008 outage. (RE: Page 45, Section 6.1.1, paragraph 3)*
- *2009 - B Platen SH, 2011 - A Platen SH, Evaluation will be based on tube sampling analysis (RE: Page 45, Section 6.1.1, paragraph 5)*

6.1.2 Boiler Auxiliary Systems

- *Mill inspections occur at 3,000 to 4,500 hrs interval with detailed records kept in the maintenance management program (RE: Page 45, Section 6.1.2, paragraph 1)*
- *Wilson does not sell flyash (RE: Page 45, Section 6.1.2, paragraph 3)*

6.1.3 Air Pollution Control Equipment

Particulate Matter

- *Bulleeted items were addressed during the 2008 outage*
- *Additional items identified for repair during the 2009 outage*

NOx and SO2

- *0.5 or 250 ppm NOx SCR inlet @ 90% removal (RE: Page 47, Section 6.1.3, NOx and SO2, paragraph 1)*
- *FGD module top hat (Mist Eliminator access) were replaced on all 4 absorber modules (RE: Page 47, Section 6.1.3, NOx and SO2, first bullet item)*

6.1.4 Steam Turbines

- *The nozzle bock was refurbished in 2003 with non plans to replace (RE: Page 48, Section 6.1.4, paragraph 2)*
- *HP/IP rotor stress relief is in WKE's plan but not in BREC plan. (RE: Page 48, Section 6.1.4, paragraph 3)*
- *HP/IP rotor bore examination was performed in 2003 no further action in 2006. (RE: Page 48, Section 6.1.4, paragraph 3)*
- *LP turbine was visually inspected in 2006 (RE: Page 48, Section 6.1.4, paragraph 3)*
- *LP turbine and valve inspections were performed in 2008. (RE: Page 48, Section 6.1.4, paragraph 3)*

6.1.5 Generators

- *A 2003 report indicated generator is in good condition as stated in this paragraph. "Shorted" turns or "hot spots" have been noted by Westinghouse*

since this unit was first put in service. The condition continues to be monitored, real time, by on-site and remote vibration analysis experts. (RE: Page 48/49, Section 6.1.4)

- *A generator rewind is not in WKE nor BREC business plans. (RE: Page 48/49, Section 6.1.4)*
- *LP turbine and valves inspected in 2008, HP/IP & generator are scheduled in 2009 BREC plan or in 2010 WKE plan. (RE: Page 48/49, Section 6.1.4)*

6.1.6 Electrical and Controls

- *Standby diesel generator issues identified within this report on have been corrected. (RE: Page 48, Section 6.1.6, paragraph 2)*
- *All Wilson Station transformers are within satisfactory operating parameters per reporting documents. (RE: Page 48, Section 6.1.6, paragraph 3)*
- *All underground 6.9 kV cable has been identified as a high risk and is in WKE's and BREC's plan. (RE: Page 48, Section 6.1.6, paragraph 4)*

6.1.7 Feedwater Heaters/Deaerator/Condenser

6.1.8 Cooling Tower

- *Variable frequency drives and fan blades were replaced in 2001 in 9 cells. Drift eliminator and fill was replaced in 2008 on 4 cells. The remaining 5 cells will be budgeted and replaced in 2009. (RE: Page 49, Section 6.1.8)*

6.1.9 High Energy Piping

- *High energy piping system inspections are performed during scheduled boiler outages. (RE: Page 50, Section 6.1.9, paragraph 2)*

7 Performance

7.1 Definitions

7.2 Historical and Projected Performance

Reid Station

Henderson – Units 1 and 2

Green Station

- *High temperature coal ash corrosion is affecting waterwalls only. Not affecting Superheater at this time. (RE: Page 54, Paragraph 1)*

Coleman Station

Wilson Station

- *The FGD system is not a major contributor to EFOR. (RE: Page 54/55)*

8 Operation and Maintenance

8.1 General

8.2 Reid/Henderson /Green

8.2.1 Staffing and Training

8.3 Reid/Henderson

8.3.1 Operation and Maintenance and Capital Expenditure Projections

Reid Unit 1

- *Reid Unit 1 does not have induced draft fans or reheater tubes that could need significant work as recommended in this technical assessment. (RE: Page 58, Paragraph 2)*

Henderson – Units 1 and 2

- *The Henderson Unit 2 reheater was replaced in 2007 and is no longer included in budget projections for 2008 as stated. (RE: Page 59, Paragraph 4)*

8.4 Green

8.4.1 Operation and Maintenance and Capital Expenditure Projections

Unit 1

- *9th stage turbine blades were replaced during 2007 overhaul. (RE: Page 61, Paragraph 2)*
- *The Green units are fully compliant with water induction technology. (RE: Page 61, Paragraph 2)*

Unit 2

- *The Green units are fully compliant with water induction technology (RE: Page 61, Paragraph 2)*

8.5 K.C. Coleman

8.5.2 Operation and Maintenance and Capital Expenditure Projections

- *Coleman Station does not have induced draft fans (RE: Page 63, section 8.5.2, paragraph 2)*

Unit 1

- *The generators, exciters, and voltage regulators are inspected and tested in accordance with the OEM testing procedures using qualified technicians and are maintained based on OEM recommendations (RE: Page 63, section 8.5.2, Unit 1, paragraph 3)*

Unit 2

- *The generators, exciters, and voltage regulators are inspected and tested in accordance with the OEM testing procedures using qualified*

technicians and are maintained based on OEM recommendations. (RE: Page 63, section 8 5 2, Unit 2, paragraph 3)

Unit 3

- *WKE has not planned to replace the HP/IP rotor in 2012. (RE: Page 64, section 8 5 2, Unit 3 , paragraph 2)*
- *The generators, exciters, and voltage regulators are inspected and tested in accordance with the OEM testing procedures using qualified technicians and are maintained based on OEM recommendations (RE: Page 64, section 8 5.2, Unit 3)*

8.6 Wilson

8.6.1 Staffing and Training

8.6.2 Operation and Maintenance and Capital Expenditure Projections

- *Turbine nozzle block replacement is not in the WKE or BREC plan. (RE: Page 67, Section 8 6.2, paragraph 1)*
- *The generator rewind/retaining ring replacement is not in the WKE or BREC plan. (RE: Page 67, Section 8 6 2, paragraph 2)*

9 Environmental

9.1 Summary of Existing Air Emission Limits and Existing Air Pollution Control Systems

9.2 Review of Air Compliance Plans

9.2.1 CAIR SO₂ Compliance Plans

9.2.2 CAIR NO_x Compliance Plans

- *Green units will lose standby mills for dedicated reburn mill only. Will have standby mills for other non-reburn mills. (RE: Page 74, Paragraph 1)*

9.2.3 CAMR Mercury Compliance Plans

9.2.5 Potential Greenhouse Gas Regulations

9.3 Review of Phase II 316 (b) Rule Compliance Plans

9.4 Other Potential Environmental Impacts on Capital Cost or Reliability

9.4.1 New Source Review Compliance

9.4.2 Ash Disposal Capacity

- *Coleman will complete construction of a new waste water treatment facility (ash pond) in 2008 (RE: Page 77, paragraph 2, 2nd bullet)*
- *Wilson Phase 2 is targeted for 2009 (RE: Page 77, paragraph 2, 2nd bullet)*

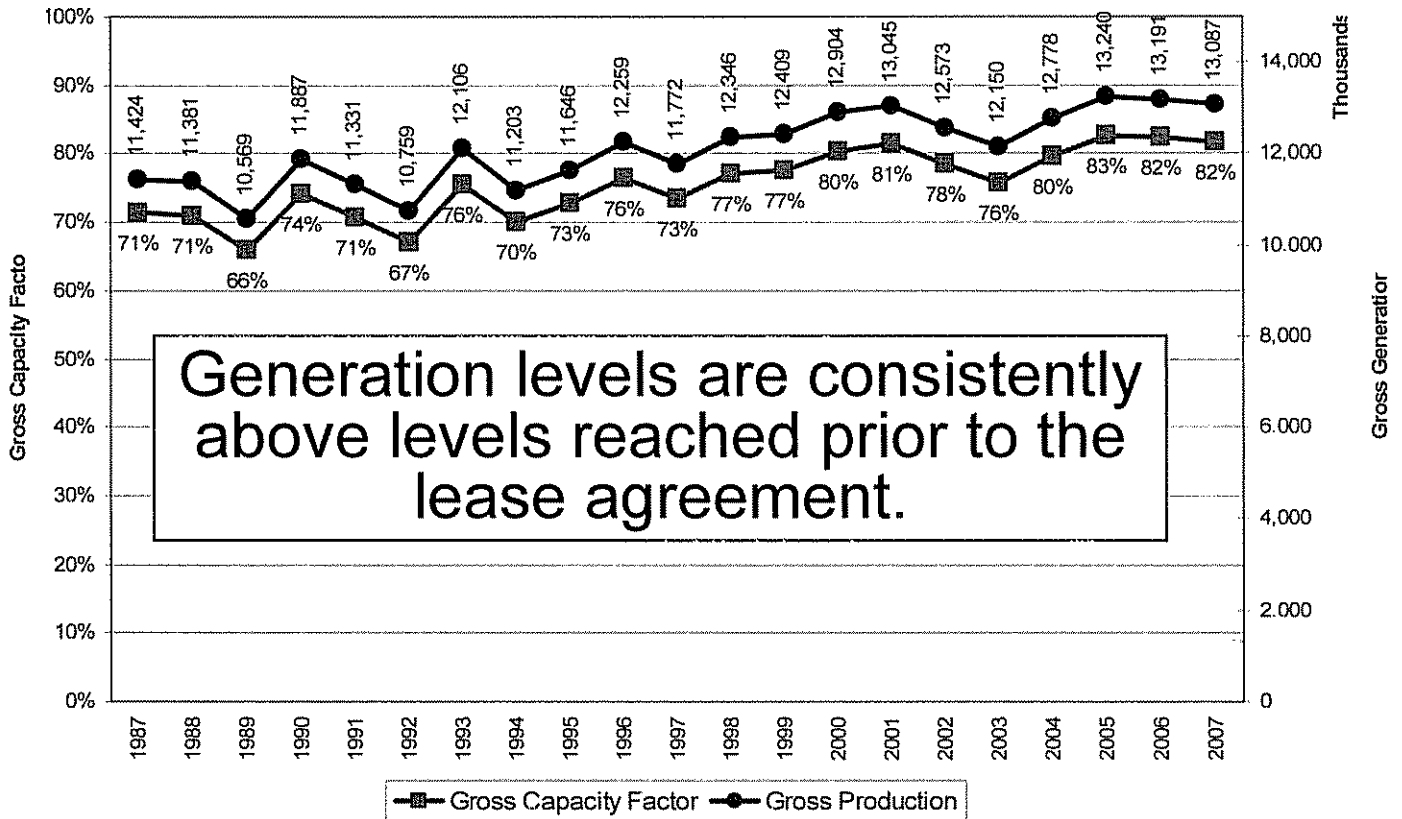
9.4.3 Site Remediation

9.5 Summary of Major Environmental Cost Impacts

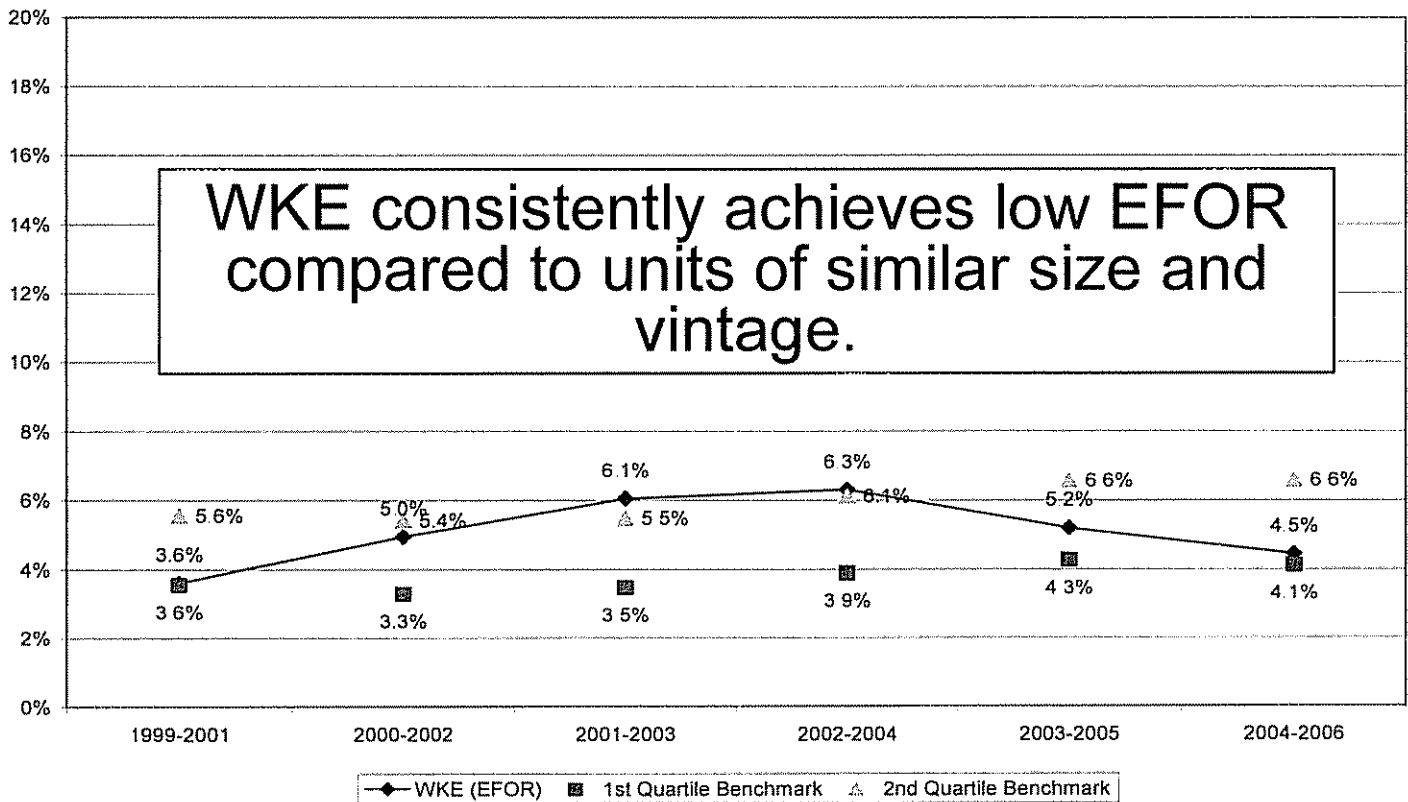
EXHIBIT B

WKE SYSTEM PERFORMANCE

System Gross Capacity Factor/Generation



WKE EFOR vs. Benchmark



WKE SYSTEM PERFORMANCE

WKE EAF vs. Benchmark

