

Exhibit No.: _____
Issue: SLCC, State Line 1, & Energy Center Mtce. Exp.
Witness: Brad P. Beecher
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: The Empire District Electric Company
Case No.: ER-2001-299
Date Prepared: May 16, 2001

SURREBUTTAL TESTIMONY
OF
BRAD P. BEECHER
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2001-299

FILED³
MAY 17 2001
Missouri Public
Service Commission

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A. Brad P. Beecher. My business address is 602 Joplin Street, Joplin, Missouri.

3 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

4 A. The Empire District Electric Company ("Empire" or "Company"), I am Vice President -
5 Energy Supply.

6 Q. ARE YOU THE SAME BRAD P. BEECHER WHO HAS PREVIOUSLY FILED
7 REBUTTAL TESTIMONY IN THIS CASE?

8 A. Yes, I am.

9 Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

10 A. The purpose of my testimony is to respond to the rebuttal testimony of Mr. Elliot and, by
11 doing so, to provide further clarification of the operation and maintenance expense rebuttal
12 testimony filed by the Staff for State Line and Energy Center facilities.

13 **STATE LINE COMBINED CYCLE, STATE LINE 1, AND ENERGY CENTER**

14 **MAINTENANCE EXPENSE**

15 Q. ON PAGE 1 AND 2 OF MR. ELLIOTS' REBUTTAL TESTIMONY HE MAKES

1 STATEMENTS CONCERNING THE INCLUSION OF MAINTENANCE COSTS FOR
2 THE SLCC PLANT AND THE ENERGY CENTER. HE STATES THAT SINCE THE
3 COMPANY HAS NOT SIGNED A CONTRACT AT THIS TIME FOR MAINTENANCE
4 SERVICES, THAT STAFF WILL CONSIDER THE CONTRACTS AS A BASIS FOR
5 MAINTENANCE EXPENSES IN THE TRUE-UP PORTION OF THE CASE. CAN YOU
6 COMMENT BRIEFLY ON MAINTENANCE CONTRACTS FOR SLCC AND ENERGY
7 CENTER?

8 A. Yes. As I stated in my rebuttal testimony, I think Staff has a general misunderstanding
9 concerning the operation and maintenance expenses at State Line and Energy Center.
10 Empire witness Mr. Groninger's direct testimony provides a very good overview concerning
11 the amount and type of operation and maintenance expenses that we expect at State Line.

12 Staff witness Mr. Elliot also states that Empire is negotiating for a long-term
13 maintenance contract for its State Line and Energy Center units. At this time, Empire is
14 actively negotiating a long-term contract for "major maintenance" on the combustion turbine
15 engines for the SLCC. We have just begun pursuing a long-term major maintenance contract
16 on the simple cycle State Line 1, and Energy Center 1 & 2.

17 Q. DOES EMPIRE PLAN TO SIGN A LONG-TERM MAJOR MAINTENANCE CONTRACT
18 WITH SIEMENS-WESTINGHOUSE FOR THE STATE LINE AND ENERGY CENTER
19 FACILITIES?

20 A. Empire has made great progress towards executing a long-term major maintenance contract
21 on the SLCC unit and would anticipate signing an agreement with Siemens before June 30,
22 2001. Empire has just begun talks with Siemens regarding a long-term major maintenance
23 contract for the Energy Center and State Line 1.

1 Q. YOU USED THE WORDS "MAJOR MAINTENANCE". WHAT OTHER COMPONENTS
2 MAKE UP OPERATION AND MAINTENANCE EXPENSES?

3 A. First I will describe the term "major maintenance". Major maintenance is the term utilized
4 for the combustor, hot gas, and major inspections on the combustion turbine engines. Major
5 maintenance is the item for which we are considering executing a long-term agreement.
6 Staff has agreed to consider this expense if Empire has signed a contract at time of true-up.
7 Mr. Groninger's direct testimony includes a lot of background information on the
8 components of major maintenance.

9 Operations expenses include items such as operating labor. Empire has hired the
10 majority of personnel at State Line. Most of their labor has been capitalized as part of the
11 project's cost through this time. When the unit is declared commercial, the salaries for these
12 employees will become an operations expense. Empire believes that Staff has agreed to
13 include expenses for the labor component at SLCC based on the annualized cost of the
14 employees actually employed at State Line at time of the true-up.

15 Major maintenance does not include items for boiler maintenance, plant ground upkeep,
16 steam turbine maintenance, SCR maintenance, etc. Empire contemplates maintaining this
17 type of equipment without a long-term contract utilizing a combination of shorter-term
18 contracts and the utilization of site personnel where and when possible. Staff has not
19 addressed this issue to date in their testimony.

20 Empire believes that the cost levels included in Mr. Groninger's testimony are
21 representative of the costs to operate and maintain State Line. Short of any evidence
22 presented by the other parties to this case or a contract that specifically identifies the major
23 maintenance portion of the costs, the Commission should include all of the costs identified

1 in Mr. Groninger's testimony as appropriate costs to operate and maintain the State Line
2 facility. It will not serve any of the parties to this case to allow for capital costs and fuel
3 costs and not allow for adequate O&M to maintain the State Line facility.

4 Q. WHAT PAGE OF MR. GRONINGER'S TESTIMONY SHOULD THE COMMISSION
5 UTILIZE TO ASCERTAIN O&M COSTS FOR SLCC AND STATE LINE 1?

6 A. Table 2 of Schedule 1 to Mr. Groninger's direct testimony contains a constant dollar
7 estimate of the costs to operate SLCC and State Line 1. It does not reflect any costs to
8 operate and maintain the Energy Center. The table is broken into 3 sections.

9 The first section is entitled "Fixed O&M Costs – State Line 1-CC". This section
10 contains an estimate for fixed items for State Line 1 and SLCC. It includes items such as
11 staffing and overheads that Staff has agreed to address during true-up. It also includes an
12 estimate for material and supplies, routine maintenance, both contract and self-performed
13 and other items that Staff has not addressed in this case, and that will not be part of any
14 long-term major maintenance contract.

15 The second section is entitled "Variable O&M Costs – State Line 1". This section
16 includes estimates for "major maintenance" expenses that would be covered in a long-term
17 major maintenance agreement and an estimate for "BOP Maintenance" (Balance of Plant)
18 that would not be included in a long-term major maintenance contract and has not been
19 addressed by Staff in this case.

20 The third section is entitled "Variable O&M Costs – SLCC". This section includes
21 estimates for "major maintenance" expenses that would be covered in a long-term major
22 maintenance agreement plus an estimate for heat recovery steam generator maintenance
23 (HRSG), steam turbine maintenance, generator inspections, and BOP maintenance that have

1 not been addressed by Staff in this case.

2 Q. DOES EMPIRE PLAN TO SIGN A CONTRACT FOR THE NON "MAJOR
3 MAINTENANCE" ITEMS FOR SLCC?

4 A. No. As I stated earlier, Empire contemplates performing this type of operations and
5 maintenance without a long-term contract, utilizing a combination of shorter term contracts
6 and the utilization of site personnel where and when possible

7 Q. ISN'T THERE ALLOWANCE FOR THIS TYPE OF EXPENSE IN THE TEST YEAR
8 HISTORY AT STATE LINE?

9 A. No, operations and maintenance expenses at State Line during 2000 were recorded at
10 \$284,869 (\$267,190 labor and \$17,679 other than labor). This compares to a year 2002
11 estimate from Mr. Groninger's testimony of \$5,351,400 for the State Line plant or
12 approximately \$2,757,360 for Empire's portion of the plant.

13 Q. WHAT ARE THE REASONS FOR THESE LARGE DIFFERENCES?

14 A. There are two major differences. First, and most significant is that we are adding the new
15 combined cycle unit. Second, and less obvious is that 2002 contains a combustor inspection
16 for State Line 1. Because of the nature of the combustion turbine overhaul cycle, the costs
17 are not consistent year over year. Since 2000 happened to be a year where no "major
18 maintenance" occurred, the test year contains no allowance for major maintenance on the
19 combustion turbine. If the Commission will examine the total line on Table 2, it will see
20 variations from \$2,523,700 in 2003 (no major maintenance) to \$31,165,800 in 2009 (first
21 major overhaul). It is this extreme variation due to major maintenance costs that has forced
22 Empire to pursue a long-term major maintenance contract that contains a levelized cost
23 pricing mechanism. Mr. Groninger's testimony further details the major maintenance cycle

1 for combustion turbines.

2 Q. ARE THERE SIMILAR CONCERNS FOR ENERGY CENTER O&M?

3 A. Yes. Actual 2000 expenditures total \$424,442 (\$261,928 labor and \$162,514 other than
4 labor) at the Energy Center. Year 2000 was a year where no major maintenance occurred. At
5 this time Energy Center 1 is nearing the need for a "Major" overhaul and Energy Center 2 is
6 nearing the need for a "combustor" overhaul. These overhauls are based on starts and
7 running hours that we have incurred on the combustion turbine engines, but have not yet
8 paid for as part of the major maintenance cycle. We estimate the "Major" cost on Energy
9 Center 1 to be \$5,831,700 and the combustor cost on Energy Center 2 to be \$1,065,000.
10 Once again it's the volatility from "zero" major maintenance expenses in 2000 to "millions"
11 in 2002 that is driving Empire to sign long-term levelized price major maintenance contracts
12 on the combustion turbine engines.

13 Q. WHAT DID EMPIRE INCLUDE FOR O&M EXPENSES IN ITS CASE?

14 A. Empire included a 4.5-year average projection from an early version of Mr. Groninger's
15 testimony for SLCC and a 5-year average projection for the Energy Center. We did not ask
16 for expenses from a high year, but only for a representative average. Our case included
17 \$2,500,742 for fixed O&M for SLCC and the following major maintenance type expenses
18 (\$3,152,426 per year for SLCC, \$414,133 for State Line 1, and \$2,006,100 for Energy
19 Center 1 & 2). These numbers represent 100% of Empire's share of the costs.

20 Q. YOUR PROJECTIONS ARE BASED ON FUTURE OVERHAULS. CAN'T WE LOOK AT
21 LONGER TERM HISTORY TO OBTAIN AN ESTIMATE FOR O&M FOR ENERGY
22 CENTER AND STATE LINE 1?

23 A. No, for a couple of reasons. First, State Line 1 didn't exist before 1995. Therefore, the first

1 year or two contained no major maintenance because it was new. As it ages, its maintenance
2 requirements will increase from a combustor inspection, to hot path inspections, and finally
3 a major inspection. Each step in the progression costs more, and this progression is not
4 caught in the history.

5 Though the Energy Center is approximately 20 years old, neither of the units saw
6 significant operation until they were converted to natural gas in the mid-1990's. Because of
7 the high cost of oil and high capacity margins in the 1980's historical operation is no
8 indicator of today's environment. Energy Center 1 is almost due for the first "major"
9 overhaul in its history.

10 Q. WILL EMPIRE INCUR OPERATION AND MAINTENANCE EXPENSES EVEN IF IT
11 DOESN'T SIGN A LONG TERM MAJOR MAINTENANCE CONTRACT?

12 A. Most definitely. One of the main drivers for a long-term contract is to levelize the extreme
13 variations from the "major maintenance" type of expenses. However, should we not sign a
14 contract, Mr. Groninger's testimony provides an estimate of the costs that we will incur.

15 Q. HOW DO YOU RECOMMEND THE COMMISSION TREAT THE O&M EXPENSES AT
16 STATE LINE AND THE ENERGY CENTER?

17 A. First, I simply ask that an allowance be included regardless of whether we have signed a
18 major maintenance contract or not. Power plants take maintenance to start and run. Staff's
19 own fuel run shows utilization on the simple cycle CT's in excess of 15% capacity factor. If
20 we don't perform maintenance, the units will not be available to run. For the Staff to
21 conclude that only expenses associated with a long-term contract are allowable is not
22 realistic. I believe the estimates contained in Empire's filing should be considered by the
23 Commission as appropriate levels of expense. The parties to this issue in this case have been

SURREBUTTAL TESTIMONY
BRAD P. BEECHER

1 focused on in-service criteria, fuel and purchased power expense, and State Line capital
2 costs. It is my hope that this testimony will help clarify this issue for both the
3 Commissioners and other parties to this case.

4 Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

5 A. Yes, at this time.


AFFIDAVIT

STATE OF MISSOURI)
) ss
COUNTY OF JASPER)

On the 16th day of May, 2001, before me appeared Bradley P. Beecher, to me personally known, who, being by me first duly sworn, states that he is the Vice President – Energy Supply of The Empire District Electric Company and acknowledged that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.


Bradley P. Beecher

Subscribed and sworn to before me this 16th day of May, 2001.


Patricia A. Settle, Notary Public

My Commission expires: August 16, 2002.

