Exhibit No.:

Issues: Construction Audit of State Line;

Fuel; Operation & Maintenance Expense

Witness: Cary G. Featherstone

Sponsoring Party: MoPSC Staff

Type of Exhibit: Revised Surrebuttal Testimony

Case No.: ER-2001-299

Date Testimony Prepared: June 1, 2001

## MISSOURI PUBLIC SERVICE COMMISSION UTILITY SERVICES DIVISION

#### REVISED SURREBUTTAL TESTIMONY

**OF** 

**CARY G. FEATHERSTONE** 

#### THE EMPIRE DISTRICT ELECTRIC COMPANY

**CASE NO. ER-2001-299** 

\_Exhibit No. <u>\</u> O&

Date 6-CY-CI Case No. ER-2001 299

Jefferson City, Missouri June 2001

\*\*Denotes Highly Confidential Information\*\*

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| I  | REVISED SURREBUTTAL TESTIMONY  |
|----|--|
| 2  | OF   |
| 3  | CARY G. FEATHERSTONE   |
| 4  | THE EMPIRE DISTRICT ELECTRIC COMPANY   |
| 5  | CASE NO. ER-2001-299   |
| 6  |  |
| 7  | o Please state your name and business address.                                       |
| 8  | A. Cary G. Featherstone, 3675 Noland Road, Independence, Missouri 64055.             |
| 9  | Q. By whom are you employed and in what capacity?                                    |
| 10 | A. I am a Regulatory Auditor with the Missouri Public Service Commission             |
| 11 | (Commission).  |
| 12 | Q. Are you the same Cary G. Featherstone who has previously filed direct             |
| 13 | testimony in this proceeding?  |
| 14 | A. Yes, I am.  |
| 15 | Q. What is the purpose of this surrebuttal testimony?                                |
| 16 | A. The purpose of this testimony is to address the rebuttal testimony filed by       |
| 17 | The Empire District Electric Company (Empire or Company) witnesses Brad P. Beecher,  |
| 18 | Natalie Rolph and Jim E. Wilson, concerning the issue of State Line Combined Cycle   |
| 19 | Unit (Combined Cycle Unit) cost. In particular, I will address the following points: |
| 20 | State Line Combined Cycle Unit construction cost overruns.                           |
| 21 | Empire witnesses rebuttal testimony relating to the Company's oversight role         |
| 22 | in prior construction projects.  |
| 23 | Cost overruns for non-contractor performance issues.                                 |

- Cost overruns relating to the contractor performance issue.
- The Stipulation And Agreement relating to the Interim Energy Charge.
- Operation and maintenance expenses for selected Empire power plants.
- Empire witnesses' use of industry averages as an attempt to justify the cost overruns.

#### STATE LINE COMBINED CYCLE UNIT

- Q. Are the construction costs relating to State Line Combined Cycle Unit still in issue?
- A. Yes, although Staff is currently negotiating a settlement that would substantially reduce the differences with Empire on this issue. On May 14, 2001, Empire, Office of the Public Counsel (Public Counsel) and Staff reached an agreement in principle to resolve the cost overrun issue relating to the contractor performance issue that occurred during the construction of the Combined Cycle Unit. The Company has agreed to identify and explain the remaining cost overruns for this unit and provide these explanations no later than the time of the true-up. To the extent these additional cost overruns are explained, no other disagreement exists between Empire, Public Counsel and Staff relating to this issue. A Stipulation And Agreement will be filed with the Commission as soon as the document is prepared and executed.

However, since the Stipulation And Agreement has not been signed and submitted to the Commission for its consideration, Staff believes that it is necessary to submit surrebuttal testimony on the Combined Cycle Unit cost overruns.

Q. At pages 13 and 14 of Empire witness Beecher's rebuttal testimony, he quotes in full a data request response that Staff quoted in part in its direct testimony

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relating to Empire's role as a general contractor on the Combined Cycle Unit. Was it

No. The fact that Staff did not quote the entire data request response was

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Staff's intent to criticize Empire's role as the general contractor on this project?

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not intended to reflect criticism of Empire as to how it approached the construction of the

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Combined Cycle Unit in comparison to the type of oversight it provided in the

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construction of State Line Units 1 and 2. Staff's intent was to provide the Commission

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with a general overview of how the Combined Cycle Unit project was being managed by

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Empire, in comparison to its previous construction projects. While the complete response

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quoted by Mr. Beecher provides interesting information, it does not in any way change

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the circumstances surrounding the overruns identified by Empire in other data request

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responses.

Q.

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"regardless of Staff's statement concerning the 'turn-key' construction of State Line 1 &

Mr. Beecher states at page 14, line 24 of his rebuttal testimony that

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2, the answer to DR 221 above clearly shows Empire undertook some general contractor

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risk even on State Line 1 & 2." Was Staff aware that Empire provided an oversight

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function of State Line Units 1 and 2?

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A. Yes. Prior to Staff's review of the Combined Cycle Unit cost, Empire had

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identified its role in the development and construction of State Line 1 and 2, which had

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in-service dates of 1995 and 1997. Empire has referred to the State Line 1 and 2 "as

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modified turn-key" construction projects, meaning that it provided oversight of certain

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aspects of the construction of both of these units. In response to Data Request No. 221,

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identified at page 13 of Mr. Beecher's rebuttal testimony, Empire also refers to State Line

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1 construction as a "partial turn-key" project. Empire's role in the construction of State

Line 1 was site procurement, fuel procurement, office space development, oil tank procurement and erection, fire water system, as well as numerous other responsibilities "outside" the power island area. This response further indicates that Empire employed Black & Veatch to assist in the design of some of these systems outside the power island.

When Staff used the term "turn-key" in its direct testimony to describe how State Line 1 and 2 was constructed, it was referring to the combustion turbine unit and all the components that make up what is referred to as the power island relating to the combustion turbine. This turn-key contract was with Westinghouse who had the responsibility to manufacture the combustion turbine and to install it on-site at the State Line facilities. As indicated in Data Request No. 221, "Westinghouse employed contractors for engineering and construction." Westinghouse provided the same services with regard to State Line 2. Staff's direct testimony contrasted the construction of State Line 1 and 2 as a package installation for the combustion turbines with the current construction of the Combined Cycle Unit. There can be no dispute that Empire provided different levels of oversight and hands-on management of the Combined Cycle Unit project than it did with the construction of State Line 1 and 2. That is not intended to be a criticism, as implied by Mr. Beecher, but simply a statement of fact.

Q. At page 15, line 14 of Mr. Beecher's rebuttal testimony, he states that the "original cost estimate by Empire did not include components to supply all in plant performance and cost guarantees. Empire quite simply took these risks in an attempt to save our customers money." Did the fact that Empire assumed a greater role and, ultimately, a greater risk on the Combined Cycle Unit project, in what it asserts was a

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cost-saving measure, in any way absolve Empire of the responsibility for the overruns

2 | that are associated with the Combined Cycle Unit?

A. No. Staff's criticism of Empire and its contractors relating to the overruns of the Combined Cycle Unit primarily focuses on one contractor that was terminated from the project. While there have been significant cost overruns in other aspects of the construction of the Combined Cycle Unit, Staff's most significant concerns relate to the installation of two heat recovery steam generators (HRSGs). As identified in the direct testimony, the original award of the heat recovery system (boilers) was \$5.3 million on a total project basis. The current estimate for the total installation of the boiler is \$16.6 million, an overrun of approximately of \$12 million. In response to Data Request No. 220, Empire has identified that the removal of the original contractor it hired to install the HRSGs resulted in a cost of approximately \$12 million over the original contract price. This significant cost overrun was the principle focus of Staff's direct testimony and represents the major difference in positions between Empire and Staff in this case. Empire has requested full recovery of the cost overrun relating to the HRSGs while Staff believes that customers should not be responsible for providing recovery of this cost overrun in rates.

Q. Were there other cost overruns relating to the Combined Cycle Unit?

A. Yes. Empire witness Virgil E. Brill, former Vice President-Energy Supply at the time of Empire's November 3, 2000 direct filing, indicated at page 9, line 9 of his direct testimony that the original estimate for the expansion of the Combined Cycle Unit was \$173 million. At the time of its November 3rd filing, Empire expected the State Line expansion cost to be approximately \$204 million. Mr. Brill indicated that the primary

cause of the overrun was the "tight labor markets." (Brill direct, p. 9, line 11). The difference between the original estimate and the more recent estimate cited by Mr. Brill represents, on a total Combined Cycle Unit project cost basis, a \$31 million cost overrun. With the overrun relating to the HRSGs being \$12 million, there is approximately \$19 million of other cost overruns relating to the Combined Cycle Unit.

- Q. Did Empire attempt to justify the Combined Cycle Unit cost overruns in its rebuttal testimony?
- A. Yes. Empire witness Beecher identified the cost overruns for the Combined Cycle Unit at pages 6 through 9 of his rebuttal testimony. Staff had previously indicated in its direct testimony the need for Empire to justify and support the cost overruns for the project. At pages 42 and 43 of my direct testimony, and Schedule 8 attached to that testimony, Staff identifies the amounts of the cost overruns for the Combined Cycle Unit. Staff indicated in its direct testimony at page 43:

[I]f appropriate explanations and support are provided for the cost overruns, Staff will reduce the quantification of the unexplained amounts and Staff will make a determination as to the recovery in rates of these overrun amounts. The circumstances surrounding the cost overruns will be evaluated and a recommendation will be made regarding any disallowances over the amount of disallowance of the HRSGs construction cost.

Further, at page 42 of my direct testimony, I stated:

Staff believes that the original contract estimate is a prudent project cost; therefore, it is the Company's obligation to satisfactorily support including in rate base costs that exceed the original contract estimate. Any difference between the original contract estimate and the final completion cost should not be included in rate base by the Commission until such time as the Company has provided an adequate explanation, with support that demonstrates the Company prudently incurred the cost."

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Have Empire's witnesses provided an adequate explanation, with support, Q.

that demonstrates the Company prudently incurred the costs that exceed its original

contract estimate?

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No. While Mr. Beecher attempts to address the overruns relating to the A.

Combined Cycle Unit at pages 6 through 9 of his rebuttal testimony, Empire has not provided meaningful justification and support for these cost overruns. At page 7, line 6, Mr. Beecher identifies his "Table 1" that lists the individual cost components of the Combined Cycle Unit for the original estimate as of January 1, 1999, and the most recent cost estimate as of April 15, 2001. These costs are broken out by Black & Veatch engineering scope, the individual cost components relating to the Combined Cycle Unit, along with Empire's scope of the project and the total project cost estimate of \$173 million as of January 1, 1999, and the current estimate of \$203 million as of April 15, 2001.

Mr. Beecher indicates at page 7, line 13 of his rebuttal testimony that "the cost increases are attributable to labor costs and productivity, change orders, clarifications in scope and a contract performance issue with the boiler erection contractor. These functional categories represent over approximately 75 contracts for services." Further, at page 10, line 21 of Mr. Beecher's rebuttal testimony, he states that "Empire has paid approximately \$4.4 million in increased wages and incentives in an effort to maintain the schedule." In general, both Mr. Beecher and Empire witness Natalie Rolph, an Empire consultant employed by Black & Veatch, assert that the cost overruns are primarily the result of increases in craft labor rates. In my direct testimony at page 37, I indicate that Empire identified the cost overruns above the original estimate of between \$5 to \$6 1 m
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million for increased wages and incentives relating to the craft labor shortage issue. Even using the higher estimate of \$6 million relating to craft labor shortages that was provided to Staff in meetings and data requests, that would still leave approximately \$13 million in cost overruns that remain unexplained by Empire (\$19 million non-HRSGs overruns minus \$6 million for the craft labor shortage issue). Using Mr. Beecher's quantification in his rebuttal testimony of \$4.4 million, the remaining non-HRSGs' overruns are \$14.6 million (\$19 million non-HRSGs overruns minus \$4.4 million for craft labor shortage issue).

Q. Did Staff emphasize to Empire the importance of identifying and justifying the non-HRSGs overruns for the Combined Cycle Units?

A. Yes. In addition to the direct testimony that was cited above, Staff emphasized during discussions with the Company in the prehearing conference the importance to Empire of providing support and justification for the cost overruns if it wanted Staff to recommend recovery of the cost overruns in this case. Staff believes that the Company needs to do a much better job in identifying the cost overruns associated with the Combined Cycle Unit that do not relate to the HRSGs installation than was provided in its rebuttal testimony.

An example that Staff cited in its direct testimony of an explanation for a cost overrun that should be included in rate base involves a maintenance overhead crane for the Combined Cycle Unit's two combustion turbines, the original State Line 2 and the new combustion turbine. The original design of the Combined Cycle Unit project did not include an overhead maintenance crane. At some point during the project's development, the owners made a decision to include an overhead maintenance crane for the combustion

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turbines. Staff is not taking issue with this cost overrun and believes that this was a reasonable management decision. It represents a somewhat substantial cost overrun since it was not included in the original design, but it should be included in the final cost of the Combined Cycle Unit. This example has been discussed with Empire on numerous occasions as an example of a basis for justifying a cost overrun. However, Empire made no mention of the maintenance crane in its rebuttal testimony. Staff believes that there could be other similar examples relating to the Combined Cycle Unit that, when they are identified and adequately explained, will cause Staff to recommend inclusion of those overruns in the final cost of the Combined Cycle Unit to be included in rates.

Q. Will the Company have another opportunity in this proceeding to identify and justify the non-HRSGs cost overruns?

A. Yes. Staff believes that Empire can provide this information in the true-up phase of this case. The true-up will reflect financial data as of June 30, 2001, providing an opportunity for true-up testimony to be submitted August 7, with rebuttal true-up testimony on August 13 and surrebuttal true-up testimony on August 17. There is a two-day true-up hearing scheduled for August 22nd and 23rd, identified in the January 4, 2001 Commission Order Setting Test Year, Setting True-Up Hearing And Adopting Procedural Schedule. Staff would also support Empire being allowed to provide supplemental testimony as an alternative to providing true-up testimony in order to give Empire additional time to develop justification and support for the non-HRSGs overruns for the Combined Cycle Unit.

Q. Does Empire use industry comparisons in an attempt to justify the Combined Cycle Unit cost overruns?

A. Yes. Empire witnesses Beecher and Rolph use industry comparisons in their respective rebuttal testimonies in an attempt to provide justification for the increased cost for the Combined Cycle Unit. Staff witness Mark L. Oligschlaeger will address Staff's position on the use of industry comparisons as a means of justifying cost overruns relating to power plant construction in his surrebuttal testimony. Staff does not believe that the use of industry comparisons can, in any way, provide any relevant justification for power plant construction cost overruns and, in particular, the cost overruns in this case associated with the HRSGs. Cost overruns that relate to contractor error and lack of contractor performance can in no way be justified by simply comparing the overall cost increase of a particular project to those of other projects that may or may not be of a similar nature.

While Mr. Oligschlaeger also addresses this point, it is important to emphasize that the Empire witnesses have chosen not to provide any information such as work papers to Staff that supported the comparisons used by either of the two Empire rebuttal witnesses to justify the cost overruns. Because the primary cost overruns at issue relate to a contractor performance issue and because Empire provided to Staff no supporting documents to review concerning the alleged comparable Combined Cycle Units, the Commission should completely disregard the two industry comparisons made by the Empire rebuttal witnesses Beecher and Rolph.

Q. Empire witness Rolph describes in her rebuttal testimony on page 3 that there have been increases in the cost of the combined cycle units being constructed in the United States today. Are the cost increases that have occurred for the combined cycle

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construction market relevant to the cost overruns relating to Empire's Combined Cycle Unit?

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A. Empire witness Rolph states that "capital costs have increased significantly for both simple and combined cycle combustion turbine plants since late 1997 and early 1998." (Rolph Rebuttal, p. 3) In that period, Ms. Rolph claims capital cost of combined cycle power plants increased at least 60%. In addition, Ms. Rolph states at page 4, line 7, that there were increases in "F Class (150-160 MW) turbine prices from below \$25 million in February 1998 to \$38 million in November 2000." Ms. Rolph also states at page 7, line 17, that if Empire had waited another year to procure turbines and construct plants, she believes that "the cost of the State Line project would easily have been 10 percent higher."

Ms. Rolph further states in her direct testimony (page 18, lines 3 and 4), that while the turbine price increases for the F Class combustion turbines were between \$36 and \$37 million, compared to the \$30.5 million paid by Empire for its combustion turbine purchased from Westinghouse. Empire witness Beecher indicates at page 8, line 20 of his rebuttal testimony that "the SLCC [Combined Cycle Unit] project was on the front edge of this wave of new projects. Accordingly, in one of the first stages of the project we managed to procure equipment (see "procurement" in Table 1) at nearly \$4 million dollars less than originally estimated."

Since Empire was on the front-end of the construction build cycle for combined cycle units, the Company was apparently able to secure equipment for less cost and to be at the front-end of deliveries from the manufacturers and, in particular, the Westinghouse combustion turbines. Empire benefited from being on the front-end of the construction 1 bu
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build cycle because of its need to bring on additional capacity by June 2001. Being on the front-end of the build cycle was more a function of Empire's need for additional capacity and the timing of that capacity rather than any ability to predict the escalation in the costs of building such plant. Though Empire benefited from the lower equipment costs by being early in the build cycle, this in no way justifies the cost overruns associated with the Combined Cycle Unit and, in particular, the "contract performance issue with the boiler erection contractor."

Q. Should customers benefit in rates from equipment procured at lower cost?

A. Absolutely. Any time a utility can procure equipment, particularly in regard to power plant construction, customers and shareholders alike should benefit from those cost advantages. As indicated above, the opportunity for Empire to negotiate good equipment procurement contracts with manufacturers was the result of needing capacity as of June 2001. This caused Empire to be in the front-end of the construction cycle. Empire, through internal analysis supported by Black & Veatch's own independent analysis, made a determination that constructing the Combined Cycle Unit project was the best of a variety of alternatives available for increasing capacity. In large measure, Empire's capacity needs were driven by the Company's load growth and the termination of two capacity agreements as of May 31, 2001.

- Q. When did Empire decide to build the Combined Cycle Unit project?
- A. Empire witnesses Brill and Rolph identify the chronology of events leading up to the decision to build the Combined Cycle Unit in their direct testimonies filed on November 3, 2000. Through extensive analysis, both performed by Empire and independently, by Black & Veatch, Empire determined that the least cost capacity

addition was to construct the Combined Cycle Unit project. Empire's Board of Directors authorized the construction of the Combined Cycle Unit at a September 10, 1998, special meeting of the Board of Directors. Mr. Brill, then Vice President-Energy Supply and Board member, presented a report on Empire's capacity needs. The Board authorized Empire officers to exercise an option agreement between Westinghouse Power Generation, a division of CBS Corporation, and Empire, dated August 14, 1998, to provide the purchase of a Westinghouse 501F combustion turbine at the option agreement price, not to exceed \$30.5 million.

On February 4, 1999, Empire's Board further authorized its officers to negotiate and enter into: 1) a contract with Westinghouse for the combustion turbine; 2) a contract with Siemens Westinghouse Power Corporation to provide the power island; and 3) a contract with Black & Veatch to provide engineering and construction management on the Combined Cycle Unit project. Clearly, the expected in-service date of June 2001 for the Combined Cycle Unit project was of great benefit from a cost perspective. To suggest that the cost overruns relating to the Combined Cycle Unit project can be justified by the increases in capital costs seen in other combined cycle projects planned and constructed later in the building cycle cannot be valid. Customers should, and must, be given the cost benefits related to Company actions to secure equipment manufacturers and vendors based upon the then-current market conditions, not some future market conditions that may have resulted in higher costs. In addition, the capital cost increases cited by Empire witnesses Beecher and Rolph for other combined cycle units do not in any way justify the contractor performance issue relating to the construction of the HRSGs.

Q. Earlier in your surrebuttal testimony, you indicate that Empire believes that a shortage in craft labor was responsible for a portion of the cost overruns it incurred on the Combined Cycle Unit construction project. Does Staff dispute this claim?

A. No. Empire witnesses Brill, Beecher and Rolph all have identified the shortage of skilled laborers such as pipefitters, boilermakers, welders and electricians that caused some of the overruns in the Combined Cycle Unit construction project. During interviews with Company personnel directly assigned to constructing the Combined Cycle Unit, the shortage of craft labor was repeatedly emphasized as a significant challenge. Staff identified this issue at page 37 of my direct testimony. Staff believes that the craft labor shortage and the pressure this caused on the cost overruns should be included in the final cost determination ultimately included in the Company's rate base, if and when the Combined Cycle Unit meets its in-service date.

- Q. Is there doubt that the Combined Cycle Unit will meet its in-service date?
- A. While the Company has made significant progress toward meeting the June 2001 scheduled in-service date, there is always the possibility that the Unit's inservice performance will not meet the schedule for this case. While Staff considers this unlikely, it could be that the Unit will not meet the agreed-upon in-service criteria and the Unit cost will not be included in rates in this case.
- Q. If Staff believes that the increase in craft labor costs were responsible for a portion of the cost overruns, then why has it not recommended that those costs be included in rates?
- A. Since the Unit is still under construction and has not met its June 2001 inservice date, none of the Combined Cycle Unit costs have been included in Staff's

revenue requirement. The purpose of the true-up is to identify the costs associated with the Combined Cycle Unit as well as several other cost components of the revenue requirement through June 30, 2001. If the Combined Cycle Unit meets the in-service criteria agreed upon by the parties, then prudently incurred and justified costs will be recommended for inclusion in rate base. Staff will start with the original estimate of \$173 million total project cost and add all cost overruns that have been justified and supported by the Company, including those relating to the craft labor shortage issue. Staff continues to believe, however, that the cost overruns relating to the termination of the HRSGs installation contractor should be excluded from rate base in any case.

- Q. Why does Staff believe that the HRSGs installation costs relating to the termination of the original HRSGs contractor should be excluded from rate base?
- A. Those are the costs associated with what Empire witness Beecher refers to as the "contract performance issue with the boiler erection contractor." Costs relating to contractor performance problems should not be recovered from Empire customers.
- Q. Empire witness Rolph's states at page 8, lines 10 and 11 of her rebuttal testimony that "there should be no basis for the Commission to make the shareholders of Empire absorb costs for which they were not the cause." Do you agree with Ms. Rolph's conclusion?
- A. No. Apparently, Ms. Rolph believes it is acceptable for Empire's customers to absorb costs for which they were not the cause, but not the owners. There is no dispute that customers had nothing to do with Empire's oversight of the construction of the Combined Cycle Unit. Customers did not negotiate contracts; customers did not provide any decision-making role relating to the Combined Cycle Unit; customers did not

provide management and engineering oversight for equipment manufacturers and vendors. In short, customers had nothing to do with the project's cost overruns. Yet, there is a theme throughout Empire's direct and rebuttal testimonies that the decision to build this project was a good one and that, therefore, customers should fully pay for all costs associated with the project, regardless of the nature of these costs. It is interesting to note that although Empire provides two witnesses in its November 3, 2001 direct filing (Empire witnesses Brill and Rolph) to support and justify making the decision to construct the Combined Cycle Unit, and to identify the primary cause of the cost overruns, neither Empire witness mentions the contractor performance issue relating to the HRSGs. It is telling that the Company witnesses chose not to disclose or discuss the contractor's failure that caused significant cost overruns on this project until it responded to Staff's direct testimony.

Equally telling is Empire's position that although the customers have nothing to do or say with regard to this construction project, the entire risk of the cost overruns is the responsibility of the customers.

- Q. Does Staff believe that Empire's customers should be shielded from all cost overruns?
- A. No. As identified through the direct and surrebuttal testimonies of Staff, there will be significant cost overruns that customers will be, and should be, required to pay in rates for this project. All cost overruns that were prudently incurred and identified, justified and supported by Empire will be included in the final cost determination for rates. However, Staff continues to believe that customers should not be burdened with the responsibility to pay in rates costs that relate to contractor error or lack

of contractor performance and "there should be no basis for the Commission to make the

[customers] of Empire absorb costs for which they were not the cause."

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Q. Does Empire believe that its customers should be at risk for all overruns

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regardless of why they were incurred?

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A. Yes.

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Q. Does Staff agree with this?

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A. No. This is not a reasonable standard. Empire is extremely concerned

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about the "risk" that the owners are required to assume; yet it apparently does not have

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nearly the same degree of concern regarding the risks its customers must be responsible

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for. As indicated, Empire customers will likely have greater rates for overruns that are

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justified and prudently incurred for craft labor as well as project enhancements such as

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the crane, and other justifiable items. However, customers should not be burdened with

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the risks associated with contractor performance issues relating to installation of the

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HRSGs.

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Q. At page 9, lines 13 through 16 of Empire witness Beecher's rebuttal

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testimony, he implies that "a likely precursor to Fru-Con's troubles" related to the low

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bid of \$5.3 million made by the original contractor for the installation of the HRSGs.

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Does Empire provide any support for its belief that the reasons for the overruns

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associated with the HRSGs related to a low bid for that scope of work?

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A. No. None of Empire's witnesses submitting testimony on the contractor

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performance issue relating to the installation of the HRSGs has suggested that Fru-Con

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Construction Company's (Fru-Con's) bid was too low. Staff has reviewed documents,

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however, that suggest that the Fru-Con contract was underbid for the scope of work that

| 1              | was required to install the HRSGs. Empire witness Jim E. Wilson, a consultant with        |
|----------------|---|
| 2              | Construction, Scheduling and Delay Analysis, was engaged by Empire to provide rebuttal    |
| 3              | testimony in an attempt to justify the overrun relating to the installation of the HRSGs. |
| 4              | Empire also hired Mr. Wilson in the spring of 2000 to evaluate the contract dispute       |
| 5              | between Empire and the HRSGs installation contractor. In a report entitled "Expert        |
| 6              | Report on Fru-Con's Termination for Cause vs. Convenience," Mr. Wilson identifies the     |
| 7              | chronology of events leading up to the termination of Fru-Con as the HRSGs installation   |
| 8              | contractor.   |
| 9              | Q. In Mr. Wilson's report, did it indicate that Black & Veatch and Empire                 |
| 10             | were concerned that Fru-Con's bid was too low before Empire awarded the contract to       |
| 11             | Fru-Con?  |
| 12             | A. Yes. During a meeting held November 16, 1999, between Fru-Con,                         |
| 13             | Empire and Black & Veatch, the parties discussed the Fru-Con bid for installing the       |
| 14             | HRSGs and identified several areas of concern. During this meeting Fru-Con indicated      |
| 15             | that **   |
| 16             |   |
| 17             | ** Further, Fru-Con indicated   |
| 18             | the following:  |
| 19<br>20<br>21 | **  |
| 22             |   |
| 23<br>24<br>25 |   |
| 26             | **  |
| 27             | [Source: Data Request No. 258]  |



- Q. When did Empire award the HRSGs installation contract to Fru-Con?
- A. Empire awarded the contract to install the HRSGs to Fru-Con on December 3, 1999. Fru-Con's initial bid proposal was dated November 2, 1999, and the bid opening was November 3, 1999.
  - Q. Did Fru-Con address the tight labor market in its bid proposal?
- A. No. Despite being aware of the tight labor market, Fru-Con's November 2, 1999 bid proposal did not address the tight labor market and the need to offer premium time consistent with Black & Veatch's projection. Mr. Wilson indicated in his report identifying Fru-Con's history that the cost estimate \*\*

  \*\*\* Mr. Wilson further indicated the following with regard to the Fru-Con bid:

[Source: Data Request No. 258]

- Q. What is the significance of the statements made in Mr. Wilson's report?
- A. Empire and Black & Veatch had concerns about Fru-Con's low bid to erect the HRSGs and discussed those issues with Fru-Con prior to awarding the HRSGs installation contract. The most significant aspect of these statements indicates that Fru-Con, Black & Veatch and Empire were all aware of the tight labor market in November 1999 and, despite this tight labor market, Fru-Con stated that it could perform the

on the Combined Cycle Unit project.

\*\* From this, it is clear that the concerns relating to the Fru-Con bid were addressed before Empire awarded the contract, and that both of the contracting parties considered labor costs. Despite these concerns, Empire chose to enter into a firm, fixed-fee contract with Fru-Con for the agreed-upon sum of \$5.3 million to install the HRSGs for both units

installation of the HRSGs for the \$5.3 million it bid. Empire ultimately awarded the

- Q. Did Empire believe that it terminated Fru-Con for cause when it notified Fru-Con that it was terminated?
- A. Yes. Clearly, in the Spring of 2000 when Empire dismissed Fru-Con as the contractor for the installation of the HRSGs, both Black & Veatch and Empire believed that Fru-Con was terminated for "cause." Empire stated that it was terminating Fru-Con under the provision of the HRSGs installation contract, GC.14-Contract Termination-Contractor Default. (At page 33 of my direct testimony, I quote from and discuss section GC.14 of the contract.) As part of the basis for the termination under the default provision of the contract, Black & Veatch, the project engineer, had to certify in writing to the Company that the performance of the work under this contract was being unnecessarily delayed and that the contractor was violating conditions of the contract. On March 31, 2000, Black & Veatch certified that the progress of the work under contract with Fru-Con to install the HRSGs was being unnecessarily delayed due to lack of adequate construction plant, labor and supervision. Black & Veatch recommended that the Company place Fru-Con Construction in "default of the contract" in accordance

| 1                                | with the guidelines set out in GC.14-Contract Termination-Contractor Default (see         |
|----------------------------------|---|
| 2                                | Schedule 3 attached to my direct testimony). Based upon the engineer's certification, on  |
| 3                                | March 31st in a letter to Fru-Con from Virgil E. Brill, Empire Vice President-Energy      |
| 4                                | Supply, Empire stated that Fru-Con was being terminated under the provisions of GC.14     |
| 5                                | of the HRSGs installation contract (see Schedule 4 attached to my direct testimony).      |
| 6                                | Q. Are Schedules 3 through 7 of Staff witness Featherstone's direct testimony             |
| 7                                | still considered Highly Confidential?   |
| 8                                | A. No. Empire has declassified these schedules from Highly Confidential to                |
| 9                                | non-Proprietary.  |
| 10                               | Q. Did the engineer's certification and notice of termination to Fru-Con for              |
| 11                               | default of the contract indicate that Empire believed Fru-Con was terminated for "cause?" |
| 12                               | A. Yes. Further evidence of Black & Veatch's and Empire's belief that Fru-                |
| 13                               | Con was terminated for "cause" are the timing of adjustments made to the project cost     |
| 14                               | estimate identified in the Black & Veatch monthly progress reports. While Fru-Con was     |
| 15                               | terminated for "cause" in April 2000, it was not until September 2000 that the cost-      |
| 16                               | increases associated with the Fru-Con termination and the resulting overrun for the       |
| 17                               | HRSGs installation was reflected in the cost estimate at project completion. In the       |
| 18                               | Monthly Progress Report 20 for September 2000, at page 2 under the section Project Cost   |
| 19                               | Report, the following appears:  |
| 20<br>21<br>22<br>23<br>24<br>25 | **  |
| 25<br>26                         |   |

| 1<br>2                     | **  |
|----------------------------|---|
| 3                          | From this statement, it is clear that both Black & Veatch and Empire believed that      |
| 4                          | when it terminated Fru-Con in the spring of 2000, it was for cause under the default    |
| 5                          | provision of the contract and that Fru-Con would be held responsible for any additional |
| 6                          | costs associated with installing the HRSGs. It was not until the Fall of 2000 that the  |
| 7                          | project engineer and Empire determined that Fru-Con was not going to pay for the        |
| 8                          | additional costs related to by its lack of performance in erecting the HRSGs.           |
| 9                          | Q. Did Staff review any additional information that indicates Empire                    |
| 10                         | terminated Fru-Con for cause?   |
| 11                         | A. Yes. In Mr. Wilson's report entitled "Expert Report on Fru-Con's                     |
| 12                         | Termination for Cause vs. Convenience" dated November 13, 2000, he states the           |
| 13                         | following:  |
| 14<br>15                   | **  |
| 16<br>17<br>18<br>19<br>20 |   |
| 21<br>22                   |   |
| 23<br>24<br>25<br>26       |   |
| 27<br>28<br>29<br>30       |   |

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| Q. Was Fru-Con the only party who bid to install the HRSGs?                                |
| A. No. As indicated in my direct testimony at page 32, lines 7 through 15, I               |
| discussed the possibility of Fru-Con's underbidding the project. I indicated that even if  |
| the original contract price was too low, the other bids ranging from **                    |
| ** could be used to identify the prudent costs in installing the HRSGs. If these           |
| amounts were used, the cost overrun would be **** respectively,                            |
| when compared to the cost overrun of \$12 million relating to the low bid amount. Using    |
| any of these original three bid amounts received by the owners for the installation of the |
| HRSGs would still result in cost overruns that Staff believes Empire's customers should    |
| not be required to pay in rates.   |
| Q. Did Empire settle with Fru-Con?   |
| A. Yes. Empire paid Fru-Con \$1,050,000 to settle all claims and disputes                  |
| between them.  |
| Q. When did Empire settle with Fru-Con?  |
| A. The settlement with Fru-Con was signed January 18, 2001.                                |
| Q. Should customers be held responsible for the underbidding of a contract                 |
| relating to this construction project?   |
| A. No. If Fru-Con underbid the project, deliberately or not, it is likely that             |
| this underbidding resulted in a portion of the cost overruns that occurred relating to the |
| HRSGs installation. If Fru-Con underbid the project and ultimately decided that it could   |
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contract, then clearly the customers should not be held at risk for these additional costs.

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the shareholders of Empire absorb costs for which they were not the cause." Staff,

Empire witness Rolph, indicated "there should be no basis for the Commission to make

however, believes that "there should be no basis for the Commission to make the

[customers] of Empire absorb costs for which they were not the cause."

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failure to perform, not the Company's customers.

Should shareholders "absorb costs for which they were not the cause?"

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While individual shareholders may not have caused any of the cost A. overruns associated with the Combined Cycle Unit project, clearly shareholders collectively are responsible for installing the Board of Directors that has the ultimate authority and responsibility to appoint officers to manage the Company. It is, and was, the management that decided, with the approval of the Board of Directors, to construct the State Line Combined Cycle Unit facility. Management is ultimately responsible for negotiating and awarding contracts to equipment manufacturers and contractors to construct the Combined Cycle Unit. It is Empire management who relied upon the recommendation of Black & Veatch as the project engineers to terminate Fru-Con for "cause" under the applicable provisions of the contract based on delay and lack of performance. No customer of Empire provided any input whatsoever for any aspect of the construction of the Combined Cycle Unit. However, indirectly, the shareholders, through the election of the Board of Directors which selects management, have the ultimate responsibility to ensure that the Company is being properly and appropriately managed. From this, it is clear that the shareholders bear the risk, and ultimately must take the responsibility, for absorbing the cost overruns associated with this contractor's

Q. Does Empire witness Wilson seem to indicate that it is Staff's position that Empire should have retained Fru-Con as the HRSGs installer?

A. Throughout Empire witness Wilson's testimony, he implies that Empire had to terminate Fru-Con when it did (April 1, 2000) to prevent Fru-Con from delaying the project any more than it already had. Staff does not take issue with Empire for the need to terminate Fru-Con. If a contractor will not perform the terms of the contract, then there is little choice but to terminate the contractor. If anything, Empire may have waited too long to terminate Fru-Con, especially given the importance of the June 2001 inservice date. The fact that Fru-Con workers did not "show-up" for work in early March 2000, as discussed in my direct testimony and identified in Schedule 2-1, alone should have indicated that this contractor had no intention of performing its contractual obligations. It appears nothing good would have come from keeping Fru-Con around any longer than Empire did.

#### **INTERIM ENERGY CHARGE**

- Q. Do Empire rebuttal witnesses criticize Staff's use of a three-year average for fuel prices?
- A. Yes. Empire rebuttal witnesses Beecher and Greg Sweet indicate that it is inappropriate to use historical averages to develop the natural gas prices for the fuel expense calculation.
- Q. Why did Staff use historical actual natural gas prices for the fuel expense calculation?
- A. Staff witness V. William Harris identifies the reasons staff used historical averages for the natural gas prices in his direct and surrebuttal testimonies filed in this

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proceeding. Staff has in the past preferred to use actual historical information to develop the cost components of the revenue requirement. In particular, the development of the fuel and purchase power costs typically have relied substantially on the actual historical information of the generating facilities and their operational costs. It is very difficult to predict or forecast future costs, especially for fuel. It is even more difficult to predict the prices for fuels burned in the Company's generating facilities and the cost of energy purchased through the interchange markets, either through a capacity agreement or spot purchase.

- Q. Is the cost of natural gas difficult to forecast?
- A. Yes. Along with purchased power costs, the volatility in natural gas costs are probably the most difficult to predict with any certainty. Natural gas markets have historically been very volatile, but in the recent past they have been volatile at an unprecedented level. No one can predict with any reasonable degree of certainty, the natural gas prices that utilities will pay in the future to burn in their power generating facilities.
- Q. When Staff filed its direct case in April 2000, did it believe the use of the three-year average for natural gas prices was reasonable?
- A. While Staff has used historical averages in the past, because of the extreme volatility in the natural gas markets during the past several months, Staff has had less confidence using historical levels to develop prices for natural gas costs. Staff, early in the audit of Empire, believed that it would be advisable to attempt to develop an alternative approach to address the unprecedented and extreme volatility found in the natural gas market. Staff approached Empire to see if it had any interest in developing a

mechanism that would be subject to a true-up audit with rates subject to refund with interest. The Company indicated that it would like to examine the possibility of developing such an approach. In the early 1980s, the Commission authorized the use of a forecasted fuel mechanism for several electric utilities that had been exposed to escalating fuel costs. This mechanism was used to address extraordinary circumstances and Staff believed that a similar approach could be used to address the unprecedented, volatile and extremely high costs of natural gas today.

- Q. Why wasn't this approach identified in Staff's direct filing?
- A. Staff believed that a base rate using historical averages could be used in its initial direct filing but wanted to seek input from all the parties toward developing a forecasted fuel mechanism. Staff believed that rather than filing its position on forecasted fuel as a direct case, it would be better to have a free and open discussion during the prehearing conference among all of the parties. As a result of such discussions, the Staff is now proposing adoption by the Commission of an "Interim Energy Charge" (IEC). The Staff is now proposing a base and forecasted rate for all fuel and purchased power cost. The forecasted, or interim amount would be subject to a true-up audit to reflect actual cost levels with a refund provision with interest for over-collection.
  - Q. How will the Interim Energy Charge work?
- A. The Interim Energy Charge identifies a base amount for fuel cost that would be established as part of permanent rates. In addition, the Interim Energy Charge also identifies a forecasted or interim fuel and purchased power cost that would be subject to refund. This interim charge would be in effect for a period of up to 24 months

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from the effective date of the rates determined in this case. At the conclusion of this period, a true-up audit would be performed to identify actual cost for fuel and purchased power to determine if Empire over- or under-collected amounts during this period. If the Company over-collected cost for fuel and purchased power up to the interim amount, then it would refund to its customers with interest. If Empire under-collected costs associated with fuel and purchased power, they would not have to refund any amounts.

Q. Is there an advantage to adopting the Interim Energy Charge?

A. Yes. The Interim Energy Charge alleviates the need to pinpoint fuel prices used in the development of fuel and purchased power cost. Because any amounts over-collected are subject to refund with interest, the pressure to predict price increases for the fuel components at Empire is significantly reduced. A good deal of the risk of missing the forecast is neither on the Company nor the customers. Staff believes that it is a distinct advantage to be able to have a mechanism that allows recovery of any over-collection of costs back to Empire's customers. In essence, this approach is a "safety net" if the cost levels are missed. Staff does not believe this mechanism is appropriate for normal economic circumstances and still supports the use of actual historical information. But when we see dramatic cost volatility, such as those that have taken place recently in the natural gas industry, this type of approach can be used effectively.

Q. Should the Commission adopt the Interim Energy Charge?

A. Yes. Staff recommends the Commission adopt the Interim Energy Charge for the purposes of this case only.

#### **OPERATION AND MAINTENANCE EXPENSES**

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Q. Mr. Beecher, at pages 23 through 25 of his rebuttal testimony, comments

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on operation and maintenance expenses for some of Empire's generating facilities.

latan Generating Facility, State Line Combined Cycle Unit, State Line 1 and Energy

Center 1 and 2 are identified as issues. The operation and maintenance expense for the

Combined Cycle Unit has been identified as an issue in the direct and rebuttal testimonies

of Staff witnesses Phillip K. Williams and David W. Elliott. The issue, as I understand it,

relates to contracts that have not been executed that Empire identified in its direct

testimony it intended to enter into to provide maintenance for the Combined Cycle Unit

and State Line Unit 1. At the time of the filing of the surrebuttal testimony, it is Staff's

Does Staff believe that the maintenance for the Combined Cycle Unit is a

understanding that the maintenance contract remains unsigned.

In Empire's rebuttal testimony, operation and maintenance expenses for

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true-up issue?

A. Yes. Clearly, Staff would have preferred to have had a contract

A. Yes. Clearly, Staff would have preferred to have had a contract to review during the course of Empire's rate case. Circumstances did not allow that to happen. Since the maintenance contract remains an outstanding item, Staff is unable to make any recommendation relating to the expense levels that should be included in the revenue requirement calculation. It is hoped that at the time of the true-up audit in this case, which is scheduled to occur in late summer, the anticipated contract identified in the Company's November 3, 2000 direct filing will be finalized and fully executed. At such time, Staff will be in a position to review the terms of the agreement and the related costs.

Q. Is it possible that the contract will not be signed by the time of the true-up audit?

A. Yes. When it initially reviewed the Company's direct testimony regarding the contract to provide maintenance for the Combined Cycle Unit and State Line Unit 1, Staff believed the contract had been completed. In addition, in an October 2000 meeting prior to the filing by Empire, the Company indicated that the maintenance contract would also include Energy Center Units 1 and 2, in addition to the State Line facilities. During the course of the audit, however, it became apparent that the contract envisioned by Empire was only going to apply to the Combined Cycle Unit and State Line Unit 1. It was not until the prehearing conference held during the week of April 16, that Staff became aware that Empire intended to have two separate maintenance contracts; one for the Combined Cycle Unit and a second for State Line Unit 1.

Q. Has Staff included in its direct testimony maintenance costs for Empire's combustion turbines?

A. Yes. To the extent the Company incurred costs to maintain State Line 1 and 2 and Energy Center 1 and 2 during the test year ended December 31, 2000, those costs are reflected in the revenue requirement identified in Staff's direct testimony. Staff did not make an adjustment to remove or normalize any operation and maintenance costs for those units. Those costs will be included in the true-up phase of this case. However, since State Line 2 is now part of the Combined Cycle Unit, the State Line 2 maintenance dollars will need to be replaced to the level of maintenance cost for the Combined Cycle Unit.

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- Q. Mr. Beecher, in his rebuttal testimony on page 25, makes a distinction between operation and maintenance and "major maintenance." Is this a distinction typically identified in the Company's books and records?
- No. Mr. Beecher made this distinction for the first time in his rebuttal A. testimony. While Staff does not take exception to the distinction he makes, however, Staff does have a concern with this issue. Staff's concern is that it has not seen adequate support for what the Company has proposed in its case. Staff has not been given detailed information relating to a substantial amount of the costs that will be necessary to include in the true-up revenue requirement relating to the Combined Cycle Unit's maintenance. This issue has been something of a moving target. Part of the problem is that the contract identified in Empire witness Gary L. Groninger's direct testimony has not been signed and executed. During discussions with site personnel at the Combined Cycle Unit in February, Empire indicated that the contract had not been signed and did not know if the contract would be signed by the end of the year. This left Staff with the dilemma of not knowing what the dollar amounts for operation and maintenance costs for the Combined Cycle Unit will be, and what we believed at the time would be for State Line 1 should be included in the revenue requirement calculation. During the prehearing conference, it was indicated that the contracts, while under negotiation, were not close to being signed.
- Q. Does Staff take issue with the fact that Empire has not yet succeeded in negotiating and executing the operation and maintenance contracts for the Combined Cycle Unit and State Line Unit 1?
- A. No. Staff understands the difficulty in getting these types of contracts executed. Also, with the importance of getting the Combined Cycle Unit construction

completed and the unit in service, that process has understandably placed extraordinary demands on Company personnel. For those reasons, Empire has not had an opportunity to complete negotiations on these contracts. However, without the completed contracts, Staff is unable to make a recommendation at this time as to what the level of operation and maintenance costs should be for the Combined Cycle Unit. Nevertheless, as noted earlier, historical operation and maintenance costs for State Line 1 and Energy Center 1 and 2 are reflected in Staff's revenue requirement.

- Q. Has Empire indicated in its case that an adjustment is necessary for the State Line 1 and Energy Center 1 and 2 for operation and maintenance costs?
- A. No, not to Staff's knowledge. If Empire believes that the test year levels for operation and maintenance costs for State Line 1 and Energy Center Units 1 and 2 need to be adjusted, then such should be clearly identified in the Company's direct case. If the Company believes it is necessary to make an adjustment for operation and maintenance costs for these units, then Empire needs to indicate what the Company believes would be the appropriate level of costs.
- Q. Mr. Beecher states on page 24 of his rebuttal testimony that Staff has included a three-year average for operation and maintenance expenses at Iatan Generating Facility. He further indicates that he does not agree with this approach. Do you have any comment?
- A. Yes. During the prehearing conference, Iatan's operation and maintenance costs were a topic that was discussed. Staff agreed to change its three-year average to a two-year average and reflected this amount in an updated revenue requirement run. It was Staff's understanding that this approach was acceptable to

Empire. Staff was surprised at the discussion that appears at page 24 of Mr. Beecher's rebuttal testimony, that the Company is still considering this to be an issue. Staff has had no further discussion with Empire on this issue other than Empire has indicated that it would accept the two-year average for Iatan operation and maintenance expenses. That is the amount Staff has reflected in its current revenue requirement calculation.

- Q. Does this conclude your surrebuttal testimony?
- A. Yes it does.

#### **BEFORE THE PUBLIC SERVICE COMMISSION**

#### **OF THE STATE OF MISSOURI**

| In the Matter of the Application of The Empire District Electric Company for a General Rate Increase.  Case No. ER-2001-299  ()  |
|--|
| AFFIDAVIT OF CARY G. FEATHERSTONE  |
| STATE OF MISSOURI ) ss.  |
| COUNTY OF COLE )   |
| Cary G. Featherstone, being of lawful age, on his oath states: that he has participated in the preparation of the foregoing Revised Surrebuttal Testimony in question and answer form, consisting of pages to be presented in the above case; that the answers in the foregoing Revised Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief. |
| Cary G. Veatherstone   |
|  |
| Subscribed and sworn to before me this   |
| Subscribed and sworn to before me this   |

TONI M. CHARLTON NOTARY PUBLIC STATE OF MISSOURI COUNTY OF COLE My Commission Expires December 28, 2004