Exhibit No.
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Expenses, IEC, Energy Center Cost
Witness: Brad P. Beecher
Type of Exhibit: Rebuttal Testimony
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Case No. ER-2004-0570
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Before the Public Service Commission
of the State of Missouri

Rebuttal Testimony

of

Brad P. Beecher

November 2004

Denotes Highly Confidential Information

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OF
BRAD P. BEECHER
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION

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REBUTTAL TESTIMONY
OF
BRAD P. BEECHER
ON BEHALF OF
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2004-0570

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

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

A. The Empire District Electric Company ("Empire" or "Company"). I am Vice President – Energy Supply.

Q. ARE YOU THE SAME BRAD P. BEECHER WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS CASE BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION ("COMMISSION") ON BEHALF OF THE COMPANY?

A. Yes.

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the positions taken in the direct testimony of other parties on fuel and purchased power expenses. I will also explain how natural gas prices have risen since the time Empire filed this case and how this increase has significantly impacted our anticipated level of fuel and purchased power expenses. I will also rebut the testimony of Staff witnesses David Elliot and Roberta McKiddy concerning

the proposed disallowance of a portion of the project costs related to the construction of Energy Center Units 3 & 4.

II. FUEL AND PURCHASED POWER EXPENSE

Q. PLEASE PROVIDE A TABLE SUMMARIZING THE DIRECT TESTIMONY FILINGS OF EACH OF THE PARTIES AS YOU UNDERSTAND THEM.

A.

Direct Filing Positions[1]
Total Company On-System Fuel & Purchased Power Expense

		Total On-System Fixed & Variable Fuel & PP $	Average Nat Gas Price $/MMBtu
Staff	IEC Floor	107,436,748	3.20
	IEC Ceiling	130,888,272	5.62
OPC	Base	[2]	4.59
Explorer/Praxair	IEC Floor	110,000,000	3.20[3]
	IEC Ceiling	120,000,000	4.20
Empire[4]	Base	123,017,390	4.71
	IEC Floor	105,000,000	3.02
	IEC Ceiling	125,000,000	5.50

Q. WHAT IS EMPIRE'S CURRENT POSITION?

A. Based on current gas prices as of October 27, 2004, Empire supports base rates of $140,840,180. This new position reflects an increase of $17,823,000 over our direct testimony filed position in April of 2004.

Alternatively, in direct testimony Empire also proposed an IEC rider as utilized by Empire as a result of our 2001 Missouri rate proceeding. We continue to support a properly crafted IEC mechanism which would be designed to allow Empire to recover all of it's prudently incurred fuel and purchased power charges.

[1] All Fuel & Purchased Power numbers are Total Company On-System – Not Missouri Jurisdictional
[2] OPC only filed gas costs in their Direct Testimony. They did file testimony on an all-inclusive number.
[3] Natural Gas prices for Explorer/Praxair were estimated by Empire.
[4] Empire filed tariffs that represented $123,017,390 base rate expenses and an IEC tariff designed to collect $20M.

Q. WHAT CAUSED THIS SIGNIFICANT INCREASE FOR FUEL AND PURCHASED POWER COSTS?

A. Quite simply an increase in natural gas prices.

Q. CAN YOU PROVIDE A BRIEF HISTORY OF NATURAL GAS PRICES SINCE THE TIME THAT EMPIRE FILED THIS CASE?

A. Empire filed this case based on a 2003 test year. At December 31, 2003 NYMEX natural gas futures for 2005 averaged 4.94 $/MMBtu and for 2006 they averaged 4.72 $/MMBtu. Empire filed the case on April 30, 2004. At that time the average NYMEX price for 2005 was 5.62 $/MMBtu and the average for 2006 was 5.18 $/MMBtu. At the time of the pre-hearing conference on October 5, 2004, the average for 2005 grew to 7.09 $/MMBtu and for 2006 it was 6.27 $/MMBtu. At the time that this testimony was being prepared, on October 27, 2004, the average cost as indicated by NYMEX for 2005 was 8.04 $/MMBtu and for 2006 it was 7.00 $/MMBtu. I will utilize an average NYMEX price of $7.50/MMBtu to represent current NYMEX pricing in the remainder of this testimony. The following chart summarizes the change in the natural gas price, and a graph appears as schedule BPB-1.

Event	Date	NYMEX Average 2005	NYMEX Average 2006
Test Year	12/31/2003	4.94	4.72
Case Filed	4/30/2004	5.62	5.18
Pre Hearing	10/5/2004	7.09	6.27
Basis of Rebuttal	10/27/2004	8.04	7.00

Q. HOW MUCH NATURAL GAS IS EMPIRE EXPECTED TO BURN IN A YEAR?

A. In several Empire model runs for this case, the average annual gas burn is about 9,035,000 MMBtu. In Staff's model runs, the average is roughly 10,544,000 MMBtu. The actual average natural gas consumption for the past three years has been 7,215,789 MMBtu.

The variability in consumption is caused by a number of factors such as natural gas prices, wholesale market prices, purchased power availability, plant outages and most notably weather. For examples in this testimony I will use a range of 8,000,000 to 10,000,000 MMBtu for expected usage.

Q. BASED ON THE RECENT INCREASE OF NATURAL GAS PRICES, WOULD THIS CHANGE THE AMOUNT OF FUEL AND PURCHASED POWER EXPENSE THAT THE COMPANY REQUESTED IN DIRECT TESTIMONY?

A. Yes. Admittedly, based on the current market for natural gas and the expected market in the foreseeable future, Empire severely underestimated the price of natural gas at the time of filing this case. The price of natural gas is a key variable in the cost of serving our customers. For example, if Empire burned 8,000,000 to 10,000,000 MMBtu of natural gas in a year, then each $1.00 increase in the price of natural gas would increase the natural gas expense by 8 to 10 million dollars.

Q. WHERE IS THE PRICE OF NATURAL GAS EXPECTED TO BE FOR THE NEAR FUTURE?

A. Empire agrees with Staff witness John P. Cassidy when he stated in his direct testimony on page 8 that "The Staff believes that given the current volatile state of natural gas prices no one can predict, with a reasonable degree of certainty, the natural gas prices that Empire will pay in the future to fuel their generating facilities." However, indicators for the next

few years may be provided by what you can buy for the future today, and by reviewing short term forecasts in various publications.

The first data for consideration is the NYMEX data in the table below.

NYMEX Futures $/MMBtu

As of October 27, 2004

	2005	2006
Jan	9.900	8.175
Feb	9.865	8.135
Mar	9.405	7.875
Apr	7.670	6.715
May	7.295	6.495
Jun	7.315	6.510
Jul	7.340	6.520
Aug	7.360	6.550
Sep	7.320	6.525
Oct	7.345	6.533
Nov	7.665	6.786
Dec	7.955	7.184
Avg	8.04	7.00

Second, pursuant to Empire's hedging program on October 22, 2004 we hedged 400,000 Dth for November and December 2006 at an average cost of 6.72 $/Dth. On October 25, 2004 we hedged 1,100,000 Dth for the second half of 2005 at an average cost of 6.83 $/Dth. Combined with our previous positions, our 2005 actual hedged position is now 5,300,000 MMBtu at an average price of 4.71 $/MMBtu, and our 2006 actual hedged position is 2,600,000 MMBtu at an average price of 4.65 $/MMBtu.

Finally, others are predicting high prices to continue. According to the September 2004 newsletter "Short-Term Outlook for the Midwest Power Markets" the average cost of natural gas at the Henry Hub is expected to be 6.25 $/MMBtu for 2005 and 5.94 $/MMBtu for the first six months of 2006. The Energy Information Administration (EIA) "Short-

Term Energy Outlook" publication in September 2004, predicted natural gas to be in the $6.14 range in 2005. A month earlier, this same EIA publication predicted natural gas to be in the $6.60 range for 2005. Throughout 2004, the "Kiplinger Letter" has stated that the outlook for natural gas is to expect high prices for the next few years. A study by Energy Ventures Analysis in September 2004 stated that the natural gas supply/demand balance in the United States is likely to remain very tight until at least 2006. Many other sources can be quoted, but the main point is that while no one can predict prices with certainty, it seems reasonable to predict that the price is expected to remain well above the $5.00 level for an extended time.

Q. CAN YOU BRIEFLY EXPLAIN STAFF'S POSITION ON FUEL AND PURCHASED POWER BASED ON THEIR DIRECT TESTIMONY AS YOU UNDERSTAND IT?

A. Staff recommends that an Interim Energy Charge (IEC) be adopted for a period of two years. This is similar to the IEC Empire had as a result of our 2001 Missouri rate proceeding. At the end of the two year period, a true-up audit would be performed to identify the actual prudently incurred fuel and purchased power costs. If the Company over collected its actual prudently incurred cost for fuel and purchased power, then it would refund any over collection of fuel costs, including interest. If the Company under collected prudently incurred costs associated with fuel and purchased power there would be no refund to customers.

To determine the "floor" and "ceiling" for the IEC proposal, Staff ran an hourly production cost model. The floor or base run used 3.20 $/MMBtu natural gas. The ceiling run used Empire's then current hedged position for 2005 at that time (4,200,000 Dth at an

average price of 4.15 $/MMBtu and 6.60 $/MMBtu for spot gas), resulting in an overall gas price of 5.62 $/MMBtu.

Q. DO YOU HAVE ANY ISSUES WITH THE WAY STAFF USED THE COMPUTER PRODUCTION COST MODEL TO MODEL EMPIRE'S SYSTEM?

A. Overall, with the exception of gas pricing, it appears that Staff's modeling is reasonable. With similar inputs, Company's model provides similar outputs to Staff's model in terms of total costs.

One area where we differ with Staff is on the modeling of spot purchase availability. Staff modeled with more spot purchase available. We disagree with Staff's assumption that the amount of spot purchase available in any hour of the month should be the maximum amount that was actually purchased in the same hour of the month based on an historical period. However in this case, with the level of purchase prices and natural gas prices in the models, the trade-off between spot purchase and Combined Cycle is close enough that the spot purchase availability issue is minimized with regard to total cost.

The primary issue is with the natural gas price.

Q. WHAT ARE THE MAIN PROBLEMS WITH STAFF'S IEC PROPOSAL?

A. First, it is missing two cost components relating to natural gas transportation. The components omitted represent a new firm gas transportation contract with annual expenses of approximately $2.4 Million and expenses of approximately $1.3 million for transportation losses and commodity charges for natural gas which Southern Star charges pursuant to their tariffs. Second, the IEC with a suggested floor having a 3.20 $/MMBtu natural gas price is not attainable. When a low floor is combined with a two year term, it will force the Company to file a new rate case in only 13 months (eleven months prior to

the end of the IEC term). Third, the IEC ceiling proposed by the Staff is approximately $10 Million lower than the Company's current expected costs.

Q. EXPLAIN THE FUEL RELATED COSTS THAT STAFF EXCLUDED WHICH SHOULD HAVE BEEN INCLUDED IN FUEL EXPENSE?

A. From the run supplied with their direct testimony, Staff did not include an annual $2.4 Million fixed natural gas firm transportation cost that the Company began paying in September, 2004. They also did not include any costs for natural gas losses or commodity charges Southern Star charges pursuant to their tariffs. These charges represent approximately $1.3 Million dollars per year. However, after discussions with Staff, Staff has indicated that it will update their runs to include these costs. We believe this change will move Staff's Ceiling as reported earlier from $130,888,272 to a total of $134,578,890.

Q. DO YOU AGREE WITH STAFF'S $3.20 NATURAL GAS POSITION FOR BASE RATES (IEC FLOOR)?

A. No. Staff's methodology now utilizes an historical average representing prices since Empire started its hedging program. Staff developed $3.20/MMBtu by averaging a 32 month history of the Company's overall hedged natural gas costs from November 2001 through June 2004. Given our current hedged position and the current natural gas market that I have described, $3.20/MMBtu natural gas in base rates is not achievable. We believe the Staff method is seriously flawed as it cannot be applied with any reasonableness today and provides no basis for future gas prices in future rate proceedings.

The Company should be able to collect its prudently incurred fuel and purchased power costs. As of October 25, 2004 the Company has 5,300,000 Dth of natural gas hedged for 2005 at an average price of 4.71 $/MMBtu. If the Company burns in the range of

8,000,000 to 10,000,000 MMBtu in 2005 then the Company must purchase spot natural gas in the range 0.24 $/MMBtu to 1.50 $/MMBtu in 2005 for the remaining needs to achieve an average of $3.20 $/MMBtu (See Table Below). It is not credible to assume we could purchase additional gas at such low costs.

Likewise, in 2006 the Company has 2,600,000 Dth hedged at an average price of 4.65 $/MMBtu. If the Company burned in the range of 8,000,000 to 10,000,000 MMBtu in 2006 then the Company must purchase spot natural gas in the range 2.50 $/MMBtu to 2.69 $/MMBtu for the remaining needs in 2006 to achieve an average of $3.20 $/MMBtu (See Table Below).

2005

Total Gas Usage MMBtu	8,000,000	10,000,000
Annual %	100.0%	100.0%
Avg Price $/MMBtu	3.20	3.20
Hedged Nat Gas MMBtu	5,300,000	5,300,000
Annual %	66.3%	53.0%
Avg Price $/MMBtu	4.71	4.71
Remaining Nat Gas MMBtu	2,700,000	4,700,000
Annual %	33.8%	47.0%
Avg Price $/MMBtu	0.24	1.50

2006

Total Gas Usage MMBtu	8,000,000	10,000,000
Annual %	100.0%	100.0%
Avg Price $/MMBtu	3.20	3.20
Hedged Nat Gas MMBtu	2,600,000	2,600,000
Annual %	32.5%	26.0%
Avg Price $/MMBtu	4.65	4.65
Remaining Nat Gas MMBtu	5,400,000	7,400,000
Annual %	67.5%	74.0%
Avg Price $/MMBtu	2.50	2.69

Q. HOW WOULD YOU CHARACTERIZE STAFF'S MODEL RUN TO ESTABLISH THE IEC CEILING WITH AVERAGE NATURAL GAS PRICE OF $5.62?

A. Staff developed the natural gas price for this run by using the Company's hedged natural gas position for 2005 (it was 4,200,000 Dth at an average price of 4.15 $/Dth at that time) and spot natural gas of 6.60 $/MMBtu based on a forecast for 2005 from the August 2004 issue of the EIA publication "Short-Term Energy Outlook." We believe Staff made a fair effort to represent the gas prices which were prevalent when they filed their direct

testimony. However, based on the continued increase in indicated natural gas pricing, their IEC ceiling run seems to be more indicative of what natural gas costs could fall to in 2005 under some set of circumstances. Thus, based on current natural gas prices, the Staff ceiling run is much more indicative of expected costs that would fall within the band of an IEC, but certainly are too low for a ceiling.

Q. HAS EMPIRE ESTIMATED COSTS WITH A MODEL BASED ON THE STAFF'S NATURAL GAS ASSUMPTION OF 2005 HEDGED POSITON AND 6.60 $/MMBTU SPOT MARKET?

A. Yes, even though the 6.60 $/MMBtu price is 1.44 $/MMBtu lower than the October 27, 2004 NYMEX futures for 2005 we have made a model run for comparison purposes only. The model run was based on the data set that Empire used for the original base run (test year 2003). The following changes were made: (1) updated to the Staff's demand and energy, (2) updated to twelve-month ending June 2004 spot market purchase prices (same period as Staff) (3) updated to twelve-month ending June 2004 Jeffrey Purchase prices, (4) lowered Iatan coal costs to match Staff, and (5) updated the natural gas price to $5.62 based on Staff's "ceiling" run. The total company on-system fuel and purchased power cost from this run was $136,789,050 or $26.86/MWh. The summary of this run is attached as BPB-2. This compares to the Staff model run of $134,578,980 ($130,888,272 as filed adjusted for the transportation contract $2.4 M and Commodity charges and losses $1.3 M)

Q. HAS EMPIRE MADE A NEW MODEL RUN BASED ON THE HEDGED POSITION FOR 2005 AND NYMEX PRICES AS OF OCTOBER 27, 2004?

A. Yes. The spot natural gas price utilized was 7.50 $/MMBtu, which is the average of the NYMEX futures for 2005 and 2006 as of October 27, 2004. Weighted with Empire's

hedged position for 2005 produces an overall natural gas price of 6.02 $/MMBtu. Total Company fuel and purchased power expense in this model run was $140,840,180 or 27.66 $/Mwh. This model run is attached as BPB-3.

Q. IF AN IEC WERE ADOPTED IN THIS CASE, WHAT TERM WOULD BE APPROPRIATE?

A. Empire continues to support a term of five years instead of the two years suggested by Staff in direct testimony. This would provide better stability for Empire customers and investors. It would also limit the expenses and ease the workload on all parties involved in rate proceedings. As stated before, if a term of two years would be selected, the Company could be forced to file another rate case within a year of the rates becoming effective, especially if the base selected is too low.

Q. CAN YOU BRIEFLY EXPLAIN THE OFFICE OF PUBLIC COUNSEL (OPC) POSITION ON FUEL AND PURCHASED POWER BASED ON THEIR DIRECT TESTIMONY AS YOU UNDERSTAND IT?

A. At the time of filing direct testimony, OPC recommended the traditional method of incorporating a natural gas price into a fuel model to determine the appropriate level of fuel costs. OPC was not supportive of an IEC.

Q. WHAT NATURAL GAS PRICE DID THE OPC RECOMMEND AND HOW DID OPC DEVELOP THIS PRICE?

A. The OPC recommended 4.59 $/MMBtu. We believe the OPC method is seriously flawed because it significantly understates current natural gas costs. OPC developed its price by using an average of four years—two historical and two future. The two historical years ranged from October 2002 to September 2004 and were based on NYMEX expirations.

The two future years ranged from October 2004 to September 2006 and were based on NYMEX future settlements as of September 16, 2004. Averaging this four year period resulted in a price of 5.42 $/MMBtu. OPC then blended this with Empire's hedged position for 2005 at the time (4,200,000 Dth at 4.15 $/Dth), based on Empire burning 6,450,000 MMBtu of natural gas. That is, OPC utilized 65.1% of 4.15 plus 34.9% of 5.42 to yield 4.59 $/MMBtu.

Q. IS THE OPC RECOMMENDATION OF 4.59 $/MMBTU FOR NATURAL GAS A VALID PRICE FOR SETTING BASE RATES?

A. No. This price does not reflect the changed natural gas market that I have described in this testimony.

My concerns with the methodology surround its reliance on historical natural gas prices to predict the future. In such a volatile period with natural gas prices on the rise, this can be a disastrous approach for Empire.

Secondly, even though we disagree with the methodology, the Company has reviewed Schedule JAB-2 which is a worksheet used by OPC to calculate natural gas price. The methodology averaged 48 monthly values. There were a few formula problems in the worksheet causing three of the values to be omitted with zeros averaged instead. Instead of 5.42 $/MMBtu, it should have been 5.66 $/MMBtu after correcting the formulas. This would make the overall natural gas price be 4.68 instead of 4.59. Thirdly, the blended natural gas price was based on Empire burning 6,450,000 MMBtu in a year. This happens to be the amount of natural gas burned by Empire in 2003. Consistent with earlier testimony, a range of 8,000,000 to 10,000,000 MMBtu is more appropriate.

Q. HAS THE NATURAL GAS MARKET CHANGED SINCE OPC DEVELOPED THIS NATURAL GAS PRICE?

A. Yes. OPC's analysis was based on NYMEX futures as of September 16, 2004. OPC witness James A. Busch recognized that due to the volatile nature of natural gas prices, the market can change. He mentions on page 10 of his direct testimony, "Public Counsel recommends that the price should be $4.59 per MMBtu. However, due to the current state of the natural gas industry, I reserve the right to update my estimation if significant market factors change in the near future." **With the significant upward movement since this filing**, **we expect that he will**.

Q. WHAT WOULD THE OPC METHODOLOGY FOR NATURAL GAS PRICE YIELD WITH NYMEX PRICES AS OF THE PREPARATION OF THIS TESTIMONY (OCTOBER 27, 2004)?

A. We believe the same methodology would now yield $6.51/MMBtu (utilizing the same time period—October 2002 to September 2006—with NYMEX futures as of October 27, 2004 – See Calculations below) for spot natural gas as opposed to the $5.42 developed in OPC's direct testimony.

	History				Futures Begin Nov-04				
		1		2		3		4	Avg
1	Oct-02	3.686	Oct-03	4.430	Oct-04	5.723	Oct-05	7.345	5.296
2	Nov-02	4.126	Nov-03	4.459	Nov-04	8.402	Nov-05	7.665	6.163
3	Dec-02	4.140	Dec-03	4.860	Dec-04	9.363	Dec-05	7.955	6.580
4	Jan-03	4.988	Jan-04	6.150	Jan-05	9.900	Jan-06	8.175	7.303
5	Feb-03	5.660	Feb-04	5.775	Feb-05	9.865	Feb-06	8.135	7.359
6	Mar-03	9.133	Mar-04	5.150	Mar-05	9.405	Mar-06	7.875	7.891
7	Apr-03	5.146	Apr-04	5.365	Apr-05	7.670	Apr-06	6.715	6.224
8	May-03		May-04		May-05		May-06		

		5.123		5.935		7.295		6.495	6.212
9	Jun-03	5.945	Jun-04	6.680	Jun-05	7.315	Jun-06	6.510	6.613
10	Jul-03	5.291	Jul-04	6.141	Jul-05	7.340	Jul-06	6.520	6.323
11	Aug-03	4.693	Aug-04	6.048	Aug-05	7.360	Aug-06	6.550	6.163
12	Sep-03	4.927	Sep-04	5.082	Sep-05	7.320	Sep-06	6.525	5.964
								Average	6.51

Q. CAN YOU BRIEFLY EXPLAIN THE POSITION OF WITNESS MAURICE BRUBAKER ON BEHALF OF EXPLORER PIPELINE COMPANY AND PRAXAIR, INC. (EXPLORER/PRAXAIR'S) ON FUEL AND PURCHASED POWER BASED ON HIS DIRECT TESTIOMNY AS YOU UNDERSTAND IT?

A. In Maurice Brubaker's direct testimony Explorer/Praxair supports a cost recovery mechanism such as an IEC with the upper end value of total company on-system fuel and purchased power to be $120 million and $110 million in base rates.

Q. DID EXPLORER/PRAXAIR USE A PRODUCTION COST MODEL TO DEVELOP THEIR POSITON?

A. To the best of my knowledge, they did not utilize a production cost model.

Q. DO YOU AGREE WITH THE POSITION SET FORTH BY EXPLORER/PRAXAIR

A. No. I believe the range that was recommended in Mr. Brubaker's direct testimony does not reflect the changed natural gas market that I have described. The Company does agree with his comments on page 8 when he states, "I believe the base amount should be set so that there is some realistic possibility that if Empire is aggressive in taking advantage of the purchased power market and in operating its coal-fired resources efficiently, it could beat the base amount (i.e., spend less) and thereby benefit along with customers." However, it is not realistic that natural gas prices could fall to a low enough level to achieve a base

level of $110 million needed for the Company to realize the value of beating the base assumption. As stated earlier in this testimony, based on current NYMEX expectations, a level of $140,840,180 is appropriate for base rates based on the current natural gas market.

Q. WHAT AVERAGE NATURAL GAS PRICE IS NEEDED TO ACHIEVE A TOTAL COMPANY ON-SYSTEM ANNUAL FUEL AND PURCHASED POWER COST OF ROUGHLY $110 MILLION THAT EXPLORER/PRAXAIR SUPPORTED IN DIRECT TESTIMONY?

A. Based on the Company production cost model an average natural gas price of about 3.20 $/MMBtu is needed to achieve an annual cost of $110 million.

Q. WHAT AVERAGE NATURAL GAS PRICE IS NEEDED TO ACHIEVE A TOTAL COMPANY ON-SYSTEM ANNUAL FUEL AND PURCHASED POWER COST OF ROUGHLY $120 MILLION THAT EXPLORER/PRAXAIR SUPPORTED IN DIRECT TESTIMONY AS AN IEC UPPER END (CEILING)?

A. It is estimated that a natural gas price of about 4.20 $/MMBtu is needed to achieve an annual cost of $120 million. This is lower than the level that Empire suggests for base rates, and lower than the OPC base rate natural gas price.

Q. COULD YOU PLEASE SUMMARIZE YOUR REBUTTAL FUEL AND PURCHASED POWER TESTIMONY?

A. Yes. When determining the appropriate amount of fuel and purchased power expense the natural gas price is a key driver. Since the time that Empire filed this case, natural gas prices have risen dramatically. Current NYMEX futures (as of October 27, 2004) average 8.04 $/MMBtu for 2005 and 7.00 $/MMBtu for 2006. In light of this changed and volatile environment, it is improper to set base rates on historical natural gas prices at this time.

Based on Empire's current hedged position and NYMEX futures as of 10/27/04, the Commission should establish base rates to recover fuel and purchased power expenses of $140,840,180. Alternatively, the Commission should establish base rates and an IEC designed to allow Empire to recover its prudently incurred fuel and purchased power charges.

III. ENERGY CENTER UNITS 3 AND 4 COST

Q. PLEASE SUMMARIZE THE CIRCUMSTANCES THAT GAVE RISE TO THE STAFF'S PROPOSED COST.

A. Energy Center 3 & 4 was a $55 million project which came in only **HC_____** over budget; a variance of only 0.4%. Staff's proposed disallowance of $3,155,000 targets only one line item in an overall budget of $55 million. It is Staff's opinion that Empire "acted imprudently by exposing Empire to an unnecessary level of financial risk" (page 6, lines 22-23 of Roberta McKiddy's Direct Testimony) during the construction project. Empire believes this to be an improper conclusion, based on the merits of the decisions made during this construction project, and also based on the regulatory treatment utilized by Commission and Staff in prior rate proceedings concerning new plant-in-service and definitive or original cost estimates.

Empire utilized a multi-contract approach to construct Energy Center Units 3 & 4. One of the contractors, namely Patch Construction, LLC ("Patch") was retained to perform engineering, installation, and procurement of balance of plant ("BOP") equipment activities for its Energy Center Units 3 & 4 construction project. The contract with Patch required them to provide a performance bond for the work that was to be performed under the contract within 21 days of contract signing. Patch was unable to meet this requirement. In

an attempt to finish the project in a cost and time effective manner Empire entered into Amendment 1 to the contract with Patch. Ultimately, Patch was unable to meet its obligations under the original contract or Amendment 1 and was terminated as a contractor on the project. Empire personnel took over management duties of the construction and completed the project. The final cost to complete the activities associated with Patch's contract was higher than the contract amount. Staff contends that a portion of these costs above the contract amount should be disallowed as plant-in-service.

Q. DID EMPIRE ADDRESS THIS ISSUE IN DIRECT TESTIMONY?

A. No.

Q. WHY NOT?

A. Empire was able to successfully manage the final cost of the entire project to virtually meet the total original project budget, which was the standard previously utilized by the Staff.

Q. WHAT IS YOUR UNDERSTANDING OF STAFF'S STANDARD?

A. In Empire's Case No. ER-2001-299 Staff audited the construction of Empire's State Line Combined Cycle. With respect to the auditing of construction projects, the Staff quoted the following Direct Testimony of Staff witness Mark L. Oligschlaeger, on page 4, lines 9-16. In that case Mr. Oligschleager testified, "As a starting point of its construction cost review, the Staff obtains the budget document that is used by the utility for cost control purposes. In most instances, this budget document is known as the "definitive estimate"." If actual costs meet the estimate, the costs have been allowed.

Q. DO OTHER STAFF MEMBERS IN PRIOR TESTIMONY USE SIMILAR TERMS AS A MEANS OF WHERE TO BEGIN THE REVIEW OF A CONSTRUCTION PROJECT?

A. Yes. In direct testimony and true-up testimony in Case No. ER-2001-299, Staff witness Cary G. Featherstone used the phrase "original estimate" at least nine (9) times when referring to the basis of proposed construction cost disallowances.

Q. IS THIS THE GENERAL APPROACH STAFF HAS USED IN OTHER RATE PROCEEDINGS WHEN REVIEWING MAJOR CONSTRUCTION EXPENDITURES?

A. Yes. Again, referring to rebuttal testimony of Mr. Oligschlaeger in Case No. ER-2001-299 page 5, lines 2-4, he cites to Case No. EO-85-160 and EO-85-17, Union Electric Company (Union Electric), where the Commission stated "[t]he definitive estimate is the proper starting point for an investigation of cost overruns and a determination as to whether costs incurred on the project are reasonable." (Report and Order, pp. 39-40). Again, quoting from Mr. Oligschlaeger's testimony:

> "In Case No. ER-77-118, Re: Kansas City Power & Light Company, the Commission was of "the opinion that the appropriate starting point for the calculation of any cost overrun would be the target used by the Company in controlling cost. The Commission is of the opinion, as in Case No. ER-77-118, that the Company's definitive estimate is the appropriate starting point for determining cost overruns. Kansas City Power & Light Company, 24 MO.P.S.C. (N.S.), (1981). (Ibid, p. 40)."

Q. WAS THIS A SIGNIFICANT ISSUE IN EMPIRE'S CASE NO. ER-2001-299?

A. Yes.

Q. WHY?

A. To again quote Mr. Mark L. Oligschlaeger from his direct testimony in Case No. ER-2001-299, page 7, lines 6-7, "The original cost estimate for the SLCC unit project was approximately ** HC_____ **." Later, on the same page, lines 10-12, "The current construction cost estimate for completing the SLCC unit is approximately ** HC_____ **, meaning total cost overruns for this project are expected to be approximately ** HC_____ **." In other words, when building State Line Combined Cycle, Empire experienced several obstacles during construction that caused actual costs to exceed the "original cost estimate". When Empire filed for rate recovery related to this plant-in-service cost, the Staff argued that the portion of the incurred costs above the "original cost estimate" should be disallowed as plant-in-service.

Q. TURNING BACK TO ENERGY CENTER UNITS 3 AND 4, WHICH ARE THE SUBJECT OF THIS CASE, WHAT WAS EMPIRE'S ORIGINAL BUDGET FOR THE ENERGY CENTER UNITS?

A. $55,000,000. Attached, as Schedule BPB-4 is the Board Resolution approving this budget and an excerpt from our December 2002 10-K.

Q. BASED ON PREVIOUS RATE PROCEEDINGS, WOULD EMPIRE EXPECT STAFF TO CONSIDER THIS $55 MILLION AMOUNT THE "ORIGINAL COST ESTIMATE" OR THE "DEFINITIVE" ESTIMATE?

A. Yes.

Q. TO WHAT BENCHMARK WAS EMPIRE'S PROJECT MANAGEMENT TEAM REQUIRED TO MANAGE ITS COSTS?

A. Based on Empire's past experience with Staff's ratemaking approach, the "definitive" or "original cost estimate" of the project.

Q. AS OF JULY 24, 2004, WHAT IS EMPIRE'S COST FOR THE CONSTRUCTION OF ENERGY CENTER UNITS 3 AND 4?

A. ** HC_____ ** . Please refer to Schedule BPB-5.

Q. DID THE STAFF AGREE THAT EMPIRE'S DEFINITIVE ESTIMATE WAS A PRUDENT PROJECTION OF COSTS FOR ENERGY CENTER UNITS 3 AND 4?

A. In response to DR-0471 submitted by the Company in this case, Staff member Steve Rackers stated, "The staff believes that the Company's determination of $55 million was an acceptable amount to use to gain approval from Empire's Board of Directors for the construction of the Energy Center Units 3 & 4". However, Staff goes on to say, "this amount was not appropriate for project control", which leads to the question, "If not the "Accepted" and Board Approved budget, to what amount then is Empire to control costs?"

Q. DOES EMPIRE AGREE WITH THE STAFF'S ASSESSMENT THAT THE DETERMINATION OF A $55 MILLION DEFINITIVE ESTIMATE WAS ACCEPTABLE?

A. Yes.

Q. WHAT IS THE AMOUNT OF THE STAFF'S PROPOSED DISALLOWANCE RELATED TO ENERGY CENTER UNITS 3 AND 4?

A. The Staff is recommending a disallowance of $3,155,356.

Q. IS THE STAFF'S DISALLOWANCE RELATED TO COST OVERRUNS BEYOND THE ORIGINAL COST ESTIMATE?

A. No.

Q. HOW MANY TIMES DID STAFF UTILIZE THE TERM "DEFINITIVE ESTIMATE" IN THEIR TESTIMONY IN THIS CASE?

A. None. It seems in this case Staff is using a different standard to determine disallowances than it has in previous proceedings. Apparently the Staff is second guessing individual line items within Empire's budget. The individual line item that estimated the cost to install, engineer, and procure BOP equipment turned out to be lower than the actual cost to complete this line item and Staff therefore wants to disallow a portion of this cost. Schedule BPB-6 presents the original budget and, once again, referring back to Schedule BPB-5 represents the final project costs. Looking at these two schedules, one will notice that Staff gives Empire no credit for line items that it "outperforms" budget, for instance Start-up Fuel and the Fire System outside the BOP Contract. Again, the proposed disallowance has nothing to do with cost overruns above the "definitive estimate" that both parties agreed was "acceptable".

Q. PLEASE EXPLAIN EMPIRE'S SITUATION AROUND THE TIME IT WAS DETERMINED PATCH COULD NOT OBTAIN A PERFORMANCE BOND, WHICH LED EMPIRE TO ENTER INTO AMENDMENT 01 WITH PATCH.

A. There were several issues Empire was dealing with around the time it was deemed that Patch could not obtain a performance bond.

1. Empire needed at least one of the new units on line to meet the 12% minimum Southwest Power Pool (SPP) capacity margin requirement before June 1, 2003.
2. Given that Patch could not obtain a performance bond, what was the most cost effective way to complete the project for our customers.
3. Given the Staff position in case ER-2001-299, what was the most effective way to minimize risk to our shareholders?

To further expand on item 1, SPP requires every load serving entity to maintain installed capacity equal to 12% in excess of its seasonal peak. There is no monetary penalty for not maintaining the contractually agreed upon capacity margin. Empire, however, takes its power pool obligations seriously. It is each member of the SPP's responsibility to maintain electric reliability for our customers. Mismanagement by any one member of SPP can jeopardize the entire system, resulting in unfortunate events like the blackout in August of 2003. A change in contractors at this late date was sure to delay the schedule and probably not allow us to meet SPP's requirements.

Item 2 required us to assess the potential costs to complete the project without Patch. We knew that if we replaced Patch, the next bidder was a higher cost. We also knew that if we replaced Patch there would be additional expense for re-work and transition.

On the other hand, we believed that if we managed Patch's financial involvement in the job, there was an opportunity to complete Patch's scope at the contract value and finish the project on schedule.

As for item 3, Staff's recent position on rate treatment of State Line Combined Cycle in 2001 (Case No. ER-2001-299) weighed in our decision process. In the SLCC case, Empire had deemed a contractor, Fru-Con, was in default of the contract and replaced them with another contractor at a higher cost. The replacement of Fru-Con with another contractor at a higher cost was the major basis cited by the Staff in their plant disallowance position in the previous case. If we replaced Patch with another bidder, we would have not only jeopardized meeting our SPP requirement, but we would have been repeating that which Staff judged as non-prudent in the previous case. By this point, we also knew that the Patch entities were not financially strong. If Empire continued with Patch we had to limit their financial involvement.

Based on what Empire knew at the time including a balance of all of the concerns outlined led us to believe that executing Amendment 01 with Patch provided for the best balance of all concerned.

Q. IN STAFF WITNESS ROBERTA A. MCKIDDY'S DIRECT TESTIMONY SHE STATES THAT EMPIRE COULD HAVE AWARDED SEGA THE BID TO BUILD THE ENERGY CENTER UNITS 3 AND 4 SINCE EMPIRE COULD NOT OBTAIN A PERFORMANCE BOND FROM PATCH. WHO IS SEGA AND HOW DO YOU RESPOND?

A. Sega is a Kansas City area engineering company, which was the runner-up bidder on Empire's Energy Center Units 3 and 4 project. If we had instead terminated Patch early and

retained Sega, we would likely be arguing about why we paid Sega more than Patch's contract value and we still would have in addition endangered meeting our summer of 2003 SPP requirements. With 20/20 hindsight, it is likely that Sega likewise would not have been able to obtain a performance bond, which would have caused further delays and pushed us to the third bidder which was even higher than Sega.

Q. WHY DO YOU ASSERT THAT IT IS LIKELY THAT SEGA WOULD NOT HAVE BEEN ABLE TO OBTAIN A PERFORMANCE BOND?

A. Sega was the runner-up bidder on Empire's Energy Center Units 3 and 4 project. Sega was also the original winning bidder on a similar project for KCPL at the West Gardner site in February 2002. Like Patch, Sega could not obtain a performance bond. An e-mail Mr. Brown sent to Empire recently to confirm this fact is attached as Schedule BPB-7. Staff's own investigation has not lead to a contrary conclusion. In his response to Company DR-0468 Mr. Steve Rackers says, "The Staff has not researched or performed any analysis of the performance bond market during the late 2001 to early 2002 timeframe, or Sega's bonding capabilities in the 2002 timeframe."

Q. WHAT DOES THIS LACK OF BONDING CAPABILITY BY SEGA MEAN?

A. First, since Staff should utilize the "definitive estimate" standard, this means nothing. However, if the Commission decides Staff's new methodology should be followed then Sega's bid to complete the project is not a valid quantifier of the final costs to finish the project.

Q. ARE THE ENERGY CENTER UNITS 3 AND 4 FULLY OPERATIONAL AND USED FOR SERVICE?

A. Yes. They have served Empire's customers since April of 2003. As of October 1, 2004, Energy Center units 3 and 4 have started a total of 394 times and have generated 73,318 MWH's for our customers with no rate relief.

Q. WHAT IS PATCH'S CURRENT FINANCIAL STATUS?

A. We filed suit against the Patch Corporate entities as well as against Mr. and Mrs. Patch personally in Jasper County Circuit Court. We received a judgment from the Court against the Patch entities. Since that time, all Patch entities have declared bankruptcy and the assets distributed to creditors. Empire received nothing.

Q. BEYOND EMPIRE'S DISAGREEMENT WITH THE STAFF'S PROPOSED COST DISALLOWANCE, ARE THERE ANY STATEMENTS MADE BY MR. ELLIOTT OR MS. McKIDDY THAT YOU WOULD LIKE TO SPECIFICALLY DISPUTE, CLARIFY, OR CORRECT?

A. Yes. While these may be viewed as minor details in the overall scope of the proposed disallowance, I feel it is appropriate that a few of the statements made specifically by Mr. Elliott in his direct testimony be clarified.

First, on page 12, lines 8-10 of Mr. Elliott's testimony he states, "the final project cost included an additional $4,052,535 paid to the subcontractors above the approved adjusted contract amount." He also states in the following paragraph (page 12, lines 12-14) that the amount stated above was "the cost to pay the subcontractors to complete the project after Patch, the project construction contractor, was paid the full amount of its contract and the project was completed." To clarify, Empire had paid directly to Patch Construction, LLC an amount of $3,442,774 for original contract scope up to the date Amendment-01 was signed. Up to that point, Patch had all subcontractor contracts and balance of plant

equipment/building purchase agreements directly in their name and Empire was paying Patch based on a percentage of project complete matrix. Upon the signing of Amendment-01 all of the major equipment and subcontractor contracts were transferred to Empire's name and Empire paid directly to Patch only costs directly related to the Energy Center 3 & 4 project (i.e. direct labor, direct engineering, direct minor materials, etc.). This means that Empire did not pay to Patch its entire contract value. Rather, Empire paid most of the vendors directly to limit Patch's financial involvement. The $4,052,535 utilized by Mr. Elliot represents the amount that was expended above the original contract value (plus approved change orders) to complete the items that were in Patch's original scope of work.

Second, on page 13, lines 1-2, Mr. Elliott makes a statement that Empire needed the capacity from the Energy Center Units 3 and 4 to meet its capacity needs in the summer of 2003 and that if the project would have been delayed "Empire most likely would have had to purchase capacity through a short-term capacity agreement." While Empire agrees that it needed the capacity to meet its customer needs in the summer of 2003, Empire disagrees that a short-term contract was a possible alternative at the time.

Empire was making its decision in relation to keeping Patch as its general contractor in the late spring to early summer of 2002. At this time the ability to get firm transmission through the Southwest Power Pool (SPP), of which Empire is a member, was not feasible. In order to get firm transmission, Empire must submit to SPP a request for network transmission from a specific source. SPP then goes through a two step process to determine the cost of any upgrades that would be needed to make that request possible. Not only was this study process taking approximately 18-months to complete at the time because of the overwhelming number of requests SPP was processing, but the cost associated with the

upgrades to complete such requests was astounding. For example, Empire made a request for firm network service from a proposed coal plant in southwest Kansas (Sand Sage) in November of 2001. A response to this request was not received until the summer of 2003, more than 18-months after the initial submittal. With respect to costs, another SPP customer (KEPCO) made a request (Request #496617) for 9 MW of firm network service from Westar's service territory to Empire's service territory that returned a cost of approximately $30 million. Numerous similar examples could be given with similar costs. Since firm transmission is required to count a purchased power resource as a firm resource, a short-term capacity agreement was likely not feasible at this time to meet Empire's summer of 2003 customer needs or, as previously stated, the Southwest Power Pools minimum capacity reserve margin.

As another point of clarification or disagreement, in Mr. Elliott's testimony he refers to change orders as "cost overruns" or even "change order cost overruns" (see pages 14 and 15 of Mr. Elliott's testimony). Empire does not believe that a change order should be classified as a "cost overrun". As Mr. Elliott points out in his testimony on page 14, lines 20-21 "The larger the project, the more complex the project is. The more complex a project is, the more likely it is that unforeseen situations will occur as construction progresses." Because of this complexity, it is Empire's opinion that change orders are a normal occurrence during a project of this scope and should not be largely categorized as "cost overruns" but rather changes in scope. While Mr. Elliott does not contend that any of Empire's change orders were imprudent, Empire wants to be clear that it does not view the change orders presented in Mr. Elliott's Schedule 11 as "cost overruns" in any way.

As a final point, it was stated in Mr. Elliott's testimony on page l7, lines 3-5 that "Staff has been informed by Empire, that it ** HC _____ _____** To clarify, during Empire's spring of 2004 Integrated Resource Planning (IRP) meeting with Staff and OPC, ** HC_____ _____ _____ _____ _____ _____ _____ _____ _____ _____**

Q. PLEASE SUMMARIZE YOUR POSITION ON THE ENERGY CENTER UNITS 3 AND 4 DISALLOWANCE ISSUE.

A. Based on previous "definitive estimate" standards set by the Commission and utilized by the Staff, as well as the timeline that I have given, the Commission should find that Empire not only prudently met the "definitive estimate" but also completed the construction project in a timely manner in order to meet Empire's customer needs and SPP requirements.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes it does.