

Exhibit No.:
Issues: Resource Planning Analysis
Witness: Richard A. Voytas
Sponsoring Party: Union Electric
Type of Exhibit: Direct Testimony
Case No.: EO-2004-0108
Date Testimony Prepared: September 17, 2003

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EO-2004-0108

DIRECT TESTIMONY

OF

RICHARD A. VOYTAS

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

**St. Louis, Missouri
September, 2003**

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

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**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the matter of the Application of Union)
Electric Company (d/b/a AmerenUE) for)
an order authorizing the sale, transfer)
and assignment of certain Assets, Real)
Estate, Leased Property, Easements and)
Contractual Agreements to Central Illinois)
Public Service Company (d/b/a AmerenCIPS))
and, in connection therewith, certain other)
related transactions.)

Case No. EO-2004-0108

AFFIDAVIT OF RICHARD A. VOYTAS

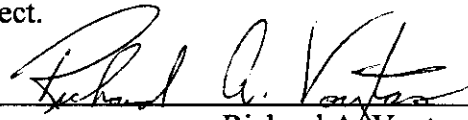
STATE OF MISSOURI)
) ss
CITY OF ST. LOUIS)

Richard A. Voytas, being first duly sworn on his oath, states:

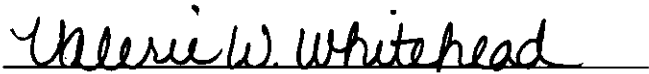
1. My name is Richard A. Voytas. I work in St. Louis, Missouri and I am employed by Ameren as Manager, Corporate Analysis.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 9 pages and Schedules 1 through 5, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

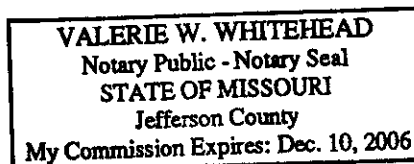
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.


Richard A. Voytas

Subscribed and sworn to before me this 17th day of September 2003.


Notary Public

My commission expires:



1 **DIRECT TESTIMONY**

2 **OF**

3 **RICHARD A. VOYTAS**

4 **UNION ELECTRIC COMPANY**

5 **d/b/a AmerenUE**

6 **CASE NO. EO-2004-0108**

7
8 **Q. Please state your name and business address.**

9 A. My name is Richard A. Voytas. My business address is 1901 Chouteau Avenue, St. Louis,
10 Missouri 63103.

11 **Q. By whom and in what capacity are you employed?**

12 A. I am employed by Ameren Services Company as Manager of the Corporate Analysis section
13 in the Corporate Planning Department.

14 **Q. How long have you held your position, and what are your responsibilities?**

15 A. The attached Schedule 1 summarizes my educational background, work experience and the
16 duties of my position.

17 **Q. What is the purpose of your testimony?**

18 A. The purpose of my testimony is to explain why transferring electric transmission and
19 distribution properties of Union Electric Company d/b/a AmerenUE in the Metro East
20 Service Area in Illinois ("Metro East Service Area" or "Metro East") to Central Illinois
21 Public Service Company d/b/a AmerenCIPS is the least cost alternative available to supply
22 AmerenUE's long-term capacity and energy needs. I note that my testimony includes highly
23 confidential information concerning AmerenUE's generation resource plan. The disclosure

of this information could harm AmerenUE, its customers and shareholders by compromising the Company's ability to buy and sell electricity at wholesale at reasonable rates.

Q. Please explain further.

A. AmerenUE is proposing to restructure its operations in consideration of the following issues and benefits to AmerenUE and its retail customers.

1. The transfer of AmerenUE's Metro East service territory in Illinois to AmerenCIPS would include the transfer of 510 megawatts ("MW") of firm load. This transfer would provide AmerenUE's Missouri customers with low cost capacity and energy for many years. The transfer results in a 597 MW increase in existing AmerenUE capacity available to serve Missouri customers (**_____**). This allows the current Missouri retail customers of AmerenUE to achieve greater benefits from an installed generating base currently valued at approximately \$374/kW, rather than constructing additional gas-fired capacity at a current cost of at least \$471/kW. A 510 MW peak demand reduction would defer the construction of 597 MW of new generation at a cost of \$281 million. The avoided cost of \$97/kW (\$471/kW - \$374/kW) for 597 MW, at a 13.22% carrying cost, results in a savings of \$7.7 million per year in fixed costs.

2. With the 510 MW demand on AmerenUE's system transferred to AmerenCIPS, regulated Missouri customers will enjoy (1) lower average production costs and (2) fewer wholesale energy purchases during periods of peak demand. For example, average variable production costs of AmerenUE plants, approximately **_____,** are much lower than variable production costs of gas-fired capacity, at more than \$61 per MWh, or of market purchases at about \$33.72 per MWh. (The variable production cost of gas-fired capacity is based on a current natural gas price of \$5.86/mmbtu. The \$33.72 per MWh market price is

1 based on an average of the next 12 months of Cinergy futures contracts, adjusted to around-
2 the-clock usage and a 55% load factor.) Because the variable production costs of
3 AmerenUE plants are lower than gas-fired capacity and market purchases of energy,
4 AmerenUE believes the transfer will result in a least cost alternative for Missouri customers,
5 relative to current and anticipated market cost expectations.

6 Production related fixed operations and maintenance (“O&M”) expenses as well as
7 administrative and general (“A&G”) expenses that currently are allocated to AmerenUE’s
8 Illinois customers will be allocated to AmerenUE’s Missouri customers after the transfer.
9 However, the transfer is still expected to be the least cost alternative to meet AmerenUE’s
10 capacity and energy needs.

- 11 3. Since AmerenUE’s customers in Missouri will receive the benefits of the increase in existing
12 AmerenUE capacity from the Callaway Nuclear Power Plant (“Callaway”), it is appropriate
13 that all future decommissioning charges be paid by these customers. The transfer will
14 terminate the obligation of AmerenUE’s Illinois customers to pay decommissioning charges
15 related to Callaway. As explained in Mr. Kevin Redhage’s testimony, existing assets in the
16 nuclear decommissioning sub-account for Illinois will be reallocated to the Missouri and
17 wholesale sub-accounts. As also explained in Mr. Redhage’s testimony, no increase in the
18 annual jurisdictional expense and amount currently contributed by Missouri ratepayers for
19 decommissioning Callaway will be necessary.

20 **Q. Will the Venice and Keokuk Plants remain with AmerenUE Missouri?**

21 **A.** Yes.

22 **Q. Does AmerenUE anticipate that it will execute interconnection agreements with**
23 **AmerenCIPS for both plants?**

1 A. Yes. AmerenUE anticipates it will execute such agreements as required to comply with
2 Federal Energy Regulatory Commission (“FERC”) regulations on this topic.

3 **Q. You mentioned that production related fixed O&M expenses as well as A&G**
4 **expenses that currently are allocated to AmerenUE’s Illinois customers will be**
5 **allocated to AmerenUE’s Missouri customers after the transfer. Please explain.**

6 A. Currently, AmerenUE’s fixed generation production costs, such as O&M, and AmerenUE’s
7 generation related A&G costs are allocated to three customer bases: AmerenUE-Missouri,
8 AmerenUE-Illinois, and AmerenUE-Wholesale accounts. After the transfer, those costs will
9 still be the same, but they will be allocated to two customer bases: AmerenUE-Missouri and
10 AmerenUE-Wholesale.

11 **Q. What is the significance of this allocation?**

12 A. For the transfer to be the least cost alternative, the costs associated with the reallocation of
13 fixed generation production and A&G, minus the savings from the less expensive capacity,
14 lower production expenses, and fewer energy purchases, need to be less costly than the
15 other alternatives.

16 **Q. What are the other alternatives to the transfer?**

17 A. We have performed Asset Mix Optimization studies which have shown that building or
18 purchasing combustion turbine generators (“CTGs”) are the least cost generation alternative
19 to supply AmerenUE’s capacity and energy needs until around 2010.

20 **Q. Was a comparison done for the two alternatives? If so, please explain.**

21 A. Yes. An analysis was performed comparing the transfer of the Metro East Service Area to
22 acquiring additional CTGs. The analysis compared total revenue requirements for both
23 options for 25 years.

1 For the Metro East Service Area transfer revenue requirements analysis, the most
2 current year-end rate base and revenue requirements (December 31, 2002) were used. The
3 revenue requirements were normalized to more accurately reflect future expectations since
4 AmerenUE experienced several extraordinary costs in 2002 (See Schedule 2 which is
5 attached to my testimony). As discussed above, the majority of the AmerenUE-Illinois fixed
6 generation costs will be allocated to AmerenUE-Missouri. After calculating the allocation,
7 the AmerenUE-Missouri portion of the AmerenUE-Illinois rate base and revenue
8 requirements were projected for 25 years (See Schedule 3 which is attached to my
9 testimony). Next, the savings from the transfer were subtracted from the projected revenue
10 requirements. Then, the present value ("PV") of the Metro East transfer was calculated
11 based on the 25 years of revenue requirements (See Schedule 4 which is attached to my
12 testimony).

13 For the CTG analysis, the 25 year capital and fixed costs were determined. Then, a
14 "mark to market" analysis was done to determine the margin on potential energy sales to the
15 market. The term "mark to market" means that the CTGs are assumed to run whenever
16 market prices for electricity exceed the variable production costs of the CTGs. The margin
17 on energy was subtracted from the capital and fixed costs to get the net CTG costs. Lastly,
18 the PV was calculated on the 25 year net CTG costs (See Schedule 4).

19 **Q. What are the extraordinary costs that were included in the normalization of the**
20 **2002 AmerenUE Illinois rate base and revenue requirements?**

21 A. The extraordinary costs fall into two categories. The first is Production O&M Expenses
22 included the cost of Callaway Refuel 12. Since the Callaway nuclear plant only refuels
23 every 18 months, the Production O&M Expenses were adjusted to only include 2/3 (12

1 months) of the Callaway Refuel 12 expenses. The production expenses included \$10 million
2 for power purchased to serve customer load during the refueling and \$35 million for other
3 expenses in the refueling. Without this adjustment, the 25 year revenue requirements would
4 inaccurately reflect the entire refueling cost in every year.

5 Next, the A&G Expenses included \$65,201,317 one time costs related to the
6 Voluntary Retirement Program (“VRP”) and the Venice Plant shutdown. These expenses
7 were removed.

8 **Q. What are the savings in the Metro East transfer analysis that you mentioned?**

9 A. First, there will be production cost savings from AmerenUE not having to produce energy to
10 serve AmerenUE-Illinois customers. The amount of \$35.6 million per year in savings comes
11 from the “Fuel and Purchased Power for Load” line of the revenue requirement in Schedule
12 2.

13 Second, there will be savings from the lower average production costs that regulated
14 Missouri customers will have access to after the transfer. They will experience lower
15 production costs because the portion of low cost, base load AmerenUE generation that was
16 dedicated to serve AmerenUE-Illinois customers will be available to serve AmerenUE-
17 Missouri customers. Fuel production cost analyses for “before and after” the transfer show
18 the savings to be \$25 million per year (See Schedule 5 which is attached to this testimony).

19 **Q. Are there additional savings that you did not attempt to quantify?**

20 A. Yes. The impact of load growth and the ability to serve incremental load from the low-cost
21 generation fleet that had been dedicated to AmerenUE-Illinois customers will result in
22 additional savings to AmerenUE-Missouri customers. In addition, even though the analysis is

1 focused on production costs savings, we anticipate that there will be savings related to
2 transmission.

3 **Q. What was the result of the comparison of the two alternatives?**

4 A. For the 25 years of the analysis, the revenue requirements for the transfer option were \$418
5 million compared to the CTG revenue requirements of \$429 million. Over the life of the
6 analysis, the transfer option costs less than the CTG option by \$11 million.

7 On an annualized basis, the revenue requirements for the transfer option were \$43
8 million compared to the CTG revenue requirements of \$45.5 million. So, the transfer costs
9 less by \$2.5 million a year.

10 In summary, the analysis indicates that the transfer is the least cost option for
11 AmerenUE's Missouri customers.

12 **Q. After the transfer, what will be AmerenUE's year-by-year reserve margin?**

13 A. With an increase of 597 MW available to serve Missouri load, AmerenUE's reserve margin,
14 after the transfer, will be ** _____ ** in 2004; ** _____ ** in 2005; ** _____ ** in 2006, and
15 ** _____ ** in 2007.

16 **Q. What are the assumptions in regards to capacity additions at AmerenUE included in
17 the reserve margin calculation stated above?**

18 A. We assume that AmerenUE will purchase the Pinckneyville (316 MW) and Kinmundy (232
19 MW) peaking plants from Ameren Energy Generating Company ("AEG") by June 1, 2004.
20 We also assume that approximately 330 MW of additional CTGs will be installed to replace
21 the retired Venice steam plant by year-end 2005.

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1 **Q. Do the capacity additions described in the preceding question address the terms**
2 **and conditions of the Stipulation and Agreement (“Stipulation”) in Case No. EC-**
3 **2002-1?**

4 A. Yes. The Stipulation requires that 700 MW of new regulated generating capacity, which
5 does not include the replacement of the Venice power plant by new generation, nor the
6 transfer of load to increase available generating capacity, but may include the purchase of
7 generation plant from an Ameren affiliate at net book value, be completed by June 30, 2006.
8 The Stipulation also requires that the replacement of the Venice power plant by new
9 generating capacity, which does not include the transfer of load to increase available
10 generating capacity, be completed by June 30, 2006. In addition, there are significant tax
11 savings in the form of “bonus depreciation” (as allowed by a new federal law) to install the
12 330 MW of CTGs that replace the Venice steam plant by the end of 2005.

13 **Q. How does Ameren intend to meet its capacity and energy needs beyond 2007?**

14 A. AmerenUE will continue to follow least cost planning principles in its analyses of the type of
15 generation and timing of generation needed to meets its capacity requirements beyond 2007.
16 AmerenUE will work with the Staff of the Missouri Public Service Commission and Office
17 of the Public Counsel via the semi-annual resource planning meetings to present its analyses
18 of options to meet AmerenUE long-term resource requirements.

19 **Q. Will the transfer benefit consumers?**

20 A. Yes. The transfer results in a net benefit to AmerenUE’s Missouri retail customers. Costs
21 avoided by Missouri customers as a result of the transfer include the following: (1) a
22 reduction of \$2.5 million a year in revenue requirements compared to the best alternative – a
23 CTG; (2) the ability to defer the construction of new generation to serve AmerenUE retail

1 load with an estimated annual savings of \$7.7 million per year; and (3) future reductions in
2 energy costs. As mentioned above, the positive benefits are offset, in part, by the
3 reallocation of fixed O&M costs, A&G costs, and decommissioning costs formerly allocated
4 to Illinois ratepayers. However, as explained by Mr. Redhage, no increase is currently
5 needed to fund Missouri's portion of the decommissioning fund. In summary, the transfer is
6 the least cost available alternative to supply AmerenUE's long-term capacity and energy
7 needs.

8 **Q. Does this conclude your testimony?**

9 A. Yes.

QUALIFICATIONS OF RICHARD A. VOYTAS

My name is Richard A. Voytas and my business address is 1901 Chouteau Avenue, St. Louis, MO 63103.

My educational background consists of a Bachelor of Science degree in Mechanical Engineering from the University of Missouri-Rolla in 1975 and a Masters In Business Administration from St. Louis University in 1979. I am a registered professional engineer in the state of Missouri.

I was employed full time by Union Electric beginning in May of 1975. Effective with the merger of Union Electric Company and Central Illinois Public Service Company into the Ameren Corporation, I assumed employment with Ameren Services. My work experience started at Union Electric as an Assistant Engineer in the Engineering and Construction function. I worked as an Assistant Engineer from 1975 to 1977. In 1977 I was promoted to Fuel Buyer in the Supply Services Function. In 1981 I transferred to the Engineering Department at Union Electric's Rush Island Plant. In 1982 I accepted a position in the coal marketing department at Cities Service Company in Tulsa, OK. In late 1982 I left Cities Service Company and returned to Union Electric as an Engineer in the Corporate Planning Department. From 1982 through 1992 I worked as an Engineer in the Corporate Planning Department, Engineer in the Quality Improvement Department and Engineer in the Rate Engineering Department. In 1993 I was promoted to Senior Engineer in the Corporate Planning Department. In 1995 I was promoted to Supervising Engineer in the Demand-Side Management section of Corporate Planning. In July 1998 the Resource Planning, Forecasting, Load Research and Demand-Side Management sections were combined into one section of Corporate Planning and I was named Supervisor of that section known as the Corporate Analysis department. Today, Corporate Analysis is divided into four subgroups, which are Resource Planning, Market Modeling, Load Analysis and Forecasting, and Load Research. In October 2001 I was promoted to my present position as Manager-Corporate Analysis.

My duties as Manager of Corporate Analysis include overseeing the preparation of the Ameren capacity position both on an annual and weekly basis, preparation of resource plans, development and evaluation of requests and proposals for capacity and energy for Ameren operating companies, preparation of the annual sales and peak demand forecasts, development of the Ameren forward view of electric energy market prices, and the collection, editing and analysis of monthly load research data.

I have submitted testimony concerning least cost planning and weather normalization of sales before the Missouri Public Service Commission, the Illinois Commerce Commission, and the Federal Energy Regulatory Commission.

AmerenUE
Illinois Generation Rate Base and Revenue Requirement
Adjusted Twelve Months Ending December 31, 2002

| Rate Base | Generation Total AmerenUE | AmerenUE-IL Allocated to AmerenUE-MO |
|--|------------------------------|--|
| Production Plant | \$5,480,084,533 | \$339,222,498 |
| Allocation of General Plant | 289,170,439 | 22,072,611 |
| Total Plant | 5,769,254,972 | 361,295,109 |
| Depreciation Reserve - Production Plant | 2,261,231,813 | 140,789,885 |
| Depreciation Reserve - General Plant | 82,329,592 | 6,284,284 |
| Total Reserve | 2,343,561,405 | 147,074,169 |
| Net Plant | 3,425,693,567 | 214,220,940 |
| Unburned Nuclear Fuel in Reactor | 60,729,909 | 5,619,997 |
| Fuel (Fossil) | 55,066,411 | 5,095,892 |
| Materials and Supplies | 65,170,078 | 6,030,894 |
| Prepayments | 4,597,634 | 394,342 |
| Accumulated Deferred Income Taxes | (562,358,851) | (35,866,387) |
| | - | - |
| Total Rate Base | <u>\$3,048,898,748</u> | <u>\$195,495,677</u> |
| | | |
| Fuel and Purchased Power For Load (1) | \$385,077,420 | \$35,635,388 |
| Other Production Expenses (1) | 310,650,540 | 26,425,243 |
| Fuel and Purchased Power For Interchange | 127,712,586 | 0 |
| Interchange Sales | (163,724,350) | 0 |
| Total Production Expenses | 659,716,196 | 62,060,631 |
| Administrative & General Expenses (2) | 137,197,167 | 10,472,370 |
| Depreciation Expense - Production Plant | 155,038,655 | 9,439,934 |
| Depreciation Expense - General Plant | 6,242,012 | 476,458 |
| Taxes Other Than Income | 67,665,534 | 4,512,539 |
| Income Taxes | 138,791,979 | 9,231,664 |
| Return | 287,419,685 | 18,618,915 |
| Total Revenue Requirement | <u>\$1,452,071,228</u> | <u>\$114,812,510</u> |

- (1) The Production O&M Expenses included the cost of Callaway Refuel 12. Since the refuelings only occur every 18 months the above Production O&M Expenses were adjusted to only include 2/3 (12 months) of the Callaway Refuel 12 expenses.(Total \$10 m Purchased Power and \$35 m Other).
- (2) The Administrative & General Expenses included \$65,201,317 one time costs related the VRP and the Venice Plant shutdown. These expenses were removed.

AmerenUE
Missouri Generation Rate Base and Revenue Requirement
25 year projection

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|
| Total Rate Base | \$195,495,677 | \$185,579,286 | \$175,662,894 | \$165,746,503 | \$155,830,111 | \$145,913,720 | \$135,997,329 | \$126,080,937 | \$116,164,546 | \$106,248,154 | \$96,331,763 | \$86,415,372 | \$76,498,980 |
| Fuel and Purchased Power | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 |
| Other Production Expenses | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 |
| Fuel and Purchased Power For Interchange | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Interchange Sales | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Production Expenses | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 |
| Administrative & General Expenses | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 |
| Depreciation Expense - Production Plant | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 |
| Depreciation Expense - General Plant | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 |
| Taxes Other Than Income | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 |
| Income Taxes | 9,231,664 | 8,763,394 | 8,295,124 | 7,826,854 | 7,358,584 | 6,890,313 | 6,422,043 | 5,953,773 | 5,485,503 | 5,017,233 | 4,548,962 | 4,080,692 | 3,612,422 |
| Return | 18,618,915 | 17,674,482 | 16,730,050 | 15,785,617 | 14,841,185 | 13,896,753 | 12,952,320 | 12,007,888 | 11,063,456 | 10,119,023 | 9,174,591 | 8,230,159 | 7,285,726 |
| Total Revenue Requirement | \$114,812,510 | \$113,399,808 | \$111,987,105 | \$110,574,403 | \$109,161,700 | \$107,748,998 | \$106,336,295 | \$104,923,593 | \$103,510,890 | \$102,098,188 | \$100,685,485 | \$99,272,782 | \$97,860,080 |

| Year | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Total Rate Base | \$66,582,589 | \$56,666,197 | \$46,749,806 | \$36,833,415 | \$26,917,023 | \$17,141,124 | \$17,141,124 | \$17,141,124 | \$17,141,124 | \$17,141,124 | \$17,141,124 | \$17,141,124 |
| Fuel and Purchased Power | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 | \$35,635,388 |
| Other Production Expenses | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 | 26,425,243 |
| Interchange Sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Production Expenses | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 | 62,060,631 |
| Administrative & General Expenses | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 | 10,472,370 |
| Depreciation Expense - Production Plant | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 9,439,934 | 5,689,554 | 0 | 0 | 0 |
| Depreciation Expense - General Plant | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 476,458 | 287,166 | 0 | 0 | 0 |
| Taxes Other Than Income | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 | 4,512,539 |
| Income Taxes | 3,144,152 | 2,675,882 | 2,207,612 | 1,739,341 | 1,271,071 | 809,435 | 809,435 | 809,435 | 809,435 | 809,435 | 809,435 | 809,435 |
| Return | 6,341,294 | 5,396,861 | 4,452,429 | 3,507,997 | 2,563,564 | 1,632,512 | 1,632,512 | 1,632,512 | 1,632,512 | 1,632,512 | 1,632,512 | 1,632,512 |
| Total Revenue Requirement | \$96,447,377 | \$95,034,675 | \$93,621,972 | \$92,209,270 | \$90,796,567 | \$89,403,879 | \$89,403,879 | \$89,403,879 | \$85,464,208 | \$79,487,488 | \$79,487,488 | \$79,487,488 |

25 Year Analysis of Alternatives

| Transfer UE-IL Service Territory | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Annuity | PV | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Year 11 | Year 12 | Year 13 | Year 14 | Year 15 | Year 16 | Year 17 | Year 18 | Year 19 | Year 20 | Year 21 | Year 22 | Year 23 | Year 24 | Year 25 |
| Revenue Requirements | (103.80) | (1007.3) | (114.8) | (113.4) | (112.0) | (110.6) | (109.2) | (107.7) | (106.3) | (104.9) | (103.5) | (102.1) | (100.7) | (99.3) | (97.9) | (96.4) | (95.0) | (93.6) | (92.2) | (90.8) | (89.4) | (89.4) | (89.4) | (85.5) | (79.5) | (79.5) | (79.5) |
| Annual Production Cost Savings | \$35.6 | 345.8 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 | 35.6 |
| Annual Variable Production Cost Savings | 25.0 | 243.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| | (43.1) | (418.4) | (54.1) | (52.7) | (51.3) | (49.9) | (48.5) | (47.1) | (45.7) | (44.2) | (42.8) | (41.4) | (40.0) | (38.6) | (37.2) | (35.8) | (34.4) | (32.9) | (31.5) | (30.1) | (28.7) | (28.7) | (28.7) | (24.8) | (18.8) | (18.8) | (18.8) |
| Capital and Fixed Cost | \$0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Margin on Energy | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Cost | (43.1) | (418.4) | (54.1) | (52.7) | (51.3) | (49.9) | (48.5) | (47.1) | (45.7) | (44.2) | (42.8) | (41.4) | (40.0) | (38.6) | (37.2) | (35.8) | (34.4) | (32.9) | (31.5) | (30.1) | (28.7) | (28.7) | (28.7) | (24.8) | (18.8) | (18.8) | (18.8) |
| Purchase CTG | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Annuity | PV | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Year 11 | Year 12 | Year 13 | Year 14 | Year 15 | Year 16 | Year 17 | Year 18 | Year 19 | Year 20 | Year 21 | Year 22 | Year 23 | Year 24 | Year 25 |
| Revenue Requirements | \$0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Annual Production Cost Savings | \$0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Annual Variable Production Cost Savings | \$0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Capital and Fixed Cost | (46.81) | (441.7) | (63.5) | (60.8) | (58.2) | (55.8) | (53.5) | (51.3) | (49.2) | (47.1) | (45.0) | (43.0) | (40.9) | (38.8) | (36.8) | (34.7) | (32.6) | (30.6) | (29.5) | (28.4) | (27.3) | (26.2) | (25.1) | (24.0) | (22.9) | (21.8) | (20.7) |
| Margin on Energy | \$1.3 | 12.3 | 0.1 | 0.3 | 0.6 | 1.2 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| | (45.5) | (429.4) | (63.4) | (60.5) | (57.6) | (54.6) | (51.7) | (49.6) | (47.5) | (45.4) | (43.3) | (41.3) | (39.2) | (37.1) | (35.1) | (33.0) | (30.9) | (28.9) | (27.8) | (26.7) | (25.6) | (24.5) | (23.4) | (22.3) | (21.2) | (20.1) | (19.0) |
| Total Cost | (45.5) | (429.4) | (63.4) | (60.5) | (57.6) | (54.6) | (51.7) | (49.6) | (47.5) | (45.4) | (43.3) | (41.3) | (39.2) | (37.1) | (35.1) | (33.0) | (30.9) | (28.9) | (27.8) | (26.7) | (25.6) | (24.5) | (23.4) | (22.3) | (21.2) | (20.1) | (19.0) |
| transfer is less by | Annuity | PV 1/1/03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Transfer - CTG) | 2.4 | 11.0 | | | | | | | | | | | | | | | | | | | | | | | | | |

UE/ILL Transfer Results for Variable Production Cost Savings

| | No Transfer | With UE-ILL Transfer | Difference Transfer - No Transfer | Savings |
|--|---------------|-------------------------|---|--------------|
| Net fuel & purchase \$ including revenues from SET * | \$319,868,196 | \$263,762,959 | -\$56,105,237 | |
| SET SO2 Adjustment # | -\$4,002,450 | -\$6,056,600 | -\$2,054,150 | |
| Adjusted \$ | \$315,865,746 | \$257,706,359 | -\$58,159,387 | |
| UE Net Output - MWH | 39,251,164 | 35,135,817 | -4,115,347 | |
| Rate | \$8.05 | \$7.33 | \$0.71 | |
| Savings | | | | \$25,041,970 |
| Savings = Rate Reduction x Remaining Net Output | | | | |
| *SET \$ includes variable O&M only and needs adjustment for SO2 costs. SO2 costs estimated to be \$.50/mwh # SET SO2 Adjustment = (UE SET MWH - GEN SET MWH) x \$.50/MWH, where SO2 is valued at \$.50/mwh | | | | |