# JUST THE **FACTS**

## Greater Des Moines Energy Center

The Greater Des Moines Energy Center is a natural gas-fueled, combined-cycle generation plant owned by MidAmerican Energy Company, a subsidiary of MidAmerican Energy Holdings Company. The $357 million plant was placed into service in December 2004.

Construction on the plant began in early 2002. The project required approximately:

- 14,000 cubic yards of concrete,
- 1,700 tons of structural steel,
- 10 miles of piping,
- 180 miles of electric cable and
- 250 construction jobs.

Greater Des Moines Energy Center

At full load, the plant produces approximately 540 megawatts of electricity, consuming approximately 159 million therms of natural gas per year. The plant employs a staff of 24 operations employees and provides $560,000 in annual taxes.

## Major Equipment Components

Major equipment used by the plant includes:

- Two natural gas-fueled combustion turbine generators,
- Two heat-recovery steam generators to produce steam from waste heat generated from the combustion turbine exhaust,
- One steam turbine generator to produce electricity from the steam produced by the heat-recovery steam generators,
- A selective catalytic reduction system for reducing emission of nitrogen oxides,
- Emissions-monitoring equipment,
- Substation facilities to connect the plant to the electric power grid,
- Evaporative cooling equipment for cooling the plant's equipment and for condensing steam to reuse in the steam turbine generator,
- Support equipment for plant operations and
- Support facilities, such as offices, a storeroom and maintenance shop.

## The Environment

MidAmerican minimizes the environmental impact of a large-scale electric generation facility by using clean-burning natural gas, state-of-the-art emission controls and a high-efficiency heat-recovery system that captures waste heat to produce additional electricity. Plant cooling is provided by closed-loop cooling systems.

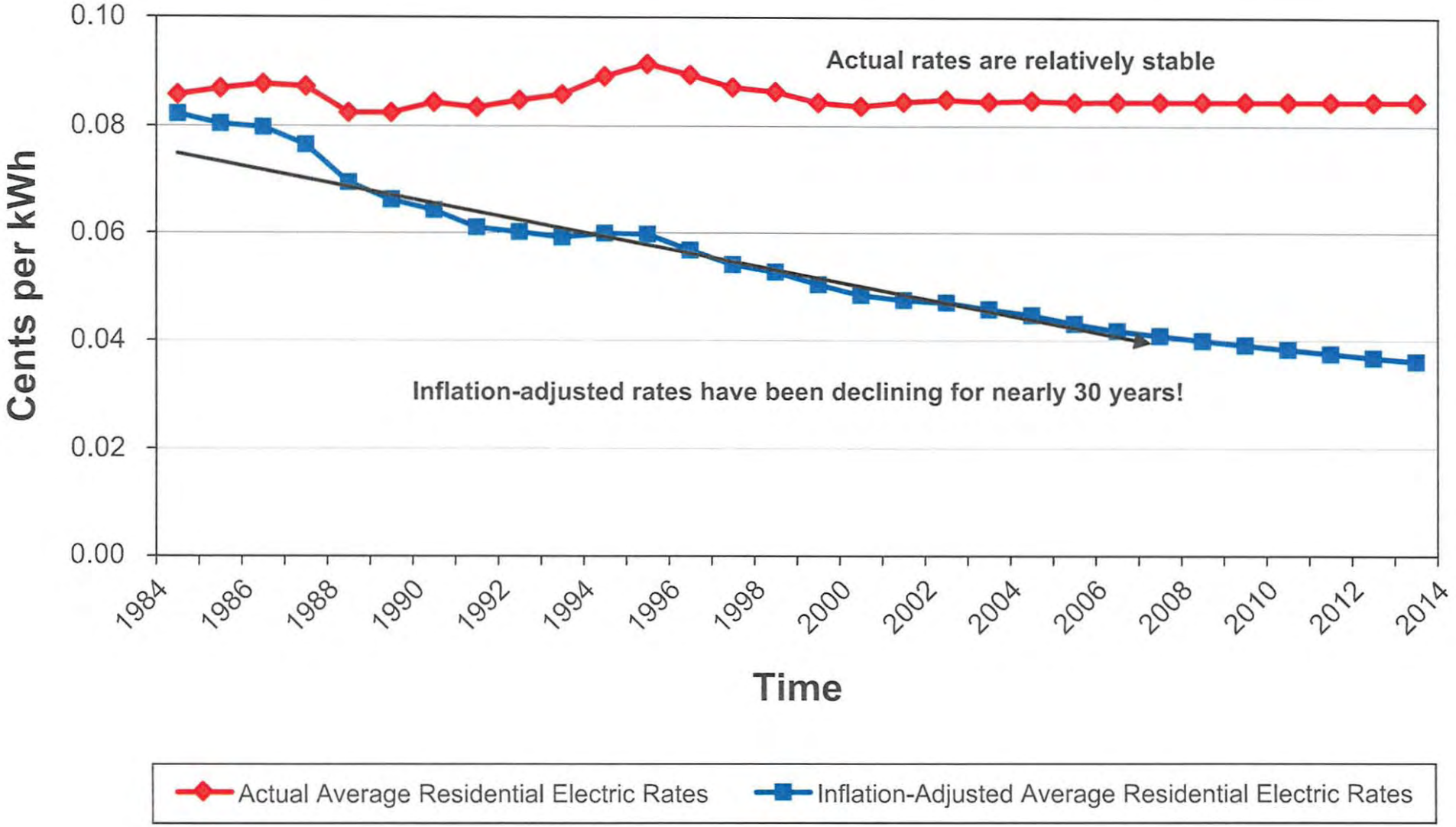
This facility is designed to meet all existing standards for emissions and employs best available control technology.

MidAmerican ENERGY
OBSESSIVELY, RELENTLESSLY *AT YOUR SERVICE*®

August 2007

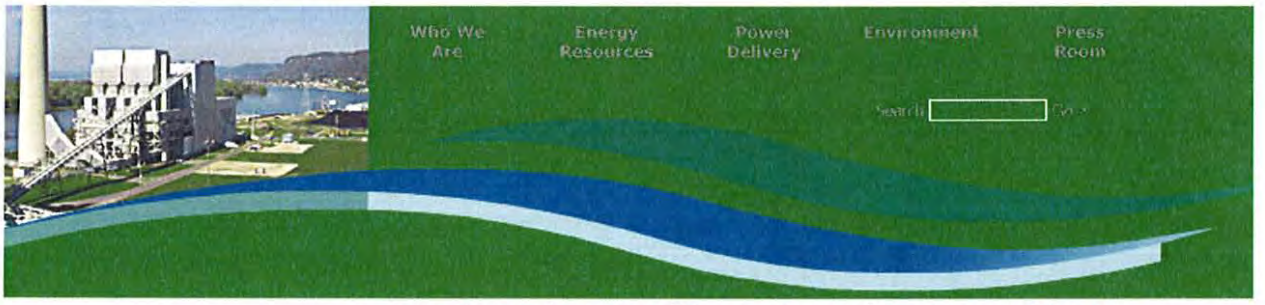
MIDAMERICAN ENERGY COMPANY

# IOWA RESIDENTIAL ELECTRIC RATES




MidAmerican ENERGY
OBSESSIVELY, RELENTLESSLY *AT YOUR SERVICE*®

August 2007




DAIRYLAND POWER COOPERATIVE

Our Members
Community
Career Opportunities
Education
Business Services
Contact Us
Member Login
Home

Energy Resources | Power Plants | Renewable Resources | GEN~SYS Energy | Project Updates | Combustion Turbine Siting

## Weston #4 Coal-Fired Power Plant

The Weston 4 power plant, of which Dairyland Power Cooperative has a 30 percent ownership interest, achieved commercial operation on June 30, 2008.

The newly constructed 525 MW (nominal rating) power plant uses clean coal technology, a high efficiency boiler, low sulfur coal as fuel and features sophisticated emission controls to minimize environmental impacts. Wisconsin Public Service Corp., the majority owner, constructed and operates the plant which is located near Wausau, Wis.

Weston 4's state-of-the-art design led it to be designated as Power Magazine's 2008 Plant of the Year. "We are proud to be a partner in Weston 4, which is supplying our members with the clean, reliable electricity they need," said Bill Berg, Dairyland President and CEO.

Construction on the $774 million project began in October 2004. The massive project required nearly 1,000 construction workers, who built the plant safely and on-schedule.

Visit Wisconsin Public Service's Weston #4 site

Printer-Friendly Page | 

A Touchstone Energy® Cooperative

# Plant Comparison Data and Analysis

The following analysis is based on analysis by Walter Drabinski. It reflects input and data from Mr. Ken Roberts direct and rebuttal testimony from his Kansas Iatan 2 testimony. Much of the following address issues that Drabinski and Roberts either agreed with or disagreed on.

## Type of Plant in Comparison

**Design** - Supercritical over 600 MW - Roberts and Drabinski agree on size criteria and that Integrated Gasification Combined Cycle Plants (IGCC) and Fluidized Bed plants do not belong in the analysis.

**Time Frame** - Roberts and Drabinski agree. Two years before until two years after. Includes plants that went in service from 2007 to plants currently scheduled for service by 2012.

**Labor** - Roberts removes all Open Shop projects. Drabinski adjusts by 6% as described below.

**Common Costs** - Roberts assigns all of Oak Grove to Unit 1 and then excludes Unit 2. Then excludes the Unit for being open shop. Drabinski assigns 50% of costs to each of the Oak Grove Units. Roberts simply excludes Trimble County 2 for being open shop and having Common provided as part of Unit 1. Drabinski adjusts labor and analyzes common costs to make an adjustment.

## Open Shop

Roberts refers to any project that is not 100% union labor as **non-union**. In fact these are "Open Shop" projects which permit bidding by both union and non-union contractors. Evidence shows that union contractors often win major contracts in open shop projects. This is because many of the skilled construction workers such as boiler makers, steel workers, and electricians are only found in Union Halls due to training and ease of procuring personnel.

Mr. Roberts does make a good point that the labor cost of an open shop project is likely to be less. This is not just a wage difference, but also due to work rules. While the work rule issues are mitigated by the National Labor Maintenance Agreement used on projects such as Iatan, there are still some differences.

Vantage used the Iatan labor consultant studies by Schumacher and other sources to normalize these costs. Schumacher indicates that labor is typically 30% of a project (B&McD estimated 35% in PDR). Labor statistics are not readily available for power plant construction crafts, but we can make some assumptions based on Handy-Whitman data and conservatively assume that labor costs are about 24% higher for union versus open shop project. This provides a result of 8.0% in cost normalization increase for open shop projects.

However, Iatan project used National Maintenance Agreement which mitigates some costs and reduces comparison. Based on this, we add 6% to the cost of all open shop projects in our comparison to allow for Open shop versus Union.

There are three documents that support this. First, Dr. Dr. Coomes testimony in Kentucky Trimble County 2 addresses a B&McD labor study during its PDR development . The union rate of $51 per hours inclusive agrees with B&McD February 2006 input of $53/hr to KCP&L (This is a fully loaded rate and includes fringe benefits). Non-union makes 17-30% less per hour. Results in $36 to $88 Mil. Dr. Coomes assumption of $8.78/hour rate in benefits is incorrect per B&McD data from Nebraska City. He then goes on to estimate $57 mil to $101 Mil for benefits. Roberts in KCC testimony takes the top of both ranges ($88 +$101 = $189 Mil). Nielson in KCC testimony rounds up to $200 mil and Meyer claims that is conservative. In reality the range that Dr. Coomes was able to support is $36Mil to $88 Mil.

Second, on 2/10/ 2005, Grimwade received e-mail from B&McD (Rottinghaus) regarding comparison of costs between Iatan 2 and Nebraska City 2. B&McD indicated projects are within 1% of each other. Another e-mail on 2/17/05 discusses difference in labor rates and suggests labor rate delta is $92 Mil.

Third, a SH report of 4/17/10 page 7, under Subcontract Labor Adjustments – Statement suggests that prior to February 2006, subcontractors would be allowed to bring in non-union subcontractors. First, this is incorrect, all previous B&McD estimates assumed 100% union. More importantly, SH indicates the cost of this is $55 Mil.

Conclusion: While there is a difference between union and open shop, it is not as high as KCP&L witnesses claim. Further, there is no basis for removing from comparison or even normalizing when KCP&L made decision to go union without a legal or regulatory requirement to do so.

## Common Plant costs

Mr. Roberts suggests that common cost differences can influence comparisons as well. We know that Iatan 2 is built as a second unit and has some advantages as far as site location and infrastructure. This is why the 2nd phase of the PDR selected Iatan. We have very little information on most of the other units in the comparison, but since it is a general comparison, this normalization does not have a major impact. Simply eliminating a plant because there is a question about common costs is unwarranted.

### Trimble County Normalization

Mr. Roberts make an issue over analysis of Trimble county 2. He correctly points out that Trimble County 2 was part of a two unit configuration and some common facilities were installed during the construction of Unit 1. He therefore goes through a convoluted adjustment

to normalize TC2 by subtracting the $269 million in Common costs attributed to it. This gross adjustment is inaccurate. TC1 was designed in the late 1980s and went into service in 1990. Regulations regarding mercury, zero level discharge, and other major common systems were different than today. More importantly TC1 was a 550MW unit and that was assumed for TC2 when common facilities were installed. In fact TC2 is 760MW and many common systems were not sized appropriately, including the cooling tower and chimney. To adjust appropriately, after reviews of public data, discussions with LG&E management and based on Mr. Drabinski's own experience auditing TC1, the following table was developed. The table below lists, in column 2, all of the common costs included in Iatan 2 which total $269 Mil. In column 3, we identify the costs that were saved by virtue of using existing TC1 facilities. This totals $96.3 Mil.

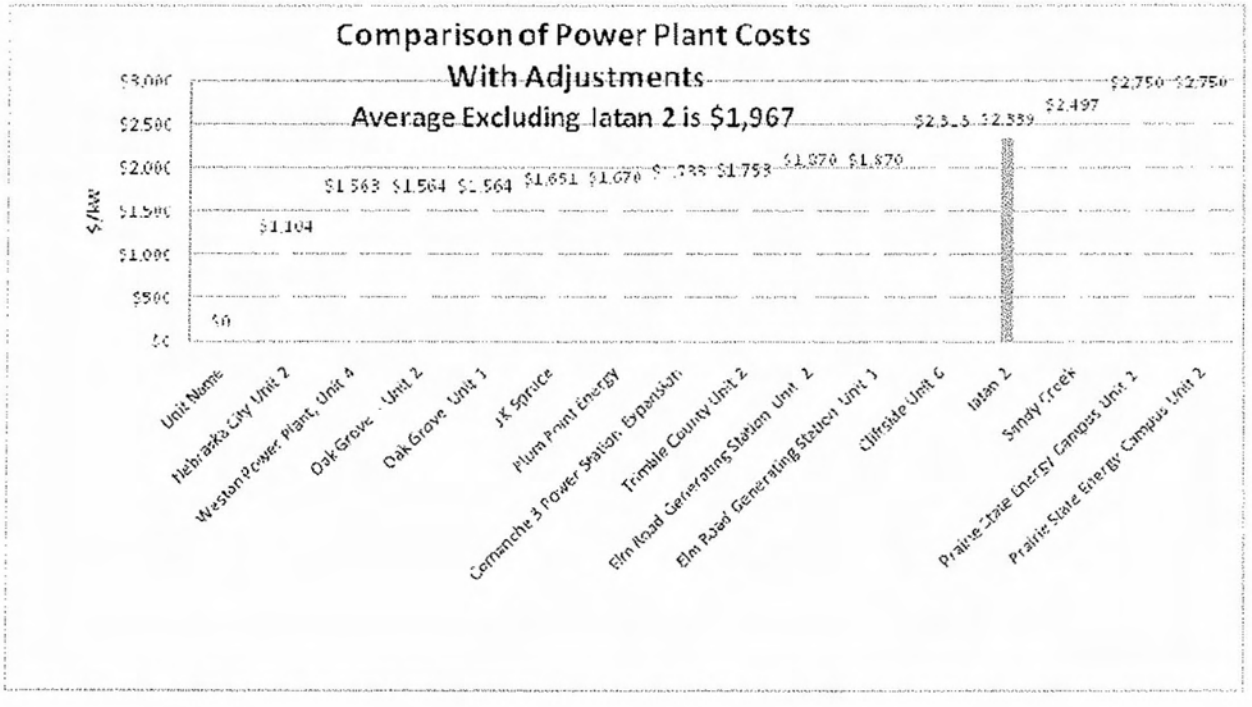
**Conclusion** - The adjustment for common costs installed on Trimble County 1 is significantly less that Roberts suggests.

# Analysis of Common Costs Between I2 and TC2

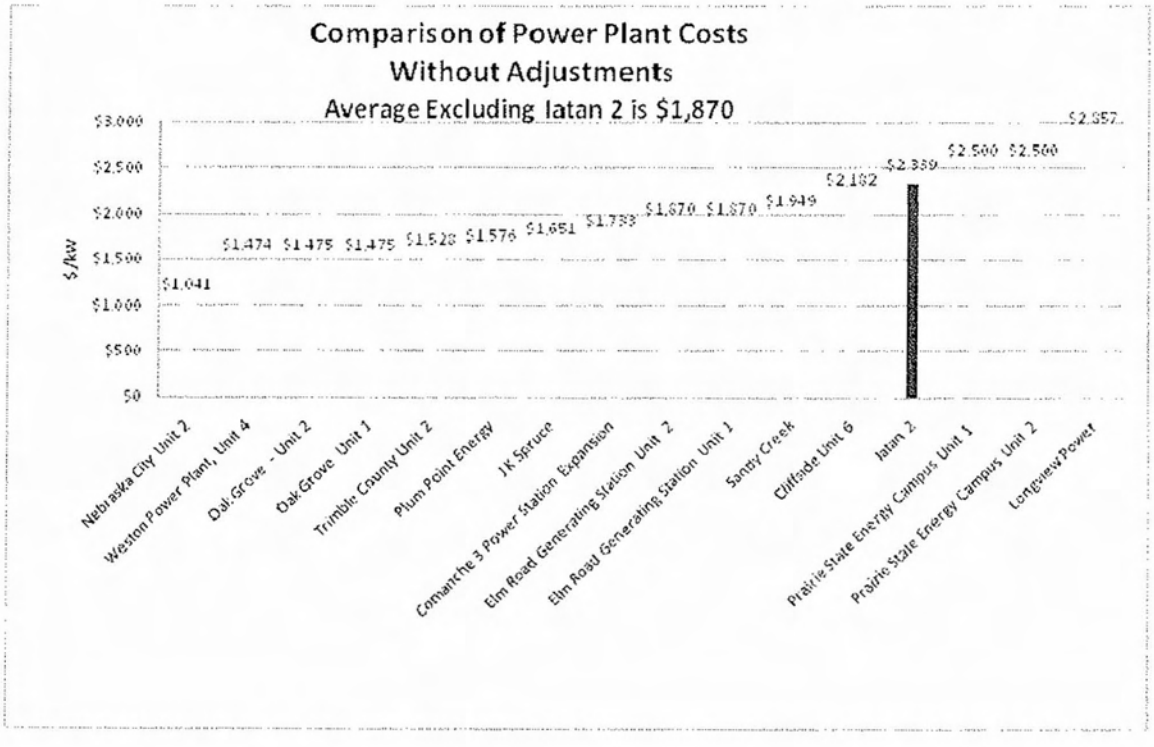
| Common Cost Component | Iatan Unit 2 Cost (x 1000) | Previous TC Unit 2 Costs (x 1000) | Rational for Exclusions |
|---|---|---|---|
| Zero Liquid Discharge (ZLD) | $10,050 | $4,422 | Assumes that Trimble County would upgrade its waste water system as part of the new project. |
| Water Treatment Facility | $16,700 | $7,348 | Assumes that Trimble County would upgrade its water treatment system to support the new unit. |
| Ammonia Storage | $3,650 | $1,606 | Assumes that Trimble County would upgrade its ammonia storage system to support the new unit. |
| Limestone Handling System | $31,050 | $13,662 | Assumes that Trimble County would upgrade its limestone handling system to support the new unit. |
| Gypsum Dewatering | $18,700 | $8,228 | Assumes that Trimble County would upgrade its gypsum dewatering system to support the new unit. |
| Vacuum Compressor Facility | $4,200 | $0 | The vacuum compressor facility is not required, therefore the associated $4.2 \M can be excluded. |
| Coal Handling Facility | $41,800 | $18,392 | system and made upgrades to support the new unit, which are included in the construction cost. |
| Transformers | $3,100 | $0 | the existing unit and included the cost of associated transformers in the overall costs. |
| Chimney | $33,720 | $23,720 | adding an additional flue liner. Assumed cost of $10M. The $23M differential could be excluded from the Iatan Unit 2 cost. |
| Landfill | $7,930 | $0 | project, which cost $7.9M. These costs were not included in the unit costs, therefore the associated $7.93M can be excluded. |
| Site Prep. | $13,060 | $0 | construction. It is assumed that Trimble County would have incurred a similar expense. |
| Digital Control System | $1,670 | $0 | of new unit construction. |
| Pre Fab Buildings | $1,660 | $0 | construction. |
| Fabrication Shop | $615 | $0 | construction. |
| Oil Storage Facility | $600 | $0 | construction. |
| Storage Tanks | $12,035 | $0 | Storage tanks are typically part of new unit construction. |
| Fly Ash Silo | $2,220 | $0 | A new fly ash was included in the project and is included in the new unit construction costs.. |
| Batch Plant | $255 | $0 | A batch plant is typically included in new unit construction. |
| Fire Protection | $7,100 | $0 | Fire protection system modifications are typically provided to support new unit construction. |
| Flue Gas Desulfurization | $33,220 | $0 | Trimble County did install a new FGD, which is included in the overall cost of the new unit. |
| Rail Road Mods. | $3,725 | $0 | Trimble County utilized the existing barge unloading system for central app. Coal and the upgraded rail system for PRB coal. Associated cost of rail modifications are included in unit costs. |
| Security Building | $390 | $0 | Security building modifications are typically provided to support new unit construction. |
| Indirect Costs | $21,550 | $18,964 | Indirect costs are typically included in new unit construction costs.. |
| **Total Adjustment** | **$269,000** | **$96,342** | |

**Adjusted Plant Costs**

| Unit Name | $/kW |
|---|---|
| Nebraska City Unit 2 | $1,104 |
| Weston Power Plant, Unit 4 | $1,563 |
| Oak Grove - Unit 2 | $1,564 |
| Oak Grove Unit 1 | $1,564 |
| J K Spruce | $1,651 |
| Plum Point Energy | $1,670 |
| Comanche 3 Power Station Expansion | $1,733 |
| Trimble County Unit 2 | $1,753 |
| Elm Road Generating Station Unit 2 | $1,870 |
| Elm Road Generating Station Unit 1 | $1,870 |
| Cliffside Unit 6 | $2,313 |
| **Iatan 2** | **$2,339** |
| Sandy Creek | $2,497 |
| Prairie State Energy Campus Unit 1 | $2,750 |
| Prairie State Energy Campus Unit 2 | $2,750 |
| Longview Power | $2,857 |
| Average of all but Iatan 2 ($/kW) | $1,967 |
| Iatan 2 ($/kW) | $2,339 |
| Differential ($/kW) | $372 |
| Capital Cost Differential ($ million) | $316 |



| Unadjusted Plant Costs | |
|---|---|
| **Unit Name** | **$/kW** |
| Nebraska City Unit 2 | $1,041 |
| Weston Power Plant, Unit 4 | $1,474 |
| Oak Grove - Unit 2 | $1,475 |
| Oak Grove Unit 1 | $1,475 |
| Trimble County Unit 2 | $1,528 |
| Plum Point Energy | $1,576 |
| J K Spruce | $1,651 |
| Comanche 3 Power Station Expansion | $1,733 |
| Elm Road Generating Station Unit 2 | $1,870 |
| Elm Road Generating Station Unit 1 | $1,870 |
| Sandy Creek | $1,949 |
| Cliffside Unit 6 | $2,182 |
| **Iatan 2** | $2,339 |
| Prairie State Energy Campus Unit 1 | $2,500 |
| Prairie State Energy Campus Unit 2 | $2,500 |
| Longview Power | $2,857 |
| Average of all but Iatan 2 ($/kW) | $1,845 |
| Iatan 2 ($/kW) | $2,339 |
| Differential ($/kW) | $493 |
| Capital Cost Differental ($ million) | $419 |



## Summary and Graph of Plants Using Adjusted Costs

Comparison of Iatan 2 to fifteen other similar plants shows range of average difference of $316 mil when adjusted and $ 393when unadjusted.

**Conclusion** – Regardless of how costs are considered, Trimble County was significantly more expensive. It is $419 Million more when using adjusted numbers and $698 Million more when unadjusted.

| Project | Iatan 2 | Trimble County Unit 2 |
|---|---|---|
| Developer | KCP&L | EON, IMEA, IMPA |
| Location | Weston, MO on Missouri river | Trimble County, KY on Ohio River |
| State | MO | KY |
| Fuel | Coal | Coal |
| Technology | PC Supercritical | PC Supercritical |
| Construction Start | Dec-05 | Jul-06 |
| Construction Finish | Late 2010 | Mid-2010 |
| Construction Method | Hybrid EPC/Multi-prime | EPC Bechtel |
| Size (MW) | 850 | 760 |
| Actual Cost | $1,985 | $1,161 |
| Unadjusted Cost per KW | $2,339 | $1,528 |
| Adjustment for Common Costs Installed with Unit 1 | | $96 |
| Open Shop Adjustment (6%) | | $75 |
| Cost Basis ($000, 000) TC2 | $1,988 | $1,333 |
| Adjusted Cost per KW | $2,339 | $1,754 |
| Source of Cost | March 2010 Reforecast | 2010 Rate Case |
| Cost/kW difference with Adjustment | $585 | |
| Cost/kW difference without Adjustment | $811 | |
| Projected Price Differential when adjusted for size, Open Shop and common | $497,387,971 | |
| Projected Price Differential when no adjustments are made. | $689,513,158 | |
| Project Definition Report | B&M since 1990's. Prepared Project Definition Report in 2003-04 | B&M did preliminary estimate in 2002 |
| Owner Engineer | B&M selected in Nov. 2005 as Owner | Cummins and Barnard Engineering from Michigan |
| Commission Approval | Jul-05 | Nov-05 |
| Bid for Services | Issued RFP for Owner Engineer in October 2005, Decided on Multi-Prime Construction Management in November 2005. | Issued bid in early 2005 for EPC. Three months for initial bids. Detailed negotiations on scope, schedule, price and other commercial terms then proceed through remainder of 2005. Limited notice to proceed in early 2006 timeframe. |
| Major Equipment Types | Alstom Boiler and AQCS, Toshiba Turbine Generator | Duscon-Babcock Boiler, Hitachi Turbine Generator, Siemens AQCS |
| Commercial Operation: | Late 2010 | Scheduled for commercial operation in June 2010. |

From Drabinski Exhibit WPD-8 Reference Testimony of Paul Thompson, LGE, Case No. 2009-00548 on January 2010; John Voyles, December 2004) and Roberts KCC Exhibit page 164)

RS Means Labor Comparison

| Activity Description | Open Shop Estimate | Standard Union Estimate | Differential |
|---|---|---|---|
| **Concrete** | | | |
| Concrete Foundations (CY) | $103 | $133 | 23% |
| **Steel** | | | |
| Structural Steel (W12-120) | $1.56 | $2.35 | 34% |
| Floor Grading | $1.06 | $1.41 | 25% |
| **Electrical** | | | |
| Rigid Steel Conduit 2" (per foot) | $0.80 | $1.00 | 20% |
| Cable Tray 30" (per foot) | $8.25 | $10.35 | 20% |
| Switchgear (13.8kv) | $1,800 | $2,275 | 21% |
| Lighting (1000 watt HID) | $117 | $146 | 20% |
| **Mechanical** | | | |
| Piping 2" (per foot) | $9.80 | $13.25 | 26% |
| Pipe Insulation 2" (per foot) | $5.55 | $7.05 | 21% |
| HVAC Cooling Tower (1000 ton) | $4.64 | $6.75 | 31% |
| | | Average Differential | 24% |

Note: Referencing typical activities from the RS Means Estimator indicates that the premium for standard union labor versus open shop labor is 24%.

Mr. Mark David Goss
Chairman
Kentucky State Board on Electric Generation and
Transmission Siting
211 Sower Boulevard
Frankfort, KY 40602

November 16, 2007

Re: ***Joint Application of the Illinois Municipal Electric Agency and the Indiana Municipal Power Agency for Approval to be a 25% Partner in the Construction of a 750 Megawatt Addition to the Existing Trimble County Generating Facility in Trimble County, Kentucky***
**Siting Board Case No. 2005-00152**

Dear Chairman Goss:

We are writing to provide the second annual report by the Illinois Municipal Electric Agency and the Indiana Municipal Power Agency (collectively "Joint Applicants") regarding the construction of the Trimble County 2 ("TC2") generating unit. This report is made in compliance with the November 16, 2005 Order of the Kentucky State Board on Electric Generation and Transmission Siting (the "Board") in the above-referenced proceeding. Please accept this original and ten (10) copies for filing with the Board. An electronic copy of this report has been posted to the Commission's Electronic Filing Center and is a true representation of the original document that has been filed with the Board. This filing is made with the assistance and involvement of Intervenors Louisville Gas and Electric Company and Kentucky Utilities Company (together, the "Companies"), who hold a 75 percent ownership share of the TC2 generating facility.

**Overview**

The Companies selected Bechtel Power Corporation ("BPC") as the Engineering, Procurement and Construction contractor for TC2 in August 2005 and reached an agreement on all outstanding contract issues on June 9, 2006. BPC mobilized on the site the week of July 3, 2006. Since the last annual report, work has continued on the construction of the new cooling tower with the tie-in to Trimble County 1 ("TC1") currently being performed during the TC1 planned Fall 2007 outage. Significant progress has been made on the foundations with the boiler foundation being essentially completed along with the supporting foundation for the steam turbine generator. The foundations of the air quality control system and erection of the boiler structural steel is progressing to plan. Major procurement activities associated with the major equipment has been completed through the award/design stage and a significant amount of equipment has begun to be delivered to the site. Overall, the project is tracking to plan and is approximately 20 percent complete.

**Implementation of Site Development Plan**

The Companies' project management team along with the Trimble County Generating Station management team, BPC, the Companies' security department and Moore Security LLC, continues to utilize the access control plan. The specific gate access information, BPC's expected workforce hiring plan, and access plans relative to hauling, deliveries and road usage were provided to the Trimble County Sheriff's Office and no changes have been made since the last annual report. Communication with the Sheriff's Office is considered routine and will remain so throughout the duration of the project. In addition, updates are provided to the Trimble County Emergency Response staff to inform them of the project and to coordinate communication protocols.

To date there have been no substantive changes to the proposed buildings, transmission lines or other structures, or to the access ways or other access to the site, from that set forth in the original plan submitted to the Board.

**Local Hiring and Procurement**

The contract executed with BPC is consistent with the commitments made by the Joint Applicants and the Companies regarding efforts to utilize local workers and vendors, including MBEs and WBEs. BPC has established a local hiring office at the site and in Carrollton, Kentucky, has been in communication with local vocational schools and labor departments of the Commonwealth of Kentucky, and has held meetings with officials of Trimble County, Carroll County and Henry County. There have been nearly 300 craft workers hired. Approximately 50 percent of these workers are local with residence in the Commonwealth of Kentucky and the three Metropolitan Statistical Areas of Louisville, Kentucky; Cincinnati, Ohio; Evansville, Indiana. Approximately 30 percent of the craft workers reside in the immediate local region (e.g. 50-mile radius of the plant site). In addition, these efforts have resulted in a significant portion of the subcontracts let to date being awarded to local contractors, including union, MBE and WBE vendors, as shown in the table below. The opportunities to obtain contracts or purchase orders for these businesses have been significant.

**MBE/WBE/Local/Union Participation - Project Inception to Date through October 2007**

| | MBE BID | MBE AWARD | WBE BID | WBE AWARD | LOCAL BID* | LOCAL AWARD* | UNION BID | UNION AWARD |
|---|---|---|---|---|---|---|---|---|
| PURCHASE ORDERS | 70 | 23 | 86 | 48 | 1,748 | 930 | 52 | 30 |
| PURCHASES CUMULATIVE VALUE | | $10,748,288 | | $ 55,538 | | $ 4,682,857 | | $ 29,855,060 |
| | | | | | | | | |
| SUB CONTRACTS | 9 | 3 | 8 | 2 | 58 | 27 | 42 | 20 |
| VALUE: SUB CONTRACTS | | $ 353,956 | | $ 44,074 | | $ 5,590,628 | | $ 8,374,644 |

*(Some Bids/Awards are represented in multiple categories)*

* *Local includes the Commonwealth of Kentucky, MSAs of Louisville, Kentucky; Cincinnati, Ohio; Evansville, Indiana*

**Public Comments and Responses**

Neither the Joint Applicants nor the Companies have received any material comments or complaints from members of the general public since the date of the hearing in this matter. The plant manager meets often with the Trimble County Judge-Executive and periodically sees the Trimble County Sheriff and other community leaders. In fact, many positive comments have been made about the project, how it is being managed and the positive impact it is having on the local area. The only negative comments about the TC2 project have pertained to poor driving habits exhibited by some workers traveling to and from the job site. The plant manager and BPC contacted state and local law enforcement and requested that patrols be increased in the area. They also reminded workers of the need to comply with traffic laws.

The Companies are routinely contacted by local subcontractors, suppliers and service providers, both open shop and union, relative to opportunities to participate in the project. All of these communications are cordial with most inquirers being referred to the BPC Site Manager. Since construction has begun, there have been no complaints received by the project management team relative to opportunities to participate on this project.

**Specific Mitigation Conditions**

The Joint Applicants and the Companies continue to work to ensure compliance with each of the specific mitigation conditions imposed by the Board. As set forth above, an access control plan is in place and coordination and information-sharing continues with the local Sheriff's office. Per the original plan, the Companies and Joint Applicants will use the existing stack shell for exhaust of both the existing TC1 unit and TC2, and will utilize colors and lighting consistent with the existing features of TC1.

It remains the plan to utilize silencers to dampen noise as a result of steam blows. A telephone notification plan to warn nearby residents, in addition to other notification methods, will be evaluated and, if feasible, utilized. However, steam blows are not scheduled to occur until the latter half of 2009.

In an effort to minimize the impact on the local community, BPC and subcontractors continue to direct construction traffic to Highway 754 and attempt to avoid commuting peaks and minimize additional traffic during school bus transit periods. And, as noted above, efforts to hire local workers, who are more familiar with local roads, continue.

The Companies continue to monitor construction related traffic and have regular discussions with BPC relative to the timing and plans related to material deliveries, subcontractor traffic, compliance with local traffic laws and construction equipment deliveries. BPC has contractual obligations to not interfere with local traffic, including avoiding times of school traffic. As craft counts rise, the Companies will continue to monitor construction related traffic. To date, communication with the local officials has been good.

The Companies continue to notify local officials regarding the timing and routes for ammonia truck deliveries and to ensure all necessary safety precautions in that regard continue to be followed.

If you have any questions about this second annual report, please let us know.

Sincerely,

Ronald D. Earl
General Manager & CEO
Illinois Municipal Electric Agency
919 South Spring Street
Springfield, IL 62704
217-789-4632

Raj G. Rao
President
Indiana Municipal Power Agency
11610 North College Avenue
Carmel, IN 46032
317-573-9955

cc: Parties of Record in Case No. 2005-00152

August 27, 2008

Mary Turner, Regulatory
Kansas City Power & Light
P O Box 418679
1201 Walnut - 13th Floor
Kansas City, MO 64141-9679

Dear Mary:

Vantage is beginning the balance of our audit of the Iatan Project and would like to request some additional detail and set up some high level interviews. The outline below identifies areas we would like to address in the near future and are listed by priority.

## Interviews and Analysis of Decision to retain Burns and McDonald

Vantage has been asked to develop a greater understanding of how and when B&McD were retained. To do so we would like the following data and interviews.

- All analysis prepared in evaluating the decision to hire Burns &McDonald versus Black and Veetch or other engineering firms.
- Related BOD minutes and copies of all presentation to the Board of Directors or senior management on the above decision.
- Copy of the contract with B&McD as well as any addendums.
- Any correspondence between project management and senior management regarding ability of B&McD to provide adequate engineering personnel, management and a functional organization early in the project.
- Interviews with Senior Management who had a direct involvement in the selection of B&McD. If these individuals are no longer with KCP&L, please provide any current information on their whereabouts.
- Interviews with senior B&McD management who had responsibility for oversight during the project.
- Interviews with President, CEO or other senior management of KCP&L who had direct involvement in decision to hire B&McD.
- On a similar topic, names, titles and duration of tenure of all KCP&L management personnel who had responsibility for managing the Iatan project. A short summary of their background with KCP&L would also be useful.

Please note we would like to collect this information and conduct interviews as soon as possible. I will call you later this week to discuss potential dates for visits.

### Detailed analysis of every Risk and Opportunity (R/O) item currently listed to determine appropriate classification as to justification

We would like to schedule time for our team of consultants and KCC Staff Auditors to review every R&O packet. During this review we would like access to all support documentation for the packages as well as the subject matter experts or authors to fully understand all inputs and analysis. We would envisions starting this activity in September, with most of the analysis in October.

### Review of the twelve schedule packages to determine whether risk of slippage for either or both Unit 1 and Unit 2 are likely

We would like to spend some time reviewing each of the twelve schedule packages to better understand the current status.

### Review the major contracts with Alstom, Kiewit and other major fixed price and non-fixed price bidders to evaluate terms and conditions associated with changes

This analysis will be done in conjunction with KCC Legal personnel. We would like to also review any commercial issues that have arisen with any sub-contractors.

### Follow-up reports or update on Tiger Team approach for both units 1 & 2

Any updates or implementation plans on the approximately 10 KCP&L action items and 10 Contractor action items.

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD
ON ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

| | |
|---|---|
| JOINT APPLICATION OF THE ILLINOIS MUNICIPAL ELECTRIC AGENCY AND THE INDIANA MUNICIPAL POWER AGENCY FOR APPROVAL TO BE A 25% PARTNER IN THE CONSTRUCTION OF A 750 MEGA WATT ADDITION TO THE EXISTING TRIMBLE COUNTY GENERATING FACILITY IN TRIMBLE COUNTY, KENTUCKY | Case No. 2005-00152 |

**RESPONSES OF THE ILLINOIS MUNICIPAL ELECTRIC AGENCY AND THE INDIANA MUNICIPAL POWER AGENCY TO IBEW/BUILDING TRADES**

The Illinois Municipal Electric Agency and the Indiana Municipal Power Agency, by counsel, provide the following responses to the data request of the IBEW/Building Trades of August 26, 2005.

1. On page 2 of his report, *Estimate of Regional Economic and Fiscal Impacts of the Proposed Trimble County Plant*, Dr. Coomes assumes a full labor cost of $51.00 per hour. The Burns & McDonald study, commissioned by LG&E, contains a *Labor Assessment* in its review of contracting strategies. As a part of that assessment, a wage rate comparison was included. (Attached) This table states labor rates for non-union workers. If the contractor selected by LG&E builds the Trimble County 2 project according to the Burns & McDonald recommendation: "...The project should be approached on a merit shop basis," (Burns & McDonald, p. 4-22, (attached) and the contractor pays non-union rates,

what impact would this have on the economic projection of total construction payroll costs?

Witness: Coomes

Response: Since I only have an estimate of the *average* full labor cost of $51 per hour, I can make only a crude estimate of the impact on construction labor costs, using the data in the three-page "Contracting Strategy, 4.5 Labor Assessment" attachment from Burns and McDonnell. Looking over the twelve crafts, and considering those for which there is evidence of both union and non-union labor supply, I see that non-union workers are estimated to earn between 17 and 30 percent less per hour than union workers, depending on the craft. Applying this range to the estimated construction hours projected leads to a reduction in labor costs of between $36 million and $88 million.

2. Dr. Coomes assumes $8.78 per hour for benefits. (Report, p. 2) The Burns & McDonald comparison chart (attached) indicates zero dollars in fringe benefits for non-union workers. If the contractor selected by LG&E follows the Burns & McDonald recommendation to build the plant on a merit basis, and selects a contractor that does not pay fringe benefits, what impact would that have on the total projected construction payroll?

Witness: Coomes

Response: The fringe benefits reported for union workers, as a percentage of hourly wages, vary dramatically by craft, from 25 percent (carpenters) to 53 percent (boilermakers). Or put another way, these fringes make up between 20 and 35 percent of the total wage rate reported by Burns and McDonnell. Using the range indicated as a crude measure of the possible impacts of eliminating fringe benefits on construction payroll leads to a reduction in labor costs of between $57 million and $101 million.

3. Does Dr. Coomes consider the term "benefits" to mean primarily health insurance and pension contributions? In Dr. Coomes' opinion, is the economic benefit of the projected construction payroll reduced significantly by the selection of a contractor that utilizes construction labor which excludes payment of fringe benefits of medical insurance and pension contributions?

Witness: Coomes

Response: Again, fringe benefits vary by occupation, and I only have an average labor cost across all occupations. The U.S. Bureau of Labor Statistics provides estimates for construction and other occupations (see www.bls.gov/news.release/ecec.t11.htm). Employer-provided health insurance benefits and pension plan contributions are typically the two biggest components of a benefit package (after FICA). Presumably, most workers hired by a contractor that excludes these fringe benefits would purchase health insurance and make pension contributions out of their household incomes. Nevertheless, construction labor costs for the Trimble project would certainly be lower if health and pension benefits were omitted.

4. The BBC Research and Consulting Report, *Review and Evaluation of Trimble County Unit 2 Site Assessment Report of April, 2005*, states, under *Supplemental Investigations* and *Interviews* (p. 30, 31):

> LG&E indicated that construction workers during past construction projects at the site commuted from Louisville, LaGrange, Carrollton and Madison, Indiana. The study team learned more about the historical construction workers experience at the Trimble County site during its interview with LG&E officials on March 28. The most similar construction experience occurred during the 2000 to 2002 period when the SCR was built at the same time that a number of the combustion turbines were also under construction. A total of 900 construction workers were on-site at peak during that time. Workers performed 10 hour shifts, 6 days a week; approximately 30 % of the workers were existing residents of the Louisville- Cincinnati region. An estimated 70 % moved into the region for the duration of their activity at the project.

Dr. Coomes assumes that "Workers live and shop in the region in the same proportion as the average of all workers in the region." (Report, p. 2) If LG&E selects a contractor which employs 70% of its workforce from outside the region, what impact would this have on Dr. Coomes' calculations of total economic benefit related to the 97.8 million in construction payroll? Please provide alternate calculations of economic benefit based upon 70 % of payroll going to workers outside the region.

Witness: Coomes

Response: My estimates from May implicitly assume that the residential distribution of workers for construction is the same as for the Louisville economic region as a whole. The latest personal income data from the U.S. Bureau of Economic Analysis indicates that on net only 0.5 percent of labor and proprietor earnings in the Louisville Economic Area are paid to those living outside the Area. Similarly, commuting patterns data suggest that nearly all workers needed in the 25-county Louisville Economic Area reside in the area. These patterns may not be true, however, for highly skilled construction workers who move around the Midwest on major projects as they emerge.

There is no simple way in my methodology to modify the assumption of place of residence of construction workers. The economic multipliers used to estimate the spin-off activity are built on historical relationships between industries in the region. These naturally reflect averages. So, for example, a construction project with a certain number of jobs and payroll is predicted to

create spin-off jobs and payroll in the region, partly because of purchases from regional vendors to the construction project, but partly because a percentage of construction workers pay gets spent in the local economy on retail goods and services. It is this last portion that is of interest here. If most of the workers actually resided outside of the Louisville region, then we would expect them to spend more of their pay in their home communities. This would lower the true value of the economic multipliers for the construction job. However, given that the multipliers provided by the US Bureau of Economic Analysis are based on proprietary industry data available to the federal government (but not to me), I have no empirical basis for deciding how much to lower the multipliers.

Certainly, if 70 percent of the construction workforce resides outside the region, the regional economic impacts would be lower than if the entire workforce was local. Most nonresident construction workers would effectively send a portion of their wages and benefits to their home economy, where they are used to pay for a household. But they will also spend a portion of their construction earnings in the Louisville area economy, as they purchase temporary housing, food, gasoline, recreation, and other retail items. An investigation into the spending patterns of nonresident construction workers would be necessary to quantify the amount captured locally versus that captured in their home economies.

5. If 100% of the workers on the construction phase of the project were Kentucky residents, what would Dr. Coomes professional opinion be about whether the

positive economic benefits to the state would be significantly enhanced, as opposed to the assumption upon which his present calculations are founded?

Witness: Coomes

Response: My estimates from May implicitly assume that 14 percent of construction wages and salaries are paid to Indiana residents and 86 percent are paid to Kentucky residents (see the table on page 8 of my report). However, because most of the retail establishments in the Louisville Economic Area are located on the Kentucky side of the market, much of the income earned by Indiana workers ends up being captured in Kentucky. Thus, relative to my May analysis, requiring Kentucky residency for construction workers would increase the economic benefits to Kentucky by less than 14 percent. The effect would obviously be much greater if in fact the number of workers from outside the Louisville Economic Area and outside of Kentucky was large, as suggested by question #4. Currently though I have no empirical basis on which to construct an estimate of that scenario.

6. Is it the Applicants' position that it has no obligation to insure, through the contracting process, that the EPC contractor maximizes the use of workers from the local area, and minimizes the use of workers outside the local area in order to realize the economic benefits projected by Dr. Coomes?

Witness: Mayo

Response: The Applicants object to this request to the extent that it attempts to characterize what is or is not required of them by KRS Chapter 278. Without waiver of that objection, the Applicants state that they are not primarily responsible for contracting for the construction labor of Trimble County Unit 2. The Participation Agreement, executed by the Applicants and LG&E and KU gives LG&E and KU the authority to manage the construction of the project. See section 5.5, page 19 of the Participation Agreement, Exhibit A of the Application. Therefore, the Applicants cannot through the contracting process "insure" the use of labor from any particular area, local or non-local, or the realization of any potential economic benefits.

However, the Applicants understand from LG&E and KU that the RFP to the EPC contractors specifically provides that LG&E and KU want, wherever practical and appropriate, to promote the use of local services and employment of local labor during the construction process. The Applicants also understand from LG&E and KU that both of the short-listed EPC bidders for Trimble County Unit 2 have stated they would agree to contractual provisions that give priority to Trimble County residents for consideration of direct hire craft jobs for the construction of the facility. The Applicants further defer to the data responses filed in this matter by LG&E and KU regarding labor Issues

7. In response to the IBEW Trades Council data request No.3, in the PSC case No. 2004- 00507, the Company stated:

Q-3 With reference to the Burns & McDonald report, Trimble County Unit 2 Project Approach, explain why the labor market analysis performed under Section 4.5 did not include review of labor and craft employee available from the Paducah, Owensboro, and Lexington, Kentucky areas?

***

A-3 The bidders are being asked to assume the labor risk of the project through liquidated damages relative to performance, cost and schedule. The companies would not release any information of this nature to the bidders in order to protect the companies and their rate payers from assuming any of the labor risks associated with performance, cost and schedule listed in the RFP.

Based upon the position stated by LG&E in the above response, do the Applicants adopt and ratify the same position, before the Siting Board, that all issues involving construction labor utilization are to be left entirely to the contractor?

Witness: Mayo

Response: As stated above, the Applicants have contractually agreed that LG&E and KU are to administer the construction contracts. The Applicants reject the assertion (set forth in Intervenors' Question 7) that LG&E's "position" is that "all issues involving construction labor utilization are to be left entirely to the contractor." See the Response to Question No. 6 above.

8. With regard to question No.6, would the Applicants' response be the same if LG&E selects a contractor that utilizes 70% of the workforce from outside the local area?

Witness: Mayo

Response: The impact of that assumption is reflected in Response 4.

9. Will the Applicants include a requirement that the EPC for TC2 will utilize Kentucky employees exclusively unless it can certify that efforts to recruit and retain a sufficient labor force, including skilled crafts, have failed to staff the project according to the manpower needs and timetables specified? If the Applicants do oppose the imposition of such a criteria on the EPC, identify issues other than employee availability that form the basis for the Company's position.

Witness: Mayo

Response: The Applicants object to this request to the extent that it attempts to characterize what is or is not required by KRS Chapter 278. Without waiver of that objection, and as stated above, the Applicants cannot make a commitment on labor issues based on their Participation Agreement with LG&E and Kentucky Utilities Company. However, the Applicants will cooperate with those companies' efforts to utilize local labor and services. See the Response to Question No. 6 above.

10. Will the Applicants agree to impose a condition on the contractor of entering into a project labor agreement for the purpose of insuring that qualified Kentucky construction craft employees have first priority at construction jobs for TC2? If not, state the grounds for the Applicants' objection to entering into a PLA.

Witness: Mayo

Response: The Applicants object to this request to the extent that it attempts to characterize what is or is not required by KRS Chapter 278. Without waiver of that objection, and as stated above, the Applicants do not have the authority to make a commitment regarding labor force. However, they will cooperate with their co-participants, LG&E and KU, in their efforts to utilize local labor and services. See the Response to Question No. 6 above.

Submitted by:

John N. Hughes
124 West Todd St.
Frankfort, KY 40601
502 227-7270
jnhughes@fewpb.net

Attorney for IMEA and IMPA

Certification:

A copy of this response has been filed electronically as required by Board regulations.

John N. Hughes