



KENDRICK R. RIGGS

DIRECT DIAL 502-560-4222

DIRECT FAX 502-627-8722

kriggs@ogdenlaw.com

1700 PNC PLAZA  
500 WEST JEFFERSON STREET  
LOUISVILLE, KENTUCKY 40202-2874  
(502) 582-1601  
FAX (502) 581-9564  
www.ogdenlaw.com

September 13, 2005

**VIA E-FILING AND REGULAR MAIL**

Elizabeth O'Donnell  
Executive Director  
Kentucky State Board on Electric  
Generation and Transmission Siting  
211 Sower Boulevard  
Frankfort, Kentucky 40602-0615

**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 Ms. O'Donnell:

Enclosed please find and accept for filing the original and ten (10) copies of the Direct Testimony of John N. Voyles on behalf of Louisville Gas and Electric Company and Kentucky Utilities Company in the above-referenced case. An electronic copy of this filing has been posted to the Commission's Electronic Filing Center.

The attached electronically filed documents are a true representation of the original documents that have been filed with the Commission.

Very truly yours,

Kendrick R. Riggs

KRR/ec

Attachments

cc: Parties of Record (w/ enclosure)

**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 MEGAWATT )** **CASE NO: 2005-00152**  
**ADDITION TO THE EXISTING TRIMBLE )**  
**COUNTY GENERATING STATION IN )**  
**TRIMBLE COUNTY, KENTUCKY )**

**DIRECT TESTIMONY OF**  
**JOHN N. VOYLES**  
**VICE PRESIDENT, REGULATED GENERATION**  
**LG&E ENERGY LLC**

**Filed: September 13, 2005**

1 **Q. Please state your name, position and business address.**

2 A. My name is John N. Voyles. I am Vice President of Regulated Generation for LG&E  
3 Energy Services Inc. on behalf of Louisville Gas & Electric Company (“LG&E”) and  
4 Kentucky Utilities Company (“KU”) (collectively the “Companies”). My business  
5 address is 220 West Main Street, Louisville, Kentucky 40202. My background and work  
6 experience are set forth in Appendix A.

7 **Q. Have you previously testified before this Board?**

8 A. No. However, I have testified before the Kentucky Public Service Commission in the  
9 Environmental Compliance Plan filing for LG&E in Case No. 94-332, and in *Re: Joint*  
10 *Application of Louisville Gas and Electric Company and Kentucky Utilities Company for*  
11 *a Certificate of Public Convenience and Necessity, and a Site Compatibility Certificate,*  
12 *for the Expansion of the Trimble County Generating Station, Case No. 2004-00507.*

13 **Q. Please describe the Companies’ interest in this proceeding.**

14 A. The Companies have a collective 75% ownership interest in the new 750 MW nominal  
15 net unit (“TC2”) proposed to be constructed at the Trimble County Generating Station  
16 (“Trimble Station”). The Companies are seeking a Certificate of Public Convenience and  
17 Necessity for their interest in TC2 in Case No. 2004-00507, a pending matter before the  
18 Kentucky Public Service Commission. KU and LG&E intervened in this proceeding  
19 because of their ownership interest in TC2.

20 **Q. Please describe the relationship between the Companies and the Applicants.**

21 A. The Illinois Municipal Electric Agency (“IMEA”) and the Indiana Municipal Power  
22 Agency (“IMPA”) presently own a collective 25% share of LG&E’s existing generating  
23 unit at the Trimble Station (“TC1”). IMEA purchased 12.12% of TC1 by agreement

1 dated September 24, 1990, and IMPA purchased 12.88% of TC1 by agreement dated  
2 February 1, 1993. KU, LG&E, IMEA and IMPA are also parties to a Participation  
3 Agreement (“PA”) entered into on February 9, 2004, which provides for IMEA and  
4 IMPA to own 12.12% and 12.88%, respectively, of TC2, and to share in the costs of  
5 development and construction of TC2, subject to all applicable approvals. The  
6 Companies have had a good working relationship with IMEA and IMPA to date, and  
7 fully expect that relationship to continue with the joint development and ownership of  
8 TC2.

9 **Q. Please describe the technology proposed for TC2.**

10 A. TC2 is proposed as a super-critical pulverized coal unit, and will be designed with  
11 substantial fuel flexibility to allow for better management of coal costs for today’s needs  
12 and beyond. In addition, the super-critical pulverized coal technology has a higher  
13 thermal efficiency as compared to other thermal power cycles, such as sub-critical  
14 pulverized coal and circulating fluidized bed units, reducing fuel costs by decreasing the  
15 amount of coal burned in relation to the amount of electricity produced. There are also  
16 environmental benefits from that efficiency, because as less coal is combusted to produce  
17 the energy, fewer pollutants are emitted as a by-product of that combustion. TC2 will  
18 also employ state of the art air pollution control equipment to ensure environmental  
19 compliance. It is anticipated that this equipment will consist of a Selective Catalytic  
20 Reduction system, Baghouse, Wet Flue Gas Desulphurization system, and Wet-  
21 Electrostatic Precipitator, with provisions for the addition of future environmental  
22 controls should air regulations change in the future. Indeed, TC2 will employ the most  
23 modern air pollution control equipment available, resulting in lower SO<sub>2</sub> and NO<sub>x</sub>

1 emissions, on a lb/mmBtu basis, than any other recently-submitted permit application for  
2 pulverized coal and circulating fluidized bed units in Kentucky and two coal-fueled  
3 IGCC systems in the U.S. TC2 will also be designed and constructed to meet mercury  
4 emission limits which are more stringent than those required by the most recent federal  
5 legislation. The result of these planned technologies, when coupled with environmental  
6 technology upgrades on TC1, is that TC2 will have only a minimal impact on air quality  
7 levels. Indeed, the TC2 Prevention of Significant Deterioration (“PSD”) Construction  
8 Permit Application and Title V Operating Permit Application are based on a net increase  
9 of less than 40 tons per year in emissions of NO<sub>x</sub> and SO<sub>2</sub> at the Trimble Station.

10 **Q. Who will be in charge of constructing TC2?**

11 A. Under the terms of the PA, the Companies are responsible for the construction of TC2,  
12 including managing, controlling, and supervising the design, procurement and  
13 construction phases of the project. The Companies believe it is beneficial to utilize  
14 contractors in discharging their responsibilities in that regard, and construction will be  
15 primarily performed through a single Engineering, Procurement and Construction  
16 (“EPC”) contract that will primarily include the boiler, air pollution control equipment,  
17 and turbine generator systems. The contracting process of utilizing a single EPC contract  
18 is very common in today’s marketplace for owners that want to manage schedule risks,  
19 performance risks and price risks. The EPC contract will have significant penalties  
20 associated with these areas of risk to protect the Companies, the Applicants and their  
21 respective ratepayers. Some relatively minor portions of the project may be constructed  
22 by the Companies, independent of the EPC contractor. The Companies will employ an  
23 Owner’s Engineer to assist in certain functions of the project, such as preparing the EPC

1 bid package, assisting in the management of communication during the bid clarification  
2 period, and providing support during the contract award process, for conceptual and  
3 detailed engineering reviews, and support for site construction management.

4 **Q. What is the status of the EPC bidding process?**

5 A. The bidding process for the EPC contract is underway using a functional technical  
6 specification with a typical set of turn-key, lump sum fixed price terms and conditions for  
7 a project of this scale. Proposals were solicited from a set of pre-qualified entities,  
8 including EPC contractors, major equipment providers, and engineering firms, and the  
9 Companies have now “short-listed” two bidders, Fluor and Bechtel. The bid details  
10 remain under confidential evaluation, and the Companies anticipate a successful  
11 conclusion to the bidding process by the end of September, at which point they will begin  
12 an approximately six-month open-book negotiation with the final bidder.

13 **Q. The IBEW and Trades Council have intervened in this matter, claiming an interest  
14 in seeing Kentucky workers utilized on the TC2 construction project. Do the  
15 Companies oppose the utilization of Kentucky workers?**

16 A. Absolutely not. The Companies fully support the utilization of Kentucky workers, and  
17 have no preference on whether the workers are union or non-union. The Companies’  
18 position has been and remains one of local jobs for all local workers. The TC2 project  
19 will require a large number of heavy industrial construction-skilled crafts that must be  
20 filled with drug free, qualified workers. Consistent with that need, the Companies’  
21 request for proposal (“RFP”) to the EPC contractors specifically notes that the  
22 Companies wish, wherever practical and appropriate, to promote the use of local services  
23 and employment of local labor during the construction process. The RFP also provides

1 that the successful bidder will “maximize the use of local labor” without specifying  
2 whether such labor must be union or non-union.

3 **Q. What steps will the Companies take to encourage the use of Kentucky laborers to**  
4 **the extent practicable?**

5 A. Once the project receives all necessary government approvals, the Companies will, in  
6 cooperation with the successful EPC bidder, go forward with a construction job  
7 recruitment process that insures all qualified local workers will be fairly considered for  
8 available construction jobs. The process will include several outreach programs that will  
9 actively seek qualified local workers. The efforts will include activities such as on-site  
10 recruitment and training offices, advertising in the local media, utilization of the  
11 Kentucky Department of Employment Services and the like.

12 **Q. Would the use of a Project Labor Agreement (“PLA”) help to fully utilize Kentucky**  
13 **workers on the TC2 project?**

14 A. No. The use of a PLA in and of itself will not help fully utilize Kentucky workers. A  
15 PLA would only assist in the utilization of union workers in Kentucky and as a result, it  
16 would discriminate unfairly against the large contingent of local workers that are non-  
17 union and the local contractors in the region that employ merit shop labor. In addition, a  
18 PLA includes work rules that would significantly increase the labor costs and,  
19 consequently, the construction costs of the project.

20 Despite these reservations, however, the Companies will not object to the use of a  
21 PLA for the labor on the project, should the successful EPC bidder wish to do so. As  
22 outlined in the RFP, the final contract with the successful EPC bidder will contain  
23 penalty provisions for the failure to perform as required on the TC2 project. The

1 Companies do not believe that it is in their ratepayers' best interests for the Companies to  
2 enter into a PLA at this stage because doing so would allow the successful EPC bidder to  
3 pass cost and schedule risks back to the Companies and, ultimately, their ratepayers.

4 **Q. The IBEW and Trades Council have claimed that the use of Kentucky workers will**  
5 **ensure that the full benefit of TC2 is felt in the Commonwealth. Are there other**  
6 **benefits to Kentucky from the construction of TC2?**

7 A. Yes. Of course, providing equal opportunity for all qualified workers to work on the TC2  
8 project will provide the maximum benefit to Kentucky in many ways. The use of the  
9 employment service agencies created by Kentucky capitalizes on the infrastructure the  
10 citizens have established just for such purpose. The use of Kentucky workers minimizes  
11 the addition of travel pay to the labor costs, keeping the total project costs for all  
12 ratepayers at an optimum. And, of course, the construction of TC2 will benefit Kentucky  
13 by creating approximately 30 to 40 permanent jobs. Kentucky workers live and spend  
14 their wages at home in all manner of ways. Furthermore, TC2 will benefit the  
15 Commonwealth by continuing to ensure the availability of low-cost power into the future.

16 **Q. The Board held a local public hearing in this matter, and several local landowners**  
17 **appeared and made comments. What have the Companies done in response to those**  
18 **comments?**

19 A. Representatives of the Companies were present at the local public hearing, and the  
20 comments made there by the public have been, or are being, addressed by the Companies.

21 The public comments and the Companies' responses thereto are summarized below:

- 22 • Concerns were stated about the condition of properties surrounding the Trimble  
23 Station and owned by LG&E. The Companies have taken steps to address the

1 concerns raised. Vacant houses at 627 and 1317 Ogden Ridge Road (Bedford,  
2 KY) have been sampled for asbestos containing material (the material sample  
3 from the house at 627 contained asbestos and the house at 1317 did not). Work  
4 has been awarded to a contractor for demolishing and disposing of both  
5 residences as well as several small structures. Also included in this work is  
6 general clean up of LG&E Energy property on both Ogden Ridge Road and  
7 Wentworth Road.

- 8 • Comments were also made about noise levels when TC2 comes on line.  
9 Representatives of the Companies met with the concerned property owners  
10 immediately after the local public hearing and explained TC2 commissioning  
11 activities which necessitate short duration steam blowing (several minutes per  
12 blow) of the newly installed boiler tubing can be planned during daylight hours  
13 and will be communicated to surrounding property owners well in advance of  
14 them taking place. Property owners were also informed that the noise they  
15 occasionally hear coming from the plant is usually the result of activation of high  
16 pressure steam safety valves which open when Unit 1 has an unexpected  
17 malfunction. "Lifting" of the safety valves is necessary to release pent up steam  
18 energy thereby preventing catastrophic equipment failure and potential personnel  
19 injury. Unexpected events such as this are short duration (less than several  
20 minutes) and occur infrequently (TC1 had four such events in 2004 and one event  
21 thus far in 2005).
- 22 • Comments were made about the emissions from the plant. Representatives of the  
23 Companies met with concerned property owners immediately after the local

1 public hearing and explained that, as set forth above, TC2 will utilize state of the  
2 art pollution control equipment which, together with environmental technology  
3 upgrades on TC1, will result in TC2 having only a minimal impact on air quality  
4 levels. The Companies' representatives also explained that the "plume" coming  
5 from the cooling tower at the Trimble Station is merely condensation resulting  
6 from the cooling of the process water used in producing electricity at the Station.  
7 Discussion of the TC1 flue gas plume was also conducted with property owners.  
8 In particular, the "bluish" plume occasionally seen coming from the TC1 chimney  
9 was mentioned. This phenomenon is caused by the presence of sulfuric acid mist  
10 ( $SO_3$ ) in the flue gas. Sulfuric acid is present in most coal combustion flue gases  
11 because a small amount of  $SO_2$  produced (0.5 to 1.5%) is further oxidized to  $SO_3$ ,  
12 which combines with flue gas moisture to form vapor phase sulfuric acid. The  
13 addition of Selective Catalytic Reduction ("SCR") for  $NO_x$  control on TC1  
14 exacerbates the effects as the SCR catalyst further oxidizes a portion of the flue  
15 gas to  $SO_2$  to  $SO_3$ . The Company is currently studying different technology  
16 options which might be used to reduce the level of  $SO_3$  in the flue gas. These  
17 options include injection of reagents (i.e. limestone, calcium, magnesium) at  
18 various points of the combustion process as well as burning lower sulfur coals.  
19  $SO_3$  mitigation should not be an issue on TC2 due to the previously mentioned  
20 pollution control equipment (i.e. wet ESP) being installed.

- 21 • Comments were also made about the use of ammonia at the plant and whether  
22 there was a plan in place in the event of a leak or accident involving ammonia.  
23 The Companies explained that Trimble County Generating Station personnel

1 work with the Trimble County Local Emergency Planning Commission to  
2 develop a local written emergency operations plan required by the State (Tab Q-  
3 7). Trimble County Station has a Contingency Plan to call the 24-hour Local  
4 Emergency Planning Commission number (LEPC-911) immediately in the event  
5 of a reportable ammonia spill. Trimble County Local Emergency Planning has  
6 visited the plant and has conducted a mock disaster scenario with Plant personnel.  
7 The Plant also has Process Safety Management (OSHA) and Risk Management  
8 (EPA) plans in place to help ensure the safe handling of ammonia.

- 9 • Finally, comments were made in support of TC2 and the Companies' competitive  
10 bidding process. No response was required by the Companies on those  
11 comments.

12 **Q. Do you have a recommendation for the Board?**

13 A. Yes. It is my recommendation that the Board grant the Applicants a construction  
14 certificate, as requested in their Joint Application and, in doing so, support the  
15 Companies' commitment to monitor the successful EPC bidder's recruitment and hiring  
16 practices to insure all qualified local workers from Kentucky get a fair opportunity to  
17 work on the TC2 project.

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

19 A. Yes, it does.



## **APPENDIX A**

### **John N. Voyles, Jr.**

Vice President, Regulated Generation  
LG&E Energy LLC  
220 West Main Street  
P. O. Box 32010  
Louisville, Kentucky 40202  
Telephone: (502) 627-4762

### **Education**

Rose-Hulman Institute of Technology, B.S. in Mechanical Engineering - 1976  
Emory Business School, Management Development Program - 1992  
University of Louisville  
    The Effective Executive - 1993  
    Center for Creative Leadership - 1996  
Leadership Louisville - 2004-2005

### **Previous Positions**

LG&E Energy LLC, Louisville, Kentucky  
    2003 (Feb - May) - Director, Generation Services

Louisville Gas and Electric Company, Louisville, Kentucky  
    1998 - 2002 - General Manager, Cane Run, Ohio Ralls & Combustion Turbines  
    1996 - 1998 - General Manager, Jefferson County Operations  
    1991 - 1995 - Director, Environmental Excellence  
    1989 - 1991 - Division Manager, Power Production, Mill Creek  
    1984 - 1989 - Assistant Plant Manager, Mill Creek  
    1982 - 1984 - Technical and Administrative Manager, Mill Creek  
    1976 - 1982 - Mechanical Engineer

### **Other Professional Associations**

Research Advisory Committee, Electric Power Research Institute (EPRI)  
Board of Directors, Electric Energy, Inc.  
Board of Directors, Ohio Valley Electric Corp. (OVEC)