

Exhibit No.:  
Issue: La Cygne Environmental Retrofit  
Project Overview  
Witness: Robert N. Bell  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Kansas City Power & Light Company  
Case No.: ER-2014-0370  
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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO.: ER-2014-0370**

**DIRECT TESTIMONY**

**OF**

**ROBERT N. BELL**

**ON BEHALF OF**

**KANSAS CITY POWER & LIGHT COMPANY**

**Kansas City, Missouri  
October 2014**

**“\*\*[REDACTED]\*\*” Designates “Highly Confidential” Information  
Has Been Removed.  
Certain Schedules Attached To This Testimony Designated “Highly Confidential”  
Have Been Removed  
Pursuant To 4 CSR 240-2.135.**

**DIRECT TESTIMONY**

**OF**

**ROBERT N. BELL**

**Case No. ER-2014-0370**

1 **Q: Please state your name and business address.**

2 A: My name is Robert N. Bell. My business address is 1200 Main Street, Kansas City,  
3 Missouri 64105.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company (“KCP&L” or “Company”) as  
6 Senior Director – Construction for the La Cygne Environmental Retrofit Project (the  
7 “La Cygne Environmental Retrofit Project”).

8 **Q: Please summarize your role with respect to the construction of La Cygne**  
9 **Environmental Retrofit Project?**

10 A: As the Senior Director of Construction, I am currently responsible for overall  
11 management of the La Cygne Environmental Retrofit Project. All construction  
12 management department managers in KCP&L’s construction management organization  
13 report to me. I am responsible for all aspects of the construction and start-up of the Air  
14 Quality Control Systems (“AQCS”) for the La Cygne Environmental Retrofit Project,  
15 including selection of the chimney vendor, the owner’s engineer (“OE”), and the  
16 engineer-procure-construction (“EPC”) contractor.

17 **Q: Have you previously testified in a proceeding before the Missouri Public Service**  
18 **Commission (“Commission” or “MPSC”) or any other utility regulatory**  
19 **commission?**

1 A: Yes, I have testified before this Commission in Kansas City Power & Light Company's  
2 rate case numbers ER-2010-0355 and ER-2010-0356 related to the construction and start-  
3 up of Iatan Unit 2. I testified before the Kansas Corporation Commission ("KCC") in  
4 rate case number 10-KCPE-415-RTS regarding the construction and start-up of Iatan  
5 Unit 2 and case number 11-KCPE-581-PRE in which the KCC granted the Company's  
6 request for predetermination of the La Cygne Environmental Retrofit Project finding it to  
7 be prudent and approving the costs associated with the project up to the budget level of  
8 \$1.23 billion.

9 **Q: Could you please describe your education?**

10 A: Yes. I received my Bachelor of Science degree in Electrical Engineering from the  
11 University of Kentucky in 1981. Since that time, I have worked in numerous positions  
12 related to utility construction.

13 **Q: Please provide a general description of your career in the utility construction**  
14 **business.**

15 A: I have worked in the utility industry in various capacities for over 30 years. During the  
16 course of my career, I have been involved in the construction management and start-up of  
17 approximately 30 power plants. I have been involved in all aspects of the process from  
18 the first shovel in the ground to turning the completed plant over to operations. There  
19 have been projects where I have been on board for the entire duration and other projects  
20 where my role was limited to particular assignments. For the decade prior to joining  
21 KCP&L, I was a project executive in a large international firm engaged as the lead in  
22 EPC power projects around the world. During this time, I participated in executive  
23 decision-making regarding EPC bids and participated in the executive oversight of the

1 construction budgets of over a dozen major projects. I have attached my resume as  
2 Schedule RNB-1.

3 **Q: Describe your experience at the Tennessee Valley Authority (“TVA”).**

4 A: From 1978 to 1982, I worked as a co-op and field engineer and my responsibilities  
5 included operation and maintenance of a large 2,558 MW coal plant, testing and  
6 troubleshooting of nuclear, coal, and hydro power plants, transmission systems, and  
7 distribution equipment.

8 **Q: Describe your work experience at General Electric (“GE”).**

9 A: I worked in various power plant construction and startup positions over my 15 years at  
10 GE. Between 1982 and 1988, I worked in international construction and commissioning  
11 for GE Technical Services Company. During this time, I was a construction and/or  
12 commissioning manager for two gas-fired power plants in Egypt, a combined-cycle  
13 power plant in Japan, five power plants in Saudi Arabia, and one power plant in Oman. I  
14 also worked as the operations and maintenance manager for the Nasiriyah power plant, in  
15 Riyadh, Saudi Arabia.

16 Between 1988 and 1994, I worked in GE’s Power Generation Services on the  
17 following projects: (1) electrical construction and commissioning manager for the TVA  
18 Memphis, Tennessee Plant Allen Combustion Turbine (“CT”) retrofit (“Allen Project”)  
19 for an electrical and controls retrofit project of 20 CTs; (2) electrical construction and  
20 commissioning manager for Public Works Commission, Fayetteville, North Carolina  
21 plant (“Fayetteville Project”) conversion from simple cycle to combined cycle where we  
22 added three new Heat Recovery Steam Generators (“HRSG”), and one new Steam  
23 Turbine (“ST”) and upgraded the controls systems of the existing eight CTs; (3) electrical

1 construction and commissioning manager for the Virginia Power, Richmond, Virginia  
2 combined cycle power plant (“Virginia Project”) for the addition of one CT, one ST and  
3 one HRSG; and (4) commissioning manager for Florida Power & Light’s Indiantown,  
4 Florida power plant (“FPL Project”) that included the addition of four 7FA Dry Low  
5 nitrogen oxides (“NO<sub>x</sub>”) (“DLN”) CTs, two HRSGs, and two STs.

6 From 1994 to 1997, I worked for GE International as an electrical construction  
7 and commissioning manager on the following projects: (1) Crocket, California Cogen  
8 power plant, which was the first single shaft 7FA DLN 2 GE machine built that included  
9 a HRSG and a ST; (2) Harry Allen Las Vegas, Nevada which is a 2 - 7EA DLN 1 dual  
10 fuel CT power plant; and (3) Washington Water Power, Rathdrum, Idaho, which is a 2 -  
11 7EA DLN 1 CT power plant. I also led the performance tuning of 8 – 9FA DLN 2 CT  
12 combustion systems in Tokyo, Japan and 4 - 9FA DLN 2 CTs in Eemshaven,  
13 Netherlands.

14 **Q: While at GE, did you have any experience managing craft labor in the field?**

15 A: Yes. I managed craft labor on the following projects: (1) on the Allen Project, where I  
16 managed an 83 man crew of union electricians and engineers; (2) on the Fayetteville  
17 Project, where I directed a 150 man open shop crew of electricians and engineers; (3) the  
18 Virginia Project involved a 73 man union crew of electricians and engineers; (4) the FPL  
19 Project involved a 35 man start-up crew; and (5) all six Saudi Arabian and Omani  
20 projects I managed all the crafts involved in construction and start-up.

21 **Q: Describe your work experience at Black & Veatch (“B&V”).**

22 A: From 1997 to 2001, I was the Director of Strategic Initiatives in the Power Division of  
23 B&V. In this role, I centralized the Division’s procurement operations in order to

1 leverage vendor relationships to reduce overall costs. I also served as the Project  
2 Director for the corporate worldwide Y2K program. This project required the  
3 simultaneous management and implementation for both B&V and nine different utilities.  
4 I also implemented GE's Six Sigma program which focused on quality control  
5 improvements within utility organizations.

6 In 2001, B&V promoted me to Vice President of Strategic Initiatives where my  
7 responsibilities included operational control of the Construction Equipment and Fleet  
8 Services business, an internal reorganization of the Power Division and B&V's regional  
9 operation centers to support 157 projects and the realignment of corporate processes  
10 including implementing an electronic payment platform.

11 Between 2004 and 2006, I was the Vice President of Operations in B&V's  
12 Federal Division and from 2006 to 2009 I was Vice President and Project Executive of  
13 International Programs for B&V's Special Projects Corporation. This business unit was  
14 the lead of a consortium that performed power projects. My experience in this role  
15 included accountability for the execution of multiple energy projects included in the  
16 \$1.4 billion United States Agency for International Development ("USAID") Afghanistan  
17 Infrastructure and Rehabilitation Program. My duties included responsibility for the  
18 home office support and in-country EPC activities. The projects included as a part of the  
19 USAID program included a new power plant, transmission and distribution, hydro-  
20 electric dams, and establishing power purchase agreements.

21 In 2004, I was also the Project Manager of the U.S. Army Corp. of Engineers  
22 Transatlantic Programs Center reconstruction contract in Iraq. My responsibilities

1 included the fast track construction and start-up of two new CT power plants, the 650  
2 MW Al-Quds Power Plant, and the 30 MW Al-Hilla Power Plant.

3 **Q: Did your experience at B&V include any budgeting or finance responsibilities?**

4 A: Yes. In my role as the Vice President and Director of Special Projects Corporation, I was  
5 the business unit representative for the Corporate Services Board, which is the group that  
6 develops and implements all budgets, processes and procedures for B&V. My role  
7 included budgeting and managing all business-unit overhead costs as well as managing  
8 the costs from Corporate Shared Services which included finance, information  
9 technology, procurement, insurance/risk management, and human resources.  
10 Additionally, as the Director of Strategic Initiatives, I sat on the executive board that  
11 reviewed monthly progress and financial reports for all large EPC projects, and I  
12 developed the financial briefs for our external auditors and financial institutions.

13 **Q: What were your responsibilities with respect to KCP&L's Iatan Unit 2 construction**  
14 **project?**

15 A: I was hired in March 2009 as Senior Director of Construction (1) to assist the KCP&L  
16 Vice President of Construction with completing the construction activities at Iatan Unit 2  
17 and (2) to lead the start-up effort for the plant. In 2010, I assumed overall responsibility  
18 for all aspects of the Iatan Unit 2 project.

19 **Q: What is the purpose of your Direct Testimony?**

20 A: The purpose of my testimony is to provide: (1) an overview of the La Cygne Generating  
21 Station ("La Cygne") and the La Cygne Environmental Retrofit Project, including the  
22 components being installed; (2) an explanation of the contracting strategy, bid and  
23 selection process for major vendors; (3) a discussion of the industry context for the La

1 Cygne Environmental Retrofit Project; (4) an explanation of KCP&L's project planning  
2 and creation of oversight; (5) an explanation of the La Cygne Environmental Retrofit  
3 Project schedule; (6) an explanation of KCP&L's cost control measures for the La Cygne  
4 Environmental Retrofit Project; (7) a discussion of the La Cygne Environmental Retrofit  
5 Project safety record; and (8) an explanation of the current status of the in-service  
6 criteria.

### 7 OVERVIEW OF THE LA CYGNE GENERATING STATION

8 **Q: In general, please describe La Cygne.**

9 A: La Cygne is comprised of two coal-fired units. Unit 1, a once through supercritical  
10 cyclone coal-fired boiler, is rated at 812 MW gross / 736 MW net. It was constructed in  
11 the early 1970s and was placed in commercial operation in 1973. Unit 2, a pulverized  
12 coal-fired boiler, is rated at 717 MW gross / 682 MW net. It was constructed in the mid-  
13 1970s and placed in commercial service in 1977. KCP&L owns 50% of La Cygne.  
14 Kansas Gas and Electric Company, a wholly owned subsidiary of Westar Energy, Inc.  
15 ("Westar") controls the other 50% share of La Cygne. Pursuant to the two companies'  
16 ownership agreement, KCP&L is responsible for operating both La Cygne Units.

17 **Q: What environmental control equipment is currently in place for each of the units?**

18 A: La Cygne Unit 1 currently has a wet scrubber, which is original to the plant, for removal  
19 of sulfur and particulates. Local coal has significantly higher sulfur content, around 4-  
20 6%, than the Southern Powder River Basin coal at around 0.25-0.90%. As the plant was  
21 originally designed to burn 100% of the higher sulfur content local coal, the scrubber was  
22 required to meet emissions limits at that time. In May 2007, a selective catalytic  
23 reduction ("SCR") system for NO<sub>x</sub> removal was installed on La Cygne Unit 1.



1           La Cygne Unit 2 currently has an electrostatic precipitator (“ESP”) for particulate  
2 removal. This equipment is at the end of its useful life. The La Cygne Environmental  
3 Retrofit Project includes the installation of new ductwork to by-pass the ESP and to  
4 abandon it in place in order to avoid the continued capital and maintenance expense to  
5 operate the ESP. Company witness Burton Crawford addresses the economic analysis  
6 associated with this decision.

7                           **OVERVIEW OF ENVIRONMENTAL UPGRADE PROJECT**

8   **Q: Why must KCP&L install new environmental equipment at La Cygne?**

9   A: As discussed in the Direct Testimony of KCP&L witness Paul Ling, the Kansas  
10 Department of Health and Environmental (“KDHE”) is responsible for Kansas state  
11 implementation of the U.S. Environmental Protection Agency (“EPA”) regulations.  
12 Pursuant to current and pending environmental regulations and its Regional Haze  
13 Agreement to meet EPA regulations, KCP&L must install best available retrofit  
14 technology (“BART”) environmental equipment at La Cygne by June 1, 2015. Details  
15 regarding the specific environmental requirements and the impact on La Cygne are  
16 contained in Company witness Paul Ling’s testimony.

17 **Q: You stated previously that La Cygne Unit 1 already has an existing wet scrubber.**

18 **Why is this being replaced with a new wet scrubber?**

19 A: The original wet scrubber equipment was placed into service with La Cygne Unit 1 in  
20 1973. Because it is an older technology, it cannot achieve the Regional Haze Agreement  
21 (“RHA”) sulfur dioxide (“SO<sub>2</sub>”) emission limit requirement effective on June 1, 2015.  
22 With the existing wet scrubber, KCP&L has historically seen a La Cygne Unit 1 SO<sub>2</sub>  
23 emission rate of between 0.2 and 0.3 lbs/MMBtu, but the new RHA limit is

1 0.1 lbs/MMBtu on a 30-day rolling station average basis. Even with a new wet scrubber  
2 addition to La Cygne Unit 2, the new required station average limits could not be met  
3 using the existing wet scrubber on Unit 1. In addition, whenever Unit 2 is off-line for an  
4 extended outage, La Cygne Unit 1 would have to be in compliance with the station  
5 average limit by itself or not operate. Notably, the existing wet scrubber on Unit 1 cannot  
6 accomplish the station average RHA limit.

7 **Q: In general, please describe the La Cygne Environmental Retrofit Project.**

8 A: Company witnesses Paul Ling and Burton Crawford testify that retrofitting La Cygne was  
9 the best option for the least cost for Missouri ratepayers. The La Cygne Environmental  
10 Retrofit Project includes the installation of emissions control equipment that meets  
11 current BART standards, including a limestone based, wet scrubber flue gas  
12 desulfurization systems, fabric filters, mercury control systems on both Units 1 and 2, and  
13 low NO<sub>x</sub> burners, over-fired air, and an SCR system on Unit 2.

14 **Q: Please describe the environmental equipment currently being installed at La Cygne.**

15 A: The La Cygne Environmental Retrofit Project includes installation of the following:

- 16 - Wet scrubbers remove SO<sub>2</sub> from the flue gas. This technology employs a  
17 limestone forced oxidation process that creates a gypsum by-product.
- 18 - Pulse jet fabric filters (“PJFF”) in baghouses remove particulates upstream of  
19 the wet scrubbers.
- 20 - For Unit 2 only, an SCR removes NO<sub>x</sub>.
  - 21 o To lower the operating cost of the SCR, low NO<sub>x</sub> burners (“LNBs”)  
22 and an over-fire air (“OFA”) system is being installed.

1 Categorized below in specific groups are the primary equipment and scopes of work  
2 associated with implementing the necessary AQCS on La Cygne Units 1 and 2, including  
3 La Cygne common equipment that can be used to support each unit independently or  
4 concurrently. Most of this equipment is similar to that recently installed at Iatan Units 1  
5 and 2.

6 - Unit 1 – Equipment added downstream of the existing air preheaters:

- 7 ○ Baghouse with PJFF technology and fly ash conveying equipment;
- 8 ○ New induced draft (“ID”) fans; and
- 9 ○ Wet scrubber for flue gas desulfurization (“FGD”).

10 - Unit 2 – Equipment added downstream of the existing ESP:

- 11 ○ Baghouse with PJFF technology and fly ash conveying equipment;
- 12 ○ New ID fans; and
- 13 ○ Wet scrubber for FGD.

14 - Unit 2 – Equipment added between the existing economizer and air  
15 preheaters:

- 16 ○ SCR system ductwork and reactors.

17 - Unit 2 – Equipment added to the existing boiler:

- 18 ○ LNBS; and
- 19 ○ OFA system.

20 - Common equipment:

- 21 ○ Dual-flue chimney;
- 22 ○ Reagent (limestone) preparation building and equipment;
- 23 ○ Gypsum dewatering building and equipment;

- 1                   o Gypsum storage pile and handling equipment;
- 2                   o Electrical buildings;
- 3                   o Limestone reclaim/storage and material handling equipment;
- 4                   o Scrubber and air oxidation buildings;
- 5                   o Paint shop; and
- 6                   o Warehouse.

7                   A site photograph showing the major components of the La Cygne Environmental  
8                   Retrofit Project is attached as Schedule RNB-2.

9   **Q:    What is the purpose of an SCR on a coal-fired generating unit?**

10 A:    SCR stands for selective catalytic reduction, a process used to limit emissions of NO<sub>x</sub>  
11 into the air. The production of NO<sub>x</sub> is a by-product of coal combustion. The EPA  
12 regulates the emission of NO<sub>x</sub>. The purpose of an SCR is to reduce the amount of NO<sub>x</sub> in  
13 the flue gas of a coal-fired generating unit. The SCR converts NO<sub>x</sub>, which consists  
14 primarily of nitrous oxide and lesser amounts of nitrous dioxide, to nitrogen and water by  
15 a chemical reaction with ammonia and a catalyst.

16 **Q:    Please describe the SCR at La Cygne Unit 2.**

17 A:    The SCR at La Cygne Unit 2 is located between the existing economizer and air  
18 preheaters. It is principally comprised of a substantial amount of duct work, an ammonia  
19 injection grid, a catalyst chamber with layers of catalyst, and considerable preparation,  
20 handling, and storage facilities for the ammonia and catalyst. The SCR for La Cygne  
21 Unit 2 was designed by Hitachi, La Cygne Environmental Partners' ("LEP")  
22 subcontractor.

1 **Q: What is the purpose of a scrubber on a coal-fired generating unit?**

2 A: The production of the acid gas SO<sub>2</sub> is a by-product of coal combustion. The EPA  
3 regulates the emission of SO<sub>2</sub>. The purpose of a scrubber, or “absorber” as it is  
4 sometimes called, is to reduce the amount of SO<sub>2</sub> in the flue gas of a coal-fired generating  
5 unit. A “wet” scrubber removes SO<sub>2</sub> from the flue gas by injecting a limestone slurry  
6 solution into the flue gas. The resulting chemical reactions convert the SO<sub>2</sub> and  
7 limestone to calcium sulfate, or gypsum, and water slurry.

8 **Q: Please describe the scrubbers at La Cygne.**

9 A: The scrubber at La Cygne is a “wet” scrubber, which means that the catalyst it uses for  
10 the chemical reaction to remove SO<sub>2</sub> is limestone slurry. The scrubber is located  
11 downstream of the bag house and ID fans on both Units, and the existing ESP on Unit 2.  
12 It is principally comprised of the absorber vessel, a recycle spray system, and  
13 considerable preparation, handling, and storage facilities for the limestone slurry.

14 **Q: Why is the Company installing new wet scrubbers on the La Cygne units instead of**  
15 **new dry scrubbers?**

16 A: Wet scrubbers will provide the capability to meet the additional emissions reductions  
17 reasonably foreseeable in future regulations discussed in Mr. Ling’s testimony. Wet  
18 scrubbers generally outperform dry scrubbers. As a result, wet scrubbers provide greater  
19 flexibility for the Company to comply with the potential that more stringent emissions  
20 requirements may be enacted in the future.

21 **Q: What is the purpose of a baghouse on a coal-fired generating unit?**

22 A: The combustion of coal creates particulate matter primarily composed of ash and  
23 unburned carbon. The EPA regulates the emission of particulate matter. The purpose of

1 a baghouse is to capture particulate in the flue gas before the gas is released into the  
2 atmosphere by directing the flue gas to flow through a system of fabric filters. The gas  
3 stream is pulled through the fabric filter by ID fans and then exits through the absorbers  
4 and ultimately the stack. The particulate matter leaves the boiler either as bottom ash,  
5 economizer ash, or fly ash. The bottom ash collects at the bottom of the boiler and is  
6 periodically removed. The economizer ash typically separates from the flue gas and  
7 drops into hoppers for removal in the economizer area. The fly ash is the particulate  
8 matter that is relatively small and continues to be carried in the flue gas until it is  
9 removed by the baghouse.

10 **Q: Please describe the baghouses at La Cygne.**

11 A: Particulate matter, or small particles of fly ash, is captured on the outer surface of the  
12 fabric filter bags. The bags are then periodically cleaned by a pulse of air, which knocks  
13 the fly ash loose from the bag. The fly ash is then collected in hoppers located at the  
14 bottom of the baghouse and is conveyed from the hoppers to a storage facility. The  
15 baghouses at La Cygne are located between the air heater outlet and the ID fans. The  
16 baghouses are principally comprised of duct work, isolation dampers, baghouse  
17 compartments, fabric filter bags, a pulse jet air system, and ash conveying equipment.

18 **Q: Did the KDHE Regional Haze Agreement include the monitoring or reduction of**  
19 **mercury emissions at La Cygne?**

20 A: No. Mercury Continuous Emissions Monitory Systems on both Units were installed in  
21 response to the Clean Air Mercury Rule (“CAMR”) in preparation for mercury emissions  
22 monitoring and the establishment of baseline emissions levels.

1 Q: In summary, what emission controls are being put into service with the La Cygne  
2 Environmental Retrofit Project?

3 A: In addition to the mercury CEMS being put into service to meet CAMR, the emissions  
4 controls that are being put into service to meet KDHE Regional Haze will remove SO<sub>2</sub>,  
5 NO<sub>x</sub>, and particulate matter from the flue gas.

6 Q: What is the current status of the La Cygne Environmental Retrofit Project?

7 A: As of September 14, 2014, the project work was approximately \*\*[REDACTED]\*\* complete. This  
8 calculation is based on the completion of the total project manhours including all  
9 construction and start-up work. As of September 14, 2014, LEP had earned  
10 \*\*[REDACTED]\*\* man-hours of the cumulative \*\*[REDACTED]\*\* planned hours. The majority  
11 of LEP's remaining work on the project includes, but is not limited to, construction,  
12 commissioning, startup, tuning, and testing of the AQCS Equipment. The new equipment  
13 will be tied into the existing plant in a series of two consecutive outages. The Unit 2  
14 AQCS Tie-In Outage is currently in process and the Unit 1 AQCS Tie-In Outage is  
15 scheduled for the first quarter in 2015. At the present time, therefore, it is expected that  
16 the La Cygne Environmental Retrofit Project will be both on time and at or below the  
17 Definitive Cost Estimate of \$1.23 billion.

18 **CONTRACTING STRATEGY & MAJOR VENDORS**

19 Q: Please identify the major vendors to the La Cygne Environmental Retrofit Project  
20 and a general description of the services they provided?

21 A: The major vendors who provided services for the La Cygne Environmental Retrofit  
22 Project are as follows:

- 1       • **B&V Engineering:** B&V is the OE for KCP&L. B&V’s design responsibilities  
2       generally included conceptual design of the plant, development of technical  
3       specifications for procurement of equipment and services, and design of the balance  
4       of plant work. B&V also provided on-site construction and engineering support  
5       services to KCP&L throughout the La Cygne Environmental Retrofit Project.
- 6       • **La Cygne Environmental Partners:** LEP, a joint venture between Kiewit  
7       Construction and Sargent & Lundy Engineering, was awarded final notice to proceed  
8       on August 29, 2011. LEP’s major subcontracts include: Commonwealth Dynamics,  
9       Inc. (“CDI”) performing chimney construction; Stebbins performing absorber vessel  
10      construction; Hitachi Power Systems America providing the SCR and PJFFs;  
11      Howden providing ID fans; and Emerson providing the distributed control systems.

12 **Q: What was the process KCP&L used to select the OE?**

13 A: KCP&L issued a request for proposal (“RFP”) to 12 technically qualified engineering  
14 firms in late-2009. Six of those engineering firms submitted proposals in response to the  
15 RFP.

16 **Q: What factors did KCP&L use to select the OE?**

17 A: The project team evaluated the following factors: (1) fees and projected effort by project  
18 element; (2) market awareness, contracting strategy and experience; (3) project controls;  
19 (4) staffing strategy; (5) business relationships; (6) insurance; (7) contract risk;  
20 (8) standards and document control; (9) reference checks; (10) prior OE experience;  
21 (11) overhead control; and (12) schedule commitment.



1 **Q: Who did KCP&L select as the OE?**

2 A: Based on the above factors, KCP&L selected B&V as the OE for the La Cygne  
3 Environmental Retrofit Project.

4 **Q: Can you describe the process KCP&L used to evaluate and select the chimney  
5 vendor?**

6 A: Yes. On December 31, 2008, KCP&L issued formal RFPs to four potential chimney  
7 vendors. KCP&L then reviewed all the proposals received in response to the RFP in  
8 detail to determine compliance with the technical and commercial requirements of the  
9 RFP specifications. Thereafter, KCP&L evaluated the vendors by analyzing various  
10 factors such as the bid price, technical compliance, willingness to accept KCP&L's  
11 commercial terms and conditions, and KCP&L's past experience with the specific  
12 vendors.

13 **Q: Based on the criteria discussed above, which chimney vendor did KCP&L select?**

14 A: Based upon price, technical compliance, ability to meet key schedule milestones,  
15 acceptable commercial terms and conditions, and safety, among other things, KCP&L  
16 selected CDI.

17 **Q: What contracting strategy did KCP&L select for the La Cygne Environmental  
18 Retrofit Project?**

19 A: The Executive Oversight Committee ("EOC") approved pursuing an EPC contracting  
20 strategy for the La Cygne Environmental Retrofit Project.

21 **Q: Given that KCP&L retained an EPC contractor to perform the La Cygne  
22 Environmental Retrofit Project; can you please explain why KCP&L selected the  
23 chimney vendor first?**

1 A: Chimneys, on projects of the size and type of the La Cygne Environmental Retrofit  
2 Project, are almost always on the critical path. One of the fundamental reasons for  
3 this is the fact that chimney contractors, for safety reasons due to the potential for  
4 falling debris such as concrete, deploy an “exclusion zone” around the perimeter of  
5 the chimney shell. As a result, KCP&L needed to award the chimney contract as  
6 early as reasonably possible so that chimney loads could be calculated and chimney  
7 foundation design and construction could begin. The sooner chimney shell construction  
8 is started, the sooner the exclusion zone can be released. Once released, other  
9 significant construction can start in full force. In essence, as long as the exclusion zone  
10 remains in place, delays in the chimney work can lead to a day-for-day extension in the  
11 project schedule.

12 **Q: Please describe the process that was used to select the bidders for the EPC**  
13 **contract.**

14 A: B&V, with assistance from KCP&L and Westar developed the detailed specifications  
15 for the EPC contractor RFP. On February 26, 2010, KCP&L sent a Letter of Interest  
16 and Pre-Qualifications Request to about 20 different firms. The purpose of this request  
17 was to identify those firms that had the interest, financial ability, and experience to  
18 undertake a project of the complexity and scope of the La Cygne AQCS. From this list,  
19 a team representing KCP&L, Westar, and B&V, identified six firms or combination of  
20 firms to which to send the RFP. Bidders submitted their bids in late 2010. All but one  
21 of the prospective bidders submitted a bid.

1 **Q: Please describe the process that was used to evaluate and review the bids.**

2 A: KCP&L, Westar, and B&V established specialized teams to review and evaluate the bids  
3 from a technical and commercial (terms and conditions) perspective. The bid pricing was  
4 initially redacted to insure that the reviewing teams were not influenced by the pricing.  
5 KCP&L, Westar, and B&V identified certain key factors that the reviewing teams  
6 considered, including relevant project, experience, compliance to the technical  
7 specifications, compliance to the commercial requirements, overall price, project team  
8 experience, risk management ability (safety, insurance, bonding), schedule, alternate  
9 proposals, constructability and project controls. Our objective was to review each  
10 proposal with respect to these factors as a way to objectively identify the best value for  
11 customers.

12 **Q: What are some of the factors that related to the technical specifications?**

13 A: Examples would include how well the bidder met the technical requirements of the RFP,  
14 including whether technical documents were provided as required, the degree to which  
15 the bidder's proposal was based on the specified equipment, and the degree to which the  
16 bidder's offered equipment met the emission requirements. When evaluating whether a  
17 proposal was based on the specified equipment, we looked at issues such as whether or  
18 not the proposed equipment provided the necessary redundancy to provide for reliable  
19 operations. One example of this evaluation concerned the ID fans. We evaluated  
20 whether the proposed ID fans had the necessary redundancy to allow the plant to continue  
21 full-load operation even if one fan was not available to run.

22 **Q: What are some of the factors that related to the commercial terms and conditions?**

23 A: Examples included adequate financial guarantees that the plant will perform as promised  
24 language to limit the potential number of change orders, previous experience with

1 installing environmental equipment on similar large coal plants that utilize Powder River  
2 Basin coal, risk management, constructability, liquidated damages, warranty,  
3 project/construction management, minority- and women-owned business plan, schedule  
4 analysis, safety and project controls.

5 **Q: What was the next step in the process after evaluating the proposals based upon**  
6 **technical and commercial factors?**

7 A: The next step in the process was to link the bidder's proposed cost with the technical and  
8 commercial provisions. KCP&L, Westar, and B&V had to evaluate each bid on an  
9 apples-to-apples basis. In other words, if one bidder left a component out of the bid and  
10 the component was necessary to place that bidder on the same basis as another bidder  
11 who included that component in their bid, a cost had to be assigned to that component.

12 **Q: Can you describe how a bidder's base bid price enters into the "apples-to-apples"**  
13 **evaluation process you just described?**

14 A: Yes. In order to make an apples-to-apples comparison, the evaluation team had to make  
15 certain cost adjustments to the bidder's base bid price. These cost adjustments were in  
16 the nature of additions and subtractions. The team added dollars to account for items the  
17 bidder chose not to include in its bid but that KCP&L concluded were necessary for a  
18 successful project. For example, the RFP required bidders to include a two-year warranty  
19 as part of their bid. If a bidder failed to include a two-year warranty as part of their base  
20 bid, the evaluation team added the estimated cost for such a warranty or asked the bidder  
21 to supply a cost for the warranty. Doing it this way insured that all the bids had the same  
22 warranty and that no bidder had an unfair competitive advantage.

1 **Q: Did you use the same process of adding or subtracting costs to a bidder's base bid**  
2 **price for both commercial issues and technical issues?**

3 A: Yes. Examples of where we adjusted for commercial issues include the warranty I just  
4 discussed but also included items such as the cost for: (1) the specified insurance  
5 coverage; (2) maintaining specified retainage; (3) performance bond; and (4) delaying  
6 commencement of construction, to name a few. During the evaluation process, we  
7 attempted to add or subtract from each of the bids as necessary to make sure all of the  
8 bidders met the requirements of the RFP including the required completion date.

9 **Q: Did you add or subtract dollars to the bid amounts to account for technical**  
10 **differences in the proposals?**

11 A: Yes, because not all the bidders submitted bids responsive to all aspects of the RFP. We  
12 made adjustments to the proposals to account for certain technical exceptions, non-  
13 disclosed exceptions, and differences in life-cycle costs.

14 The full process used from issuance of the RFPs to execution of an EPC contract  
15 is detailed in the La Cygne Environmental Retrofit Project - EPC Contractor Services –  
16 Recommendation to Award (attached as Schedule RNB-3).

17 **INDUSTRY CONTEXT FOR LA CYGNE ENVIRONMENTAL RETROFIT PROJECT**

18 **Q: Are you responsible for the La Cygne Environmental Retrofit Project's budget?**

19 A: Yes.

1 **Q: What is your recent general experience with the market in the power construction**  
2 **industry?**

3 A: As demonstrated by the bid responses to KCP&L's RFP for the La Cygne Environmental  
4 Retrofit Project, contractors were looking for work and were willing to bid on a fixed  
5 price EPC contract in 2010.

6 **Q: Do you have experience performing and managing work on a fixed-price basis?**

7 A: Yes. I have considerable experience with fixed price work.

8 **Q: Is it unusual to have change orders on a fixed price project.**

9 A: No. There are always changes on a large construction project, and in my experience, no  
10 contractor is willing to take the risk that there wouldn't be changes.

11 **Q: Prior to joining KCP&L, did you have experience with projects on "brownfield"**  
12 **sites where there were existing plants and your contract was to rehabilitate the**  
13 **existing plant?**

14 A: Yes.

15 **Q: Is there typically added complexity in constructing on a brownfield site?**

16 A: Yes. Depending on the site and the layout, the added complexity could be extreme,  
17 especially where there is limited laydown and workspace for the contractors and the  
18 utility's priority is maintaining operation of the existing plant(s).

19 **Q: How would you rate the complexity of the La Cygne Environmental Retrofit**  
20 **Project's site?**

21 A: La Cygne has a fairly high level of complexity. There is limited laydown and workspace  
22 and both units have remained in operation throughout the duration of construction.

1 **Q: Do you know the original value of the LEP contract?**

2 A: Yes. I believe it was approximately **\*\*[REDACTED]\*\*** for both Units.

3 **Q: Do you know the current value of the LEP contract?**

4 A: Yes. As of August 21, 2014, the LEP contract price is approximately **\*\*[REDACTED]\*\***.

5 This represents an increase to the base contract of less than approximately **\*\*[REDACTED]\*\***.

6 **Q: In your experience, how does KCP&L's record of cost management with LEP**

7 **compare with other large, fixed price EPC contracts?**

8 A: In my experience, holding a contractor to change orders of less than 10% on a two-unit

9 brownfield site is phenomenal.

10 **Q: Based on your experience, how well did KCP&L identify and manage the risks for**

11 **the La Cygne Environmental Retrofit Project?**

12 A: KCP&L built on its project management experience from the Comprehensive Energy

13 Plan ("CEP") projects. KCP&L's internal and external reporting is very thorough and

14 based on data from project controls and the construction management organization. The

15 project team identifies, mitigates, and reports risks on an ongoing basis.

16 **Q: Based on your experience, was KCP&L's staffing of the La Cygne Environmental**

17 **Retrofit Project within industry standards?**

18 A: Based on my experience, yes.

19 **Q: Based on your experience, what is your opinion regarding the level of**

20 **documentation that KCP&L has kept during the La Cygne Environmental Retrofit**

21 **Project?**

22 A: I am familiar with the processes and procedures that KCP&L has implemented for the

23 La Cygne Environmental Retrofit Project. Based on my experience, the type of

1 documentation, level of detail, organization of the project documentation is consistent  
2 with industry best practices.

3 **Q: What is your opinion regarding the level of transparency that LEP provided to**  
4 **KCP&L on this project?**

5 A: LEP provide very detailed project controls data and a significant amount of information  
6 to KCP&L. KCP&L's ability to obtain this information is a result of good contract  
7 language requiring transparency and KCP&L's ongoing enforcement and active  
8 management of the contract terms. Both KCP&L's project team and its senior  
9 management believe strongly in holding contractors to their obligations. KCP&L's  
10 management philosophy of being firm, forthcoming and fair in its enforcement of the  
11 contract has had a very positive impact on the La Cygne Environmental Retrofit Project.

#### 12 **PROJECT PLANNING & OVERSIGHT**

13 **Q: Please define "Executive Management" and "Senior Management" within the**  
14 **KCP&L organization.**

15 A: "Executive Management" consists of the Chairman, the President, the Chief Operating  
16 Officer, the Chief Financial Officer, and Executive Vice Presidents. "Senior  
17 Management" consists of those same individuals plus the Company's other Vice  
18 Presidents.

19 **Q: Could you describe the resources used by KCP&L's Executive Management to**  
20 **oversee the La Cygne Environmental Retrofit Project?**

21 A: KCP&L has created the EOC from its Senior Management ranks to provide oversight  
22 from a management perspective. In addition, KCP&L's internal audit department as  
23 supplemented by Ernst & Young ("E&Y") provides both Senior Management and the



1 KCP&L Board of Directors with oversight of the La Cygne Environmental Retrofit  
2 Project.

3 **Q: Why did KCP&L engage these oversight groups?**

4 A: KCP&L's Executive Management utilized a similar oversight structure for the Iatan  
5 Unit 1 retrofit and the construction of Iatan Unit 2 and the other large construction  
6 projects in the Comprehensive Energy Plan (the "CEP Projects"). Beginning with the  
7 CEP Projects, Senior Management recognized that it needed to adopt a structured  
8 approach to the management of the large capital construction.

9 **Q: What is the overall purpose of the EOC?**

10 A: There are two essential purposes for the EOC: (1) KCP&L Senior Management needed  
11 to be kept informed of the ongoing work on the La Cygne Environmental Retrofit Project  
12 to ensure that the investment was made wisely and prudently; and, (2) KCP&L's Senior  
13 Management needed to contribute to the decision-making process and vet the ongoing  
14 activities of the La Cygne Environmental Retrofit Project in order to ensure that the all  
15 expenditures were reasonable given the circumstances. The EOC had a specific charter  
16 outlining its role and responsibilities. That charter is attached as Schedule RNB-4.

17 **Q: What was the genesis of the EOC?**

18 A: As stated above, Senior Management identified that large capital construction projects are  
19 a major endeavor and the size, complexity and overall cost of these type of projects made  
20 it essential for members of the Senior Management team to be involved in oversight.

21 The EOC was established in September 2010.

1 **Q: Who has served on the EOC for the La Cygne Environmental Retrofit Project?**

2 A: The original members of the EOC listed in the Charter included the following: President  
3 and Chief Operating Officer; Executive Vice President, Utility Operations; Senior Vice  
4 President, Finance & Strategic Development and Chief Financial Officer; Senior Vice  
5 President, Supply; General Counsel & Chief Legal Officer; Vice President, Supply  
6 Chain; Senior Director, Regulatory Affairs; Senior Director, Human Resources; Director,  
7 Audit Services; Westar – Executive Director, Generation. The members of the EOC  
8 provide expertise from various disciplines to ensure proper insight and oversight to assure  
9 Senior Management that all expenditures were reasonable given the circumstances.  
10 Because construction issues overlap many areas, good corporate governance requires that  
11 Senior Management obtain insights from an array of perspectives to insure that the  
12 information upon which we base essential decisions is timely and takes into account all  
13 reasonable considerations.

14 **Q: How often does the EOC meet?**

15 A: The EOC meets as needed, but generally on a monthly basis.

16 **Q: What information is presented to the EOC for its consideration?**

17 A: The project team typically presents information regarding: (1) project schedule progress  
18 and schedule compliance/adherence; (2) budget status; (3) safety statistics; (4) quality  
19 statistics; and (5) any other information that project team believes could impact the  
20 project.

1 **Q: Did the EOC act reasonably and prudently in its decision-making on the La Cygne**  
2 **Environmental Retrofit Project?**

3 A: Yes. The EOC has established the methodology for vetting information from the  
4 La Cygne Environmental Retrofit Project team. The information that has been presented  
5 to the EOC has been timely presented and thorough. That information has included key  
6 details regarding commercial strategies with contractors, schedule and budget tracking,  
7 safety, and technical aspects of the construction. The EOC's members are all very active  
8 and engaged in decision-making, asking questions when appropriate and demanding  
9 additional information when necessary, to ensure that all members are fully informed of  
10 the circumstances surrounding all expenses. On that basis, I believe that the EOC has  
11 made timely and prudent decisions during the La Cygne Environmental Retrofit Project.

12 **Q: Can you describe the level of oversight on the La Cygne Environmental Retrofit**  
13 **Project, specifically the role of KCP&L's internal audit department.**

14 A: KCP&L has always utilized financial auditing as part of its normal course of business  
15 including review of the CEP Projects. Under the direction of KCP&L's Chief Financial  
16 Officer, KCP&L's internal audit department brought in a consulting group from E&Y  
17 that specialized in construction matters. Early in the Project, internal audit and E&Y  
18 began its compliance auditing of the La Cygne Environmental Retrofit Project.

19 **PROJECT SCHEDULE**

20 **Q: Can you provide an overview of the scheduling tools used by KCP&L for managing**  
21 **the La Cygne Environmental Retrofit Project?**

22 A: The most basic tool we have utilized is the "Level 1 Schedule" chart that we include in  
23 the monthly "La Cygne Environmental Project – Monthly Status Report" or simply the

1 “Monthly Status Reports,” given to the Staff of the MPSC. As an example, I have  
2 attached the Level 1 Schedule that KCP&L presented as part of the Monthly Report for  
3 October 2014 attached as Schedule RNB-5.

4 **Q: Please describe the Level 1 Schedule.**

5 A: This schedule was developed to provide a high-level overview of the La Cygne  
6 Environmental Retrofit Project’s major work broken down by Unit 1, Unit 2 and  
7 Common. It shows the key sequences of work for each unit: (1) absorber; (2) ID fans;  
8 (3) ductwork; (4) fabric filters; and (5) SCR (for Unit 2 only). The key work sequences  
9 shown on the Level 1 Schedule for Common include: (1) chimney;  
10 (2) limestone/gypsum system; (3) FGD building; (4) balance of plant; (5) transformer;  
11 and (6) civil work. The Level 1 Schedule summarizes thousands of activities. The bars  
12 on the Level 1 Schedule also refer to two sets of dates: the “planned” dates for an  
13 activity and the “actual” dates for an activity. The “actual” dates referenced, or the dates  
14 that reflect when actual events occurred, are accompanied by an “A”.

15 **Q: What is the purpose of the Level 1 Schedule?**

16 A: The Level 1 Schedule provides a guideline to the project team for the major activities.  
17 Even though there is also a very detailed, computerized Level 3 Schedule with thousands  
18 of activities for the La Cygne Environmental Retrofit Project, KCP&L used the Level 1  
19 Schedule as a planning tool and for providing information internally and externally  
20 regarding the project’s status.

21 **Q: How has the project team used the detailed Level 3 Schedule?**

22 A: The Level 3 Schedule is one of the essential management tools on the La Cygne  
23 Environmental Retrofit Project. It encompasses all of the activities for the work

1 performed by all of the contractors on site. Our project controls team worked with the  
2 contractors to develop the Level 3 Schedule so that it reflects the proper sequence and  
3 duration for all of the work. The Level 3 Schedule is used in every discussion KCP&L  
4 has with the contractors on the La Cygne Environmental Retrofit Project.

5 **Q: How was the Level 3 Schedule developed?**

6 A: As authorized by KCP&L in a Limited Notice to Proceed issued in May 2011, LEP began  
7 work on its detailed as-planned schedule in accordance with KCP&L's project controls  
8 requirements that showed its plan for each portion of its work. The result of this effort is  
9 the La Cygne Environmental Retrofit Project's "Baseline Schedule" that incorporated and  
10 integrated all of the work for the project including engineering and procurement  
11 activities. The schedule has also formed the basis for the La Cygne Environmental  
12 Retrofit Project's earned value system that is used for tracking the progress and  
13 productivity of the contractors.

14 **Q: How has KCP&L used earned value to track the La Cygne Environmental Retrofit**  
15 **Project?**

16 A: Earned value is an extremely valuable tool for tracking large volumes of work and  
17 establishing forecasts for contractor performance. We used earned value to track the  
18 contractors' work. However, it is essential that the management team also monitor the  
19 project's schedule to ensure that the work is being done in the correct sequence. This  
20 becomes extremely important as a project nears completion. As the construction period  
21 for the La Cygne Environmental Retrofit Project nears completion, we will shift focus to  
22 the contractors' schedule adherence and completion of tasks.

1 **Q: What is a “baseline schedule?”**

2 A: A baseline schedule is an important project tool. As defined in the Cost Control System:  
3 “a baseline schedule sets forth all planned work for the Project, including all engineering,  
4 procurement, and construction activities, along with associated man-hours required to  
5 perform each task in the schedule. The [b]aseline [s]chedule will identify the intended  
6 duration of the work, the resources required for performance, the logical relationships of  
7 the work and other scheduling tools.”

8 **Q: Based upon your experience, what is the importance of a baseline schedule?**

9 A: A baseline schedule is important because it allows the project participants to compare the  
10 actual progress with the planned performance over time, establishing performance trends  
11 and identifying areas of potential difficulty. A baseline schedule also is important in  
12 establishing the basis for cost estimates, though it does not necessarily indicate that the  
13 project’s definition is sufficiently mature for a highly accurate or predictive cost estimate.  
14 Having a baseline schedule allowed for the establishment of an earned value system.

15 **Q: When is the baseline schedule typically established for a project?**

16 A: The baseline schedule is typically established at a point in a project where design  
17 engineering is mature enough for all of the performing contractors to prepare and  
18 integrate a work plan based upon the known project definition. Such a baseline schedule  
19 needs to be sufficiently detailed to depict the effort needed to execute the work. That  
20 does not mean that a baseline schedule reflects a fully designed and scoped project;  
21 rather, the baseline often includes placeholders for information not known at that time.  
22 The level of detail in the baseline schedule is intended to reflect the level of maturity of  
23 the design at that time.

1 **Q: How was the baseline schedule for the La Cygne Environmental Retrofit Project**  
2 **developed and managed by KCP&L?**

3 A: The integrated baseline schedule for the La Cygne Environmental Retrofit Project was  
4 developed and baselined in accordance with KCP&L's project controls requirements.  
5 The process for establishing this baseline schedule involved a detailed review of LEP's  
6 schedule.

7 **Q: What is earned value?**

8 A: KCP&L's Cost Control System provides a definition for earned value that is  
9 commensurate with my experience. The Cost Control System states that: "earned  
10 value... is an industry-standard measurement of cost and schedule progress as compared  
11 to the Project's original plan" and the results of the comparison are then expressed in the  
12 form of ratios over time. As work is completed, man-hours are "earned" and compared  
13 against the original plan for both the amount of work completed and its timeliness. The  
14 ratio of earned hours to planned hours is known as the Schedule Performance Index  
15 ("SPI"). Cost Performance Index ("CPI") is the ratio of a contractor's actual, or  
16 expended, man-hours as compared to the hours it has earned. This is a measure of the  
17 contractor's efficiency/productivity.

18 As an example of SPI and CPI, if a scheduled task was planned to take 100 man-  
19 hours over a one week period, and the contractor earns 100 hours for the week, its SPI  
20 would equal 1.0. However, if the contractor earns 20 hours less than its plan, it will have  
21 an SPI of 0.80. If the same contractor spends 100 man-hours to earn 100 hours in that  
22 week, its CPI is 1.0. If it expends 120 hours and earns 100 man-hours, its CPI will be  
23 only 0.80. In other words, it cost more money than planned. These indices can be further

1 reduced into percentages: in the hypothetical above, the contractor who has an SPI of  
2 0.80 is 20% behind schedule for the period measured, and if its CPI was 0.80, it had a  
3 20% loss of efficiency/productivity. With these indices, an SPI of 1.0 or greater means  
4 that the contractor has maintained or bettered its planned pace, and for CPI an index of  
5 1.0 or better means that the contractor is working efficiently/productively.

6 **Q: How is earned value utilized in the construction industry?**

7 A: In my experience, earned value has been heavily utilized by sophisticated owners,  
8 contractors and engineering firms for at least the last 20 years. Ultimately, earned value  
9 is a tool that allows those who use it to gauge schedule compliance and productivity.  
10 Depending on how it is used and the level of detail inherent to the particular application,  
11 earned value is used to examine progress on a project at both a macro and a micro level.

12 Contractors use earned value to track the work necessary to meet their schedule  
13 commitments and to identify productivity issues. Earned value is a tool that assists  
14 contractors in understanding where they are either efficient or inefficient in their work.  
15 Engineering firms also use earned value to track scheduled work in ways that are often  
16 similar to how contractors use it. From an owner's standpoint, earned value has become  
17 a popular and effective way for owners to understand and control both schedule and  
18 budget for large, complex projects. It is a method that allows one to summarize many  
19 hundreds or even thousands of detailed schedule activities into simple time and cost  
20 indices. Additionally, owners use earned value to implement any contractual rights they  
21 may have to direct the contractor to submit a "recovery plan," accelerate the contractor's  
22 work or to ensure that the contractor pays for its own productivity losses.



1 **Q: How does earned value help control costs on a project?**

2 A: One way earned value helps to control costs is to allow the owner to track the  
3 contractors' productivity in their performance of the work. The data generated by an  
4 earned value system allows the project team to drill down to find the root cause to  
5 mitigate adverse trends. In addition, using earned value to track schedule performance  
6 allows the project team to forecast the work's completion.

7 **Q: What information is needed in order to track earned value on a project?**

8 A: Earned value relies on all contractors having a man-hour loaded baseline schedule, which  
9 identifies all of the project's activities and associated man-hours needed to complete  
10 those activities. Tracking earned value also requires that the contractors report their  
11 status and provide visibility to their earned and actual hours as required by the systems in  
12 place.

13 **Q: For the La Cygne Environmental Retrofit Project, how does KCP&L obtain the  
14 information needed for tracking earned value?**

15 A: For the La Cygne Environmental Retrofit Project, the contractors report their earned and  
16 actual hours on a weekly basis, as required by the contracts. The Cost Control System  
17 refers to the required data and metrics needed for the La Cygne Environmental Retrofit  
18 Project's earned value tracking and how the data is used.

19 **Q: Are there other ways in which KCP&L has tracked progress on the La Cygne  
20 Environmental Retrofit Project?**

21 A: Yes. KCP&L has also tracked the progress to the schedule itself to insure that the  
22 contractors are not just performing work but also the work necessary to move the project  
23 along. All construction projects involve performing work in a logical sequence and a

1 project as complex as the La Cygne Environmental Retrofit Project requires the  
2 contractors to maintain that logical sequence or there will be inefficiencies in the field. In  
3 addition, KCP&L has been tracking the La Cygne Environmental Retrofit Project's cost  
4 performance against the Control Budget.

5 **Q: How committed is KCP&L to the implementation of effective project controls on the**  
6 **La Cygne Environmental Retrofit Project?**

7 A: KCP&L is extremely committed to utilizing effective project controls on large capital  
8 projects. As an example, KCP&L negotiated robust project controls into the LEP  
9 contract. Typically, owners view EPC fixed-price contracts as 'turnkey' projects, and do  
10 not require, nor do the contractors offer, much data to be provided with respect to the  
11 contractor's performance. Throughout the course of the contract negotiations, KCP&L  
12 insisted on continued use of the earned value system for construction of the La Cygne  
13 Environmental Retrofit Project. This has been an invaluable tool to KCP&L throughout  
14 LEP's performance on the La Cygne Environmental Retrofit Project because it (along  
15 with the other project controls previously described): 1) has given KCP&L an  
16 opportunity to status LEP's performance on the project at various points; and  
17 2) identified areas of concern (e.g. rework or productivity issues) as well as track the  
18 progress on critical milestones. Additionally, having an earned value system has allowed  
19 KCP&L to identify LEP's capabilities for completing the work and to forecast its future  
20 performance based upon the size and skill of its labor force.

21 **Q: How has KCP&L's Senior Management used earned value and other project**  
22 **controls implemented on the La Cygne Environmental Retrofit Project to make**  
23 **decisions?**

1 A: KCP&L's Senior Management's decision-making has been prudent in large part because  
2 of the quality of the information it receives from the project team on a regular basis.  
3 With respect to earned value once Senior Management is educated regarding how to look  
4 at a project from an earned value perspective, it becomes a very effective tool for them to  
5 understand and quickly gain access to data necessary for managing a project. Earned  
6 value allows the project team and the contractors to reduce a very complex construction  
7 project into something that can be readily seen and easily understood. By utilizing this  
8 tool, KCP&L's Senior Management was able to develop appropriate problem-solving  
9 strategies utilizing that information. In addition, the other key metrics provided regularly  
10 to Senior Management regarding schedule progress by the contractors in meeting key  
11 milestones, quality and safety statistics and changes in scope and budget have been  
12 critical in providing the information necessary upon which it has made prudent decisions.

13 **Q: Has the earned value data and analysis of that data provided to KCP&L's Senior**  
14 **Management been timely?**

15 A: Yes.

16 **Q: Is the earned value data sufficient to keep KCP&L's project team and Senior**  
17 **Management informed to make decisions as necessary?**

18 A: Yes.

19 **PROJECT COST CONTROL**

20 **Q: Are you familiar with the term "Definitive Estimate"?**

21 A: Yes.

1 **Q: What is the Definitive Estimate for the La Cygne Environmental Retrofit Project?**

2 A: The Definitive Estimate is the budget against which budget variances are tracked for  
3 management purposes. We also call it the “Control Budget” or the “Control Budget  
4 Estimate.” The Definitive Estimate for the La Cygne Project is the Control Budget  
5 Estimate approved by the EOC and the Board of Directors in 2011.

6 **Q: How does the Cost Control System define the term “Control Budget”?**

7 A: The Cost Control System requires that the project team manage the project in accordance  
8 with control budgets and baseline schedules that are established at the start of the project.  
9 A Control Budget is a tool that details the expected costs of the work on the project and  
10 includes the appropriate contingency. The Control Budget is balanced against the  
11 authorized expenditure from the Board of Directors.

12 **Q: Does the La Cygne Environmental Retrofit Project have Control Budgets as  
13 recommended under the Cost Control System?**

14 A: Yes.

15 **Q: Have the Control Budgets for either project changed?**

16 A: No. The Cost Portfolio and the K-Report preserve the original Control Budget or Control  
17 Budget Estimate amount for tracking and comparison. The original Control Budget has  
18 not been altered and appears transparently in all reports so that any variances to this  
19 original set of estimates can be readily observed and investigated, as needed.

20 **Q: Has the Definitive Cost Estimate changed at any point during the La Cygne  
21 Environmental Retrofit Project?**

22 A: No. The estimate has remained at \$1.23 billion throughout the duration of the project.

1 **Q: What Cost Control System is being utilized for this project?**

2 A: The Cost Control System being utilized for this project is consistent with the systems that  
3 were used to oversee the CEP supply-related projects including the Iatan Unit 1 and  
4 Unit 2 projects, the La Cygne Unit 1 SCR addition, the Spearville Wind project, the  
5 Spearville II Wind project, and the Transmission Projects.

6 **Q: Please describe the Cost Control System.**

7 A: The Cost Control System is a guidance document that outlines the governance  
8 considerations, management procedures and cost control protocols that govern the  
9 La Cygne Environmental Retrofit Project. A copy is attached as Schedule (RNB-6). The  
10 Cost Control System identifies the project controls systems used by KCP&L to monitor,  
11 control, and report the schedule, cost, and other relevant information for the La Cygne  
12 Environmental Retrofit Project. In general, the Cost Control System identifies that the  
13 La Cygne Environmental Retrofit Project will have: (1) a Control Budget which is  
14 established as a result of developing the Definitive Estimate, against which all costs will  
15 be reported; (2) a continual monitoring of actual costs incurred as compared to the  
16 Control Budget; (3) an earned value performance system, which measures and reports on  
17 planned and actual performance of contractors' work; (4) reports on budgeted costs as  
18 compared to remaining or re-forecasted costs; (5) periodic updates to contingency usage,  
19 cash flow and monthly budgets; (6) updates of the forecasted Estimate at Completion  
20 ("EAC"); and, (7) a Change Order Management system related to work scope and  
21 schedule changes.

1 **Q: Were you involved in developing the procedures and protocols discussed in the Cost**  
2 **Control System?**

3 A: KCP&L's original Cost Control System was developed as a part of the CEP Projects  
4 prior to my arrival at KCP&L. However, under my direction, the KCP&L team used the  
5 guidelines in the CEP Cost Control System to create procedures and protocols that were  
6 used for the La Cygne Environmental Retrofit Project Cost Control System.

7 **Q: Did the Cost Control System provide specific guidance to the development of cost**  
8 **tracking processes and procedures to be used on the La Cygne Environmental**  
9 **Retrofit Project?**

10 A: Yes. The Cost Control System provides specific guidance to the La Cygne  
11 Environmental Retrofit Project for developing La Cygne Environmental Retrofit  
12 Project's cost tracking process. The specific guidance for the Control Budget includes  
13 that the Control Budget will identify the original budget amount (whether contracted or  
14 estimated) for each line item of the project's cost and will track those budget line items  
15 against the following: costs committed to date; actual paid to date; change orders to date;  
16 and expected at completion, based on current forecasts. The Cost Control System  
17 requires that KCP&L include change management procedures in the contracts and update  
18 the budgeted contract amounts for vendors to include any variances to those contracts.

19 **Q: Did you and the others involved in the La Cygne Environmental Retrofit Project use**  
20 **this guidance from the Cost Control System in developing project-specific cost**  
21 **controls for the La Cygne Environmental Retrofit Project?**

1 A: Yes. The cost control reporting regime developed for the La Cygne Environmental  
2 Retrofit Project, which is referred to as the project's "Cost Portfolio" is based on the  
3 Cost Control System.

4 **Q: Please describe how using the Cost Portfolio, one could identify variances to the**  
5 **Control Budget with respect to actual or projected costs.**

6 A: The Cost Portfolio consists of multiple data inputs and reports that are generated during  
7 the course of the project. The best way to explain the Cost Portfolio and how it is used is  
8 by reviewing the central summary report that is produced from the Cost Portfolio on a  
9 monthly basis is entitled the "K Report." The K Report is provided to KCP&L  
10 management on a monthly basis and has been included in KCP&L's Monthly Report  
11 submittals to the Staff. I have attached the K Report for costs through September 26,  
12 2014 as Schedule RNB-7.

13 The far left column entitled "Budget Line Item" is a series of items that  
14 summarize the project's individual contracts and/or cost categories. The various Budget  
15 Line Items transparently appear and are also subtotaled by broad category (e.g. "Major  
16 Systems" and "Balance of Plant Systems"). Other project cost categories include  
17 "Indirect Costs" and "Contingency."

18 The remaining columns in the K Report have alpha designations at the top of the  
19 column, which I will refer to as I explain the purpose of each column in the table below.

Column	Title	Purpose
	<b>Budget</b>	The following columns make up the project's budget
A	Control Budget	Itemized listing of each of the contract values and /or estimates that comprised the Control Budget Estimate
B	Corporate Budget Change	Revisions made to the Control Budget as a result of any cost reforecast performed by KCP&L
C	Project Mgmt Internal Transfers	Revisions to the Control Budget resulting from changes to contracting strategy
D	Contingency Transfer	Revisions to the Control Budget resulting from use of funds from contingency
E	Current Budget	The total of columns A+B+C+D
	<b>Cost Tracking</b>	The following columns identify the current status of actual and committed costs on a line item basis for comparison to the Control Budget and the current budget
F	Awarded Costs	All contract and purchase orders, Notice to Proceeds, and manual commitments for miscellaneous actual values associated with the individual line item
G	Approved Change Orders	All change orders approved to date
H	Current Total Commitment	The total of columns F + G
I	% Committed	This column is tracked at the summary level for procurements and construction only.
J	Pending Commitments	Value of spending change orders and purchase orders
K	Unawarded Costs	Identification of all line items with unawarded amounts
L	Current Forecast - Total Cost at Completion (H+J+K)	Reflects the current EAC projections at the line item level
M	Actuals including Accruals & Retention	Total cost incurred or accrued by the La Cygne Environmental Retrofit Project to date

1           The flexibility of the Cost Portfolio and the K Report provides the basis for many  
2 different types of drill-down analyses. The K Report is structured to allow the  
3 determination of whether there are: (1) current budget differences when compared to the  
4 Control Budget (compare columns A and E); (2) variances between the committed costs  
5 when compared to the original or revised project budget; (3) variances between the



1 Actual costs (Column M) and the Control Budget (Column A); and variances between  
2 actual cost and projected costs (compare Column M and L) on a to-date basis. At its  
3 essence, the K Report provides a comprehensive view of the project's costs status and  
4 provides a starting point for performing multiple cost variance analyses.

5 **Q: Do you believe the guidance provided by the Cost Control System has assisted**  
6 **KCP&L in the management of the La Cygne Environmental Retrofit Project?**

7 A: Yes. The processes and procedures that were prepared on the basis of the guidelines  
8 discussed in the Cost Control System are commensurate with best practices that I have  
9 observed in my career. Based upon my experience, the Cost Control System provided a  
10 starting framework for the project management tools appropriate for KCP&L's project  
11 team and corporate leadership to manage a project of this size.

12 **Q: How has the Cost Control System helped KCP&L manage the La Cygne**  
13 **Environmental Retrofit Project?**

14 A: The Cost Control System provides guidance with respect to the management of the  
15 project by establishing processes for developing and tracking schedule, project cost,  
16 earned value performance and cash flow. This information provides a basis for KCP&L  
17 to identify future cost and schedule issues, among other key trends necessary to manage a  
18 large utility construction project. The Cost Control System also discusses development  
19 of change management procedures.

20 **Q: What are change management procedures?**

21 A: As stated in the Cost Control System document, change management procedures include,  
22 but are not limited to:

- 1 • Monitoring the scope of requested changes to insure that they indeed  
2 comprise extras to the contract;
- 3 • Ensuring that requested changes are promptly considered and addressed;
- 4 • Preventing incorrect, inappropriate, or unapproved changes from being  
5 executed and incurred within the project cost base;
- 6 • Implementing necessary changes as seamlessly as possible into the  
7 respective project's current performance schedule so as to minimize  
8 schedule disruption and associated costs;
- 9 • Recording all appropriate changes accurately against the Control Budget  
10 (including amending the Control Budget, when necessary);
- 11 • Informing appropriate stakeholders of approved changes;
- 12 • Evaluating necessary rework to affect the change in scope.

13 Not only does this help to track increased costs, but it also focuses on documenting the  
14 changes and providing the context and reasons for such changes during the life cycle of  
15 the project. Over time, these changes can establish trends for increased costs that may be  
16 able to either predict future costs or allow the owner to institute measures that can  
17 mitigate adverse trends.

18 **Q: Did you develop change management procedures for the project based upon the**  
19 **Cost Control System document?**

20 A: Yes. When a change to a contractor's contract has been identified by either: 1) KCP&L;  
21 2) an authorized representative of KCP&L; or 3) the contractor; a change order is created.  
22 That change order describes the nature of the change and the reason for the change. The  
23 change order is reviewed by the contract managers to determine if the nature of the

1 change is an “extra.” If it is a change ‘extra’, then the change order continues processing.  
2 Once a change order has been categorized as an ‘extra’, it is reviewed in accordance with  
3 the project-specific change management process and the applicable contract  
4 requirements. All change orders are recorded in the cost portfolio and tracked against the  
5 Control Budget. The contractor then reviews the change order for accuracy. If the  
6 contractor agrees, its authorized agent signs the change order. The change order is then  
7 routed for final review, signature and execution. The change management process is  
8 attached as Schedule RNB-8.

9 **Q: Does KCP&L document the reason or reasons for change orders to the project?**

10 A: Yes. A narrative of the reasons for each change order is required as part of the  
11 documentation for each change order.

12 **Q: Who on the KCP&L project team is responsible for reviewing and vetting claims  
13 received from the project’s contractors?**

14 A: KCP&L has a commercial team that reviews and resolves contractor claims. The  
15 commercial team is comprised of members of the construction management team, with  
16 assistance from the law department, as necessary. As a group, this team reviews every  
17 commercial document or “claim” that is submitted by any contractor (either by change  
18 order request, commercial correspondence, email or otherwise) during the bid process  
19 and throughout the course of each contract’s execution. The commercial team’s review  
20 includes all notices and notifications under each of the contracts, requests by vendors for  
21 change orders and change management, as well as any claims or disputes that may arise  
22 after the contract is awarded.

1 **Q: What do you mean by notices and notifications?**

2 A: In general, this refers to the formal written correspondence between KCP&L and its  
3 contractors that provide notice, or warning of potential commercial issues under their  
4 contracts. KCP&L developed a notice and notification procedure that governs the  
5 contractors.

6 **Q: What is the notice and notification procedure?**

7 A: The notice and notification procedure requires that any commercial impact be  
8 documented and registered through a notice from the contractor. A commercial impact is  
9 any occurrence that may cause the contractor to claim either more time to the schedule or  
10 more money. The Notice and Notification Procedure requires that the contractors send  
11 all commercial notices to a central location in the procurement office. A notice may be  
12 an actual change request, or may simply be a notification of an incident that has occurred  
13 though the commercial impacts are not yet fully known. Under most of the contracts,  
14 however, the contractor is required to notify KCP&L of any such event within 15 days of  
15 its occurrence. The contractor then has an additional 30 days to provide KCP&L with the  
16 final cost or schedule impacts, if any.

17 **Q: Based upon this procedure, what does KCP&L do when it receives a notice from a**  
18 **contractor?**

19 A: The procurement office logs every notice that is received, and the contract managers,  
20 with KCP&L's law department, determine whether a response is necessary. Responses to  
21 contractor notices are then drafted, reviewed by the contract manager and legal and then  
22 logged prior to sending. If a contractor sends a letter stating that it believes that it has  
23 been delayed by KCP&L, we log that letter, review it, analyze it against the contract

1 requirements, and then we respond to that letter in kind with a letter transmittal back to  
2 the contractor as to our position.

3 **Q: And what are the benefits of having the notice and notification procedure?**

4 A: The benefits are the ability to document and track open issues with contractors. This  
5 leads to quicker resolutions of disputes, and makes it less likely that a contractor will  
6 submit a large claim at the end of the project that is a surprise to everyone. In my  
7 experience, contractors will usually try to wait until their work is done before making a  
8 claim because it is harder for the owner to properly evaluate and respond to such claims.  
9 By forcing the contractors to submit their claims during the course of the project,  
10 KCP&L is rigorously enforcing its rights under the contracts. This also allows  
11 commercial disputes to be resolved quickly, before they can interfere with the  
12 contractor's performance of its work.

13 **Q: How do the change management and notice and notification processes compare with  
14 your experience on other projects?**

15 A: I believe that KCP&L's change management Procedure and other associated processes  
16 comport with industry best practices.

17 **PROJECT SAFETY**

18 **Q: Please describe the ways in which the La Cygne Environmental Retrofit Project  
19 measures the contractors' safety performance.**

20 A: There are a number of industry metrics for tracking safety that are used by KCP&L. One  
21 metric is known as Total Cases Incident Rate ("TCIR"). TCIR is defined by the  
22 Occupational Safety and Health Administration as the number of recordable incidents in  
23 a year, multiplied by 200,000 and divided by the total hours worked that year. KCP&L

1 also tracks the recordable incident rate and all safety incidents are reported by LEP in the  
2 contractor monthly reports.

3 **Q: How does the La Cygne Environmental Retrofit Project compare to industry**  
4 **averages for safety performance?**

5 A: The project has a very favorable record when compared to industry averages. The  
6 following chart illustrates the Project's safety performance to date when compared to the  
7 industry.

SAFETY STATISTICS as of September 28, 2014	PROJECT To-date	INDUSTRY <sup>1</sup> Average
Days Away, Restricted, Transfer (DART)	0.11	1.8
Total Case Incident Rate	0.27	3.7
First Aid Cases	57	
Total Work Hours (millions)	3.7	
Avg. Personnel On-Site/Day (estimate) <sup>2</sup>	419	

1 Industry Average Source: U.S. Bureau of Labor Statistics (2012 Data)  
2 Peaked in November 2013 with 943 craft workers on-site

8 **Q: In your experience in the industry, what is the value to a project from having a good**  
9 **safety record?**

10 A: Safety should always be the first consideration on any construction project because safety  
11 permeates everything else. If a project has a good safety reputation, it can attract good  
12 workers. If a project has low incident rates, it generally shows that the work is well  
13 managed and that the contractors have planned their work before going to the field.

1 **Q: How has the KCP&L project team managed safety issues such as those you**  
2 **describe?**

3 A: KCP&L responded very appropriately any time significant safety events occurred. The  
4 owner, though not responsible for the implementation of the contractor's safety program,  
5 should instill the safety culture site-wide. I believe that we are doing that through our  
6 construction management team and daily reminders that safety has to be a primary  
7 consideration.

8 **Q: Overall, what is your opinion as to how KCP&L has managed the safety program**  
9 **on the project?**

10 A: The safety program and the project's safety record are very consistent with good  
11 practices I have seen in the industry.

12 **START-UP AND COMMISSIONING**

13 **Q: Who is responsible for start-up and commissioning of the project?**

14 A: LEP has responsibility to start-up the AQCS, and begin its operation including  
15 performance tests of the Units. In addition, KCP&L's start-up and commissioning team  
16 is responsible for checking out the equipment as it is being turned over by the contractor  
17 and verifying that it has met the conditions required under the contract.

18 **Q: What is your role in connection with start-up and commissioning on the Project?**

19 A: As stated, I have management responsibility for the KCP&L start-up team, and the  
20 KCP&L start-up manager reports to me.

21 **Q: What are the risks normally associated with start-up of a retrofit project?**

22 A: There are numerous potential risks, though the most prominent risks to start-up of a  
23 retrofit project in my experience have been: (1) the potential impact of equipment failure

1 or breakage or latent construction defects as equipment and systems are started for the  
2 first time; (2) achieving all of the performance requirements for operations, including  
3 supply of clean water and power; (3) the potential impact of equipment failure in  
4 existing/original equipment; (4) maintaining a proper sequence of work so that major  
5 components are commissioned in the correct order; (5) contractor performance; (6) latent  
6 engineering issues; (7) problems with instrumentation and controls, including tuning and  
7 performance issues; (8) shortages of key personnel; (9) missing parts needed when  
8 breakage occurs; and (10) inexperienced or untrained workers making mistakes. There  
9 are certainly other things that go wrong during the start-up of a complex power plant like  
10 La Cygne, but those would stand out in my experience as the most likely events.

#### 11 **IN-SERVICE CRITERIA**

12 **Q: How were the in-service criteria for the La Cygne Environmental Retrofit Project**  
13 **created?**

14 A: The Company met with members of MPSC's Staff ("Staff") and the Office of the Public  
15 Counsel ("OPC") to develop the in-service criteria for the La Cygne Environmental  
16 Retrofit Project.

17 **Q: Who from the MPSC Staff and OPC were involved in this process?**

18 A: A number of meetings and conference calls were held to discuss in-service criteria and  
19 attendees from MPSC Staff and OPC included: MPSC Staff attendees included Dan  
20 Beck, Dave Elliott, Shawn Lange, Claire Eubanks, Sarah Kliethermes, Keith Majors,  
21 Cary Featherstone, Nathan Williams, Karen Lyons, Steve Dottheim, and Bob Berlin.  
22 Attendees from the OPC included Ted Robertson, Christina Baker, and Dustin Allison.



1 **Q: When did this process begin?**

2 A: Discussions regarding the criteria began in June 2014.

3 **Q: What was the basis for the definition of the in-service criteria?**

4 A: From the Company's perspective, the basis for in-service criteria included: (1) the  
5 requirements of the KDHE agreement; and (2) the previously agreed in-service criteria  
6 for the Iatan Unit 1 AQCS equipment.

7 **Q: Who was involved, on behalf of the Company, in the discussions with MPSC Staff**  
8 **regarding the in-service criteria?**

9 A: Primarily myself, Tim Rush, Randy Erickson, and Darrin Ives.

10 **Q: Describe the process between the Company and the MPSC Staff regarding the in-**  
11 **service criteria.**

12 A: The Company discussed the first draft of the in-service criteria with the MPSC Staff in  
13 June 2014. We conducted further discussions and revisions of the criteria during  
14 subsequent meetings. The Company's proposed in-service are attached as Schedule  
15 RNB-9. The Company believes these criteria are appropriate.

1 Q: Does that conclude your testimony?

2 A: Yes, it does.

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

In the Matter of Kansas City Power & Light            )  
Company's Request for Authority to Implement        )  
A General Rate Increase for Electric Service        )            Case No. ER-2014-0370

**AFFIDAVIT OF ROBERT N. BELL**


STATE OF MISSOURI    )  
  ) ss  
COUNTY OF JACKSON )

Robert N. Bell, being first duly sworn on his oath, states:

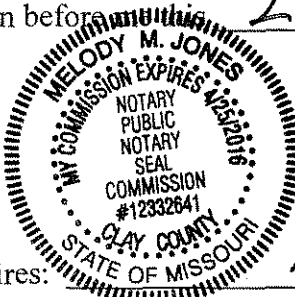
1. My name is Robert N. Bell. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Senior Director – Construction.

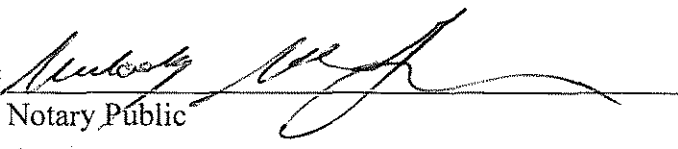
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Kansas City Power & Light Company consisting of forty-nine (49) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

  
\_\_\_\_\_  
Robert N. Bell

Subscribed and sworn before me this 26 day of Sept, 2014.



  
\_\_\_\_\_  
Notary Public

My commission expires: 4/25/2016

# Robert N. Bell

## **SUMMARY**

Successfully manage the installation, startup and operation of power plants utilizing over 30 years of hands-on experience.

## **EXPERIENCE**

03/09 to Present

Kansas City Power & Light, Kansas City, MO  
**Senior Director, Construction**

- Project Director for the construction completion and startup of the Iatan 2 Coal Fired Supercritical 930MW Plant. Record 42 day completion from synchronization to completing in-service testing.
- Project Director for the construction and startup of the LaCygne Environmental Retrofit of two 800MW Coal Fired units. Retrofit includes SCR, Baghouse and Scrubbers.
- Project Director for the construction and startup of the Sibley Unit 3 Environmental Retrofit of a 360MW Coal Fired unit. Retrofit includes Baghouse and Scrubber.
- Department Director for all large Construction projects.

01/04 to 03/09

Black and Veatch Special Projects Corp, Overland Park, KS  
**Vice President and Director of Programs**

- Program Director of the energy projects for the \$1.4 billion USAID Afghanistan Infrastructure and Rehabilitation Program. Responsible for all Home Office support and in-country EPC activities. Projects include Power Plants, T&D, Hydro, Power Purchase Agreements and Capacity Building.
- Project Manager of the US Army Corp of Engineers CETAC 1 reconstruction contract in Iraq with responsibility for the installation and startup of two new combustion turbine power plants.
- Responsible to budget and manage all business unit overhead costs. Interface with and manage the costs from Corporate Shared Services (Finance, CIO/IT, Procurement, Insurance/Risk Mgmt, HR). Business unit rep for the Corporate Services Board where all budgets, processes and procedures for our Corporation are developed and implemented.

01/99 to 01/04

Black and Veatch, Corporate and Power Divisions, Overland Park, KS  
**Vice President, Strategic Initiatives**

Strategic realignment of AP/AR processes.

- Moved from check payment platform to electronic platform.
- Used P-Card payment methodology to improve retained cash by 15 days.
- Permanent cash impact improvements to the firm of \$5.5 MM.
- Collected outstanding 180+ day receivables on 127 projects.
- Achieved a 25-day DSO improvement in A/R.
- Implemented GE Six Sigma program.
- Team Leader for centralization of company's \$1.3 Billion procurement.

- Renegotiated \$22 MM airline spend for \$1.5 MM savings.
- Implemented T&E corporate card program with annual rebate of \$250,000.
- Developed and managed the corporate world-wide Y2K program.
- Reorganized Construction Equipment and Fleet Services business through consolidation of four regional operation centers into three for net savings of \$1.5 MM.

09/97 to 01/99

Black and Veatch, Power Division, Overland Park, KS  
**Project Manager, Year 2000 Projects**

Developed and managed a Y2K Remediation program and sold to nine major utility clients.

09/82 to 09/97

General Electric International, Schenectady, NY  
**Construction Manager / Startup Manager / Senior Controls Specialist**

Construction / Startup Manager.

- Abu Sultan Steam Turbine Power Plant, Egypt.
- Misr Spinning and Weaving Steam Turbine Power Plant, Egypt.
- Six CT Power Plants, Saudi Arabia and Oman.
- Yokkaichi Combined Cycle Power Plant, Japan
- TEPCO Combined Cycle Power Plant, Japan
- EPON Combined Cycle Power Plant, Netherlands
- PWC Combined Cycle Power Plant, Fayetteville, NC.
- Virginia Power Combined Cycle Power Plant, Richmond, VA.
- TVA CT Power Plant, Memphis, TN.
- FPL Martin Power Plant, Indiantown, FL.
- Crockett Cogeneration Power Plant, Crockett, CA
- WWP CT Power Plant, Rathdrum, ID
- Nevada Power Harry Allen CT Power Plant, Las Vegas, NV

05/81 to 09/82

TVA, Power System Operations, Chattanooga, TN  
**Field Engineer**

Testing and troubleshooting Nuclear, Coal and Hydro generation, transmission and distribution equipment.

**EDUCATION**

University of Kentucky, Lexington, KY  
Bachelor of Science Electrical Engineering, 05/81

**REFERENCES**

Provided Upon Request



**SCHEDULE RNB-3**

**THIS DOCUMENT CONTAINS  
HIGHLY CONFIDENTIAL  
INFORMATION NOT AVAILABLE  
TO THE PUBLIC**

**Kansas City Power & Light Company**  
**LaCygne Environmental Project Oversight Committee**  
**Charter**

**Purpose**

The LaCygne Environmental Project (“Project”) Oversight Committee (“Committee”) is charged with providing oversight to the Project and will be in effect through the life of the Project. In addition, this committee will provide support and advice to the Project teams.

**Membership**

The Committee consists of members of the senior leadership team and other key stakeholders of Kansas City Power & Light Company (KCP&L) representing the disciplines embedded in the Project. The Committee members will be appointed by the KCP&L Executive Vice President, Utility Operations.

Committee Membership at inception:

KCP&L Title

President and Chief Operating Officer

Executive Vice President, Utility Operations

SVP, Finance & Strategic Development & Chief Financial Officer

Senior Vice President, Supply

General Counsel and Chief Legal Officer

Vice President, Supply Chain

Senior Director, Regulatory Affairs

Senior Director, Human Resources

Director, Audit Services (ad hoc member)

Westar Energy Title

Executive Director, Generation

The Committee will exist through the life of the Project. Committee membership will be reviewed annually. Members may be removed and appointed on an as needed basis by the KCP&L Executive Vice President, Utility Operations.



## Structure and Operation

The KCP&L Executive Vice President, Utility Operations will chair the Committee.

The Committee will create its own operating processes and may delegate administrative matters outside of the Committee.

The Committee will meet at such times and frequency it determines necessary or appropriate. In addition to the regular meeting schedule as established by the Committee, the Chair of the Committee may call a special Committee meeting at any time.

In the absence of the Chair during any Committee meeting, the Committee may designate a Chair pro tempore. A majority of the members of the Committee will constitute a quorum thereof.

## Responsibilities and Activities

The following are the responsibilities and common recurring activities of the Committee in carrying out its purpose. These activities are set forth as a guide with the understanding that the Committee may diverge from this guide, as appropriate, given the circumstances:

- Routinely review and evaluate the Project and recommend actions to re-direct the Project as necessary.
- Objectively review the direction and progress of the Project at key intervals to ensure the Project objectives are being met.
- Assess impact of external influences on the Project.
- Assess Project risks and provide guidance and support on mitigation strategies.
- Assess resource requirements and teams' performance throughout the course of the Project.
- Confirm the Project's strategic alignment, cost, benefits, deliverables and scope.
- Review and recommend for approval any contracts or change orders requiring Board approval.
- Monitor the Project for adherence to corporate policies.
- Monitor the Project for compliance with the performance criteria defined in the Project business case.
- Monitor Project level decision making processes.
- Review and monitor project reports, internal audit reports and other pertinent information to ensure internal as well as cost and scheduling (project) controls are designed and operating effectively.
- Review relevant reports prior to submission to the Commissions and/or other regulatory bodies.
- Review applicable Board of Director reports prior to distribution to the Board.
- Review management's assessment of key vendor contract performance including, but not limited to, any bonus and / or penalty assessments.

Kansas City Power & Light

LaCygne Environmental Project Oversight Committee Charter

Approved this 15th day of September, 2010.

  
Terry Bassham, KCP&L Executive Vice President, Utility Operations

**SCHEDULES RNB-5 through RNB-9**

**THESE DOCUMENTS CONTAIN  
HIGHLY CONFIDENTIAL  
INFORMATION NOT AVAILABLE  
TO THE PUBLIC**