BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

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DIRECT TESTIMONY OF

FORREST ARCHIBALD

ON BEHALF OF
KANSAS CITY POWER & LIGHT COMPANY

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IN THE MATTER OF THE APPLICATION OF
KANSAS CITY POWER & LIGHT COMPANY
TO MAKE CERTAIN CHANGES IN
ITS CHARGES FOR ELECTRIC SERVICE

DOCKET NO. 18-KCPE-_____-RTS

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

2 A: My name is Forrest Archibald. 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 the "Company")

6 as Director of Project Controls. The focus of this position is typically oversight of capital

7 investment projects valued more than $100 million.

8 **Q:** **On whose behalf are you testifying?**

9 A**:** I am testifying on behalf of Kansas City Power & Light Company.

10 **Q:** **What are your responsibilities?**

11 A: I was assigned the Project Director role on the One CIS Solution Project in the Spring of

12 2015. The One CIS Solution Project is a shorthand description of an initiative to replace

13 legacy customer information systems ("CIS") used to serve customers of KCP&L and its

1

1   sister company, KCP&L Greater Missouri Operations Company ("GMO"). The Project

2   Director is responsible for delivering the One CIS Solution, which is how we sometimes

3   describe the system that will result from project implementation, within the confines of

4   the control budget, master schedule and the Project's Guiding Principles as defined by the

5   Project Charter.

6   **Q: Please describe your education, experience and employment history.**

7   A: I earned an Associate's and Bachelor's of Science degree from Park University, majoring

8   in Management and Finance. I hold three professional certifications from various industry

9   accredited sources: PMI-PMP (Professional Project Management Certification from the

10   Project Management Institute), PMI-SP (Professional Planning and Scheduling

11   Certification from the Project Management Institute) and EVP (Professional Earned

12   Value Management Certification from Association for Advancement of Cost Engineering

13   International – AACEi). I have over 20 years of experience in managing various aspects

14   within a Project's lifecycle; including but not limited to: development and

15   implementation of cost tracking systems; forecasting and estimating project costs;

16   developing and maintaining project schedules; contract negotiations (including

17   administration including interpretation and management); and execution of general

18   project management responsibilities. I began my career in Project Management in the

19   early 1990's with Wichita Steel & Precast Erection Company. In 2004, my focus

20   switched to the utility sector as I began providing services to American Electric Power

21   where I was accountable for Project Controls on projects ranging in size from $25 million

22   to $600 million.

1	In 2006, I began my employment at KCP&L in the Construction Management

2	Department. I have held multiple positions during my tenure at KCP&L but all positions

3	have encompassed project management, project controls and/or oversight services on the

4	large capital investment projects managed by KCP&L (e.g., Iatan, Spearville, LaCygne,

5	Transource's Iatan to Nashua and Mid-West Transmission Projects, Corporate

6	Relocation, Wolf Creek, Jeffrey Energy Center, etc.).

7	**Q:	Have you previously testified in a proceeding at the Kansas Corporation**

8	**Commission ("KCC" or "Commission") or before any other utility regulatory**

9	**agency?**

10	A:	I testified before the KCC in the La Cygne pre-determination case, Docket No. 11-

11	KCPE-581-PRE. I testified in the 2010 rate cases for KCP&L and KCP&L Greater

12	Missouri Operations Company ("GMO") (respectively, ER-2010-0355 and ER-2010-

13	0356) and 2014 GMO rate case (ER-2014-0370) at the Missouri Public Service

14	Commission.

15	**Q:	On what subjects, will you be testifying?**

16	A:	I will be testifying on the implementation of the One CIS Solution Project. My testimony

17	serves five purposes. First, I speak to the definition and importance of a utility's CIS.

18	Second, I will discuss how CIS replacements are impacting the utility sector. Third, I will

19	address the reasons for initiating the One CIS Solution Project, including the high-level

20	business drivers that led to the implementation. Fourth, I will speak to the scope of the

21	One CIS Solution Project, including the strategic partners KCP&L selected through the

22	Procurement process. Lastly, I will address the capital control budget and corresponding

23	timeline for the One CIS Solution Project.

1 **Q: What is a CIS and why is it important to a utility?**

2 A: A customer information system is a critical component of the meter-to-cash value chain

3   for any meter based delivery type utility. The CIS interlinks the customer information to

4   the consumption and metering processes, via the MDM (Meter Data Management

5   system) all the way through to payments, collections and other downstream processes

6   that affect a utility's ability to support regulatory requirements and report revenue.

7   Customer information systems can include multiple sub-systems depending on the

8   regulatory and operational requirements but at a minimum consist of the metering and

9   consumption, billing, and collections functions and online portals for customers to

10   perform self-serve functions like bill payment and energy usage awareness, among

11   others.   For example, in our new One CIS Solution, the MDM will hold all the

12   consumption data for consumers and will play a key role in consumption analysis and

13   billing; this is unlike our current legacy systems.

14 **Q: Are other utilities needing to replace their CIS?**

15 A: Absolutely. The customer information systems are so crucial in ensuring continuity in the

16   meter-to-cash process, utilities share one common trait across the nation, regardless of

17   geographical borders; their CIS systems were implemented during the 1980's and early

18   1990's. This common trait leads to one overarching theme: the technology implemented

19   during those times cannot incorporate the complexities driven by modern rates and

20   programs nor enable a modern customer experience expected by customers in the 21st

21   century. Industry studies show that as of 2015, 48% of surveyed utilities nationwide

22   anticipate replacement of their CIS within the next four years.

1   **Q:**   **Why is the Company replacing its CIS system?**

2   A: The Company's legacy CIS Plus Systems were implemented almost two decades ago,

3   which in the technology sector, is virtually pre-historic. For comparison purposes, twenty

4   years ago, both personal computer ("PC") ownership and the internet were in their

5   infancy stages. Industry surveys of households reflect that PC ownership ranged from

6   approximately 25-40% in the 1990's; with less than 20% of those households having

7   internet access capabilities. Today, more than 85% of households now own at least one

8   PC (not counting any smart devices e.g. smartphone, tablets, etc.) and almost 80% now

9   have access to the internet.

10   In terms of internet and processing speeds; dial-up, which used pre-existing

11   telephone lines to connect to the internet, was the primary internet technology throughout

12   the 1990s. It had a max speed of 56 kilobits per second which to the non-technical

13   individual meant you could download a single song, depending on the length, in

14   anywhere from 10-30 minutes; assuming you were not interrupted by any incoming

15   telephone calls as they would disconnect you from the internet service.

16   The customer's choices were limited based on the technology of that time. The

17   by-product of this was two-fold:

18   1.   The Customer's expectations around customer service and customer

19   experience were low;

20   2.   The infrastructure and software requirements to support the functionality

21   available almost two decades ago was significantly less than that required

22   today. This is a direct reflection of the complexities driven by regulatory

23   policy (including corresponding rate designs) coupled with the dynamics

| 1 | | of having multi-state, multi-jurisdiction, and multi-legal entities; |
| 2 | | embedded within today's public utilities. |

Twenty years ago, billing customers for utility service was more straight forward as it only contained a few rate options. A meter reader had to physically go to a customer's premise and manually collect meter usage from the customer's meter monthly. A relatively simple rate calculation was applied to the usage to generate a customer's bill. For most of the utility sector, during this timeframe, automated meters and demand response were just buzz words or in their infancy stages. The thought of a Commercial customer, let alone a Residential customer, having access to interval data on energy usage was just a vision because of the technological limitation of that era. It wasn't until Meter Data Management (MDM) coupled with smart meter technology (e.g., advanced metering infrastructure or "AMI") was brought to market, that this vision became a reality.

Today's customer expects more. We expect better customer service with a plethora of options. Why? Simple, because we are offered more choice options, on a more frequent basis, within each daily interaction we experience; e.g. telecommunications services, cable service, financial institutions, convenience stores, coffee shops, etc.

Q: Are there other reasons to replace the CIS system?

A: From a technology lens, the legacy CIS Plus systems are no longer supported by their respective vendors from a technical, business, or security aspect. This increases the security and performance risk of the legacy systems exponentially because to stay in compliance with regulatory, security, and operational standards customized coding must

1   be designed and implemented. This customization further degrades the integrity of the

2   existing legacy systems while increasing annual maintenance costs to the Company and

3   its customers.

4   Additionally, the legacy CIS Plus systems do not provide functionality that

5   supports the regulatory structures and programs necessary to efficiently serve our

6   customers. Some examples of those functionalities are:

7   1.   Flexible Rate Structures

8   2.   Real-Time Payments

9   3.   Expansion of Customer Self-Service ("CSS") capabilities and customer

10   engagement capabilities such as alerts and notifications preferences,

11   mobile information, and enhanced payment options

12 The One CIS Solution Project will enable KCP&L to take advantage of the above

13 functionalities and more. Additionally, as a configurable platform, it provides the

14 necessary foundation for the future to meet the new challenges created by the pace of

15 technological and regulatory change our society and industry is experiencing.

16   The technological limitations of the legacy CIS Plus systems limit the Company's

17 ability to have a true 360-degree view of the customer and realize the customer facing

18 enhancements that are described in the Direct Testimony of KCP&L witness Charles A.

19 Caisley. The One CIS Solution not only replaces an aging billing system that was no

20 longer supported by the vendor or robust enough to handle today's regulatory

21 environment, but enables the Company to improve the way we interact with our

22 customers, introduce better business processes, and enhance customer knowledge through

23 data access, analytics and data sources.   The forward-thinking customer engagement

1   capabilities that are described in the Direct Testimony of KCP&L witness Charles A.

2   Caisley are a necessity for the Company to serve customers efficiently and effectively.

3   These capabilities can only be enabled through the One CIS Solution Project.

4   The One CIS Solution Project enhances and integrates our existing MDM and

5   AMI network into the One CIS Solution, and will provide our customers with over 2,800

6   interval data points on energy usage, to help educate them and assist in managing their

7   consumption more efficiently.

8   **Q:**   **Were there specific business drivers for the One CIS Solution?**

9   A: Yes. In developing the business case for replacing the Legacy CIS Plus Solution, the

10   Company identified three overarching business drivers for the One CIS Solution.

11   1.   Provide an enhanced customer experience

12   ▪   Enable advanced interaction with customers and their needs

13   ▪   Provide new products, technology and choices

14   ▪   Provide enhanced levels of customer care which will increase

15   satisfaction through personal and online interactions

16   2.   Improve operations

17   ▪   Allow flexibility in business operations (rates, process

18   improvements)

19   ▪   Enable connected grid operations (MDM, AMI, Outage

20   Management, Energy Efficiency devices)

21   ▪   Enhance customer knowledge through data access, analytics and

22   data sources

1   ▪   Combine two highly customized systems into one configurable

2   Customer Information System (CIS).

3   3.   Reduce risk and cost to the Company and Customers

4   ▪   Eliminate aging technology that puts revenue stream at risk

5   ▪   Reduce costs of maintaining two legacy systems

6   ▪   Minimize risk due to retirement eligibility of over one half of CIS

7   support team which jeopardizes operational support of legacy

8   systems

9 **Q:**   **What is the scope of the One CIS Solution Project?**

10 A: The One CIS Solution Project scope is significantly larger than just consolidating two

11   obsolete CIS plus databases that are approximately two decades old onto a modern

12   customer-centric database platform. The new Solution also encompasses and interfaces

13   with the following eight (8) main sub-systems and three (3) ancillary sub-systems:

14   1.   Meter data management (MDM)

15   a.   The Meter Data Management system (MDM) (also known as an

16   Operational Data Store (ODS) in some markets) manages meter

17   information and consumption and is the system of record for

18   information coming from the meter. MDM integrates the AMI

19   network and is a critical building block to enable utilities to

20   understand their customers' usage, the health of the Company's

21   customer serving assets, and the state of their metering system. In

22   the Advanced Metering Infrastructure (AMI) environment,

23   increased data volume and complexity as well as the need for more

involved data analysis have introduced the need for an MDM to address the efficient storage, auditing and processing of large quantities of meter data. MDM is critical to the billing process as it integrates with CC&B to provide consumption data and therefore is a key component to CIS. In the new One CIS environment for KCP&L, MDM plays multiple key roles through various systems as noted below.

b.   Operational Device Management ("ODM")

    i.   Oracle Utilities' ODM provides comprehensive asset management of smart grid devices through change and configuration management as well as strict inventory management of secured devices. ODM is a key technology that supports the roll-out of AMI and serves as the system of record for meter attributes.

c.   Smart Grid Gateway ("SGG")

    i.   The SGG leverages a common connection for two-way messaging among utility enterprise applications and smart grid devices to reduce the cost and complexity of introducing new devices, data streams, and business processes by providing a single point of connection for all devices and applications. SGG serves as a part of MDM and is an essential integration component for AMI meters with the Outage Management System ("OMS").

d.   Service Order Management ("SOM")

2.   Oracle Utilities' SOM delivers the first of its kind solution for service order automation designed specifically for utility process optimization in the age of smart meter technology. Also a part of MDM, SOM becomes the orchestrator of customer requests and completion of meter activities, whether through automation, or delivery of service orders to our Mobile Workforce Management system (known as "PCAD"). Customer Self-Service (online authenticated customer facing web-portals - CSS)

      a.   Used for online interactions with customers such as bill presentment and payments, online energy management and other self-service applications. A more comprehensive explanation of the CSS can be found in the Direct Testimony of KCP&L witness Caisley.

3.   Customer Relationship Manager ("CRM")

      a.   Oracle CRM is used to support business processes for energy efficiency programs, demand response programs, etc. A more comprehensive explanation of the CRM can be found in the Direct Testimony of KCP&L witness Caisley.

4.   Marketing Automation Platform ("MAP")

      a.   Oracles MAP interfaces with Customer Care & Billing ("CCB") to orchestrate the proper communication channels preferred by our customers. A more comprehensive explanation of the CRM can be found in the Direct Testimony of KCP&L witness Caisley.

1   5.   Knowledge Management Tool ("KMT")

2   a.   Verint's KMT software acts as a real-time training and knowledge

3   repository to help customer service representatives interact daily

4   with customers. This system will warehouse all the new processes

5   generated from the One CIS Solution Project.

6   6.   Network Management System ("NMS")

7   a.   Oracle Utilities' NMS provides operational visibility across the

8   electric grid and shortens outage durations by providing access to

9   real-time data when managing outages dispatching crews.

10   7.   Mobile Workforce Management System ("PCAD")

11   a.   Also, referred to as Pragma Computer-Aided Design or PCAD is

12   the system used to coordinate the service orders from CCB to

13   dispatching to mobile units within the field.

14   8.   Reporting and Data Analytics Warehouse (known as "OBIEE/OUA")

15   a.   KCP&L has built a Tier One Customer Data Mart utilizing Oracle

16   Business Intelligence Enterprise Edition ("OBIEE") for enterprise

17   reporting and analytics. The Company installed and configured

18   out-of-the-box CCB Oracle Utility Analytic ("OUA") products to

19   provide answers for most commonly requested reports. KCP&L is

20   also extending the delivered CCB analytics to include integration

21   to MDM and other ancillary sub systems to satisfy the business

22   requirements for Accounting, Tax, Regulatory, Treasury and

23   Marketing and Public Affairs.

1   Additionally, the One CIS Solution includes over 100 additional interaction points

2   (interfaces and extensions) between the core systems and the ancillary 50 plus edge

3   applications with over 25 external vendor partners (e.g. Bill Print, Credit & Collections,

4   etc.) required to provide exceptional customer service.

5 **Q: Did the Company engage any outside vendors for assistance?**

6 A: Yes, while there were multiple vendors involved, there were six (6) key areas identified

7   in which strategic partnership would provide value and increase the project's chances for

8   success. Those areas were: Software, System Integrator, Organizational Change

9   Management (OCM), Knowledge Management, Meter Data Management,

10   Oversight/Quality Assurance

11   1.   Software:

12   a.   The billing system KCP&L selected through the procurement

13   process was Oracle's Customer Care and Billing System or

14   "CCB". Additionally, Oracle provided technological oversight as

15   our independent Solution Architect. This structure elevated

16   KCP&L in a favorable position by giving KCP&L direct input into

17   the Oracle Utilities Product Roadmap(s). Thus, any gaps that

18   KCP&L finds in the product(s) may be alleviated through

19   modification or enhancement of the base product (by Oracle)

20   which will become part of any future product release(s).

21   b.   For CSS, once the requirements were finalized and the

22   procurement process completed, KCP&L realized that here was

23   not a software on the market that met the business requirements

1   nor supported the existing project timeline. So KCP&L opted for

2   Digital Evolution Group (DEG), a Kansas City based digital

3   services company to design, develop, and implement the CSS

4   online portals. KCP&L has worked with this firm in the past and

5   DEG has familiarity with the foundational technology the CSS will

6   be built upon. Additionally, having a local firm provides additional

7   oversight and executive sponsorship not typically found with a

8   non-local firm.

9   2.   Organizational Change Management ("OCM")

10   a.   Any significant transformation requires a change management

11   strategy to help increase the likelihood of successful adoption of

12   the new Solution and corresponding Business Processes. KCP&L

13   awarded this scope to PriceWaterhouseCoopers ("PwC") since the

14   System Integrations ("SI") contractual owned accountability for

15   operational readiness.

16   3.   System Integrators ("SI"):

17   a.   KCP&L selected two System Integrators. One primary SI who has

18   accountability for implementing Oracle's CCB software and

19   interfacing with the ancillary subsystems or edge applications.

20   KCP&L awarded this scope to PwC as they had more competitive

21   bid package coupled with having the more experience

22   implementing Oracle's CCB than any other bidder which gave

1   KCP&L the confidence that they would make the best strategic

2   partner.

3   b.   The second SI was the Kansas City firm, DEG, as described under

4   the Software section above and in more in the Direct Testimony of

5   KCP&L witness Caisley.

6 4.   KCP&L awarded the scope of interfacing to MDM to Red Clay

7   Consulting, an Atlanta based firm whom Oracle recommended as their

8   partner of choice for the initial implementation. KCP&L could leverage

9   our existing strategic relationship to ensure we utilized the same resources

10   and bench-strength to maintain continuity from a knowledge transfer

11   aspect.

12 5.   KCP&L partnered with Ernst and Young for the Project Oversight and

13   Quality Assurance function. This function provides quarterly reporting by

14   way of executive dashboards and recommendations. This selection

15   allowed us to maintain continuity, leveraging the same oversight resource

16   from project conception through completion.

17 **Q: What is the current estimate-at-completion (EAC) and corresponding project**

18 **timeline for the One CIS Solution Project?**

19 A: The current capital EAC for the One CIS Solution is $136 Million. The major cost

20   categories and their corresponding values are reflected below. The project timeline is

21   currently projected to be 39 months in duration; September 2015 through November

22   2018, which includes the warranty period. The project is expected to be in-service

23   sometime in the month on May; with an initial target of May 7th. The word initial was

1   selected because if we encounter events that decrease our confidence in the final cutover

2   and implementation, we will not proceed forward and revert to an alternative date in

3   May. Events can be defined as low probability, high-impact scenarios including but not

4   limited to the following: Significant storm, act of God, quality issues, or other unforeseen

5   external items.

6 **Q:**   **Does the control budget encompass only CCB?**

7 A: No. At a high-level, the $136 million capital control budget can be segregated into five

8   overarching categories:

9   1.   CCB

10   a.   This category represents all direct costs associated with Customer Care &

11   Billing assessment, design, construction, implementation, operation and

12   review. This includes software and hardware costs associated with the

13   implementation services with the One CIS Solution Project.

14   i.   EAC valued at $55 million or 40% of the $136 million

15   2.   Interfaces

16   a.   This category represents all direct costs associated with interfacing the

17   CCB database to the edge applications to provide the functionalities

18   required by the One CIS Solution Project (e.g. Bill Print, Credit &

19   Collections, POS ID, etc.).

20   i.   Original Control Budget valued at $3 million or 2% of the $136

21   million

1   3.   CSS

2   a.   This category represents all direct costs associated with CSS, including

3   assessment, design, construction, implementation, operation and review.

4   i.   EAC valued at $17 million or 13% of the $136 million

5   4.   Indirects

6   a.   Indirects are resources and ancillary costs that are required to support the

7   activity or asset but that are also associated with other activities and assets.

8   i.   EAC valued at $55 million or 40% of the $136 million

9   5.   Contingency

10   a.   The contingency is an amount added to an estimate to allow for items,

11   conditions, or events for which the state, occurrence, and/or effect is

12   uncertain and that experience shows will likely result, in aggregate, in

13   additional costs."

14   i.   EAC valued at $6 million or 5% of the $136 million.

15   **Q: Does the $136 million represent all of information technology requests in the rate**

16   **case?**

17   A: No. Included in adjustment RB-20 (Direct Testimony of Ronald A. Klote) are estimated

18   plant additions through June 30, 2018 which include projects associated with the One CIS

19   Solution, informational technology projects that are required to support or enable the One

20   CIS Solution, and other informational and operational technology projects.

1   **Q:**   **Did you keep the Staff of the Commission and the Citizens Utility Ratepayer Board**

2   **informed of the scope and progress of the One CIS Solution?**

3   A: Yes. I and a few of my project team met with Staff periodically from 2016 to 2018 to

4   discuss the project. Additionally, we offered to provide as many face-to-face status

5   updates as requested, at a location specified by the Staff.

6   **Q:**   **Does that conclude your testimony?**

7   A: Yes, it does.

In the Matter of the Application of Kansas)
City Power & Light Company to Make)
Certain Changes in Its Charge for Electric) Docket No. 18-KCPE-____-RTS
Service)

AFFIDAVIT OF FORREST ARCHIBALD

STATE OF MISSOURI)
) **ss**
COUNTY OF JACKSON)

Forrest Archibald, being first duly sworn on his oath, states:

1.   My name is Forrest Archibald. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Director of Project Controls.

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 eighteen (18) 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.

_____
Forrest Archibald

Subscribed and sworn before me this 1st day of May 2018.

_____
Notary Public

My commission expires: 4/26/2021

ANTHONY R WESTENKIRCHNER
Notary Public, Notary Seal
State of Missouri
Platte County
Commission # 17279952
My Commission Expires April 26, 2021