BEFORE THE

PUBLIC UTILITIES COMMISSION OF OHIO

THE DAYTON POWER AND LIGHT COMPANY

CASE NO. 18-1875-EL-GRD
18-1876-EL-WVR
18-1877-EL-AAM

Distribution Modernization Plan

DIRECT TESTIMONY
OF THOMAS D. TATHAM

- ☐ **MANAGEMENT POLICIES, PRACTICES, AND ORGANIZATION**
- ☐ **OPERATING INCOME**
- ☐ **RATE BASE**
- ☐ **ALLOCATIONS**
- ☐ **RATE OF RETURN**
- ☐ **RATES AND TARIFFS**
- ■ **OTHER**

ON BEHALF OF
THE DAYTON POWER AND LIGHT COMPANY

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1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Thomas D. Tatham. My business address is 1900 Dryden Road, Dayton,
4 Ohio 45439.

5

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

7 A. I am employed by The AES Corporation as the Director of Strategic Accounts and
8 Customer Programs for both Indianapolis Power and Light ("IPL") and The Dayton
9 Power and Light Company ("DP&L" or "Company").

10

11 **Q. How long have you been in your present position?**

12 A. I have been in my present position since February of 2018. Prior to that time, I held
13 several different responsibilities. I started with DP&L in 1985 as a business analyst,
14 which included working with various customer conservation programs and economic
15 development initiatives. I moved to a position in Corporate Communications where, in
16 part, I provided marketing and communications support to the Company's demand side
17 management efforts during the 1990s. Eventually, I became responsible for DP&L's
18 Corporate Communications, which included market research, and internal and external
19 communications. I then was named Director of Operations, responsible for DP&L's
20 energy efficiency programs and strategic accounts, a role I fulfilled until I took my
21 current position.

22

1 **Q. What are your responsibilities in your current position and to whom do you report?**

2 A. I report to the Managing Director of Growth and Strategic Investments for the U.S.
3 Utilities. In this role, I am responsible for managing the energy efficiency programs and
4 strategic accounts for both IPL and DP&L. Specifically, for DP&L, my responsibilities
5 include the implementation of DP&L's energy efficiency programs and compliance with
6 Ohio mandates, economic development and strategic accounts. In addition, I am a
7 member of the Board of Trustees of the Montgomery County Transportation
8 Improvement District and a member of the Board of Trustees of Habitat for Humanity of
9 Greater Dayton.

10

11 **Q. Will you describe briefly your educational and business background?**

12 A. I received a Bachelor of Arts degree from Kenyon College in 1984. Shortly after
13 graduation, I began my career at DP&L. While at DP&L, I completed a Master of
14 Business Administration at the University of Dayton in 1994. In 2006, I completed the
15 Senior Management Certificate Program from Xavier University. I have worked in the
16 utility industry for over 30 years.

17

18 **Q. What is the purpose of this testimony?**

19 A. The purpose of this testimony is to support and explain the customer-facing programs and
20 benefits associated with DP&L's Distribution Modernization Plan ("DMP").

21

22 **Q. What workpapers are you supporting?**

23 A. I am supporting the following "Customer Engagement" workpapers:

- **WP-3.1** "Customer Education"
- **WP-3.2** "Customer ePortal / Mobile App"
- **WP-3.3** "Time-of-Use (TOU) Rate Structures"
- **WP-3.4** "Prepay"
- **WP-3.5** "Customer Service Functions (IVR, Chat, Phone)"
- **WP-3.6** "Customer Relationship Management ("CRM")"

II. OVERVIEW: ENABLING A STRENGTHENED CUSTOMER EXPERIENCE

Q. Will DP&L's DMP strengthen the overall customer experience for DP&L customers?

A. Yes, the DMP will create a platform that will allow for innovative products and services to be developed and delivered to customers, adding value and further enhancing the customer's electric experience. Specific benefits include digitally-automated communication channels tailored to customer preferences, actionable and dynamic usage information, enhancements to the content and capabilities available within the customer online portal, new customer program offerings, and strengthened service reliability. These benefits will be made possible, in part by the installation of smart devices on the distribution system and Advanced Metering Infrastructure ("AMI"), interconnected through system-wide communication and software systems.

III. THE SMART GRID CUSTOMER EXPERIENCE

Q. How will the DMP improve the customer experience?

A. At a high level, DP&L's DMP will provide the infrastructure and platform necessary for the development of innovative customer solutions, strengthening customer value, convenience and control. The Commission's PowerForward Roadmap uses the development of the Internet as a platform that led to the development of Uber, Lyft, YouTube and Twitter to appropriately illustrate the future potential of the smart grid platform and enabling technologies. Likewise, the smart grid platform, as provided for in DP&L's DMP, will provide the opportunity for energy innovations to develop as new technologies progress such as electric vehicles ("EVs"), energy storage, smart appliances and distributed generation resources, all of which will transform the customer electric experience.

Q. Beyond the transformative potential of smart grid, what customer experience enhancements are included in DP&L's DMP?

A. Customer experience enhancements in the DMP include:

- Customer communications;
- Online customer portal;
- New Customer Information System ("CIS"), which is addressed in the testimony of Witness Narvaez;
- Billing accuracy and transparency; and
- Service reliability, which is addressed in the testimony of Witness Gebele.

1 **Q. How will the DMP enable improvements in customer communication?**

2 A. The DMP includes investment in a Customer Relationship Management ("CRM")
3 system, which will allow customers to select their preferred method(s) of communication
4 for receiving automated notifications—whether via Short Messaging Service ("SMS"),
5 email, or automated phone message. When integrated with other systems proposed as
6 part of the DMP, the CRM system will facilitate the dissemination of timely and
7 actionable information in accordance with a customer's pre-determined communication
8 preference. These communication capabilities of the CRM are in contrast to DP&L's
9 current Customer Service System, which has no personalized outbound customer
10 communication capabilities.

11

12 **Q. Please provide an example of how customer communications will be improved as a**
13 **result of the DMP and the CRM?**

14 A. A good example of how customers will benefit from improved communications is during
15 their experience with outage events. During an outage, customers value timely
16 information that is communicated through a preferred channel. As part of the DMP, an
17 Advanced Distribution Management System ("ADMS") will enable DP&L to more
18 quickly identify the location of the outage through its distributed automation equipment
19 and confirm that a customer has lost service based on communications from the
20 customer's smart meter. Once an ADMS is in place and integrated with the CRM system,
21 DP&L will be able to send real-time notifications through each affected customer's
22 preferred method of communication, instead of relying on customers to call in to report
23 and receive information regarding an outage.

1

2 **Q. Are there any additional benefits to DP&L customers from implementing a CRM**
3 **system?**

4 A. Yes, beyond outage information, the CRM will allow DP&L to communicate timely
5 information about other services such as time-of-use ("TOU") pricing allowing customers
6 to have greater control over their bills and to encourage further adoption of EVs. The
7 CRM system will also allow DP&L to perform analysis on customer engagement and
8 usage. As a result, DP&L will be able to provide customers with personalized
9 information about programs that would be of particular benefit to that customer.

10

11 **Q. What are the capabilities of DP&L's current billing and CRM system?**

12 A. DP&L's current capabilities are limited. In terms of billing, customers receive usage
13 information once a month on their bill, which can sometimes reflect estimated reads,
14 versus the near real-time and dynamic information that is provided for in the DMP's
15 customer portal and mobile application. Further, services such as TOU rates and Prepay
16 options are currently not possible with the monthly usage data provided by DP&L's
17 traditional meters and current billing system. In terms of the CRM, DP&L does not
18 currently have a CRM system nor the capability to proactively push tailored
19 communications to customers as enabled by a CRM system.

20

1 **Q. What are the additional capabilities and features offered by enhancements to the**
2 **customer portal?**
3 A. With AMI, the information available to the customer via the on-line portal will be more
4 robust and real time, versus today's basic payment features and after-the-fact monthly
5 billing and usage data. Examples of enhanced and additional information include daily
6 energy usage and cost, usage comparisons by day and over time, usage and budget alerts,
7 projected monthly costs, costs to date, and estimated costs by major appliance. The
8 portal will also be the customer's gateway to DP&L programs such as TOU rates and
9 Prepay options, while strengthening other services already in place such as benchmarking
10 to similar customers. With access to this more granular level of data, customers will have
11 more control over their energy usage and be able to make choices as to how and when
12 they use energy, thereby enabling customers to reduce energy usage and demand. The
13 portal will also be the vehicle for providing operational information about the grid to
14 third parties.
15
16 **Q. How will customers access the on-line portal?**
17 A. Customers will be able to access the on-line portal through DP&L's website and through
18 a mobile application.
19
20 **Q. When does DP&L plan to make the enhancements to the portal and mobile**
21 **application available to customers?**
22 A. DP&L will make the portal enhancements available to customers once the enabling
23 software systems are in place and customers receive smart meters. DP&L's web portal

enhancements, which show customers their granular usage and cost information, will be available by the second year after the Commission approves the DMP. DP&L also plans to launch mobile application enhancements, which will provide information similar to the portal, by year four.

Q. What would customers who do not have a smart meter installed see on their portal?

A. For customers who do not have a smart meter, monthly usage and cost information will be displayed as well as the other capabilities that exist today such as on-line payment.

Q. Will billing process and transparency be improved for the customer as a result of the DMP?

A. Yes. AMI and the new CIS will improve the billing process for customers in multiple ways. These improvements include, for example, fewer estimated bills, faster recognition of meter issues, and faster resolution of billing questions for customers. Supporting information regarding improvements to the billing process can be found in the testimony of Witness Storm and Witness Narvaez.

Q. How will DP&L incorporate customer input into the smart grid implementation?

A. DP&L will endeavor to understand the Voice of the Customer ("VOC") and make appropriate adjustments at customer touch points to optimize the overall customer experience. **Workpaper WP-3.5** "Customer Service Functions (IVR, Chat, and Phone)" covers the costs associated with the customer experience improvement effort. In

addition, DP&L will participate in and use the collaborative approach outlined in the Commission's PowerForward Roadmap.

Q. Please describe VOC and the associated analysis.

A. The VOC analysis will look at all customer touch points including DP&L's contact center and Interactive Voice Response ("IVR"), customer portal and billing operations. A comprehensive analysis will be performed to identify opportunities to increase customer convenience for transactions through various customer communication channels. A prioritized roadmap will then be developed, and actions will be taken to improve the customer experience and customer satisfaction. A program to collect ongoing customer feedback will also be developed.

This analysis is important given the magnitude of change that DP&L will be implementing with this project. DP&L's goal through this analysis is to ensure that the impact on customers is positive, which, in turn, will promote the adoption of the customer-facing programs.

IV. SMART GRID-ENABLED ADVANCED RATE OPTIONS

Q. Which advanced rate options are proposed through the DMP?

A. DP&L's DMP includes proposals for TOU rate plans and Prepay options for Standard Service Offer ("SSO") customers. The development of TOU rate plans is discussed in more detail by Witness Adams.

Q. How do TOU rates benefit customers?

A. In its simplest form, TOU rates allow customers to increase their control over their energy bill by monitoring price changes and shifting energy usage from high-priced hours to low-priced hours. For instance, the price of power can be less expensive during off-peak hours, such as evening and weekends, than during on-peak hours, such as weekdays between 8:00 a.m. and 5:00 p.m. In combination with a smart appliance, a customer could program their dishwasher to run during off-peak hours. As another example, a price signal could be sent to a smart thermostat that could be automatically programmed to pre-cool a home at a lower rate. TOU rates are made possible by the near-real-time information provided by AMI combined with the customer's access to this information through the online portal.

Q. What customer class is DP&L targeting for TOU rates?

A. DP&L anticipates residential customers to be the primary adopters of a TOU rate plan. DP&L does intend to offer a TOU rate for small businesses as well to help those businesses lower their usage and demand charges.

Q. Will competitive retail electric suppliers ("CRES") be able to offer TOU rates?

A. Yes, the AMI infrastructure will enable CRES providers to offer customers their own TOU rates. In addition, the AMI technology will enable CRES providers to offer demand response options as well. These capabilities will create a most robust retail electric market and the development of more energy choices for customers.

1 **Q. Will DP&L offer TOU rates specific to EV charging?**

2 A. Yes, the DMP will offer intelligent EV charging rates for EV owners that will incentivize
3 EV owners to charge their vehicle during off-peak periods, promoting greater EV
4 adoption.

5

6 **Q. What is "Prepay" and is DP&L planning to make this option available to**
7 **customers?**

8 A. A Prepay program will give customers the choice of paying in advance for their electric
9 usage, much like the prepay cellular phone plans that are offered today. Like TOU rates,
10 DP&L plans to make a prepay option available to its SSO residential customers. DP&L
11 plans to launch a pilot program once the required software and smart meters are in place.
12 Based on the proposed plan, DP&L will conduct research and program design in years
13 two and three and launch a pilot in year four.

14

15 **Q. What are the customer benefits of a Prepay program?**

16 A. The Prepay program offers customers several benefits over the traditional monthly billing
17 process. For one, the Prepay program does away with the need for a customer deposit.
18 DP&L requires customers without a strong credit history to secure their account with a
19 deposit. The Prepay program also provides customers with another option for budgeting
20 their energy expenditures. Customers will be able to go to their portal or receive
21 notifications via their preferred communication method, such as text or email, as to their
22 current Prepay status. Lastly, some customers may find this method of payment to be
23 more convenient, including the ability to manage their credit balance via the portal. This

could be true, for instance, in the case of college students who live in the area only for part of the year. In the end, Prepay will be another choice for customers enabled by smart grid.

Q. Will CRES providers be able to offer their customers Prepay options?

A. Due to the complexity associated with Prepay and use of a third-party software solution to enable Prepay, DP&L does not anticipate that CRES providers will be able to offer Prepay at this time. Enabling Prepay requires daily (if not more frequent) data transfers from DP&L to the CRES provider. That capability is not included in the current DMP.

Q. Will DP&L offer energy efficiency programs as a part of its DMP?

A. In general, the implementation of our DMP will enable DP&L, and others, to offer customers additional energy efficiency and demand response programs. In addition, the granularity and timeliness of energy usage information enabled by AMI can provide customers with more control of their energy usage and lead to increased efficiencies. Conservation Voltage Reduction ("CVR") can produce significant energy savings as well and is addressed in testimony prepared by Witness Gebele. However, DP&L is not including specific energy efficiency programs in this filing. Instead, DP&L will address specific energy efficiency programs that use the smart grid platform in its future energy efficiency portfolio plan filings.

Q. Does smart grid offer benefits to low-income customers?

A. Yes, DP&L believes the smart grid initiative will provide multiple benefits to low-income customers. In addition to the TOU rates discussed above, other benefits include new budget management tools, improved communications, and reduced fees from disconnect/reconnect.

Q. How does the DMP enable better budget management for low-income customers?

A. One example would be the budget management tools offered by the customer portal. On an ongoing basis, customers will be able to access their account at any time during the month to determine the electricity costs that they have incurred to date for that billing period. This tool should help customers as they manage their expenses to a budget. Another example would be the Prepay program. Through this program, a customer can eliminate deposits, which can be a challenge for a customer having difficulty paying their bills, as well as the elimination of late fees.

Q. Please explain how improved communication from the DMP will benefit low-income customers.

A. As explained earlier in my testimony, DP&L will be able to more effectively communicate with customers via text, the online portal and application, email, and outbound IVR messages. These new communications capabilities will enable DP&L to communicate the existence of available programs, including payment assistance programs, through the customer's preferred method of communication.

1 **V. SMART GRID CUSTOMER EDUCATION PLANS**

2 **Q. Which key messages will DP&L use to communicate its plans regarding smart grid?**

3 A. DP&L believes that it is important to communicate with customers about the overall
4 value of smart grid. Through this effort, DP&L will communicate the following high-
5 level messages:

6 i. **Safety** – DP&L will ensure that its smart grid system meets all required standards
7 for safe operation for its employees and customers.

8 ii. **Security** – DP&L will vigilantly monitor the security of the smart grid system to
9 ensure that customer information is protected.

10 iii. **Privacy** – DP&L will maintain customer privacy in accordance with Ohio law
11 and Commission guidance.

12 iv. **Value** – Smart grid provides customers with a number of valuable benefits
13 including improved reliability, new customer programs, improved
14 communications and an overall strengthened customer experience.

15

16 **Q. How will DP&L drive public awareness of its DMP?**

17 A. DP&L will communicate with customers in three distinct phases. Phase 1 is pre-
18 deployment communications with various stakeholders such as local communities and
19 customers. Phase 2 includes ongoing customer education that addresses communication
20 to customers receiving smart meters. Phase 3 addresses post-deployment
21 communications that "thank" customers for their participation and further highlights the
22 smart grid benefits. Overlaying all three phases will be a multi-media communications
23 campaign that includes television, print, radio, and online advertising. These

communications will begin in the first year of the initiative and continue through year six to coincide with AMI deployment.

Q. Please describe the elements of each of the three phases.

A. In Phase 1 (Pre-Deployment), DP&L will target the entire customer base with general communications about smart grid, the overall benefits of smart grid, and the Company's deployment plans. In addition to the mass media communications, DP&L will communicate via bill inserts, news releases and media interviews, and an enhanced smart grid informational web site. DP&L will also conduct an outreach program to local governments, and community and businesses groups.

Phase 2 (Deployment) communications will target those customers that will be immediately affected by the smart grid deployment. Specifically, DP&L will notify customers receiving a smart meter using direct mail, door hangers and/or outbound calls. For those customers with questions, a contact number will be provided that will be answered by representatives specifically trained regarding smart grid and DP&L's smart grid deployment plans. Once customers have a smart meter and the customer portal is operational, DP&L will inform customers about the portal's availability, its benefits and features and how it can help them to manage their energy usage. Likewise, DP&L will begin marketing customer programs as they become available, including new rate options (e.g., TOU and Prepay) and functionalities.

1 Phase 3 (Post-Deployment) communications will express our appreciation to all
2 customers for their patience and cooperation during the smart grid deployment, re-
3 emphasize the benefits of smart grid, and reinforce the availability of smart grid tools and
4 programs such as the customer portal.
5
6 **Q. Will DP&L use industry resources to develop its communication materials?**
7 A. Yes, DP&L plans to review industry best practices for smart grid communications and
8 join the Smart Energy Consumer Collaborative to use available resources and lessons
9 learned. DP&L also plans to use lessons learned from other utility deployments, such as
10 that of our sister company Indianapolis Power and Light. DP&L recognizes that
11 customer communication and creating customer awareness is extremely important to
12 realizing the full benefits of the DMP investments. In addition, DP&L will participate in
13 the smart grid working groups that are being formed through the Commission's Power
14 Forward initiative.
15
16 **Q. How will DP&L coordinate with local governments?**
17 A. Local governments represent an important stakeholder group for DP&L. We work with
18 them on a regular basis through the normal course of business on a variety of utility-
19 related projects. To maintain an open line of communication, DP&L established a
20 community ambassador program comprised of employees from throughout the Company
21 who live in different jurisdictions served by DP&L. These ambassadors act as the point
22 of contact for their respective local community and attend council meetings on a regular
23 basis. In total, ambassadors reach approximately 30 communities in our service area.

We will use this established community ambassador network to communicate with local governments throughout our service territory during the smart grid process.

Q. How will the DP&L customer programs be promoted?

A. Once the customer programs are developed, it will be important to actively market them to eligible customers. As noted earlier in my testimony, customers will need to have a smart meter and be on the SSO rate to be eligible for DP&L TOU rates and Prepay. DP&L will know which customers to market to and will do so with targeted communications such as direct mail, outbound calls, text, email and the customer portal interface. DP&L's investment in a CRM system will help to streamline this effort.

To promote energy efficiency, we will also target high-usage customers and send them targeted communication in order to promote specific programs that will save them money. In addition, by analyzing AMI data, DP&L can identify customers that would be good candidates for a TOU program and can then send those customers a direct mail invitation to enroll in a TOU program.

Q. How will smart grid enhance communications with CRES providers?

A. DP&L currently operates an Internet portal for CRES providers, which is available at www.cres.dpandl.com. It contains public information such as aggregate load profiles, registration materials, the supplier handbook, and frequently asked questions. From this portal, CRES providers can gain access to additional information via a secure log-in name and password. This additional information includes the pre-enrollment customer

list and access to 24-month historical summary usage data by account number. Further, CRES providers that are registered suppliers for DP&L have access to information specific to their customers such as a list of active accounts. If available, CRES providers may also request interval data by account number via Electronic Data Interchange ("EDI").

With smart grid, DP&L will continue to supply CRES providers with the same information that they have access to today. In addition, DP&L will supply CRES providers with interval data for all customers with AMI, including both residential and non-residential customers. DP&L is working toward providing at least hourly level data to all retail suppliers. This information will continue to be transmitted via EDI, or CRES providers will be able to access the data directly through the portal. To ensure appropriate protection of data, the access to data by third parties, and the standardization and transmission protocols regarding data, DP&L will participate in the Data and Modern Grid Workgroup and will comply with Commission direction as it is further developed.

Q. When will the enhancements to the retailer portal, as described above, be available?

A. Based on the proposed plan, the CRES portal will be updated at the beginning of the second year after Commission approval of the DMP.

VI. WORKPAPERS

Q. Please explain how Workpapers 3.1-3.6 are calculated.

A. These workpapers depict the Capital and O&M costs for a twenty-year period broken out by major cost categories. Capital costs include hardware and software purchases, and associated implementation costs. O&M costs include ongoing hardware and software maintenance, and customer communications. The key estimates contained within these workpapers are drawn from DP&L experience, vendor quotes, and other publicly-available industry reports.

VII. CONCLUSION

Q. Please summarize your testimony.

A. In conclusion, DP&L's plan is to implement a comprehensive smart grid initiative which will deliver multiple customer benefits and strengthen the customer electric experience for all. Customer communications will be more dynamic, timely and informative. Customers will find that interacting with DP&L on various service issues will be more timely and convenient. Customer control over energy usage and costs will be increased. Reliability will be improved through distribution and substation automation. And lastly, the technological upgrades to the DP&L system will enable the creation and delivery of additional customer services into the future.

Q. Does this conclude your direct testimony?

A. Yes.

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