

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of The Dayton Power and Light Company for Approval of Its Plan to Modernize Its Distribution Grid))	Case No. 18-1875-EL-GRD
))	
In the Matter of the Application of The Dayton Power and Light Company for Approval of a Limited Waiver of Ohio Adm. Code 4901:1-18-06(A)(2)))	Case No. 18-1876-EL-WVR
))	
In the Matter of the Application of The Dayton Power and Light Company for Approval of Certain Accounting Methods))	Case No. 18-1877-EL-AAM
))	
In the Matter of the Application of The Dayton Power & Light Company for a Finding That Its Current Electric Security Plan Passes the Significantly Excessive Earnings Test and More Favorable in the Aggregate Test in R.C. 4928.143(E)))	Case No. 20-0680-EL-UNC
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In the Matter of the Application of The Dayton Power and Light Company for Administration of the Significantly Excessive Earnings Test Under R.C. 4928.143(F) and Ohio Adm. Code 4901:1-35-10 for 2018))	Case No. 19-1121-EL-UNC
))	
In the Matter of the Application of The Dayton Power and Light Company for Administration of the Significantly Excessive Earnings Test Under R.C. 4928.143(F) and Ohio Adm. Code 4901:1-35-10 for 2019))	Case No. 20-1041-EL-UNC
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**INITIAL BRIEF OF
THE ENVIRONMENTAL LAW & POLICY CENTER
AND
THE OHIO ENVIRONMENTAL COUNCIL**

February 12, 2021

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I. INTRODUCTION

On October 23, 2020, the Dayton Power & Light Company (DP&L) and nineteen other signatory parties filed a Stipulation and Recommendation (Stipulating Parties Ex. 1 (“Stip.”)) in this proceeding. The Environmental Law & Policy Center (ELPC) and the Ohio Environmental Council (OEC) joined the Stipulation. The only party to oppose the Stipulation is the Ohio Consumers’ Counsel. ELPC and OEC submit this brief to address three components of the Stipulation: DP&L’s proposed smart thermostat, electric vehicle (EV), and data access programs.

ELPC and OEC continue to have concerns over the stipulation process in Ohio. ELPC has previously made several recommendations¹ for how the legislature and PUCO should reform the stipulation process to better serve Ohio’s utility customers. That being said, ELPC and OEC support *this* Stipulation, particularly the Company’s proposed smart thermostat, EV, and data access programs. Each is an important component of DP&L’s broader grid modernization plan and will benefit DP&L’s customers.

II. SMART THERMOSTATS PLAY AN IMPORTANT ROLE IN GRID MODERNIZATION

DP&L’s “Smart Grid Plan” (SGP) aims to strengthen and modernize the Company’s distribution system. (Stip. at 2-3; DP&L App. at 3). The Company proposes to spend up to \$267.6 million on grid modernization during Phase I of the SGP. (Stip. at 4). It aims to use emerging smart grid technologies to “accelerate and enable a low carbon future through easy integration of distributed energy resources (DER) and EVs.” (DP&L Krueger Direct Test. at 5;

¹ In the Matter of the Review of Ohio Admin. Code Chapter 4901-1 Rules Regarding Practice and Procedure Before the Commission, Pub. Util. Comm’n of Ohio, Case No. 18-275-AU-ORD, Comments of the Environmental Law and Policy Center (Jan. 13, 2020).

OCC Ex. 74 (DP&L App.) at 3). Among the several grid modernization programs in the SGP is a smart thermostat rebate program, capped at only \$450,000² per year over four years.

Smart thermostats are central to the Company's grid modernization plan. They allow customers to reduce their demand at peak, making the grid more flexible and reducing costs over the long term. Importantly, when coupled with time-of-use rates, smart thermostats will help customers benefit from the Company's proposed \$77 million advanced metering infrastructure (AMI) deployment. AMI meters provide customers information, but it is the smart thermostats that will help customers reduce peak demand and bills.

OCC witness Williams objects to the Company's proposed smart thermostat program, stating that "[s]mart thermostats are unrelated to DP&L's obligation to provide efficient, safe, reliable, nondiscriminatory and reasonably priced retail electric service." (OCC Ex. 6 (Williams Direct Testimony) at 30). Mr. Williams also asserts that "[c]aptive DP&L electric customers should not be required to subsidize the costs for smart thermostats for other customers who may have an interest in smart thermostats." (*Id.*). Mr. Williams recommends that "all costs associated with the smart thermostat rebate program should be eliminated from the Settlement." (*Id.*).

Mr. Williams takes an unreasonably narrow view of DP&L's service obligations and ignores the benefits smart thermostats can provide to the grid. If the Commission accepts Mr. Williams' position and eliminates the smart thermostat program, then customers will receive fewer benefits from DP&L's plan. Over time, delivery costs to customers will increase. Importantly, Mr. Williams' position undercuts the Company's proposed investment AMI, which delivers additional customer value when coupled with smart thermostats. The Commission

² DP&L proposes to fund its smart thermostat program using shareholder dollars.

should therefore reject Mr. Williams' arguments with respect to the Company's proposed smart thermostat program.

A. Smart thermostats benefit the grid and therefore benefit all DP&L customers.

Smart thermostats have advanced functionalities, including the capability to shift a customer's cooling or heating load from one part of the day to another. (Tr. Vol. 5 at 807 (Williams Cross)). By doing so, smart thermostats can help the utility reduce customer demand during system peak demand hours, either through direct load control or demand response programs. In turn, smart thermostats reduce the strain on distribution system components. As Mr. Williams agreed during cross examination, those components are built to meet peak demand:

Q: As a general matter then, would you agree that the distribution grid is built to meet peak demand?

A: Yes.

Q: Okay. So then you would agree that the components of the distribution system such as distribution feeders are designed to meet peak demand, correct?

A: It's designed to meet the needs of customers, yes.

Q: Okay, Let me ask you a question about peak hours. Would you agree that, all else equal, if customers use less energy at peak, that it relieves the stress on the distribution grid?

A: It could. It may.

(Tr. Vol. 5 at 814 (Williams Cross)). By reducing the strain on distribution system components, smart thermostats can help DP&L avoid or defer distribution system upgrades. The PUCO has previously recognized the need for costly distribution infrastructure upgrades is "typically driven by a few peak demand events that occur on only a few, fairly predictable occasions each year."

(OCC Ex. 66 (PUCO PowerForward Roadmap) at 22). During cross examination, Mr. Williams also acknowledged that, over time, avoiding or deferring distribution system infrastructure upgrades can lead to reduced utility spending on the distribution grid.

Q: Mr. Williams, would you agree with the premise if we reduce peak demand, that over time the utility may need to invest less money in the grid?

A: That's possible

(Tr. Vol. 5 at 816 (Williams Cross)). Reducing the need to invest in infrastructure upgrades over the long run by using smart thermostats to reduce the demand on distribution system components helps all DP&L ratepayers because the Company recovers its spending on distribution grid infrastructure through its ratepayers. Thus, reduced investment allows the Company to reduce what it charges ratepayers. During cross examination, Mr. Williams confirmed this direct relationship:

Q: So the price of electric service depends in part on what the company spends on its distribution infrastructure, correct?

A: Yes.

(Tr. Vol. 5 at 813 (Williams Cross)).

Mr. Williams' suggestion that smart thermostats benefit only those customers installing the devices ignores the peak demand reduction benefits smart thermostats provide to the grid and the resulting cost savings that can accrue as a result to all customers. Fundamentally, building and maintaining a distribution grid is central to DP&L's service obligations. (Tr. Vol. 5 at 811-812 (Williams Cross)). Therefore, Mr. Williams fails to support his argument that a smart thermostat program—which can help avoid or defer long run distribution system spending—is “unrelated to DP&L's obligation[s].”

B. Smart thermostats are essential to ensure DP&L’s customers benefit from advanced metering infrastructure.

Under the Stipulation, DP&L will invest \$77.6 million in advanced metering infrastructure (AMI) deployment. (See Stip. Exhibit 1). AMI meters register customer usage, demand, voltage, current, and other information at sub-hourly intervals. When deployed in conjunction with time-variant pricing—such as the time-of-use (TOU) rates that DP&L has committed to proposing during Phase 1 of their grid modernization plan³—and enabling technologies (like smart thermostats), AMI helps customers save energy and reduce peak demand. The PUCO’s PowerForward Roadmap recognizes that smart thermostats and time-variant rates are essential to unlocking the customer benefits associated with AMI deployment:

The Commission encourages, *in parallel with* advanced meter deployment, that each EDU propose or amend an existing TOU rate design for SSO customers . . . The proposal may also include a rebate program for enabling technologies (e.g. smart thermostats) which can be paired with TOU rates offered through the SSO or through CRES provider offerings that utilize time-based pricing.

(OCC Ex. 66 (PUCO PowerForward Roadmap) at 31 (emphasis added)). Indeed, Mr. Williams himself acknowledges how smart thermostats can help customers save energy and reduce demand.

Q: Do I understand you correctly to believe or take the position that smart thermostats have the capability of helping customers save energy?

A: Yes.

(Tr. Vol. 5 at 808 (Williams Cross)).

Q: And, Mr. Williams, sticking here with capabilities for a minute, would you agree that smart thermostats are capable of helping customers reduce their demand?

A: I believe that’s one of the advertised features.

³ Stip. at 11.

(Tr. Vol. 5 at 810 (Williams Cross)).

While acknowledging the benefits of smart thermostats, Mr. Williams posits that the PUCO should disallow DP&L from spending on a smart thermostat program because smart thermostats “contribute to energy efficiency and peak demand reduction types of programs that are being eliminated in Ohio effective January 1, 2021.” (OCC Ex. 6 (Williams Direct Testimony) at 30). Mr. Williams’ testimony represents a misreading of the law. Nothing in Ohio law prohibits a utility from offering, and the PUCO from approving, a program that helps customers save energy or reduce peak demand as part of grid modernization.

Taken to its logical extreme, Mr. Williams’ position would require the PUCO to reject several of the core grid modernization programs proposed in this case simply because they help DP&L’s customers save energy in addition to their grid-related benefits. For example, the Company’s proposed Volt/VAR Optimization (VVO) and Conservation Voltage Reduction (CVR) programs—to which Mr. Williams does not object—will not only strengthen the Company’s distribution feeders but will also result in energy and demand savings. (See OCC Ex. 73 (WP A to Hall Direct Test., WP-B to Hulsebosch Direct Test.)). Mr. Williams’ logic would have the PUCO reject the VVO and CVR programs simply because they will provide some of the customer benefits typically associated with energy efficiency and demand reduction programs. This result would achieve nothing positive, while also denying DP&L’s customers the benefits of a modern and robust distribution grid. The PUCO should reject the OCC’s misreading of Ohio law and approve the Company’s proposed smart thermostat program, ensuring that customers benefit from DP&L’s AMI deployment.

III. ELECTRIC VEHICLE CHARGING PLAYS AN IMPORTANT ROLE IN MODERN GRIDS

Under the Stipulation, DP&L commits to implementing an EV program consisting of electric vehicle supply equipment (EVSE) rebates for both Level 2 and Direct Current Fast chargers, education and marketing, and a future “intelligent charging” incentive. (Stip. at 13). DP&L will cap the costs associated with its EV rebate program at \$5.1 million. (*Id.*).

OCC witness Williams’ criticisms of the proposed EV program mirror his criticisms of the smart thermostat program. He asserts that “EV charging infrastructure is a behind-the-meter competitive service that goes well beyond DP&L’s responsibility to provide consumers with adequate, safe, efficient, nondiscriminatory, and reasonably priced retail electric service.” (OCC Ex. 6 (Williams Direct Testimony) at 29). He further states that “[c]aptive DP&L electric customers should not be held responsible for subsidizing EV incentives that benefit only those few customers who have interest in purchasing electric vehicles.” (*Id.*).

Again, Mr. Williams takes an unreasonably narrow view of the types of programs the Company can (and should) include in its grid modernization plan. As more DP&L customers adopt and charge EVs, the load associated with EVs will increase in the DP&L service territory. DP&L’s EV program allows the Company to better understand how EV owners use the grid, evaluate any reliability or power quality impacts from EV charging, and direct customers to TOU rates that help manage charging to the benefit of the grid, all while the market is still at an early stage of development. (Stip. at 16). The program is consistent with the PUCO’s guidance in its PowerForward Roadmap, which notes that EVs will provide opportunities and challenges for the distribution system. (OCC Ex. 66 (PUCO PowerForward Roadmap) at 20). It also recommends that utility grid modernization plans “address how the existing distribution grid will adapt to meet the anticipated energy and power needs of EVs, so that the societal benefits

associated with EV charging can be maximized.” (*Id.*). The PUCO should therefore allow DP&L to implement its proposed EV program, which shares substantial similarities with AEP Ohio’s approved EV rebate program⁴ and Duke Energy’s proposed EV rebate program.⁵ It should reject Mr. Williams’ objections.

IV. A MODERN GRID REQUIRES ROBUST CUSTOMER DATA ACCESS PROVISIONS

DP&L has also committed to developing a robust customer information system, providing customers with access to “24 months of energy usage data in 5-minute, 15-minute, 30-minute, or 60-minute intervals . . . made available on a best efforts basis within 24 hours of performing industry-standard . . . processes and no later than thirty (30) days after the end of each meter cycle.” (Stip. at 22). The customer information system will provide both customers and Competitive Retail Electric Supplier (CRES) providers with additional information by which they can make informed decisions regarding energy usage and market projections.

ELPC and OEC are generally supportive of the data access provisions of the Stipulation (Sections 10 and 11) because they will improve the efficiency of the grid. Providing customers with information about their energy usage ensures they can use that information to improve and reduce their energy consumption, especially at times of peak demand, decreasing stress on the grid. When partnered with AMI technology and smart thermostats, robust customer data access provisions maximize the information that customers receive, enabling them to make better energy usage decisions. Other electric utilities have already demonstrated the benefits of data access, as noted in Mission:data Coalition witness Michael Murray’s testimony. Mr. Murray

⁴ In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan, Case No. 16-1852-EL-SSO *et al.*, Opinion and Order (Apr. 25, 2018).

⁵ In the Matter of Duke Energy Ohio, Inc.’s Application for Approval of its Infrastructure Modernization Plan, Adjustment to Rider PowerForward, and Request for Deferrals, Case No. 19-1750-EL-UNC *et al.*

states: “12 studies from 2011-2015 found 6% to 18% energy savings were possible if customers were exposed to various forms of information feedback about their energy usage.” (Mission:data Coalition Ex. 1 (Direct Testimony of Michael Murray) at 11⁶).

With more information about energy usage, especially with the ability to connect qualified devices to a Home Area Network through AMI Deployment, see Stip. at 29, customers can identify opportunities to improve the efficiency of their home or business. They can also use that information to make long-term energy decisions for their property, such as whether to install net-metered infrastructure. This is consistent with the goals of Ohio’s energy policy, which encourages the use of distributed generation. See R.C. 4928.02(F) (It is the policy of the State of Ohio to . . . “[e]nsure that an electric utility's transmission and distribution systems are available to a customer-generator or owner of distributed generation, so that the customer-generator or owner can market and deliver the electricity it produces.”) See also R.C. 4928.02(C); R.C. 4928.02(E), emphasis added (“*Encourage cost-effective and efficient access to information regarding the operation of the transmission and distribution systems of electric utilities in order to promote both effective customer choice of retail electric service and the development of performance standards and targets for service quality for all consumers, including annual achievement reports written in plain language.*”).

V. CONCLUSION

The OCC’s objections to DP&L’s proposed smart thermostat and EV programs reflect an unreasonably narrow view of a utility’s service obligations to its customers and a narrow view of grid modernization planning. Moreover, those objections ignore the important potential of distributed energy resources such as smart thermostats, electric vehicles, and data access

⁶ Mr. Murray cites Got Data? The Value of Energy Data Access to Consumers. Michael Murray and Jim Hawley. January, 2016. Available at <http://www.missiondata.io/s/Got-Data-value-of-energy-data-accessto-consumers.pdf>.

programs, each of which has the potential to benefit the grid. While ELPC and OEC believe that DP&L should expand the smart thermostat program, the proposed program in the Stipulation is a reasonable start. The Commission should reject the OCC's objections and approve the Stipulation, including the proposed smart thermostat, EV, and data access programs.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing *Initial Brief of the Environmental Law and Policy Center and the Ohio Environmental Council* was filed electronically through the Docketing Information System of the Public Utilities Commission of Ohio on February 12, 2021. The PUCO's e-filing system will electronically serve notice of the filing of this document on counsel for all parties.

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Summary: Brief - Initial electronically filed by Mr. Nikhil Vijaykar on behalf of Environmental Law & Policy Center and Ohio Environmental Council