

EXHIBIT NO. _____

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of)	
Ohio Power Company to Initiate)	Case No. 19-1475-EL-RDR
its gridSMART Phase 3 Project.)	

DIRECT TESTIMONY OF
JAIME L. MAYHAN
IN SUPPORT OF THE JOINT STIPULATION AND RECOMMENDATION
ON BEHALF OF
OHIO POWER COMPANY

Filed: November 3, 2021

INDEX TO DIRECT TESTIMONY OF
JAIME L. MAYHAN

I.	PERSONAL DATA.....	2
II.	PURPOSE OF TESTIMONY.....	3
III.	SUMMARY OF THE STIPULATION	4
IV.	CRITERIA FOR CONSIDERING APPROVAL OF A STIPULATION	15

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO
DIRECT TESTIMONY OF
JAIME L. MAYHAN
ON BEHALF OF
OHIO POWER COMPANY

1 **I. PERSONAL DATA**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Jaime L. Mayhan and my business address is 700 Morrison Road, Gahanna,
4 Ohio 43230.

5 **Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

6 A. I am employed by Ohio Power Company, known as AEP Ohio or the Company, as
7 Director – Regulatory Services.

8 **Q. WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND**
9 **PROFESSIONAL BACKGROUND?**

10 A. I received my Bachelor of Science in Business, Accountancy Major, from Wright State
11 University. I was employed by MeadWestvaco (currently WestRock) as an Accountant
12 from 2003 to 2005 working on monthly closing processes and financial reporting. I joined
13 American Electric Service Corporation (AEPSC) in 2005 as an Accountant II and
14 progressed through various positions in the AEPSC Accounting Organization. In 2012, I
15 transferred to the AEP Transmission Finance Organization as a Senior Financial Analyst.
16 In 2014, I transferred to the AEP Commercial Services Organization as a Gas Settlements
17 Manager. In 2016, I transferred to the AEP Transmission Finance Organization as
18 Transmission Capital Controls Manager and was promoted to Director Transmission

Asset Performance and Capital Controls in 2019. In 2021, I transferred to AEP Ohio in my current position as Director Regulatory Services.

Q. WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR – REGULATORY SERVICES?

A. I am responsible for directing the preparation and presentation of regulatory matters to management as well as regulatory bodies. I plan, organize and direct team activities to develop and support pricing structures, rider and true-up filings, maintenance of tariffs, pilot programs, special contracts and other pricing initiatives.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN SUPPORT OF THE JOINT STIPULATION AND RECOMMENDATION IN THIS PROCEEDING?

A. The purpose of my testimony is to sponsor and summarize the provisions of the Joint Stipulation and Recommendation filed on October 27, 2021 (Stipulation) for the Commission's consideration. My testimony discusses the criteria that the Commission uses when considering settlement agreements and explains how the Stipulation in this proceeding meets those criteria. Specifically, my testimony supports the conclusion that the Stipulation: (1) is the product of serious bargaining among capable, knowledgeable, parties; (2) does not violate any important regulatory principle or practice; and (3) as a package, benefits ratepayers and the public interest.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes, I am sponsoring the following exhibits:

- Exhibit JLM Stipulation 1 – Customer Rate Impacts of gridSMART Phase 3
- Joint Exhibit 1– Joint Stipulation and Recommendation

III. SUMMARY OF THE STIPULATION

Q. WHO ARE THE SIGNATORY PARTIES TO THE STIPULATION?

A. The Signatory Parties include Ohio Power Company (AEP Ohio or Company); the Staff of the Commission (Staff); Office of the Ohio Consumers' Counsel (OCC); the Ohio Energy Group (OEG); Ohio Partners for Affordable Energy (OPAE); the Ohio Hospital Association (OHA); The Kroger Co.; Interstate Gas Supply, Inc. (IGS); Smart Thermostat Coalition; Mission:energy; Industrial Energy Users – Ohio (IEU); Ohio Environmental Council (OEC); and Ohio Manufacturers' Association Energy Group (OMAEG) (collectively, the Signatory Parties). In addition, Ohio Telecom Association, Ohio Cable Telecommunications Association and AT&T Ohio are Signatory Parties for purposes of supporting Paragraph III.J of the Stipulation and relative to Sections I, II and IV of the Stipulation, without taking a position on other provisions in Section III.

Q. PLEASE SUMMARIZE THE STIPULATION.

A. Of course, the actual terms and conditions of the Stipulation are controlling but I am providing this summary for convenience. The Stipulation allows the Company to build upon its successful gridSMART Phase 1 and Phase 2 experiences and deliver the benefits of the Company's gridSMART initiatives to a broader customer base. Specifically, the Stipulation allows for the following:

- 1) The continued deployment of gridSMART technology, including completing the deployment of AMI, implementing Volt/Var Optimization (VVO), an Incremental VVO pilot, and an investment in tie lines and reconductoring to enhance the reliability of the remaining Phase 2 DACR deployments.

64 2) The withdrawal without prejudice of the proposed gridSMART Phase 3
65 implementation for Distribution Automation Circuit Reconfiguration (“DACR”).
66 AEP Ohio can refile a new application under the gridSMART Rider to separately
67 present Phase 3 DACR-related proposals on or after June 1, 2022 (Phase 3 DACR
68 Application).

69 3) Increased access to data provided by AMI, including implementing EDI
70 enhancements and the associated system and process upgrades, commitments for
71 customer access to data in several categories, collaborative discussions to enhance
72 customer benefits associated with the use of AMI data and supporting additional
73 AMI data access, and provide data to, and collaborate with stakeholders, to further
74 customer education of the state of the electric distribution grid.

75 4) Agreement on the rate redesign and other financial components of gridSMART
76 Phase 3 deployment, including gridSMART Phase 3 Rider (“gridSMART Rider”
77 or “Rider”) capital investment and O&M cost caps, incremental operational
78 savings credit that will be implemented pending a PUCO directed audit, allocation
79 of gridSMART Phase 3 costs to residential customers, the authorized rate of
80 return, and the recovery of costs associated with customer outreach and education
81 regarding the technology deployments (including time varying rates and smart
82 thermostats).

83 5) The Company agrees to provide a monthly billing summary to OHA, offer a
84 competitively neutral incentive program for smart thermostats funded through
85 shareholder dollars, and make a one-time shareholder donation to the Neighbor-
86 to-Neighbor fund.

87 6) Items that the Company has agreed to withdraw.

88 **Q. PLEASE EXPLAIN SECTION III.H OF THE STIPULATION AND THE**
89 **COMPLETION OF THE COMPANY'S AMI DEPLOYMENT.**

90 A. The Stipulation allows AEP Ohio to complete the deployment of Advanced Metering
91 Infrastructure (AMI) to the Company's remaining customers by replacing up to an
92 additional approximately 475,000 existing meters with smart meters. The timing of the
93 deployment is subject to supply chain availability. The Company can record meters
94 purchased in the Rider in the month they are received as long as that month's ending
95 inventory does not exceed 75,000 meters, otherwise the excess meters will not be eligible
96 for inclusion in the Rider until the month-end inventory falls below 75,000 meters. After
97 the Company installs 425,000 smart meters, or 48 months has passed since an Opinion &
98 Order is received in this case (whichever comes first), the excess inventory threshold is
99 dropped to 30,000 meters.

100 **Q. PLEASE EXPLAIN SECTION III.G OF THE STIPULATION AND THE**
101 **DEPLOYMENT OF VVO.**

102 A. This section provides for the implementation of VVO using an accelerated seven-year
103 deployment period for VVO equipment on up to an additional 255 distribution circuits.
104 Also, the Company can include an additional VVO proposal as part of the Phase 3 DACR
105 Application as described in section III.C of the Stipulation.

106 **Q. PLEASE EXPLAIN SECTION III.L OF THE STIPULATION AND THE**
107 **IMPLEMENTATION OF AN INCREMENTAL VVO PILOT.**

108 A. The Company agrees to implement an Incremental VVO pilot through the installation and
109 evaluation of 340 Dynamic Voltage Controller units on 20 circuits to analyze options to
110 maximize future customer energy savings, peak demand reduction, and other benefits.

111 **Q. PLEASE EXPLAIN SECTION III.D OF THE STIPULATION AND THE**
112 **INVESTMENT IN TIE LINES AND RECONDUCTORING IN CONJUNCTION**
113 **WITH THE REMAINING PHASE 2 DA DEPLOYMENTS.**

114 A. As provided by this section of the Stipulation, the Company can also invest up to \$10
115 million in capital costs to construct tie lines and reconductoring in conjunction with the
116 remaining Phase 2 DACR deployments. The Company will include a demonstration of
117 where the investments were made and how they were used to enhance the reliability of
118 the gridSMART project as part of a future Phase 3 DACR Application as related in
119 Section III.C. of the Stipulation.

120 **Q. PLEASE EXPLAIN SECTION III.C OF THE STIPULATION AND THE**
121 **COMPANY'S WITHDRAWAL OF ITS DACR PROPOSAL FROM THIS FILING**
122 **AND THE PROCESS FOR REILING A NEW DACR PHASE 3 PROPOSAL.**

123 A. The Company has agreed to withdraw without prejudice the proposed gridSMART Phase
124 3 implementation for DACR. However, AEP Ohio can refile a new application under the
125 gridSMART Rider to separately present Phase 3 DACR-related proposals on or after June
126 1, 2022 (Phase 3 DACR Application). Prior to the Phase 3 DACR Application, the
127 Company will engage an outside study to evaluate the strategic deployment of circuit ties
128 and reconductoring that would enhance the reliability benefits of both Phase 2 and Phase
129 3 DACR deployment (please see related Section III.D of the Stipulation). The Phase 3
130 DACR Application will include performance data and cost-benefit information related to

DACR gridSMART Phase 1 and 2 deployments, and present components related to circuit ties and reconductoring projects that would bolster the reliability impact of Phase 3 DACR deployment.

Q. PLEASE EXPLAIN SECTION III.N OF THE STIPULATION AND THE IMPLEMENTATION OF EDI ENHANCEMENTS AS WELL AS ASSOCIATED SYSTEM AND PROCESS UPGRADES.

A. Within 20 months of an Opinion and Order in the current case, the Company will implement the electronic data interchange (EDI) enhancement proposed in the Application, and upgrade the systems and processes for wholesale market settlements to calculate and settle peak load contribution (PLC) and network service peak load (NSPL) values for all AMI customers, and provide the data via EDI. As part of the implementation of a new customer information system, the Company will calculate and settle PLC, NSPL, and the total hourly energy obligation (THEO) Settlement B (*i.e.*, 60 day settlement) for all AMI customers using actual data, and will provide customer energy usage data to CRES providers via EDI. Also as part of the implementation of a new customer information system, the Company will also assess the feasibility of calculating THEO for Settlement A using actual data instead of relying on historical like-day usage. The Company shall make the residential customer energy usage data available to authorized CRES providers, in a manner consistent with Ohio Adm.Code 4901:1-10-24. Any future changes to the authorization process will be discussed as part of the gridSMART collaborative group.

152 **Q. PLEASE EXPLAIN SECTION III.P OF THE STIPULATION AND THE**
153 **COMPANY’S COMMITMENTS FOR CUSTOMER ACCESS TO DATA IN**
154 **VARIOUS CATEGORIES.**

155 A. As per this section of the Stipulation, the Company has committed to provide customer
156 access to data in several categories through the AEP Ohio website and the Commercial
157 Customer portal. This data includes:

- 158 • at least 24 months of energy usage data in 15-minutes, 30-minutes, or 60-minute
159 intervals;
- 160 • exploring a technical solution to create a CSV download of historical billing
161 information up to 36 months by account;
- 162 • providing at least 24 months of summary billing history data, including date of bill,
163 usage, bill amount and due date;
- 164 • providing flexible views (for customers with multiple accounts) with options to (a)
165 select individual account, (b) group accounts by user-defined criteria as is feasible, or
166 (c) access full account list; and
- 167 • Tariff and rebate program information (if applicable).

168 AEP Ohio will work with the Signatory Parties to develop a functionality roadmap that
169 integrates other Customer data needs not currently satisfied, with an agreed upon
170 deployment schedule. AEP Ohio will provide information on the customer’s account
171 information page of its website that identifies third parties that have received access to
172 the customer’s energy usage data through the Business Partner Portal. In addition, AEP
173 Ohio will increase customer awareness of the link on its website to opt out of providing
174 customer specific information to CRES. Within 18 months of an Opinion and Order, AEP

Ohio will provide to Signatory Parties a roadmap of further customer data protections, including whether it is feasible to identify and list on the customer's account information page of its website third party access of customer data that is accessed through other means than the Business Partner Portal.

Q. PLEASE EXPLAIN SECTION III.I OF THE STIPULATION AND GRIDSMART COLLABORATIVE GROUP EFFORTS.

A. The Company will also initiate discussions with the gridSMART collaborative group to identify opportunities to enhance customer benefits associated with AMI deployment and website enhancements to improve customer education and engagement. Additionally, the Company and the gridSMART collaborative group will evaluate issues associated with third party access to data, including customer privacy and data security. Also, within 6 months of an Opinion and Order, the Company will solicit input from the collaborative participants regarding the issues associated with third party data access. Within 12 months the Company will file a status update in this case that summarizes the discussions and recommendations resulting from the collaborative discussions.

Q. PLEASE EXPLAIN SECTION III.W OF THE STIPULATION AND THE COMPANY'S COMMITMENT TO COLLABORATE AND PROVIDE DATA ON DISTRIBUTION CIRCUIT CAPACITY.

A. As per this section of the Stipulation, the Company will provide data to, and collaborate with, OMAEG, Staff, and other interested signatory parties on distribution circuit capacity to further customer education of the state of the electric distribution grid, especially regarding the impact of customer behavior to impact peak electrical load and electricity costs. Within 9 months of the Opinion and Order in this case, the Company will provide

a list of up to 25 distribution circuits that meet specific criteria laid out in Section III.W of the Stipulation. Within 12 months, AEP Ohio shall provide based on consent from individual participating customers the demand of the participating customers at the day and hour of the annual distribution circuit peak. From 12-24 months, AEP Ohio will work proactively with OMAEG and other Signatory Parties with members/customers that are participating to measure on a monthly basis the customers' peak demand coincident with the distribution circuit's peak demand. After the 24-month period, the Company will deliver an informational webinar to interested Signatory Parties on circuit loading, how gridSMART investments improve customer reliability and service, the importance of available peak circuit capacity for customer electrification programs, the role of EDU-based and customer-sited non-wire-alternatives to relieve circuit loading, other recognized methods for determining capacity upgrades and a comparison of their pros and cons; and a discussion regarding the impact of participating customers' peak demand reduction efforts on the sample of distribution circuits, including a discussion of whether a pilot tariff program would be beneficial.

Q. PLEASE EXPLAIN SECTION III.B OF THE STIPULATION AND THE LIMITS ON COST COLLECTIONS FROM CUSTOMERS THROUGH THE RIDER.

A. The Company may not collect from customers through the gridSMART Rider more than \$223,113,318 in capital costs and \$78,838,617 in associated operations and maintenance (O&M) expenses, which is the current total estimated cost for the technology being implemented under the Stipulation, plus 10% for a reasonable margin of error and subject to an exception for prudently incurred cost increases beyond the control of the Company that occurred after the date of the Stipulation.

221 **Q. PLEASE EXPLAIN SECTION III.O OF THE STIPULATION ON AN**
222 **INCREMENTAL OPERATIONAL SAVINGS CREDIT.**

223 A. This section of the Stipulation provides for the collection of costs from customers through
224 the gridSMART Rider, which will be offset by an incremental operational savings credit
225 that reflects the operational benefits associated with additional deployments that occurred
226 after the rate case test year. Within twelve months of an Opinion and Order in the current
227 case, the Commission Staff will issue a request for proposal to select a consultant to
228 complete the operational benefits assessment associated with gridSMART Phase 3. Once
229 the Commission issues a final order concerning the audit, an operational savings credit
230 will be implemented until the effective date of a subsequent base rate case.

231 **Q. PLEASE EXPLAIN SECTION III.R OF THE STIPULATION AND THE**
232 **ALLOCATION OF GRIDSMART PHASE 3 COSTS TO RESIDENTIAL**
233 **CUSTOMERS.**

234 A. The allocation for gridSMART Phase 3 costs of 45% to residential customers will be
235 retained.

236 **Q. PLEASE EXPLAIN SECTION III.A OF THE STIPULATION RELATED TO**
237 **THE COMPANY'S AUTHORIZED RATE OF RETURN FOR THE GRIDSMART**
238 **PHASE 3 RIDER.**

239 A. Section III.A provides that the Company's authorized rate of return applicable at the time
240 of each quarterly filing will be used for the gridSMART Phase 3 Rider.

241 **Q. PLEASE EXPLAIN SECTION III.T OF THE STIPULATION AND THE**
242 **COLLECTION OF COSTS FOR CUSTOMER OUTREACH AND EDUCATION**

**REGARDING THE TECHNOLOGY DEPLOYMENTS AND RELATED
RELIABILITY BENEFITS FOR CUSTOMERS THROUGH THE RIDER.**

- A. The Company may collect customer outreach and education expenses regarding the technology deployments and related reliability benefits from customers through the Rider. The Company agrees to reserve \$100,000 of this funding for customer outreach and education related to time varying rate offerings and smart thermostats, and will solicit input from Signatory Parties regarding outreach and education efforts.

**Q. PLEASE EXPLAIN SECTION III.U OF THE STIPULATION AND THE
COMPANY'S COMMITMENT TO PROVIDE A MONTHLY BILLING
SUMMARY REPORT TO THE OHA.**

- A. The section commits the Company to providing a monthly billing summary report to the OHA that includes OHA member customer name, account number, SDI number, CRES status, tariff, address, customer class, bill period, usage, demand and bill amount. This report will include current and at 24 months of historic billing information, will only include customer data for customers that have a current letter of authorization granting permission to OHA to obtain the customers' data, and will only be provided for five years unless the Company's customer portal develops similar capabilities to permit access to the same data and format.

**Q. PLEASE EXPLAIN SECTION III.S OF THE STIPULATION AND THE
COMPANY'S COMPETITIVELY NEUTRAL INCENTIVE PROGRAM FOR
SMART THERMOSTATS OFFERING.**

- A. The Company will offer a competitively neutral incentive program for smart thermostats for a total of \$0.5 million funded through shareholder dollars, using \$50 per unit as an

initial rebate level. Only smart thermostats certified under United States Environmental Protection Agency Energy Star Connected Thermostat guidelines are eligible for the incentive. The availability of the incentive will be limited to new and existing shopping and non-shopping customers enrolled in time varying rate offerings. The Signatory Parties will coordinate through a collaborative discussion on education and marketing efforts, which will be funded as provided for in Section III.T of the Stipulation. As part of its next Electric Security Plan application or another similar application seeking to recover costs from customers for grid modernization investments, the Company agrees to include a proposal for a smart thermostat program targeted to equipping new and existing shopping and non-shopping time-of-use customers with rate optimized smart thermostats.

Q. PLEASE EXPLAIN SECTION III.Q OF THE STIPULATION AND THE COMPANY'S COMMITMENT TO MAKE A ONE-TIME SHAREHOLDER DONATION TO THE NEIGHBOR-TO-NEIGHBOR FUND.

A. The Company agrees to make a one-time shareholder donation to Neighbor-to-Neighbor fund of \$250,000.

Q. PLEASE EXPLAIN SECTIONS III.F, III.J, III.K, AND III.M OF THE STIPULATION AND THE WITHDRAWAL OF THESE ORIGINALLY PROPOSED GRIDSMART PHASE 3 ITEMS.

A. As per Sections III.F, III.J, III.K, and III.M of the Stipulation, the Company agrees without prejudice to withdraw the following items from its gridSMART Phase 3 proposal:

- DA Lite (formerly referenced as D-SCADA);
- The broadband fiber proposal;
- Intelligent Line sensors; and

289 • It's Your Power application.

290 **Q. PLEASE EXPLAIN SECTION III.E OF THE STIPULATION.**

291 A. Also as part of the Stipulation, the Company agrees to a concession from another case
292 pending before the Commission. Specifically, as part of Section III.E of the Stipulation,
293 the Company agrees to withdraw without prejudice the Application for a Waiver of Ohio
294 Administrative Code Chapter 4901:1-10-33(C)(13) in Case No. 19-1389-EL-WVR
295 within six months of the date of the Stipulation in this case. This concession results in
296 extending the bill due date for the Company's customers from 14 to 21 days, as well as
297 the Company implementing an IT solution that will implement this change within 6
298 months.

299 **IV. CRITERIA FOR CONSIDERING APPROVAL OF A STIPULATION**

300 **Q. WHAT IS THE STANDARD THAT THE COMMISSION HAS USED WHEN**
301 **CONSIDERING APPROVAL OF A STIPULATION AMONG PARTIES TO**
302 **PROCEEDINGS?**

303 A. It is my understanding that a Stipulation must satisfy a three-part test. The three questions
304 the Commission considers are: (1) is the Stipulation the product of serious bargaining
305 among capable, knowledgeable parties; (2) does the Stipulation violate any important
306 regulatory principle or practice; and (3) as a package, does the Stipulation benefit
307 ratepayers and the public interest?

308 **Q. IS THE STIPULATION SUBMITTED IN THIS CASE THE PRODUCT OF**
309 **SERIOUS BARGAINING AMONG CAPABLE AND KNOWLEDGEABLE**
310 **PARTIES?**

311 A. Yes. The Stipulation was the product of meetings and negotiations involving experienced
312 counsel as well as technical experts for some parties in this case. Both counsel and the
313 technical experts are familiar with and regularly participate in regulatory matters before
314 this Commission. There were numerous meetings in which the parties in this case had
315 the opportunity to negotiate each provision of the Stipulation. All parties were invited to
316 these meetings and no party was left out of the opportunity to negotiate. This Stipulation
317 differs in several respects from the proposal submitted in the Application because it
318 reflects an overall compromise involving a balance of competing positions from multiple
319 parties and incorporates many of the recommendations offered by Staff and intervenors.

320
321 **Q. DOES THE STIPULATION AS A PACKAGE BENEFIT CUSTOMERS AND THE**
322 **PUBLIC INTEREST?**

323 A. Yes. The Stipulation provides for a reasonable charge for customers while providing
324 numerous benefits to the customers. The Company's completion of its AMI deployment,
325 predominantly in rural areas, benefit customers by providing the ability to remotely
326 connect and disconnect meters, reduced bad debt expenses on past due accounts, utilizing
327 meter interval data to expand and promote energy efficiency programs, and incremental
328 meter reading benefits.

329 The technologies offered through this Stipulation will enable customers to become
330 more energy efficient, reduce demand and manage costs. This greater control over their
331 energy usage will allow customers to conserve energy, save money and help protect the
332 environment. In addition, there will be improved meter reading accuracy, and improved
333 safety for the Company's employees to name a few.

Through the Stipulation the Company has agreed to net the operational benefits to the Rider, reducing the overall impact on the customers. These technologies will benefit customers during outages, allow customers to save through equipment that reduces the energy flowing through the line, and also provide customers with the technology they need to become more proactive in managing their electric bills, which can lead to savings. This technology will allow the customer's to increase their understanding on the direct relationship between usage and bill totals, proactively monitor their usage to determine ways to save energy, and increase the competitive offers available by CRES providers leading to an even more robust market.

Multiple sections of the Stipulation are additional commitments made by the Company through the negotiating process that were not included in the application as filed concluding that the Stipulation provides greater benefits to customers.

Q. DOES THE STIPULATION VIOLATE ANY IMPORTANT REGULATORY PRINCIPLE OR PRACTICE?

A. No. The terms of the Stipulation represent a compromise of the Signatory Parties that advances important regulatory principals. The compromise reached in the Stipulation promotes a number of the state policies expressed in Ohio Revised Code 4928.02 including:

(A) Ensure the availability to consumers of adequate, reliable, safe, efficient, nondiscriminatory, and reasonable priced retail electric service;

- AEP Ohio has estimated the bill impacts from the Stipulation on a per bill basis for both residential and non-residential customers. The estimated cost for years one through seven as well as the estimated year one bill impacts are included as

Exhibit JLM Stipulation-1. Per Section III.O of the Stipulation, collection of costs from customers through the gridSMART Rider will be offset by an incremental operational savings credit that reflects the operational benefits associated with additional deployments that occurred after the rate case test year. The Commission Staff will issue a request for proposal to select a consultant to complete the operational benefits assessment, and the credit will be implemented until the effective date of a subsequent base rate case.

- Customers will see various benefits through the technologies installed per the Stipulation. AMI will allow the Company to know if there is an issue with outages impacting one customer versus an entire area. This will allow the Company to better assess the restoration needs as well as decrease the amount of time that the Company may otherwise take to be aware of an outage. The AMI meters also allow the Company to reduce estimated meter reads, consumption on inactive meters and theft.
- VVO technology allows customers to save through lower energy usage. The Incremental VVO pilot may result in increased benefits and energy savings.
- Investment in tie lines and reconductoring in conjunction with the remaining Phase 2 DA deployments will demonstrate enhanced reliability of the gridSMART project.

(B) Ensure the availability of unbundled and comparable retail electric service that provides consumers with the supplier, price, terms, conditions, and quality options they elect to meeting their respective needs; and

(D) Encourage innovation and market access for cost-effective supply and demand-side retail electric service including, but not limited to, demand-side management, time-differentiated pricing, waste energy recovery systems, smart grid programs, and implementation of advanced metering infrastructure.

- The Stipulation supports the roll out of AMI meters, allowing customers to have the technologies available to better manage their electric usage and translate that into bill savings. The data made available from the AMI meters will be provided to both customers and Certified Retail Electric Service (CRES) providers. Also, the CRES and the Company's customers will be receiving additional flows of data. Additionally, the data provided to CRES will give them the level of data necessary to offer time of use rate designs, increasing the market offerings currently available. The data provided to customers will allow customers to be more aware of their overall usage quantity as well as time patterns of their usage. This information can then be used to either change behaviors to reduce usage, shift usage, or both. AMI deployment will allow customers access to more useful data that can be used for customer education. Through the Stipulation, AEP Ohio has committed to take additional steps on providing customer data.

In sum, the Stipulation does not violate any important regulatory principle or practice and instead promotes important regulatory principles and practices as outlined above.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

**Ohio Power Company
Typical Bill Comparison
Cycle 1 November 2021 vs. gridSMART Phase 3
Ohio Power Rate Zone**

<u>Tariff</u>	<u>kWh</u>	<u>KW</u>	<u>Current</u>	<u>Proposed</u>	<u>Difference</u>	<u>Difference</u>
Residential	100		\$27.05	\$27.38	\$0.33	1.2%
	250		\$44.33	\$44.66	\$0.33	0.7%
	500		\$73.19	\$73.52	\$0.33	0.5%
	750		\$102.02	\$102.35	\$0.33	0.3%
	1,000		\$130.85	\$131.18	\$0.33	0.3%
	1,500		\$188.52	\$188.85	\$0.33	0.2%
	2,000		\$246.16	\$246.49	\$0.33	0.1%
GS-1 Secondary	100	3	\$41.73	\$44.38	\$2.65	6.4%
	500	3	\$74.38	\$77.03	\$2.65	3.6%
	1,000	3	\$115.15	\$117.80	\$2.65	2.3%
	750	6	\$94.76	\$97.41	\$2.65	2.8%
	2,000	6	\$196.70	\$199.35	\$2.65	1.4%
GS-2	1,500	12	\$288.27	\$290.92	\$2.65	0.9%
	4,000	12	\$425.30	\$427.95	\$2.65	0.6%
	6,000	30	\$770.24	\$772.89	\$2.65	0.3%
	10,000	30	\$989.15	\$991.80	\$2.65	0.3%
	10,000	40	\$1,119.98	\$1,122.63	\$2.65	0.2%
	14,000	40	\$1,338.88	\$1,341.53	\$2.65	0.2%
	12,500	50	\$1,387.64	\$1,390.29	\$2.65	0.2%
	18,000	50	\$1,686.95	\$1,689.60	\$2.65	0.2%
	15,000	75	\$1,851.52	\$1,854.17	\$2.65	0.1%
	30,000	100	\$2,991.09	\$2,993.74	\$2.65	0.1%
	36,000	100	\$3,316.08	\$3,318.73	\$2.65	0.1%
	30,000	150	\$3,645.25	\$3,647.90	\$2.65	0.1%
	60,000	300	\$7,232.71	\$7,235.36	\$2.65	0.0%
	90,000	300	\$8,857.65	\$8,860.30	\$2.65	0.0%
	100,000	500	\$12,015.96	\$12,018.61	\$2.65	0.0%
	150,000	500	\$14,724.22	\$14,726.87	\$2.65	0.0%
	180,000	500	\$16,349.15	\$16,351.80	\$2.65	0.0%
GS-3 Secondary	18,000	50	\$1,686.95	\$1,689.60	\$2.65	0.2%
	30,000	75	\$2,664.00	\$2,666.65	\$2.65	0.1%
	50,000	75	\$3,747.31	\$3,749.96	\$2.65	0.1%
	36,000	100	\$3,316.08	\$3,318.73	\$2.65	0.1%
	30,000	150	\$3,645.25	\$3,647.90	\$2.65	0.1%
	60,000	150	\$5,270.20	\$5,272.85	\$2.65	0.1%
	100,000	150	\$7,436.79	\$7,439.44	\$2.65	0.0%
	120,000	300	\$10,482.60	\$10,485.25	\$2.65	0.0%
	150,000	300	\$12,107.56	\$12,110.21	\$2.65	0.0%
	200,000	300	\$14,815.79	\$14,818.44	\$2.65	0.0%
	180,000	500	\$16,349.15	\$16,351.80	\$2.65	0.0%
	200,000	500	\$17,432.45	\$17,435.10	\$2.65	0.0%
	325,000	500	\$24,203.05	\$24,205.70	\$2.65	0.0%
GS-2 Primary	200,000	1,000	\$22,680.75	\$22,683.40	\$2.65	0.0%
	300,000	1,000	\$27,664.04	\$27,666.69	\$2.65	0.0%
GS-3 Primary	360,000	1,000	\$30,654.02	\$30,656.67	\$2.65	0.0%
	400,000	1,000	\$32,647.33	\$32,649.98	\$2.65	0.0%
	650,000	1,000	\$45,105.56	\$45,108.21	\$2.65	0.0%
GS-2 Subtransmission	1,500,000	5,000	\$97,860.77	\$97,863.42	\$2.65	0.0%
GS-3 Subtransmission	2,500,000	5,000	\$139,119.77	\$139,122.42	\$2.65	0.0%
	3,250,000	5,000	\$170,064.02	\$170,066.67	\$2.65	0.0%
GS-4 Subtransmission	3,000,000	10,000	\$191,999.27	\$192,001.92	\$2.65	0.0%
	5,000,000	10,000	\$274,517.27	\$274,519.92	\$2.65	0.0%
	6,500,000	10,000	\$336,405.77	\$336,408.42	\$2.65	0.0%
	10,000,000	20,000	\$545,312.27	\$545,314.92	\$2.65	0.0%
	13,000,000	20,000	\$669,089.27	\$669,091.92	\$2.65	0.0%
GS-4 Transmission	25,000,000	50,000	\$1,357,697.27	\$1,357,699.92	\$2.65	0.0%
	32,500,000	50,000	\$1,667,139.77	\$1,667,142.42	\$2.65	0.0%

* Typical bills assume 100% Power Factor

	Residential	Non-Residential
As of November 2021	\$ 1.30	\$ 11.88

	Residential	Non-Residential
Year 1	\$ 0.33	\$ 2.65

	Residential	Non-Residential
Year 1	\$ 1.63	\$ 14.53

**Typical Bill Comparison
Cycle 1 November 2021 vs. gridSMART Phase 3
Columbus Southern Power Rate Zone**

<u>Tariff</u>	<u>kWh</u>	<u>KW</u>	<u>Current</u>	<u>Proposed</u>	<u>\$ Difference</u>	<u>Difference</u>
Residential						
RR1 Annual	100		\$27.05	\$27.38	\$0.33	1.2%
	250		\$44.33	\$44.66	\$0.33	0.7%
	500		\$73.20	\$73.53	\$0.33	0.5%
RR Annual	750		\$102.04	\$102.37	\$0.33	0.3%
	1,000		\$130.87	\$131.20	\$0.33	0.3%
	1,500		\$188.55	\$188.88	\$0.33	0.2%
	2,000		\$246.20	\$246.53	\$0.33	0.1%
GS-1	100	3	33.36	36.01	\$2.65	7.9%
	500	3	73.98	76.63	\$2.65	3.6%
	1,000	3	124.75	127.40	\$2.65	2.1%
	750	6	99.36	102.01	\$2.65	2.7%
	2,000	6	226.26	228.91	\$2.65	1.2%
GS-2 Secondary						
	1,500	12	\$264.62	\$267.27	\$2.65	1.0%
	4,000	12	\$401.65	\$404.30	\$2.65	0.7%
	6,000	30	\$743.04	\$745.69	\$2.65	0.4%
	10,000	30	\$961.95	\$964.60	\$2.65	0.3%
	10,000	40	\$1,090.82	\$1,093.47	\$2.65	0.2%
	14,000	40	\$1,309.72	\$1,312.37	\$2.65	0.2%
	12,500	50	\$1,352.94	\$1,355.59	\$2.65	0.2%
	18,000	50	\$1,655.82	\$1,658.47	\$2.65	0.2%
	15,000	75	\$1,815.47	\$1,818.12	\$2.65	0.2%
	30,000	150	\$3,594.45	\$3,597.10	\$2.65	0.1%
	60,000	300	\$7,152.40	\$7,155.05	\$2.65	0.0%
	100,000	500	\$11,896.31	\$11,898.96	\$2.65	0.0%
GS-2 Primary						
	100,000	1,000	\$17,396.44	\$17,399.09	\$2.65	0.0%
GS-3 Secondary						
	30,000	75	\$2,627.95	\$2,630.60	\$2.65	0.1%
	50,000	75	\$3,711.26	\$3,713.91	\$2.65	0.1%
	30,000	100	\$2,950.12	\$2,952.77	\$2.65	0.1%
	36,000	100	\$3,275.11	\$3,277.76	\$2.65	0.1%
	60,000	150	\$5,219.40	\$5,222.05	\$2.65	0.1%
	100,000	150	\$7,385.99	\$7,388.64	\$2.65	0.0%
	90,000	300	\$8,777.33	\$8,779.98	\$2.65	0.0%
	120,000	300	\$10,402.28	\$10,404.93	\$2.65	0.0%
	150,000	300	\$12,027.24	\$12,029.89	\$2.65	0.0%
	200,000	300	\$14,735.48	\$14,738.13	\$2.65	0.0%
	150,000	500	\$14,604.56	\$14,607.21	\$2.65	0.0%
	180,000	500	\$16,229.50	\$16,232.15	\$2.65	0.0%
	200,000	500	\$17,312.80	\$17,315.45	\$2.65	0.0%
	325,000	500	\$24,083.40	\$24,086.05	\$2.65	0.0%
GS-3 Primary						
	300,000	1,000	\$28,487.02	\$28,489.67	\$2.65	0.0%
	360,000	1,000	\$31,814.20	\$31,816.85	\$2.65	0.0%
	400,000	1,000	\$34,032.31	\$34,034.96	\$2.65	0.0%
	650,000	1,000	\$47,895.54	\$47,898.19	\$2.65	0.0%
GS-4						
	1,500,000	5,000	\$106,959.57	\$106,962.22	\$2.65	0.0%
	2,500,000	5,000	\$153,718.57	\$153,721.22	\$2.65	0.0%
	3,250,000	5,000	\$188,787.82	\$188,790.47	\$2.65	0.0%
	3,000,000	10,000	\$209,348.07	\$209,350.72	\$2.65	0.0%
	5,000,000	10,000	\$302,866.07	\$302,868.72	\$2.65	0.0%
	6,500,000	10,000	\$373,004.57	\$373,007.22	\$2.65	0.0%
	6,000,000	20,000	\$414,125.07	\$414,127.72	\$2.65	0.0%
	10,000,000	20,000	\$601,161.07	\$601,163.72	\$2.65	0.0%
	13,000,000	20,000	\$741,438.07	\$741,440.72	\$2.65	0.0%
	15,000,000	50,000	\$1,028,456.07	\$1,028,458.72	\$2.65	0.0%
	25,000,000	50,000	\$1,496,046.07	\$1,496,048.72	\$2.65	0.0%
	32,500,000	50,000	\$1,846,738.57	\$1,846,741.22	\$2.65	0.0%

* Typical bills assume 100% Power Factor

	Residential	Non-Residential
As of November 2021	\$ 1.30	\$ 11.88

	Residential	Non-Residential
Year 1	\$ 0.33	\$ 2.65

	Residential	Non-Residential
Year 1	\$ 1.63	\$ 14.53

1 **CERTIFICATE OF SERVICE**

2 In accordance with Rule 4901-1-05, Ohio Administrative Code, the PUCO's e-filing
3 system will electronically serve notice of the filing of this document upon the following
4 parties. In addition, I hereby certify that a service copy of the foregoing *Direct Testimony of*
5 *Jamie L Mayhan* was sent by, or on behalf of, the undersigned counsel to the following parties of
6 record this 3rd day of November 2021 via electronic transmission.

7 /s/ Steven T. Nourse

8 Steven T. Nourse

9 **EMAIL SERVICE LIST**

10 paul@carpenterlipps.com;
11 BarthRoyer@aol.com;
12 bethany.allen@igs.com;
13 cmooney@ohiopartners.org;
14 ctavenor@theoec.org;
15 dparram@bricker.com;
16 drinebolt@opae.org;
17 dborchers@bricker.com;
18 evan.betterton@igs.com
19 Fdarr2019@gmail.com;
20 glpetrucci@vorys.com;
21 jkylercohn@BKLawfirm.com;
22 Joe.Oliker@igs.com;
23 Bojko@carpenterlipps.com;
24 fykes@whitt-sturtevant.com;
25 whitt@whitt-sturtevant.com;
26 mpritchard@mwncmh.com;
27 mfleisher@dickinsonwright.com;
28 mkurtz@BKLawfirm.com;
29 Michael.Nugent@igs.com;
30 mleppa@theOEC.org;
31 mo2753@att.com; nvijaykar@elpc.org;
32 rdove@keglerbrown.com

- 1 rmains@bricker.com
- 2 tdougherty@theOEC.org;
- 3 William.Michael@occ.ohio.gov;

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

11/3/2021 4:15:06 PM

in

Case No(s). 19-1475-EL-RDR

Summary: Testimony Direct Testimony of Jaime L Mayhan electronically filed by Mr.
Steven T. Nourse on behalf of Ohio Power Company