

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

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JAIME L. MAYHAN

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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

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

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

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

27 **II. PURPOSE OF TESTIMONY**

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

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

38 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

39 A. Yes, I am sponsoring the following exhibits:

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

42 **III. SUMMARY OF THE STIPULATION**

43 **Q. WHO ARE THE SIGNATORY PARTIES TO THE STIPULATION?**

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

54 **Q. PLEASE SUMMARIZE THE STIPULATION.**

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

60 1) The continued deployment of gridSMART technology, including completing
61 the deployment of AMI, implementing Volt/Var Optimization (VVO), an
62 Incremental VVO pilot, and an investment in tie lines and reconductoring to
63 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

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

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

137 A. Within 20 months of an Opinion and Order in the current case, the Company will
138 implement the electronic data interchange (EDI) enhancement proposed in the
139 Application, and upgrade the systems and processes for wholesale market settlements to
140 calculate and settle peak load contribution (PLC) and network service peak load (NSPL)
141 values for all AMI customers, and provide the data via EDI. As part of the implementation
142 of a new customer information system, the Company will calculate and settle PLC, NSPL,
143 and the total hourly energy obligation (THEO) Settlement B (*i.e.*, 60 day settlement) for
144 all AMI customers using actual data, and will provide customer energy usage data to
145 CRES providers via EDI. Also as part of the implementation of a new customer
146 information system, the Company will also assess the feasibility of calculating THEO for
147 Settlement A using actual data instead of relying on historical like-day usage. The
148 Company shall make the residential customer energy usage data available to authorized
149 CRES providers, in a manner consistent with Ohio Adm.Code 4901:1-10-24. Any future
150 changes to the authorization process will be discussed as part of the gridSMART
151 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

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

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

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

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

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

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

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

215 A. The Company may not collect from customers through the gridSMART Rider more than
216 \$223,113,318 in capital costs and \$78,838,617 in associated operations and maintenance
217 (O&M) expenses, which is the current total estimated cost for the technology being
218 implemented under the Stipulation, plus 10% for a reasonable margin of error and subject
219 to an exception for prudently incurred cost increases beyond the control of the Company
220 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**

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

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

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

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

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

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

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

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

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

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

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

- 286 • DA Lite (formerly referenced as D-SCADA);
- 287 • The broadband fiber proposal;
- 288 • 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.

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

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

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

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

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

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

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

364 • Customers will see various benefits through the technologies installed per the
365 Stipulation. AMI will allow the Company to know if there is an issue with outages
366 impacting one customer versus an entire area. This will allow the Company to
367 better assess the restoration needs as well as decrease the amount of time that the
368 Company may otherwise take to be aware of an outage. The AMI meters also
369 allow the Company to reduce estimated meter reads, consumption on inactive
370 meters and theft.

371 • VVO technology allows customers to save through lower energy usage. The
372 Incremental VVO pilot may result in increased benefits and energy savings.

373 • Investment in tie lines and reconductoring in conjunction with the remaining
374 Phase 2 DA deployments will demonstrate enhanced reliability of the gridSMART
375 project.

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

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

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

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

398 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

399 A. Yes.

400

401

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

Tariff	kWh	KW	Current	Proposed	Difference	Difference
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
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**

Tariff	kWh	KW	Current	Proposed	\$ Difference	Difference
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**

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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