

AEP OHIO EXHIBIT NO. _____

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of)	
Ohio Power Company for Authority to)	Case No. 23-23-EL-SSO
Establish a Standard Service Offer)	
Pursuant to §4928.143, Ohio Rev. Code,)	
in the Form of an Electric Security Plan.)	

In the Matter of the Application of)	
Ohio Power Company for Approval of)	Case No. 23-24-EL-AAM
Certain Accounting Authority)	

DIRECT TESTIMONY OF
STACEY D. GABBARD
ON BEHALF OF
OHIO POWER COMPANY

Filed: January 6, 2023

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STACEY D. GABBARD

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ON BEHALF OF
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1 **I. PERSONAL BACKGROUND**

2 **Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Stacey D. Gabbard, and my business address is 1 Riverside Plaza, Columbus,
4 Ohio 43215.

5 **Q2. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

6 A. I am employed by American Electric Power Service Corporation (“AEPSC”) as Vice
7 President, Customer Operations. AEPSC supplies engineering, financing, accounting,
8 planning, advisory, and other services to the subsidiaries of the American Electric Power
9 (“AEP”) system, one of which is Ohio Power Company (“AEP Ohio” or the “Company”).

10 **Q3. WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND**
11 **PROFESSIONAL BACKGROUND?**

12 A. I graduated from The University of Tulsa with a Bachelor of Science Degree in Psychology
13 and received a master’s degree in Business Administration with an emphasis in Finance,
14 also from The University of Tulsa. I began my career in Oklahoma with Public Service
15 Company of Oklahoma in 1990 as a meter reader, and later a meter connect and disconnect
16 representative. I moved from field operations into Operations Analysis for Central and
17 Southwest Corporation (“CSW”) as a Business Analyst in 1996, supporting business
18 process design and automation of work management and large-power billing processes in
19 support of Texas deregulation. I was also responsible for standardization of front and back-
20 office processes in support of our implementation of inter-queued call centers. In 2003,

1 after the merger between CSW and AEP, I was appointed Supervisor of Other Accounts
2 Receivables. In this position I was responsible for the oversight, reporting, billing, and
3 collections of non-electric receivables for all of AEP's seven operating companies. In
4 2004, I attended the AEP Strategic Leadership Program at The Ohio State University.
5 From 2004 to 2012, I served as Manager of Special Billing & Meter Translation, where I
6 was responsible for AEP's large power and complex billings, MV90 meter translation
7 system support and operations, Load Research Operations, and national account Electronic
8 Data Interchange ("EDI") translation. In addition, in 2006, I led AEP's Customer
9 Information System ("CIS") strategy team, where we evaluated the Company's existing
10 CIS system's capabilities against business needs and developed a technology roadmap to
11 extend the life of the system. From 2012 to 2017, I was Manager of Customer Choice
12 Processes and Systems, where I was responsible for business and operational support of
13 AEP operating companies that serve customers in states with deregulation. From 2017 to
14 2020, I was Director of Customer Services Support, where I was responsible for daily
15 business operations of meter-to-cash systems supporting AEP's seven distribution
16 operating companies, including CIS business support, load research, large power and
17 complex billing, deregulation support, and meter revenue systems support. In January of
18 2021, I became Director of Customer Services Technology Integration, responsible for
19 business planning for our CIS system replacement. And in July 2022, I was promoted to
20 my current role of Vice President, Customer Operations.

21 **Q4. WHAT ARE YOUR RESPONSIBILITIES AS VICE PRESIDENT, CUSTOMER**
22 **OPERATIONS?**

1 A. I oversee AEP's call center operations, back-office billing support, choice operations
2 support, and meter-to-cash systems support. In addition, I oversee the integration of new
3 technology initiatives into the customer business unit to increase customer satisfaction and
4 drive sustainable efficiencies. I also serve as the business sponsor for AEP's CIS
5 replacement.

6 **Q5. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN ANY REGULATORY**
7 **PROCEEDINGS?**

8 A. Yes. I have testified before the Public Utilities Commission of Ohio in Case Nos. 13-2385-
9 EL-SSO, et al., in Case No. 16-1852-EL-SSO, and in Case No. 19-1475-EL-RDR on behalf
10 of AEP Ohio.

11 **II. PURPOSE OF TESTIMONY**

12 **Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 A. The purpose of my testimony is to discuss the Company's current CIS system and explain
14 why it is necessary to convert that CIS system to a modern system. In my testimony, I will
15 discuss why a CIS replacement will have a positive impact for customers and third parties,
16 and I will summarize AEP's approach to the conversion and how the Company's approach
17 manages risk around a program of this size. In addition, I will briefly discuss the benefits
18 of broadband deployment in Ohio related to Company witness Osterholt's testimony and
19 provide an overview of a pilot staffing program that such technology will enable in support
20 of AEP Ohio's Call Center Operations.

21 **Q7. ARE YOU SPONSORING ANY EXHIBITS IN THIS PROCEEDING?**

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

- 23 • Exhibit SDG-1: CIS Cost Estimate

1 **Q8. DOES THIS TESTIMONY DISPLACE ANY COMMITMENTS MADE IN THE**
2 **COMPANY’S GRIDSMART PHASE III FILING?**

3 A. No. In fact, the recommendation of a new CIS system is done in parallel with the
4 Company’s gridSMART Phase III commitments (Case No. 19-1475-EL-RDR). The
5 Company will continue to execute on commitments from the gridSMART Phase III case,
6 which include the implementation of functionality that calculates AEP Ohio’s AMI
7 residential network service peak load (“NSPL”) and peak load contribution (“PLC”) values
8 using actual interval data as well as implementing EDI changes that provides EDI
9 functionality for CRES time-of-use (“TOU”) customers. Pursuant to my testimony for
10 gridSMART Phase III, I recommend enhancements settling residential customers Total
11 Hourly Energy Obligation (“THEO”) be implemented as part of AEP Ohio’s CIS
12 replacement, using modern technology platforms. I will speak about the benefits of settling
13 residential customer THEO later in my testimony.

14 **III. CURRENT CIS SYSTEM OVERVIEW**

15 **Q9. WHAT DO YOU MEAN WHEN YOU USE THE TERM “CUSTOMER**
16 **INFORMATION SYSTEM,” AND WHAT DOES IT DO?**

17 A. A Customer Information System, or CIS, is a technology platform and central repository
18 for all customer information. It manages the billing, accounts receivable, and rates for the
19 Company. In addition, it links the consumption and metering process to third-party service
20 providers, payment options for customers, collection activities, and other downstream
21 processes.

22 A CIS manages customer premises information to provide a holistic view of the
23 customer, and enables customer capabilities, such as complex billing and settlement

options for distributed customer behind the meter assets, as the industry and grid continue to evolve. In addition, as customers may have various devices at their premise, such as solar panels or plug-in vehicle (“PEV”) chargers, modern CIS systems provide the capabilities to manage these devices on the customer’s account and offer flexibility in how customer programs and tariffs are supported.

Q10. WHAT IS THE STATUS OF THE COMPANY’S CURRENT CIS SYSTEM?

A. AEP currently uses a “Customer-One” legacy CIS system that supports billing, revenue reporting, account and receivables management, online transactions, customer and premises data management, and Competitive Retail Energy Supplier (“CRES”) billing (“Choice”). AEP utilizes one system across all seven distribution operating companies. The technology is over 30 years old and, over the course of that time, prudent investments in auxiliary systems and integrations have been made to improve functionality or increase capabilities. Some of these auxiliary systems include large power billing, AMI meter data management, Choice market settlements and messaging, bill output and customer programs, to name a few.

Q11. CAN THE EXISTING CIS SYSTEM EFFECTIVELY FULFILL EVOLVING CUSTOMER NEEDS GOING FORWARD?

A. No. To extend the useful life of the current CIS, the Company has made prudent investments in peripheral systems to support Choice and smart meters in Ohio. But the limitations to what can be billed and the speed at which new tariffs can be implemented are barriers to an evolving grid and market.

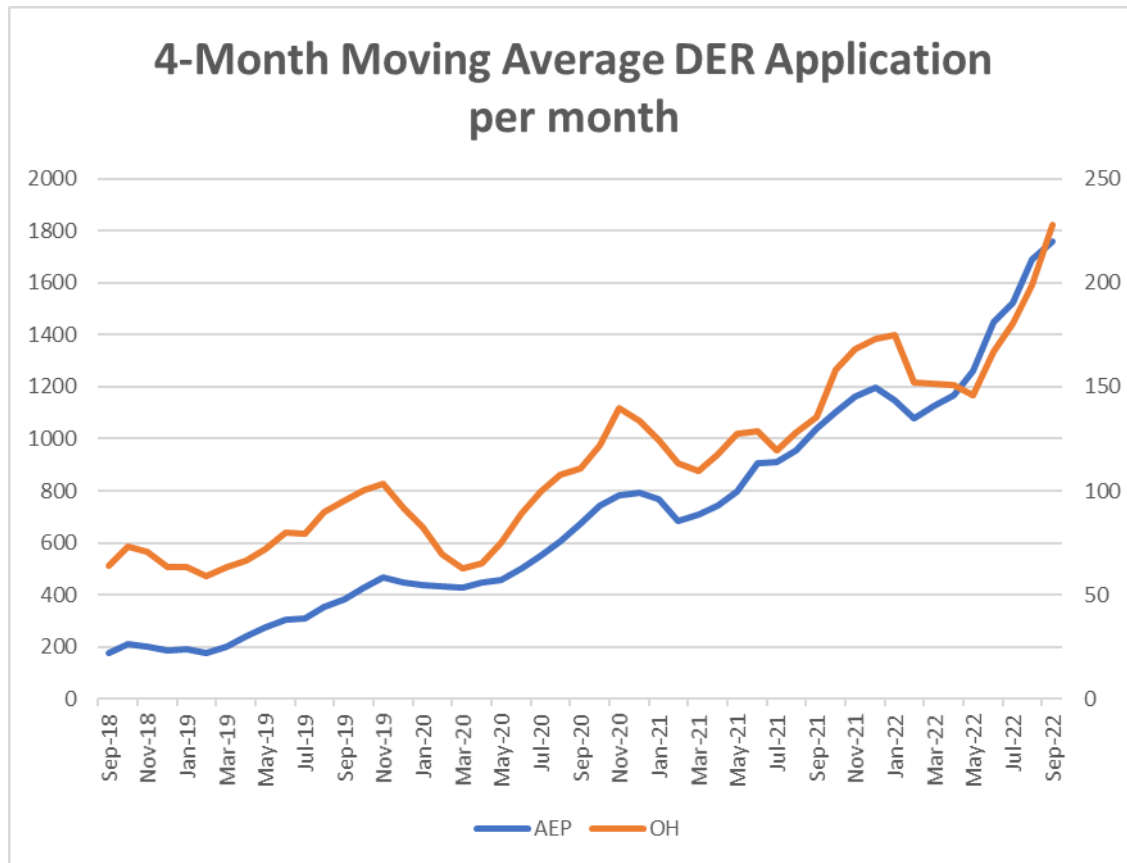
AEP’s legacy CIS was designed for a time when utilities sent one bill per billing cycle to the customer; only the largest of customers had a generation resource or interval

1 metered usage data; and complex tariffs leveraging that interval data for variable time rates
2 were limited to manually billed industrial customers. Today, customers in Ohio can have
3 a generation resource on their property, have more granular usage interval data from a
4 smart meter, can select a third-party CRES for generation, and can participate in TOU
5 tariffs through the standard service offer or a CRES. However, AEP's legacy CIS cannot
6 calculate banked usage for the customer if they generate more from their solar panels than
7 they use in a month. In addition, AEP's current CIS cannot process interval usage data.
8 Therefore, currently, it must be processed outside the system to calculate billing
9 determinants. Similarly, AEP's systems cannot process the negative usage to settle the
10 PJM market. Both efforts must be performed manually through spreadsheets or other
11 analytics tools such as Statistical Analytics Software ("SAS") to settle the market.

12 Because the Company's legacy market-facing systems cannot process net-negative
13 usage for distributed generation ("DG") customers, the continuing growth of DG in Ohio
14 has resulted in a sharp increase in manual workarounds to bill and submit usage to CRES's
15 and PJM. The graph in Figure SDG-1 shows an increase in the number of applications for
16 distributed energy resources from April 2018 through September 2022.

1

Figure SDG - 1



2

As the growth continues, and due to the potential for manual billing errors, the

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current system cannot effectively support billing and settlement of a quickly evolving

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electric grid that the Company's customers and CRES suppliers depend upon. Although

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investments have been made to improve the current system, the Company recognizes the

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need to move forward with planning a CIS replacement due to the continued proliferation

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of distributed generation, advancing AMI functionality needs, evolving customer

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expectations, more complex market settlement requirements, and growing risks related to

9

a thirty-year-old technology platform.

10 **Q12. CAN THE COMPANY CONTINUE TO MODIFY THE EXISTING CIS TO MEET**

11 **FUTURE NEEDS?**

1 A. No. The Company's CIS system is written in Common Business Oriented Language
2 ("COBOL"), which is an older computer language. Though there are still people in the
3 labor market capable of coding in COBOL, their numbers are declining, and their rates are
4 becoming more costly.

5 In addition, both the Company's CIS system and market Clearing House are no
6 longer supported by the vendors that developed and implemented them. Like the CIS,
7 AEP's Clearing House is a legacy suite of tools that was implemented in the early 2000s
8 to support choice markets. The Clearing House handles EDI translation processes and is
9 responsible for settlement of CRES loads in PJM. It was also designed to support interval
10 data, but for only larger customers, and it was not designed to process the level of
11 information needed for TOU rate offerings for today's residential customers on a smart
12 grid where residential customers may choose a TOU rate offering.

13 Consequently, the Company is wholly responsible for modifying both systems to
14 prepare and respond to a quickly changing grid, evolving customer and market needs, and
15 persistent cyber criminals. There is an inherent risk in continuing to support a complex
16 legacy CIS system with numerous third-party integrations, and a declining market of talent
17 that can code in the language it was written.

18 **IV. UPGRADING TO A MODERN CIS SYSTEM**

19 **Q13. HOW WILL A MODERN CIS DIFFER FROM AEP'S CURRENT CIS?**

20 A. A modern CIS system will unlock the full potential of grid modernization efforts. At the
21 core of transformation between the Company's CIS and modern CIS systems is the
22 underlying data structure. The Company's legacy CIS system data structure is built around
23 a premises and a rate that is applied to create a bill for that premises using non-interval

1 data. Modern CIS system data structures are based upon the customer participation in
2 programs, the devices installed at their home or business, and how the customers use the
3 grid. While the Company's current system may have a database used to bill the customer,
4 a database used for market settlement, a database for customer programs like alerts, and a
5 database for interval data, a modern CIS system would utilize one common database that
6 minimizes integrations between systems. Modern CIS systems leverage a common
7 database for all these processes, simplifying or eliminating the integration requirements
8 between a meter data management system, settlement systems, and CIS billing systems. In
9 addition, unlike the Company's current CIS system where rate changes are hard coded,
10 modern CIS systems are more configurable, shortening the timeframe and cost associated
11 with implementing new customer programs.

12 **Q14. ARE THERE OTHER IT TECHNOLOGIES THAT WOULD NEED TO BE**
13 **UPDATED RELATED TO THE CIS SYSTEM?**

14 A. Yes, the AEP Clearing House would also need to be updated. The AEP Clearing House
15 was designed and implemented in the early 2000's to support choice markets, handling
16 EDI operation needs, as well as settlement of CRES loads. It is highly integrated with the
17 legacy CIS system. Due to the dated design and architecture, the AEP Clearing House is
18 unable to support evolving needs of the Ohio market, such as settling AMI interval data for
19 all customers, including residential customers.

20 **Q15. WHAT IS THE COMPANY'S OVERALL PLAN TO REPLACE THE CURRENT**
21 **CIS SYSTEM?**

22 A. To manage risk associated with this enterprise-wide project, the Company has broken the
23 initiative into three phases. The first phase is automation of manually intensive large

1 industrial customer spreadsheet billing onto the new technology platform. These are
2 customer accounts the current CIS system cannot calculate so processing is currently done
3 outside of the system. In addition to this delivered automation, the team will finalize plans
4 around meter data management (“MDM”) system needs related to a new CIS, as well as
5 overall architecture planning for the program. The first phase is expected to run 18 to 24
6 months.

7 As part of the first phase, the Company is now evaluating a sequenced roll-out
8 approach that brings the most value to customers while also managing risk to operations
9 and assuring a seamless transition for customers and third parties. One of the outputs of
10 the first phase will be a more detailed deployment schedule for each operating company.

11 The second phase will focus on planning for automation of Choice functionality
12 replaced with the new CIS, such as EDI transaction processing and market settlements.
13 The third phase will roll-out the new CIS to operating companies.

14 **Q16. ARE THERE RISKS ASSOCIATED WITH REPLACING A CIS SYSTEM?**

15 A. Yes. Some of the risks include customer billing errors, unbilled revenue, inability to
16 support back-office billing exception processing, and an inability to support call volume.
17 However, with the phased approach the Company is taking for the CIS deployment, these
18 risks are mitigated by proving out the usability of the technology prior to deploying it to
19 the first operating company to understand common and unique requirements. To do this,
20 the Company has implemented the new billing system in a lower test region and is
21 performing configuration and testing of critical functionality to both assure the system
22 meets AEP Ohio customer’s needs, as well as to validate cost estimates for full
23 implementation. Some examples of the critical functionality tested include Percentage of

1 Income Payment Plan (“PIPP”), complex tariff configuration, customer payment options
2 and meter device setup. In addition, deploying a new CIS system one operating company
3 at a time allows a shorter development and testing window for the company. This mitigates
4 the risks of changing technology platforms over time and evolving business requirements
5 based upon regulatory needs over the duration of the implementation. It is common to
6 “freeze” code the legacy system during the conversion of the system to a new system.
7 “Freezing” code for all AEP operating companies at the same time is not practical. AEP’s
8 approach minimizes risk around billing issues by focusing the team’s effort on one
9 operating company at a time and any unique functionality for that operating company. A
10 mass system overhaul approach for over five million customers would dilute the team’s
11 focus, increasing the opportunity for impacts to customer billing and satisfaction.

12 AEP has also deployed an industry best-practice in utilizing a third-party quality
13 assurance / quality control consultant (“QA/QC”) for the program. A QA/QC consultant’s
14 role is to provide unbiased review of program processes and procedures to assure risks are
15 mitigated and reports directly to the program leadership team monthly. AEP’s approach
16 also uses a third-party system integrator (“SI”) that specializes in large scale CIS
17 implementations, providing an additional level of expertise and capacity that AEP does not
18 currently have. An SI uses technology tools for testing and post-implementation
19 stabilization that mitigates the risk of billing errors, back-office exception processing
20 backlog, and unbilled revenue, all of which can drive up call center call volume.

21 **Q17. PLEASE DISCUSS HOW A MODERN CIS WILL BENEFIT THE COMPANY’S**
22 **CUSTOMERS.**

1 A. There are six primary benefits to AEP's customers with a modern CIS. The first is the
2 ability to adapt to the changing grid and evolving tariff designs that leverage more granular
3 usage information. AEP owns the current CIS code and is responsible for making changes
4 to the code to adapt to changing customer needs, which is time consuming and costly.
5 Modern CIS systems, offered by third parties specializing in the technology, evolve with
6 changing industry needs and new releases offer changing functionality. For example, as
7 PEV growth continues, having effective TOU programs that can incentivize usage shifts
8 or leverage their batteries as generation resources at peak to minimize or delay the need for
9 capital infrastructure investment requirements will be very important.

10 The second primary benefit is speed to market tariff offerings. Today, new complex
11 tariff changes must be hard coded or handled manually. Modern CIS systems are designed
12 to ingest interval data and allow for more configurable rate implementation. As customers
13 may have solar panels and PEV chargers at their homes and wish to participate in
14 generation aggregation programs, a new CIS system is able to accommodate very complex
15 tariff offerings to support their needs.

16 The third primary benefit is more modern market settlement tools for customers
17 participating in Choice. Today, AEP is limited in its capabilities around settling mass AMI
18 interval data from residential customers in the PJM market. To realize the ultimate value
19 in a smart grid, time-of-use offerings must not only be billable, but also those pricing
20 signals must provide benefits to the customer in the settlement of their load at PJM. With
21 a modern CIS system, interval usage for customers can be paired with granular pricing to
22 not only bill customers with real-time-pricing programs, but also settle load for residential
23 customers in the PJM market using interval data. Those benefits may result in lower PLC

costs as well as reduced hourly usage costs for customers that can shift their load to lower price hours.

The fourth primary benefit is a more streamlined and timely access to customer data. Modern CIS systems, such as the system the Company plans to implement, uses a common data structure for customer and premise level data that simplifies architecture and enables more timely access of data for customers and third parties. This eliminates the need for multiple integrations with other systems, batching of data between systems and multiple databases that slow processing of data from the CIS system to customer-facing platforms such as customer and CRES usage portals.

The fifth primary benefit involves the protection of customer data, which is paramount to AEP. The risk of cyber-attacks continues to present challenges to the industry with potentially catastrophic consequences. Modern CIS systems have the support of an industry where the latest threats are addressed with patches and released regularly as they become known.

Finally, a modern CIS allows for better communication between AEP Ohio and its customers by leveraging a more customer-centric data structure with customer communication preference that creates efficiencies in speed at which communications can be sent.

Q18. DOES A MODERN CIS PROVIDE ADDITIONAL BENEFITS TO THE COMPANY'S CUSTOMERS?

A. Yes. A modern CIS offers benefits to both shopping and standard service offer ("SSO") customers. It is important that customers have options, whether they choose a CRES or SSO based upon market conditions. It is also important that both shopping and non-

shopping customers fully realize the benefit from AEP Ohio's gridSMART deployment. A modern CIS allows for very complex TOU tariffs to be offered to customers through an SSO. It also creates the ability to support the settlement of those same offerings to customers through a CRES's settlement of load in the PJM market, allowing the CRES to receive the benefits in settlement from a customer's shift in load to lower price energy hours or reduced capacity peak, which can be passed to the customer in the form of savings. In addition to complex tariff design, modern CIS systems offer more flexibility around complex payment programs as well. For example, customer payment programs like "pay-as-you-go" or "pre-pay" are supported with a modern CIS. These are programs AEP Ohio has evaluated in the past and continue to gain customer popularity in other parts of the country.

Q19. HOW WILL THE NEW CIS SYSTEM IMPROVE CUSTOMER COMMUNICATIONS?

A. The current CIS system was not designed to effectively manage customer communications and was designed to produce a customer bill once per month, not manage multi-channel communications based upon different events that customers today now want to know about in a timely manner. Modern CIS systems include customer communication preferences as part of the system with the customer data, not as an add-on requiring multiple integrations across platforms. For example, today customer outage communications stem from a trigger in the outage management system ("OMS"), which in turn prompts the system to generate an outage message to a customer based on the customer's preference of communication. However, the system is not able to produce communications for planned outages, and targeted communications need to be created manually. Considering the recent heat event

1 in June, targeted communication regarding load shedding and outage alerts where outages
2 are occurring are important and expected by customers moving forward.

3 Customers are also shifting to expect use of multiple communication channels
4 depending on the subject. For instance, customers may want outage or high usage alerts
5 through text or smart phone app notifications, while information about new rate programs
6 could be delivered via email. While not every customer is interested in leveraging new
7 technology, AEP Ohio recognizes that traditional communication approaches no longer
8 meet the needs of all customers.

9 The Company is aware that that in a digital age, more and more data is available.
10 In addition, customers do not want to be inundated with data; rather they expect service
11 providers to translate data into actionable and usable personalized information. The new
12 CIS provides the ability to process and organize data, enabling the Company to offer
13 customers better information, which will help manage the communications based on
14 customer context and how customers prefer to be contacted. The new CIS will allow
15 customers to receive notifications that promote ways to save money on their bill as well as
16 possible payment plans for their bill through bill alerts and payment information.
17 Furthermore, the system will be able to target customers with messages with outage alerts
18 that will anticipate outages. In addition, targeted alerts could be more effectively sent to
19 customers regarding outages due to scheduled maintenance in real time.

20 **Q20. HOW WILL DEMAND RESPONSE BE IMPROVED BY THE**
21 **IMPLEMENTATION OF A NEW CIS SYSTEM?**

22 A. There are three types of demand response communications affiliated with the new CIS
23 system that will benefit customers. First, there are communications that are affiliated with

1 Commercial and Industrial (“C&I”) demand response events. In the event of a curtailment,
2 customers will be able to receive a notification to opt into the event. Also, customers will
3 be able to receive day-ahead notifications to potentially reduce their energy use during peak
4 load periods.

5 Second, customers will be able to get notifications for residential demand response
6 events. Similar to the C&I notifications, customers will be able to get opt-in notifications
7 to participate in residential events (HVAC, EV, Water heater options) as well as day-ahead
8 notifications to reduce their use during peak load periods.

9 The third type of notification would be a distributed energy resource (“DER”)
10 response notification. This communication would let customers with batteries, generators,
11 or other DER technology know that they are able to send energy back to the grid.

12 **Q21. HOW WILL THE FUTURE CIS SYSTEM ADAPT TO THE CHANGING GRID,**
13 **CUSTOMER NEEDS, AND EVOLVING RISKS?**

14 A. The future CIS system will integrate with and thus adapt and maximize the full benefits of
15 the automated distribution management system (“ADMS”) and distributed energy resource
16 management systems (“DERMS”) system as described by Company witness Schafer. In
17 addition, the new CIS system is a vendor-supported system and is used by hundreds of
18 utilities around the world, across the electric, gas and water utility sectors. Because of this,
19 the Company and its customers will benefit from patches and releases made by the vendor
20 as new functionality is needed or new threats are identified. This also allows Ohio
21 customers’ third-party services providers to benefit from out-of-the-box functionality
22 vetted in other jurisdictions prior to deployment in Ohio.

Q22. WHEN WILL CUSTOMERS BEGIN TO SEE BENEFITS FROM THE COMPANY'S CIS REPLACEMENT PROGRAM?

A. A CIS replacement is a multi-year effort requiring significant planning and testing to manage risk. With that said, as already noted, the Company is using a phased approach to deliver value to customers sooner. Deliverables for the first phase include a detailed roll-out plan for future phases, as well as enabling automated billing for larger customers with complex contracts using functionality from new CIS tools. Phase one functionality is expected to be delivered as soon as the fourth quarter of 2023. The full conversion timeline is refining the overall roadmap as part of phase one and will be forthcoming. The Company's initial preplanning estimates for AEP Ohio's full conversion are approximately 12-18 months, after completion of common enablement is built for all our jurisdictions (~18 months). This also includes a 3–6-month stabilization period.

Q23. WHAT IS THE ESTIMATED COST FOR THE CIS IMPROVEMENT APPLICABLE TO AEP OHIO CUSTOMERS?

A. The estimated cost of full deployment is also part of the scope for phase-one planning. The current estimate for AEP Ohio's share of a new CIS system and market supporting tools is approximately \$183.476 million. These costs are currently a Class 5 estimate, which is being refined as part of the Company's phase one efforts, and all costs will be audited and reconciled through the audit process after filing. Since these are estimates, actual costs may vary from these estimates. A detailed breakdown of the estimated cost of deployment is in Figure SDG-2 below.

1

Figure SDG-2

Phase	Scope & Functionality	Benefits	Replaces	Deployment Dates Estimate	Capital Cost Estimate (\$000)	Capital and O&M Cost Estimate (\$000)
Phase 1	*Meter data strategy *Rate configuration strategy *Integrations strategy *Deployment strategy *DG and large power functionality	Reduced manual billing effort, reduced phase 2 and 3 deployment risk, refined cost estimate for full deployment.	Spreadsheet calculations and manual entry for DG net negative and large power	Q4 2023	\$ 18,348	\$18,630
Phase 2	* Market settlement systems planning *Meter data systems deployment *Market transactions management planning	Increased Choice market settlement functionality, reduced manual work-arounds.	Settlements functionality within Clearing House	Q4 2025 **	\$ 44,861	\$47,960
Phase 3	Full CIS roll-out	Increased speed to deploy programs, customer-centric system, resilient underlying architecture and reliability.	Full Legacy CIS system and Clearing House retired	Q4 2029 **	\$ 109,562	\$116,886
	AEP Ohio Total				\$ 172,771	\$ 183,476
	**Subject to change based upon deployment strategy planning					

2

3 **Q24. HOW DID THE COMPANY DEVELOP THE PROJECTED CAPITAL AND O&M** 4 **EXPENSES?**

5 A. The cost estimates were developed by evaluating existing functionality and capabilities
6 for AEP's operating environment and identifying required integrations with edge systems
7 that interface with CIS. Taking those capability and integration requirements and applying
8 average expected resource needs to convert customers to the new systems and integrate
9 with AEP systems, and based upon prior experiences with similar sized utilities, AEP was
10 able to derive an estimate. In order to develop an estimated designation of the total
11 estimated costs between capital expenditures and O&M costs, the Company evaluated
12 various potential contractual structures that may be used to acquire the vendor supported
13 CIS system in context of the relevant generally accepted accounting principles in the
14 United States ("U.S. GAAP"), as well the Company's accounting policies for their

1 application. The Company's estimate is predicated on the assumption of switching to a
2 cloud-based system that will be eligible for capital treatment. As shown in Exhibit SDG-1,
3 AEP Ohio was allocated approximately 28% of the total investment and cost based on their
4 customer count as compared to the total AEP system (i.e. the number of AEP Ohio
5 customers represent approximately 28% of the total AEP system customer count).

6 **Q25. IS THE COMPANY PLANNING ON A LARGER DEPLOYMENT OF THE CIS**
7 **SYSTEM BEYOND AEP OHIO?**

8 A. Yes, the CIS deployment is an enterprise-wide deployment in all the Company's
9 jurisdictions. Only AEP Ohio costs are reflected in this testimony.

10 **Q26. IS THE COMPANY PROPOSING TO RECOVER ANY OF THE COST OF THE**
11 **CIS REPLACEMENT IN THESE PROCEEDINGS?**

12 A. As discussed by Company witness Heitkamp, and as proposed in these proceedings, actual
13 capital expenditures would be recovered through a new Customer Experience Rider
14 ("CER") which will recover AEP Ohio's portion of the CIS investments as they become
15 used and useful. The Company is also proposing that incremental O&M costs related to
16 the CIS deployment be recoverable under its proposed CER as this is a system upgrade to
17 enhance the customer experience and support an evolving grid. Finally, as described further
18 by Company witness Yoder, the Company is also requesting deferral authority of costs
19 incurred related to CIS deployment prior to the start of the ESP V period.

20 **Q27. WHY IS THE COMPANY PROPOSING O&M COSTS BE RECOVERED**
21 **THROUGH THIS RIDER?**

22 A. Technology supporting modern CIS deployments continues to evolve at a rapid pace.
23 Historically, almost all CIS implementations have been on premises software products,

1 meaning they were maintained on servers or mainframes at a central data center owned by
2 the utility. Today, more and more software products are moving to technology platforms
3 maintained and supported by software-as-a-service (“SAAS”) offerings, often referred to
4 as “Cloud Computing Arrangements.” As the technology continues to evolve, the most
5 prudent and reliable way to implement and support the system, as well as accelerate new
6 functionality for customers, may also evolve, resulting in changes from capital to O&M.

7 **Q28. WHAT ARE THE BENEFITS OF A RIDER FOR CIS REPLACEMENT?**

8 A. Establishing a rider as a recovery mechanism for the replacement of the Company’s CIS
9 system and market facing systems provides transparency into the Company’s spend. A
10 rider will be designed to recover the incremental capital investments and O&M costs
11 related to the new CIS system not otherwise included in base rates. In addition, it will
12 ensure that the Company provides periodic reports to the Commission that quantify
13 improvements expected, ensure no double recovery, and provide insight to concurrent
14 recovery of capital assets going into production. Although a primary objective of a rider
15 is to enable the Company to improve or maintain service to customers, a rider also provides
16 the Company with a timely cost recovery mechanism for prudently incurred customer
17 service investments. The rider approach also avoids a more significant or lumpy rate
18 increase if the Company recovered the entire cost through a traditional base rate case.

19 **V. ADDITIONAL LEVEL OF SERVICE BENEFITS**

20 **Q29. BEYOND YOUR TESTIMONY RELATED TO CIS, ARE THERE OTHER PARTS**
21 **OF THE ESP V THAT ARE BENEFICIAL TO THE LEVEL OF SERVICE AEP**
22 **OHIO PROVIDES TO CUSTOMERS?**

1 A. Yes. Based upon lessons learned during the pandemic and also due to the evolving labor
2 market, AEP is expanding on a pilot basis the geographic region from which it hires
3 Customer Solutions Agents (“CSA”), also known as call center agents. CSA’s now have
4 the option to work fully remote from their homes. However, AEP has traditionally required
5 candidates reside within 60 miles of one of our Customer Operations Centers to ensure
6 they are able to work at an AEP facility if there is a disruption to their internet or power at
7 home. Pursuant to testimony provided by Company witness Osterholt, if the proposed fiber
8 optic cable projects are built, AEP Ohio is committed to being part of the expanded digital
9 economy in the nine counties that will be served by the projects and will pilot hiring
10 qualified candidates outside the traditional 60-mile radius, but still within driving distance
11 to AEP Ohio’s Athens Distribution Service Center in case of disruption of internet or power
12 at home.

13 **Q30. WHAT BROADBAND TECHNICAL REQUIREMENTS DO CSA’S NEED TO**
14 **HAVE IN THEIR HOME TO WORK REMOTELY?**

15 A. Due to the amount of information that is needed for CSA’s to respond to customer needs,
16 both CIS system access and voice over digital, the bandwidth requirements are 25 megabits
17 per second (“Mbps”) download and 3 Mbps upload. The infrastructure needs of CSA’s to
18 work remotely is a great example of how the expansion of broadband enables economic
19 growth. Without it, some of the Company’s CSA’s cannot do their job remotely, which
20 limits the talent pool from which AEP Ohio can attract and maintain CSA’s.

21 **Q31. HOW WOULD AEP OHIO AND ITS CUSTOMERS BENEFIT FROM THE**
22 **PILOT?**

1 A. It is important that the Company provides the highest quality of service to customers. To
2 achieve this goal, it is necessary to add and retain talent in CSA positions. Higher employee
3 retention leads to lower overall customer costs due to lower training costs. In addition,
4 experienced CSA's can provide better service and shorter average handle time which leads
5 to improved average speed of answer. Finally, a more balanced approach to a distributed
6 workforce has been proven to increase our resiliency in customer support and allowed us
7 to maintain levels of customer service through the pandemic.

8 **Q32. WHAT IS THE STARTING HOURLY WAGE FOR A CSA?**

9 A. At the time of filing, the starting rate for CSA's is \$16.25 per hour. Given changes in labor
10 market the Company performs evaluations on a periodic basis to assure wages are both
11 competitive and prudent. To that point, the starting rate may change as the market changes.

12 **Q33. DO YOU THINK CSA POSITIONS WILL BE DESIRABLE JOB OPTIONS IN**
13 **THE COMPANY'S SERVICE TERRITORY?**

14 A. Yes. The Company's CSA's based out of our Hurricane, West Virginia customer
15 operations center are recruited from rural West Virginia and southern Ohio counties with
16 many of the same economic conditions as the proposed project's footprint, and the
17 Company's employee retention at Hurricane, WV is one of the highest among all six
18 customer operation centers. AEP Ohio expects similar employee retention rates for this
19 pilot.

20 **Q34. WITHOUT THE BROADBAND PROJECTS SUPPORTED BY COMPANY**
21 **WITNESS OSTERHOLT, WOULD AEP OHIO CONSIDER EXPANDING ITS**
22 **CSA HIRING BEYOND 60 MILES OF ONE OF ITS CUSTOMER OPERATIONS**
23 **CENTERS?**

1 A. No. Without the proposed projects, the Company does not expect enough households
2 would have broadband availability to provide a sufficient qualified candidate pool to draw
3 from. Therefore, the Company would not currently consider offering the CSA pilot in that
4 region.

5 **VI. RECOMMENDATION**

6 **Q35. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION?**

7 A. Due to the complexity of changes to legacy systems demonstrated above, and the age of
8 AEP's legacy systems in this space, I recommend following the Company's phased
9 approach to replace CIS and market facing systems, which manages risk and balances value
10 to customers and the market through enhanced functionality. Finally, I recommend the
11 rider mechanism and requested deferral authority supported by Company witness
12 Heitkamp and Yoder be approved.

13 **Q36. DOES THIS CONCLUDE YOUR TESTIMONY?**

14 A. Yes.

Phase	Scope & Functionality	Benefits	Replaces	Deployment Dates Estimate	Capital Cost Estimate (\$000)	Capital and O&M Cost Estimate (\$000)
Phase 1	*Meter data strategy *Rate configuration strategy *Integrations strategy *Deployment strategy *DG and large power functionality	Reduced manual billing effort, reduced phase 2 and 3 deployment risk, refined cost estimate for full deployment.	Spreadsheet calculations and manual entry for DG net negative and large power	Q4 2023	\$ 18,348	\$18,630
Phase 2	* Market settlement systems planning *Meter data systems deployment *Market transactions management planning	Increased Choice market settlement functionality, reduced manual work-arounds.	Settlements functionality within Clearing House	Q4 2025 **	\$ 44,861	\$47,960
Phase 3	Full CIS roll-out	Increased speed to deploy programs, customer-centric system, resilient underlying architecture and reliability.	Full Legacy CIS system and Clearing House retired	Q4 2029 **	\$ 109,562	\$116,886
AEP Ohio Total					\$ 172,771	\$ 183,476

**Subject to change based upon deployment strategy planning

American Electric Power
Customer Information System (CIS) Replacement Capital and O&M (Total Cost)

Line No.	Phase	Description	FERC Account	2020 Year 1	2021 Year 1	2022 Year 2	2023 Year 3	2024 Year 4	2025 Year 5	2026 Year 6	2027 Year 7	2028 Year 8	2029 Year 9
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)
Summary of CIS Capital Costs													
1	Phase 1	Rate Strategy & Rationalization	1070	\$ -	\$ 14,730	\$ 116,206	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Phase 1	Special Billing	1070	\$ -	\$ 25,746	\$ 1,110,407	\$ 1,564,897	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Phase 1	Meter Assessment Strategy	1070	\$ 47,513	\$ 53,476	\$ 258,919	\$ 104,218	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Phase 1	Data Conversion	1070	\$ -	\$ 9,465	\$ 630,316	\$ 484,364	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Phase 1	Data Governance Strategy	1070	\$ -	\$ 26,698	\$ 66,154	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Phase 1	Data Governance Execution	1070	\$ -	\$ -	\$ 162,420	\$ 52,882	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Phase 1	Reporting - Analytics	1070	\$ -	\$ -	\$ 148,096	\$ 45,302	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Phase 1	Min Viable Product (MVP)	1070	\$ 436,902	\$ 77,154	\$ 1,319,453	\$ 350,233	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Phase 1	Integration Strategy	1070	\$ -	\$ 2,091	\$ 162,723	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Phase 1	Environment Strategy	1070	\$ -	\$ 40,553	\$ 128,226	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Phase 1	Environment Implementation	1070	\$ -	\$ 56,410	\$ 201,392	\$ 409,882	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Phase 1	PMO & OCM	1070	\$ 28,689	\$ 832,021	\$ 1,838,821	\$ 6,159,808	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Phase 1	Smart Grid Gateway	1070	\$ 4,868	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Phase 1	Allocations/AFUDC	1070	\$ 151,099	\$ 220,483	\$ 457,900	\$ 547,784	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Phase 1 Subtotal:		\$ 669,072	\$ 1,358,828	\$ 6,601,033	\$ 9,719,370	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Phase 2	Smart Grid Gateway	1070	\$ -	\$ -	\$ -	\$ -	\$ 1,408,500	\$ -	\$ -	\$ -	\$ -	\$ -
16	Phase 2	Meter Enhancements	1070	\$ -	\$ -	\$ -	\$ -	\$ 12,676,500	\$ -	\$ -	\$ -	\$ -	\$ -
17	Phase 2	Common Deployment	1070	\$ -	\$ -	\$ -	\$ -	\$ 4,225,500	\$ 18,310,500	\$ -	\$ -	\$ -	\$ -
18	Phase 2	Allocations/AFUDC	1070	\$ -	\$ -	\$ -	\$ -	\$ 4,119,863	\$ 4,119,863	\$ -	\$ -	\$ -	\$ -
		Phase 2 Subtotal:		\$ -	\$ -	\$ -	\$ -	\$ 22,430,363	\$ 22,430,363	\$ -	\$ -	\$ -	\$ -
19	Phase 3	CIS Replacement	1070	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,955,395	\$ 21,955,395	\$ 21,955,395	\$ 21,955,395
20	Phase 3	Allocations/AFUDC	1070	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,435,049	\$ 5,435,049	\$ 5,435,049	\$ 5,435,049
		Phase 3 Subtotal:		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27,390,444	\$ 27,390,444	\$ 27,390,444	\$ 27,390,444
		Grand Total		\$ 669,072	\$ 1,358,828	\$ 6,601,033	\$ 9,719,370	\$ 22,430,363	\$ 22,430,363	\$ 27,390,444	\$ 27,390,444	\$ 27,390,444	\$ 27,390,444
Summary of CIS O&M Costs													
1	Phase 1	Phase 1 O&M	9230	\$ -	\$ -	\$ -	\$ 281,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Phase 2	Phase 2 O&M	9230	\$ -	\$ -	\$ -	\$ -	\$ 1,549,350	\$ 1,549,350	\$ -	\$ -	\$ -	\$ -
3	Phase 3	Phase 3 O&M	9230	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,831,050	\$ 1,831,050	\$ 1,831,050	\$ 1,831,050
		Grand Total		\$ -	\$ -	\$ -	\$ 281,700	\$ 1,549,350	\$ 1,549,350	\$ 1,831,050	\$ 1,831,050	\$ 1,831,050	\$ 1,831,050

Please Note:

- 1) Ohio Allocation of 28.17% based on Customer Count (excludes Kentucky)
- 2) Applied 17% Allocation/AFUDC rate for Phase 2 and 3 based on average actuals in Phase 1
- 3) Includes Phase 1 Project IDs ITCUS1722, ITCUS1723, ITCUS1724, ITCUS1725
- 4) Net Metering project was moved to CAT organization

In accordance with Rule 4901-1-05, Ohio Administrative Code, the PUCO's e-filing system will electronically serve notice of the filing of this document upon the following parties. In addition, I hereby certify that a service copy of the foregoing Ohio Power Company's Direct Testimony of Stacey D. Gabbard was sent by, or on behalf of, the undersigned counsel to the following parties of record this 6th day of January 2023, via electronic transmission.

/s/ Steven T. Nourse

Steven T. Nourse

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Case No(s). 23-0023-EL-SSO, 23-0024-EL-AAM

Summary: Testimony DIRECT TESTIMONY OF STACEY GABBARD ON BEHALF
OF OHIO POWER COMPANY electronically filed by Mr. Steven T. Nourse on
behalf of Ohio Power Company