

AEP OHIO EX. NO. _____

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of)	
Ohio Power Company for Authority to)	Case No. 16-1852-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. 16-1853-EL-AAM
Certain Accounting Authority)	

DIRECT TESTIMONY OF
WILLIAM A. ALLEN
IN SUPPORT OF THE
JOINT STIPULATION AND RECOMMENDATION

Filed: September 13, 2017

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WILLIAM A. ALLEN

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BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO
DIRECT TESTIMONY OF
WILLIAM A. ALLEN
ON BEHALF OF
OHIO POWER COMPANY

1 **PERSONAL DATA**

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

3 A. My name is William A. Allen, and my business address is 1 Riverside Plaza, Columbus, Ohio
4 43215.

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

6 A. I am employed by the American Electric Power Service Corporation (AEPSC) as Managing
7 Director of Regulatory Case Management. AEPSC supplies engineering, financing,
8 accounting, and planning and advisory services to the electric operating companies of the
9 American Electric Power System, one of which is Ohio Power Company ("Company" or
10 "AEP Ohio").

11 **Q. WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
12 **BACKGROUND?**

13 A. Yes. I received a Bachelor of Science in Nuclear Engineering from the University of
14 Cincinnati in 1996 and a Master of Business Administration from The Ohio State University
15 in 2004.

16 I was employed by AEPSC beginning in 1992 as a Co-op Engineer in the Nuclear
17 Fuels, Safety and Analysis department and upon completing my degree in 1996 was hired on
18 a permanent basis in the Nuclear Fuel section of the same department. In January 1997, the
19 Nuclear Fuel section became a part of Indiana Michigan Power Company due to a corporate

1 restructuring. In 1999, I transferred to the Business Planning section of the Nuclear
2 Generation Group as a Financial Analyst. In 2000, I transferred back to AEPSC into the
3 Regulatory Pricing and Analysis section as a Regulatory Consultant. In 2003, I transferred
4 into the Corporate Financial Forecasting department as a Senior Financial Analyst. In 2007,
5 I was promoted to the position of Director of Operating Company Forecasts. In that role, I
6 was primarily responsible for the supervision of the financial forecasting and analysis of the
7 AEP System's operating companies, including AEP Ohio. In 2010, I transferred to the
8 Regulatory Services Department as Director of Regulatory Case Management. I was named
9 to my current position in January 2013.

10 **Q. WHAT ARE YOUR RESPONSIBILITIES AS MANAGING DIRECTOR OF**
11 **REGULATORY CASE MANAGEMENT?**

12 A. I am primarily responsible for the supervision, oversight, and preparation of major filings
13 with state utility commissions.

14 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN ANY REGULATORY**
15 **PROCEEDINGS?**

16 A. Yes. I have previously testified before the Public Utilities Commission of Ohio
17 ("Commission") on behalf of AEP Ohio. I have also submitted testimony or testified before
18 the Michigan Public Service Commission, the Indiana Utility Regulatory Commission, the
19 Kentucky Public Service Commission, the West Virginia Public Service Commission and the
20 Virginia State Corporation Commission on behalf of various other electric operating
21 companies of the American Electric Power System.

1 **PURPOSE OF TESTIMONY**

2 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3 A. The purpose of my testimony is to sponsor, summarize and support the Joint Stipulation and
4 Recommendation filed on August 25, 2017 (“Stipulation”) for the Commission’s
5 consideration. My testimony discusses the criteria that the Commission uses when
6 considering the adoption of settlement agreements and explains how the Stipulation in these
7 proceedings meets those criteria. Specifically, my testimony supports the conclusion that the
8 Stipulation:

9 (1) is the product of serious bargaining among capable, knowledgeable parties;

10 (2) as a package, benefits ratepayers and the public interest; and

11 (3) does not violate any important regulatory principle or practice.

12 **SUMMARY OF THE STIPULATION AND RECOMMENDATION**

13 **Q. DID YOU PARTICIPATE IN THE NEGOTIATIONS WHICH LED TO THE**
14 **STIPULATION BEING SUBMITTED FOR CONSIDERATION AND APPROVAL**
15 **BY THIS COMMISSION?**

16 A. Yes. I attended the settlement meetings held at the offices of the Commission, as well as
17 several meetings with individual parties in this case, that led to the Stipulation. The
18 Stipulation is attached as Exhibit WAA-S1 to this testimony.

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

20 A. The Signatory Parties, who represent a variety of diverse interests, include AEP Ohio; the
21 Staff of the Commission (Staff); low income customer advocates – Ohio Partners for
22 Affordable Energy; industrial and commercial advocates – the Ohio Energy Group (OEG),
23 Industrial Energy Users- Ohio (IEU) and the Ohio Manufacturers’ Association Energy Group

(OMAEG); commercial customers – the Ohio Hospital Association (OHA); competitive retail electric suppliers – Interstate Gas Supply, Inc. (IGS) and Constellation New Energy (Constellation), as well as the Retail Energy Supply Association (RESA) – a non-profit organization representing Ohio competitive retail suppliers; environmental advocates – the Sierra Club, Ohio Environmental Council and Environmental Defense Fund (OEC/EDF), Natural Resources Defense Council (NRDC), Environmental Law and Policy Center (ELPC); and trade associations – Mid-Atlantic Renewable Energy Coalition (MAREC) and the Electric Vehicle Charging Association (EVCA). Walmart Stores East, L.P. and Sam’s East, Inc. (“Walmart”), The Kroger Co. (“Kroger”), and Commerce Energy, Inc. (“Commerce”), signed the Stipulation as non-opposing parties.

Q. PLEASE PROVIDE AN OVERVIEW OF THE STIPULATION.

A. The provisions of the Stipulation, attached as Exhibit WAA-S1, fully and finally resolve all issues pending before this Commission related to the Company’s application for an Amended ESP. The Stipulation is divided into four primary sections:

I) Introduction;

II) Recitals;

III) Joint Recommendations of Signatory Parties; and

IV) Procedural Matters.

My testimony sponsors the Stipulation as a whole but will focus on summarizing the Joint Recommendations of Signatory Parties. The summary of and references to the Stipulation in my testimony are for convenience in the context of addressing the three-part test and do not modify the terms and conditions of the Stipulation; any conflict between the two is resolved by the terms and conditions as stated in the Stipulation.

1 **Q. PLEASE DISCUSS THE TERMS OF THE STIPULATION AS RELATED TO THE**
2 **“EXTENDED ESP” (SECTION III.A at 3).**

3 A. This section of the Stipulation recommends that the term of the current ESP be extended
4 through May 31, 2024, and that the Commission approve all necessary and appropriate
5 accounting authority to implement the riders and rate mechanisms being recommended
6 through this Stipulation.

7 **Q. PLEASE ADDRESS THE “CUSTOMER CHARGE” PROVISION OF THE**
8 **STIPULATION (SECTION III.B at 4).**

9 A. In this section of the Stipulation, the Company agrees to maintain the current residential rate
10 design until the next distribution rate case, at which time the Company can present evidence
11 supporting what it believes to be an appropriate customer charge and other rate design
12 proposals – all of which the other parties have the right to support or oppose.

13 **Q. PLEASE ADDRESS THE “DISTRIBUTION INVESTMENT RIDER (DIR) AND AIR**
14 **CASE COMMITMENT” PROVISION OF THE STIPULATION (SECTION III.C at**
15 **4-6).**

16 A. In this section of the Stipulation, the Company commits to file a base distribution case by
17 June 1, 2020.

18 In addition, this section specifically addresses the DIR, recommending:

- 19 1. The DIR will continue through the extended ESP III term, with the annual authorized
20 DIR revenue caps as follows:

Year	2018	2019	2020	2021
Amount	\$215M	\$240M	\$265M	\$290M

1 This section also provides limits on the amount of DIR revenue caps that can be carried
2 over from year to year.

- 3 2. The residential distribution credit rider will be continued without change until new rates
4 are effective as a result of the AIR rate case order (approximately \$14.6M annually).

5 The \$1 million annual funding of the Neighbor-to-Neighbor program will also continue
6 for the same period.

- 7 3. Effective January 1, 2018, the Company will update its depreciation rates to those rates
8 indicated in Attachment A to the Stipulation and will amortize the theoretical reserve
9 imbalance of approximately \$240 million consistent with the same attachment. Neither
10 of these changes will result in a change to current base distribution rates.

- 11 4. The ROE of 10.0% will prospectively be used for all riders that have a capital component
12 until new rates are effective under the next AIR rate case order. If AEP Ohio completes a
13 new long-term debt financing or refinancing prior to the next base rate case, the
14 Company agrees to update its WACC rate within 90 days of closing for such transaction
15 (to the extent such an update would be favorable to ratepayers). Subject to such update,
16 the pre-tax weighted costs of capital will be 10.82%, as reflected in Attachment B of the
17 Stipulation.

18 **Q. PLEASE ADDRESS THE “RENEWABLE GENERATION RIDER (RGR)”**
19 **PROVISION OF THE STIPULATION (SECTION III.E at 7-9).**

- 20 A. In this provision, the Signatory Parties agree to separate recovery for costs associated with
21 the renewable generation from the net costs associated with OVEC by creating the
22 nonbypassable RGR Rider. This will be a placeholder rider with an initial level set to zero.
23 The Company will present individual renewable projects to the Commission for approval

1 through RDR filings. The Company can either own or operate the renewable projects being
2 proposed, however, Company-owned projects will not serve load and are not eligible for the
3 separate reasonable arrangement filing discussed below.

4 **Q. IS THERE AN ADDITIONAL OPTION FOR THE COMPANY TO SUPPORT THE**
5 **DEVELOPMENT OF RENEWABLE PROJECTS?**

6 A. Yes. The Company may present a renewable project owned by an AEP affiliate or other non-
7 affiliate entity and operated by AEP Ohio. The Company may propose that some or all of the
8 project's output be purchased through a bilateral contract with a retail customer conditioned
9 upon approval by the Commission as a reasonable arrangement under R.C. 4905.31. The
10 resulting revenues from the reasonable arrangement(s) will be credited against the cost for
11 recovery in lieu of revenues that would have applied had the output been liquidated into the
12 wholesale market under the RGR.

13 **Q. PLEASE ADDRESS THE "OVEC RIDER" PROVISION OF THE STIPULATION**
14 **(SECTION III.E at 9-10).**

15 A. The Company will retain the *status quo* recovery of OVEC costs through the non-bypassable
16 PPA Rider through the Extended ESP III term, absent legislation that provides an alternative
17 recovery opportunity, including all requirements listed in the Commission's Orders in Case
18 No. 14-1693-EL-RDR et al. AEP Ohio will continue reasonable efforts to explore divestiture
19 of the OVEC contractual entitlement and report by June 30 annually. If AEP Ohio is able to
20 divest the OVEC contractual entitlement, the PPA Rider will terminate upon final
21 reconciliation of pre-transfer cost recovery.

22 **Q. PLEASE ADDRESS THE "SMART CITY RIDER AND POWERFORWARD RIDER"**
23 **PROVISION OF THE STIPULATION (SECTION III.F at 10-11).**

A. The Company’s proposed Distribution Technology Rider (DTR) is withdrawn. A new Smart City Rider (SCR) will be established to collect funds for projects specifically authorized under this Stipulation, including micro grids and electric vehicle charging stations. The investments made as part of this program and the data collected will help to support the Smart Columbus initiative as well as provide valuable insights into how these technologies can be deployed in the future. The total cost of programs supported by the Smart City Rider will be capped at a total of \$21.1 million as detailed in the table below.

Cost Component	Capped Cost of Programs
Micro Grids	\$10.5M
Charging Station Rebates	
Level 2	\$3.7M
DC Fast Charges	\$5.8M
Admin Fee – 5%	\$0.5M
Research and Development	\$0.2M
Data Collection and Reporting	\$0.4M
Total Cap	\$21.1M

A PowerForward Rider will be in place for the extended ESP term, with the initial value being zero. The PowerForward Rider will be eligible for activation and implementation based on findings and/or directives made by the Commission in the PowerForward initiative.

Q. PLEASE ADDRESS THE “MICRO GRID TECHNOLOGY DEMONSTRATION” PROVISION OF THE STIPULATION (SECTION III.G at 12-14).

A. The Stipulation allows for the establishment of one or more demonstration micro grid projects with a completed cost of no more than \$10.5 million to be recovered through the Smart City Rider. These costs include AEP Ohio’s incremental O&M expenses associated with the micro grid equipment, costs for software and control systems needed to efficiently operate the micro grids that are not recoverable through the DIR, and a rebate program to partially cover the

costs for public-serving, non-profit customer-owned renewable generation resources that integrally support a micro grid. The demonstration micro grids will target non-profit, public-serving AEP Ohio customers such as fire and police stations, municipal facilities, medical facilities, social service agencies, emergency shelters, and water and sewer infrastructure facilities. As part of this demonstration, AEP Ohio may pursue development of a microgrid with additional AEP Ohio customers (that are not public-serving or non-profit) but the costs eligible for recovery for this microgrid will be limited to EDU investments on the distribution system and costs incurred on the Company's side of the meter.

Q. WHAT IS A MICROGRID?

A. A microgrid is a small-scale power grid that can operate independently (called "islanding") or in conjunction with an area's main electrical grid. The critical components of a microgrid are a battery storage system and smart controls that can island the microgrid and keep power flowing within the microgrid using energy stored in the batteries. Microgrids sometimes also include small-scale generation such as solar arrays, wind turbines, or small gas-fired generators that can supplement the energy and capacity provided by battery storage systems during islanding.

During normal conditions, a microgrid is interconnected to the electric distribution system and operates as a part of that system. During normal conditions, critical facilities on a microgrid will be served by a mix of energy from the distribution grid and energy from the batteries or small-scale generation installed as part of the microgrid. The microgrid may also backfeed energy over the grid.

When there is an outage on the distribution grid, however, the microgrid's smart controls will island the microgrid from the wider distribution system. When islanding, the

1 microgrid's smart controls will use the microgrid's batteries and small-scale generation to
2 keep electricity flowing to critical facilities within the microgrid. When service is restored to
3 the grid, the microgrid will revert back to the standard interconnection with the distribution
4 system.

5 **Q. PLEASE ADDRESS THE "ELECTRIC VEHICLE STATIONS" PROVISION OF**
6 **THE STIPULATION (SECTION III.H at 14-20).**

7 A. In this provision, the Signatory Parties agree to promote the electric vehicle (EV) charging
8 market development on a competitively neutral basis through a technology demonstration
9 program. Costs of up to \$10 million will be recovered through the Smart City Rider. The
10 program includes the following components:

- 11 1. Rebate Program – The Company will create and operate a rebate incentive program
12 for the hardware, network services, and installation of charging infrastructure for up
13 to 300 level 2 charging stations and 75 DC Fast (DCF) charging stations. AEP Ohio
14 will not own or receive a return on the charging stations addressed by this program.
15 AEP Ohio is eligible to collect a 5% administration fee for administering the rebate
16 program, to be applied to the total cost of the rebates paid out by AEP Ohio to non-
17 affiliated retail customers. At least 10% of the 300 level 2 charging stations
18 (approximately 30 charging stations) and at least 10% of the 75 DCF charging stations
19 (approximately 8 charging stations) will be set aside for low-income geographic areas.
- 20 2. AEP Ohio Access to Data/Co-Branding – The site host and/or charging station
21 provider will have flexibility to set pricing to EV drivers, for the purpose of this pilot,
22 subject to applicable Commission authority and without precedent for future cases.
23 The Company will access or receive data from charging stations installed though the

1 Rebate Program, including but not limited to: usage, data regarding grid reliability,
2 load growth, the potential for demand response load profiles, prices paid by EV
3 drivers and site host pricing models/strategies, equipment provider selected,
4 installation costs by equipment provider, and outage incidents by equipment provider;
5 this data will be shared annually with Signatory Parties.

6 **Q. PLEASE ADDRESS THE “IRP TARIFF” PROVISION OF THE STIPULATION**
7 **(SECTION III.I at 20-26).**

8 A. This provision of the Stipulation addresses the IRP Service and General Terms and
9 Conditions of the Tariff. Participation in AEP Ohio’s IRP program will be expanded from
10 200 MW to 480 MW of interruptible load and will be divided into three categories of IRP
11 service: a) Legacy Customers IRP for the two existing IRP-D participants; b) Expanded IRP
12 for existing AEP Ohio customers who are not currently participating in the IRP program; and
13 c) New Industry IRP for customers that are new to the AEP Ohio service area. Beginning
14 June 1, 2018, the Legacy Customers IRP credit will increase from \$8.21/kW-month to \$9/kW-
15 month. The Expanded IRP will include an additional amount of up to 160 MW of
16 interruptible capacity to be made available as outlined in the Stipulation. The Expanded IRP
17 Credit shall be calculated by multiplying the quantity of the monthly interruptible capacity
18 times the RPM BRA market clearing price for the AEP Zone in the applicable PJM Delivery
19 Year times 0.7. Total AEP Ohio retail payment for the Expanded IRP shall be capped at
20 \$28.5 million in the aggregate. And finally, for the New Industry IRP category, the Company
21 will offer up to 120 MW for new industrial operations. The credit for the New Industry IRP
22 will be calculated in the same manner as for the Expanded IRP. The New Industry IRP

1 program shall be capped at a total expenditure by AEP Ohio of \$22.2 Million in credits
2 paid in the aggregate to New Industry IRP program participants.

3 **Q. PLEASE ADDRESS THE “OTHER RIDERS, TARIFFS AND RATE**
4 **MECHANISMS” SECTION OF THE STIPULATION (SECTION III.J at 26-34).**

5 A. This section of the Stipulation covers a wider variety of riders, tariffs, and other rate
6 mechanisms. The Company withdraws its request for the Sub-metering Rider and the LED
7 Tariff. Riders and Tariffs that will continue or be adopted through the term of the ESP as
8 proposed in the Company’s Amended Application and testimony include the GEN-E and
9 GEN-C Riders, the gridSMART Phase 2 Rider, the Alternative Energy Rider, the Fairgrounds
10 Accounts Transmission Tariff, the Optional Demand Metered Residential Tariff, and the
11 Automaker Credit Rider Tariff.

12 **Q. ARE THERE OTHER RIDERS OR TARIFFS PROPOSED IN THE STIPULATION**
13 **THAT VARY FROM WHAT THE COMPANY PROPOSED IN ITS AMENDED**
14 **APPLICATION?**

15 A. Yes. The Signatory Parties agree to modify the following Riders or Tariffs, from what the
16 Company proposed in its Amended Application testimony.

- 17 1. The PEV Tariff will be placeholder rider that may be populated pursuant to findings of the
18 PowerForward or Smart City Rider information.
- 19 2. The Auction Cost Reconciliation Rider (ACRR) will continue through the extended term
20 of the ESP without modification. The Company may seek recovery of payments to
21 customers with cogeneration facilities related to the COGEN schedule through a separate
22 proceeding and such costs, if approved in that separate proceeding, could be recovered
23 through the ACRR.

- 1 3. The Competition Incentive Rider (CIR) and the SSO Credit Rider (SSOCR) will be in place
2 until the next distribution base case. The bypassable CIR will be \$1.05/MWh and the non-
3 bypassable SSCOR is estimated to be \$0.48/MWh.
- 4 4. The Pilot Throughput Balancing Adjustment Rider (PTBAR) will be adjusted, if necessary,
5 to account for customer participation in demand metered residential tariff. The Company
6 may propose continuation of the PTBAR as part of the next base distribution case.
- 7 5. The Energy Efficiency/Peak Demand Reduction (EE/PDR) Rider and Economic
8 Development Rider (EDR) will continue through the term of the extended ESP with the
9 provision that 50% of normal EE/PDR costs for transmission and sub-transmission
10 customers will be transferred to EDR rider and 50% of IRP credits will be transferred to
11 the EDR. In addition, AEP Ohio will support the concept of a pilot battery storage/demand
12 side management program with Kroger and Walmart. Kroger and Walmart will apply for
13 the funding under the existing approved EE/PDR plan.
- 14 6. The Storm Damage Recovery Mechanism and Rider will remain in effect through the
15 Extended ESP term. AEP Ohio will increase the baseline by \$120,000, which will be reset
16 as part of the next distribution base rate case.
- 17 7. For the Enhanced Service Reliability Rider (ESRR), AEP Ohio will maintain its current 4
18 year trimming cycle. The ESRR will sunset December 31, 2020 and be set to zero if no
19 rate case is filed by June 1, 2020.
- 20 8. The Basic Transmission Cost Rider (BTCR) will continue through the extended term of
21 the ESP, subject to the terms outlined in the Stipulation, including the BTCR Pilot.
- 22 9. The PUCO and OCC assessment fees will be removed from the GEN-E, GEN-C and
23 ACRR.

1 **Q. PLEASE DESCRIBE THE BTCR PILOT PROGRAM.**

2 A. The BTCR Pilot Program will adopt a billing mechanism using the participating customers'
3 coincident peak (1 CP) as established through PJM. Participating customers are required to
4 provide preliminary participation requests by December 1st each year. Participating
5 customers' transmission rates will change on January 1st each year based on their new 1CP
6 as applied to the then-current rate. The Company will file its BTCR filing on January 15th
7 each year, with rates effective 75 days after the filing unless otherwise ordered by the
8 Commission. Pilot customers' rates will then change again on April first each year based on
9 the updated transmission rates.

10 The Stipulation limits participation in the Pilot BTCR to 34 customers to be signed up
11 by the sponsoring parties as follows: 10 for OMAEG members, 10 for OEG members, 9 for
12 IEU – Ohio members, 3 for Direct Energy public school customers, and 2 for IGS customers.
13 The total load under the BTCR will also be limited to up to 400MW in 2018, and to up to 500
14 MW in 2019 and 2020 for the participation described above. If the load of the participating
15 34 customers exceeds the limits, there will be a reallocation of the 1CP so that the total
16 estimated savings under the BTCR Pilot for that year is equal to what would have occurred if
17 the subscription met the limit.

18 An additional 20MW of load will be available for schools and will not be limited in
19 the number of participants. However, the same reallocation as stated above will apply to the
20 school load for any subscription over 20MW.

21 The BTCR Pilot will continue in operation until the effective date of the new rates in
22 the Company's base distribution case.

1 **Q. DOES THE STIPULATION ADOPT REVISED AUCTION BIDDING RULES AND**
2 **REVISIONS TO THE MASTER SUPPLY AGREEMENT?**

3 A. Yes. The revised Auction Bidding Rules reflected in Exhibit DBW-5 of AEP Ohio witness
4 Weiss's testimony will be adopted.

5 The revised Master Standard Service Offer Supply Agreement reflected in Exhibit
6 DBW-4 of AEP Ohio witness Weiss's testimony will be adopted with some minor exceptions
7 that are noted in the Stipulation, Section III.M at 35.

8 **Q. DOES THE STIPULATION ADDRESS CRES SUPPLIER TERMS AND**
9 **CONDITIONS AND RELATED AGREEMENTS?**

10 A. The Stipulation recommends approval of the updated CRES-EDU agreement, as reflected in
11 Exhibit SDG-1 and modified in Attachment E of the Stipulation; the EDI agreement reflected
12 in Exhibit SDG-2; and the Supplier Tariff, as reflected in Exhibit SDG-3 and as modified by
13 the changes reflected in Attachment F of the Stipulation.

14 **Q. DOES THE STIPULATION MODIFY THE TERMS AND CONDITIONS OF THE**
15 **COMPANY'S SUPPLIER CONSOLIDATED BILLING PILOT, AS UPDATED IN**
16 **THE DECEMBER 21, 2016 GLOBAL SETTLEMENT IN CASE NOS. 10-2929-EL-**
17 **UNC ET AL.?**

18 A. The terms and conditions from the Global Settlement will remain in effect along with the
19 modifications as outlined in the Stipulation, Section III.O at 35. These modifications include
20 the following: the number of CRES participants will be expanded from three to five;
21 participant customers will be expanded to a maximum of 80,000; expenditures for the Pilot

1 will be capped at \$2 million of which \$1 million will be funded by the CRES Participants; a
2 collection fee or discount rate, as applicable, for the Company's receivables of 0.66% will be
3 applied; and the cost associated with the collection fee and the discount rate will be recovered
4 through the SSOCR

5 **Q. PLEASE ADDRESS THE "ENROLL FROM MY WALLET ALTERNATIVES"**
6 **SECTION OF THE STIPULATION (SECTION III.P at 37-39).**

7 A. This section of the Stipulation provides an alternative means for suppliers to obtain access to
8 the customer's unique service delivery identifier (SDI) and authorization to enroll a customer.
9 In the past, customers needed to provide their SDI number to a CRES provider in order to be
10 enrolled. In most cases, unless the customer has their AEP Ohio bill with them, this
11 information may not have been readily available to the customer. Under the "enroll from my
12 wallet" alternative customers can provide information to a CRES that is more accessible –
13 their phone number associated with the account for example – in order to enroll for service
14 from that CRES.

15 **STATUTORY MRO TEST**

16 **Q. PLEASE GENERALLY DESCRIBE THE MRO TEST.**

17 A. The MRO test is a statutory test to determine whether the Company's proposed ESP, or in
18 this case the extension and amendment to the current ESP, including pricing and all other
19 terms and conditions, is more favorable in the aggregate as compared to the expected results
20 that would apply under an MRO.

1 **Q. DO YOU BELIEVE THAT THE PROVISIONS OF THE COMPANY'S PROPOSED**
2 **ESP, AS MODIFIED BY THE STIPULATION, ARE MORE FAVORABLE IN THE**
3 **AGGREGATE THAN WHAT WOULD BE EXPECTED UNDER A MRO?**

4 A. Yes. As discussed below, the ESP is more favorable to customers from both a qualitative and
5 quantitative perspective.

6 The commitment to file a base distribution case by June 1, 2020, provides customers
7 with increased certainty regarding the timing of a base rate case as compared to the
8 uncertainty that would exist under an MRO.

9 The DIR mechanism and associated revenues under the ESP proposal provide a
10 benefit to customers that is equal to or greater than the customer benefit that would be
11 expected under a MRO. The DIR mechanism provides a streamlined approach to recovering
12 many of the costs associated with investment in distribution infrastructure. These same types
13 of costs would be recoverable from customers through base distribution cases although with
14 higher costs to customers and other parties as a result of the added complexity of a distribution
15 base case. The DIR annual revenue caps also provide increased rate certainty for customers.

16 The agreement to update the WACC to reflect savings from debt refinancing is a
17 benefit that would not be included in an MRO. Any savings from debt refinancing during an
18 MRO would not flow through to customers until the Company's next base distribution case.

19 The Smart City Rider allows the Company to invest in advanced technology and
20 programs that support the Smart Columbus initiative in a way that would not be possible
21 under an MRO. This rider allows the Company to rapidly invest in advanced technology with
22 a streamlined recovery mechanism. Absent such a mechanism, the Company would need to
23 consider the timing of these investments and how to align them with potential base rate cases.

1 The PowerForward Rider will allow the Company to move forward with any findings
2 or directives that come out of the Commission's PowerForward initiative in a streamlined
3 manner without having to wait for a base rate case to implement. This would not be possible
4 under an MRO.

5 The Stipulation provides for a mechanism to promote EV charging market
6 development through a rebate program. This mechanism should accelerate EV charger
7 deployment in the Company's service territory. An increase in EV chargers within the service
8 territory will help to mitigate one of the barriers to EV adoption by our customers. This
9 program includes targeted deployment to economically disadvantaged communities, data
10 sharing, and detailed reporting on the technology demonstration program for the public's
11 benefit. These benefits would not occur under an MRO.

12 As part of the total amended ESP proposal, the Company is extending the Residential
13 Distribution Credit Rider through the earlier of May 31, 2024, or when new base distribution
14 rates are set. This rider is currently scheduled to expire May 31, 2018. Extending this rider
15 provides an annual benefit to residential customers of \$14,688,000. The Company will
16 contribute \$1,000,000 annually to the Neighbor-to-Neighbor for the same period. These
17 benefits would not exist under a MRO.

18 The ESP also has several non-quantifiable benefits as compared to a MRO – increased
19 rate stability is provided by the Renewable Generation Rider and the OVEC entitlement;
20 distribution investments are encouraged by the DIR; economic development and increased
21 demand response are supported through expansion of the IRP tariff; the provision allowing
22 certain customers to participate in a pilot ICP transmission rate encourages more efficient use

1 of the transmission grid; the CIR and SSOCR support growth in the competitive marketplace;
2 and economic development is supported by the automaker credit.

3 The quantifiable benefits in combination with the non-quantifiable benefits clearly
4 demonstrate that the provisions of the ESP as modified by the Stipulation are more favorable
5 in the aggregate than what would be expected under a MRO.

6 **STANDARD FOR CONSIDERING ADOPTION OF A STIPULATION**

7 **Q. WHAT IS THE STANDARD THAT THE COMMISSION HAS USED WHEN**
8 **CONSIDERING APPROVAL OF A STIPULATION?**

9 A. My understanding, and as advised by counsel, the Commission typically weighs adoption of
10 stipulations it is presented for consideration by applying a three part test for review. The
11 questions that the Commission considers, as I understand them, are:

12 (1) Is the Stipulation a product of serious bargaining among capable, knowledgeable
13 parties?;

14 (2) Does the stipulation, as a package, benefits ratepayers and the public interest?; and

15 (3) Does the stipulation violate any important regulatory principle or practice?

16 **Q. DOES THE STIPULATION SATISFY THE ABOVE CRITERIA?**

17 A. Yes, it does. Below, I will explain in more detail how the Stipulation fulfills each of
18 the three criteria.

19 **Q. IS THE STIPULATION THE PRODUCT OF SERIOUS BARGAINING AMONG**
20 **CAPABLE AND KNOWLEDGEABLE PARTIES?**

21 A. Yes. The Stipulation is the result of a lengthy process of negotiation involving experienced
22 counsel representing members of many stakeholder groups. The parties involved in these

1 negotiations were capable and knowledgeable about the issues raised in this case. Parties
2 have had the opportunity to participate in significant discovery and to file and review
3 testimony. Over the last several months, the Parties have engaged in a number of settlement
4 discussions, both with individual groups and in meetings open to all intervening parties.
5 These settlement discussions ultimately resulted in the Stipulation.

6 **Q. SPECIFICALLY REGARDING THE SECOND CRITERIA, PLEASE EXPLAIN**
7 **HOW THE STIPULATION BENEFITS CUSTOMERS AND THE PUBLIC**
8 **INTEREST.**

9 A. The Stipulation results in a longer term ESP through 2024 that will provide more certainty
10 and predictability for our customers, auction suppliers and CRES participants. As
11 demonstrated in Table 1 below, a residential customer using 1,000 kWh per month will see
12 an estimated monthly increase of approximately fifty cents, while small business and
13 industrial customers will see a modest decrease in rates.

14
Table 1: Estimated Rate Changes- ESP III Stipulation

Columbus Southern Power Rate Zone				
	SSO Monthly Bills			
Household	Current	Proposed	Change	Tariff
1,000 kWh usage	\$133.70	\$134.18	0.4%	R-R Bill
2,000 kWh usage	\$254.49	\$255.08	0.2%	R-R Bill
4,000 kWh usage	\$495.15	\$495.95	0.2%	R-R Bill
Small Business				
1,000 kW demand and 100,000 kWh usage	\$15,349	\$15,286	-0.4%	GS-2 Primary
1,000 kW demand and 350,000 kWh usage	\$33,108	\$32,450	-2.0%	GS-3 Primary
Industrial Business				
20,000 kW demand and 8 million kWh usage	\$552,042	\$524,188	-5.0%	GS-4
20,000 kW demand and 12 million kWh usage	\$791,094	\$749,290	-5.3%	GS-4

Ohio Power Rate Zone				
	SSO Monthly Bills			
Household	Current	Proposed	Change	Tariff
1,000 kWh usage	\$141.71	\$142.19	0.3%	RS Bill
2,000 kWh usage	\$270.51	\$271.10	0.2%	RS Bill
4,000 kWh usage	\$527.19	\$527.99	0.2%	RS Bill
Small Business				
1,000 kW demand and 100,000 kWh usage	\$16,933	\$16,895	-0.2%	GS-2 Primary
1,000 kW demand and 300,000 kWh usage	\$32,692	\$32,177	-1.6%	GS-2 Primary
Industrial Business				
20,000 kW demand and 8 million kWh usage	\$608,677	\$580,799	-4.6%	GS-4 Transmission
20,000 kW demand and 12 million kWh usage	\$876,246	\$834,418	-4.8%	GS-4 Transmission

The Stipulation also supports the Columbus Smart City initiative and the Commission's PowerForward initiative that both could provide significant opportunities to advance and enhance the consumer electricity experience. Economic development is also supported through a number of provisions in the Stipulation including the Renewable Generation Rider, the ability to enter into reasonable arrangements supported by renewable resources, micro grid deployment, promotion EV charging market development, expansion and extension of the IRP and BTCR Pilot tariffs, and the Automaker Credit Rider Tariff. Residential customers continue to see the benefits of the residential distribution credit rider which saves a typical customer using 1,000 kWh per month approximately \$11.40 on an annual basis and the

1 Company's continued support of the neighbor-to-neighbor program which provides financial
2 assistance to low-income customers. In addition, the Stipulation continues to promote the
3 advancement of retail competition in the Company's territory through adoption of Supplier
4 Tariff provisions and other retail competition enhancements that are supported by CRES
5 Providers. Moreover, the quantitative and qualitative advantages that I outlined above in my
6 discussion of the MRO Test are all beneficial to customers and the public interest. Finally,
7 as I briefly discuss below, the Stipulation advances energy policies that benefit customers and
8 the public interest.

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

11 A. No. The Stipulation does not violate any important regulatory principle or practice. The terms
12 of the Stipulation represent a compromise of the Signatory Parties. None of the individual
13 provisions of the Stipulation is inconsistent with or violates any important Commission
14 principle or practice. On the contrary, the compromise reached by the diverse set of Signatory
15 Parties results in a Stipulation that promotes a number of the state policies expressed in Ohio
16 Revised Code 4928.02, including:

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

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

22 (C) Ensure diversity of electricity supplies and suppliers, by giving
23 consumers effective choices over the selection of those supplies and suppliers
24 and by encouraging the development of distributed and small generation
25 facilities;

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

6 (G) Recognize the continuing emergence of competitive electricity markets
7 through the development and implementation of flexible regulatory
8 treatment;

9 (I) Ensure retail electric service consumers protection against unreasonable
10 sales practices, market deficiencies, and market power;

11 (L) Protect at-risk populations, including, but not limited to, when
12 considering the implementation of any new advanced energy or renewable
13 energy resource;

14 (N) Facilitate the state's effectiveness in the global economy.

15 In sum, the Stipulation goes beyond not violating any important regulatory principles or
16 policies. The Stipulation advances important regulatory policies and principles.

17 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

18 **A. Yes.**

EXHIBIT WAA-S1

**BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ohio)	
Power Company for Authority to Establish a)	
Standard Service Offer Pursuant to Section)	Case No. 16-1852-EL-SSO
4928.143, Revised Code, in the Form of an)	
Electric Security Plan)	

In the Matter of the Application of Ohio)	
Power Company for Approval of Certain)	Case No. 16-1853-EL-AAM
Accounting Authority)	

JOINT STIPULATION AND RECOMMENDATION

I. Introduction

Rule 4901-1-30, Ohio Administrative Code (OAC), provides that any two or more parties to a proceeding may enter into a written stipulation covering the issues presented in such a proceeding. This document sets forth the understanding and agreement of the parties who have signed below ("Signatory Parties") and jointly present to the Public Utilities Commission of Ohio ("Commission") this Joint Stipulation and Recommendation ("Stipulation") in order to resolve all of the issues raised in this proceeding through the Amended Application filed by Ohio Power Company ("AEP Ohio" or the "Company") on November 23, 2016.

This Stipulation is a product of lengthy, serious, arm's-length bargaining among the Signatory Parties and other parties who chose not to sign the Stipulation (all of whom are capable, knowledgeable parties), which negotiations were undertaken by the Signatory Parties to settle this proceeding. All intervenors were invited to discuss and negotiate this Stipulation and it was openly negotiated among those stakeholders who responded and chose to participate. This Stipulation is supported by adequate data and information. As a package, the Stipulation: benefits customers and the public interest; provides direct benefits to residential and low income customers; represents a just and reasonable resolution of all issues in this proceeding; violates no

regulatory principle or practice; and complies with and promotes the policies and requirements of Title 49 of the Ohio Revised Code. This Stipulation represents an accommodation of the diverse interests represented by the Signatory Parties and, though not binding, is entitled to careful consideration by the Commission. For purposes of resolving the issues raised by these proceedings, the Signatory Parties agree to fully support adoption of the Stipulation without modification in this proceeding.

II. Recitals

WHEREAS, on December 20, 2013, AEP Ohio filed an Application in its most recent Electric Security Plan (ESP III) proceeding (Case Nos. 13-2385-EL-SSO et al.);

WHEREAS, on February 25, 2015, the Commission issued an Opinion and Order (Case Nos. 13-2385-EL-SSO et al., Opinion and Order (February 25, 2015) (*the ESP III Order*));

WHEREAS, multiple rehearing decisions were issued in the *ESP III* cases, culminating in a Seventh Entry on Rehearing dated April 5, 2017;

WHEREAS, the Company initiated the *PPA Rider Cases* (Case Nos. 14-1693-EL-RDR et al.) through a October 3, 2014 Application that was resolved through a Joint Stipulation and Recommendation dated December 14, 2015 (PPA Rider Stipulation), which implemented the PPA Rider that included recovery of net costs associated with the Ohio Valley Electric Company (OVEC) contractual entitlement and included provisions for modifying and extending ESP III;

WHEREAS, the Commission modified and adopted the PPA Rider Stipulation through its March 31, 2016 Opinion and Order and issued multiple rehearing decisions culminating in its Fifth Entry on Rehearing dated April 5, 2017;

WHEREAS, on September 7, 2016, AEP Ohio filed an Application in this proceeding – and on November 23, 2016, AEP Ohio filed an Amended Application in this proceeding – seeking to amend ESP III and extend the rate plan through May 31, 2024;

WHEREAS, the parties engaged in extensive discovery in this proceeding;

WHEREAS, the Signatory Parties found common ground through the issues developed during the discovery process and settlement discussions commenced concerning those developing issues;

WHEREAS, this Stipulation is the result of serious discussion and compromise of complex issues and involves substantial benefits that would not otherwise have been achievable, and is not intended to reflect the views or proposals which any individual party may have advanced acting unilaterally;

NOW, THEREFORE, the Signatory Parties agree and recommend resolution of the Amended Application and related issues through this Stipulation;

III. Joint Recommendations of Signatory Parties

A. Extended ESP

The Signatory Parties recommend that the Commission modify and adopt the Amended Application in this case as set forth in this Stipulation. The term of ESP III will be extended through May 31, 2024. The Signatory Parties recommend that the Commission find that the Amended Application meets the SSO filing requirements and that the Commission should grant any needed waivers. As set forth below, the Signatory Parties recommend that the Commission find that the statutory MRO test continues to be fulfilled for the Extended ESP III. Further, the Signatory Parties recommend, consistent with the

Amended Application and supporting testimony,¹ that the Commission approve all necessary and appropriate accounting authority to implement the riders and rate mechanisms being recommended through this Stipulation.

B. Customer Charge

The current residential rate design shall stay in effect until the next distribution rate case (AIR). In its next AIR case the Company intends to propose a new customer charge and a SFV design for residential customers using test year data and incorporating the ability for those residential customers with smart meters to utilize demand as well as commodity usage data. All Parties reserve the right to contest any of the Company's proposals in the next AIR filing.

C. Distribution Investment Rider (DIR) and AIR case commitment

1. In order to help address concerns about some of the distribution riders becoming excessive and to recalibrate the costs being reflected in base rates versus riders, the Company agrees to file a base distribution case by June 1, 2020.
2. The DIR will continue through the extended ESP III term, subject to the conditions noted below. The DIR is updated quarterly with rates effective 60 days after filing unless otherwise ordered by the Commission. The DIR will continue to be subject to an annual compliance audit, which may be conducted by an independent auditor under the direction of Staff, the cost of which will be recoverable through the DIR. The annual authorized DIR revenue caps will be modified as follows: The calendar 2018 DIR revenue cap will be \$215 million which will increase to \$240 million in

¹ For this purpose, the question and answer found in AEP Ohio witness Moore's filed testimony at page 27 line 18 through page 28 at line 12 shall be disregarded.

2019, \$265 million in 2020 and unless otherwise changed by the 2020 AIR rate case order, \$290 million in 2021. Starting in 2019, the unused revenue cap from the prior year will be limited up to \$5 million for carryover to the following year (e.g. the 2019 cap could be up to \$245 million if there is a \$5 million or more unused revenue requirement² from 2018; the 2020 cap could be up to \$270 million if there is a \$5 million or more unused revenue requirement from 2019; etc.). If in any year, the unused revenue cap is greater than \$5 million, the revenue cap for the subsequent year(s) will be lowered by any amount greater than \$5 million. If no distribution rate case application is filed by June 1, 2020 the DIR Rider mechanism will sunset on December 31, 2020 and the DIR rider revenue cap for 2021 and beyond will be zero. It is contemplated that new distribution rate cases will be filed every fifth year following the next AIR case filing at which time the DIR baseline, if the DIR is still in use, will be reset in a manner consistent with the new rate base.

3. The residential distribution credit rider will be continued without change until new rates are effective as a result of the AIR rate case order. The \$1 million annual funding of the Neighbor-to-Neighbor program will also continue for the same period. In the AIR case, parties can propose that the credit and the Neighbor-to-Neighbor funding continue to be reflected in rates.
4. The proposal to adjust the DIR revenue requirement by the theoretical reserve amortization established in Case No. 11-351-EL-AIR will be adjusted as follows, effective January 1, 2018, the Company will update its depreciation rates to those rates indicated by the November 29, 2016 Depreciation Study (filed in Case Nos. 13-

² This refers to unspent funds, not uncollected funds.

2385-EL-SSO et al.) and will amortize the theoretical reserve imbalance of approximately \$240 million indicated by the Depreciation Study, adjusted for the 2016 and 2017 amortization and a reallocation based on the retirement of non-AMI meters, pursuant to the amortization schedule in Attachment A to this Stipulation. AEP Ohio commits to submit to Staff an updated theoretical reserve study every year prior to the rate case. AEP Ohio also commits that, for any reserve under accrual there will not be any amortization to correct it until either the next two rate cases or the reserve recovers from the accelerated gridSMART generated retirements, whichever happens first.

5. Upon approval of the Stipulation, the ROE of 10.0% will prospectively be used for all riders that have a capital component until new rates are effective with a new authorized ROE under the next AIR rate case order. If AEP Ohio completes a new long-term debt financing or refinancing prior to the next base rate case, the Company agrees to update its WACC rate within 90 days of closing for such transaction (to the extent such an update would be favorable to ratepayers)³. Subject to such update, the *pre-tax weighted costs of capital will be 10.82% as reflected in Attachment B*. The Company's cost of capital will be updated based on the outcome of the next AIR case. This provision is a one-time concession for purposes of resolving the issues in this case without precedent in any future proceeding.

³ AEP Ohio is anticipating refinancing of long-term debt in 2018.

D. Renewable Generation Rider

1. The current PPA Rider was established to fund new renewable generation projects subsequently approved by the Commission and recover the net costs associated with OVEC in Case nos. 14-1693-EL-RDR et al. For transparency and to better distinguish the separate issues relating to new renewable projects, the Signatory Parties agree to separate recovery for costs associated with the renewable generation from the net costs associated with OVEC by creating a separate nonbypassable RGR Rider.⁴ As part of approving the RGR placeholder rider in this case, the rate design (uniform per kWh charge or credit for all monthly consumption up to 833,000 kWh per customer account for the life of each RGR project⁵) and the requirements of the PPA Commission-ordered conditions in Case Nos. 14-1693-EL-RDR et al. will be followed; including the wholesale sale of the renewable generation, the auditing principles, cost exclusions, and the netting of revenues to costs of the generation. If activated by a Commission order authorizing specific project(s), the RGR will be updated quarterly and rates automatically approved 30 days after the filing unless suspended. The cost will be subject to an annual audit for prudence, and no carrying charges will be imposed on over/under recoveries due to quarterly collections. All parties reserve their right to contest individual renewable projects being proposed by the Company under Sections III.D.2 and III.D.3 of this Stipulation, including the right

⁴ ELPC takes no position on the RGR Rider proposal. IEU-Ohio takes no position supporting or opposing approval of the Renewable Generation Rider proposal other than the recommended rate design of the rider, which it supports. OMAEG does not support this provision, but agrees not to oppose it as part of the Stipulation as a package.

⁵ The project life refers to the recovery life of the project that shall be determined by the Commission as part of each project's individual case filing.

to challenge the Company's statutory authority to propose such projects, or other projects using the RGR for collection.⁶

2. AEP Ohio in its RGR project application(s) to the Commission will provide that the Commission Staff have full audit rights over the cost of the renewable energy and the revenue obtained from selling the renewable energy in the wholesale market. In making EL-RDR filings under the RGR Rider to seek approval for specific renewable projects, the Company will demonstrate that the criteria in R.C. 4928.143(B)(2)(c) are met. The Company may either own or operate the projects being submitted for approval under R.C. 4928.143(B)(2)(c) but AEP Ohio agrees that Company-owned projects will not serve load and are not eligible for the separate reasonable arrangement filing described below.
3. As an additional option that is separate from the EL-RDR filing described above, the Company may seek approval for reasonable arrangement(s) under R.C. 4905.31 as follows. For a renewable project owned by an AEP affiliate or other non-affiliate entity and operated by AEP Ohio (through a long-term PPA by AEP Ohio under the 900 MW commitment⁷), the Company may propose that some or all of the project's output be purchased through a bilateral contract with a retail customer conditioned upon approval by the Commission as a reasonable arrangement under R.C. 4905.31. Such reasonable arrangement filings may be proposed either through a companion filing to the EL-RDR or through a subsequent filing during the term of cost recovery

⁶ This paragraph does not address the effect of a Supreme Court of Ohio decision regarding the lawfulness of the PPA Rider as challenged in Case Nos. 2017-749 or 2017-752.

⁷Case No. 14-1693-EL-RDR

after a project has been approved. Prior to becoming effective, such a reasonable arrangement proposal must be approved by the Commission under R.C. 4905.31. If approved, the resulting revenues from such reasonable arrangement(s) will be credited against the cost for recovery in lieu of revenues being applied if the output were liquidated in the wholesale market under the RGR. The Commission's approval or disapproval of such a reasonable arrangement for a retail customer is separate and distinct from the Commission's approval of the underlying project under the RGR. By agreeing to this provision, no Signatory Party gives up any right to challenge any aspect of such a future filings. In addressing the reasonable arrangement proposal, the Commission shall determine whether there is any delta revenue to be included in the *Economic Development Rider* and/or what revenues received under the reasonable arrangement should be credited against the RGR.⁸

E. OVEC Recovery

The Company will retain the *status quo* recovery of OVEC costs through the non-bypassable PPA Rider through the Extended ESP III term, absent legislation that provides an alternative recovery opportunity, including all requirements listed in the Commission's Orders in Case No. 14-1693-EL-RDR et al.⁹ The PPA Rider will include the credit agreed to in Case No. 14-1693-EL-RDR et al., pro-rated based on AEP Ohio's OVECs percentage of MWs compared to the

⁸ The RGR rate design set forth in Section III. D. 1 of this Stipulation shall be preserved.

⁹ The Environmental Defense Fund and Ohio Environmental Council were not signatory parties to the Stipulation in Case Nos. 14-1693-EL-RDR, which approved recovery of OVEC costs through the nonbypassable PPA Rider. EDF and OEC do not independently support extension, but agree not to oppose this provision as part of the Stipulation. IGS and IEU-Ohio take no position regarding approval of Section III.E of the Stipulation but agree not to oppose it. OMAEG does not support this provision, but agrees not to oppose it as part of the Stipulation as a package. These parties' non-opposition shall not be relied upon in any other forum or proceeding.

original MWs to be included in the PPA Rider. The PPA Rider will continue to be updated quarterly and rates automatically approved 30 days after the filing unless suspended. The costs included in the PPA Rider will continue to be subject to an annual audit for prudence, and no carrying charges will be imposed on over/under recoveries due to quarterly collections. Should the current PPA recovery mechanism be significantly altered by a court order and remanded back to the Commission, the Parties who are Signatory Parties to both the settlement in this proceeding and the settlement in the PPA Rider proceeding agree to meet and discuss development of a lawful contingency plan for OVEC cost recovery that, if possible, closely achieves the current cost and recovery results of the PPA Rider to both customers and the Company.¹⁰ If such recovery of OVEC costs is not achieved as a result of that process, the Company may apply to the Commission to amend or terminate the Extended ESP III. AEP Ohio will continue reasonable efforts to explore divestiture of the OVEC contractual entitlement and report by June 30 annually. If AEP Ohio is able to divest the OVEC contractual entitlement, the PPA Rider will terminate upon final reconciliation of pre-transfer cost recovery.

F. Smart City Rider and PowerForward Rider

1. The proposed Distribution Technology Rider (DTR) will be withdrawn. The withdrawal of the DTR at this time does not waive the Company's ability to seek recovery of such investments through current or future rates.
2. A new rider "Smart City Rider" shall be established to collect funds for projects specifically authorized under this Stipulation. The Smart City rider will sunset after

¹⁰ Parties that were not Signatory Parties to both this Stipulation and the Stipulation in Case No. 14-1693-EL-RDR will not participate in developing a contingency plan in the event the PPA recovery mechanism is altered and remanded back to the Commission.

four years except for true up and corrections which occur after the sunset from activities and expenses incurred during the 4-year term. The Smart City Rider will be updated quarterly. Updated rates will become effective 30 days after filing unless otherwise ordered by the Commission. The rider will be populated based on actual spend, the cost will be subject to an annual audit for prudence, and no carrying charges will be imposed on over/under recoveries due to quarterly collections. The capital reflected in the rider will be based on net Plant in Service. The Smart City Rider will include a gross up for Commercial Activities Tax and uncollectibles until the rate case.

3. The Smart City Rider revenue requirement will be allocated to residential vs. non-residential customers based on the percentage of base distribution revenue and charged on a per customer basis. As illustrated in Attachment C to this Stipulation, the total amount that could be charged through the Smart City Rider would be \$21.1 million, including the micro grid costs outlined below, EV rebates, administration fee, and research and development costs.
4. A PowerForward Rider shall be approved for the extended ESP term, with the initial value being zero. The PowerForward Rider shall be eligible for activation and implementation based on findings and/or directives made by the Commission in the PowerForward initiative. The Company may make an EL-RDR filing to activate the PowerForward Rider based on the Commission's findings and/or directives in the PowerForward initiative and all parties reserve their right to challenge the Company's filing. The rate design and filing mechanics of the PowerForward Rider will be determined by the Commission upon being activated.

G. Micro grid technology demonstration

1. The Parties recommend to the Commission approval of a micro grid project. The parties agree to the establishment of one or more demonstration micro grid projects with a completed cost of no more than \$10.5 million to be recovered through the Smart City Rider. The demonstration micro grids will target non-profit, public-serving AEP Ohio customers such as fire and police stations, municipal facilities, medical facilities, social service agencies, emergency shelters, and water and sewer infrastructure facilities. The Company will in accordance with a public process provide for the design and sharing of information from the demonstration projects. A public-serving customer may apply to host, own and maintain the micro grid generator/battery facility. As part of this demonstration, AEP Ohio may pursue development of a microgrid with additional AEP Ohio customers (that are not public-serving or non-profit) but the costs eligible for recovery for this microgrid will be limited to EDU investments on the distribution system and costs incurred on the Company's side of the meter. The location of this additional microgrid will be based on a competitive process and Staff will have the right to reject the site selection if it is not in the public's interest. Without prejudice to future projects or the outcome of the PowerForward proceeding, AEP Ohio agrees not to own the generation resources and batteries for the demonstration projects described in Section III.G of this Stipulation. The demonstration micro grid project(s) will be funded through the Smart City Rider, except that the related distribution grid investments will be recovered through the DIR. Aside from facilities on the Company's distribution grid and related

maintenance, a contract to build and maintain the micro grid equipment will be competitively bid. Data collection on the demonstration will be undertaken by the Company to measure the merits of the micro grid facilities, after consulting with Staff about appropriate scope of useful data collection for the demonstration. AEP Ohio will coordinate with the Commission Staff (for all the micro grids) and Smart Columbus (for at least 1 micro grid) as to the selection of the type, location and public service entity selected for the micro grid project. For all of the microgrids, each affected customer will execute a service agreement that provides the terms and conditions relating to participating in the microgrid.

2. Up to \$10.5 million may be recovered through the Smart City Rider for: (a) AEP Ohio's incremental O&M expenses associated with the micro grid equipment, (b) costs for software and control systems needed to efficiently operate the micro grids that are not recoverable through the DIR, and (c) a rebate program to partially cover the costs for public-serving, non-profit customer-owned renewable generation resources that integrally support a micro grid, to be administered by the Company.
3. AEP Ohio is not prevented from owning battery resources as part of the distribution grid (*i.e.*, in front of the customer meters) to enable grid functions, defer circuit investments or address distribution reliability issues. AEP Ohio agrees not to utilize any such batteries to bid into the frequency regulation market unless and until the Commission issues an order authorizing it to do so. No party waives the right to contest AEP Ohio utilizing battery resources receiving distribution rate recovery from participating in the frequency regulation market. The cost of such battery

deployments shall be recovered through the DIR, to the extent the investments are permitted under the current DIR mechanism.

H. EV Stations

In order to promote EV charging market development on a competitively neutral basis, the Signatory Parties agree to the following technology demonstration program (with total costs up to \$10 million to be recovered through the Smart City Rider):

1. Rebate Program

- a. The Company shall create and operate a rebate incentive program for the hardware, network services, and installation of charging infrastructure for up to 300 level 2 charging stations and 75 DC Fast (DCF) charging stations. If the funding cap below is not depleted, the Company is authorized to extend the rebate program to more than 300 level 2 or more than 75 DCF chargers. The design and type of the charging stations that qualify for a rebate will focus on the best available technology, but in any case the Company shall qualify no fewer than three hardware and/or software providers for program participation. AEP Ohio shall determine construction and location criteria for its EV program in accordance with good industry practice and applicable rules then share those criteria with the Signatory Parties (including Staff). To the extent practical, AEP Ohio shall coordinate EVSE construction and location with the EV project being administered by the Ohio EPA.
- b. AEP Ohio will not own or receive a return on the charging stations addressed by this program. AEP Ohio is eligible to collect a 5%

administration fee for administering the rebate program, to be applied to the total cost of the rebates paid out by AEP Ohio to non-affiliated retail customers. Nothing in this agreement prevents the Company from seeking approval for a utility ownership model or recovery of any additional charging station investment as a result of the PowerForward or other proceeding before the Commission.

- c. The EV rebate program will be funded through the Smart City rider and be capped at \$10 million. AEP Ohio will conduct research and development needed to develop and maintain the Smart City program for the 4-year term, with up to \$200,000 of cost eligible, subject to a prudency review, to *flow through the Smart City rider.*
- d. The Level 2 rebate program will be funded up to \$3.7 million.¹¹ The following are the target allocations for the rebates associated with the 300 level 2 charging stations:
 - 30% will be available to the public at a government or non-government owned property (approximately 90 charging stations);
 - 50% will be available at a workplace but are not required to be open to the public (approximately 150 charging stations); and
 - 20% will be available at a multi-unit dwelling but are not required to be open to the public (approximately 60 charging stations).

¹¹ At the midpoint of the four-year EV rebate implementation, the Company will reassess the target categorical allocation as well as the allocation of \$9.5 million rebate funding as between DCF (\$5.8 million) and Level 2 (\$3.7 million); with Staff's input and advice, the Company may reallocate the funding as between DCF and Level 2 underneath the \$9.5 million cap.

- e. At least 10% of the 300 level 2 charging stations (approximately 30 charging stations) will be set aside for low-income geographic areas¹², which can be deployed under any of the level 2 categories (publicly available, workplace, and multi-unit dwelling).
- f. The level 2 rebates will be designed to cover up to:
- 100% of EVSE costs and customer make-ready work for locations available to the public at a government owned property,
 - 80% of EVSE costs and customer make-ready work for locations available to the public at non-government owned property,
 - 75% of EVSE costs and make-ready work for locations at a multi-unit dwelling.
 - 50% of the EVSE costs and customer make-ready work for locations at a workplace, and
- g. The level 2 rebates will be designed to cover up to 100% of the EVSE costs and customer make-ready work for locations within low-income geographic areas.
- h. The level 2 rebates will be capped at \$10,000 per port for publicly available locations; \$5,000 per port for workplace locations; and \$7,500 per port for multi-unit dwelling locations. The maximum rebate total per site will be \$50,000 or 6 ports, whichever is less.

¹² For purposes of the set-aside under this Stipulation, the low-income geographic area will be defined as a site geographically located within a census tract that meets the requirements for a low-income geographic area. The low-income geographic area is subject to review and re-evaluation at the midstream evaluation.

- i. The DCF rebate program will be funded up to \$5.8 million. At least 10% of the 75 DCF charging stations (approximately 8 charging stations) will be set aside for locations within low-income geographic areas.
- j. The DCF rebates will be designed to cover up to:
 - 100% of EVSE costs and customer make-ready work for locations available to the public at a government owned property, and
 - 80% of EVSE costs and customer make-ready work for locations available to the public at non-government owned property.
- k. The DCF rebates will be designed to cover up to 100% of the EVSE costs and customer make-ready work for locations within low-income geographic areas.
- l. The DCF rebates will be capped at \$100,000 per station for locations at government owned¹³ property and \$50,000 per station for locations at non-government owned property. The maximum rebate total per site will be \$150,000 or 2 stations, whichever is less.
- m. A deployment of 2 DCF stations per site will be preferred with select sites being permitted to deploy a single station. Public access will be required for DCF station siting and will focus on supporting inter-city EV travel.
- n. Rebates for both level 2 and DCF stations will be awarded on a first come, first served basis consistent with other applicable restrictions, including the respective target allocations for level 2 and DCF charging stations. An

¹³ For this purpose, government-owned property includes property for which the government has a property interest such as an easement or lease.

individual customer (or affiliates) may not take more than 5% of all the rebates available.

- o. All charging infrastructure installed shall be networked charging infrastructure (*i.e.*, able to communicate with a network management system), be demand-response capable, include software and network services capable of capturing data and metrics described in “AEP Ohio Access to Data/Co-branding,” below, and support open charging standards or protocols. An electric vehicle charging station that is part of the rebate program and requires payment of a fee shall allow a person desiring to use the station to pay via credit card or mobile technology, or both. A site host participating in the rebate program will be charged for their usage and service requirements as an AEP Ohio retail customer, including usage delivered to EV charging systems on the site host’s premises, based on applicable tariffs. This provision does not preclude a site host from shopping for their generation supply.

2. AEP Ohio Access to Data/Co-branding

- a. The site host and/or charging station provider will have flexibility to set pricing to EV drivers, for the purpose of this pilot, subject to applicable Commission authority and does not set precedent or bind a signatory party in future cases. AEP Ohio will require reporting of prices charged to EV drivers at all charging stations in a manner and form as established by AEP Ohio, including, but not limited to, reporting of intended prices as a precondition on receipt of rebates. As part of the rebate process, AEP

Ohio will inform site hosts about its available tariffs and rates, including time-of-use rates, to better inform site hosts about their options to effectively manage charging load and to provide the opportunity to maximize fuel cost savings.

- b. AEP Ohio will be required to access or receive data from charging stations installed through the Rebate Program, including but not limited to: usage, data regarding grid reliability, load growth, the potential for demand response load profiles, prices paid by EV drivers and site host pricing models/strategies, equipment provider selected, installation costs by equipment provider, and outage incidents by equipment provider. AEP Ohio will recover an additional \$400,000 through the Smart City Rider to cover the costs of data collection and reporting.
- c. The collected data will be shared annually with Signatory Parties in order to make midstream adjustments to the program and for use in future programs. The Signatory Parties will cooperate to develop protocols which protect participating customer's privacy, proprietary or confidential information, including customer data. The prices paid by EV drivers and implemented by hosts of EV charging shall not be considered proprietary or confidential information.
- d. To the extent possible in keeping with protecting the customers' privacy and proprietary needs, aggregated data will be made available to the public through a final report filed with the Commission within 180 days after sunset of the Smart City Rider. The final report shall include but is not

limited to: Customer site host enrollment by location segment and equipment selected; installations by location segment; description of sales/outreach by market segment; prices paid by EV drivers and pricing strategies. The final report shall also include overall cost figures, utilization for level 2 charging stations and DCFC by Market Segment, including economically disadvantaged communities; Comparisons of different site host customer load profiles, including the use of price signals by site hosts to charging station users (i.e., EV drivers); Information about charging station costs, level and type of preferred features, and rebate amount reserved or paid to date; Equipment selected by provider and outage incidents by provider; Insights learned by AEP Ohio about the effect of the program on the EVSE and EV market.

- e. AEP Ohio will develop a co-branding methodology with EVSE providers, Staff, and Smart Columbus and site hosts for the stations installed under this program.

I. IRP Tariff

1. Categories of IRP Service and General Terms and Conditions: Participation in AEP Ohio's IRP program will be expanded from 200 MW to 480 MW of interruptible load and will be divided into three categories of IRP service: a) Legacy Customers IRP for the two existing IRP-D participants (Legacy Customers); b) Expanded IRP for existing AEP Ohio customers who are not currently participating in the IRP program; and c) New Industry IRP for customers that are new to the AEP Ohio service area. The Legacy Customers IRP program

will continue through the end of the extended ESP term (May 31, 2024). The Expanded and New Industry IRP programs will continue through either the end of the extended ESP term (May 31, 2024) or the date upon which the respective program funding is exhausted, whichever comes first. The IRP program for Legacy Customers will operate under the terms and conditions set forth in the proposed IRP-D Legacy Customers tariff included as Attachment D to this Stipulation. Credits for the Expanded IRP and New Industry IRP programs will be calculated by multiplying the quantity of the monthly interruptible capacity times the market clearing price for capacity in the AEP Zone as established by the PJM Base Residual Auction (“BRA”) for each Delivery Year times 0.7 in accordance with subparagraphs C and D below. The credits needed to operate all three categories of IRP customers will be funded in the aggregate as follows:

- a. Funding for half of the credits needed to operate the IRP programs will be billed through the Energy Efficiency and Peak Demand Reduction Cost Recovery Rider.
- b. The remaining half of funds necessary to pay the credits will be billed through the Economic Development Rider.

Details as to the operation of the IRP programs are more fully addressed in proposed IRP tariffs attached as Attachment D. The Signatory Parties recommend that upon adoption of the IRP provision in this Stipulation, including the proposed IRP tariffs, the rehearing issues concerning the IRP program that remain pending in the ESP III case should be deemed withdrawn and moot. All participants in the IRP programs shall sign a service agreement to adhere to the terms and conditions of the applicable

tariff. Failure to fulfill the obligations of the applicable tariff may result in loss of the right to participate in the program. Signatory Parties recommend approval of the IRP tariffs included in Attachment D.

2. Legacy Customers IRP: In order to facilitate the specific economic development goals contemplated in their respective reasonable arrangements, including the ability to compete in the global economy as called for in Section 4928.02 (N), Revised Code, Legacy Customers shall operate under the provisions of the proposed IRP-D Legacy Customers tariff in Attachment D, including the following:

- a. Beginning June 1, 2018, the Legacy Customers IRP credit will increase from \$8.21/kW-month to \$9/kW-month.
- b. The Legacy Customers will either continue acting as their own curtailment service provider ("CSP") or employ a qualified third-party CSP so long as the Legacy Customers, as a condition of continued participation in the program, actively bid their interruptible capacity into the PJM auctions, and stand ready to account for and document the collection and payment to AEP Ohio of the PJM interruptible capacity and emergency energy revenues received as a result of such required participation. Failure to properly account for and make payment of capacity revenues received to AEP Ohio may result in dismissal from the program. There shall be no new Legacy Customers added and the existing participants may terminate or reduce participation, but shall not increase the number of MW committed to the program from the current level. The Legacy Customer program will continue through May 31, 2024.

3. Expanded IRP: In addition to the 200 MW of Legacy Customers IRP capacity, commencing with Commission approval of tariffs to implement this Stipulation, an additional amount of up to 160 MW of interruptible capacity will be made available as set forth below to existing AEP Ohio customers with at least 1 MW of interruptible load (Expanded IRP program). The Expanded IRP program capacity will be allocated as follows:

- Industrial Energy Users-Ohio (“IEU-Ohio”): 82 MW
- Ohio Energy Group (“OEG”): 48 MW
- Ohio Manufacturers’ Association Energy Group (“OMAEG”): 30 MW

4. If the 160 MW of Expanded IRP is not fully subscribed, then IEU-Ohio, OEG, and OMAEG members may exceed their respective group participation limits set forth above, provided the total subscription remains below the aggregate limit of 160 MW. If less than 160 MW of Expanded IRP load is applied for, then the expansion will be limited to the amount of interruptible load that has been subscribed to as of the close of the application period set forth below.

- a. To apply to participate in the Expanded IRP, IEU-Ohio, OEG or OMAEG shall submit an application to AEP Ohio. The application shall designate the account or accounts that the trade association requests to be placed in the Expanded IRP and the curtailable load for purposes of the Expanded IRP as well as whether the customer is a member of one of the trade associations listed in subsection 1 above.
- b. The application process for the Expanded IRP program for existing customers shall be conducted by AEP Ohio commencing when the

tariff becomes effective. The application process shall extend for 30 days after the tariff sheet implementing the Expanded IRP becomes effective. Any one of the three named trade associations may submit an application any time within the application period. Staff will oversee this process and mediate any disputes. Applications filed after the application period shall be rejected.

- c. All Expanded IRP participants shall sign an agreement to follow the terms and conditions of the Expanded IRP program, including curtailment when AEP Ohio declares an emergency or when PJM Interconnection LLC issues a curtailment order to the AEP Zone.
- d. The customer and AEP Ohio will enter a contract that states the customer's firm service level no later than 60 days after the tariff sheet implementing the Expanded IRP becomes effective. AEP Ohio will apply the credit as provided by the tariff to the customer's bill beginning with the first billing month that the contract becomes effective.
- e. AEP Ohio shall maintain a notice procedure for emergency curtailments as provided for in the Expanded IRP tariff. Failure to follow the terms and conditions of the Expanded IRP Program tariff may result in a participant being dropped from the Expanded IRP program.
- f. Each customer participating in the Expanded IRP may elect to suspend participation for one or more years at its election. A customer electing

to suspend participation shall provide notice to AEP Ohio of its election by April 1 prior to the beginning of the PJM Delivery Year. If a customer does not provide notice of its election to suspend participation by the deadline, its participation shall be deemed to continue for the succeeding delivery year.

- g. The Expanded IRP Credit shall be calculated by multiplying the quantity of the monthly interruptible capacity times the RPM BRA market clearing price for the AEP Zone in the applicable PJM Delivery Year times 0.7.
- h. A participating Expanded IRP customer's monthly credit shall be calculated as the product of (1) the difference between the Expanded IRP customer's monthly billing demand and its firm load and (2) the Expanded IRP Credit.
- i. Total AEP Ohio retail payment for the Expanded IRP shall be capped at \$28.5 million in the aggregate. The Expanded IRP program shall end the earlier of May 31, 2024 or the time that AEP Ohio has paid out \$28.5 million in credits to Expanded IRP participants.
- j. An Expanded IRP customer shall also have the option to participate in any PJM or contractual demand response program and to retain all associated proceeds, so long as such participation does not prevent the customer from meeting the terms and conditions of the IRP Program tariff.

5. New Industry IRP: In order to attract new business to Ohio, AEP Ohio shall offer an IRP program of up to 120 MW for new industrial operations. The New Industry IRP shall operate in the context of a reasonable arrangement which could include other terms and conditions beyond those outlined for the Expanded IRP program. The IRP credit payment for each participant in the New Industry IRP program shall be calculated by multiplying the quantity of the customer's monthly interruptible capacity times the RPM BRA market clearing price for the AEP Zone in the applicable PJM Delivery Year times 0.7. The customer's participating IRP load shall be the difference between its monthly billing demand and its firm load. The New Industry IRP program shall be capped at a total expenditure by AEP Ohio of \$22.2 Million in credits paid in the aggregate to New Industrial IRP program participants.

J. Other Riders, Tariffs and Rate Mechanisms

1. Sub metering Rider

The Sub metering rider is withdrawn. AEP Ohio is not prohibited to seek recovery of the appropriate value of distribution facilities acquired in connection with sub metering either through the distribution rate case or other appropriate Commission proceeding.

2. PEV Tariff

The Company will create a placeholder PEV Tariff, which through a separate filing may be populated pursuant to the findings of PowerForward or the Smart City Rider information. By agreeing to this provision, no Signatory Party gives up any right to challenge any aspect of such a future filing.

3. LED Tariff

The LED Tariff is withdrawn but the Company is not prohibited from filing a proposed LED tariff in a separate docket. By agreeing to this provision, no Signatory Party gives up any right to challenge any aspect of such a future filing.

4. Generation Energy and Generation Capacity Riders

The GENE and GENC Riders will continue through the Extended ESP term.

5. Auction Cost Reconciliation Rider

The ACRR will continue through the Extended ESP term. The Company will not implement the proposed modification to the ACRR addressed by Company witness Moore. To the extent not otherwise recovered, the Company may seek recovery of any net credit paid to customers based on the net metering tariff in a distribution rate case.

The Company may seek recovery of payments to customers with cogeneration facilities related to the COGEN schedule through a separate proceeding and such costs, if approved in that separate proceeding, could be recovered through the ACRR.

6. gridSMART Phase 2 Rider

The gridSMART Phase 2 Rider will continue through the Extended ESP term.

7. BTCR

The BTCR will continue through the Extended III ESP term. The Company agrees to amend the Master Supply Agreement included in Company witness Weiss's testimony to classify Generation Deactivation Charges (PJM Billing Line Item 1930) as an EDC responsibility, which is currently the way those costs are allocated. The Company will recover those costs through the BTCR. The BTCR will be updated annually with rates effective 75 days after filing unless the Commission orders otherwise.

8. BTCR Pilot

The BTCR Pilot will continue in operation as set forth herein until the effective date of new rates in the upcoming distribution rate case (and associated BTCR filing) which in accordance with the Stipulation will be filed no later than June 1, 2020. The subject of transmission rates will be reevaluated at that time utilizing the information and experience gained during the pilot program.

Currently, enrollment in the BTCR pilot is limited to 19 participants with specific set asides for sponsoring groups.¹⁴ With respect to the BTCR Pilot enrollment available to specific sponsoring groups during the ESP period the Parties agree that the 19 eligible participation slots for the sponsoring groups will be maintained and will be increased by fifteen for a total of 34 participation slots. Those 34 participation slots will be divided amongst the specific sponsoring groups as follow: 10 for OMAEG members, 10 for OEG members, 9 for IEU-Ohio members, 3 for Direct Energy public school customers, and 2 for IGS customers.

A participant that is currently enrolled in the BTCR Pilot shall remain enrolled unless the participant elects to terminate its participation. For the first year only, customers will be eligible for early enrollement beginning 60 days after a Commission order approving the Stipulation. Sponsoring groups will provide preliminary notice to AEP Ohio of an eligible member's intent to participate in the BTCR Pilot by December 1 of each year, but that preliminary notice will not be binding upon the customer. The individual customer's final, binding election to take service under the BTCR Pilot will be made annually by February 15 with notice provided on behalf of

¹⁴ See Section IV.G.2 of the Joint Stipulation and Recommendation (December 21, 2016) in Case Nos. 10-2929-EL-UNC *et al.*

the customer by the sponsoring group. AEP Ohio will provide relevant billing information to the sponsoring group prior to the election deadline to enable individual customers to evaluate the economics of the pilot program versus standard transmission billing. The decision by an eligible participant to not participate in the pilot for any year shall not affect its right to participate in future years, subject to the relevant sponsoring group's participation limits. A participant that is currently enrolled in the BTCR Pilot shall remain enrolled unless the participant elects to terminate its participation.

The Parties agree that enrollment in the BTCR Pilot will be kept open for the 34 eligible participants from specific sponsoring groups. Total participation of the specific sponsoring groups in the program may equal or exceed 400 MW in 2018 or 500 MW in 2019 and 2020, plus and additional 20 MWs for schools in all three years ("MW Cap")¹⁵, subject to the reallocation described below if the enrollment exceeds MW Cap. The respect to the additional 20 MW of BTCR Pilot enrollment will be available to schools with no specific number of participation slots being established. Enrollment in the BTCR Pilot will similarly be kept open for schools. Total participation of schools may equal or exceed 20 MW, subject to the reallocation described below if the enrollment exceeds 20 MW.¹⁶ If the aggregate enrollment by the specific sponsoring group participants exceeds the MW Cap, then the excess over the cap will be allocated among the specific sponsoring group participants on a pro rata basis. If the enrollment by schools exceeds the separate 20 MW cap for schools, then the 20 MW cap will be allocated among the school participants on a pro rata basis. For example, if in 2018 the total specific sponsoring group

¹⁵ Staff and Signatory Parties will review whether the 2020 cap of 500 MW should be adjusted or eliminated and will formulate a timely recommendation for the Commission's consideration.

¹⁶ The April 2017 enrollment stands at 282 MW.

subscription is 440 MW, then the 1 CP billing factor will be increased so that total estimated savings under the BTCR Pilot for that year are approximately equal to what would have occurred if the subscription was 400 MW. AEP Ohio will notify the sponsoring groups regarding the effect of any pro rata allocation as soon as reasonably practicable. For purposes of the application of this paragraph to establish the level of participation and the allocation of the MW Cap, MW is defined as a participating customer's average monthly billing demand.

The terms and conditions of the BTCR Pilot program shall be subject to the following:

- a. The rate design and other terms and conditions of the BTCR Pilot will remain consistent with the compliance tariff filed on March 31, 2017 in Case No. 17-679-EL-ATA.
- b. AEP Ohio will report the monthly data described below to the Commission Staff and sponsoring groups on a quarterly basis for the shorter of the term of the BTCR Pilot¹⁷ or the extended ESP III term:
 - i. The amount each customer is paying under the pilot (including supporting calculations);
 - ii. The amount each customer would have paid under BTCR rates (including supporting calculations);
 - iii. For NITS and RTEP, and in aggregate for pilot and non-pilot load, provide the amount AEP OH was billed by PJM based on its NSPL (1CP). For NITS and RTEP, and in aggregate for pilot and non-pilot load, provide the amount allocated to AEP OH based on the AEP East Transmission Agreement (12CP);

¹⁷ Sponsoring groups shall receive only their own members data and the program data in the aggregate.

- iv. For NITS and RTEP, for pilot participant load, provide the amount AEP OH was billed by PJM based on its NSPL (1CP);
- v. For NITS and RTEP, for pilot participant load, provide the amount allocated to AEP OH based on the AEP East Transmission Agreement (12CP);
- vi. Other data as Staff requests;
- vii. Staff and the sponsoring groups will maintain individual customer data as confidential, subject to any Commission ruling on the subject.

9. Fairground Accounts Transmission Tariff

This proposal will be adopted per the Company's Amended Application and supporting testimony.

10. Optional Demand Metered Residential Tariff

This proposal will be adopted per the Company's Amended Application and supporting testimony.

11. Automaker Credit Rider Tariff

This proposal will be adopted per the Company's Amended Application and supporting testimony. The credit will be recovered through the EDR.

12. Competition Incentive Rider/ SSO Credit Rider

On a temporary basis until the next base rate case, the bypassable CIR will be \$1.05/MWh and the nonbypassable SSOCR is estimated for a residential customer to be \$0.48/MWh (net \$0.57/MWh). The non-bypassable rider will be trued up annually for over/under recovery and the new non-bypassable rates will be effective upon Commission approval, the cost will be subject to an annual audit for prudence. The

SSOCR shall be used to collect the discount rate costs related to the Supplier Consolidated Billing pilot program and the requirement for revenue-neutrality as between the CIR and SSOCR does not apply to recovery of those costs. The collection fee/discount rate will be tracked separately from the CIR revenue-neutrality cost for the purpose of evaluating the Pilot Supplier Consolidated Billing program. In accordance with the PPA Stipulation, "AEP Ohio will provide an analysis as part of its next distribution rate case to show all of the actual costs required to provide SSO generation service that are included in the Company's cost of service study" and the Company agrees to propose in the rate case that these costs should be allocated to the default service. Except as explicitly modified above, all terms and conditions of the CIR remain as agreed upon in Case No. 14-1693-EL-RDR.

13. PTBAR

The PTBAR will be adjusted, if necessary, to account for customer participation in demand metered residential tariff. The Company may propose continuation of the PTBAR in the AIR filing. Absent an extension as part of the AIR rate case order, the PTBAR will expire when new rates are effective in the next AIR case.

14. EE/PDR Rider and Economic Development Rider

These riders will continue for the Extended ESP III term with the provision that 50% of normal EE/PDR costs for transmission and sub-transmission customers will be transferred to EDR rider and 50% of IRP credits will be transferred to the EDR.

The Company agrees to explore with Staff whether to segregate IRP costs from PDR compliance costs for purposes of OAC 4901:1-10-35.

For the 2017-2018 period, AEP Ohio will support the concept of a pilot battery storage/demand side management program with Kroger in AEP Ohio's service territory. Kroger will apply for the funding under the existing approved EE/PDR Plan with a projected investment of \$200,000 per year for the two year period. AEP Ohio also will provide technical advice relating to the pilot if reasonably requested by Kroger. AEP Ohio will supply metering for the two year pilot program. The companies will share all data with AEP Ohio providing agreed-upon reporting of the data and learnings from the pilot to determine cost benefit and potential future program offerings.

For the 2017-2018 period, AEP Ohio will support the concept of a pilot battery storage/demand side management program with Walmart in AEP Ohio's service territory. Walmart will apply for the funding under the existing approved EE/PDR Plan with a projected investment of \$200,000 per year for the two year period. AEP Ohio also will provide technical advice relating to the pilot if reasonably requested by Walmart. AEP Ohio will supply metering for the two year pilot program. The companies will share all data with AEP Ohio providing agreed-upon reporting of the data and learnings from the pilot to determine cost benefit and potential future program offerings.

15. Storm Damage Recovery Mechanism and Rider

This rider will remain in effect through the Extended ESP term. AEP Ohio will increase the baseline by \$120,000, which will be reset as part of the next AIR case.

16. Alternative Energy Rider

This proposal will be adopted per the Company's Amended Application and supporting testimony.

17. Enhanced Service Reliability Rider

AEP Ohio will maintain its current 4 year trimming cycle. The ESRR will sunset December 31, 2020 and be set to zero if no rate case is filed by June 1, 2020. The continuation of the ESRR after the next AIR case will be an issue for determination as part of the next AIR case. If an extension of the ESRR is granted in the next AIR case, the rider shall be reset effective with the implementation of the decision in that case. The proposed 2 ½% annual increase proposal shall be withdrawn by the Company and recovery will be limited to \$27.6 million annually until the next AIR case order.

18. Accounting for riders

The Company agrees to remove PUCO and OCC assessment fees from the GEN-E, GEN-C and ACRR. Issues relating to unbundling of SSO costs will be addressed in the next base rate case. The following riders include an uncollectibles gross up are the gridSMART Phase II, PPA and Storm damage rider. Any new riders during the extended ESP term may include an uncollectible gross up unless the Commission specifically determines otherwise at the time it authorizes the new rider.

K. Supplier Terms and Conditions and Related Agreements

This proposal will be adopted per the Company's Amended Application and supporting testimony. Specifically, the Signatory Parties recommend approval of the updated CRES-EDU agreement, as reflected in Exhibit SDG-1 and modified in Attachment E; the EDI agreement reflected in Exhibit SDG-2; and Supplier Tariff, as reflected in Exhibit SDG-3 and as modified by the changes reflected in Attachment F.

L. Significantly Excessive Earnings Test

The current Commission methodology of calculating the SEET will continue during the Extended ESP III term, unless otherwise changed by the Commission.

M. Master Standard Service Offer Supply Agreement

The revised Master Standard Service Offer Supply Agreement reflected in Exhibit DBW-4 of AEP Ohio witness Weiss's testimony will be adopted except as noted in Section III.J.7 of the Stipulation and as follows.

The Company shall not redefine the court of competent jurisdiction, for the purpose of binding arbitration, from those situated in the State of Ohio to those situated in the City of Columbus, Ohio.

The Company shall also commit to advertise each procurement in a widely circulated trade journal or similar publication, in order to elicit maximum participation by eligible bidders.

N. Revised Auction Bidding Rules

The revised Auction Bidding Rules reflected in Exhibit DBW-5 of AEP Ohio witness Weiss's testimony will be adopted.

O. Supplier Consolidated Billing Pilot

1. The terms and conditions of the Company's Supplier Consolidated Billing Pilot, as updated in the December 21, 2016 Global Settlement in Case Nos. 10-2929-EL-UNC et al, will remain effective with the following modifications:
 - a. Expand total CRES participants from three to five;
 - b. Expand participants to a maximum of 80,000 customers;
 - c. Cap expenditures for the Pilot at \$2 million - \$1 million funded by the CRES Participants, \$1 million funded by customers;
 - d. Apply a collection fee or discount rate, as applicable, for the Company's receivables of 0.66%;

- e. The cost associated with the collection fee and the discount rate, upon approval of this settlement, will be recovered through the SSOCR as specified above.

Following approval of new rates in the next AIR case, the Bad Debt Rider will also be used going forward to recover the difference between the Company's actual bad debt costs and the level reflected in base rates. AEP Ohio agrees to propose in the rate case that recovery of bad debt associated with default service generation receivables should be collected through a bypassable portion of the rider;

- f. The Company may file an application requesting EDU costs that relate to a CRES provider default that are not collected through security or collateral enforcement for inclusion in the Bad Debt Rider;

- g. The additional two suppliers will be selected from certified CRES providers in good standing who submit a formal request in this docket within 30 days of the approval of the Stipulation. If more than two certified CRES providers in good standing apply by the deadline, the additional two participants will be selected in a random manner;

- h. The participating suppliers will provide to PUCO staff an aggregated accounting of customers returned as past due and ultimately credit reported for non-payment. PUCO Staff shall use the information to compare and determine the number of customers who moved between SCB providers resulting in non-payment to determine if there is abuse of the program. Based on the information, suppliers and PUCO staff will work on a solution to prevent abuse of the program;

- i. AEP Ohio shall maintain records in such a fashion that should the Commission expand the Pilot or convert it into a permanent program, a fee can be calculated to provide recovery of the costs paid by consumers and the initial participants is recovered from subsequent participants; and
- j. Commencing with implementation of the pilot in 2018 and through the maturity date of outstanding securitization bonds (approximately July 1, 2019), CRES participants in the Supplier Consolidated Billing Pilot will enter into agreements that satisfy the collateral requirements for third-party collectors prescribed under AEP Ohio's securitization program(s)¹⁸ for those portions of the receivables related to the securitization bonds included in the pilot, including any requirements needed to maintain the AAA rating on the Phase-In Recovery Bonds.¹⁹ For that initial time period, the Company will pay the CRES participants a collection fee of 0.66 %. Starting with the bond maturity date and for such time that the Pilot remains in effect, CRES participants will purchase the Company's receivables in exchange for the discount rate of 0.66%.

P. Enroll from my wallet alternative

Within 9 months of approval of the Stipulation, the Company agrees to implement an "enroll from your wallet" alternative using AEP Ohio's CRES Portal for authorized CRES Providers in lieu of complete retail lists. The CRES participants will be notified by the Company if the customer has opted out of enrollment lists, in lieu of switching that

¹⁸ The Company's securitization program(s) refers to the Financing Order and rehearing decision in Case Nos. 12-1969-EL-ATS and 12-2999-EL-UNC or similar future program.

¹⁹ The Company will propose, subject to rating agency approval, using the Texas collateral requirements to the rating agencies and request re-affirmation of the ratings based on that collateral.

customer. Customers that have opted out of enrollment lists will be initially excluded from this program²⁰. CRES providers will supply AEP Ohio with the same information that a customer would supply the Company with in order to release the account number associated to the customer account: (1) the customer's phone number assigned to the account; and (2) either (a) the last four digits of the customer's Social Security Number; or (b) the amount of one of the customer's last three bills, to the extent the Company possesses that information for the affected customer. This functionality will allow for batching of information. The CRES provider must have the Letter of Authorization (LOA), as required by Rule 4901:1-10-24 (E) on file for release of the Service Identification number that AEP uses in lieu of the account number to enroll customers. AEP Ohio will conduct random audits of the CRES providers using this functionality to verify the CRES provider have and retain the LOA at a minimum of once a year. Staff shall be notified prior to each audit being conducted and offered to participate in the process. Staff shall be provided the results of each audit. Nothing in this document precludes Staff from conducting its own random audits to ensure compliance with this Order.

The participating CRES providers will be charged a one-time authorization fee of \$5,000 to cover the cost of implementation. Once the cost of implementation has been recovered AEP Ohio will credit any additional funds through the Smart Grid Phase 2 rider to offset the costs of changes to the supplier portal/EDI protocol. These funds will

²⁰ Staff, the Company, RESA and signatory CRES parties agree to continue to work towards a solution that allows for the customers who have opted off of their pre-enrollment list to consent to the dissemination of their SDI number should the restriction on the use of the Enroll From Your Wallet program to those customers prove inconvenient or costly to customers. A Signatory Party may seek a waiver from this provision but other Signatory Parties reserve their right to oppose such waiver.

be recognized as Contribution in Aid of Construction and should be tracked separately for auditing purposes.

Q. The Three-Part Test for Commission Approval

The Signatory Parties agree that the Stipulation satisfies the three-part test traditionally used by the Commission to consider stipulations. Specifically, the Signatory Parties agree that:

(a) the Stipulation is a product of serious bargaining among capable, knowledgeable parties representing diverse interests;

(b) the stipulation does not violate any important regulatory principle or practice; and

(c) the stipulation, as a whole, benefits customers and the public interest.

R. MRO Test Results

The Signatory Parties agree that the Stipulation preserves and advances the positive results of the MRO v. ESP test under R.C. 4928.143(C) as found in the *ESP III Order*.

IV. Procedural Matters

A. The Company will file testimony in support of the Stipulation pursuant to the procedural schedule established by the Commission.

B. Except for enforcement purposes or to establish that the terms of the Stipulation are lawful, neither this Stipulation nor the information and data contained herein or attached hereto shall be cited as a precedent in any future proceeding for or against any Signatory Party, if the Commission approves the Stipulation. Nor shall the acceptance of any provision within this settlement agreement be cited by any party or the Commission in any forum so as to imply or state that any signatory party agrees with any specific provision of the settlement. More specifically, no specific element or item contained in or supporting this Stipulation shall be construed or applied to attribute the results set forth in this Stipulation as the results that any

Signatory Party might support or seek, but for this Stipulation in these proceedings or in any other proceeding. This Stipulation contains a combination of outcomes that reflects an overall compromise involving a balance of competing positions, and it does not necessarily reflect the position that one or more of the Signatory Parties would have taken on any individual issue.

Rather the Stipulation represents a package that, taken as a whole, is acceptable for the purposes of resolving all contested issues without resorting to litigation. The Signatory Parties believe that this Stipulation, taken as a whole, represents a reasonable compromise of varying interests.

D. By their signatures, the Signatory Parties indicate their support for the Stipulation. The Signatory Parties agree not to oppose this Stipulation. If the Stipulation is contested, no Signatory Party will oppose an application for rehearing designed to defend the terms of this Stipulation.

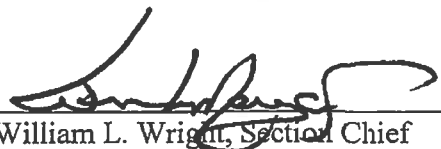
F. This Stipulation is conditioned upon adoption of the Stipulation by the Commission in its entirety and without material modification. If the Commission rejects or materially modifies all or any part of this Stipulation, any Signatory Party shall have the right within thirty days of issuance of the Commission's order to apply for rehearing. The Signatory Parties agree that they will not oppose or argue against any other Party's application for rehearing that seeks to uphold the original unmodified Stipulation. If the Commission does not adopt the Stipulation without material modification upon any rehearing ruling, then within thirty days of such Commission rehearing ruling any Signatory Party may terminate its Signatory Party status and withdraw from the Stipulation by filing a notice with the Commission. If the Commission does not act upon the application(s) for rehearing in support of the Stipulation as filed within forty-five days of the filing of the application(s) for rehearing, then any Signatory Party may terminate its Signatory Party status by filing a notice with the Commission its

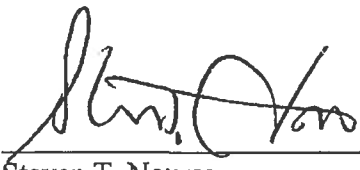
withdrawal from the Joint Stipulation. The Company retains its statutory right to withdraw following any Commission decision to modify the amended ESP being proposed in this Stipulation.

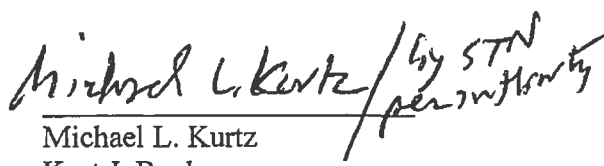
G. Unless the Signatory Party exercises its right to terminate its Signatory Party status or withdraw as described above, each Signatory Party shall act in good faith and use reasonable efforts to support the reasonableness of this Stipulation before the Commission in this proceeding, and to cause its counsel to do the same, and in any appeal it participates in from the Commission's adoption and/or enforcement of this Stipulation. The Signatory Parties also agree to urge the Commission to accept and approve the terms hereof as promptly as possible.

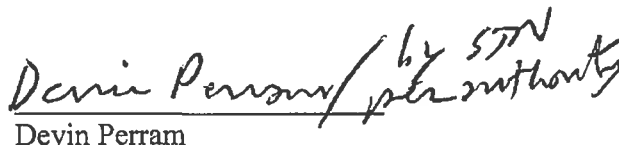
H. If a substantive amendment to the ESP statute is adopted and becomes effective, the Company may upon written notice file an Amended ESP and formulate a new or updated plan going forward based on the new law.

IN WITNESS WHEREOF, this Stipulation and Recommendation has been signed by the authorized agents of the undersigned Signatory Parties as of this 25th day of August 2017.


William L. Wright, Section Chief
Werner L. Margard III
**On Behalf of the Staff of the Public Utilities
Commission of Ohio**


Steven T. Nourse
Matthew S. McKenzie
Christen M. Blend
On Behalf of Ohio Power Company


Michael L. Kurtz
Kurt J. Boehm
Jody Kyler Cohn
**On Behalf of the Ohio Energy
Group**


Devin Perram
Richard Sites
**On Behalf of the Ohio Hospital
Association**

Christine M.T. Pirik / by STN per authority

Christine M.T. Pirik
On Behalf of Mid-Atlantic Renewable
Energy Coalition

Madeline Fleisher / by STN per authority

Madeline Fleisher
On Behalf of Environmental Law and
Policy Center

Colleen Mooney / by STN per authority

Colleen Mooney
On Behalf of Ohio Partners for
Affordable Energy

Dylan F. Borchers / by STN per authority

Dylan F. Borchers
Elyse H. Akhbari
On Behalf of Electric Vehicle
Charging Association

Joseph E. Olicker / by STN per authority

Joseph E. Olicker
On Behalf of Interstate Gas Supply, Inc.

Mark A. Whitt

Mark A. Whitt
Andrew J. Campbell
Rebekah J. Glover
On Behalf of Retail Energy Supply
Association

Michael J. Settineri
Gretchen L. Petrucci
On Behalf of Constellation NewEnergy, Inc.

Frank P. Darr
Matthew R. Pritchard
On Behalf of Industrial Energy Users - Ohio

Kimberly W. Bojko / by STN per authority

Kimberly W. Bojko
On Behalf of Ohio Manufacturers' Association
Energy Group

Miranda Leppa / by STN per authority

Trent Dougherty
Miranda Leppa
On Behalf of Ohio Environmental
Council and Environmental Defense Fund

Robert Dove / by STN per authority

Robert Dove
On Behalf of Natural Resources Defense Council

Joseph J. Halso / by STN per authority

Joseph J. Halso
Tony G. Mendoza
On Behalf of Sierra Club

NON-OPPOSING PARTIES;

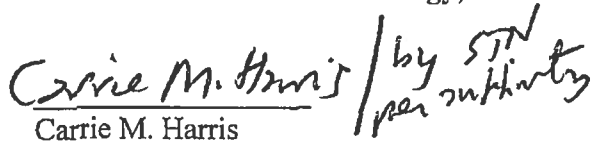


Mark A. Whitt

Andrew J. Campbell

Rebekah J. Glover

On Behalf of Commerce Energy, Inc.



Carrie M. Harris

On Behalf of Walmart Stores East, L.P.

and Sam's East, Inc.



Angela Paul-Whitfield

On Behalf of The Kroger Company

Additional signature for the Joint Stipulation and Recommendation filed on August 25, 2017 in Case Nos. 16-1852-EL-SSO and 16-1853-EL-AAM:

A handwritten signature in black ink, appearing to read "Frank P. Darr". The signature is stylized with a large, sweeping "F" and a distinct "D".

Frank P. Darr

Matthew R. Pritchard

On Behalf of Industrial Energy Users - Ohio

Additional signature for the Joint Stipulation and Recommendation filed on August 25, 2017, in
PUCO Case Nos. 16-1852-EL-SSO and 16-1853-EL-AAM:

A handwritten signature in dark ink, appearing to read "Settineri", written over a horizontal line.

Michael J. Settineri

Gretchen L. Petrucci

On Behalf of Constellation NewEnergy, Inc.

Attachment A

OHIO POWER COMPANY
CALCULATION OF THEORETICAL RESERVE AND ACCUMULATED DEPRECIATION RESERVE DIFFERENCE
BASED ON PLANT IN SERVICE AT DECEMBER 31, 2015

No.	Title	Calculated Depreciation Requirement	Accumulated Depreciation	Reserve Difference	Jurisdictional Factor (4)	Reserve Difference to Amortize	2016 Amortization	2017 Amortization	New Amortization	Distribution Account Allocation	Meter Reallocation	Reselected Amortization	Annual Amortization	Depreciation Rates
(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)	(XI)	(XII)	(XIII)	(XIV)	(XV)
DISTRIBUTION PLANT														
361.0	Structures & Improvements	9,616,234	9,859,416	241,182	100.00%	241,182	(259,342)	(259,342)	(277,502)	-0.15%	(529.10)	(3304.12)	(68082)	1.77%
362.0	Station Equipment	146,810,815	181,172,184	34,361,369	100.00%	34,361,369	(3,800,356)	(3,800,356)	28,760,857	15.50%	5,102,348	31,883,005	6,372,601	2.47%
363.0	Storage Battery Equipment	2,532,902	2,577,107	44,205	100.00%	44,205	(14,421)	(14,421)	15,363	0.01%	2,929	18,292	3,658	6.67%
364.0	Poles, Towers, & Fictures	335,378,965	370,305,932	34,926,967	100.00%	34,926,967	(8,199,019)	(8,199,019)	18,528,929	10.73%	3,532,837	22,061,766	4,412,353	5.19%
365.0	Overhead Conductor & Devices	164,496,347	159,757,138	(4,739,209)	100.00%	(4,739,209)	(3,749,223)	(3,749,223)	(12,237,655)	-7.09%	(2,333,305)	(14,570,960)	(2,914,192)	3.63%
366.0	Underground Conduit	44,781,279	51,648,078	6,866,799	100.00%	6,866,799	(1,265,719)	(1,265,719)	4,335,351	2.51%	826,606	5,161,967	1,032,393	1.56%
367.0	Underground Conductor	179,984,100	227,298,182	47,305,082	100.00%	47,305,082	(5,928,937)	(5,928,937)	35,447,208	20.54%	8,758,578	42,205,786	8,441,157	2.60%
368.0	Line Transformers	197,904,512	271,200,884	73,296,372	100.00%	73,296,372	(7,210,805)	(7,210,805)	58,874,762	34.11%	11,235,417	70,100,179	14,020,036	3.80%
369.0	Services	108,301,689	133,278,899	24,977,210	100.00%	24,977,210	(2,717,496)	(2,717,496)	19,542,218	11.32%	3,726,037	23,268,255	4,553,651	3.27%
370.0	Meters	42,439,956	12,041,076	(30,398,880)	100.00%	(30,398,880)	(521,912)	(521,912)	(31,442,704)	2.87%	942,952	(64,355,066)	(21,451,689)	4.07%
370.16	AMI Meters (1)	6,831,822	11,777,389	4,945,567	100.00%	4,945,567	(817,320)	(817,320)	15,861,003	9.19%	3,024,154	18,885,157	3,777,031	7.33%
371.0	Installations on Custs. Prem.	23,582,529	41,078,172	17,495,643	100.00%	17,495,643	(2,096)	(2,096)	12,847	0.01%	2,449	15,296	3,059	9.14%
372.0	Leased Property on Custs. Prem.	57,981	75,000	17,039	100.00%	17,039	(423,404)	(423,404)	809,104	0.47%	154,288	983,373	192,675	2.50%
373.0	Street Lighting & Signal Sys.	17,276,937	18,932,849	1,655,912	100.00%	1,655,912								6.20%
	Total Distribution Plant	1,280,008,048	1,491,003,306	210,995,258		210,995,258	(34,910,050)	(34,910,050)	141,175,158	100%	(0)	141,175,158	19,854,358	3.58%
GENERAL PLANT (Total Company) (2)														
390.0	Structures & Improvements (3)	29,439,628	50,255,140	20,815,512	95.58%	19,890,953	(2,305,167)	(2,305,167)	15,280,819			15,280,819	3,056,124	2.17%
391.0	Office Furniture & Equipment	3,224,491	4,945,685	1,721,204	60.12%	1,034,831	0	0	1,034,831			1,034,831	208,968	3.33%
392.0	Transportation Equipment	2,535	2,615	80	100.00%	280	(218,340)	(218,340)	(436,400)			(436,400)	(87,280)	2.00%
393.0	Stores Equipment	217,045	314,113	97,068	74.45%	72,271	(468)	(468)	71,335			71,335	14,267	2.94%
394.0	Tools Shop & Garage Equipment	12,792,219	15,891,949	2,899,730	82.22%	1,796,040	(12,843)	(12,843)	1,772,354			1,772,354	354,471	3.53%
395.0	Laboratory Equipment	210,768	371,723	160,955	52.36%	84,277	(548,197)	(548,197)	(1,008,117)			(1,008,117)	(201,623)	3.57%
396.0	Power Operated Equipment	4,818	52,286	47,468	73.04%	34,670	(18,397)	(18,397)	(2,124)			(2,124)	(425)	3.85%
397.0	Communication Equipment	19,153,019	22,310,737	3,157,718	89.29%	2,819,435	(1,119)	(1,119)	2,817,197			2,817,197	563,439	2.86%
397.16	AMI Communication Equipment (1)	1,714,884	3,734,222	2,019,338	100.00%	2,019,338	(690,629)	(690,629)	638,080			638,080	127,616	6.67%
398.0	Miscellaneous Equipment	1,208,505	1,737,597	529,092	52.34%	276,940	(42,822)	(42,822)	181,256			191,296	38,259	4.00%
	Total General Plant	67,887,812	99,406,277	31,518,465		28,031,035	(3,835,982)	(3,835,982)	20,359,071			20,359,071	4,071,814	2.88%
	Total	1,347,975,960	1,590,409,583	242,433,623		239,026,293	(38,746,032)	(38,746,032)	161,534,228			161,534,228	23,726,170	2.53%

N/A = not applicable

NOTES:

- (1) The useful life for AMI Meters and AMI Communication Equipment is 15 years. The net salvage ratio for each account uses the same net salvage ratio calculated for Accounts 370 and 397, respectively.
- (2) Used total company general plant balances at December 31, 2015 for purposes of calculating accrual rates in the Depreciation Study.
- (3) Account 390 excludes the owned structure investment associated with leased buildings.
- (4) Ohio previously had a Power Purchase Agreement with Wheeling Power causing the need for a Jurisdictional Allocation of Distribution plant. That agreement is no longer in place and all Distribution plant is now Jurisdictional Allocation for Meters account 370.0 is 3 Years, All other account are to be amortized over 5 years
- (5) Theoretical Reserve Amortization for Meters account 370.0 is 3 Years, All other account are to be amortized over 5 years

Attachment B

AEP OHIO
CASE No. 16-1852-EL-SSO AND CASE No. 16-1853-EL-AAM
Cost of Capital
(\$000)

Date of Capital Structure: December 31, 2015

UPDATED
EXHIBIT MDK 3

Line No.	Class of Capital	(\$) Amount	% of Total	(%) Cost	Weighted Cost (%)	<i>Pre-Tax</i> Weighted Cost (%)
1	Long-Term Debt	\$ 1,950,000	49.54%	6.01%	2.98%	2.98%
2	Short-Term Debt	\$ -	0.00%	0.00%	0.00%	0.00%
3	Common Equity	1,986,600	50.46%	10.00%	5.05%	7.84% *
4	Total Capital	\$ 3,936,600	100%		8.02%	10.82%

* 2015 Gross Conversion Factor of 1.55407642

Attachment C

Smart City Rider Cap and Costs

	Overall Cap	Sub Cap
Micro Grids	\$ 10,500,000	
Charging Stations	\$ 10,000,000	
Level 2		\$ 3,700,000
DCF		\$ 5,800,000
Admin Fee 5%		\$ 500,000
Research & Development	<u>\$ 200,000</u>	
Data collection/ reporting	<u>\$ 400,000</u>	
Total Cap	\$ 21,100,000	

Attachment D

P.U.C.O. NO. 20

RIDER IRP-D EXPANDED SERVICE
(Interruptible Power - Discretionary)Availability of Service

Service pursuant to this rider is available to customers that have provided reasonable evidence to the Company that their electric service can be interrupted in accordance with this rider and is limited to the inclusion of agreed upon customers and load limitations established in Case No. 16-1852-EL-SSO. Customers participating in this rider shall enter into a contract with the Company, and as part of that contract shall designate the customer's firm service level and its interruptible demand of not less than 1,000 kW of interruptible capacity.

The total interruptible power contract capacity for all customers served under this rider will be limited to 280,000 kW of which 160,000 kW of load shall be from existing customers and 120,000 kW of load shall be from customers new to the service area as ordered in Case No. 16-1852-EL-SSO. Once 160,000 kW have been enrolled, new participants or load expansions of existing customers will not be admitted into the program.

In the event of a local emergency or if the Company receives an interruption notice originating from PJM, the Company will issue an interruption notification. Each customer participating in this rider is responsible for providing and maintaining current contact information with the Company. All costs associated with providing the initial, required Customer Communications System will be borne by the customer.

Enrollment, Registration and Participation in PJM Demand Response Programs

Participation in this rider does not preclude the customer from also participating in other PJM demand response programs through a Curtailment Service Provider. Customers are permitted to retain any compensation received by PJM for their participation in those programs. Except for the first year of the IRP Expanded Service, enrollment in the IRP Expanded Service program shall be for a PJM Delivery Year at a time. Customers have an option to opt-out of their participation for any future PJM year upon timely notification. An IRP Expanded Service customer who opts-out of the program may opt-in for a future PJM year. Opt-out notification for the upcoming PJM calendar year must be provided to the Company on or before April 1st. If a customer does not opt-out by the April 1st date, they are deemed participating for the following PJM Delivery Year (June 1 through May 31).

Interruption Notice

The Company will endeavor to provide the customer as much advance notice as possible of an upcoming emergency interruption, but a customer will not be required to interrupt on less than 30 minutes notice. Such notice shall specify the starting and ending hour of the interruption if known. The Company may notify the customer of interruptions of their service due to actions of PJM.

Failure to Comply With A Request For Interruption

1. If the customer fails to interrupt load as requested by the Company for an emergency interruption, the customer will be required to refund all rate discounts received under this rider during the preceding 12 months for the uninterrupted demand. The uninterrupted demand will be calculated as the difference between the maximum 30-minute integrated demand during each emergency interruption and the firm service level contracted for by the customer in its agreement with the Company. The rate discount will be the Demand Credit as specified in this rider.
2. If the customer materially fails two or more times during any 12-month period to interrupt load during an emergency interruption as requested by the Company, the Company further reserves the right to discontinue service to the customer under this rider.

P.U.C.O. NO. 20

RIDER IRP-D EXPANDED SERVICE
(Interruptible Power - Discretionary)Term of Contract

Contracts under this rider shall be made for a period of not less than one (1) PJM delivery year (June 1 through May 31) with notice to participate due by April 1st each year.

Monthly Rate

In addition to the monthly charges for service under the applicable rate schedule under which the customer receives service, the customer shall receive a Demand Credit for monthly interruptible demand as follows:

The Demand Credit shall be determined by multiplying the customer's monthly interruptible demand times the PJM Base Residual Auction market rate for the AEP Zone times 0.7. Monthly interruptible demand shall be the difference between the monthly billing demand determined in accordance with the applicable rate schedule under which the customer receives service and the customer's designated firm service contract capacity. In no event shall the customer's monthly interruptible demand be greater than the customer's interruptible demand specified in its contract.

Special Terms and Conditions

This rider is subject to the Company's Terms and Conditions of Service and all provisions of the rate schedule under which the customer takes service.

In delivery years when there are no emergency or pre-emergency events, the customer agrees to provide the Company the results of any interruption tests performed in accordance with the PJM tariff as evidence of the customer's ability to interrupt. If the customer does not participate in PJM in a delivery year, the Company shall verify the customer's ability to interrupt through a comparable test. Failure to provide this testing information or failure to adequately perform during such a test shall be considered a failure to interrupt under this rider.

Participation in this rider will discontinue once the cost threshold established in Case No. 16-1852-EL-SSO is reached. The Company will calculate the values provided under the tariff and attempt to provide as much notice as possible to participating customers before the rider discontinues.

P.U.C.O. NO. 20

RIDER IRP-D
(Interruptible Power - Discretionary)Availability of Service

Service pursuant to this rider is available to legacy customers who have remained participants in the IRP-D program continuously since 2015 and have provided reasonable evidence to the Company that their electric service can be interrupted within a 10-minute notice period. Legacy customers shall contract for electrical capacity sufficient to meet normal maximum requirements but not less than 1,000 KW of interruptible capacity.

The interruptible power contract capacity for all legacy customers served under this rider, contracts and agreements offered by the Company will be limited to 200,000 kW total in the Company's Ohio service area. Each legacy customer is limited to the amount of interruptible service currently under contract. If a legacy customer reduces the amount of interruptible load under contract, the new lower interruptible contract volume shall be the maximum amount of interruptible service eligible for this service.

In the event of a local emergency or if the Company receives an interruption notice originating from PJM, the Company will issue an interruption notification. Each customer participating in this rider is responsible for providing and maintaining current contact information with the Company. All costs associated with providing the required Customer Communications System will be borne by the legacy customer.

Interruption Notice

The Company will endeavor to provide the customer with as much advance notice as reasonably possible of an upcoming emergency interruption. Such notice shall specify the starting and ending hour of the interruption if known. If an emergency situation requires an immediate action by AEP Ohio, the customer will be required to interrupt service immediately. The Company may notify the legacy customer of interruptions of their service due to actions of the regional transmission organization.

Failure to Comply With A Request For Interruption

1. If the legacy customer fails to interrupt load as requested by the Company for an emergency interruption, the customer will be required to refund all rate discounts received under this rider during the preceding 12 months for the uninterrupted demand. The uninterrupted demand will be calculated as the difference between the maximum 30-minute integrated demand during each emergency interruption and the sum of the legacy customer's contract capacities under any schedule where service is not interrupted. The rate discount will be the Demand Credit as specified in this rider.
2. If the legacy customer fails to interrupt load as requested by the Company during an emergency interruption, the Company further reserves the right to:
 - a) Interrupt the customer's entire interruptible load.
 - b) Discontinue service to the customer under this rider if the customer fails to interrupt load twice during any 12-month period as requested by the Company. The Company may thereafter charge the customer, as specified in the Term of Contract provision of this rider, for any additional costs beyond the firm service rate incurred by the Company as a result of the customer transferring to firm service without providing proper notice.

P.U.C.O. NO. 20

RIDER IRP-D
(Interruptible Power - Discretionary)

Term of Contract

Contracts under this rider shall be made for a period of not less than one (1) PJM delivery year (June 1 through May 31) with notice to participate due by April 1st each year.

Capacity Payment Contributions

1. Each legacy customer shall bid its eligible interruptible capacity in either the PJM Base Residual Auction or a PJM Incremental Auction. Capacity and emergency energy revenues net of administrative fees obtained from such capacity contract(s) sales shall be paid to the Company for distribution in equal measure to the Energy Efficiency and Peak Demand Reduction Cost Recovery Rider and the Economic Development Rider. Failure by the legacy customer to properly account for, document when requested, and make full payment of capacity and emergency energy revenues to AEP Ohio may result in dismissal from the program and request for full payment with reasonable interest.
2. Each legacy customer may continue to act as their own curtailment service provider or employ a PJM qualified curtailment service provider so long as the legacy customer, as a condition of continued participation in the program, actively bid their interruptible capacity into the PJM auctions, and stand ready to account for and document the collection and payment to AEP Ohio of the interruptible capacity and emergency energy revenues. The Legacy Customer program will sunset with the June 1, 2024 billing cycle.

Monthly Rate

In addition to the monthly charges for service under the applicable standard service rate schedule under which the customer receives service, the customer shall receive a Demand Credit for monthly interruptible demand as follows:

Generation Demand Credit (\$ per KW)

Service Years	Prior to- June 1, 2018	Beginning June 1, 2018
Subtransmission	(8.21)	(9.00)
TransmissionSecondary	(8.21)	(9.00)

The Demand Credit shall apply to the customer's monthly interruptible demand. Monthly interruptible demand shall be the difference between the monthly billing demand determined in accordance with the standard service rate schedule under which the customer receives service and the customer designated firm service contract capacity. In no event shall the customer's monthly interruptible demand be greater than the customer's interruptible service contract capacity.

Special Terms and Conditions

This rider is subject to the Company's Terms and Conditions of Service and all provisions of the rate schedule under which the customer takes service.

Attachment E

**ELECTRIC DISTRIBUTION COMPANY/
COMPETITIVE RETAIL ELECTRIC SERVICE PROVIDER AGREEMENT
FOR OHIO POWER COMPANY'S
OHIO RETAIL ACCESS PROGRAM**

THIS AGREEMENT is made and entered into effective as of _____, 20__, (the "Effective Date") between Ohio Power Company, an Ohio Corporation ("Company") and _____, a _____ ("CRES Provider"). The Company and the CRES Provider are sometimes herein referred to singularly as a "Party" or collectively as the "Parties."

WITNESSETH:

WHEREAS, the Company is a public utility, subject to the jurisdiction of the Public Utilities Commission of Ohio ("PUCO") as to retail electric service provided within its Ohio service territory; and

WHEREAS, the CRES Provider intends to offer and sell one or more competitive retail electric services approved as part of the Company's Choice Program ("Competitive Retail Electric Services"); and

WHEREAS, an agreement between the Company and the CRES Provider is needed as part of the Company's CRES Provider registration process to establish and govern the business relationship between the Parties under the Company's Choice Program.

NOW THEREFORE, in consideration of the promises and mutual covenants herein contained, and subject to the terms and conditions herein contained, the Parties hereby agree as follows:

Article 1. Definitions.

1.1 Whenever used herein, the following terms shall have the respective meanings set forth below, unless a different meaning is plainly required by the context:

- A. "Agreement" shall mean this Electric Distribution Company/Competitive Retail Electric Service Provider Agreement for Ohio Power Company's Ohio Retail Access Program.
- B. "Business Day" shall mean any calendar day or computer processing day in the Eastern U.S. time zone, on which the general office of the Company is open for business with the public.

- C. "Choice Program" shall mean the program implemented by the Public Utilities Commission of Ohio to provide electric utility customers with choice pursuant to Am. Sub. S. B. No. 3.
 - D. "Company's Retail Tariff" shall mean the Company's tariff on file with the PUCO, including all standard terms and conditions of service, terms and conditions of service for Choice Program participants, and open access distribution rate schedules.
 - E. "AEPCH" shall mean the Clearing House operated by the Company's service company or designee, which coordinates and communicates data related to such things as, but not limited to, enrollment and switching, estimation and reconciliation, settlement, and billing and reporting.
 - F. "CRES" shall mean Competitive Retail Electric Service.
 - G. "EBT" shall mean electronic business transactions.
 - H. "EDI" shall mean electronic data interchange.
 - I. "FERC" shall mean the Federal Energy Regulatory Commission or any successor thereto.
 - J. "PJM" shall mean PJM Interconnection LLC
 - K. "PJM OATT" shall mean The Open Access Transmission Tariff of the PJM Interconnection LLC or any successor thereto, on file with the FERC.
 - L. "PUCO" or "Commission" shall mean Public Utilities Commission of Ohio.
 - M. "VAN" or "VANS" shall mean a value added network used for electronic data interchange
- 1.2 Additional definitions controlling this Agreement are contained in the PUCO rules and orders and/or the Company's Retail Tariff, or appear in subsequent parts of this Agreement, as required.
- 1.3 Unless the context plainly indicates otherwise, words imparting the singular number shall be deemed to include the plural number (and vice versa); terms such as "hereof," "herein," "hereunder" and other similar compounds of the word "here" shall mean and refer to the entire Agreement rather than any particular part of the same.

Article 2. Scope of Agreement.

- 2.1 The Parties named in this Agreement are bound by the terms set forth herein and otherwise incorporated herein by reference.
- 2.2 This Agreement shall govern the business relationship between the Parties and constitutes a part of the Company's registration process, the successful completion of which is necessary before the CRES Provider is authorized to begin providing one or more Competitive Retail Electric Services in the Company's Ohio service territory.
- 2.3 This Agreement does not cover any transmission or ancillary services that are necessary to provide any Competitive Retail Electric Service. Any such services shall be obtained, either by the CRES Provider or its customer, in accordance with PJM's OATT, as required by the Company's Retail Tariff.
- 2.4 The Company's Retail Tariff is incorporated herein by reference and made a part hereof.
- 2.5 The Company's Electronic Data Interchange Standards as set forth in Appendix A is incorporated herein and made a part hereof.

Article 3. Representations and Warranties.

- 3.1 The CRES Provider represents and warrants that it is a _____, duly organized, validly existing and in good standing under the laws of the State of _____, and that it is authorized to do business, and is in good standing, in the State of Ohio.
- 3.2 The CRES Provider represents and warrants that it has completed all required actions relative to membership in PJM and is authorized by PJM to transact business with regard to transmission service.
- 3.3 Each person executing this Agreement for the respective Parties expressly represents and warrants that he or she has authority to bind the entity on whose behalf this Agreement is executed.
- 3.4 Each Party represents and warrants that (a) it has the full power and authority to execute this Agreement and to fulfill its terms and conditions; (b) the execution and performance of this Agreement have been duly authorized by all necessary corporate or other action by such Party; and

(c) this Agreement constitutes such Party's legal, valid and binding obligation, enforceable against such Party *in accordance with its terms.*

- 3.5 Each Party represents and warrants that there are no actions at law, suits in equity, proceedings or claims pending or threatened against it before any federal, state, foreign or local court, tribunal or government agency or authority that might materially delay, prevent or hinder the performance of its obligations hereunder.
- 3.6 Each Party represents and warrants that it is and shall remain in compliance with all applicable laws and tariffs, including, without limitation, applicable rules and regulations of the Commission.
- 3.7 The CRES Provider represents and warrants that it has obtained a certification from the PUCO to *provide one or more Competitive Retail Electric Services to retail customers located within the Company's service territory under the Choice Program, and that it will maintain that certification in good standing throughout the life of this Agreement.*
- 3.8 The CRES Provider represents and warrants that the information provided by the CRES Provider *in the Provider Registration Application is true and accurate. The CRES Provider further represents and warrants that, within 21 days of becoming aware of such facts, it will notify the Company in writing, in accordance with Article 18 hereof, if there are any changes in the financial or credit information supplied to the Company on the CRES Provider's Registration Application, or if there are any material changes to any other information supplied on that Application.*
- 3.9 The CRES Provider represents and warrants that it will obtain and maintain written authorization from each of its customers or prospective customers before it seeks to obtain from the Company that customer's historical demand and energy usage data.
- 3.10 If either Party learns that any of the representations and/or warranties contained in this Agreement has been violated or are false or misleading in any material respect when made or deemed made or repeated, such Party shall immediately notify the other Party in writing.
- 3.11 All representations and warranties contained in this Article shall continue for the term of this Agreement.

Article 4. Obligations of the Parties.

- 4.1 The Company and the CRES Provider shall cooperate in order to ensure the provision of any Competitive Retail Electric Services by the CRES Provider to customers in accordance with PUCO orders, the Company's Retail Tariff, and PJM's OATT, as applicable. Each Party shall (a) exercise all reasonable care, diligence and good faith in the performance of its duties pursuant to this Agreement; and (b) carry out its duties in accordance with applicable recognized professional standards in accordance with the requirements of this Agreement.
- 4.2 The CRES Provider and the Company shall supply to each other all data, materials or other information specified in this Agreement, or that may otherwise be reasonably required by the CRES Provider, the Company, or the PUCO in connection with their obligations under this Agreement, in a thorough and timely manner. The CRES Provider will comply with any and all information and data transfer protocols (including EBT and EDI standards) that may be adopted, and modified from time to time, by either the Company, the AEPCH, or the PUCO. The CRES Provider will also comply with any requirements of both the AEPCH or the PUCO regarding the coordination and communication of information and/or data transfers.
- 4.3 CRES Provider agrees, at all times, to comply with the CRES Provider Credit Requirements contained in the Company's Retail Tariff. If CRES Provider's participation in the Company's Choice Program terminates for any reason, CRES Provider shall maintain any and all financial security instruments that CRES Provider was required to provide pursuant to Company's Retail Tariff, until such time as the Company has determined that the CRES Provider has fully satisfied and discharged all of its obligations to Company.
- 4.4 The CRES Provider shall (a) obtain and maintain a certification from the Commission and any licenses, permits or other authorizations from any other federal, state or local agencies required to offer and/or sell Competitive Retail Electric Service in the Company's Choice Program; (b) complete PJM membership requirements and remain a member in good standing with PJM; (c) complete all applications and/or forms including renewal applications, and execute any agreements required for the CRES Provider's participation in the Company's Choice Program; (d) demonstrate to the Company, prior to enrolling any customers, that the CRES Provider has the requisite

technical competence (e.g., communication capabilities) to comply with EBT and EDI standards for the exchange of information, as set, and modified from time to time, by either the Company or the AEPCH; (e) if required, provide to the Company, and maintain during the term of this Agreement, the type (in the format and amount specified by the Company) of financial security (i.e. collateral) required by the Company to safeguard the Company and its customers from losses or additional costs incurred due to any non-performance on the part of the CRES Provider; and, pursuant to settlement processes defined in ~~article~~ Article 10, (f) agree to remit payments for capacity, energy, unaccounted for energy or other PJM calculated ancillary charges for PJM initial settlement, ~~on the final 60-day load reconciliation -or any other adjustments set forth in Article 10.~~ The foregoing requirements represent conditions precedent to the Company's obligations hereunder.

- 4.5 ~~If~~ To address continuity of service if the Company learns that any Schedule OAD ~~GS-1, GS-2, GS-3 or GS-4~~ customer is Bankrupt (as defined below), the Company shall email and seek the CRES Provider's instructions regarding the CRES Provider's intent or decision to retain or terminate the applicable CRES customer contract. If the CRES Provider fails to respond to the Company's email inquiry regarding the OAD ~~GS-1, GS-2, GS-3 or GS-4~~ customer within seven calendar (7) days, or any CRES Provider customer is Bankrupt and is ~~on either a Schedule OAD RS or GS-1,~~ the Company shall drop any such customer's electric service account to the Company's standard service on behalf of the CRES Provider. Neither the OAD Tariff nor this Agreement requires the Company to be responsible for notifying CRES Providers of their customers' bankruptcies or be liable to the CRES Provider as a result of such bankruptcies. "Bankrupt" means with respect to the customer, such customer files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy.

Article 5. Load Profiles.

- 5.1 During the term of this Agreement, the Company intends to post average customer load profile information, for classes that will utilize load profiling to its AEP Ohio website, Customer Choice

web page, Load Profile link. These profiles are for informational purposes only and the Company makes no representations or warranties of any kind regarding either the availability or use of such load profiles.

Article 6. Confidentiality of Information.

- 6.1 Customer-specific information will not be provided to the CRES Provider without a customer's affirmative authorization via the AEP Ohio Letter of Authorization, and the CRES Provider shall keep confidential all customer-specific information supplied by the Company, unless the CRES Provider has the customer's affirmative authorization to do otherwise.
- 6.2 All Company information made available by the Company to the CRES Provider pursuant to this Agreement, including, without limitation, class load profile data and information regarding the Company's computer systems or communications systems, shall not be disclosed to third parties without the prior written consent from the Company.
- 6.3 If the CRES Provider becomes legally compelled to disclose any of the information required to be kept confidential pursuant to Sections 6.1 and 6.2, the CRES Provider shall immediately notify the Company of the requirement to disclose. In such case, the CRES Provider shall cooperate with the Company to enable it to obtain protective treatment of the information. If the CRES Provider is nonetheless required to disclose information the CRES Provider shall furnish only that portion of the information, which is legally required.

Article 7. Billing Options Offered to the CRES Provider's Customers.

- 7.1 The following billing options are available to the CRES Provider's customers under the Company's Choice Program: CRES Provider consolidated billing (limited pilot), separate Company and CRES Provider bills (Dual Billing); Company consolidated Rate Ready billing, and Company consolidated Bill Ready billing.
 - a. The CRES Provider will not send to the Company any CRES Provider messages of any type to present on any Company Rate Ready billing. The Company will take reasonable efforts to display any messages on the Company's Rate Ready billing pertaining to CRES Provider charges and those messages which are required by the regulatory or governmental agencies.

- b. The CRES Provider may provide the Company with the CRES Provider Logo ("Logo") to display on the Company's consolidated customer bill. The Company will take reasonable efforts to display the Logo provided that the Logo meets these criteria: 1) black and white only; 2) at least 600 dpi (dots per inch); 3) in jpg or gif file format only (other file formats will not be utilized); 4) logo image should be horizontal/rectangular in shape (rather than vertical or stacked) and no greater than 5/16 inch height by 1 1/8 inches in width. If the CRES Provider does not provide a Logo, a blank space will display on the consolidated bill.

7.2 Company Reimbursement to Certified Supplier for Customer Payments

Where the Company acts as the billing agent for the CRES Provider, the Company shall reimburse the CRES Provider for all energy charges, sales taxes, and other charges collected on behalf of the CRES Provider. The Company will strive to reimburse the CRES Provider within five (5) business days, following receipt of the customer's payment, when possible, but will not take more than 10 business days.

Article 8. Metering Service Options Offered to the CRES Provider's Customers.

- 8.1 The following retail metering service options will be available to some or all of the CRES Provider's customers under the Company's Choice Program: the provision by a meter service provider ("MSP") of an electric meter, including meter sale or rental, and/or physical metering service, including meter installation, removal, maintenance, repair, calibration, and testing; and the provision by a meter data management agent ("MDMA") of meter information service, including data collection, processing (validation, editing, and estimation), storage, and communication. Before the CRES Provider may offer any of these types of services to any of its customers, the CRES Provider shall execute the appropriate addendum to this Agreement that specifies the terms under which the option may be offered to the CRES Provider's customers.

Article 9. Electronic Data Interchange

- 9.1 Each Party may electronically transmit to or receive from the other Party any transaction set listed in the materials referenced in Appendix A. All EDI transactions shall be transmitted in accordance with the terms of the Electronic Data Interchange provisions of this Agreement and the standards set forth in Appendix A.

- 9.2 EDI Transactions will be transmitted electronically to each Party, and the terms and conditions listed in Appendix A, either directly or through any third party service provider ("Provider") with which either Party may contract. For purposes of this Agreement, a "third party service provider" includes, but is not limited to, VANS, clearinghouses, and any key token security provider. Either Party may modify its election to use, not use, or change a Provider upon thirty (30) days prior written notice. A Level 2 connectivity test, as described in the Ohio EDI Implementation Guidelines, must be completed at least ten (10) Business Days in advance of the change to a new Provider. The applicable third party service Providers for the Company and the CRES Provider shall be listed in Appendix A.
- 9.2.1 Each Party shall be responsible for the costs and performance of any Provider with which it contracts.
- 9.2.2 Each Party shall be liable for the acts or omissions of its Provider while transmitting, receiving, storing, or handling EDI transactions, or performing related activities for such Party; provided that, if both Parties use the same Provider to effect the transmission and receipt of an EDI transaction, the originating Party shall be liable for the acts or omissions of such Provider as to such EDI transaction.
- 9.3 Each Party, at its own expense, shall provide and maintain the equipment, software, services and testing necessary to effectively and reliably transmit and receive EDI transactions.
- 9.4 Each Party shall properly use those security procedures, including those set forth in Appendix A, which are reasonably sufficient to ensure that all transmissions of EDI transactions are authorized and to protect its business records and data from improper access.
- 9.5 Each Party shall adopt as its signature, electronic identification consisting of symbol(s) or code(s) that are to be affixed to or contained in each EDI transaction or EDI transaction envelope transmitted by such Party ("Signatures"). Each Party agrees that any Signature of such Party affixed to or contained in any transmitted EDI transaction shall be sufficient to verify that such Party originated such EDI transaction. Neither Party shall disclose to any unauthorized person the Signatures of the other Party.

- 9.6 Level 2 testing certifications, as detailed in the Ohio Electric Implementation Guidelines, along with any added Company requirements, are prerequisites to Electronic Transactions. The Company reserves the right to add requirements as it deems necessary. The Company may require additional testing in response to a change in the system environments including, but not limited to: installation of a new application system, installation of a new EDI translator or implementation of a new EDI version. Additional testing shall adhere to the testing procedures as determined by the Company.
- 9.7 EDI transactions shall not be deemed to have been properly received, and no EDI transaction shall give rise to any obligation, until accessible to the receiving Party at such Party's electronic mailbox designated in Appendix A.
- 9.8 Upon proper receipt of any EDI transaction, the receiving Party shall promptly and properly transmit a functional acknowledgment in return. A functional acknowledgment shall constitute conclusive evidence that an EDI transaction has been properly received.
- 9.9 If acceptance of an EDI transaction is required, any such EDI transaction which has been properly received shall not give rise to any obligation unless and until the Party initially transmitting such EDI transaction has properly received in return the agreed acceptance EDI transaction.
- 9.10 If any properly transmitted EDI transaction is received in an unintelligible or garbled form, the receiving Party shall promptly notify the originating Party (if identifiable from the received EDI transaction) in a reasonable manner. In the absence of such a notice, the originating Party's records of the contents of such EDI transaction shall control, unless the identity of the originating Party cannot be determined from the received EDI transaction.
- 9.11 EDI transactions and communications related to Electronic Transactions under this Agreement shall maintain the same degree of confidentiality, as they would have in the form of paper records.
- 9.12 Any EDI transaction properly transmitted pursuant to this Agreement shall be considered, in connection with any EDI transaction, to be a "writing" or "in writing"; and any such EDI transaction when containing, or to which there is affixed, a Signature ("Signed Document") shall be deemed for all purposes (a) to have been "signed" and (b) to constitute an "original" when

printed from electronic files or records established and maintained in the normal course of business.

- 9.13 The conduct of the Parties pursuant to this Agreement, including the use of Signed Documents properly transmitted pursuant to the Agreement, shall, for all legal purposes, evidence a course of dealing and a course of performance accepted by the Parties in furtherance of this Agreement.
- 9.14 The Parties agree not to contest the validity or enforceability of Signed Documents under the provisions of any applicable law relating to whether certain agreements are to be in writing or signed by the Party to be bound thereby. Signed Documents, if introduced as evidence on paper in any judicial, arbitration, mediation, or administrative proceedings, will be admissible as between the Parties to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither Party shall contest the admissibility of copies of Signed Documents under either the business records exception to the hearsay rule or the best evidence rule on the basis that the Signed Documents were not originated or maintained in documentary form.
- 9.15 Each Party agrees to maintain either a paper copy or the electronic data required to create a paper copy of each Electronic Transaction which it initiates during the term of this Agreement and for at least two (2) years thereafter.
- 9.16 Upon the reasonable request of either Party, the other Party shall make all of its Electronic Transactions relating to the performance of this Agreement available to the requesting Party for inspection during the term of this Agreement and for two (2) years thereafter.
- 9.17 In the event that the Party to whom a request is made fails to maintain an appropriate record of any Electronic Transaction or fails to make such record available to the requesting Party upon reasonable request therefore, the requesting Party's record, if any, of such Electronic Transaction shall be conclusive in any dispute regarding such Electronic Transaction.

Article 10. Settlement Procedure.

- 10.1 PJM performs settlements for transmission, capacity and energy obligations for CRES provider market participation on predefined intervals using metered customer load obligations and daily CRES Provider customer enrollment obligation data provided by AEP Ohio. AEP Ohio will

make a best effort providing accurate load and customer obligation data. Energy is initially settled by PJM day-after load for CRES Providers, called "Settlement A." After final meter readings are available to AEP Ohio, supplier load obligation variances are reported to PJM, and PJM performs a final 60-Day energy settlement for the market, called "Settlement B." Until such time PJM establishes processes outside of the 60-day final settlement process, AEP Ohio will resettle adjustments that are identified outside of the 60-day period and only adjustments affecting billing for a GS-2 customer or above with a total adjustment amount equal to or greater than 36,000 MWH or more in energy, and limited to 12 months following the 60 day settlement B. Such adjustments shall be credited or assessed against each LSE in the AEP Ohio zone, as applicable, based upon corrected load shares during the adjustment period, and as a condition for doing business in the Company's service territory all CRES Providers will be deemed to have consented to and agreed to permit any such resettlements to be completed by and through AEP Ohio and/or PJM. Except for a GS-2 customer or above with a total adjustment amount equal to or greater than 36,000 MWH or more in energy within the 12 months following the 60-Day energy settlement, any errors identified outside of this the 60-day process are considered closed and no corrected settlement shall be performed by AEP Ohio. For a GS-2 customer or above with a total adjustment amount equal to or greater than 36,000 MWH or more in energy within 12 months following the 60-Day energy settlement, any errors identified outside of the twelve month period following the 60-Day energy settlement are considered closed and no corrected billing shall be performed by the CRES Provider, or on behalf of the CRES Provider by AEP Ohio for their assigned customers.

Article 11. Effective Date and Termination of Agreement.

- 11.1 The term of this Agreement shall commence as of the Effective Date and shall continue for a period of one year, unless sooner terminated as provided in Section 11.2. Notwithstanding the Effective Date, the CRES Provider acknowledges that it may not begin supplying any Competitive Retail Electric Services prior to the time it is in compliance with the provisions of this Agreement, PUCO orders and rules, and the Company's Retail Tariff.
- 11.2 This Agreement shall or may be terminated as follows:

- 11.2.1 In the event the CRES Provider ceases to provide Competitive Retail Electric Service to all customers in the Company's service territory or otherwise withdraws from the Choice Program, and so notifies the Company in writing in accordance with the notice requirements of Article 18, this Agreement shall terminate thirty (30) days following the date on which the CRES Provider ceases to have any active customers.
- 11.2.2 In the event of a Default (as defined in Section 12.1 of Article 12) by either Party ("Defaulting Party"), the other Party ("Non-Defaulting Party") may terminate this Agreement by providing written notice to the Defaulting Party, without prejudice to any remedies at law or in equity available to the Non-Defaulting Party by reason of the event of Default.
- 11.2.3 In the event that the Company elects in its sole discretion to terminate the Agreement by providing not less than sixty (60) days prior written notice to the CRES Provider.
- 11.3 Upon termination of this Agreement, the CRES Provider shall no longer be registered with the Company or authorized to provide Competitive Retail Electric Services in the Company's Choice Program.
- 11.4 The termination of this Agreement for any reason shall not relieve the Company or the CRES Provider of any obligation accrued or accruing prior to such termination.
- 11.5 Unless either party gives notice of termination thirty (30) days prior to October 31 ("Anniversary Date") of each renewal year, the Agreement shall automatically renew for successive one- year terms, provided there is no Event of Default hereunder.

Article 12. Events of Default and Remedies.

12.1 A CRES Provider is in default of its obligations under the Company's Choice Program if any one or more of the following "Events of Default" occurs:

12.1.1 The CRES Provider fails to perform any material obligation under this Agreement or the Company's Retail Tariff, the PUCO orders and rules, or PJM's OATT, within the requisite time frames, including, without limitation, any credit or security requirements;

12.1.2 The CRES Provider fails to fully pay an invoice from the Company within three Business Days following the due date of the invoice;

12.1.3 The CRES Provider is decertified by the PUCO or is otherwise declared ineligible to participate in the Ohio Customer Choice Program or the Company's Customer Choice Program;

12.1.4 The CRES Provider's action or inaction has or will jeopardize the operational integrity, safety, or reliability of the Company's transmission or distribution system;

12.1.5 The CRES Provider or its agent performing services on behalf of the CRES Provider is in default of any agreement with or requirement of PJM, is no longer member of PJM or any other required authorization of the CRES Provider is actually revoked;

12.1.6 The CRES Provider misuses the Company Consolidated and Bill-Ready Billing option by incorrectly using the name of the Company or the name of one of the Company's affiliates in a charge description or otherwise using this billing option in a misleading or defamatory manner;

12.1.7 The CRES Provider voluntarily withdraws from the Company's Customer Choice Program without providing at least ninety calendar days notice to the Company;

12.1.8 With respect to, if any, a CRES Provider's guarantor-~~or~~, issuer of a Letter of Credit or issuer of a Surety Bond: (i) if any representation or warranty made by such guarantor, or issuer of a Letter of Credit or issuer of a Surety Bond in connection with this Agreement is false or misleading in any material respect when made or when deemed made or repeated; (ii) the failure of such guarantor-~~or~~, issuer of a Letter of Credit or issuer of a Surety Bond to make any payment required or to perform any other material covenant or obligation in any guaranty, Letter of Credit or Surety Bond made in connection with this Agreement and such failure shall not be remedied within three (3) business days after written notice; (iii) such guarantor or issuer shall repudiate, disaffirm disclaim or reject, in whole or in part, or challenge the validity of, as applicable any guaranty-~~or~~, Letter of Credit or Surety Bond; or (iv) the failure of a guarantor's guaranty-~~or~~, the issuer's Letter of Credit or the issuer of a Surety Bond to be in full force and effect for purposes of this Agreement (other than in accordance with its terms) prior to the satisfaction of all obligations of the CRES Provider to which such guaranty, Letter of Credit or Surety Bond shall relate without the written consent of the Company.

12.1.9 The CRES Provider or, if applicable, its guarantor, the issuer of a Letter of Credit or the issuer of a Surety Bond files a voluntary petition in bankruptcy or otherwise commences, authorizes or acquiesces in the commence of a proceeding or cause of action under any bankruptcy, insolvency,

reorganization or similar law, or has any such petition filed or commenced against it; has an involuntary petition in bankruptcy filed against it; is insolvent; has a receiver, liquidator, administrator, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets; or is generally unable to pay its debts as they fall due.

12.2 If an Event of Default with respect to a CRES Provider shall have occurred, the Non-Defaulting Party shall be entitled to, without limitation, (a) suspend enrolling any new CRES Provider customers and the CRES Provider shall not be permitted to enroll any new customers in the Company's Choice Program unless it re-registers in the Company's Customer Choice Program, pursuant to the requirements of Section # of the Company's Retail Tariff; (b) pursue any and all available legal and equitable remedies available to it, including proceeding against the financial security and collateral provided by the CRES Provider to the Company; and/or (c) terminate this Agreement by written notice to the CRES Provider, without any liability or responsibility whatsoever, except for obligations arising prior to the date of termination and the CRES Provider's customers shall be returned to the Company's Standard Offer Rate effective on each customer's next Meter Read Date after the date of termination. ____

Article 13. Dispute Resolution.

13.1 Any disputes involving transmission service shall be handled in accordance with PJM's OATT.

13.2 Disputes between a CRES Provider's customer and the CRES Provider shall be the sole responsibility of the CRES Provider. At the request of the PUCO, the Company may provide input to customer rate dispute processes to the extent necessary as determined by the PUCO.

13.3 Disputes between a customer of the Company and the Company shall be subject to the Company's existing customer dispute resolution procedures.

Article 14. Force Majeure.

14.1 Neither party shall be liable for any delay in performing or for failing to perform its respective obligations under this Agreement due to any event of Force Majeure including a catastrophic weather condition (but not fluctuations in temperature no matter how extreme), flood, fire, lightning, epidemic, quarantine restriction, war, sabotage, act of a public enemy, earthquake, insurrection, riot, civil disturbance, strike, walkout, lockout or other labor dispute, work stoppage caused by jurisdictional and/or similar disputes, restraint by court order or public authority, or

action or non-action by, or inability to obtain authorization or approval from, any governmental authority, or any combination of these causes, which by the exercise of due diligence and foresight *such Party could not reasonably have been expected to avoid and which by the exercise of due diligence is unable to overcome*. Financial loss or other economic hardship of either Party shall not constitute an event of Force Majeure under this Agreement.

- 14.2 The obligations of either Party, so far as they are affected by the Force Majeure event, shall be suspended during the continuation of such inability and circumstance and shall, so far as possible, be remedied within a reasonable period of time. During such Force Majeure event, both Parties shall take all reasonable steps to comply with this Agreement notwithstanding the occurrence of the event. *This section shall not require the settlement of any strike, walkout, lockout or other labor dispute on terms which, in the sole judgment of the Party involved in the dispute, are contrary to its interest*. It is understood and agreed that the settlement of strikes, walkouts, lockouts or other labor disputes shall be entirely within the discretion of the Party involved in the strike, walkout, lockout or other labor dispute.

Article 15. Regulatory Authorizations and Jurisdiction.

- 15.1 The Company and the CRES Provider are subject to, and shall comply with, all existing or future applicable federal, state and local laws, and all existing or future duly promulgated orders or other duly authorized actions of governmental authorities having jurisdiction over the matters covered by this Agreement.
- 15.2 This Agreement is subject to change in the future to reflect any relevant changes required by the PUCO or other Ohio state agency having jurisdiction, or by virtue of any federal or state law or regulation, and such changes shall be deemed to be binding upon the Parties, except where the right to terminate is exercised in accordance with the terms of this Agreement.
- 15.3 Any references to FERC-jurisdictional matters in this Agreement are intended solely for informational purposes and are not intended to accord any jurisdictional authority over such matters to the Commission. If anything stated herein is found by the FERC to conflict with or to be inconsistent with any provision of the Federal Power Act ("FPA"), or any rule, regulation, order

or determination of the FERC under the FPA, the applicable FERC rule, regulation, order or determination of the FERC shall control.

Article 16. Limitation of Liability.

- 16.1 The Company shall have no duty or liability with respect to Competitive Retail Electric Service before it is delivered by a CRES Provider to an interconnection point with the applicable Company rate zone.
- 16.2 The Company does not guarantee continuous, regular and uninterrupted supply of service. The Company may, without liability, interrupt or limit the supply of service for the purpose of making repairs, changes, or improvements in any part of its system for the general good of the service or the safety of the public or for the purpose of preventing or limiting any actual or threatened instability or disturbance of the system. The Company is also not liable for any damages due to accident, strike, storm, riot, fire, flood, legal process, state or municipal interference, or any other cause beyond the Company's control. The Company shall have no duty or liability with respect to Competitive Retail Electric Service before it is delivered by a CRES Provider to an interconnection point with the applicable Company rate zone. After its receipt of Competitive Retail Electric Service at the point of delivery, the Company shall have the same duty and liability for transmission and distribution service to its customers receiving electric energy and capacity from the Company.
- 16.3 Except as expressly provided in the Company's Retail Tariff, the Company shall have no duty or liability to a CRES Provider providing Competitive Retail Electric Services arising out of or related to a contract or other relationship between a CRES Provider and a customer of the CRES Provider.
- 16.4 The Company shall have no liability to the CRES Provider or customer for supplier charge billing errors presented to the customer through Rate Ready or Bill Ready utility consolidated billing resulting from errors in EDI submission of billing determinants from the CRES Provider, or Rate Ready set-up of billing determinants by the CRES Provider.

- 16.5 The Company shall switch customers to the CRES Provider consistent with the PUCO orders and rules and the Company's Retail Tariff, and shall have no liability to the CRES Provider arising out of or related to a customer's decision to switch among competitive service providers and/or the Company, unless the Company is grossly negligent in switching or failing to switch a customer.
- 16.6 The Company shall not have any duties or liabilities other than those specifically set forth in this Agreement. The Company shall have no liability to the CRES Provider for any consequential, indirect, incidental, special, ancillary, punitive, exemplary, or other damages, including lost profits, lost revenues, or other monetary losses arising out of any errors or omissions.

Article 17. Indemnification.

- 17.1 To the fullest extent permitted by law, the CRES Provider shall defend, indemnify and hold harmless the Company from and against any and all claims and/or liabilities for losses, expenses, damage to property, injury to or death of any person, including the Company's employees or any third parties, or any other liability incurred by the Company, including reasonable attorneys' fees, relating to performance under this Agreement, except to the extent that a court of competent jurisdiction determines that the losses, expenses or damage were caused wholly or in part by any grossly negligent or willful act or omission of the Company.
- 17.2 The CRES Provider's obligation to defend, indemnify and hold harmless under this Article shall survive termination of this Agreement, and shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CRES Provider under any statutory scheme, including any workers compensation acts, disability benefit acts or other employee benefit acts.

Article 18. Notices.

- 18.1 Any written notice required or appropriate hereunder shall be deemed properly made, given to, or served on the Party to which it is directed, when sent by overnight mail or United States mail, postage prepaid, and addressed as follows:

If to the CRES Provider:

If to the Company:

Ohio Choice Operations
AEP Ohio
850 Tech Center Drive
Gahanna, Ohio 43230

18.2 Notice of any change in any of the above addresses shall be given in writing in the manner specified in this Article.

18.3 Notices received after the close of a Business Day shall be deemed received on the next Business Day.

Article 19. Not a Joint Venture.

19.1 Unless specifically stated in this Agreement to be otherwise, the duties, obligations, and liabilities of the Parties are intended to be separate and not joint or collective. Nothing contained in this Agreement shall ever be construed to create an association, trust, partnership or joint venture or to impose a trust or partnership duty, obligation, or liability on or with regard to either Party. Each Party shall be liable individually and severally for its own obligations under this Agreement.

Article 20. Conflicts Between this Agreement and the Company's Retail Tariff or PJM's OATT.

20.1 Should a conflict exist or develop between the provisions of this Agreement and the relevant provisions of the Company's Retail Tariff or PJM's OATT, as approved by the PUCO and the FERC, respectively, the provisions of the Company's Retail Tariff and/or PJM's OATT shall prevail.

Article 21. Amendments or Modifications.

21.1 Except as provided in Section 13.2 of Article 13 of this Agreement, no amendment or modification shall be made to this Agreement, in whole or in part, except by an instrument in writing executed by authorized representatives of the Parties, and no amendment or modification shall be made by course of performance, course of dealing or usage of trade.

Article 22 Taxes.

- 22.1 All present or future federal, state, municipal or other taxes imposed on the CRES Provider by any taxing authority shall be the liability of the CRES Provider. The CRES Provider shall pay all such taxes to the applicable taxing authority to the extent required or permitted by law. If the Company is required to remit any taxes imposed upon customers directly to any applicable taxing authority, other than taxes collected by the Company directly from the CRES Provider's customers, then the CRES Provider shall indemnify the Company against, and will pay the Company for, all such tax amounts upon demand.

Article 23. Waiver of Rights.

- 23.1 No term or condition of this Agreement shall be deemed to have been waived and no breach excused unless such waiver or consent to excuse is in writing and signed by the Party claimed to have waived or consented to such excuse. The failure of either Party to insist in any one or more instances upon strict performance of any provisions of this Agreement, or to take advantage of any of its rights hereunder, shall not be construed as a waiver of any such provisions or the relinquishment of any such right or any other right hereunder, which shall remain in full force and effect.

Article 24. General Provisions.

- 24.1 The Parties agree that the normal rule of construction, to the effect that any ambiguities are to be resolved against the drafting Party, shall not be employed in the interpretation of this Agreement.
- 24.2 To the extent not subject to the exclusive jurisdiction of the FERC, the formation, validity, interpretation, execution, amendment and termination of this Agreement shall be governed by the laws of the State of Ohio.
- 24.3 The headings contained in this Agreement are used solely for convenience and do not constitute a part of the Agreement between the Parties hereto, nor should they be used to aid in any manner in the construction of this Agreement.
- 24.4 This Agreement is intended solely for the benefit of the Parties hereto. Nothing in this Agreement shall be construed to create any duty, or standard of care with reference to, or any liability to, any person not a Party to this Agreement.

- 24.5 Neither Party shall have any right, power, or authority to enter any agreement or undertaking for, or on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 24.6 Cancellation, expiration or early termination of this Agreement shall not relieve the Parties of obligations that by their nature survive such cancellation, expiration or termination, including, without limitation, payment of any amounts due, warranties, remedies, promises of indemnity and confidentiality.
- 24.7 Should any provision of this Agreement be held invalid or unenforceable, such provision shall be invalid or unenforceable only to the extent of such invalidity or unenforceability without invalidating or rendering unenforceable any other provision hereof, unless it materially changes the Agreement of the Parties.
- 24.8 Each of the Parties hereto acknowledges that it has read this Agreement, and the Company's Retail Supplier Terms and Conditions of Service, understands them, and agrees to be bound by their terms. This Agreement is intended by the Parties as a final expression of their agreement and is intended also as a complete and exclusive statement of the terms of their agreement. All prior written or oral understandings or offers pertaining to this Agreement are hereby abrogated and withdrawn.

Article 25. Assignment and Delegation.

- 25.1 This Agreement may not be assigned by either the Company or the CRES Provider without the prior written consent of the non-assigning Party, which consent shall not be unreasonably withheld. However, the Company may assign any or all of its rights and obligations under this Agreement, without the CRES Provider's consent, to any entity succeeding to all or substantially all of the transmission and/or distribution facilities of the Company.
- 25.2 When duly assigned in accordance with the foregoing, this Agreement shall be binding upon and shall inure to the benefit of the assignee. Any assignment in violation of this Article shall be void.

*** Signatures on following page. ***

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials on the dates written below, to be effective as of the Effective Date.

Ohio Power Company
(the "Company")

(the "CRES Provider")

By: _____

By: _____

Printed
Name: *Karen L. Sloneker*

Printed
Name: _____

Title: *Director, Customer Services
& Marketing*

Title: _____

Date: _____

Date: _____

Attachment F

Sheet No. 103-31D (Section 31.6.b RTO Settlements)

PJM performs settlements for transmission, capacity and energy obligations for CRES provider market participation on predefined intervals using metered customer load obligations and daily CRES Provider customer enrollment obligation data provided by AEP Ohio. AEP Ohio will make a best effort providing accurate load and customer obligation data. Energy is initially settled by PJM day-after load for CRES Providers, called "Settlement A." After final readings are available to AEP Ohio, supplier load obligation variances are reported to PJM, and PJM performs a final 60-Day energy settlement for the market, called "Settlement B." Until such time PJM establishes processes outside of the 60-day final settlement process, ~~any errors, AEP Ohio will resettle capacity, and energy adjustments that are identified outside of this~~ the 60-day process are considered closed and no corrected PJM energy market, but only up to twelve months after the 60-day period and only adjustments affecting billing shall be performed by the CRES Provider, or on behalf of the CRES Provider by AEP Ohio for their assigned customers: GS-2 or above with total adjustment amounts equal to or greater than 36,000 MWH or more in energy. Such adjustments shall be credited or assessed against each LSE in the AEP Ohio zone, as applicable, based upon corrected load shares during the adjustment period, and shall be identified on a specific line item for credits and/or assessments, and as a condition for doing business in the Company's service territory all CRES Providers will be deemed to have consented and agreed to permit any such resettlements to be completed by and through AEP Ohio and/or PJM.

The Company will make available on its website (<http://www.aepohio.com>) current settlement policies and calculation procedures including but not limited to CRES Provider capacity and energy obligations related to initial PJM "Settlement A", final 60-Day energy "Settlement B."

Sheet No. 103-36D (Section 31.9.b)

The CRES Provider may choose from any of the following credit arrangements, which must be in an acceptable format:

(i) a guarantee of payment on behalf of CRES Provider from (a) a related U.S. entity who meets the minimum investment grade rating requirements in the Company's prescribed guaranty format; or (b) a related foreign (non-U.S.) entity who meets the minimum investment grade rating requirements and uses the Company's prescribed guaranty format (or a format mutually acceptable to Company and such entity that provides substantially similar credit protections to the credit protections provided to the Company by the Company's prescribed guaranty format for a related U.S. entity) and complies with the Company's requirement for foreign guarantors by meeting the following minimum requirements: (1) such guaranty is a financial guaranty, not a performance guaranty, (2) such guaranty must be an unconditional guaranty of payment of all amounts due from CRES Provider pursuant to Section 31.24, and the Company Tariff and EDU Registration Agreement and all other agreements must be expressly identified in the guaranty, and satisfaction of obligations through performance may not be authorized, (3) such guaranty may be terminated upon not less than sixty (60) days prior written notice to AEP Ohio, which termination shall be effective only upon receipt by the Company of alternative means of security or credit support, as specified in the Tariff, and when such termination is effective, obligations

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existing prior to the time the expiration or termination is effective, shall remain guaranteed under such guaranty until finally and fully performed: (4) certification from guarantor that form of guaranty has been in general use by the submitting party in its ordinary course of business over the past twelve months, subject to changes needed to conform to the Company's minimum requirements, (5) the guaranty must be a guaranty of payment, and not of collection; (6) assignment of such guaranty shall not be permitted by the guarantor without the prior written consent of the Company, (7) an enforceability opinion from the entity's outside counsel from a law firm of national (i.e. United States) standing;

(ii) an irrevocable Letter of Credit (as further defined below);

(iii) a cash deposit from the CRES Provider in U.S. Dollars, provided, further if a third party is providing such cash deposit for and on behalf of the CRES Provider, the Company may accept such deposit from a third party if it otherwise meets AEP Ohio's security requirements; or

(iv) a Surety Bond issued by a financial institution with at least an "A" rating or higher as rated by AM Best and/or an "A" rating or higher from Standards & Poor's, valid for a period of not less than one year and renewable annually; with terms and conditions that require payment within ten (10) days after delivery by the Company of a written demand to Surety for payment, and the terms and conditions of the Surety provides substantially similar credit protections to the credit protections provided to the Company by the other forms of acceptable collateral, including without limitation a waiver of the supplier's right to assert against the Company any defense (legal or equitable), counterclaim, setoff, cross-claim, or any other claim, an express waiver and agreement not to assert any defenses arising out of bankruptcy, insolvency, dissolution or liquidation of the supplier, including, without limitation, any defense relating to the automatic stay.

Sheet No. 103-48D (Section 38.17)

The Company, acting as a designated agent for the CRES Provider, will supply hourly load data to Transmission Provider, for the CRES Provider. The Company will provide this data in accordance with the Transmission Provider Open Access Transmission Tariff, including estimates when necessary. The Company will be held harmless for any actions taken while performing agent responsibilities; unless demonstrated to have negligently misread the meter data or negligently provided inaccurate data. Meter data collected by the Company shall be used to calculate the quantity of energy actually consumed by a CRES Provider's end-use customers for a particular period. Such collection shall occur at the time of an end-use customer's monthly meter read. Thus, in order to measure the energy consumed by all end-use customers on a particular day, at least one month is required for data collection. It is the responsibility of the CRES Provider to understand this process.

Data from monthly-metered end-use customers is collected in subsets corresponding to end-use customer billing cycles, which close on different days of the month. The Company shall convert such meter data, including estimates, for end-use customers to the equivalent hourly usage.

Metered usage will be applied to customer segment load curves to derive an estimate for the hour-by-hour usage.

Data from interval-metered end-use customers will also be collected at least monthly by the Company on a billing cycle basis. Nothing in this section shall prohibit the use of interval

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usage for settlement purposes if agreed to in the future.

~~Company on a billing cycle basis.~~

Sheet No. 103-52D (Section 31.22.e)

e. ~~e~~-Timetable for Setting up CRES Provider Rates.

1. The Company defines standard rates as falling into one of the following rate types:

- a) a percentage discount from Price To Compare (PTC)
- b) a fixed dollar amount
- c) a monthly customer charge
- d) a fixed rate per KWH
- e) a fixed rate per KW
- ~~→f) a flat/fixed monthly other than a customer choice rate per KWH per time of use (TOU) period~~
- ~~→g) a configurable stepped rate with KWH usage ranges~~
- ~~→h) a seasonal rate.~~

Sheet No. 103-57D (Section 31.22.m)

Requests from the CRES Provider to the Company for customer load data will be submitted to the Company and provided back to the CRES Provider using standard electronic format: at no charge. Requests for manually prepared interval load data reports will be provided at a charge of \$50 to the CRES Provider.–

As proposed (103-28D) – agree not to make revisions proposed in Company testimony:

Any customer who desires service from a CSP must first contract with a CRES Provider who will arrange for the provision of such services. The CRES Provider shall then notify the Company at least twelve (12) calendar days prior to the customer's regularly scheduled meter reading date after which the customer will receive service from the CSP. All changes in CRES Provider shall occur at the end of the customer's regularly scheduled meter reading date. Any request to change a customer's CRES Provider received after twelve (12) calendar days prior to the customer's regularly scheduled meter reading date shall become effective the subsequent billing month.

CERTIFICATE OF SERVICE

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 *Direct Testimony of William A. Allen* was sent by, or on behalf of, the undersigned counsel to the following parties of record this 13th day of September 2017, via electronic transmission.

/s/ Steven T. Nourse

Steven T. Nourse

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Case No(s). 16-1852-EL-SSO, 16-1853-EL-AAM

Summary: Testimony - Direct Testimony of William A. Allen in Support of the Joint Stipulation and Recommendation electronically filed by Mr. Steven T Nourse on behalf of Ohio Power Company