#### 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 R.C.	)	Case No. 23-0023-EL-SSO
4928.143, in the Form of an Electric Security Plan	)	
In the Matter of the Application of Ohio Power	)	
Company for Approval of Certain Accounting	)	
Authority	)	Case No. 23-0024-EL-AAM

#### DIRECT TESTIMONY AND EXHIBITS OF

**STEVE W. CHRISS** 

**ON BEHALF OF** 

WALMART INC.

JUNE 9, 2023

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#### Exhibits

Exhibit SWC-1: Witness Qualifications Statement
Exhibit SWC-2: Company's Response to OCC-INT-03-002
Exhibit SWC-3: Illustrative Calculation of Billed Base Rate Cost, AEP Ohio Schedule GS Secondary
Exhibit SWC-4: Illustrative Calculation of Billed Base Rate Cost, AEP Ohio Schedule GS-TOU

1 Introduction

2	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.
3	Α.	My name is Steve W. Chriss. My business address is 2608 SE J St., Bentonville, AR
4		72716-0550. I am employed by Walmart Inc. ("Walmart") as Director, Energy
5		Services.
6	Q.	ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?
7	Α.	I am testifying on behalf of Walmart.
8	Q.	IS WALMART SPONSORING ANOTHER WITNESS IN THIS CASE?
9	Α.	Yes. Walmart is also sponsoring the testimony of Alex J. Kronauer, Senior Manager,
10		Energy Services.
11	Q.	PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.
12	Α.	In 2001, I completed a Master of Science in Agricultural Economics at Louisiana State
13		University. From 2001 to 2003, I was an Analyst and later a Senior Analyst at the
14		Houston office of Econ One Research, Inc., a Los Angeles-based consulting firm. My
15		duties included research and analysis on domestic and international energy and
16		regulatory issues. From 2003 to 2007, I was an Economist and later a Senior Utility
17		Analyst at the Public Utility Commission of Oregon in Salem, Oregon. My duties
18		included appearing as a witness for PUC Staff in electric, natural gas, and
19		telecommunications dockets. I joined the Energy Department at Walmart in July 2007
20		as Manager, State Rate Proceedings. I was promoted to Senior Manager, Energy
21		Regulatory Analysis, in June 2011. I was promoted to my current position in October

2016 and the position was re-titled in October 2018. My Witness Qualifications
 Statement is attached as Exhibit SWC-1.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE PUBLIC UTILITIES
 4 COMMISSION OF OHIO ("COMMISSION")?

A. Yes. I submitted testimony in Case Nos. 10-2586-EL-SSO, 11-346-EL-SSO, 11-348-ELSSO, 11-349-EL-AAM, 11-350-EL-AAM, 12-426-EL-SSO, 12-427-EL-ATA, 12-428-ELAAM, 12-429-EL-WVR, 12-672-EL-RDR, 13-2385-EL-SSO, 13-2386-EL-AAM, 14-841-ELSSO, 14-842-EL-ATA, 14-1297-EL-SSO, 14-1693-EL-RDR, 14-1694-EL-AAM, 16-1852-EL-

9 SSO, and 16-1853-EL-AAM.

# 10 Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE OTHER STATE 11 REGULATORY COMMISSIONS?

Yes. I have submitted testimony in over 250 proceedings before 42 other utility 12 Α. regulatory commissions. I have also submitted testimony before legislative 13 committees in Missouri, Kansas, North Carolina, and South Carolina. My prior 14 testimony has addressed topics including, but not limited to, cost of service and rate 15 16 design, return on equity ("ROE"), revenue requirements, ratemaking policy, large customer renewable programs, qualifying facility rates, telecommunications 17 deregulation, resource certification, energy efficiency/demand side management 18 19 ("EE/DSM"), fuel cost adjustment mechanisms, decoupling, and the collection of cash 20 earnings on construction work in progress.

#### 21 Q. ARE YOU SPONSORING EXHIBITS IN YOUR TESTIMONY?

22 A. Yes. I am sponsoring the exhibits listed in the Table of Contents.

## 1 Q. DOES WALMART HAVE EXPERIENCE IN THE ELECTRIC VEHICLE ("EV") CHARGING 2 SPACE?

Α. Yes, Walmart has substantial experience with offering EV charging to its customers 3 and is actively growing its presence in the EV charging space. Specifically, Walmart 4 currently hosts more than 1,200 public Direct Current Fast Chargers ("DCFC") at 285 5 different locations and across 43 states. As announced recently, Walmart intends to 6 7 build its own EV fast-charging network at thousands of Walmart and Sam's Club locations across the U.S. over the next few years.<sup>1</sup> Walmart retail sites are ideally 8 situated for EV charging stations because of their large parking lots, easy public access, 9 and multi-site locations. 10

# 11 Q. WHY HAS WALMART DECIDED TO PARTICIPATE IN THE PUBLIC EV CHARGING 12 SPACE?

13A.As part of its renewable energy and carbon reduction efforts, Walmart is committed14to supporting EV adoption by providing EV charging stations in thousands of locations15that not only serve EV customers who reside and/or work nearby but also advances16the nationwide EV infrastructure as a whole. Furthermore, Walmart is proud to offer17EV charging as a convenience to its customers who currently own EVs and for future18EV owners. Building an EV charging infrastructure that serves local communities, both19large and small, as well as corridors located within states and throughout the country,

<sup>&</sup>lt;sup>1</sup> https://corporate.walmart.com/newsroom/2023/04/06/leading-the-charge-walmart-announces-plan-to-expand-electric-vehicle-charging-network

1		is critical as vehicle owners consider their options when purchasing a new vehicle.
2	Q.	WHAT FACTORS DOES WALMART CONSIDER WHEN INSTALLING OR SITING EV
3		CHARGING INFRASTRUCTURE?
4	A.	As a general rule, Walmart seeks to site EV charger locations to provide value to
5		Walmart and its customers. Walmart seeks to balance the risks and costs of installing
6		and maintaining EV charging infrastructure by participating in various EV-specific
7		programs offered by states or utility companies, such as rebate programs and "make
8		ready" programs. Additionally, the economics of a particular EV charging station is
9		informed, in part, by the tariff under which the electricity is provided from the utility
10		to the owner of the EV charger, as I will discuss in more detail below.
11		
12	Purpose o	of Testimony and Summary of Recommendations
12 13	Purpose o Q.	of Testimony and Summary of Recommendations WHAT IS THE PURPOSE OF YOUR TESTIMONY?
	-	
13	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
13 14	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY? The purpose of my testimony is to provide Walmart's response to Ohio Power
13 14 15	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY? The purpose of my testimony is to provide Walmart's response to Ohio Power Company's ("AEP Ohio" or " Company") Electric Transportation Plan ("ETP") and EV
13 14 15 16	<b>Q.</b> A.	WHAT IS THE PURPOSE OF YOUR TESTIMONY? The purpose of my testimony is to provide Walmart's response to Ohio Power Company's ("AEP Ohio" or " Company") Electric Transportation Plan ("ETP") and EV rates proposed as part of its Fifth Electric Security Plan ("ESP V") filing.
13 14 15 16 17	<b>Q</b> . A. <b>Q</b> .	WHAT IS THE PURPOSE OF YOUR TESTIMONY? The purpose of my testimony is to provide Walmart's response to Ohio Power Company's ("AEP Ohio" or " Company") Electric Transportation Plan ("ETP") and EV rates proposed as part of its Fifth Electric Security Plan ("ESP V") filing. WHAT IS YOUR UNDERSTANDING OF THE PROPOSED EFFECTIVE PERIOD FOR ESP V?
13 14 15 16 17 18	<b>Q</b> . A. <b>Q</b> .	WHAT IS THE PURPOSE OF YOUR TESTIMONY? The purpose of my testimony is to provide Walmart's response to Ohio Power Company's ("AEP Ohio" or " Company") Electric Transportation Plan ("ETP") and EV rates proposed as part of its Fifth Electric Security Plan ("ESP V") filing. WHAT IS YOUR UNDERSTANDING OF THE PROPOSED EFFECTIVE PERIOD FOR ESP V? My understanding is the Company proposes ESP V to be in effect from June 1, 2024,
13 14 15 16 17 18 19	<b>Q</b> . A. <b>Q</b> .	<ul> <li>WHAT IS THE PURPOSE OF YOUR TESTIMONY?</li> <li>The purpose of my testimony is to provide Walmart's response to Ohio Power</li> <li>Company's ("AEP Ohio" or " Company") Electric Transportation Plan ("ETP") and EV</li> <li>rates proposed as part of its Fifth Electric Security Plan ("ESP V") filing.</li> <li>WHAT IS YOUR UNDERSTANDING OF THE PROPOSED EFFECTIVE PERIOD FOR ESP V?</li> <li>My understanding is the Company proposes ESP V to be in effect from June 1, 2024,</li> <li>through May 31, 2030. See Application, page 2. My understanding is that the</li> </ul>

1 May 31, 2030. *Id.*, page 12.

2	Q.	DOES THE COMPANY REPRESENT THE PROPOSED ESP V AS HAVING THE EFFECT OF
3		STABILIZING AND PROVIDING CERTAINTY FOR RETAIL ELECTRIC SERVICE?
4	Α.	Yes. The Company claims that ESP V as proposed will have "the effect of stabilizing
5		and providing certainty regarding retail electric service," including offering AEP Ohio
6		customers "reasonable and stable electricity rates." <i>Id.,</i> page 3 to page 4.
7	Q.	PLEASE SUMMARIZE WALMART'S RECOMMENDATION TO THE COMMISSION.
8	Α.	Walmart's recommendations to the Commission are as follows:
9		1) Walmart does not oppose Commission approval of the Company's proposed
10		Corridor Program, subject to:
11		a. The Commission's rejection of the Company's provider of last resort proposal;
12		b. Expansion of program application to sites within two miles of highways,
13		freeways, and state routes to provide greater opportunity for the market to
14		develop and deliver EV charging infrastructure; and
15		c. Expansion of the proposed 50 percent incentive adder applicable to low-
16		income defined census districts to rural or remote areas of concern.
17		2) Walmart does not oppose Commission approval of the Company's proposed DCFC
18		Non-Corridor Program.
19		3) Walmart does not oppose the Commission's approval of the Company's fleet
20		program, subject to the inclusion of incentive opportunities for DCFC charging as
21		well as Level 2 ("L2") charging.
22		4) For the purposes of this case, to support the development of EV charging in the

1		Company's service territory and to stabilize and provide certainty to retail service
2		during the proposed ESP V term, the Commission should require AEP Ohio to
3		remove the participation cap for Schedule PEV, Pilot Plug-In Electric Vehicle
4		Schedule – Public Charging ("Schedule PEV"), for the term of ESP V. Alternatively,
5		the Commission should shift the Company's proposed Schedule BUS – PEV, Public
6		Transit & School Bus Plug-in Electric Vehicle ("Schedule BUS – PEV"), to a de facto
7		public EV charging rate schedule available to any public EV charging customer, not
8		just public transit and school bus customers as proposed, which would provide
9		additional primary and transmission service level options.
10		5) Walmart does not oppose Commission approval of the Company's make ready
11		proposal, subject to the Commission requiring the Company to fully define what
12		constitutes a "beneficial" area and to provide upon customer request a list of
13		locations that meet this designation.
14	Q.	DOES THE FACT THAT YOU MAY NOT ADDRESS AN ISSUE OR POSITION ADVOCATED
15		BY THE COMPANY INDICATE WALMART'S SUPPORT?
16	Α.	No. The fact that an issue is not addressed herein or in related filings should not be
17		construed as an endorsement of, agreement with, or consent to any filed position.
18		
19	Electric Tr	ansportation Plan Overview
20	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED ETP?
21	Α.	My understanding is that the Company proposes programs in the following customer
22		categories:

1		1) Residential customers in single family homes or multifamily housing;
2		2) Owners of multifamily properties;
3		3) Transit providers and school districts;
4		4) Communities, municipalities, and other governmental agencies;
5		5) Public charging developers and site hosts; and
6		6) Commercial customers.
7		See Direct Testimony of Adriane E. Jaynes, page 10, line 3 to line 8.
8		Based on the above categories, the Company proposes to offer three types of
9		programs – Residential Programs, Corridor Program, and Commercial and Public
10		Programs. Id., page 11, line 9 to line 12. My testimony focuses only on the Corridor
11		Program and the Commercial and Public Programs.
4.0		
12		
12	Corridor	Program
	Corridor Q.	Program WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED CORRIDOR
13		
13 14		WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED CORRIDOR
13 14 15	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED CORRIDOR PROGRAM?
13 14 15 16	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED CORRIDOR PROGRAM? My understanding is the Company proposes the Corridor Program as a pathway to
13 14 15 16 17	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED CORRIDOR PROGRAM? My understanding is the Company proposes the Corridor Program as a pathway to address the need for DCFC along "key" highway traffic corridors by providing
13 14 15 16 17 18	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED CORRIDOR PROGRAM? My understanding is the Company proposes the Corridor Program as a pathway to address the need for DCFC along "key" highway traffic corridors by providing incentives for 25 EV ports per year, with an annual budget of \$630,000. <i>See</i> Direct

- 21 with potential variances of up to two miles granted for remote areas. *Id.* The
- 22 Company also proposes that a participating customer have at least two DCFC ports at

1		the location, and each must be a minimum of 150 kW and be available to the public
2		24 hours a day, 7 days a week, with the option to increase qualifications "as
3		technology and customer expectations evolve." Id. The proposed initial incentive is
4		\$20,000 per port, with a 50 percent increase in incentive available to locations located
5		within low-income defined census districts. Id. The Company's incentive may be
6		combined with other grants or rebates, but customers are not eligible to receive
7		rebate amounts greater than the amount not covered by other funding sources. Id.
8	Q.	DOES THE COMPANY PROPOSE A UTILITY-OWNED AND OPERATED "PROVIDER OF
9		LAST RESORT" OPTION?
10	A.	Yes. The Company proposes that "in the event the market does not fill the
11		transportation gaps," AEP Ohio can function as a provider of last resort in a location
12		deemed "necessary." Id. The Company proposes to charge drivers the median price
13		charged by surrounding DCFC providers. Id.
14	Q.	DOES THE COMPANY PROPOSE A METHODOLOGY FOR DETERMINING WHETHER
15		THE MARKET HAS NOT FILLED A TRANSPORTATION GAP FOR AN AREA DEEMED
16		NECESSARY?
17	A.	No.
18	Q.	DOES THE COMPANY PROPOSE A TIMEFRAME AFTER WHICH THE MARKET WILL BE
19		DETERMINED TO HAVE NOT DELIVERED?

20 A. No.

1	Q.	DOES THE COMPANY PROPOSE A METHODOLOGY TO DETERMINE THE MEDIAN
2		PRICE CHARGED BY SURROUNDING DCFC PROVIDERS?
3	Α.	No.
4	Q.	DOES THE COMPANY EXPLAIN ITS RATIONALE FOR LIMITING THE REBATE TO SITES
5		LOCATED WITHIN ONE MILE OF HIGHWAYS, FREEWAYS, OR STATE ROUTES?
6	Α.	No. However, my general understanding is that this would be consistent with the
7		requirements of the National Electric Vehicle Infrastructure Formula Program.
8	Q.	DOES WALMART GENERALLY OPPOSE THE COMPANY'S PROPOSED CORRIDOR
9		PROGRAM?
10	А.	Subject to certain changes proposed below, Walmart generally does not oppose the
11		Corridor Program. Walmart does, however, have concerns with the Company's
12		proposed provider of last resort provision.
13	Q.	WHAT IS WALMART'S FIRST CONCERN WITH THE PROVIDER OF LAST RESORT
14		PROVISION?
15	Α.	This provision appears anti-competitive, particularly because the utility can influence
16		certain factors – namely rates applied to the public EV charging service, as I discuss
17		later in this testimony – that determine whether the market delivers charging to a
18		certain area.
19		The Company's proposal to charge the median price of surrounding DCFC
20		providers is also anti-competitive. First, the ability to identify "surrounding" DCFC
21		providers appears to be an analysis conducted entirely at the discretion of the
22		Company and is undefined and arbitrary. Second, by selecting the median price, the

Company's proposal will underprice surrounding providers. Additionally, the Company's proposal does not show that the median price will generate sufficient revenues to recover the Company's operating costs, nor does the Company identify any ramifications in the event costs exceed revenue. This anticompetitive pricing proposal has the effect of potentially precluding further development of competitive charging in the area.

7

#### Q. PLEASE EXPLAIN.

A. Failure to achieve sufficient revenues to cover costs impacts AEP Ohio and third-party 8 charging operators differently. Third-party charging operators, similar to companies 9 10 that operate in any competitive product market, assume the risk that charger usage 11 for a given month will fail to deliver sufficient revenues to cover their costs (which include electricity costs, and the costs for chargers and charging infrastructure); they 12 13 do not have a captive customer base – like AEP Ohio does – from which to financially backstop their operations. It is not clear from AEP Ohio's proposal what will happen 14 if the Company fails to recover sufficient charging revenues to cover its charging 15 16 costs- *i.e.*, will its captive regulated customer base act as a backstop to its charging operations. If so, that is an anti-competitive advantage for the utility. Moreover, if 17 the Company is able to provide charging infrastructure in locations at such anti-18 19 competitive prices, third-party providers will never step in to provide competitive service because they will be unable to compete with the lower prices proposed by the 20 21 Company.

## 1 Q. WHAT IS WALMART'S SECOND CONCERN WITH THE PROVIDER OF LAST RESORT 2 PROVISION?

Walmart's second concern is that the Company does not propose foundational Α. 3 process steps – e.g., how an area is deemed "necessary," how the determination 4 would be made that the market has not delivered, and how long after the effective 5 date of ESP V that determination would be made. Walmart does recognize that, at 6 7 this time, there may be areas in which the market may be slower to provide charging services due to low EV adoption rates in the local area or low traffic flow through that 8 area. Rather than allowing the Company to step in as a provider of last resort, 9 10 alternative steps should be taken first, including analyzing whether available 11 incentives sufficiently encourage private development of EV infrastructure in certain underserved or low traffic areas. Moreover, the number of these areas can be 12 minimized by providing for stable and certain retail rates for the term of ESP V, as 13 discussed later in my testimony. More generally, broader adoption of EVs should 14 negate these factors over time, limiting the specific circumstances that may justify the 15 Company's ownership and operation of public EV DCFC charging. 16

# 17 Q. DOES THE COMPANY RECOGNIZE THAT THE TIMEFRAME FOR MARKET 18 DEPLOYMENT WILL DIFFER BY AREA?

A. Yes, and noted above, the Company proposes an additional incentive for low-income
 defined census districts. Consistent with my statement above that the Company
 should analyze whether its incentive levels are properly calibrated in lieu of its
 provider of last resort proposal, this methodology could also be employed for a more

broadly defined set of geographies to address areas that may lag in market DCFC 1 charging deployment. 2 WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION ON THIS ISSUE? Q. 3 Α. Walmart does not oppose Commission approval of the Company's proposed Corridor 4 Program, subject to: 5 6 1) The Commission's rejection of the Company's provider of last resort proposal; 7 2) Expansion of program application to sites within two miles of highways, freeways, and state routes to provide greater opportunity for the market to develop and 8 deliver EV charging infrastructure; and 9 10 3) Expansion of the 50 percent incentive adder applicable to low-income defined 11 census districts to rural or remote areas of concern. 12 **DCFC Public Non-Corridor Program** 13 WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED DCFC PUBLIC Q. 14 **NON-CORRIDOR PROGRAM?** 15 Α. My understanding is the Company proposes the DCFC Public Non-Corridor Program 16 to expand DCFC deployment in non-corridor areas by providing incentives for 25 EV 17 ports per year, with an annual budget of \$630,000. See Direct Testimony of Adriane 18 19 E. Jaynes, Exhibit AEJ-1, page 10 to page 11. The Company proposes that a participating customer have at least two DCFC ports at the location, and each must be 20 21 a minimum of 150 kW and be available to the public 24 hours a day, 7 days a week, 22 with the option to increase qualifications "as technology and customer expectations

1		evolve." Id., page 10. The proposed initial incentive is \$20,000 per port, with a 50
2		percent increase in incentive available to low income defined census districts. Id. The
3		Company's incentive may be combined with other grants or rebates, but customers
4		are not eligible to receive rebate amounts greater than the amount not covered by
5		other funding sources. See id., page 10 to page 11.
6	Q.	DOES THE COMPANY PROPOSE A UTILITY-OWNED AND OPERATED "PROVIDER OF
7		LAST RESORT" OPTION FOR THIS PROGRAM?
8	Α.	No.
9	Q.	WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION ON THIS ISSUE?
10	Α.	Walmart does not oppose Commission approval of the Company's proposed DCFC
11		Public Non-Corridor Program.
12		
12 13	Fleet Pro	gram
	Fleet Pro Q.	gram WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED FLEET PROGRAM?
13		
13 14	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED FLEET PROGRAM?
13 14 15	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED FLEET PROGRAM? My understanding is the Company proposes the Fleet Program to provide incentives
13 14 15 16	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED FLEET PROGRAM? My understanding is the Company proposes the Fleet Program to provide incentives for commercial customers to install L2 chargers for fleet applications. <i>See</i> Direct
13 14 15 16 17	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED FLEET PROGRAM? My understanding is the Company proposes the Fleet Program to provide incentives for commercial customers to install L2 chargers for fleet applications. <i>See</i> Direct Testimony of Adriane E. Jaynes, Exhibit AEJ-1, page 12. AEP Ohio proposes an initial
13 14 15 16 17 18	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED FLEET PROGRAM? My understanding is the Company proposes the Fleet Program to provide incentives for commercial customers to install L2 chargers for fleet applications. <i>See</i> Direct Testimony of Adriane E. Jaynes, Exhibit AEJ-1, page 12. AEP Ohio proposes an initial incentive of \$2,500 with an annual budget of \$2.14 million, and the Company
13 14 15 16 17 18 19	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED FLEET PROGRAM? My understanding is the Company proposes the Fleet Program to provide incentives for commercial customers to install L2 chargers for fleet applications. <i>See</i> Direct Testimony of Adriane E. Jaynes, Exhibit AEJ-1, page 12. AEP Ohio proposes an initial incentive of \$2,500 with an annual budget of \$2.14 million, and the Company proposes that as technology evolves, they may set minimum specifications for

covered by other funding sources. *See id.*, page 10 to page 12.

## 2 Q. DOES WALMART HAVE A CONCERN THAT LIMITING INCENTIVES FOR FLEETS TO L2 3 CHARGING IMPACTS THE POTENTIAL IMPACT OF THE PROGRAM?

Α. Yes. It is not clear from the Company's filing what type of fleets are targeted with the 4 program, but fleet operations and the associated charging requirements can differ 5 widely within the universe of commercial customers, and even within individual 6 7 customer operations. As a high-level example, EV yard trucks at a Walmart distribution center, with shorter breaks for higher-powered opportunity charging 8 during the day, can have a different duty cycle than EV delivery vans at a Walmart 9 10 store, which can charge overnight on lower-powered chargers. An L2 charger may not provide the necessary flexibility for Walmart's fleet to charge these differing types 11 of load. As such, the Company's Fleet Program, if approved, should be flexible enough 12 to work for a broad array of charging paradigms by allowing incentives for either DCFC 13 or L2, or both, depending on the application. 14

#### 15 Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION ON THIS ISSUE?

# A. Walmart does not oppose the Commission's approval of the Company's Fleet Program, subject to the inclusion of incentive opportunities for DCFC charging as well as L2 charging.

#### 1 Electric Vehicle Rates

2	Q.	WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S CURRENT EV RATE
3		OFFERINGS FOR PUBLIC EV CHARGING?
4	Α.	My understanding is that the following rates are available for public EV charging:
5		1) Schedule GS-1, General Service – Non-Demand Metered, which in its standard
6		application is limited to services less than 10 kW at secondary service voltage;
7		2) Schedule GS, General Service, either in its standard form or with time-of-day
8		transmission rates, with secondary, primary, and transmission service voltage
9		options;
10		3) Schedule GS-TOU, General Service Time-of-Use, which in its standard application
11		is limited to services less than 10 kW and appears to be limited to secondary
12		service voltage; or
13		4) Schedule PEV, which allows public EV charging load to take service on Schedule
14		GS-TOU with the 10 kW demand limitation waived. At this time, Schedule PEV is
15		limited to the first 500 customers to enroll and is available to both DCFC and L2
16		Chargers. See Direct Testimony of Curtis M. Heitkamp, page 15, and P.U.C.O
17		No. 21.
18	Q.	DOES THE COMPANY PROPOSE ANY NEW PUBLIC EV CHARGING RATES IN ESP V?
19	Α.	No. However, the Company does propose Schedule BUS – PEV, which is proposed to
20		be applicable to public transit and school bus customers who would otherwise be
21		eligible for Schedule GS, use plug-in EVs and receive generation service from either
22		AEP Ohio or a competitive provider. The proposed rates are structured similarly to

- GS-TOU, though the energy charge is slightly higher, and includes primary and transmission service voltage options. *See* Direct Testimony of Curtis M. Heitkamp,
   Exhibit CMH-5, page 11.
   **Q.** DOES WALMART HAVE CONCERNS WITH THE RATE STRUCTURES OF THE COMPANY'S PUBLIC EV CHARGING RATE OFFERINGS?
   A. Generally, no. However, Walmart is concerned about the application and availability
- of these rate offerings during the proposed term of the ESP V, which would commence
  on June 1, 2024, and end on May 31, 2030.
- 9

Q.

#### WHY IS THIS A CONCERN?

Α. As recognized in the Company's filing, the proposed ESP V period is anticipated to 10 bring a rapid expansion of EV adoption. See Direct Testimony of Adriane E. Jaynes, 11 page 7. Walmart's concern is that rate availability, particularly for Schedule PEV, will 12 be limited and potentially create competitive issues for public EV charging operators. 13 Additionally, there is a limit of known opportunities, whether through a general rate 14 case or subsequent ESP, to either adopt new long-term base rate structures for public 15 16 EV charging or to adjust the availability of existing rates during the term. The need to address the issue in this case is further heightened by the fact the Company has stated 17 that it does not presently have any plans to file a distribution rate case during the 18 19 term of ESP V. See Exhibit SWC-2.

1	Q.	HAS WALMART, PER THE COMMISSION'S ORDER IN CASE NOS. 20-585-EL-AIR, ET
2		AL., <sup>2</sup> ENGAGED IN ANY DISCUSSIONS WITH PARTIES FROM THE MOST RECENT AEP
3		OHIO RATE CASE CONCERNING SCHEDULE PEV?
4	Α.	Not to this point, though Walmart will seek to engage in that process.
5	Q.	WHAT COMPETITIVE ISSUES WOULD ARISE WERE SCHEDULE PEV TO MEET ITS
6		CURRENT LIMIT?
7	A.	Quite simply, as I discuss below, many public EV charging operators who are able to
8		take service under Schedule PEV will have a lower realized cost of electricity sold to
9		their customers for the base rate portion of their bill versus those who are required
10		to take service on Schedule GS.
11	Q.	HOW DOES A CUSTOMER CALCULATE ITS REALIZED COST OF ELECTRICITY?
12	A.	To determine the realized cost of electricity, on per kWh basis, for a given billing
13		month, a customer has to analyze its monthly load factor, which is essentially the kWh
14		consumed in that month (average demand) divided by the peak demand for the
15		month. The lower the usage and, by extension load factor, the higher the realized
16		cost per kWh. Conversely, the higher the usage and load factor, the lower the realized
17		cost per kWh. These effects happen because costs from non-energy charges such as
18		the customer and demand charges are divided across less (low load factor) or more
19		(high load factor) units of consumption.

<sup>&</sup>lt;sup>2</sup> See In the Matter of the Application of Ohio Power Company for an Increase in Electric Distribution Rates, Case Nos. 20-585-EL-AIR, et al., Opinion and Order (Nov. 17, 2021), page 26, **P** 77(c).

1	Q.	HAVE YOU CALCULATED THE REALIZED COST PER KWH ACROSS POTENTIAL LOAD
2		FACTORS FOR A 30-DAY MONTH FOR SCHEDULE GS SECONDARY AND SCHEDULE GS-
3		TOU (PEV OPTION)?
4	A.	Yes, and the full calculations can be found in Exhibits SWC-3 and SWC-4. For

illustration purposes, I have charted monthly load factors from 1.1 percent to 50

6 percent.<sup>3</sup> To my understanding, the first half of the range, from 1.1 percent to 25

7 percent, is a reasonable range of potential public EV charging monthly load factors.

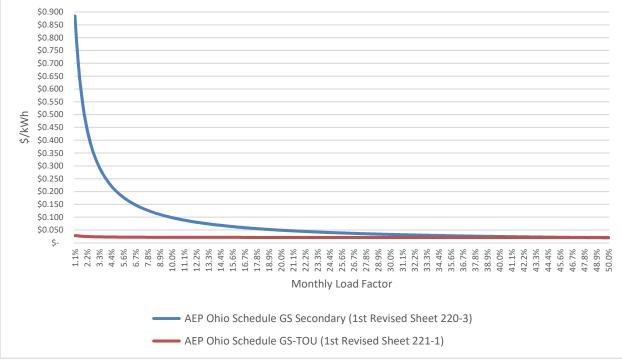
8 The range of load factors from 26 to 50 percent shows how the costs converge as load

9 factor increases, and the realized cost per kWh for Schedule SG Secondary crosses

10 over at approximately 45 percent monthly load factor. This is shown in Figure 1

11 below.

<sup>&</sup>lt;sup>3</sup> As shown in Exhibit SWC-3, load factors below 1.1 percent produced realized costs per kWh for Schedule GS Secondary from \$1.01/kWh up to \$7.01/kWh.



1 2 3

Figure 1. Comparison of Realized \$/kWh Base Rate Cost, AEP Ohio Rate GS Secondary and Rate GS-TOU

#### Q. IS SCHEDULE GS OPTIMAL FOR PUBLIC EV CHARGERS?

Yes and no. Schedule GS recovers the costs associated with the load imposed by the 5 Α. 6 public EV charger generally through a fixed customer charge and a demand charge that is typically calculated on the customer's peak load. Walmart has long supported 7 cost-based utility rates where costs are recovered from customers in the same 8 manner in which they are incurred, including the recovery of demand costs through 9 demand charges; however, public EV charging differs significantly from our stores and 10 other building facilities, and presents unique operational and financial challenges that 11 warrant exploration into alternative rate designs to create cost-based, usable, and 12 enduring public EV charging rates that will help promote EV charger deployment and 13 consumer EV adoption. 14

- 1 Q. PLEASE EXPLAIN.
- As an investor in public EV charging equipment, Walmart understands how utility 2 A. rates can either promote or impede third-party EV charging investment and ongoing 3 operation. An important piece of the economics driving public charger installations 4 and ongoing operation is the structure of the cost of the electricity itself. As shown in 5 6 Figure 1 above, low utilization at a public, high-powered DCFC can often lead to high 7 realized energy costs relative to the rates charged to charging customers. This can be problematic and potentially deter investment in high-powered infrastructure and 8 charging stations in areas where usage is projected to be lower. 9
- 10Q.HOW DOES WALMART VIEW THE EV CHARGING RATE IN THE NEAR TERM AND IN11THE FUTURE, AS EVS BEGIN TO DOMINATE THE AUTOMOTIVE INDUSTRY?
- Α. As the transportation industry and the role that EVs and EV chargers play in this 12 industry continue to grow and evolve, the challenges we face today may not be the 13 challenges of tomorrow. To ensure that programs and policies implemented to 14 support electrification of the transportation sector are current and relevant, it is 15 16 important that they are flexible and adapt over time. As an example, recovery of demand-related costs through energy charges may improve the economics of under-17 utilized and higher-powered chargers and encourage third-party investment. 18 19 However, as usage of the charger increases with EV adoption, the economics for that charger under the low- or no-demand tariff will likely decline as more electricity is 20 21 sold. In this case, it could be better to return to a more traditional demand-based tariff 22 once a customer's utilization exceeds a certain percentage.

#### Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION ON THIS ISSUE? 1 Α. For the purposes of this case, to support the development of EV charging in the 2 Company's service territory and to stabilize and provide certainty to retail service 3 during the proposed ESP V term, the Commission should require AEP Ohio to remove 4 the participation cap for Schedule PEV for the term of ESP V. Alternatively, the 5 6 Commission could shift the Company's proposed Schedule BUS – PEV to a de facto 7 public EV charging rate schedule available to any public EV charging customer, in addition to serving public transit and school bus customers as proposed, which would 8 provide additional primary and transmission service level options for all customers. 9 10 11 Make Ready Program Q. DOES THE COMPANY PROPOSE TO INCLUDE EV MAKE READY IN ITS DIR CUSTOMER 12 WORK CATEGORY? 13 Α. Yes. The Company estimates an annual cost of \$6 million for EV make ready projects 14 within the context of the DIR, which they would apply towards offsetting 100 percent 15 16 of customer Contribution in Aid of Construction ("CIAC") costs for sites that "bring benefits to all ratepayers." See Direct Testimony of Adriane E. Jaynes, page 23, line 4 17 to page 24, line 14. The definition is not clear, but sites that "bring benefits to all 18 ratepayers" appears to be defined as those sites that utilize existing utility 19 infrastructure and do not require new infrastructure. As for locations not deemed 20 21 beneficial, the customer would be required to pay the otherwise applicable CIAC rate

of 40 percent. See id.

#### 1 Q. DOES WALMART TAKE A POSITION ON THE COMPANY'S PROPOSAL?

A. Walmart does not oppose Commission approval of the Company's make ready proposal, subject to the Commission requiring the Company to fully define what constitutes a "beneficial" area and to provide, upon customer request, a list of locations that meet this designation.

#### 6 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

7 A. Yes.

#### 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 R.C.	)	Case No. 23-0023-EL-SSO
4928.143, in the Form of an Electric Security Plan	)	
In the Matter of the Application of Ohio Power	)	
Company for Approval of Certain Accounting	)	
Authority	)	Case No. 23-0024-EL-AAM

EXHIBITS OF STEVE W. CHRISS ON BEHALF OF WALMART INC.

#### 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 R.C.	)	Case No. 23-0023-EL-SSO
4928.143, in the Form of an Electric Security Plan	)	
In the Matter of the Application of Ohio Power	)	
Company for Approval of Certain Accounting	)	
Authority	)	Case No. 23-0024-EL-AAM

EXHIBIT SWC-1 OF STEVE W. CHRISS ON BEHALF OF WALMART INC. Walmart Inc. Exhibit SWC-1 Ohio Case Nos. 23-0023-EL-SSO and 23-0024-EL-AAM Page 1 of 27

# **Steve W. Chriss**

Walmart Inc. Business Address: 2608 SE J Street, Bentonville, AR, 72716

#### EXPERIENCE

July 2007 – Present Walmart Inc., Bentonville, AR Director, Energy Services (October 2018 – Present) Director, Energy and Strategy Analysis (October 2016 – October 2018) Senior Manager, Energy Regulatory Analysis (June 2011 – October 2016) Manager, State Rate Proceedings (July 2007 – June 2011)

June 2003 – July 2007 **Public Utility Commission of Oregon**, Salem, OR **Senior Utility Analyst** (February 2006 – July 2007) **Economist** (June 2003 – February 2006)

January 2003 - May 2003 North Harris College, Houston, TX Adjunct Instructor, Microeconomics

June 2001 - March 2003 Econ One Research, Inc., Houston, TX Senior Analyst (October 2002 – March 2003) Analyst (June 2001 – October 2002)

#### EDUCATION

2001	Louisiana State University	M.S., Agricultural Economics
1997-1998	University of Florida	Graduate Coursework, Agricultural Education
		and Communication
1997	Texas A&M University	B.S., Agricultural Development
		B.S., Horticulture

#### PRESENT MEMBERSHIPS

Arkansas Advanced Energy Foundation, Board Clean Energy Buyers Alliance, Advisory Board Edison Electric Institute National Key Accounts Program, Customer Advisory Group Florida Advisory Council for Climate and Energy South Carolina Electricity Market Reforms Measures Study Committee The Ray, Advisory Council

#### PAST MEMBERSHIPS

Arizona Independent Scheduling Administrators Association, Board Southwest Power Pool, Corporate Governance Committee

#### TESTIMONY BEFORE REGULATORY COMMISSIONS

#### 2023

North Carolina Docket No. E-2, Sub 1300: In the Matter of Application of Duke Energy Progress, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina and Performance-Based Regulation.

Kentucky Case No. 2022-00372: In the Matter of Electronic Application of Duke Energy Kentucky, Inc. for (1) An Adjustment of Electric Rates; (2) Approval of New Tariffs; (3) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; and (4) All Other Required Approvals and Relief.

Missouri Docket No. ER-2022-0337: In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust its Revenues for Electric Service.

Arizona Docket No. E-01933A-22-0107: In the Matter of the Application of Tucson Electric Power Company for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of the Properties of Tucson Electric Power Company Devoted to its Operations Throughout the State of Arizona and for Related Approvals.

#### 2022

Maine Docket No. 2022-00255: Versant Power Request for Approval of Rate Change Pursuant to 35-A M.R.S. § 307.

Maine Docket No. 2022-00152: Central Maine Power Company Request for Approval of Distribution Rate Increase and Rate Design Changes Pursuant to 35-A M.R.S. § 307.

Georgia Docket No. 44280: In Re: Georgia Power's 2022 Rate Case.

Minnesota Docket No. E-002/GR-21-630: In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in Minnesota.

Colorado Proceeding No. 22AL-0130E: In the Matter of Advice No. 1881-Electric of Public Service Company of a Resiliency Service Program Tariff in its Colorado PUC No. 8-Electric Tariff Effective April 24, 2022.

Texas Docket No. 53601: Application of Oncor Electric Delivery Company for Authority to Change Rates.

Washington Docket No. UE-220066: Puget Sound Energy 2022 General Rate Case.

Washington Docket No. UG-220067: Puget Sound Energy 2022 Natural Gas General Rate Case.

Idaho Case No. IPC-E-21-40: In the Matter of Idaho Power Company's Application to Expand Optional Customer Clean Energy Offerings Through the Clean Energy Your Way Program.

Georgia Docket No. 44160: Georgia Power's 2022 Integrated Resource Plan.

Georgia Docket No. 44161: Application for the Certification, Decertification, and Amended Demand Side Management Plan.

Missouri Case No. ER-2021-0312: In the Matter of the Request of The Empire District Electric Company d/b/a Liberty for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in its Missouri Service Area.

Indiana Cause No. 45576: Petition of Indiana Michigan Power Company, an Indiana Corporation, for Authority to Increase its Rates and Charges for Electric Utility Service through a Phase In Rate Adjustment; and for Approval of Related Relief Including: (1) Revised Depreciation Rates; (2) Accounting Relief; (3) Inclusion of Capital Investment; (4) Rate Adjustment Mechanism Proposals; (5) Customer Programs; (6) Waiver to Declination of Jurisdiction with Respect to Certain Rules; and (7) New Schedules of Rates, Rules, and Regulations.

Oregon Docket No. UE 394: In the Matter of Portland General Electric Company, Request for a General Rate Revision.

Missouri File No. ER-2021-0240: In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust its Revenues for Electric Service.

Florida Docket No. 20210015-EI: In re: Petition for Rate Increase by Florida Power & Light Company.

California Docket No. R-20-08-020: Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering.

New Mexico Case No. 20-00238-UT: In the Matter of Southwestern Public Service Company's Application For: (1) Revision of its Retail Rates Under Advice Notice No. 292; (2) Authorization and Approval to Abandon its Plant X Unit 3 Generating Station; and (3) Other Associated Relief.

North Dakota Case No. PU-20-441: In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in North Dakota.

New Mexico Case No. 20-00222-UT: In the Matter of the Joint Application of Avangrid, Inc., Avangrid Networks, Inc., NM Green Holdings, Inc., Public Service Company of New Mexico and PNM Resources, Inc. For Approval of the Merger of NM Green Holdings, Inc. with PNM Resources, Inc.; Approval of a General Diversification Plan; and All Other Authorizations and Approvals Requires to Consummate and Implement this Transaction.

#### 2020

Arizona Docket No. E-01345A-19-0236: In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of Ratemaking Purposes, to Fix a Just and Reasonable Return Thereon and to Approve Rate Schedules Designed to Develop Such Return.

Florida Docket No. 20200176-EI: In re: Petition by Duke Energy Florida, LLC for a Limited Proceeding to Approve Clean Energy Connection Program and Tariff and Stipulation.

Florida Docket No. 20200092-EI: In re: Storm Protection Plan Cost Recovery Clause.

Nevada Docket No. 20-05003: Application of Nevada Power Company d/b/a NV Energy Filed Under Advice Letter No. 504 to Establish Customer Price Stability Tariff Schedule No. CPST (the "Program") to Assist Certain Qualifying Customers During the COVID-19 Pandemic and Economic Downturn, and to Address Certain Customer Requests for Price Stability and Potential Cost Savings in Meeting Customer Specific Business Needs and Sustainability Objectives.

Nevada Docket No. 20-05004: Application of Sierra Pacific Power Company d/b/a NV Energy Filed Under Advice Letter No. 629-E to Establish Customer Price Stability Tariff Schedule No. CPST (the "Program") to Assist Certain Qualifying Customers During the COVID-19 Pandemic and Economic Downturn, and to Address Certain Customer Requests for Price Stability and Potential Cost Savings in Meeting Customer Specific Business Needs and Sustainability Objectives.

Utah Docket No. 20-035-04: Application of Rocky Mountain Power for the Authority to Increase its Retail Electric Utility Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations.

Wyoming Docket No. 20000-578-ER-20: In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Service Rates by Approximately \$7.1 Million Per Year or 1.1 Percent, to Revise the Energy Cost Adjustment Mechanism, and to Discontinue Operations at Cholla Unit 4.

Virginia Case No. PUR-2020-00015: Application of Appalachian Power Company for a 2020 Triennial Review of the Rates, Terms and Conditions for the Provision of Generation, Distribution and Transmission Services Pursuant to §56-585.1 A of the Code of Virginia.

Oregon Docket No. UE 374: In the Matter of PacifiCorp d/b/a Pacific Power Request for a General Rate Revision.

Florida Docket No. 20200067-EI: In re: Review of 2020-2029 Storm Protection Plan pursuant to Rule 25-6.030, F.A.C., Tampa Electric Company.

Florida Docket No. 20200069-EI: In re: Review of 2020-2029 Storm Protection Plan pursuant to Rule 25-6.030, F.A.C., Duke Energy Florida, LLC.

Florida Docket No. 20200070-EI: In re: Review of 2020-2029 Storm Protection Plan pursuant to Rule 25-6.030, F.A.C., Gulf Power Company.

Florida Docket No. 20200071-EI: In re: Review of 2020-2029 Storm Protection Plan pursuant to Rule 25-6.030, F.A.C., Florida Power & Light Company.

North Carolina Docket No. E-2, Sub 1219: Application of Duke Energy Progress, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina.

Missouri Case No. ER-2019-0374: In the Matter of the Empire District Electric Company's Request for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in its Missouri Service Area.

North Carolina Docket No. E-7, Sub 1214: In the Matter of Application of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina.

Texas Docket No. 49831: Application of Southwestern Public Service Company for Authority to Change Rates.

#### 2019

Missouri Case No. ER-2019-0335: In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Decrease its Revenues for Electric Service.

Michigan Case No. U-20561: In the Matter of the Application of DTE Electric Company for Authority to Increase its Rates, Amend its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority.

Indiana Cause No. 45253: Petition of Duke Energy Indiana, LLC Pursuant to Ind. Code §§ 8-1-2-42.7 and 8-1-2-61, For (1) Authority to Modify its Rates and Charges for Electric Utility Service Through a Step-In of New Rates and Charges Using a Forecasted Test Period; (2) Approval of New Schedules of Rates and Charges, General Rules and Regulations, and Riders; (3) Approval of a Federal Mandate Certificate Under Ind. Code § 8-1-8.4-1; (4) Approval of Revised Electric Depreciation Rates Applicable to its Electric Plant in Service; (5) Approval of Necessary and Appropriate Accounting Deferral Relief; and (6) Approval of a Revenue Decoupling Mechanism for Certain Customer Classes.

Arizona Docket No. E-01933A-19-0228: In the Matter of the Application of Tucson Electric Power Company for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of the Properties of Tucson Electric Power Company Devoted to its Operations Throughout the State of Arizona and for Related Approvals.

Georgia Docket No. 42516: In Re: Georgia Power's 2019 Rate Case.

Colorado Proceeding No. 19AL-0268E: Re: In the Matter of Advice No. 1797-Electric of Public Service Company of Colorado to Revise its Colorado P.U.C. No. 8-Electric Tariff to Implement Rate Changes Effective on Thirty Days' Notice.

New York Case No. 19-E-0378: Proceeding on the Motion of the Commission as to the Rates, Charges, Rules, and Regulations of New York State Electric & Gas Corporation for Electric Service.

New York Case No. 19-E-0380: Proceeding on the Motion of the Commission as to the Rates, Charges, Rules, and Regulations of Rochester Gas & Electric Corporation for Electric Service.

Maryland Case No. 9610: In the Matter of the Application of Baltimore Gas and Electric Company for Adjustments to its Electric and Gas Base Rates.

Nevada Docket No. 19-06002: In the Matter of the Application by Sierra Pacific Power Company, D/B/A NV Energy, Filed Pursuant to NRS 704.110(3) and NRS 704.110(4), Addressing its Annual Revenue Requirement for General Rates Charged to All Classes of Electric Customers.

Florida Docket No. 20190061-EI: In Re: Petition of Florida Power & Light Company for Approval of FPL SolarTogether Program and Tariff.

Wisconsin Docket No. 6690-UR-126: Application of Wisconsin Public Service Corporation for Authority to Adjust Electric and Natural Gas Rates – Test Year 2020.

Wisconsin Docket No. 5-UR-109: Joint Application of Wisconsin Electric Power Company and Wisconsin Gas LLC for Authority to Adjust Electric, Natural Gas, and Steam Rates – Test Year 2020.

New Mexico Case No. 19-00158-UT: In the Matter of the Application of Public Service Company of New Mexico for Approval of PNM Solar Direct Voluntary Renewable Energy Program, Power Purchase Agreement, and Advice Notice Nos. 560 and 561.

Indiana Cause No. 45235: Petition of Indiana Michigan Power Company, and Indiana Corporation, for Authority to Increase its Rates and Charges for Electric Utility Service through a Phase In Rate Adjustment; and for Approval of Related Relief Including: (1) Revised Depreciation Rates; (2) Accounting Relief; (3) Inclusion in Rate Base of Qualified Pollution Control Property and Clean Energy Project; (4) Enhancements to the Dry Sorbent Injection System; (5) Advanced Metering Infrastructure; (6) Rate Adjustment Mechanism Proposals; and (7) New Schedules of Rates, Rules and Regulations.

Iowa Docket No. RPU-2019-0001: In Re: Interstate Power and Light Company.

Texas Docket No. 49494: Application of AEP Texas Inc. for Authority to Change Rates.

Arkansas Docket No. 19-008-U: In the Matter of the Application of Southwestern Electric Power Company for Approval of a General Change in Rates and Tariffs.

Virginia Case No. PUR-2019-00050: Application of Virginia Electric and Power Company for Determination of the Fair Rate of Return on Common Equity Pursuant to § 56-585.1:1 of the Code of Virginia.

Indiana Docket No. 45159: Petition of Northern Indiana Public Service Company LLC Pursuant to Indiana Code §§ 8-1-2-42.7, 8-1-2-61 and Indiana Code §§ 1-2.5-6 for (1) Authority to Modify its Rates and Charges for Electric Utility Service Through a Phase In of Rates; (2) Approval of New Schedules of Rates and Charges, General Rules and Regulations, and Riders; (3) Approval of Revised Common and Electric Depreciation Rates Applicable to its Electric Plant in Service; (4) Approval of Necessary and Appropriate Accounting Relief; and (5) Approval of a New Service Structure for Industrial Rates.

Texas Docket No. 49421: Application of Centerpoint Energy Houston Electric, LLC for Authority to Change Rates.

Nevada Docket No. 18-11015: Re: Application of Nevada Power Company d/b/a NV Energy, Filed Under Advice No. 491, to Implement NV Greenenergy 2.0 Rider Schedule No. NGR 2.0 to Allow Eligible Commercial Bundled Service Customers to Voluntarily Contract with the Utility to Increase Their Use of Reliance on Renewable Energy at Current Market-Based Fixed Prices.

Nevada Docket No. 18-11016: Re: Application of Sierra Pacific Power Company d/b/a NV Energy, Filed Under Advice No. 614-E, to Implement NV Greenenergy 2.0 Rider Schedule No. NGR 2.0 to Allow Eligible Commercial Bundled Service Customers to Voluntarily Contract with the Utility to Increase Their Use of Reliance on Renewable Energy at Current Market-Based Fixed Prices.

Georgia Docket No. 42310: In Re: Georgia Power Company's 2019 Integrated Resource Plan and Application for Certification of Capacity From Plant Scherer Unit 3 and Plant Goat Rock Units 9-12 and Application for Decertification of Plant Hammond Units 1-4, Plant Mcintosh Unit 1, Plant Langdale Units 5-6, Plant Riverview Units 1-2, and Plant Estatoah Unit 1.

Wyoming Docket Nos. 20003-177-ET-18: In the Matter of the Application of Cheyenne Light, Fuel and Power Company D/B/A Black Hills Energy For Approval to Implement a Renewable Ready Service Tariff.

South Carolina Docket No. 2018-318-E: In the Matter of the Application of Duke Energy Progress, LLC For Adjustments in Electric Rate Schedules and Tariffs.

Montana Docket No. D2018.2.12: Application for Authority to Increase Retail Electric Utility Service Rates and for Approval of Electric Service Schedules and Rules and Allocated Cost of Service and Rate Design.

Louisiana Docket No. U-35019: In Re: Application of Entergy Louisiana, LLC for Authorization to Make Available Experimental Renewable Option and Rate Schedule ERO.

Arkansas Docket No. 18-037-TF: In the Matter of the Petition of Entergy Arkansas, Inc. For Its Solar Energy Purchase Option.

#### 2018

South Carolina Docket No. 2017-370-E: Joint Application and Petition of South Carolina Electric & Gas Company and Dominion Energy, Inc., for Review and Approval of a Proposed Business Combination Between SCANA Corporation and Dominion Energy, Inc., as may be Required, and for a Prudency Determination Regarding the Abandonment of the V.C. Summer Units 2 & 3 Project and Associated Customer Benefits and Cost Recovery Plans.

Kansas Docket No. 18-KCPE-480-RTS: In the Matter of the Application of Kansas City Power & Light Company to Make Certain Changes in its Charges for Electric Service.

Virginia Case No. PUR-2017-00173: Petition of Wal-Mart Stores East, LP and Sam's East, Inc. for Permission to Aggregate or Combine Demands of Two or More Individual Nonresidential Retail Customers of Electric Energy Pursuant to § 56-577 A 4 of the Code of Virginia.

Virginia Case No. PUR-2017-00174: Petition of Wal-Mart Stores East, LP and Sam's East, Inc. for Permission to Aggregate or Combine Demands of Two or More Individual Nonresidential Retail Customers of Electric Energy Pursuant to § 56-577 A 4 of the Code of Virginia.

Oregon Docket No. UM 1953: In the Matter of Portland General Electric Company, Investigation into Proposed Green Tariff.

Virginia Case No. PUR-2017-00179: Application of Appalachian Power Company for Approval of an 100% Renewable Energy Rider Pursuant to § 56-577.A.5 of the Code of Virginia.

Missouri Docket No. ER-2018-0145: In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service.

Missouri Docket No. ER-2018-0146: In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service.

Kansas Docket No. 18-WSEE-328-RTS: In the Matter of the Joint Application of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in their Charges for Electric Service.

Oregon Docket No. UE 335: In the Matter of Portland General Electric Company, Request for a General Rate Revision.

North Dakota Case No. PU-17-398: In the Matter of the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Utility Service in North Dakota.

Virginia Case No. PUR-2017-00179: Application of Appalachian Power Company for Approval of an 100 Percent Renewable Energy Rider Pursuant to § 56-577 A 5 of the Code of Virginia.

Missouri Case No. ET-2018-0063: In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of 2017 Green Tariff.

New Mexico Case No. 17-00255-UT: In the Matter of Southwestern Public Service Company's Application for Revision of its Retail Rates Under Advice Notice No. 272.

Virginia Case No. PUR-2017-00157: Application of Virginia Electric and Power Company for Approval of 100 Percent Renewable Energy Tariffs for Residential and Non-Residential Customers.

Kansas Docket No. 18-KCPE-095-MER: In the Matter of the Application of Great Plains Energy Incorporated, Kansas City Power & Light Company, and Westar Energy, Inc. for Approval of the Merger of Westar Energy, Inc. and Great Plains Energy Incorporated.

North Carolina Docket No. E-7, Sub 1146: In the Matter of the Application of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina.

Louisiana Docket No. U-34619: In Re: Application for Expedited Certification and Approval of the Acquisition of Certain Renewable Resources and the Construction of a Generation Tie Pursuant to the 1983 and/or/1994 General Orders.

Missouri Case No. EM-2018-0012: In the Matter of the Application of Great Plains Energy Incorporated for Approval of its Merger with Westar Energy, Inc.

#### 2017

Arkansas Docket No. 17-038-U: In the Matter of the Application of Southwestern Electric Power Company for Approval to Acquire a Wind Generating Facility and to Construct a Dedicated Generation Tie Line.

Texas Docket No. 47461: Application of Southwestern Electric Power Company for Certificate of Convenience and Necessity Authorization and Related Relief for the Wind Catcher Energy Connection Project.

Oklahoma Cause No. PUD 201700267: Application of Public Service Company of Oklahoma for Approval of the Cost Recovery of the Wind Catcher Energy Connection Project; A Determination There is Need for the Project; Approval for Future Inclusion in Base Rates Cost Recovery of Prudent Costs Incurred by PSO for the Project; Approval of a Temporary Cost Recovery Rider; Approval of Certain Accounting Procedures Regarding Federal Production Tax Credits; Waiver of OAC 165:35-38-5(E); And Such Other Relief the Commission Deems PSO is Entitled.

Nevada Docket No. 17-06003: In the Matter of the Application of Nevada Power Company, d/b/a NV Energy, Filed Pursuant to NRS 704.110(3) and (4), Addressing Its Annual Revenue Requirement for General Rates Charged to All Classes of Customers.

North Carolina Docket No. E-2, Sub 1142: In the Matter of the Application of Duke Energy Progress, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina.

Oklahoma Cause No. PUD 201700151: Application of Public Service Company of Oklahoma, an Oklahoma Corporation, for an Adjustment in its Rates and Charges and the Electric Service Rules, Regulations and Conditions of Service for Electric Service in the State of Oklahoma.

Kentucky Case No. 2017-00179: Electronic Application of Kentucky Power Company for (1) a General Adjustment of its Rates for Electric Service; (2) an Order Approving its 2017 Environmental Compliance Plan; (3) an Order Approving its Tariffs and Riders; (4) an Order Approving Accounting Practices to Establish Regulatory Assets and Liabilities; and (5) an Order Granting All Other Requested Relief.

New York Case No. 17-E-0238: Proceeding on Motion of the Commission as to the Rates, Charges, Rules, and Regulations of Niagara Mohawk Power Corporation for Electric and Gas Service.

Virginia Case No. PUR-2017-00060: Application of Virginia Electric and Power Company for Approval of 100 Percent Renewable Energy Tariffs Pursuant to §§ 56-577 A 5 and 56-234 of the Code of Virginia.

New Jersey Docket No. ER17030308: In the Matter of the Petition of Atlantic City Electric Company for Approval of Amendments to its Tariff to Provide for an Increase in Rates and Charges for Electric Service Pursuant to N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1, for Approval of a Grid Resiliency Initiative and Cost Recovery Related Thereto, and for Other Appropriate Relief.

Texas Docket No. 46831: Application of El Paso Electric Company to Change Rates.

Oregon Docket No. UE 319: In the Matter of Portland General Electric Company, Request for a General Rate Revision.

New Mexico Case No. 16-00276-UT: In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice No. 533.

Minnesota Docket No. E015/GR-16-664: In the Matter of the Application of Minnesota Power for Authority to Increase Rates for Electric Service in Minnesota.

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

Texas Docket No. 46449: Application of Southwestern Electric Power Company for Authority to Change Rates.

Arkansas Docket No. 16-052-U: In the Matter of the Application of Oklahoma Gas and Electric Company for Approval of a General Change in Rates, Charges, and Tariffs.

Missouri Case No. EA-2016-0358: In the Matter of the Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity Authorizing it to Construct, Own, Operate, Control, Manage and Maintain a High Voltage, Direct Current Transmission Line and an Associated Converter Station Providing an Interconnection on the Maywood-Montgomery 345 kV Transmission Line.

Florida Docket No. 160186-Ei: In Re: Petition for Increase in Rates by Gulf Power Company.

#### 2016

Missouri Case No. ER-2016-0179: In the Matter of Union Electric Company d/b/a Ameren Missouri Tariffs to Increase its Revenues for Electric Service.

Kansas Docket No. 16-KCPE-593-ACQ: In the Matter of the Joint Application of Great Plains Energy Incorporated, Kansas City Power & Light Company, and Westar Energy, Inc. for Approval of the Acquisition of Westar Energy, Inc. by Great Plains Energy Incorporated.

Missouri Case No. EA-2016-0208: In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Offer a Pilot Distributed Solar Program and File Associated Tariff.

Utah Docket No. 16-035-T09: In the Matter of Rocky Mountain Power's Proposed Electric Service Schedule No. 34, Renewable Energy Tariff.

Pennsylvania Public Utility Commission Docket No. R-2016-2537359: Pennsylvania Public Utility Commission v. West Penn Power Company.

Pennsylvania Public Utility Commission Docket No. R-2016-2537352: Pennsylvania Public Utility Commission v. Pennsylvania Electric Company.

Pennsylvania Public Utility Commission Docket No. R-2016-2537355: Pennsylvania Public Utility Commission v. Pennsylvania Power Company.

Pennsylvania Public Utility Commission Docket No. R-2016-2537349: Pennsylvania Public Utility Commission v. Metropolitan Edison Company.

Michigan Case No. U-17990: In the Matter of the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief.

Florida Docket No. 160021-EI: In Re: Petition for Rate Increase by Florida Power & Light Company.

Minnesota Docket No. E-002/GR-15-816: In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota.

Colorado Public Utilities Commission Docket No. 16AL-0048E: Re: In the Matter of Advice Letter No. 1712-Electric Filed by Public Service Company of Colorado to Replace Colorado PUC No.7-Electric Tariff with Colorado PUC No. 8-Electric Tariff.

Colorado Public Utilities Commission Docket No. 16A-0055E: Re: In the Matter of the Application of Public Service Company of Colorado for Approval of its Solar\*Connect Program.

Missouri Public Service Commission Case No. ER-2016-0023: In the Matter of the Empire District Electric Company of Joplin, Missouri for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri Service Area of the Company.

Georgia Public Service Commission Docket No. 40161: In Re: Georgia Power Company's 2016 Integrated Resource Plan and Application for Decertification of Plant Mitchell Units 3, 4A and 4B, Plant Kraft Unit 1 CT, and Intercession City CT.

Oklahoma Corporation Commission Cause No. PUD 201500273: In the Matter of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma.

New Mexico Case No. 15-00261-UT: In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 513.

2015

Indiana Utility Regulatory Commission Cause No. 44688: Petition of Northern Indiana Public Service Company for Authority to Modify its Rates and Charges for Electric Utility Service and for Approval of: (1) Changes to its Electric Service Tariff Including a New Schedule of Rates and Charges and Changes to the General Rules and Regulations and Certain Riders; (2) Revised Depreciation Accrual Rates; (3) Inclusion in its Basic Rates and Charges of the Costs Associated with Certain Previously Approved Qualified Pollution Control Property, Clean Coal Technology, Clean Energy Projects and Federally Mandated Compliance Projects; and (4) Accounting Relief to Allow NIPSCO to Defer, as a Regulatory Asset or Liability, Certain Costs for Recovery in a Future Proceeding.

Public Utility Commission of Texas Docket No. 44941: Application of El Paso Electric Company to Change Rates.

Arizona Corporation Commission Docket No. E-04204A-15-0142: In the matter of the Application of UNS Electric, Inc. for the Establishment of Just and Reasonable Rates and Charges Designed to Realized a Reasonable Rate of Return on the Fair Value of the Properties of UNS Electric, Inc. Devoted to its Operations Throughout the State of Arizona, and for Related Approvals.

Rhode Island Public Utilities Commission Docket No. 4568: In Re: National Grid's Rate Design Plan.

Oklahoma Corporation Commission Cause No. PUD 201500208: Application of Public Service Company of Oklahoma, an Oklahoma Corporation, for an Adjustment in its Rates and Charges and the Electric Service Rules, Regulations and Conditions of Service for Electric Service in the State of Oklahoma.

Public Service Commission of Wisconsin Docket No. 4220-UR-121: Application of Northern States Power Company, A Wisconsin Corporation, for Authority to Adjust Electric and Natural Gas Rates.

Arkansas Public Service Commission Docket No. 15-015-U: In the Matter of the Application of Entergy Arkansas, Inc. for Approval of Changes in Rates for Retail Electric Service.

New York Public Service Commission Case No. 15-E-0283: Proceeding on Motion of the Commission as to the Rates, Charges, Rules, and Regulations of New York State Electric & Gas Corporation for Electric Service.

New York Public Service Commission Case No. 15-G-0284: Proceeding on Motion of the Commission as to the Rates, Charges, Rules, and Regulations of New York State Electric & Gas Corporation for Gas Service.

New York Public Service Commission Case No. 15-E-0285: Proceeding on Motion of the Commission as to the Rates, Charges, Rules, and Regulations of Rochester Gas & Electric Corporation for Electric Service.

New York Public Service Commission Case No. 15-G-0286: Proceeding on Motion of the Commission as to the Rates, Charges, Rules, and Regulations of Rochester Gas & Electric Corporation for Gas Service.

Public Utilities Commission of Ohio Case No. 14-1693-EL-RDR: In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter Into an Affiliate Power Purchase Agreement for Inclusion in the Power Purchase Agreement Rider.

Public Service Commission of Wisconsin Docket No. 6690-UR-124: Application of Wisconsin Public Service Corporation for Authority to Adjust Electric and Natural Gas Rates.

Arkansas Public Service Commission Docket No. 15-034-U: In the Matter of an Interim Rate Schedule of Oklahoma Gas and Electric Company Imposing a Surcharge to Recover All Investments and Expenses Incurred Through Compliance with Legislative or Administrative Rules, Regulations, or Requirements Relating to the Public Health, Safety or the Environment Under the Federal Clean Air Act for Certain of its Existing Generation Facilities.

Kansas Corporation Commission Docket No. 15-WSEE-115-RTS: In the Matter of the Application of Westar Energy, Inc. and Kansas Gas and Electric Company to Make Certain Changes in their Charges for Electric Service.

Michigan Public Service Commission Case No. U-17767: In the Matter of the Application of DTE Electric Company for Authority to Increase its Rates, Amend its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority.

Public Utility Commission of Texas Docket No. 43695: Application of Southwestern Public Service Company for Authority to Change Rates.

Kansas Corporation Commission Docket No. 15-KCPE-116-RTS: In the Matter of the Application of Kansas City Power & Light Company to Make Certain Changes in its Charges for Electric Service.

Michigan Case No. U-17735: In the Matter of the Application of the Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief.

Kentucky Public Service Commission Case No. 2014-00396: Application of Kentucky Power Company for a General Adjustment of its Rates for Electric Service; (2) an Order Approving its 2014 Environmental Compliance Plan; (3) an Order Approving its Tariffs and Riders; and (4) an Order Granting All Other Required Approvals and Relief.

Kentucky Public Service Commission Case No. 2014-00371: In the Matter of the Application of Kentucky Utilities Company for an Adjustment of its Electric Rates.

Kentucky Public Service Commission Case No. 2014-00372: In the Matter of the Application of Louisville Gas and Electric Company for an Adjustment of its Electric and Gas Rates.

### 2014

Ohio Public Utilities Commission Case No. 14-1297-EL-SSO: In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and the Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan.

West Virginia Case No. 14-1152-E-42T: Appalachian Power Company and Wheeling Power Company, Both d/b/a American Electric Power, Joint Application for Rate Increases and Changes in Tariff Provisions.

Oklahoma Corporation Commission Cause No. PUD 201400229: In the Matter of the Application of Oklahoma Gas and Electric Company for Commission Authorization of a Plan to Comply with the Federal Clean Air Act and Cost Recovery; and for Approval of the Mustang Modernization Plan.

Missouri Public Service Commission Case No. ER-2014-0258: In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase its Revenues for Electric Service.

Pennsylvania Public Utility Commission Docket No. R-2014-2428742: Pennsylvania Public Utility Commission v. West Penn Power Company.

Pennsylvania Public Utility Commission Docket No. R-2014-2428743: Pennsylvania Public Utility Commission v. Pennsylvania Electric Company.

Pennsylvania Public Utility Commission Docket No. R-2014-2428744: Pennsylvania Public Utility Commission v. Pennsylvania Power Company.

Pennsylvania Public Utility Commission Docket No. R-2014-2428745: Pennsylvania Public Utility Commission v. Metropolitan Edison Company.

Washington Utilities and Transportation Commission Docket No. UE-141368: In the Matter of the Petition of Puget Sound Energy to Update Methodologies Used to Allocate Electric Cost of Service and For Electric Rate Design Purposes.

Washington Utilities and Transportation Commission Docket No. UE-140762: 2014 Pacific Power & Light Company General Rate Case.

West Virginia Public Service Commission Case No. 14-0702-E-42T: Monongahela Power Company and the Potomac Edison Company Rule 42T Tariff Filing to Increase Rates and Charges.

Ohio Public Utilities Commission Case No. 14-841-EL-SSO: In the Matter of the Application of Duke Energy Ohio for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Revised Code, in the Form of Case No. 14-841-EL-SSO an Electric Security Plan, Accounting Modifications and Tariffs for Generation Service.

Colorado Public Utilities Commission Docket No. 14AL-0660E: Re: In the Matter of the Advice Letter No. 1672-Electric Filed by Public Service Company of Colorado to Revise its Colorado PUC No. 7-Electric Tariff to Implement a General Rate Schedule Adjustment and Other Rate Changes Effective July 18, 2014.

Maryland Case No. 9355: In the Matter of the Application of Baltimore Gas and Electric Company for Authority to Increase Existing Rates and Charges for Electric and Gas Service.

Mississippi Public Service Commission Docket No. 2014-UN-132: In Re: Notice of Intent of Entergy Mississippi, Inc. to Modernize Rates to Support Economic Development, Power Procurement, and Continued Investment.

Nevada Public Utilities Commission Docket No. 14-05004: Application of Nevada Power Company d/b/a NV Energy for Authority to Increase its Annual Revenue Requirement for General Rates Charged to All Classes of Electric Customers and for Relief Properly Related Thereto.

Utah Public Service Commission Docket No. 14-035-T02: In the Matter of Rocky Mountain Power's Proposed Electric Service Schedule No. 32, Service From Renewable Energy Facilities.

Florida Public Service Commission Docket No. 140002-EG: In Re: Energy Conservation Cost Recovery Clause.

Public Service Commission of Wisconsin Docket No. 6690-UR-123: Application of Wisconsin Public Service Corporation for Authority to Adjust Electric and Natural Gas Rates.

Connecticut Docket No. 14-05-06: Application of the Connecticut Light and Power Company to Amend its Rate Schedules.

Virginia Corporation Commission Case No. PUE-2014-00026: Application of Appalachian Power Company for a 2014 Biennial Review for the Provision of Generation, Distribution and Transmission Services Pursuant to § 56-585.1 A of the Code of Virginia.

Virginia Corporation Commission Case No. PUE-2014-00033: Application of Virginia Electric and Power Company to Revise its Fuel Factor Pursuant to Va. Code § 56-249.6.

Arizona Corporation Commission Docket No. E-01345A-11-0224 (Four Corners Phase): In the Matter of Arizona Public Service Company for a Hearing to Determine the Fair Value of Utility Property of the Company for Ratemaking Purposes, to Fix and Just and Reasonable Rate of Return Thereon, to Approve Rate Schedules Designed to Develop Such Return.

Minnesota Public Utilities Commission Docket No. E-002/GR-13-868: In the Matter of the Application of Northern States Power Company, for Authority to Increase Rates for Electric Service in Minnesota.

Utah Public Service Commission Docket No. 13-035-184: In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations.

Missouri Public Service Commission Case No. EC-2014-0224: In the Matter of Noranda Aluminum, Inc.'s Request for Revisions to Union Electric Company d/b/a Ameren Missouri's Large Transmission Service Tariff to Decrease its Rate for Electric Service.

Oklahoma Corporation Commission Cause No. PUD 201300217: Application of Public Service Company of Oklahoma to be in Compliance with Order No. 591185 Issued in Cause No. PUD 201100106 Which Requires a Base Rate Case to be Filed by PSO and the Resulting Adjustment in its Rates and Charges and Terms and Conditions of Service for Electric Service in the State of Oklahoma.

Public Utilities Commission of Ohio Case No. 13-2386-EL-SSO: In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to §4928.143, Ohio Rev. Code, in the Form of an Electric Security Plan.

### 2013

Oklahoma Corporation Commission Cause No. PUD 201300201: Application of Public Service Company of Oklahoma for Commission Authorization of a Standby and Supplemental Service Rate Schedule.

Georgia Public Service Commission Docket No. 36989: Georgia Power's 2013 Rate Case.

Florida Public Service Commission Docket No. 130140-EI: Petition for Rate Increase by Gulf Power Company.

Public Utility Commission of Oregon Docket No. UE 267: In the Matter of PACIFICORP, dba PACIFIC POWER, Transition Adjustment, Five-Year Cost of Service Opt-Out.

Illinois Commerce Commission Docket No. 13-0387: Commonwealth Edison Company Tariff Filing to Present the Illinois Commerce Commission with an Opportunity to Consider Revenue Neutral Tariff Changes Related to Rate Design Authorized by Subsection 16-108.5 of the Public Utilities Act.

Iowa Utilities Board Docket No. RPU-2013-0004: In Re: MidAmerican Energy Company.

South Dakota Public Utilities Commission Docket No. EL12-061: In the Matter of the Application of Black Hills Power, Inc. for Authority to Increase its Electric Rates. (filed with confidential stipulation)

Kansas Corporation Commission Docket No. 13-WSEE-629-RTS: In the Matter of the Applications of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in their Charges for Electric Service.

Public Utility Commission of Oregon Docket No. UE 263: In the Matter of PACIFICORP, dba PACIFIC POWER, Request for a General Rate Revision.

Arkansas Public Service Commission Docket No. 13-028-U: In the Matter of the Application of Entergy Arkansas, Inc. for Approval of Changes in Rates for Retail Electric Service.

Virginia State Corporation Commission Docket No. PUE-2013-00020: Application of Virginia Electric and Power Company for a 2013 Biennial Review of the Rates, Terms, and Conditions for the Provision of Generation, Distribution, and Transmission Services Pursuant to § 56-585.1 A of the Code of Virginia.

Florida Public Service Commission Docket No. 130040-El: Petition for Rate Increase by Tampa Electric Company.

South Carolina Public Service Commission Docket No. 2013-59-E: Application of Duke Energy Carolinas, LLC, for Authority to Adjust and Increase Its Electric Rates and Charges.

Public Utility Commission of Oregon Docket No. UE 262: In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, Request for a General Rate Revision.

New Jersey Board of Public Utilities Docket No. ER12111052: In the Matter of the Verified Petition of Jersey Central Power & Light Company For Review and Approval of Increases in and Other Adjustments to Its Rates and Charges For Electric Service, and For Approval of Other Proposed Tariff Revisions in Connection Therewith; and for Approval of an Accelerated Reliability Enhancement Program ("2012 Base Rate Filing")

North Carolina Utilities Commission Docket No. E-7, Sub 1026: In the Matter of the Application of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina.

Public Utility Commission of Oregon Docket No. UE 264: PACIFICORP, dba PACIFIC POWER, 2014 Transition Adjustment Mechanism.

Public Utilities Commission of California Docket No. 12-12-002: Application of Pacific Gas and Electric Company for 2013 Rate Design Window Proceeding.

Public Utilities Commission of Ohio Docket Nos. 12-426-EL-SSO, 12-427-EL-ATA, 12-428-EL-AAM, 12-429-EL-WVR, and 12-672-EL-RDR: In the Matter of the Application of the Dayton Power and Light Company Approval of its Market Offer.

Minnesota Public Utilities Commission Docket No. E-002/GR-12-961: In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in Minnesota.

North Carolina Utilities Commission Docket E-2, Sub 1023: In the Matter of Application of Progress Energy Carolinas, Inc. For Adjustment of Rates and Charges Applicable to Electric Service in North Carolina.

2012

Public Utility Commission of Texas Docket No. 40443: Application of Southwestern Electric Power Company for Authority to Change Rates and Reconcile Fuel Costs.

South Carolina Public Service Commission Docket No. 2012-218-E: Application of South Carolina Electric & Gas Company for Increases and Adjustments in Electric Rate Schedules and Tariffs and Request for Mid-Period Reduction in Base Rates for Fuel.

Kansas Corporation Commission Docket No. 12-KCPE-764-RTS: In the Matter of the Application of Kansas City Power & Light Company to Make Certain Changes in its Charges for Electric Service.

Kansas Corporation Commission Docket No. 12-GIMX-337-GIV: In the Matter of a General Investigation of Energy-Efficiency Policies for Utility Sponsored Energy Efficiency Programs.

Florida Public Service Commission Docket No. 120015-EI: In Re: Petition for Rate Increase by Florida Power & Light Company.

California Public Utilities Commission Docket No. A.11-10-002: Application of San Diego Gas & Electric Company (U 902 E) for Authority to Update Marginal Costs, Cost Allocation, and Electric Rate Design.

Utah Public Service Commission Docket No. 11-035-200: In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations.

Virginia State Corporation Commission Case No. PUE-2012-00051: Application of Appalachian Power Company to Revise its Fuel Factor Pursuant to § 56-249.6 of the Code of Virginia.

Public Utilities Commission of Ohio Case Nos. 11-346-EL-SSO, 11-348-EL-SSO, 11-349-EL-AAM, and 11-350-EL-AAM: In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Revised Code, in the Form on an Electric Security Plan and In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Approval of Certain Accounting Authority.

New Jersey Board of Public Utilities Docket No. ER11080469: In the Matter of the Petition of Atlantic City Electric for Approval of Amendments to Its Tariff to Provide for an Increase in Rates and Charges for Electric Service Pursuant to N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1 and For Other Appropriate Relief.

Public Utility Commission of Texas Docket No. 39896: Application of Entergy Texas, Inc. for Authority to Change Rates and Reconcile Fuel Costs.

Missouri Public Service Commission Case No. EO-2012-0009:In the Matter of KCP&L Greater Missouri Operations Notice of Intent to File an Application for Authority to Establish a Demand-Side Programs Investment Mechanism.

Colorado Public Utilities Commission Docket No. 11AL-947E: In the Matter of Advice Letter No. 1597-Electric Filed by Public Service Company of Colorado to Revise its Colorado PUC No. 7-Electric Tariff to Implement a General Rate Schedule Adjustment and Other Changes Effective December 23, 2011.

Illinois Commerce Commission Docket No. 11-0721: Commonwealth Edison Company Tariffs and Charges Submitted Pursuant to Section 16-108.5 of the Public Utilities Act.

Public Utility Commission of Texas Docket No. 38951: Application of Entergy Texas, Inc. for Approval of Competitive Generation Service tariff (Issues Severed from Docket No. 37744).

California Public Utilities Commission Docket No. A.11-06-007: Southern California Edison's General Rate Case, Phase 2.

### 2011

Arizona Corporation Commission Docket No. E-01345A-11-0224: In the Matter of Arizona Public Service Company for a Hearing to Determine the Fair Value of Utility Property of the Company for Ratemaking Purposes, to Fix and Just and Reasonable Rate of Return Thereon, to Approve Rate Schedules Designed to Develop Such Return.

Oklahoma Corporation Commission Cause No. PUD 201100087: In the Matter of the Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma.

South Carolina Public Service Commission Docket No. 2011-271-E: Application of Duke Energy Carolinas, LLC for Authority to Adjust and Increase its Electric Rates and Charges.

Pennsylvania Public Utility Commission Docket No. P-2011-2256365: Petition of PPL Electric Utilities Corporation for Approval to Implement Reconciliation Rider for Default Supply Service.

North Carolina Utilities Commission Docket No. E-7, Sub 989: In the Matter of Application of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina.

Florida Public Service Commission Docket No. 110138: In Re: Petition for Increase in Rates by Gulf Power Company.

Public Utilities Commission of Nevada Docket No. 11-06006: In the Matter of the Application of Nevada Power Company, filed pursuant to NRS 704.110(3) for authority to increase its annual revenue requirement for general rates charged to all classes of customers to recover the costs of constructing the Harry Allen Combined Cycle plant and other generating, transmission, and distribution plant additions, to reflect changes in the cost of capital, depreciation rates and cost of service, and for relief properly related thereto.

North Carolina Utilities Commission Docket Nos. E-2, Sub 998 and E-7, Sub 986: In the Matter of the Application of Duke Energy Corporation and Progress Energy, Inc., to Engage in a Business Combination Transaction and to Address Regulatory Conditions and Codes of Conduct.

Public Utilities Commission of Ohio Case Nos. 11-346-EL-SSO, 11-348-EL-SSO, 11-349-EL-AAM, and 11-350-EL-AAM: In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Revised Code, in the Form on an Electric Security Plan and In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Approval of Certain Accounting Authority.

Virginia State Corporation Commission Case No. PUE-2011-00037: In the Matter of Appalachian Power Company for a 2011 Biennial Review of the Rates, Terms, and Conditions for the Provision of Generation, Distribution, and Transmission Services Pursuant to § 56-585.1 A of the Code of Virginia.

Illinois Commerce Commission Docket No. 11-0279 and 11-0282 (cons.): Ameren Illinois Company Proposed General Increase in Electric Delivery Service and Ameren Illinois Company Proposed General Increase in Gas Delivery Service.

Virginia State Corporation Commission Case No. PUE-2011-00045: Application of Virginia Electric and Power Company to Revise its Fuel Factor Pursuant to § 56-249.6 of the Code of Virginia.

Utah Public Service Commission Docket No. 10-035-124: In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations.

Maryland Public Utilities Commission Case No. 9249: In the Matter of the Application of Delmarva Power & Light for an Increase in its Retail Rates for the Distribution of Electric Energy.

Minnesota Public Utilities Commission Docket No. E002/GR-10-971: In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for Authority to Increase Rates for Electric Service in Minnesota.

Michigan Public Service Commission Case No. U-16472: In the Matter of the Detroit Edison Company for Authority to Increase its Rates, Amend its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority.

### 2010

Public Utilities Commission of Ohio Docket No. 10-2586-EL-SSO: In the Matter of the Application of Duke Energy Ohio for Approval of a Market Rate Offer to Conduct a Competitive Bidding Process for Standard Service Offer Electric Generation Supply, Accounting Modifications, and Tariffs for Generation Service.

Colorado Public Utilities Commission Docket No. 10A-554EG: In the Matter of the Application of Public Service Company of Colorado for Approval of a Number of Strategic Issues Relating to its DSM Plan, Including Long-Term Electric Energy Savings Goals, and Incentives.

Public Service Commission of West Virginia Case No. 10-0699-E-42T: Appalachian Power Company and Wheeling Power Company Rule 42T Application to Increase Electric Rates.

Oklahoma Corporation Commission Cause No. PUD 201000050: Application of Public Service Company of Oklahoma, an Oklahoma Corporation, for an Adjustment in its Rates and Charges and Terms and Conditions of Service for Electric Service in the State of Oklahoma.

Georgia Public Service Commission Docket No. 31958-U: In Re: Georgia Power Company's 2010 Rate Case.

Washington Utilities and Transportation Commission Docket No. UE-100749: 2010 Pacific Power & Light Company General Rate Case.

Colorado Public Utilities Commission Docket No. 10M-254E: In the Matter of Commission Consideration of Black Hills Energy's Plan in Compliance with House Bill 10-1365, "Clean Air-Clean Jobs Act."

Colorado Public Utilities Commission Docket No. 10M-245E: In the Matter of Commission Consideration of Public Service Company of Colorado Plan in Compliance with House Bill 10-1365, "Clean Air-Clean Jobs Act."

Public Service Commission of Utah Docket No. 09-035-15 *Phase II*: In the Matter of the Application of Rocky Mountain Power for Approval of its Proposed Energy Cost Adjustment Mechanism.

Public Utility Commission of Oregon Docket No. UE 217: In the Matter of PACIFICORP, dba PACIFIC POWER Request for a General Rate Revision.

Mississippi Public Service Commission Docket No. 2010-AD-57: In Re: Proposal of the Mississippi Public Service Commission to Possibly Amend Certain Rules of Practice and Procedure.

Indiana Utility Regulatory Commission Cause No. 43374: Verified Petition of Duke Energy Indiana, Inc. Requesting the Indiana Utility Regulatory Commission to Approve an Alternative Regulatory Plan Pursuant to Ind. Code § 8-1-2.5-1, *ET SEQ.*, for the Offering of Energy Efficiency Conservation, Demand Response, and Demand-Side Management Programs and Associated Rate Treatment Including Incentives Pursuant to a Revised Standard Contract Rider No. 66 in Accordance with Ind. Code §§ 8-1-2.5-1 *ET SEQ.* and 8-1-2-42 (a); Authority to Defer Program Costs Associated with its Energy Efficiency Portfolio of Programs; Authority to Implement New and Enhanced Energy Efficiency Programs, Including the Powershare<sup>®</sup> Program in its Energy Efficiency Portfolio of Programs; and Approval of a Modification of the Fuel Adjustment Clause Earnings and Expense Tests.

Public Utility Commission of Texas Docket No. 37744: Application of Entergy Texas, Inc. for Authority to Change Rates and to Reconcile Fuel Costs.

South Carolina Public Service Commission Docket No. 2009-489-E: Application of South Carolina Electric & Gas Company for Adjustments and Increases in Electric Rate Schedules and Tariffs.

Kentucky Public Service Commission Case No. 2009-00459: In the Matter of General Adjustments in Electric Rates of Kentucky Power Company.

Virginia State Corporation Commission Case No. PUE-2009-00125: For acquisition of natural gas facilities Pursuant to § 56-265.4:5 B of the Virginia Code.

Arkansas Public Service Commission Docket No. 10-010-U: In the Matter of a Notice of Inquiry Into Energy Efficiency.

Connecticut Department of Public Utility Control Docket No. 09-12-05: Application of the Connecticut Light and Power Company to Amend its Rate Schedules.

Arkansas Public Service Commission Docket No. 09-084-U: In the Matter of the Application of Entergy Arkansas, Inc. For Approval of Changes in Rates for Retail Electric Service.

Missouri Public Service Commission Docket No. ER-2010-0036: In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area.

Public Service Commission of Delaware Docket No. 09-414: In the Matter of the Application of Delmarva Power & Light Company for an Increase in Electric Base Rates and Miscellaneous Tariff Charges.

### 2009

Virginia State Corporation Commission Case No. PUE-2009-00030: In the Matter of Appalachian Power Company for a Statutory Review of the Rates, Terms, and Conditions for the Provision of Generation, Distribution, and Transmission Services Pursuant to § 56-585.1 A of the Code of Virginia.

Public Service Commission of Utah Docket No. 09-035-15 *Phase I*: In the Matter of the Application of Rocky Mountain Power for Approval of its Proposed Energy Cost Adjustment Mechanism.

Public Service Commission of Utah Docket No. 09-035-23: In the Matter of the Application of Rocky Mountain Power for Authority To Increase its Retail Electric Utility Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Service Regulations.

Colorado Public Utilities Commission Docket No. 09AL-299E: Re: The Tariff Sheets Filed by Public Service Company of Colorado with Advice Letter No. 1535 – Electric.

Arkansas Public Service Commission Docket No. 09-008-U: In the Matter of the Application of Southwestern Electric Power Company for Approval of a General Change in Rates and Tariffs.

Oklahoma Corporation Commission Docket No. PUD 200800398: In the Matter of the Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma.

Public Utilities Commission of Nevada Docket No. 08-12002: In the Matter of the Application by Nevada Power Company d/b/a NV Energy, filed pursuant to NRS §704.110(3) and NRS §704.110(4) for authority to increase its annual revenue requirement for general rates charged to all classes of customers, begin to recover the costs of acquiring the Bighorn Power Plant, constructing the Clark Peakers, Environmental Retrofits and other generating, transmission and distribution plant additions, to reflect changes in cost of service and for relief properly related thereto.

New Mexico Public Regulation Commission Case No. 08-00024-UT: In the Matter of a Rulemaking to Revise NMPRC Rule 17.7.2 NMAC to Implement the Efficient Use of Energy Act.

Indiana Utility Regulatory Commission Cause No. 43580: Investigation by the Indiana Utility Regulatory Commission, of Smart Grid Investments and Smart Grid Information Issues Contained in 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. § 2621(d)), as Amended by the Energy Independence and Security Act of 2007.

Louisiana Public Service Commission Docket No. U-30192 *Phase II (February 2009)*: Ex Parte, Application of Entergy Louisiana, LLC for Approval to Repower Little Gypsy Unit 3 Electric Generating Facility and for Authority to Commence Construction and for Certain Cost Protection and Cost Recovery.

South Carolina Public Service Commission Docket No. 2008-251-E: In the Matter of Progress Energy Carolinas, Inc.'s Application For the Establishment of Procedures to Encourage Investment in Energy Efficient Technologies; Energy Conservation Programs; And Incentives and Cost Recovery for Such Programs.

### 2008

Colorado Public Utilities Commission Docket No. 08A-366EG: In the Matter of the Application of Public Service Company of Colorado for approval of its electric and natural gas demand-side management (DSM) plan for calendar years 2009 and 2010 and to change its electric and gas DSM cost adjustment rates effective January 1, 2009, and for related waivers and authorizations.

Public Service Commission of Utah Docket No. 07-035-93: In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations, Consisting of a General Rate Increase of Approximately \$161.2 Million Per Year, and for Approval of a New Large Load Surcharge.

Indiana Utility Regulatory Commission Cause No. 43374: Petition of Duke Energy Indiana, Inc. Requesting the Indiana Utility Regulatory Commission Approve an Alternative Regulatory Plan for the Offering of Energy Efficiency, Conservation, Demand Response, and Demand-Side Management.

Public Utilities Commission of Nevada Docket No. 07-12001: In the Matter of the Application of Sierra Pacific Power Company for authority to increase its general rates charged to all classes of electric customers to reflect an increase in annual revenue requirement and for relief properly related thereto.

Louisiana Public Service Commission Docket No. U-30192 *Phase II*: Ex Parte, Application of Entergy Louisiana, LLC for Approval to Repower Little Gypsy Unit 3 Electric Generating Facility and for Authority to Commence Construction and for Certain Cost Protection and Cost Recovery.

Colorado Public Utilities Commission Docket No. 07A-420E: In the Matter of the Application of Public Service Company of Colorado For Authority to Implement and Enhanced Demand Side Management Cost Adjustment Mechanism to Include Current Cost Recovery and Incentives.

### 2007

Louisiana Public Service Commission Docket No. U-30192: Ex Parte, Application of Entergy Louisiana, LLC for Approval to Repower Little Gypsy Unit 3 Electric Generating Facility and for Authority to Commence Construction and for Certain Cost Protection and Cost Recovery.

Public Utility Commission of Oregon Docket No. UG 173: In the Matter of PUBLIC UTILITY COMMISSION OF OREGON Staff Request to Open an Investigation into the Earnings of Cascade Natural Gas.

### 2006

Public Utility Commission of Oregon Docket No. UE 180/UE 181/UE 184: In the Matter of PORTLAND GENERAL ELECTRIC COMPANY Request for a General Rate Revision.

Public Utility Commission of Oregon Docket No. UE 179: In the Matter of PACIFICORP, dba PACIFIC POWER AND LIGHT COMPANY Request for a general rate increase in the company's Oregon annual revenues.

Public Utility Commission of Oregon Docket No. UM 1129 *Phase II*: Investigation Related to Electric Utility Purchases From Qualifying Facilities.

### 2005

Public Utility Commission of Oregon Docket No. UM 1129 *Phase I Compliance*: Investigation Related to Electric Utility Purchases From Qualifying Facilities.

Public Utility Commission of Oregon Docket No. UX 29: In the Matter of QWEST CORPORATION Petition to Exempt from Regulation Qwest's Switched Business Services.

### 2004

Public Utility Commission of Oregon Docket No. UM 1129 *Phase I*: Investigation Related to Electric Utility Purchases From Qualifying Facilities.

### TESTIMONY BEFORE LEGISLATIVE BODIES

2020

Regarding Missouri Senate Joint Resolution 34: Written testimony submitted to the Missouri Senate Transportation, Infrastructure and Public Safety Committee, January 30, 2020.

### 2019

Regarding North Carolina Senate Bill 559: Written testimony submitted to the North Carolina Committee on Agriculture/Environment/Natural Resources, April 17, 2019.

Regarding Missouri Senate Joint Resolution 25: Written testimony submitted to the Missouri Senate Committee on Judiciary, March 28, 2019.

Regarding South Carolina House Bill 3659: Written testimony submitted to the South Carolina Senate Committee on Judiciary, March 14, 2019.

Regarding Kansas Senate Bill 69: Written testimony submitted to the Kansas Committee on Utilities, February 19, 2019.

### 2018

Regarding Missouri Senate Bill 564: Testimony before the Missouri Senate Committee on Commerce, Consumer Protection, Energy and the Environment, January 10, 2018.

### 2017

Regarding Missouri Senate Bill 190: Testimony before the Missouri Senate Committee on Commerce, Consumer Protection, Energy and the Environment, January 25, 2017.

### 2016

Regarding Missouri House Bill 1726: Testimony before the Missouri House Energy and Environment Committee, April 26, 2016.

### 2014

Regarding Kansas House Bill 2460: Testimony Before the Kansas House Standing Committee on Utilities and Telecommunications, February 12, 2014.

### 2012

Regarding Missouri House Bill 1488: Testimony Before the Missouri House Committee on Utilities, February 7, 2012.

### 2011

Regarding Missouri Senate Bills 50, 321, 359, and 406: Testimony Before the Missouri Senate Veterans' Affairs, Emerging Issues, Pensions, and Urban Affairs Committee, March 9, 2011.

### AFFIDAVITS

### 2015

Supreme Court of Illinois, Docket No. 118129, Commonwealth Edison Company et al., respondents, v. Illinois Commerce Commission et al. (Illinois Competitive Energy Association et al., petitioners). Leave to appeal, Appellate Court, First District.

2011

Colorado Public Utilities Commission Docket No. 11M-951E: In the Matter of the Petition of Public Service Company of Colorado Pursuant to C.R.S. § 40-6-111(1)(d) for Interim Rate Relief Effective on or before January 21, 2012.

### ENERGY INDUSTRY PUBLICATIONS AND PRESENTATIONS

Panelist, How Federal Funding is Changing the EV Charging Landscape for Corporate Customers, Edison Electric Institute National Key Accounts Workshop, Miami, Florida, March 22, 2023.

Panelist, Green Tariffs: Benefits and Opportunities for Energy Customers and Utilities, VERGE, San Jose, California, October 26, 2022.

Panelist, Leveraging Electric Company Partnerships to Support Corporate Customer Business Strategies, Edison Electric Institute National Key Accounts Workshop, Indianapolis, Indiana, October 24, 2022.

Speaker, Supporting Walmart's Regenerative Journey, Edison Electric Institute National Key Accounts Workshop, New Orleans, Louisiana, March 21, 2022.

Speaker, Walmart and the Co-ops: The Value of Partnership, Texas Electric Cooperatives 22<sup>nd</sup> Annual Directors Conference, January 11, 2022.

Speaker, Walmart and the Co-ops: The Value of Partnership, Texas Electric Cooperatives Managers Conference, December 2, 2021.

Panelist, Industry Priorities for Building Renewable Infrastructure, ACORE Grid Forum, November 3, 2021.

Panelist, Achieving a 100% Carbon Free Energy Economy, Edison Electric Institute National Key Accounts Workshop, Long Beach, California, October 25, 2021.

Panelist, Public Private Partnerships: How Utilities and Customers are Working Together for a More Sustainable Future, Arkansas Advanced Energy Association Empower Arkansas, Little Rock, Arkansas, October 14, 2021.

Panelist, Understanding Nontraditional Stakeholders, University of Idaho Energy Executive Summit, Austin, Texas, October 12, 2021.

Panelist, US City & Corporate Clean Energy Procurement and its Role in Achieving the Paris Agreement's Goals, United States Environmental Protection Agency, September 1, 2021.

Panelist, WalStreet Fireside Chat – Future of Energy, Bentonville Chamber of Commerce, July 27, 2021.

Panelist, Corporate Customer Partnerships, EEI 2021: The Road to Net Zero, June 9, 2021.

Panelist, Counting to Clean: Corporate Sustainability and Renewable Energy, Energy Bar Association, May 12, 2021.

Speaker, Designing a Customer-Centric Clean Energy Standard, REBA Connect 2021 Virtual Member Summit, May 11, 2021.

Panelist, Delivering 100% Carbon Free Energy: Options & Issues, Northwestern Center on Law, Business, and Economics, March 16, 2021.

Electric Company Updates and Discussion on Best Practices for Serving National Corporate Customers Webinar, Edison Electric Institute, March 9, 2021.

Panelist, ComEd Fleet Electrification Webinar, December 10, 2020.

Panelist, Corporate Offtaker Perspectives Panel, Southeast Renewable Energy Summit, November 18, 2020.

Panelist, EEI National Key Accounts – Connections that Mean Business for Corporate Customers, EEI Fall National Key Accounts Workshop, October 28, 2020.

Panelist, COVID-19, a Catalyzer or a Barrier to Decarbonization?, Power & Renewables Summit 2020, September 28, 2020.

Panelist, What Organized Markets Can Do for You, REBA Connect: Virtual Member Summit 2020, June 2, 2020.

Panelist, Expanding Future Procurement Options, REBA Connect: Virtual Member Summit 2020, May 13, 2020.

Panelist, Renewable Energy Options for Large Utility Customers, NARUC Center for Partnership & Innovation Webinar Series, January 16, 2020.

Panelist, Pathways to Integrating Customer Clean Energy Demand in Utility Planning, REBA: Market Innovation webinar, January 13, 2020.

Panelist, Should Full Electrification of Energy Systems be Our Goal? If it's No Longer Business as Usual, What Does That Mean for Consumers?, National Association of State Utility Consumer Advocates 2019 Annual Meeting, San Antonio, Texas, November 18, 2019.

Panelist, Fleet Electrification, Federal Utility Partnership Working Group Seminar, Washington, DC, November 8, 2019.

Panelist, Tackling the Challenges of Extreme Weather, Edison Electric Institute Fall National Key Accounts Workshop, Las Vegas, Nevada, October 8, 2019.

Panelist, Fleet Electrification: Tackling the Challenges and Seizing the Opportunities for Electric Trucks, Powering the People 2019, Washington, D.C., September 24, 2019.

Panelist, From the Consumer Perspective, Mid-American Regulatory Conference 2019 Annual Meeting, Des Moines, Iowa, August 13, 2019.

Panelist, Redefining Resiliency: Emerging Technologies Benefiting Customers and the Grid, EPRI 2019 Summer Seminar, Chicago, Illinois, August 12, 2019.

Panelist, Energy Policies for Economic Growth, 2019 Energy Policy Summit, NCSL Legislative Summit, Nashville, Tennessee, August 5, 2019.

Panelist, Gateway to Energy Empowerment for Customers, Illumination Energy Summit, Columbus, Ohio, May 15, 2019.

Panelist, Advancing Clean Energy Solutions Through Stakeholder Collaborations, 2019 State Energy Conference of North Carolina, Raleigh, North Carolina, May 1, 2019.

Panelist, Fleet Electrification: Getting Ready for the Transition, Edison Electric Institute Spring National Key Accounts Workshop, Seattle, Washington, April 8, 2019.

Panelist, Where the Fleet Meets the Pavement, Which Way to Electrification of the U.S. Transportation System?, Washington, D.C., April 4, 2019.

Panelist, Improving Renewable Energy Offerings: What Have We Learned?, Advanced Energy Economy Webinar, March 26, 2019.

Speaker, National Governors Association Southeast Regional Transportation Electrification Workshop, Nashville, Tennessee, March 11, 2019.

Speaker, Walmart Spotlight: A Day in the Life of a National Energy Manager, Touchstone Energy Cooperatives Net Conference 2019, San Diego, California, February 12, 2019.

Panelist, National Accounts: The Struggle is Real, American Public Power Association Customer Connections Conference, Orlando, Florida, November 6, 2018.

Panelist, Getting in Front of Customers Getting Behind the Meter Solutions, American Public Power Association Customer Connections Conference, Orlando, Florida, November 6, 2018.

Panelist, Sustainable Fleets: The Road Ahead for Electrifying Fleet Operations, EEI National Key Accounts 2018 Fall Workshop, San Antonio, Texas, October 23, 2018.

Panelist, Meeting Corporate Clean Energy Requirements in Virginia, Renewable Energy Buyers Alliance Summit, Oakland, California, October 15, 2018.

Panelist, What Are the Anticipated Impacts on Pricing and Reliability in the Changing Markets?, Southwest Energy Conference, Phoenix, Arizona, September 21, 2018.

Speaker, Walmart's Project Gigaton – Driving Renewable Energy Sourcing in the Supply Chain, Smart Energy Decisions Webcast Series, July 11, 2018.

Panelist, Customizing Energy Solutions, Edison Electric Institute Annual Convention, San Diego, California, June 7, 2018.

Powering Ohio Report Release, Columbus, Ohio, May 29, 2018.

Panelist, The Past, Present, and Future of Renewable Energy: What Role Will PURPA, Mandates, and Collaboration Play as Renewables Become a Larger Part of Our Energy Mix?, 36<sup>th</sup> National Regulatory Conference, Williamsburg, Virginia, May 17, 2018.

Panelist, Sustainability Milestone Deep Dive Session, Walmart Global Sustainability Leaders Summit, Bentonville, Arkansas, April 18, 2018.

Panelist, The Customer's Voice, Tennessee Valley Authority Distribution Marketplace Forum, Murfreesboro, Tennessee, April 3, 2018.

Panelist, Getting to Yes with Large Customers to Meet Sustainability Goals, The Edison Foundation Institute for Electric Innovation Powering the People, March 7, 2018.

Panelist, The Corporate Quest for Renewables, 2018 NARUC Winter Policy Summit, Washington, D.C., February 13, 2018.

Panelist, Solar and Renewables, Touchstone Energy Cooperatives NET Conference 2018, St. Petersburg, Florida, February 6, 2018.

Panelist, Missouri Public Service Commission November 20, 2017 Workshop in File No. EW-2017-0245.

Panelist, Energy and Climate Change, 2017-18 Arkansas Law Review Symposium: Environmental Sustainability and Private Governance, Fayetteville, Arkansas, October 27, 2017.

Panelist, Customer – Electric Company – Regulator Panel, Edison Electric Institute Fall National Key Accounts Workshop, National Harbor, Maryland, October 12, 2017.

Panelist, What Do C&I Buyers Want, Solar Power International, Las Vegas, Nevada, September 12, 2017.

Panelist, Partnerships for a Sustainable Future, American Public Power Association National Conference, Orlando, Florida, June 20, 2017.

Panelist, Corporate Renewable Energy Buyers in the Southeast, SEARUC 2017, Greensboro, Georgia, June 12, 2017.

Panelist, Transitioning Away from Traditional Utilities, Utah Association of Energy Users Annual Conference, Salt Lake City, Utah, May 18, 2017.

Panelist, Regulatory Approaches for Integrating and Facilitating DERs, New Mexico State University Center for Public Utilities Advisory Council Current Issues 2017, Santa Fe, New Mexico, April 25, 2017.

Presenter, Advancing Renewables in the Midwest, Columbia, Missouri, April 24, 2017.

Panelist, Leveraging New Energy Technologies to Improve Service and Reliability, Edison Electric Institute Spring National Key Accounts Workshop, Phoenix, Arizona, April 11, 2017.

Panelist, Private Sector Demand for Renewable Power, Vanderbilt Law School, Nashville, Tennessee, April 4, 2017.

Panelist, Expanding Solar Market Opportunities, 2017 Solar Power Colorado, Denver, Colorado, March 15, 2017.

Panelist, Renewables: Are Business Models Keeping Up?, Touchstone Energy Cooperatives NET Conference 2017, San Diego, California, January 30, 2017.

Panelist, The Business Case for Clean Energy, Minnesota Conservative Energy Forum, St. Paul, Minnesota, October 26, 2016.

Panelist, M-RETS Stakeholder Summit, Minneapolis, Minnesota, October 5, 2016.

Panelist, 40<sup>th</sup> Governor's Conference on Energy & the Environment, Kentucky Energy and Environment Cabinet, Lexington, Kentucky, September 21, 2016.

Panelist, Trends in Customer Expectations, Wisconsin Public Utility Institute, Madison, Wisconsin, September 6, 2016.

Panelist, The Governor's Utah Energy Development Summit 2015, May 21, 2015.

Mock Trial Expert Witness, The Energy Bar Association State Commission Practice and Regulation Committee and Young Lawyers Committee and Environment, Energy and Natural Resources Section of the D.C. Bar, Mastering Your First (or Next) State Public Utility Commission Hearing, February 13, 2014.

Panelist, Customer Panel, Virginia State Bar 29<sup>th</sup> National Regulatory Conference, Williamsburg, Virginia, May 19, 2011.

Chriss, S. (2006). "Regulatory Incentives and Natural Gas Purchasing – Lessons from the Oregon Natural Gas Procurement Study." Presented at the 19<sup>th</sup> Annual Western Conference, Center for Research in Regulated Industries Advanced Workshop in Regulation and Competition, Monterey, California, June 29, 2006.

Chriss, S. (2005). "Public Utility Commission of Oregon Natural Gas Procurement Study." Public Utility Commission of Oregon, Salem, OR. Report published in June, 2005. Presented to the Public Utility Commission of Oregon at a special public meeting on August 1, 2005.

Chriss, S. and M. Radler (2003). "Report from Houston: Conference on Energy Deregulation and Restructuring." USAEE Dialogue, Vol. 11, No. 1, March, 2003.

Chriss, S., M. Dwyer, and B. Pulliam (2002). "Impacts of Lifting the Ban on ANS Exports on West Coast Crude Oil Prices: A Reconsideration of the Evidence." Presented at the 22nd USAEE/IAEE North American Conference, Vancouver, BC, Canada, October 6-8, 2002.

Contributed to chapter on power marketing: "Power System Operations and Electricity Markets," Fred I. Denny and David E. Dismukes, authors. Published by CRC Press, June 2002.

Contributed to "Moving to the Front Lines: The Economic Impact of the Independent Power Plant Development in Louisiana," David E. Dismukes, author. Published by the Louisiana State University Center for Energy Studies, October 2001.

Dismukes, D.E., D.V. Mesyanzhinov, E.A. Downer, S. Chriss, and J.M. Burke (2001). "Alaska Natural Gas In-State Demand Study." Anchorage: Alaska Department of Natural Resources.

### 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 R.C.	)	Case No. 23-0023-EL-SSO
4928.143, in the Form of an Electric Security Plan	)	
In the Matter of the Application of Ohio Power	)	
Company for Approval of Certain Accounting	)	
Authority	)	Case No. 23-0024-EL-AAM

EXHIBIT SWC-2 OF STEVE W. CHRISS ON BEHALF OF WALMART INC.

## OHIO POWER COMPANY'S RESPONSE TO THE OFFICE OF THE OHIO CONSUMERS' COUNSEL'S DISCOVERY REQUEST PUCO CASE 23-0023-EL-SSO THIRD SET

### **INTERROGATORY**

OCC-INT-03-002 The testimony of Jaime Mayhan on page 17 states that "The Company is proposing to file, at a future date, to reset the DIR reliability caps based on a more detailed DIR Work Plan for years beyond May 31, 2027 through the end of the ESP V." a.: Please explain why proposed DIR reliability caps are not available now for the full year of 2027 through the term of the ESP V? b.: Does AEP Ohio contemplate filing a separate application to reset the DIR reliability caps for years after May 31, 2027 through the end of the ESP V? c.: Is AEP Ohio proposing a separate PUCO proceeding to address resetting the proposed DIR reliability caps for the period after May 31, 2027 through the end of the ESP V? d.: Does AEP Ohio intend to file a distribution rate case during the term of the ESP V, and if so, what is the projected date when a distribution rate case will be filed?

### **RESPONSE**

AEP Ohio objects that the requested information is publicly available in the Commission's docket. The Company further objects that the request seeks information about future events that are not currently known. AEP Ohio further objects that this request seeks a narrative response. Without waiving these objections or any general objections the Company may have, the Company states as follows:

a. Please see Company Witness Mayhan's testimony on page 17 as well as Company Witness Forbes' testimony on pages 25 through 27.

- b. Please see the Company's response to part a.
- c. Please see the Company's response to part a.

d. AEP Ohio further objects that this request seeks information protected by the work product doctrine and attorney-client privilege. Without waiving this additional objection or any general objections the Company may have, the Company states that it does not currently have plans to file a distribution rate case during the proposed ESP V term, but reserves the right to make such a filing.

Prepared by:

Counsel Jaime L. Mayhan

### 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 R.C.	)	Case No. 23-0023-EL-SSO
4928.143, in the Form of an Electric Security Plan	)	
In the Matter of the Application of Ohio Power	)	
Company for Approval of Certain Accounting	)	
Authority	)	Case No. 23-0024-EL-AAM

EXHIBIT SWC-3 OF STEVE W. CHRISS ON BEHALF OF WALMART INC.

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

Hours of				Customer		Base Tariff nand Charge		ase Tariff ergy Charge	с	ost per
Use	kWh	Load Factor	C	harge Cost		Cost		Cost		kWh
(1)	(2)	(%) (3)		(\$) (4)		(\$) (5)	(\$) (6)		(\$/kWh) (15)	
1	150	0.1%	\$	9.40	\$	1,052	\$	-	\$	7.073
2	300	0.3%	\$	9.40	\$	1,052	\$	-	\$	3.536
3	450	0.4%	\$	9.40	\$	1,052	\$	-	\$	2.358
4	600	0.6%	\$	9.40	\$	1,052	\$	-	\$	1.768
5	750	0.7%	\$	9.40	\$	1,052	\$	-	\$	1.415
6	900	0.8%	\$	9.40	\$	1,052	\$	-	\$	1.179
7	1,050	1.0%	\$	9.40	\$	1,052	\$	-	\$	1.010
8	1,200	1.1%	\$	9.40	\$	1,052	\$	-	\$	0.884
9	1,350	1.3%	\$	9.40	\$	1,052	\$	-	\$	0.786
10	1,500	1.4%	\$	9.40	\$	1,052	\$	-	\$	0.707
11	1,650	1.5%	\$	9.40	\$	1,052	\$	-	\$	0.643
12	1,800	1.7%	\$	9.40	\$	1,052	\$	-	\$	0.589
13	1,950	1.8%	\$	9.40	\$	1,052	\$	-	\$	0.544
14	2,100	1.9%	\$	9.40	\$	1,052	\$	-	\$	0.505
15	2,250	2.1%	\$	9.40	\$	1,052	\$	-	\$	0.472
16	2,400	2.2%	\$	9.40	\$	1,052	\$	-	\$	0.442
17	2,550	2.4%	\$	9.40	\$	1,052	\$	-	\$	0.416
18	2,700	2.5%	\$	9.40	\$	1,052	\$	-	\$	0.393
19	2,850	2.6%	\$	9.40	\$	1,052	\$	-	\$	0.372
20	3,000	2.8%	\$	9.40	\$	1,052	\$	-	\$	0.354
21	3,150	2.9%	\$	9.40	\$	1,052	\$	-	\$	0.337
22	3,300	3.1%	\$	9.40	\$	1,052	\$	-	\$	0.321
23	3,450	3.2%	\$	9.40	\$	1,052	\$	-	\$	0.308
24	3,600	3.3%	\$	9.40	\$	1,052	\$	-	\$	0.295
25	3,750	3.5%	\$	9.40	\$	1,052	\$	-	\$	0.283
26	3,900	3.6%	\$	9.40	\$	1,052	\$	-	\$	0.272
27	4,050	3.8%	\$	9.40	\$	1,052	\$	-	\$	0.262
28	4,200	3.9%	\$	9.40	\$	1,052	\$	-	\$	0.253
29	4,350	4.0%	\$	9.40	\$	1,052	\$	-	\$	0.244
30	4,500	4.2%	\$	9.40	\$	1,052	\$	_	\$	0.236
31	4,650	4.3%	\$	9.40	\$	1,052	\$	_	\$	0.228
32	4,800	4.4%	\$	9.40	\$	1,052	\$	_	\$	0.221
33	4,950	4.6%	\$	9.40	\$	1,052	Ś	_	\$	0.221
34	4,550 5,100	4.7%	\$	9.40	\$	1,052	\$	_	\$	0.214
35	5,250	4.7%	ې \$	9.40 9.40	\$	1,052	\$	-	ې \$	0.208
35	5,230 5,400	4.9% 5.0%	\$	9.40 9.40	\$	1,052	\$	-	ې \$	0.202
37		5.1%	ې \$	9.40 9.40	ې \$	1,052	ې \$	-	ې \$	0.198
37	5,550	5.1% 5.3%	> \$	9.40 9.40	\$ \$	1,052 1,052	\$ \$	-	\$ \$	0.191 0.186
	5,700							-	ې \$	
39	5,850 6 000	5.4%	\$ ¢	9.40	\$ ¢	1,052	\$ ¢	-		0.181
40	6,000	5.6%	\$	9.40	\$	1,052	\$	-	\$	0.177

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

Hours of				Customer		Base Tariff nand Charge		ase Tariff ergy Charge	C	ost per	
Use	kWh	kWh Load Factor		Charge Cost		Cost		Cost	kWh		
		(%)	_	(\$)		(\$)		(\$)		(\$/kWh)	
(1)	(2)	(3)		(4)		(5)		(6)	, r	(15)	
41	6,150	5.7%	\$	9.40	\$	1,052	\$	-	\$	0.173	
42	6,300	5.8%	\$	9.40	\$	1,052	\$	-	\$	0.168	
43	6,450	6.0%	\$	9.40	\$	1,052	\$	-	\$	0.164	
44	6,600	6.1%	\$	9.40	\$	1,052	\$	-	\$	0.161	
45	6,750	6.3%	\$	9.40	\$	1,052	\$	-	\$	0.157	
46	6,900	6.4%	\$	9.40	\$	1,052	\$	-	\$	0.154	
47	7,050	6.5%	\$	9.40	\$	1,052	\$	-	\$	0.150	
48	7,200	6.7%	\$	9.40	\$	1,052	\$	-	\$	0.147	
49	7,350	6.8%	\$	9.40	\$	1,052	\$	-	\$	0.144	
50	7,500	6.9%	\$	9.40	\$	1,052	\$	-	\$	0.141	
51	7,650	7.1%	\$	9.40	\$	1,052	\$	-	\$	0.139	
52	7,800	7.2%	\$	9.40	\$	1,052	\$	-	\$	0.136	
53	7,950	7.4%	\$	9.40	\$	1,052	\$	-	\$	0.133	
54	8,100	7.5%	\$	9.40	\$	1,052	\$	-	\$	0.131	
55	8,250	7.6%	\$	9.40	\$	1,052	\$	-	\$	0.129	
56	8,400	7.8%	\$	9.40	\$	1,052	\$	-	\$	0.126	
57	8,550	7.9%	\$	9.40	\$	1,052	\$	-	\$	0.124	
58	8,700	8.1%	\$	9.40	\$	1,052	\$	-	\$	0.122	
59	8,850	8.2%	\$	9.40	\$	1,052	\$	-	\$	0.120	
60	9,000	8.3%	\$	9.40	\$	1,052	\$	-	\$	0.118	
61	9,150	8.5%	\$	9.40	\$	1,052	\$	-	\$	0.116	
62	9,300	8.6%	\$	9.40	\$	1,052	\$	-	\$	0.114	
63	9,450	8.8%	\$	9.40	\$	1,052	\$	-	\$	0.112	
64	9,600	8.9%	\$	9.40	\$	1,052	\$	-	\$	0.111	
65	9,750	9.0%	\$	9.40	\$	1,052	\$	-	\$	0.109	
66	9,900	9.2%	\$	9.40	\$	1,052	\$	-	\$	0.107	
67	10,050	9.3%	\$	9.40	\$	1,052	\$	-	\$	0.106	
68	10,200	9.4%	\$	9.40	\$	1,052	\$	-	\$	0.104	
69	10,350	9.6%	\$	9.40	\$	1,052	\$	-	\$	0.103	
70	10,500	9.7%	\$	9.40	\$	1,052	\$	-	\$	0.101	
71	10,650	9.9%	\$	9.40	\$	1,052	\$	-	\$	0.100	
72	10,800	10.0%	\$	9.40	\$	1,052	\$	-	\$	0.098	
73	10,950	10.1%	\$	9.40	\$	1,052	\$	-	\$	0.097	
74	11,100	10.3%	\$ ¢	9.40 9.40	\$ ¢	1,052 1,052	\$ ¢	-	\$ ¢	0.096	
75 76	11,250	10.4%	\$ ¢		\$ ¢		\$ ¢	-	\$ ¢	0.094	
76 77	11,400 11,550	10.6%	\$ ¢	9.40	\$ ¢	1,052	\$ ¢	-	\$ ¢	0.093	
77 70	11,550	10.7%	\$ ¢	9.40	\$ ¢	1,052	\$ ¢	-	\$ ¢	0.092	
78 70	11,700	10.8%	\$ ¢	9.40	\$ ¢	1,052	\$ ¢	-	\$ ¢	0.091	
79 80	11,850 12,000	11.0%	\$ ¢	9.40	\$ ¢	1,052	\$ ¢	-	\$ \$	0.090	
80	12,000	11.1%	\$	9.40	\$	1,052	\$	-	Ş	0.088	

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

Hours of				Customer		Base Tariff nand Charge		ase Tariff rgy Charge	c	ost per
Use	kWh	Load Factor	C	harge Cost		Cost		Cost		kWh
		(%)		(\$)		(\$)		(\$)	(:	\$/kWh)
(1)	(2)	(3)		(4)		(5)		(6)		(15)
81	12,150	11.3%	\$	9.40	\$	1,052	\$	-	\$	0.087
82	12,300	11.4%	\$	9.40	\$	1,052	\$	-	\$	0.086
83	12,450	11.5%	\$	9.40	\$	1,052	\$	-	\$	0.085
84	12,600	11.7%	\$	9.40	\$	1,052	\$	-	\$	0.084
85	12,750	11.8%	\$	9.40	\$	1,052	\$	-	\$	0.083
86	12,900	11.9%	\$	9.40	\$	1,052	\$	-	\$	0.082
87	13,050	12.1%	\$	9.40	\$	1,052	\$	-	\$	0.081
88	13,200	12.2%	\$	9.40	\$	1,052	\$	-	\$	0.080
89	13,350	12.4%	\$	9.40	\$	1,052	\$	-	\$	0.079
90	13,500	12.5%	\$	9.40	\$	1,052	\$	-	\$	0.079
91	13,650	12.6%	\$	9.40	\$	1,052	\$	-	\$	0.078
92	13,800	12.8%	\$	9.40	\$	1,052	\$	-	\$	0.077
93	13,950	12.9%	\$	9.40	\$	1,052	\$	-	\$	0.076
94	14,100	13.1%	\$	9.40	\$	1,052	\$	-	\$	0.075
95	14,250	13.2%	\$	9.40	\$	1,052	\$	-	\$	0.074
96	14,400	13.3%	\$	9.40	\$	1,052	\$	-	\$	0.074
97	14,550	13.5%	\$	9.40	\$	1,052	\$	-	\$	0.073
98	14,700	13.6%	\$	9.40	\$	1,052	\$	-	\$	0.072
99	14,850	13.8%	\$	9.40	\$	1,052	\$	-	\$	0.071
100	15,000	13.9%	\$	9.40	\$	1,052	\$	-	\$	0.071
101	15,150	14.0%	\$	9.40	\$	1,052	\$	-	\$	0.070
102	15,300	14.2%	\$	9.40	\$	1,052	\$	-	\$	0.069
103	15,450	14.3%	\$	9.40	\$	1,052	\$	-	\$	0.069
104	15,600	14.4%	\$	9.40	\$	1,052	\$	-	\$	0.068
105	15,750	14.6%	\$	9.40	\$	1,052	\$	-	\$	0.067
106	15,900	14.7%	\$	9.40	\$	1,052	\$	-	\$	0.067
107	16,050	14.9%	\$	9.40	\$	1,052	\$	-	\$	0.066
108	16,200	15.0%	\$	9.40	\$	1,052	\$	-	\$	0.065
109	16,350	15.1%	\$	9.40	\$	1,052	\$	-	\$	0.065
110	16,500	15.3%	\$	9.40	\$	1,052	\$	-	\$	0.064
111	16,650	15.4%	\$	9.40	\$	1,052	\$	-	\$	0.064
112	16,800	15.6%	\$	9.40	\$	1,052	\$	-	\$	0.063
113	16,950	15.7%	\$	9.40	\$	1,052	Ś	-	\$	0.063
114	17,100	15.8%	\$	9.40	\$	1,052	\$	-	\$	0.062
115	17,250	16.0%	\$	9.40	\$	1,052	\$	-	\$	0.062
116	17,400	16.1%	\$	9.40	\$	1,052	\$	-	\$	0.061
110	17,550	16.3%	\$	9.40	\$	1,052	\$	-	\$	0.060
118	17,700	16.4%	\$	9.40	\$	1,052	\$	-	\$	0.060
110	17,850	16.5%	\$	9.40	\$	1,052	\$	-	\$	0.059
110	18,000	16.7%	\$	9.40	\$	1,052	\$	-	\$	0.059
120	10,000	10.770	Ļ	5.40	Ļ	1,052	Ŷ		Ļ	0.000

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

					Base Tariff	B	Base Tariff			
Hours of			Customer	De	mand Charge	Ene	ergy Charge	С	ost per	
Use	kWh	Load Factor	Charge Cost		Cost         Cost           (\$)         (\$)		Cost	kWh		
		(%)	(\$)				(\$/kWh)			
(1)	(2)	(3)	(4)		(5)	(6)		(15)		
121	18,150	16.8%	\$ 9.4	0\$	1,052	\$	-	\$	0.058	
122	18,300	16.9%	\$ 9.4		1,052	\$	-	\$	0.058	
123	18,450	17.1%	\$ 9.4		1,052	\$	-	\$	0.058	
124	18,600	17.2%	\$ 9.4		1,052	\$	-	\$	0.057	
125	18,750	17.4%	\$ 9.4		1,052	\$	-	\$	0.057	
126	18,900	17.5%	\$ 9.4		1,052	\$	-	\$	0.056	
127	19,050	17.6%	\$ 9.4		1,052	\$	-	\$	0.056	
128	19,200	17.8%	\$ 9.4		1,052	\$	-	\$	0.055	
129	19,350	17.9%	\$ 9.4		1,052	\$	-	\$	0.055	
130	19,500	18.1%	\$ 9.4		1,052	\$	-	\$	0.054	
131	19,650	18.2%	\$ 9.4		1,052	\$	-	\$	0.054	
132	19,800	18.3%	\$ 9.4		1,052	\$	-	\$	0.054	
133	19,950	18.5%	\$ 9.4		1,052	\$	-	\$	0.053	
134	20,100	18.6%	\$ 9.4		1,052	\$	-	\$	0.053	
135	20,250	18.8%	\$ 9.4		1,052	\$	-	\$	0.052	
136	20,400	18.9%	\$ 9.4		1,052	\$	-	\$	0.052	
137	20,550	19.0%	\$ 9.4		1,052	\$	-	\$	0.052	
138	20,700	19.2%	\$ 9.4		1,052	\$	-	\$	0.051	
139	20,850	19.3%	\$ 9.4		1,052	\$	-	\$	0.051	
140	21,000	19.4%	\$ 9.4		1,052	\$	-	\$	0.051	
141	21,150	19.6%	\$ 9.4		1,052	\$	-	\$	0.050	
142	21,300	19.7%	\$ 9.4		1,052	\$	-	\$	0.050	
143	21,450	19.9%	\$ 9.4		1,052	\$	-	\$	0.049	
144	21,600	20.0%	\$ 9.4		1,052	\$	-	\$	0.049	
145	21,750	20.1%	\$ 9.4		1,052	\$	-	\$	0.049	
146	21,900	20.3%	\$ 9.4		1,052	\$	-	\$	0.048	
147	22,050	20.4%	\$ 9.4		1,052	\$	-	\$	0.048	
148	22,200	20.6%	\$ 9.4		1,052	\$	-	\$	0.048	
149	22,350	20.7%	\$ 9.4		1,052	\$	-	\$	0.047	
150	22,500	20.8%	\$ 9.4		1,052	\$	-	\$	0.047	
151	22,650	21.0%	\$ 9.4		1,052	\$	-	\$	0.047	
152	22,800	21.1%	\$ 9.4		1,052	\$	-	\$	0.047	
153	22,950	21.3%	\$ 9.4		1,052	\$	-	\$	0.046	
155	23,100	21.3%	\$ 9.4		1,052	\$	-	\$	0.046	
155	23,250	21.5%	\$		1,052	\$	-	\$	0.046	
156	23,400	21.7%	\$ 9.4		1,052	\$	-	\$	0.045	
150	23,550	21.8%	\$ 9.4		1,052	\$	-	\$	0.045	
158	23,700	21.9%	\$ 9.4		1,052	\$	-	\$	0.045	
159	23,850	22.1%	\$ 9.4		1,052	\$	-	\$	0.044	
160	24,000	22.2%	\$ 9.4		1,052	\$		\$	0.044	

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

Hours of Use	kWh Load Factor		kWh Load Factor Charge Cost		arge Cost		Base Tariff nand Charge Cost		ase Tariff ergy Charge Cost	Cost per kWh		
(1)	(2)	(%) (3)		(\$) (4)		(\$) (5)		(\$) (6)		(\$/kWh) (15)		
161	24,150	22.4%	\$	9.40	\$	1,052	\$	-	\$	0.044		
162	24,300	22.5%	\$	9.40	\$	1,052	\$	-	\$	0.044		
163	24,450	22.6%	\$	9.40	\$	1,052	\$	-	\$	0.043		
164	24,600	22.8%	\$	9.40	\$	1,052	\$	-	\$	0.043		
165	24,750	22.9%	\$	9.40	\$	1,052	\$	-	\$	0.043		
166	24,900	23.1%	\$	9.40	\$	1,052	\$	-	\$ ¢	0.043		
167	25,050	23.2%	\$	9.40	\$	1,052	\$	-	\$ ¢	0.042		
168	25,200	23.3%	\$	9.40	\$	1,052	\$	-	\$	0.042		
169 170	25,350	23.5% 23.6%	\$ \$	9.40 9.40	\$ \$	1,052	\$ \$	-	\$ \$	0.042 0.042		
170	25,500 25,650	23.8%	ې \$	9.40 9.40	ې \$	1,052 1,052	ې \$	-	ې \$	0.042		
171	25,850	23.8%	ې \$	9.40 9.40	ې \$	,	ې \$	-	ې \$	0.041		
172	25,800	23.9%	ې \$	9.40 9.40	ې \$	1,052 1,052	ې \$	-	ې \$	0.041		
173	25,950 26,100	24.0%	\$ \$	9.40 9.40	\$	1,052	ې \$	-	\$	0.041		
174	26,250	24.2%	\$ \$	9.40 9.40	\$	1,052	\$	-	\$	0.041		
175	26,230	24.3%	\$ \$	9.40 9.40	\$	1,052	\$	-	ې \$	0.040		
170	26,550 26,550	24.4%	\$ \$	9.40 9.40	\$ \$	1,052	ې \$	-	ې \$	0.040		
177	26,700	24.7%	\$	9.40 9.40	\$	1,052	\$	-	\$	0.040		
178	26,850	24.9%	\$	9.40 9.40	\$	1,052	\$	-	\$	0.040		
180	27,000	25.0%	\$	9.40	\$	1,052	\$	-	\$	0.039		
180	27,150	25.1%	\$	9.40	\$	1,052	\$	-	\$	0.039		
181	27,300	25.3%	\$	9.40	\$	1,052	\$	-	\$	0.039		
182	27,450	25.4%	\$	9.40	\$	1,052	\$	-	\$	0.039		
184	27,600	25.6%	\$	9.40	\$	1,052	\$	-	\$	0.038		
185	27,750	25.7%	\$	9.40	\$	1,052	\$	-	\$	0.038		
186	27,900	25.8%	\$	9.40	\$	1,052	\$	-	\$	0.038		
187	28,050	26.0%	\$	9.40	\$	1,052	\$	-	\$	0.038		
188	28,200	26.1%	\$	9.40	\$	1,052	\$	-	\$	0.038		
189	28,350	26.3%	\$	9.40	\$	1,052	\$	-	\$	0.037		
190	28,500	26.4%	\$	9.40	\$	1,052	\$	-	\$	0.037		
191	28,650	26.5%	\$	9.40	\$	1,052	\$	-	\$	0.037		
192	28,800	26.7%	\$	9.40	\$	1,052	\$	-	\$	0.037		
193	28,950	26.8%	\$	9.40	\$	1,052	\$	-	\$	0.037		
194	29,100	26.9%	\$	9.40	\$	1,052	\$	-	\$	0.036		
195	29,250	27.1%	\$	9.40	\$	1,052	\$	-	\$	0.036		
196	29,400	27.2%	\$	9.40	\$	1,052	\$	-	\$	0.036		
197	29,550	27.4%	\$	9.40	\$	1,052	\$	-	\$	0.036		
198	29,700	27.5%	\$	9.40	\$	1,052	\$	-	\$	0.036		
199	29,850	27.6%	\$	9.40	\$	1,052	\$	-	\$	0.036		
200	30,000	27.8%	\$	9.40	\$	1,052	\$	-	\$	0.035		

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of				Customer		Base Tariff nand Charge		ase Tariff ergy Charge	ſ	ost per	
Use	kWh	Load Factor	c	Charge Cost		Cost	Line	Cost	kWh		
	KVVII	(%)		(\$)		(\$)		(\$)		\$/kWh)	
(1)	(2)	(3)		(4)		(5)		( <del>\$</del> ) (6)	(-	(15)	
(=)	(2)	(3)		(4)		(3)		(0)		(13)	
201	30,150	27.9%	\$	9.40	\$	1,052	\$	-	\$	0.035	
202	30,300	28.1%	\$	9.40	\$	1,052	\$	-	\$	0.035	
203	30,450	28.2%	\$	9.40	\$	1,052	\$	-	\$	0.035	
204	30,600	28.3%	\$	9.40	\$	1,052	\$	-	\$	0.035	
205	30,750	28.5%	\$	9.40	\$	1,052	\$	-	\$	0.035	
206	30,900	28.6%	\$	9.40	\$	1,052	\$	-	\$	0.034	
207	31,050	28.8%	\$	9.40	\$	1,052	\$	-	\$	0.034	
208	31,200	28.9%	\$	9.40	\$	1,052	\$	-	\$	0.034	
209	31,350	29.0%	\$	9.40	\$	1,052	\$	-	\$	0.034	
210	31,500	29.2%	\$	9.40	\$	1,052	\$	-	\$	0.034	
211	31,650	29.3%	\$	9.40	\$	1,052	\$	-	\$	0.034	
212	31,800	29.4%	\$	9.40	\$	1,052	\$	-	\$	0.033	
213	31,950	29.6%	\$	9.40	\$	1,052	\$	-	\$	0.033	
214	32,100	29.7%	\$	9.40	\$	1,052	\$	-	\$	0.033	
215	32,250	29.9%	\$	9.40	\$	1,052	\$	-	\$	0.033	
216	32,400	30.0%	\$	9.40	\$	1,052	\$	-	\$	0.033	
217	32,550	30.1%	\$	9.40	\$	1,052	\$	-	\$	0.033	
218	32,700	30.3%	\$	9.40	\$	1,052	\$	-	\$	0.032	
219	32,850	30.4%	\$	9.40	\$	1,052	\$	-	\$	0.032	
220	33,000	30.6%	\$	9.40	\$	1,052	\$	-	\$	0.032	
221	33,150	30.7%	\$	9.40	\$	1,052	\$	-	\$	0.032	
222	33,300	30.8%	\$	9.40	\$	1,052	\$	-	\$	0.032	
223	33,450	31.0%	\$	9.40	\$	1,052	\$	-	\$	0.032	
224	33,600	31.1%	\$	9.40	\$	1,052	\$	-	\$	0.032	
225	33,750	31.3%	\$	9.40	\$	1,052	\$	-	\$	0.031	
226	33,900	31.4%	\$	9.40	\$	1,052	\$	-	\$	0.031	
227	34,050	31.5%	\$	9.40	\$	1,052	\$	-	\$	0.031	
228	34,200	31.7%	\$	9.40	\$	1,052	\$	-	\$	0.031	
229	34,350	31.8%	\$	9.40	\$	1,052	\$	-	\$	0.031	
230	34,500	31.9%	\$	9.40	\$	1,052	\$	-	\$	0.031	
231	34,650	32.1%	\$	9.40	\$	1,052	\$	-	\$	0.031	
232	34,800	32.2%	\$	9.40	\$	1,052	\$	-	\$	0.030	
233	34,950	32.4%	\$	9.40	\$	1,052	\$	-	\$	0.030	
234	35,100	32.5%	\$	9.40	\$	1,052	\$	-	\$	0.030	
235	35,250	32.6%	\$	9.40	\$	1,052	\$	-	\$	0.030	
236	35,400	32.8%	\$	9.40	\$	1,052	\$	-	\$	0.030	
237	35,550	32.9%	\$	9.40	\$	1,052	\$	-	\$	0.030	
238	35,700	33.1%	\$	9.40	\$	1,052	\$	-	\$	0.030	
239	35,850	33.2%	\$	9.40	\$	1,052	\$	-	\$	0.030	
240	36,000	33.3%	\$	9.40	\$	1,052	\$	-	\$	0.029	
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(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of			Customer		Base Tariff nand Charge		ase Tariff rgy Charge	c	ost per	
Use	kWh	Load Factor	harge Cost	_	Cost	_	Cost		kWh	
		(%)	(\$)		(\$)		(\$)	(	\$/kWh)	
(1)	(2)	(3)	(4)		(5)		(6)		(15)	
	.,						.,			
241	36,150	33.5%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
242	36,300	33.6%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
243	36,450	33.8%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
244	36,600	33.9%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
245	36,750	34.0%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
246	36,900	34.2%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
247	37,050	34.3%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
248	37,200	34.4%	\$ 9.40	\$	1,052	\$	-	\$	0.029	
249	37,350	34.6%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
250	37,500	34.7%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
251	37,650	34.9%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
252	37,800	35.0%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
253	37,950	35.1%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
254	38,100	35.3%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
255	38,250	35.4%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
256	38,400	35.6%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
257	38,550	35.7%	\$ 9.40	\$	1,052	\$	-	\$	0.028	
258	38,700	35.8%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
259	38,850	36.0%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
260	39,000	36.1%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
261	39,150	36.3%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
262	39,300	36.4%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
263	39,450	36.5%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
264	39,600	36.7%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
265	39,750	36.8%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
266	39,900	36.9%	\$ 9.40	\$	1,052	\$	-	\$	0.027	
267	40,050	37.1%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
268	40,200	37.2%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
269	40,350	37.4%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
270	40,500	37.5%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
271	40,650	37.6%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
272	40,800	37.8%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
273	40,950	37.9%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
274	41,100	38.1%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
275	41,250	38.2%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
276	41,400	38.3%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
277	41,550	38.5%	\$ 9.40	\$	1,052	\$	-	\$	0.026	
278	41,700	38.6%	\$ 9.40	\$	1,052	\$	-	\$	0.025	
279	41,850	38.8%	\$ 9.40	\$	1,052	\$	-	\$	0.025	
280	42,000	38.9%	\$ 9.40	\$	1,052	\$	-	\$	0.025	
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(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of				Customer		Base Tariff nand Charge	ase Tariff rgy Charge	с	ost per
Use	kWh	Load Factor	C	harge Cost		Cost	Cost		kWh
		(%)		(\$)		(\$)	(\$)	(	\$/kWh)
(1)	(2)	(3)		(4)		(5)	(6)		(15)
281	42,150	39.0%	\$	9.40	\$	1,052	\$ -	\$	0.025
282	42,300	39.2%	\$	9.40	\$	1,052	\$ -	\$	0.025
283	42,450	39.3%	\$	9.40	\$	1,052	\$ -	\$	0.025
284	42,600	39.4%	\$	9.40	\$	1,052	\$ -	\$	0.025
285	42,750	39.6%	\$	9.40	\$	1,052	\$ -	\$	0.025
286	42,900	39.7%	\$	9.40	\$	1,052	\$ -	\$	0.025
287	43,050	39.9%	\$	9.40	\$	1,052	\$ -	\$	0.025
288	43,200	40.0%	\$	9.40	\$	1,052	\$ -	\$	0.025
289	43,350	40.1%	\$	9.40	\$	1,052	\$ -	\$	0.024
290	43,500	40.3%	\$	9.40	\$	1,052	\$ -	\$	0.024
291	43,650	40.4%	\$	9.40	\$	1,052	\$ -	\$	0.024
292	43,800	40.6%	\$	9.40	\$	1,052	\$ -	\$	0.024
293	43,950	40.7%	\$	9.40	\$	1,052	\$ -	\$	0.024
294	44,100	40.8%	\$	9.40	\$	1,052	\$ -	\$	0.024
295	44,250	41.0%	\$	9.40	\$	1,052	\$ -	\$	0.024
296	44,400	41.1%	\$	9.40	\$	1,052	\$ -	\$	0.024
297	44,550	41.3%	\$	9.40	\$	1,052	\$ -	\$	0.024
298	44,700	41.4%	\$	9.40	\$	1,052	\$ -	\$	0.024
299	44,850	41.5%	\$	9.40	\$	1,052	\$ -	\$	0.024
300	45,000	41.7%	\$	9.40	\$	1,052	\$ -	\$	0.024
301	45,150	41.8%	\$	9.40	\$	1,052	\$ -	\$	0.023
302	45,300	41.9%	\$	9.40	\$	1,052	\$ -	\$	0.023
303	45,450	42.1%	\$	9.40	\$	1,052	\$ -	\$	0.023
304	45,600	42.2%	\$	9.40	\$	1,052	\$ -	\$	0.023
305	45,750	42.4%	\$	9.40	\$	1,052	\$ -	\$	0.023
306	45,900	42.5%	\$	9.40	\$	1,052	\$ -	\$	0.023
307	46,050	42.6%	\$	9.40	\$	1,052	\$ -	\$	0.023
308	46,200	42.8%	\$	9.40	\$	1,052	\$ -	\$	0.023
309	46,350	42.9%	\$	9.40	\$	1,052	\$ -	\$	0.023
310	46,500	43.1%	\$	9.40	\$	1,052	\$ -	\$	0.023
311	46,650	43.2%	\$	9.40	\$	1,052	\$ -	\$	0.023
312	46,800	43.3%	\$	9.40	\$	1,052	\$ -	\$	0.023
313	46,950	43.5%	\$	9.40	\$	1,052	\$ -	\$	0.023
314	47,100	43.6%	\$	9.40	\$	1,052	\$ -	\$	0.023
315	47,250	43.8%	\$	9.40	\$	1,052	\$ -	\$	0.022
316	47,400	43.9%	\$	9.40	\$	1,052	\$ -	\$	0.022
317	47,550	44.0%	\$	9.40	\$	1,052	\$ -	\$	0.022
318	47,700	44.2%	\$	9.40	\$	1,052	\$ -	\$	0.022
319	47,850	44.3%	\$	9.40	\$	1,052	\$ -	\$	0.022
320	48,000	44.4%	\$	9.40	\$	1,052	\$ -	\$	0.022
	-,				<i>c</i>	_,		<i>r</i>	

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)           Customer Charge         \$ 9.40 /month									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

Hours of			Customer		Base Tariff nand Charge		ase Tariff rgy Charge	~	oct nor
Use	kWh	Load Factor	harge Cost	Der	Cost	Ene	Cost		ost per kWh
036	KVVII		 (\$)		(\$)		(\$)		\$/kWh)
(1)	(2)	(%) (3)	(\$) (4)		(\$) (5)		(\$) (6)	(;	(15)
(1)	(2)	(3)	(4)		(3)		(0)		(13)
321	48,150	44.6%	\$ 9.40	\$	1,052	\$	-	\$	0.022
322	48,300	44.7%	\$ 9.40	\$	1,052	\$	-	\$	0.022
323	48,450	44.9%	\$ 9.40	\$	1,052	\$	-	\$	0.022
324	48,600	45.0%	\$ 9.40	\$	1,052	\$	-	\$	0.022
325	48,750	45.1%	\$ 9.40	\$	1,052	\$	-	\$	0.022
326	48,900	45.3%	\$ 9.40	\$	1,052	\$	-	\$	0.022
327	49,050	45.4%	\$ 9.40	\$	1,052	\$	-	\$	0.022
328	49,200	45.6%	\$ 9.40	\$	1,052	\$	-	\$	0.022
329	49,350	45.7%	\$ 9.40	\$	1,052	\$	-	\$	0.021
330	49,500	45.8%	\$ 9.40	\$	1,052	\$	-	\$	0.021
331	49,650	46.0%	\$ 9.40	\$	1,052	\$	-	\$	0.021
332	49,800	46.1%	\$ 9.40	\$	1,052	\$	-	\$	0.021
333	49,950	46.3%	\$ 9.40	\$	1,052	\$	-	\$	0.021
334	50,100	46.4%	\$ 9.40	\$	1,052	\$	-	\$	0.021
335	50,250	46.5%	\$ 9.40	\$	1,052	\$	-	\$	0.021
336	50,400	46.7%	\$ 9.40	\$	1,052	\$	-	\$	0.021
337	50,550	46.8%	\$ 9.40	\$	1,052	\$	-	\$	0.021
338	50,700	46.9%	\$ 9.40	\$	1,052	\$	-	\$	0.021
339	50,850	47.1%	\$ 9.40	\$	1,052	\$	-	\$	0.021
340	51,000	47.2%	\$ 9.40	\$	1,052	\$	-	\$	0.021
341	51,150	47.4%	\$ 9.40	\$	1,052	\$	-	\$	0.021
342	51,300	47.5%	\$ 9.40	\$	1,052	\$	-	\$	0.021
343	51,450	47.6%	\$ 9.40	\$	1,052	\$	-	\$	0.021
344	51,600	47.8%	\$ 9.40	\$	1,052	\$	-	\$	0.021
345	51,750	47.9%	\$ 9.40	\$	1,052	\$	-	\$	0.021
346	51,900	48.1%	\$ 9.40	\$	1,052	\$	-	\$	0.020
347	52,050	48.2%	\$ 9.40	\$	1,052	\$	-	\$	0.020
348	52,200	48.3%	\$ 9.40	\$	1,052	\$	-	\$	0.020
349	52,350	48.5%	\$ 9.40	\$	1,052	\$	-	\$	0.020
350	52,500	48.6%	\$ 9.40	\$	1,052	\$	-	\$	0.020
351	52,650	48.8%	\$ 9.40	\$	1,052	\$	-	\$	0.020
352	52,800	48.9%	\$ 9.40	\$	1,052	\$	-	\$	0.020
353	52,950	49.0%	\$ 9.40	\$	1,052	\$	-	\$	0.020
354	53,100	49.2%	\$ 9.40	\$	1,052	\$	-	\$	0.020
355	53,250	49.3%	\$ 9.40	\$	1,052	\$	-	\$	0.020
356	53,400	49.4%	\$ 9.40	\$	1,052	\$	-	\$	0.020
357	53,550	49.6%	\$ 9.40	\$	1,052	\$	-	\$	0.020
358	53,700	49.7%	\$ 9.40	\$	1,052	\$	-	\$	0.020
359	53,850	49.9%	\$ 9.40	\$	1,052	\$	-	\$	0.020
360	54,000	50.0%	\$ 9.40	\$	1,052	\$	-	\$	0.020

(1) Customer Demand

	AEP Ohio Schedule GS S	econdary (1st Re	vised She	et 220-3)
(2)	Customer Charge	\$	9.40	/month
(3)	Base Tariff Demand Charge	\$	7.01	/kW
(4)	Base Tariff Energy Charge	\$	-	/kWh

Hours of Use	kWh	Load Factor	Customer narge Cost	Base Tariff nand Charge Cost	ase Tariff ergy Charge Cost		ost per kWh
(1)	(2)	(%)	(\$) (4)	(\$) (5)	(\$) (6)	(:	\$/kWh) (15)
(1)	(2)	(3)	(4)	(5)	(6)		(15)
361	54,150	50.1%	\$ 9.40	\$ 1,052	\$ -	\$	0.020
362	54,300	50.3%	\$ 9.40	\$ 1,052	\$ -	\$	0.020
363	54,450	50.4%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
364	54,600	50.6%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
365	54,750	50.7%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
366	54,900	50.8%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
367	55,050	51.0%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
368	55,200	51.1%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
369	55,350	51.3%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
370	55,500	51.4%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
371	55,650	51.5%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
372	55,800	51.7%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
373	55,950	51.8%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
374	56,100	51.9%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
375	56,250	52.1%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
376	56,400	52.2%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
377	56,550	52.4%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
378	56,700	52.5%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
379	56,850	52.6%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
380	57,000	52.8%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
381	57,150	52.9%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
382	57,300	53.1%	\$ 9.40	\$ 1,052	\$ -	\$	0.019
383	57,450	53.2%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
384	57,600	53.3%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
385	57,750	53.5%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
386	57,900	53.6%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
387	58,050	53.8%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
388	58,200	53.9%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
389	58,350	54.0%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
390	58,500	54.2%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
391	58,650	54.3%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
392	58,800	54.4%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
393	58,950	54.6%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
394	59,100	54.7%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
395	59,250	54.9%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
396	59,400	55.0%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
397	59,550	55.1%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
398	59,700	55.3%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
399	59,850	55.4%	\$ 9.40	\$ 1,052	\$ -	\$	0.018
400	60,000	55.6%	\$ 9.40	\$ 1,052	\$ -	\$	0.018

(1) Customer Demand

	AEP Ohio Schedule GS S	econdary (1st Re	vised She	et 220-3)
(2)	Customer Charge	\$	9.40	/month
(3)	Base Tariff Demand Charge	\$	7.01	/kW
(4)	Base Tariff Energy Charge	\$	-	/kWh

Hours of Use	kWh	Load Factor		ustomer arge Cost	Base Tariff nand Charge Cost	ase Tariff ergy Charge Cost	с	ost per kWh
030	K VVII	(%)	CIII	(\$)	(\$)	(\$)	-	\$/kWh)
(1)	(2)	(3)		( <del>\$</del> ) (4)	(5)	( <del>5</del> ) (6)	(.	(15)
401	60,150	55.7%	\$	9.40	\$ 1,052	\$ -	\$	0.018
402	60,300	55.8%	\$	9.40	\$ 1,052	\$ -	\$	0.018
403	60,450	56.0%	\$	9.40	\$ 1,052	\$ -	\$	0.018
404	60,600	56.1%	\$	9.40	\$ 1,052	\$ -	\$	0.018
405	60,750	56.3%	\$	9.40	\$ 1,052	\$ -	\$	0.017
406	60,900	56.4%	\$	9.40	\$ 1,052	\$ -	\$	0.017
407	61,050	56.5%	\$	9.40	\$ 1,052	\$ -	\$	0.017
408	61,200	56.7%	\$	9.40	\$ 1,052	\$ -	\$	0.017
409	61,350	56.8%	\$	9.40	\$ 1,052	\$ -	\$	0.017
410	61,500	56.9%	\$	9.40	\$ 1,052	\$ -	\$	0.017
411	61,650	57.1%	\$	9.40	\$ 1,052	\$ -	\$	0.017
412	61,800	57.2%	\$	9.40	\$ 1,052	\$ -	\$	0.017
413	61,950	57.4%	\$	9.40	\$ 1,052	\$ -	\$	0.017
414	62,100	57.5%	\$	9.40	\$ 1,052	\$ -	\$	0.017
415	62,250	57.6%	\$	9.40	\$ 1,052	\$ -	\$	0.017
416	62,400	57.8%	\$	9.40	\$ 1,052	\$ -	\$	0.017
417	62,550	57.9%	\$	9.40	\$ 1,052	\$ -	\$	0.017
418	62,700	58.1%	\$	9.40	\$ 1,052	\$ -	\$	0.017
419	62,850	58.2%	\$	9.40	\$ 1,052	\$ -	\$	0.017
420	63,000	58.3%	\$	9.40	\$ 1,052	\$ -	\$	0.017
421	63,150	58.5%	\$	9.40	\$ 1,052	\$ -	\$	0.017
422	63,300	58.6%	\$	9.40	\$ 1,052	\$ -	\$	0.017
423	63,450	58.8%	\$	9.40	\$ 1,052	\$ -	\$	0.017
424	63,600	58.9%	\$	9.40	\$ 1,052	\$ -	\$	0.017
425	63,750	59.0%	\$	9.40	\$ 1,052	\$ -	\$	0.017
426	63,900	59.2%	\$	9.40	\$ 1,052	\$ -	\$	0.017
427	64,050	59.3%	\$	9.40	\$ 1,052	\$ -	\$	0.017
428	64,200	59.4%	\$	9.40	\$ 1,052	\$ -	\$	0.017
429	64,350	59.6%	\$	9.40	\$ 1,052	\$ -	\$	0.016
430	64,500	59.7%	\$	9.40	\$ 1,052	\$ -	\$	0.016
431	64,650	59.9%	\$	9.40	\$ 1,052	\$ -	\$	0.016
432	64,800	60.0%	\$	9.40	\$ 1,052	\$ -	\$	0.016
433	64,950	60.1%	\$	9.40	\$ 1,052	\$ -	\$	0.016
434	65,100	60.3%	\$	9.40	\$ 1,052	\$ -	\$	0.016
435	65,250	60.4%	\$	9.40	\$ 1,052	\$ -	\$	0.016
436	65,400	60.6%	\$	9.40	\$ 1,052	\$ -	\$	0.016
437	65,550	60.7%	\$	9.40	\$ 1,052	\$ -	\$	0.016
438	65,700	60.8%	\$	9.40	\$ 1,052	\$ -	\$	0.016
439	65,850	61.0%	\$	9.40	\$ 1,052	\$ -	\$	0.016
	66,000	61.1%						

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of Use	kWh	Load Factor		ustomer	Base Tariff nand Charge Cost	ase Tariff ergy Charge Cost	c	ost per kWh
030	KVVII	(%)	Charge Cost (\$)		(\$)	(\$)		
(1)	(2)	(3)		(4)	(5)	(5)	(.	\$/kWh) (15)
441	66,150	61.3%	\$	9.40	\$ 1,052	\$ -	\$	0.016
442	66,300	61.4%	\$	9.40	\$ 1,052	\$ -	\$	0.016
443	66,450	61.5%	\$	9.40	\$ 1,052	\$ -	\$	0.016
444	66,600	61.7%	\$	9.40	\$ 1,052	\$ -	\$	0.016
445	66,750	61.8%	\$	9.40	\$ 1,052	\$ -	\$	0.016
446	66,900	61.9%	\$	9.40	\$ 1,052	\$ -	\$	0.016
447	67,050	62.1%	\$	9.40	\$ 1,052	\$ -	\$	0.016
448	67,200	62.2%	\$	9.40	\$ 1,052	\$ -	\$	0.016
449	67,350	62.4%	\$	9.40	\$ 1,052	\$ -	\$	0.016
450	67,500	62.5%	\$	9.40	\$ 1,052	\$ -	\$	0.016
451	67,650	62.6%	\$	9.40	\$ 1,052	\$ -	\$	0.016
452	67,800	62.8%	\$	9.40	\$ 1,052	\$ -	\$	0.016
453	67,950	62.9%	\$	9.40	\$ 1,052	\$ -	\$	0.016
454	68,100	63.1%	\$	9.40	\$ 1,052	\$ -	\$	0.016
455	68,250	63.2%	\$	9.40	\$ 1,052	\$ -	\$	0.016
456	68,400	63.3%	\$	9.40	\$ 1,052	\$ -	\$	0.016
457	68,550	63.5%	\$	9.40	\$ 1,052	\$ -	\$	0.015
458	68,700	63.6%	\$	9.40	\$ 1,052	\$ -	\$	0.015
459	68,850	63.8%	\$	9.40	\$ 1,052	\$ -	\$	0.015
460	69,000	63.9%	\$	9.40	\$ 1,052	\$ -	\$	0.015
461	69,150	64.0%	\$	9.40	\$ 1,052	\$ -	\$	0.015
462	69,300	64.2%	\$	9.40	\$ 1,052	\$ -	\$	0.015
463	69,450	64.3%	\$	9.40	\$ 1,052	\$ -	\$	0.015
464	69,600	64.4%	\$	9.40	\$ 1,052	\$ -	\$	0.015
465	69,750	64.6%	\$	9.40	\$ 1,052	\$ -	\$	0.015
466	69,900	64.7%	\$	9.40	\$ 1,052	\$ -	\$	0.015
467	70,050	64.9%	\$	9.40	\$ 1,052	\$ -	\$	0.015
468	70,200	65.0%	\$	9.40	\$ 1,052	\$ -	\$	0.015
469	70,350	65.1%	\$	9.40	\$ 1,052	\$ -	\$	0.015
470	70,500	65.3%	\$	9.40	\$ 1,052	\$ -	\$	0.015
471	70,650	65.4%	\$	9.40	\$ 1,052	\$ -	\$	0.015
472	70,800	65.6%	\$	9.40	\$ 1,052	\$ -	\$	0.015
473	, 70,950	65.7%	\$	9.40	\$ 1,052	\$ -	\$	0.015
474	71,100	65.8%	\$	9.40	\$ 1,052	\$ -	\$	0.015
475	, 71,250	66.0%	\$	9.40	\$ 1,052	\$ -	\$	0.015
476	, 71,400	66.1%	\$	9.40	\$ 1,052	\$ -	\$	0.015
477	, 71,550	66.3%	\$	9.40	\$ 1,052	\$ -	\$	0.015
478	71,700	66.4%	\$	9.40	\$ 1,052	\$ -	\$	0.015
479	, 71,850	66.5%	\$	9.40	\$ 1,052	\$ -	\$	0.015
480	72,000	66.7%	\$	9.40	\$ 1,052	\$	\$	0.015

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of				Customer		Base Tariff nand Charge		ase Tariff rgy Charge	C	ost per	
Use	kWh	Load Factor		harge Cost	50	Cost	2e	Cost		kWh	
		(%)		(\$)		(\$)				(\$/kWh)	
(1)	(2)	(3)		(4)		(\$) (5)		(¢) (6)	(	(15)	
(-)	(-)	(-)		(-)		(0)		(0)		()	
481	72,150	66.8%	\$	9.40	\$	1,052	\$	-	\$	0.015	
482	72,300	66.9%	\$	9.40	\$	1,052	\$	-	\$	0.015	
483	72,450	67.1%	\$	9.40	\$	1,052	\$	-	\$	0.015	
484	72,600	67.2%	\$	9.40	\$	1,052	\$	-	\$	0.015	
485	72,750	67.4%	\$	9.40	\$	1,052	\$	-	\$	0.015	
486	72,900	67.5%	\$	9.40	\$	1,052	\$	-	\$	0.015	
487	73,050	67.6%	\$	9.40	\$	1,052	\$	-	\$	0.015	
488	73,200	67.8%	\$	9.40	\$	1,052	\$	-	\$	0.014	
489	73,350	67.9%	\$	9.40	\$	1,052	\$	-	\$	0.014	
490	73,500	68.1%	\$	9.40	\$	1,052	\$	-	\$	0.014	
491	73,650	68.2%	\$	9.40	\$	1,052	\$	-	\$	0.014	
492	73,800	68.3%	\$	9.40	\$	1,052	\$	-	\$	0.014	
493	73,950	68.5%	\$	9.40	\$	1,052	\$	-	\$	0.014	
494	74,100	68.6%	\$	9.40	\$	1,052	\$	-	\$	0.014	
495	74,250	68.8%	\$	9.40	\$	1,052	\$	-	\$	0.014	
496	74,400	68.9%	\$	9.40	\$	1,052	\$	-	\$	0.014	
497	74,550	69.0%	\$	9.40	\$	1,052	\$	-	\$	0.014	
498	74,700	69.2%	\$	9.40	\$	1,052	\$	-	\$	0.014	
499	74,850	69.3%	\$	9.40	\$	1,052	\$	-	\$	0.014	
500	75,000	69.4%	\$	9.40	\$	1,052	\$	-	\$	0.014	
501	75,150	69.6%	\$	9.40	\$	1,052	\$	-	\$	0.014	
502	75,300	69.7%	\$	9.40	\$	1,052	\$	-	\$	0.014	
503	75,450	69.9%	\$	9.40	\$	1,052	\$	-	\$	0.014	
504	75,600	70.0%	\$	9.40	\$	1,052	\$	-	\$	0.014	
505	75,750	70.1%	\$	9.40	\$	1,052	\$	-	\$	0.014	
506	75,900	70.3%	\$	9.40	\$	1,052	\$	-	\$	0.014	
507	76,050	70.4%	\$	9.40	\$	1,052	\$	-	\$	0.014	
508	76,200	70.6%	\$	9.40	\$	1,052	\$	-	\$	0.014	
509	76,350	70.7%	\$	9.40	\$	1,052	\$	-	\$	0.014	
510	76,500	70.8%	\$	9.40	\$	1,052	\$	-	\$	0.014	
511	76,650	71.0%	\$	9.40	\$	1,052	\$	-	\$	0.014	
512	76,800	71.1%	\$	9.40	\$	1,052	\$	-	\$	0.014	
513	76,950	71.3%	\$	9.40	\$	1,052	\$	-	\$	0.014	
514	77,100	71.4%	\$	9.40	\$	1,052	\$	-	\$	0.014	
515	77,250	71.5%	\$	9.40	\$	1,052	\$	-	\$	0.014	
516	77,400	71.7%	\$	9.40	\$	1,052	\$	-	\$	0.014	
517	77,550	71.8%	\$	9.40	\$	1,052	\$	-	\$	0.014	
518	77,700	71.9%	\$	9.40	\$	1,052	\$	-	\$	0.014	
519	77,850	72.1%	\$	9.40	\$	1,052	\$	-	\$	0.014	
520	78,000	72.2%	\$	9.40	\$	1,052	\$	-	\$	0.014	
	,	,-	•		•	,	•		•		

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of				Customer	Base Tariff nand Charge	ase Tariff rgy Charge	с	ost per
Use	kWh	Load Factor	С	harge Cost	Cost	Cost		kWh
		(%)		(\$)	(\$)	(\$)		
(1)	(2)	(3)		(4)	(5)	(6)		(15)
521	78,150	72.4%	\$	9.40	\$ 1,052	\$ -	\$	0.014
522	78,300	72.5%	\$	9.40	\$ 1,052	\$ -	\$	0.014
523	78,450	72.6%	\$	9.40	\$ 1,052	\$ -	\$	0.014
524	78,600	72.8%	\$	9.40	\$ 1,052	\$ -	\$	0.013
525	78,750	72.9%	\$	9.40	\$ 1,052	\$ -	\$	0.013
526	78,900	73.1%	\$	9.40	\$ 1,052	\$ -	\$	0.013
527	79,050	73.2%	\$	9.40	\$ 1,052	\$ -	\$	0.013
528	79,200	73.3%	\$	9.40	\$ 1,052	\$ -	\$	0.013
529	79,350	73.5%	\$	9.40	\$ 1,052	\$ -	\$	0.013
530	79,500	73.6%	\$	9.40	\$ 1,052	\$ -	\$	0.013
531	79,650	73.8%	\$	9.40	\$ 1,052	\$ -	\$	0.013
532	79,800	73.9%	\$	9.40	\$ 1,052	\$ -	\$	0.013
533	79,950	74.0%	\$	9.40	\$ 1,052	\$ -	\$	0.013
534	80,100	74.2%	\$	9.40	\$ 1,052	\$ -	\$	0.013
535	80,250	74.3%	\$	9.40	\$ 1,052	\$ -	\$	0.013
536	80,400	74.4%	\$	9.40	\$ 1,052	\$ -	\$	0.013
537	80,550	74.6%	\$	9.40	\$ 1,052	\$ -	\$	0.013
538	80,700	74.7%	\$	9.40	\$ 1,052	\$ -	\$	0.013
539	80,850	74.9%	\$	9.40	\$ 1,052	\$ -	\$	0.013
540	81,000	75.0%	\$	9.40	\$ 1,052	\$ -	\$	0.013
541	81,150	75.1%	\$	9.40	\$ 1,052	\$ -	\$	0.013
542	81,300	75.3%	\$	9.40	\$ 1,052	\$ -	\$	0.013
543	81,450	75.4%	\$	9.40	\$ 1,052	\$ -	\$	0.013
544	81,600	75.6%	\$	9.40	\$ 1,052	\$ -	\$	0.013
545	81,750	75.7%	\$	9.40	\$ 1,052	\$ -	\$	0.013
546	81,900	75.8%	\$	9.40	\$ 1,052	\$ -	\$	0.013
547	82,050	76.0%	\$	9.40	\$ 1,052	\$ -	\$	0.013
548	82,200	76.1%	\$	9.40	\$ 1,052	\$ -	\$	0.013
549	82,350	76.3%	\$	9.40	\$ 1,052	\$ -	\$	0.013
550	82,500	76.4%	\$	9.40	\$ 1,052	\$ -	\$	0.013
551	82,650	76.5%	\$	9.40	\$ 1,052	\$ -	\$	0.013
552	82,800	76.7%	\$	9.40	\$ 1,052	\$ -	\$	0.013
553	82,950	76.8%	\$	9.40	\$ 1,052	\$ -	\$	0.013
554	83,100	76.9%	\$	9.40	\$ 1,052	\$ -	\$	0.013
555	83,250	77.1%	\$	9.40	\$ 1,052	\$ -	\$	0.013
556	83,400	77.2%	\$	9.40	\$ 1,052	\$ -	\$	0.013
557	83,550	77.4%	\$	9.40	\$ 1,052	\$ -	\$	0.013
558	83,700	77.5%	\$	9.40	\$ 1,052	\$ -	\$	0.013
559	83,850	77.6%	\$	9.40	\$ 1,052	\$ -	\$	0.013
560	84,000	77.8%	\$	9.40	\$ 1,052	\$ -	\$	0.013
					,			

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of				Customer		Base Tariff nand Charge		ase Tariff rgy Charge	с	ost per
Use	kWh	Load Factor		harge Cost	_	Cost	-	Cost		kWh
		(%)		(\$)		(\$)		(\$)		\$/kWh)
(1)	(2)	(3)		(4)		(5)		(6)		(15)
	.,					.,		.,		. ,
561	84,150	77.9%	\$	9.40	\$	1,052	\$	-	\$	0.013
562	84,300	78.1%	\$	9.40	\$	1,052	\$	-	\$	0.013
563	84,450	78.2%	\$	9.40	\$	1,052	\$	-	\$	0.013
564	84,600	78.3%	\$	9.40	\$	1,052	\$	-	\$	0.013
565	84,750	78.5%	\$	9.40	\$	1,052	\$	-	\$	0.013
566	84,900	78.6%	\$	9.40	\$	1,052	\$	-	\$	0.012
567	85,050	78.8%	\$	9.40	\$	1,052	\$	-	\$	0.012
568	85,200	78.9%	\$	9.40	\$	1,052	\$	-	\$	0.012
569	85,350	79.0%	\$	9.40	\$	1,052	\$	-	\$	0.012
570	85,500	79.2%	\$	9.40	\$	1,052	\$	-	\$	0.012
571	85,650	79.3%	\$	9.40	\$	1,052	\$	-	\$	0.012
572	85,800	79.4%	\$	9.40	\$	1,052	\$	-	\$	0.012
573	85,950	79.6%	\$	9.40	\$	1,052	\$	-	\$	0.012
574	86,100	79.7%	\$	9.40	\$	1,052	\$	-	\$	0.012
575	86,250	79.9%	\$	9.40	\$	1,052	\$	-	\$	0.012
576	86,400	80.0%	\$	9.40	\$	1,052	\$	-	\$	0.012
577	86,550	80.1%	\$	9.40	\$	1,052	\$	-	\$	0.012
578	86,700	80.3%	\$	9.40	\$	1,052	\$	-	\$	0.012
579	86,850	80.4%	\$	9.40	\$	1,052	\$	-	\$	0.012
580	87,000	80.6%	\$	9.40	\$	1,052	\$	-	\$	0.012
581	87,150	80.7%	\$	9.40	\$	1,052	\$	-	\$	0.012
582	87,300	80.8%	\$	9.40	\$	1,052	\$	-	\$	0.012
583	87,450	81.0%	\$	9.40	\$	1,052	\$	-	\$	0.012
584	87,600	81.1%	\$	9.40	\$	1,052	\$	-	\$	0.012
585	87,750	81.3%	\$	9.40	\$	1,052	\$	-	\$	0.012
586	87,900	81.4%	\$	9.40	\$	1,052	\$	-	\$	0.012
587	88,050	81.5%	\$	9.40	\$	1,052	\$	-	\$	0.012
588	88,200	81.7%	\$	9.40	\$	1,052	\$	-	\$	0.012
589	88,350	81.8%	\$	9.40	\$	1,052	\$	-	\$	0.012
590	88,500	81.9%	\$	9.40	\$	1,052	\$	-	\$	0.012
591	88,650	82.1%	\$	9.40	\$	1,052	\$	-	\$	0.012
592	88,800	82.2%	\$	9.40	\$	1,052	\$	-	\$	0.012
593	88,950	82.4%	\$	9.40	\$	1,052	\$	-	\$	0.012
594	89,100	82.5%	\$	9.40	\$	1,052	\$	-	\$	0.012
595	89,250	82.6%	\$	9.40	\$	1,052	\$	-	\$	0.012
596	89,400	82.8%	\$	9.40	\$	1,052	\$	-	\$	0.012
597	89,550	82.9%	\$	9.40	\$	1,052	\$	-	\$	0.012
598	89,700	83.1%	\$	9.40	\$	1,052	\$	-	\$	0.012
599	89,850	83.2%	\$	9.40	\$	1,052	\$	-	\$	0.012
600	90,000	83.3%	\$	9.40	\$	1,052	\$	-	\$	0.012
	,000	00.070	7'	55	7	_,	τ.		7	

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	7.01	/kW							
(4)	Base Tariff Energy Charge	\$	-	/kWh							

Hours of				Customer		Base Tariff nand Charge		ase Tariff rgy Charge	C	ost per
Use	kWh	Load Factor		harge Cost	201	Cost	2e	Cost		kWh
		(%)	-	(\$)		(\$)		(\$)		\$/kWh)
(1)	(2)	(3)		(4)		(5)		(6)		(15)
()	.,	(-)		()		(-)		(-7		( -)
601	90,150	83.5%	\$	9.40	\$	1,052	\$	-	\$	0.012
602	90,300	83.6%	\$	9.40	\$	1,052	\$	-	\$	0.012
603	90,450	83.8%	\$	9.40	\$	1,052	\$	-	\$	0.012
604	90,600	83.9%	\$	9.40	\$	1,052	\$	-	\$	0.012
605	90,750	84.0%	\$	9.40	\$	1,052	\$	-	\$	0.012
606	90,900	84.2%	\$	9.40	\$	1,052	\$	-	\$	0.012
607	91,050	84.3%	\$	9.40	\$	1,052	\$	-	\$	0.012
608	91,200	84.4%	\$	9.40	\$	1,052	\$	-	\$	0.012
609	91,350	84.6%	\$	9.40	\$	1,052	\$	-	\$	0.012
610	91,500	84.7%	\$	9.40	\$	1,052	\$	-	\$	0.012
611	91,650	84.9%	\$	9.40	\$	1,052	\$	-	\$	0.012
612	91,800	85.0%	\$	9.40	\$	1,052	\$	-	\$	0.012
613	91,950	85.1%	\$	9.40	\$	1,052	\$	-	\$	0.012
614	92,100	85.3%	\$	9.40	\$	1,052	\$	-	\$	0.012
615	92,250	85.4%	\$	9.40	\$	1,052	\$	-	\$	0.012
616	92,400	85.6%	\$	9.40	\$	1,052	\$	-	\$	0.011
617	92,550	85.7%	\$	9.40	\$	1,052	\$	-	\$	0.011
618	92,700	85.8%	\$	9.40	\$	1,052	\$	-	\$	0.011
619	92,850	86.0%	\$	9.40	\$	1,052	\$	-	\$	0.011
620	93,000	86.1%	\$	9.40	\$	1,052	\$	-	\$	0.011
621	93,150	86.3%	\$	9.40	\$	1,052	\$	-	\$	0.011
622	93,300	86.4%	\$	9.40	\$	1,052	\$	-	\$	0.011
623	93,450	86.5%	\$	9.40	\$	1,052	\$	-	\$	0.011
624	93,600	86.7%	\$	9.40	\$	1,052	\$	-	\$	0.011
625	93,750	86.8%	\$	9.40	\$	1,052	\$	-	\$	0.011
626	93,900	86.9%	\$	9.40	\$	1,052	\$	-	\$	0.011
627	94,050	87.1%	\$	9.40	\$	1,052	\$	-	\$	0.011
628	94,200	87.2%	\$	9.40	\$	1,052	\$	-	\$	0.011
629	94,350	87.4%	\$	9.40	\$	1,052	\$	-	\$	0.011
630	94,500	87.5%	\$	9.40	\$	1,052	\$	-	\$	0.011
631	94,650	87.6%	\$	9.40	\$	1,052	\$	-	\$	0.011
632	94,800	87.8%	\$	9.40	\$	1,052	\$	-	\$	0.011
633	94,950	87.9%	\$	9.40	\$	1,052	\$	-	\$	0.011
634	95,100	88.1%	\$	9.40	\$	1,052	\$	-	\$	0.011
635	95,250	88.2%	\$	9.40	\$	1,052	\$	-	\$	0.011
636	95,400	88.3%	\$	9.40	\$	1,052	\$	-	\$	0.011
637	95,550	88.5%	\$	9.40	\$	1,052	\$	-	\$	0.011
638	95,700	88.6%	\$	9.40	\$	1,052	\$	-	\$	0.011
639	95,850	88.8%	\$	9.40	\$	1,052	\$	-	\$	0.011
640	96,000	88.9%	\$	9.40	\$	1,052	\$	-	\$	0.011
0.0	,000	00.070	7'	55	7	_,	Ŧ		7	

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

					E	Base Tariff	В	ase Tariff			
lours of			Cu	stomer	Den	nand Charge	Ene	ergy Charge	С	ost per	
Use	kWh	Load Factor	Charge Cost		Cost		Cost			kWh	
		(%)		(\$)		(\$)	(\$)		(\$/kWh)		
(1)	(2)	(3)		(4)		(5)		(6)		(15)	
641	96,150	89.0%	\$	9.40	\$	1,052	\$	-	\$	0.011	
642	96,300	89.2%	\$	9.40	\$	1,052	\$	-	\$	0.011	
643	96,450	89.3%	\$	9.40	\$	1,052	\$	-	\$	0.011	
644	96,600	89.4%	\$	9.40	\$	1,052	\$	-	\$	0.011	
645	96,750	89.6%	\$	9.40	\$	1,052	\$	-	\$	0.011	
646	96,900	89.7%	\$	9.40	\$	1,052	\$	-	\$	0.011	
647	97,050	89.9%	\$	9.40	\$	1,052	\$	-	\$	0.011	
648	97,200	90.0%	\$	9.40	\$	1,052	\$	-	\$	0.011	
649	97,350	90.1%	\$	9.40	\$	1,052	\$	-	\$	0.011	
650	97,500	90.3%	\$	9.40	\$	1,052	\$	-	\$	0.011	
651	97,650	90.4%	\$	9.40	\$	1,052	\$	-	\$	0.011	
652	97,800	90.6%	\$	9.40	\$	1,052	\$	-	\$	0.011	
653	97,950	90.7%	\$	9.40	\$	1,052	\$	-	\$	0.011	
654	98,100	90.8%	\$	9.40	\$	1,052	\$	-	\$	0.011	
655	98,250	91.0%	\$	9.40	\$	1,052	\$	-	\$	0.011	
656	98,400	91.1%	\$	9.40	\$	1,052	\$	-	\$	0.011	
657	98,550	91.3%	\$	9.40	\$	1,052	\$	-	\$	0.011	
658	98,700	91.4%	\$	9.40	\$	1,052	\$	-	\$	0.011	
659	98,850	91.5%	\$	9.40	\$	1,052	\$	-	\$	0.011	
660	99,000	91.7%	\$	9.40	\$	1,052	\$	-	\$	0.011	
661	99,150	91.8%	\$	9.40	\$	1,052	\$	-	\$	0.011	
662	99,300	91.9%	\$	9.40	\$	1,052	\$	-	\$	0.011	
663	99,450	92.1%	\$	9.40	\$	1,052	\$	-	\$	0.011	
664	99,600	92.2%	\$	9.40	\$	1,052	\$	_	\$	0.011	
665	99,750	92.4%	\$	9.40	\$	1,052	\$	_	\$	0.011	
666	99,900	92.5%	\$	9.40	\$	1,052	\$	-	\$	0.011	
667	100,050	92.6%	\$	9.40	\$	1,052	\$	_	\$	0.011	
668	100,200	92.8%	\$	9.40	\$	1,052	\$	-	\$	0.011	
669	100,350	92.9%	\$	9.40	\$	1,052	\$	-	\$	0.011	
670	100,500	93.1%	\$	9.40	\$	1,052	\$	-	\$	0.011	
671	100,650	93.2%	\$	9.40 9.40	\$	1,052	\$	-	\$	0.011	
672	100,800	93.3%	\$	9.40 9.40	\$	1,052	\$	-	\$	0.011	
672	100,800	93.5%		9.40 9.40		1,052		-	ې \$	0.011	
673	100,950	93.5%	\$ \$	9.40 9.40	\$ ¢	1,052	\$ \$	-		0.011	
674 675	101,100	93.6%		9.40 9.40	\$ ¢	1,052	ې \$	-	\$ ¢	0.010	
			\$ ¢		\$ ¢		ې خ		\$ ¢		
676 677	101,400	93.9%	\$	9.40	\$ ¢	1,052	\$	-	\$ ¢	0.010	
677 678	101,550	94.0%	\$ ¢	9.40 9.40	\$ ¢	1,052	\$ ¢	-	\$ ¢	0.010	
678 670	101,700	94.2%	\$ ¢		\$ ¢	1,052	\$		\$ ¢	0.010	
679	101,850	94.3%	\$	9.40	\$	1,052	\$	-	\$ ¢	0.010	
680	102,000	94.4%	\$	9.40	\$	1,052	\$	-	\$	0.010	

(1) Customer Demand

	AEP Ohio Schedule GS Secondary (1st Revised Sheet 220-3)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	7.01	/kW						
(4)	Base Tariff Energy Charge	\$	-	/kWh						

llours of			Customer		Base Tariff		ase Tariff	~	
Hours of Use	kWh	Load Factor	Customer Charge Cost	Der	nand Charge Cost	Ene	rgy Charge Cost		ost per kWh
USE	KVVN		-						
(4)	(2)	(%)	(\$)		(\$) (5)		(\$) (C)	(;	5/kWh)
(1)	(2)	(3)	(4)		(5)		(6)		(15)
681	102,150	94.6%	\$ 9.40	\$	1,052	\$	-	\$	0.010
682	102,300	94.7%	\$ 9.40	\$	1,052	\$	-	\$	0.010
683	102,450	94.9%	\$ 9.40	\$	1,052	\$	-	\$	0.010
684	102,600	95.0%	\$ 9.40	\$	1,052	\$	-	\$	0.010
685	102,750	95.1%	\$ 9.40	\$	1,052	\$	-	\$	0.010
686	102,900	95.3%	\$ 9.40	\$	1,052	\$	-	\$	0.010
687	103,050	95.4%	\$ 9.40	\$	1,052	\$	-	\$	0.010
688	103,200	95.6%	\$ 9.40	\$	1,052	\$	-	\$	0.010
689	103,350	95.7%	\$ 9.40	\$	1,052	\$	-	\$	0.010
690	103,500	95.8%	\$ 9.40	\$	1,052	\$	-	\$	0.010
691	103,650	96.0%	\$ 9.40	\$	1,052	\$	-	\$	0.010
692	103,800	96.1%	\$ 9.40	\$	1,052	\$	-	\$	0.010
693	103,950	96.3%	\$ 9.40	\$	1,052	\$	-	\$	0.010
694	104,100	96.4%	\$ 9.40	\$	1,052	\$	-	\$	0.010
695	104,250	96.5%	\$ 9.40	\$	1,052	\$	-	\$	0.010
696	104,400	96.7%	\$ 9.40	\$	1,052	\$	-	\$	0.010
697	104,550	96.8%	\$ 9.40	\$	1,052	\$	-	\$	0.010
698	104,700	96.9%	\$ 9.40	\$	1,052	\$	-	\$	0.010
699	104,850	97.1%	\$ 9.40	\$	1,052	\$	-	\$	0.010
700	105,000	97.2%	\$ 9.40	\$	1,052	\$	-	\$	0.010
701	105,150	97.4%	\$ 9.40	\$	1,052	\$	-	\$	0.010
702	105,300	97.5%	\$ 9.40	\$	1,052	\$	-	\$	0.010
703	105,450	97.6%	\$ 9.40	\$	1,052	\$	-	\$	0.010
704	105,600	97.8%	\$ 9.40	\$	1,052	\$	-	\$	0.010
705	105,750	97.9%	\$ 9.40	\$	1,052	\$	-	\$	0.010
706	105,900	98.1%	\$ 9.40	\$	1,052	\$	-	\$	0.010
707	106,050	98.2%	\$ 9.40	\$	1,052	\$	-	\$	0.010
708	106,200	98.3%	\$ 9.40	\$	1,052	\$	-	\$	0.010
709	106,350	98.5%	\$ 9.40	\$	1,052	\$	-	\$	0.010
710	106,500	98.6%	\$ 9.40	\$	1,052	\$	-	\$	0.010
711	106,650	98.8%	\$ 9.40	\$	1,052	\$	-	\$	0.010
712	106,800	98.9%	\$ 9.40	\$	1,052	\$	-	\$	0.010
713	106,950	99.0%	\$ 9.40	\$	1,052	\$	-	\$	0.010
714	107,100	99.2%	\$ 9.40	\$	1,052	\$	-	\$	0.010
715	107,250	99.3%	\$ 9.40	\$	1,052	\$	-	\$	0.010
716	107,400	99.4%	\$ 9.40	\$	1,052	\$	-	\$	0.010
717	107,550	99.6%	\$ 9.40	\$	1,052	\$	-	\$	0.010
718	107,700	99.7%	\$ 9.40	\$	1,052	\$	-	\$	0.010
719	107,850	99.9%	\$ 9.40	\$	1,052	\$	-	\$	0.010
720	108,000	100.0%	\$ 9.40	\$	1,052	\$	-	\$	0.010

### 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 R.C.	)	Case No. 23-0023-EL-SSO
4928.143, in the Form of an Electric Security Plan	)	
In the Matter of the Application of Ohio Power	)	
Company for Approval of Certain Accounting	)	
Authority	)	Case No. 23-0024-EL-AAM

EXHIBIT SWC-4 OF STEVE W. CHRISS ON BEHALF OF WALMART INC.

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)								
(2)	Customer Charge	\$	9.40	/month					
(3)	Base Tariff Demand Charge	\$	-	/kW					
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh					

Hours of Use	kWh	Load Factor		Customer harge Cost	Base Tariff nand Charge Cost		Base Tariff Brgy Charge Cost	С	ost per kWh
		(%)		(\$)	(\$)		(\$)	(	\$/kWh)
(1)	(2)	(3)		(4)	(5)		(6)		(15)
1	150	0.1%	\$	9.40	\$ -	\$	3	\$	0.083
2	300	0.3%	\$	9.40	\$ -	\$	6	\$	0.052
3	450	0.4%	\$	9.40	\$ -	\$	9	\$	0.041
4	600	0.6%	\$	9.40	\$ -	\$	12	\$	0.036
5	750	0.7%	\$	9.40	\$ -	\$	15	\$	0.033
6	900	0.8%	\$	9.40	\$ -	\$	19	\$	0.031
7	1,050	1.0%	\$	9.40	\$ -	\$	22	\$	0.030
8	1,200	1.1%	\$	9.40	\$ -	\$	25	\$	0.028
9	1,350	1.3%	\$	9.40	\$ -		28	\$	0.028
10	1,500	1.4%	\$	9.40	\$ -	\$ \$	31	\$	0.027
11	1,650	1.5%	\$	9.40	\$ -	\$	34	\$	0.026
12	1,800	1.7%	\$	9.40	\$ -	\$	37	\$	0.026
13	1,950	1.8%	\$	9.40	\$ -	\$	40	\$	0.025
14	2,100	1.9%	\$	9.40	\$ -	\$	43	\$	0.025
15	2,250	2.1%	\$	9.40	\$ -	\$	46	\$	0.025
16	2,400	2.2%	\$	9.40	\$ -	\$	49	\$	0.024
17	2,550	2.4%	\$	9.40	\$ -	\$	52	\$	0.024
18	2,700	2.5%	\$	9.40	\$ -	\$	56	\$	0.024
19	2,850	2.6%	\$	9.40	\$ -	\$	59	\$	0.024
20	3,000	2.8%	\$	9.40	\$ -	\$	62	\$	0.024
21	3,150	2.9%	\$	9.40	\$ -	\$	65	\$	0.024
22	3,300	3.1%	\$	9.40	\$ -	\$	68	\$	0.023
23	3,450	3.2%	\$	9.40	\$ -	\$	71	\$	0.023
24	3,600	3.3%	\$	9.40	\$ -	\$	74	\$	0.023
25	3,750	3.5%	\$	9.40	\$ -	\$	77	\$	0.023
26	3,900	3.6%	\$	9.40	\$ -	\$	80	\$	0.023
27	4,050	3.8%	\$	9.40	\$ -	\$	83	\$	0.023
28	4,200	3.9%	\$	9.40	\$ -	\$	86	\$	0.023
29	4,350	4.0%	\$	9.40	\$ -	\$	90	\$	0.023
30	4,500	4.2%	\$	9.40	\$ -	\$	93	\$	0.023
31	4,650	4.3%	\$	9.40	\$ -	\$	96	\$	0.023
32	4,800	4.4%	\$	9.40	\$ -	\$	99	\$	0.023
33	4,950	4.6%	\$	9.40	\$ -	\$	102	\$	0.022
34	5,100	4.7%	\$	9.40	\$ -	\$	105	\$	0.022
35	5,250	4.9%	\$	9.40	\$ -	\$	108	\$	0.022
36	5,400	5.0%	\$	9.40	\$ -	\$	111	\$	0.022
37	5,550	5.1%	\$	9.40	\$ -	\$	114	\$	0.022
38	5,700	5.3%	\$	9.40	\$ -	\$	117	\$	0.022
39	5,850	5.4%	\$	9.40	\$ -	\$	120	\$	0.022
40	6,000	5.6%	\$	9.40	\$ -	\$	123	\$	0.022
-	,		•			•	-		-

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)								
(2)	Customer Charge	\$	9.40	/month					
(3)	Base Tariff Demand Charge	\$	-	/kW					
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh					

Hours of Use	kWh	Load Factor	Customer harge Cost	Base Tariff nand Charge Cost		ase Tariff ergy Charge Cost	c	ost per kWh
		(%)	(\$)	(\$)		(\$)	(\$/kWh)	
(1)	(2)	(3)	(4)	(5)		(6)		(15)
41	6,150	5.7%	\$ 9.40	\$ -	\$	127	\$	0.022
42	6,300	5.8%	\$ 9.40	\$ -	\$	130	\$	0.022
43	6,450	6.0%	\$ 9.40	\$ -	\$	133	\$	0.022
44	6,600	6.1%	\$ 9.40	\$ -	\$	136	\$	0.022
45	6,750	6.3%	\$ 9.40	\$ -	\$	139	\$	0.022
46	6,900	6.4%	\$ 9.40	\$ -	\$	142	\$	0.022
47	7,050	6.5%	\$ 9.40	\$ -	\$	145	\$	0.022
48	7,200	6.7%	\$ 9.40	\$ -	\$	148	\$	0.022
49	7,350	6.8%	\$ 9.40	\$ -	\$	151	\$	0.022
50	7,500	6.9%	\$ 9.40	\$ -	\$ \$	154	\$	0.022
51	7,650	7.1%	\$ 9.40	\$ -	\$	157	\$	0.022
52	7,800	7.2%	\$ 9.40	\$ -		161	\$	0.022
53	7,950	7.4%	\$ 9.40	\$ -	\$ \$	164	\$	0.022
54	8,100	7.5%	\$ 9.40	\$ -	\$	167	\$	0.022
55	8,250	7.6%	\$ 9.40	\$ -	\$	170	\$	0.022
56	8,400	7.8%	\$ 9.40	\$ -	\$	173	\$	0.022
57	8,550	7.9%	\$ 9.40	\$ -	\$	176	\$	0.022
58	8,700	8.1%	\$ 9.40	\$ -	\$	179	\$	0.022
59	8,850	8.2%	\$ 9.40	\$ -	\$	182	\$	0.022
60	9,000	8.3%	\$ 9.40	\$ -	\$	185	\$	0.022
61	9,150	8.5%	\$ 9.40	\$ -	\$	188	\$	0.022
62	9,300	8.6%	\$ 9.40	\$ -	\$	191	\$	0.022
63	9,450	8.8%	\$ 9.40	\$ -	\$	194	\$	0.022
64	9,600	8.9%	\$ 9.40	\$ -	\$	198	\$	0.022
65	9,750	9.0%	\$ 9.40	\$ -	\$ \$ \$	201	\$	0.022
66	9,900	9.2%	\$ 9.40	\$ -	\$	204	\$	0.022
67	10,050	9.3%	\$ 9.40	\$ -	\$	207	\$	0.022
68	10,200	9.4%	\$ 9.40	\$ -	\$	210	\$	0.022
69	10,350	9.6%	\$ 9.40	\$ -	\$	213	\$	0.021
70	10,500	9.7%	\$ 9.40	\$ -	\$	216	\$	0.021
71	10,650	9.9%	\$ 9.40	\$ -	\$	219	\$	0.021
72	10,800	10.0%	\$ 9.40	\$ -	\$	222	\$	0.021
73	10,950	10.1%	\$ 9.40	\$ -	\$	225	\$	0.021
74	11,100	10.3%	\$ 9.40	\$ -	\$	228	\$	0.021
75	11,250	10.4%	\$ 9.40	\$ -	\$ \$	232	\$	0.021
76	11,400	10.6%	\$ 9.40	\$ -	\$	235	\$	0.021
77	11,550	10.7%	\$ 9.40	\$ -	\$	238	\$	0.021
78	11,700	10.8%	\$ 9.40	\$ -	\$	241	\$	0.021
79	11,850	11.0%	\$ 9.40	\$ -	\$	244	\$	0.021
80	12,000	11.1%	\$ 9.40	\$ -	\$	247	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)								
(2)	Customer Charge	\$	9.40	/month					
(3)	Base Tariff Demand Charge	\$	-	/kW					
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh					

					E	Base Tariff	В	ase Tariff		
Hours of			c	ustomer	Der	nand Charge	Ene	ergy Charge	С	ost per
Use	kWh	Load Factor	Charge Cost		Cost			Cost		kWh
		(%)		(\$)		(\$)		(\$)	(\$/kWh)	
(1)	(2)	(3)		(4)		(5)		(6)		(15)
81	12,150	11.3%	\$	9.40	\$	-	\$	250	\$	0.021
82	12,300	11.4%	\$	9.40	\$	-	\$	253	\$	0.021
83	12,450	11.5%	\$	9.40	\$	-	\$	256	\$	0.021
84	12,600	11.7%	\$	9.40	\$	-	\$	259	\$	0.021
85	12,750	11.8%	\$	9.40	\$	-	\$	262	\$	0.021
86	12,900	11.9%	\$	9.40	\$	-	\$	265	\$	0.021
87	13,050	12.1%	\$	9.40	\$	-	\$	269	\$	0.021
88	13,200	12.2%	\$	9.40	\$	-	\$	272	\$	0.021
89	13,350	12.4%	\$	9.40	\$	-	\$	275	\$	0.021
90	13,500	12.5%	\$	9.40	\$	-	\$	278	\$	0.021
91	13,650	12.6%	\$	9.40	\$	-	\$	281	\$	0.021
92	13,800	12.8%	\$	9.40	\$	-	\$	284	\$	0.021
93	13,950	12.9%	\$	9.40	\$	-	\$	287	\$	0.021
94	14,100	13.1%	\$	9.40	\$	-	\$	290	\$	0.021
95	14,250	13.2%	\$	9.40	\$	-	\$	293	\$	0.021
96	14,400	13.3%	\$	9.40	\$	-	\$	296	\$	0.021
97	14,550	13.5%	\$	9.40	\$	-	\$	299	\$	0.021
98	14,700	13.6%	\$	9.40	\$	-	\$	303	\$	0.021
99	14,850	13.8%	\$	9.40	\$	-	\$	306	\$	0.021
100	15,000	13.9%	\$	9.40	\$	-	\$	309	\$	0.021
101	15,150	14.0%	\$	9.40	\$	-	\$	312	\$	0.021
102	15,300	14.2%	\$	9.40	\$	-	\$	315	\$	0.021
103	15,450	14.3%	\$	9.40	\$	-	\$	318	\$	0.021
104	15,600	14.4%	\$	9.40	\$	-	\$	321	\$	0.021
105	15,750	14.6%	\$	9.40	\$	-	\$	324	\$	0.021
106	15,900	14.7%	\$	9.40	\$	-	\$	327	\$	0.021
107	16,050	14.9%	\$	9.40	\$	-	\$	330	\$	0.021
108	16,200	15.0%	\$	9.40	\$	-	\$	333	\$	0.021
109	16,350	15.1%	\$	9.40	\$	-	\$	336	\$	0.021
110	16,500	15.3%	\$	9.40	\$	-	\$	340	\$	0.021
111	16,650	15.4%	\$	9.40	\$	-	\$	343	\$	0.021
112	16,800	15.6%	\$	9.40	\$	-	\$	346	\$	0.021
113	16,950	15.7%	\$	9.40	\$	-		349	\$	0.021
115	17,100	15.8%	\$	9.40	\$	-	Ś	352	\$	0.021
115	17,250	16.0%	\$	9.40	\$	-	Ś	355	\$	0.021
116	17,400	16.1%	\$	9.40	\$	-	\$ \$ \$ \$ \$ \$	358	\$	0.021
117	17,550	16.3%	\$	9.40	\$	-	¢	361	\$	0.021
117	17,700	16.4%	\$	9.40	\$	-	¢ ¢	364	\$	0.021
118	17,850	16.5%	\$	9.40 9.40	\$	_	\$	367	\$	0.021
119	18,000	16.7%	\$	9.40 9.40	\$	_	\$	370	\$	0.021
120	10,000	10.770	ې	5.40	ې	-	ې	570	ډ	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)									
(2)	Customer Charge	\$	9.40	/month						
(3)	Base Tariff Demand Charge	\$	-	/kW						
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh						

Hours of Use	kWh	Load Factor		Customer harge Cost		Base Tariff nand Charge Cost		ase Tariff ergy Charge Cost	С	ost per kWh
030	KVVII			(\$)		(\$)		(\$)		\$/kWh)
(1)	(2)	(%) (3)		(3) (4)		(5) (5)		(\$) (6)	(;	(15)
121	18,150	16.8%	\$	9.40	\$	-	\$	374	\$	0.021
122	18,300	16.9%	\$	9.40	\$	-	\$	377	\$	0.021
123	18,450	17.1%	\$	9.40	\$	-	\$	380	\$	0.021
124	18,600	17.2%	\$	9.40	\$	-	\$	383	\$	0.021
125	18,750	17.4%	\$	9.40	\$	-	\$	386	\$	0.021
126	18,900	17.5%	\$	9.40	\$	-	\$	389	\$	0.021
127	19,050	17.6%	\$	9.40	\$	-	\$	392	\$	0.021
128	19,200	17.8%	\$	9.40	\$	-	\$	395	\$	0.021
129	19,350	17.9%	\$	9.40	\$	-	\$	398	\$	0.021
130	19,500	18.1%	\$	9.40	\$	-	\$	401	\$	0.021
131	19,650	18.2%	\$	9.40	\$	-	\$	404	\$	0.021
132	19,800	18.3%	\$	9.40	\$	-	\$	407	\$	0.021
133	19,950	18.5%	\$	9.40	\$	-	\$	411	\$	0.021
134	20,100	18.6%	\$	9.40	\$	-	\$	414	\$	0.021
135	20,250	18.8%	\$	9.40	\$	-	\$	417	\$	0.021
136	20,400	18.9%	\$	9.40	\$	-	\$	420	\$	0.021
137	20,550	19.0%	\$	9.40	\$	-	\$	423	\$	0.021
138	20,700	19.2%	\$	9.40	\$	-	\$	426	\$	0.021
139	20,850	19.3%	\$	9.40	\$	-	\$	429	\$	0.021
140	21,000	19.4%	\$	9.40	\$	-	\$	432	\$	0.021
141	21,150	19.6%	\$	9.40	\$	-	\$	435	\$	0.021
142	21,300	19.7%	\$	9.40	\$	-	\$	438	\$	0.021
143	21,450	19.9%	\$	9.40	\$	-	\$	441	\$	0.021
144	21,600	20.0%	\$	9.40	\$	-	\$	445	\$	0.021
145	21,750	20.1%	\$	9.40	\$	-	\$	448	\$	0.021
146	21,900	20.3%	\$	9.40	\$	-	\$	451	\$	0.021
147	22,050	20.4%	\$	9.40	\$	-	\$	454	\$	0.021
148	22,200	20.6%	\$	9.40	\$	-	\$	457	\$	0.021
149	22,350	20.7%	\$	9.40	\$	-	\$	460	\$	0.021
150	22,500	20.8%	\$	9.40	\$	-	\$	463	\$	0.021
151	22,650	21.0%	\$	9.40	\$	-	\$	466	\$	0.021
152	22,800	21.1%	\$	9.40	\$	-	\$	469	\$	0.021
153	22,950	21.3%	\$	9.40	\$	-	\$	472	\$	0.021
154	23,100	21.4%	\$	9.40	\$	-	\$	475	\$	0.021
154	23,250	21.4%	\$	9.40	\$	-	\$	478	\$	0.021
156	23,400	21.7%	\$	9.40	\$	-	\$	482	\$	0.021
150	23,550	21.7%	\$	9.40	\$	-	\$	485	\$	0.021
157	23,550	21.8%	\$	9.40	\$	-	\$	485	\$	0.021
150	23,850	22.1%	\$	9.40	\$	-	\$	491	\$	0.021
160	23,850	22.1%	\$	9.40	\$	-	\$	494	\$	0.021
100	24,000	22.270	ڔ	9.40	Ļ	=	ڔ	494	ڔ	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of Use	kWh	Load Factor		Customer harge Cost		Base Tariff nand Charge Cost		ase Tariff ergy Charge Cost	С	ost per kWh
	KVVII	(%)		(\$)		(\$)		(\$)		\$/kWh)
(1)	(2)	(3)		(4)		(5)		(6)	(	(15)
161	24,150	22.4%	\$	9.40	\$	-	\$	497	\$	0.021
162	24,300	22.5%	\$	9.40	\$	-	\$	500	\$	0.021
163	24,450	22.6%	\$	9.40	\$	-	\$	503	\$	0.021
164	24,600	22.8%	\$	9.40	\$	-	\$	506	\$	0.021
165	24,750	22.9%	\$	9.40	\$	-	\$	509	\$	0.021
166	24,900	23.1%	\$	9.40	\$	-	\$	512	\$	0.021
167	25,050	23.2%	\$	9.40	\$	-	\$	516	\$	0.021
168	25,200	23.3%	\$	9.40	\$	-	\$	519	\$	0.021
169	25,350	23.5%	\$	9.40	\$	-	\$	522	\$	0.021
170	25,500	23.6%	\$	9.40	\$	-	\$	525	\$	0.021
171	25,650	23.8%	\$	9.40	\$	-	\$	528	\$	0.021
172	25,800	23.9%	\$	9.40	\$	-	\$	531	\$	0.021
173	25,950	24.0%	\$	9.40	\$	-	\$	534	\$	0.021
174	26,100	24.2%	\$	9.40	\$	-	\$	537	\$	0.021
175	26,250	24.3%	\$	9.40	\$	-	\$	540	\$	0.021
176	26,400	24.4%	\$	9.40	\$	-	\$	543	\$	0.021
177	26,550	24.6%	\$	9.40	\$	-	\$	546	\$	0.021
178	26,700	24.7%	\$	9.40	\$	-	\$	549	\$	0.021
179	26,850	24.9%	\$	9.40	\$	-	\$	553	\$	0.021
180	27,000	25.0%	\$	9.40	\$	-	\$	556	\$	0.021
181	27,150	25.1%	\$	9.40	\$	-	\$	559	\$	0.021
182	27,300	25.3%	\$	9.40	\$	-	\$	562	\$	0.021
183	27,450	25.4%	\$	9.40	\$	-	\$	565	\$	0.021
184	27,600	25.6%	\$	9.40	\$	-	\$	568	\$	0.021
185	27,750	25.7%	\$	9.40	\$	-	\$	571	\$	0.021
186	27,900	25.8%	\$	9.40	\$	-	\$	574	\$	0.021
187	28,050	26.0%	\$	9.40	\$	-	\$	577	\$	0.021
188	28,200	26.1%	\$	9.40	\$	-	\$	580	\$	0.021
189	28,350	26.3%	\$	9.40	\$	-	\$	583	\$	0.021
190	28,500	26.4%	\$	9.40	\$	-	\$	587	\$	0.021
191	28,650	26.5%	\$	9.40	\$	-	\$	590	\$	0.021
192	28,800	26.7%	\$	9.40	\$	-	\$	593	\$	0.021
193	28,950	26.8%	\$	9.40	\$	-	\$	596	\$	0.021
194	29,100	26.9%	\$	9.40	\$	-	\$	599	\$	0.021
195	29,250	27.1%	\$	9.40	\$	-	\$	602	\$	0.021
195	29,200	27.2%	\$	9.40	\$	-	\$	605	\$	0.021
190	29,550	27.2%	\$	9.40	\$	-	\$	608	\$	0.021
197	29,700	27.5%	\$	9.40	\$	-	\$	611	\$	0.021
198	29,850	27.6%	\$	9.40	\$	-	\$	614	\$	0.021
200	30,000	27.8%	\$	9.40	\$	-	\$	617	\$	0.021
200	50,000	21.0/0	ڔ	9.40	Ļ	=	Ļ	017	ڔ	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of Use	kWh	Load Factor	Customer harge Cost	Base Tariff nand Charge Cost	Base Tariff ergy Charge Cost	С	ost per kWh
	KVVII	(%)	 (\$)	(\$)	(\$)	1	\$/kWh)
(1)	(2)	(3)	(4)	(5)	(6)	(	(15)
201	30,150	27.9%	\$ 9.40	\$ -	\$ 620	\$	0.021
202	30,300	28.1%	\$ 9.40	\$ -	\$ 624	\$	0.021
203	30,450	28.2%	\$ 9.40	\$ -	\$ 627	\$	0.021
204	30,600	28.3%	\$ 9.40	\$ -	\$ 630	\$	0.021
205	30,750	28.5%	\$ 9.40	\$ -	\$ 633	\$	0.021
206	30,900	28.6%	\$ 9.40	\$ -	\$ 636	\$	0.021
207	31,050	28.8%	\$ 9.40	\$ -	\$ 639	\$	0.021
208	31,200	28.9%	\$ 9.40	\$ -	\$ 642	\$	0.021
209	31,350	29.0%	\$ 9.40	\$ -	\$ 645	\$	0.021
210	31,500	29.2%	\$ 9.40	\$ -	\$ 648	\$	0.021
211	31,650	29.3%	\$ 9.40	\$ -	\$ 651	\$	0.021
212	31,800	29.4%	\$ 9.40	\$ -	\$ 654	\$	0.021
213	31,950	29.6%	\$ 9.40	\$ -	\$ 658	\$	0.021
214	32,100	29.7%	\$ 9.40	\$ -	\$ 661	\$	0.021
215	32,250	29.9%	\$ 9.40	\$ -	\$ 664	\$	0.021
216	32,400	30.0%	\$ 9.40	\$ -	\$ 667	\$	0.021
217	32,550	30.1%	\$ 9.40	\$ -	\$ 670	\$	0.021
218	32,700	30.3%	\$ 9.40	\$ -	\$ 673	\$	0.021
219	32,850	30.4%	\$ 9.40	\$ -	\$ 676	\$	0.021
220	33,000	30.6%	\$ 9.40	\$ -	\$ 679	\$	0.021
221	33,150	30.7%	\$ 9.40	\$ -	\$ 682	\$	0.021
222	33,300	30.8%	\$ 9.40	\$ -	\$ 685	\$	0.021
223	33 <i>,</i> 450	31.0%	\$ 9.40	\$ -	\$ 688	\$	0.021
224	33,600	31.1%	\$ 9.40	\$ -	\$ 691	\$	0.021
225	33 <i>,</i> 750	31.3%	\$ 9.40	\$ -	\$ 695	\$	0.021
226	33,900	31.4%	\$ 9.40	\$ -	\$ 698	\$	0.021
227	34,050	31.5%	\$ 9.40	\$ -	\$ 701	\$	0.021
228	34,200	31.7%	\$ 9.40	\$ -	\$ 704	\$	0.021
229	34,350	31.8%	\$ 9.40	\$ -	\$ 707	\$	0.021
230	34,500	31.9%	\$ 9.40	\$ -	\$ 710	\$	0.021
231	34,650	32.1%	\$ 9.40	\$ -	\$ 713	\$	0.021
232	34,800	32.2%	\$ 9.40	\$ -	\$ 716	\$	0.021
233	34,950	32.4%	\$ 9.40	\$ -	\$ 719	\$	0.021
234	35,100	32.5%	\$ 9.40	\$ -	\$ 722	\$	0.021
235	35,250	32.6%	\$ 9.40	\$ -	\$ 725	\$	0.021
236	35,400	32.8%	\$ 9.40	\$ -	\$ 729	\$	0.021
237	35 <i>,</i> 550	32.9%	\$ 9.40	\$ -	\$ 732	\$	0.021
238	35,700	33.1%	\$ 9.40	\$ -	\$ 735	\$	0.021
239	35,850	33.2%	\$ 9.40	\$ -	\$ 738	\$	0.021
240	36,000	33.3%	\$ 9.40	\$ -	\$ 741	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of Use	kWh	Load Factor	Customer harge Cost		Base Tariff nand Charge Cost		ase Tariff ergy Charge Cost	c	ost per kWh
	KWII	(%)	 (\$)		(\$)		(\$)	-	\$/kWh)
(1)	(2)	(3)	(4)		(5)		(¢) (6)	,	(15)
241	36,150	33.5%	\$ 9.40	\$	-	\$	744	\$	0.021
242	36,300	33.6%	\$ 9.40	\$	-	\$	747	\$	0.021
243	36,450	33.8%	\$ 9.40	\$	-	\$	750	\$	0.021
244	36,600	33.9%	\$ 9.40	\$	-	\$	753	\$	0.021
245	36,750	34.0%	\$ 9.40	\$	-	\$	756	\$	0.021
246	36,900	34.2%	\$ 9.40	\$	-	\$	759	\$	0.021
247	37,050	34.3%	\$ 9.40	\$	-	\$	762	\$	0.021
248	37,200	34.4%	\$ 9.40	\$	-	\$	766	\$	0.021
249	37,350	34.6%	\$ 9.40	\$	-	\$	769	\$	0.021
250	37,500	34.7%	\$ 9.40	\$	-	\$	772	\$	0.021
251	37,650	34.9%	\$ 9.40	\$	-	\$	775	\$	0.021
252	37,800	35.0%	\$ 9.40	\$	-	\$	778	\$	0.021
253	37,950	35.1%	\$ 9.40	\$	-	\$	781	\$	0.021
254	38,100	35.3%	\$ 9.40	\$	-	\$	784	\$	0.021
255	38,250	35.4%	\$ 9.40	\$	-	\$	787	\$	0.021
256	38,400	35.6%	\$ 9.40	\$	-	\$	790	\$	0.021
257	38,550	35.7%	\$ 9.40	\$	-	\$	793	\$	0.021
258	38,700	35.8%	\$ 9.40	\$	-	\$	796	\$	0.021
259	38,850	36.0%	\$ 9.40	\$	-	\$	800	\$	0.021
260	39,000	36.1%	\$ 9.40	\$	-	\$	803	\$	0.021
261	39,150	36.3%	\$ 9.40	\$	-	\$	806	\$	0.021
262	39,300	36.4%	\$ 9.40	\$	-	\$	809	\$	0.021
263	39,450	36.5%	\$ 9.40	\$	-	\$	812	\$	0.021
264	39,600	36.7%	\$ 9.40	\$	-	\$	815	\$	0.021
265	39,750	36.8%	\$ 9.40	\$	-	\$	818	\$	0.021
266	39,900	36.9%	\$ 9.40	\$	-	\$	821	\$	0.021
267	40,050	37.1%	\$ 9.40	\$	-	\$	824	\$	0.021
268	40,200	37.2%	\$ 9.40	\$	-	\$	827	\$	0.021
269	40,350	37.4%	\$ 9.40	\$	-	\$	830	\$	0.021
270	40,500	37.5%	\$ 9.40	\$	-	\$	833	\$	0.021
271	40,650	37.6%	\$ 9.40	\$	-	\$	837	\$	0.021
272	40,800	37.8%	\$ 9.40	\$	-	\$	840	\$	0.021
273	40,950	37.9%	\$ 9.40	\$	-	\$	843	\$	0.021
274	41,100	38.1%	\$ 9.40	\$	-	\$	846	\$	0.021
275	41,250	38.2%	\$ 9.40	\$	-	\$	849	\$	0.021
276	41,400	38.3%	\$ 9.40	\$	-	\$	852	\$	0.021
277	41,550	38.5%	\$ 9.40	\$	-	\$	855	\$	0.021
278	41,700	38.6%	\$ 9.40	\$	-	\$	858	\$	0.021
279	41,850	38.8%	\$ 9.40	\$	-	\$	861	\$	0.021
280	42,000	38.9%	\$ 9.40	\$	-	\$	864	\$	0.021
				•		-			

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of Use	kWh	Load Factor	Customer harge Cost		Base Tariff nand Charge Cost		ase Tariff ergy Charge Cost	с	ost per kWh
	KWII	(%)	 (\$)		(\$)		(\$)		\$/kWh)
(1)	(2)	(3)	(4)		(5)		(6)	(	(15)
281	42,150	39.0%	\$ 9.40	\$	-	\$	867	\$	0.021
282	42,300	39.2%	\$ 9.40	\$	-	\$	871	\$	0.021
283	42,450	39.3%	\$ 9.40	\$	-	\$	874	\$	0.021
284	42,600	39.4%	\$ 9.40	\$	-	\$	877	\$	0.021
285	42,750	39.6%	\$ 9.40	\$	-	\$	880	\$	0.021
286	42,900	39.7%	\$ 9.40	\$	-	\$	883	\$	0.021
287	43,050	39.9%	\$ 9.40	\$	-	\$	886	\$	0.021
288	43,200	40.0%	\$ 9.40	\$	-	\$	889	\$	0.021
289	43,350	40.1%	\$ 9.40	\$	-	\$	892	\$	0.021
290	43,500	40.3%	\$ 9.40	\$	-	\$	895	\$	0.021
291	43,650	40.4%	\$ 9.40	\$	-	\$	898	\$	0.021
292	43,800	40.6%	\$ 9.40	\$	-	\$	901	\$	0.021
293	43,950	40.7%	\$ 9.40	\$	-	\$	904	\$	0.021
294	44,100	40.8%	\$ 9.40	\$	-	\$	908	\$	0.021
295	44,250	41.0%	\$ 9.40	\$	-	\$	911	\$	0.021
296	44,400	41.1%	\$ 9.40	\$	-	\$	914	\$	0.021
297	44,550	41.3%	\$ 9.40	\$	-	\$	917	\$	0.021
298	44,700	41.4%	\$ 9.40	\$	-	\$	920	\$	0.021
299	44,850	41.5%	\$ 9.40	\$	-	\$	923	\$	0.021
300	45,000	41.7%	\$ 9.40	\$	-	\$	926	\$	0.021
301	45,150	41.8%	\$ 9.40	\$	-	\$	929	\$	0.021
302	45,300	41.9%	\$ 9.40	\$	-	\$	932	\$	0.021
303	45,450	42.1%	\$ 9.40	\$	-	\$	935	\$	0.021
304	45,600	42.2%	\$ 9.40	\$	-	\$	938	\$	0.021
305	45,750	42.4%	\$ 9.40	\$	-	\$	942	\$	0.021
306	45,900	42.5%	\$ 9.40	\$	-	\$	945	\$	0.021
307	46,050	42.6%	\$ 9.40	\$	-	\$	948	\$	0.021
308	46,200	42.8%	\$ 9.40	\$	-	\$	951	\$	0.021
309	46,350	42.9%	\$ 9.40	\$	-	\$	954	\$	0.021
310	46,500	43.1%	\$ 9.40	\$	-	\$	957	\$	0.021
311	46,650	43.2%	\$ 9.40	\$	-	\$	960	\$	0.021
312	46,800	43.3%	\$ 9.40	\$	-	\$	963	\$	0.021
313	46,950	43.5%	\$ 9.40	\$	-	\$	966	\$	0.021
314	47,100	43.6%	\$ 9.40	\$	-	\$	969	\$	0.021
315	47,250	43.8%	\$ 9.40	\$	-	\$	972	\$	0.021
316	47,400	43.9%	\$ 9.40	\$	-	\$	976	\$	0.021
317	47,550	44.0%	\$ 9.40	\$	-	\$	979	\$	0.021
318	47,700	44.2%	\$ 9.40	\$	-	\$	982	\$	0.021
319	47,850	44.3%	\$ 9.40	\$	-	\$	985	\$	0.021
320	48,000	44.4%	\$ 9.40	\$	-	\$	988	\$	0.021
				-		•		-	

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of Use	kWh	Load Factor		Customer harge Cost	Base Tariff nand Charge Cost	ase Tariff ergy Charge Cost		ost per kWh
036	KVVII		C	-				
(1)	(2)	(%) (3)		(\$) (4)	(\$) (5)	(\$) (6)	(;	\$/kWh) (15)
(-)	(-/	(0)		(-)	(0)	(0)		(10)
321	48,150	44.6%	\$	9.40	\$ -	\$ 991	\$	0.021
322	48,300	44.7%	\$	9.40	\$ -	\$ 994	\$	0.021
323	48,450	44.9%	\$	9.40	\$ -	\$ 997	\$	0.021
324	48,600	45.0%	\$	9.40	\$ -	\$ 1,000	\$	0.021
325	48,750	45.1%	\$	9.40	\$ -	\$ 1,003	\$	0.021
326	48,900	45.3%	\$	9.40	\$ -	\$ 1,006	\$	0.021
327	49,050	45.4%	\$	9.40	\$ -	\$ 1,009	\$	0.021
328	49,200	45.6%	\$	9.40	\$ -	\$ 1,013	\$	0.021
329	49,350	45.7%	\$	9.40	\$ -	\$ 1,016	\$	0.021
330	49,500	45.8%	\$	9.40	\$ -	\$ 1,019	\$	0.021
331	49,650	46.0%	\$	9.40	\$ -	\$ 1,022	\$	0.021
332	49,800	46.1%	\$	9.40	\$ -	\$ 1,025	\$	0.021
333	49,950	46.3%	\$	9.40	\$ -	\$ 1,028	\$	0.021
334	50,100	46.4%	\$	9.40	\$ -	\$ 1,031	\$	0.021
335	50,250	46.5%	\$	9.40	\$ -	\$ 1,034	\$	0.021
336	50,400	46.7%	\$	9.40	\$ -	\$ 1,037	\$	0.021
337	50,550	46.8%	\$	9.40	\$ -	\$ 1,040	\$	0.021
338	50,700	46.9%	\$	9.40	\$ -	\$ 1,043	\$	0.021
339	50,850	47.1%	\$	9.40	\$ -	\$ 1,047	\$	0.021
340	51,000	47.2%	\$	9.40	\$ -	\$ 1,050	\$	0.021
341	51,150	47.4%	\$	9.40	\$ -	\$ 1,053	\$	0.021
342	51,300	47.5%	\$	9.40	\$ -	\$ 1,056	\$	0.021
343	51,450	47.6%	\$	9.40	\$ -	\$ 1,059	\$	0.021
344	51,600	47.8%	\$	9.40	\$ -	\$ 1,062	\$	0.021
345	51,750	47.9%	\$	9.40	\$ -	\$ 1,065	\$	0.021
346	51,900	48.1%	\$	9.40	\$ -	\$ 1,068	\$	0.021
347	52 <i>,</i> 050	48.2%	\$	9.40	\$ -	\$ 1,071	\$	0.021
348	52,200	48.3%	\$	9.40	\$ -	\$ 1,074	\$	0.021
349	52 <i>,</i> 350	48.5%	\$	9.40	\$ -	\$ 1,077	\$	0.021
350	52 <i>,</i> 500	48.6%	\$	9.40	\$ -	\$ 1,080	\$	0.021
351	52 <i>,</i> 650	48.8%	\$	9.40	\$ -	\$ 1,084	\$	0.021
352	52 <i>,</i> 800	48.9%	\$	9.40	\$ -	\$ 1,087	\$	0.021
353	52 <i>,</i> 950	49.0%	\$	9.40	\$ -	\$ 1,090	\$	0.021
354	53 <i>,</i> 100	49.2%	\$	9.40	\$ -	\$ 1,093	\$	0.021
355	53,250	49.3%	\$	9.40	\$ -	\$ 1,096	\$	0.021
356	53,400	49.4%	\$	9.40	\$ -	\$ 1,099	\$	0.021
357	53,550	49.6%	\$	9.40	\$ -	\$ 1,102	\$	0.021
358	53,700	49.7%	\$	9.40	\$ -	\$ 1,105	\$	0.021
359	53,850	49.9%	\$	9.40	\$ -	\$ 1,108	\$	0.021
360	54,000	50.0%	\$	9.40	\$ -	\$ 1,111	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of				Customer		Base Tariff nand Charge		ase Tariff ergy Charge	с	ost per
Use	kWh	Load Factor	C	harge Cost		Cost		Cost		kWh
		(%)		(\$)		(\$)		(\$)	()	\$/kWh)
(1)	(2)	(3)		(4)		(5)		(6)		(15)
361	54,150	50.1%	\$	9.40	\$	-	\$	1,114	\$	0.021
362	54,300	50.3%	\$	9.40	\$	-	\$	1,118	\$	0.021
363	54,450	50.4%	\$	9.40	\$	-	\$	1,121	\$	0.021
364	54,600	50.6%	\$	9.40	\$	-	\$	1,124	\$	0.021
365	54,750	50.7%	\$	9.40	\$	-	\$	1,127	\$	0.021
366	54,900	50.8%	\$	9.40	\$	-	\$	1,130	\$	0.021
367	55,050	51.0%	\$	9.40	\$	-	\$	1,133	\$	0.021
368	55,200	51.1%	\$	9.40	\$	-	\$	1,136	\$	0.021
369	55,350	51.3%	\$	9.40	\$	-	\$	1,139	\$	0.021
370	55,500	51.4%	\$	9.40	\$	-	\$	1,142	\$	0.021
371	55,650	51.5%	\$	9.40	\$	-	\$	1,145	\$	0.021
372	55,800	51.7%	\$	9.40	\$	-	\$	1,148	\$	0.021
373	55,950	51.8%	\$	9.40	\$	-	\$	1,151	\$	0.021
374	56,100	51.9%	\$	9.40	\$	-	\$	1,155	\$	0.021
375	56,250	52.1%	\$	9.40	\$	-	\$	1,158	\$	0.021
376	56,400	52.2%	\$	9.40	\$	-	\$	1,161	\$	0.021
377	56,550	52.4%	\$	9.40	\$	-	\$	1,164	\$	0.021
378	56,700	52.5%	\$	9.40	\$	-	\$	1,167	\$	0.021
379	56,850	52.6%	\$	9.40	\$	-	\$	1,170	\$	0.021
380	57,000	52.8%	\$	9.40	\$	-	\$	1,173	\$	0.021
381	57,150	52.9%	\$	9.40	\$	-	\$	1,176	\$	0.021
382	57,300	53.1%	\$	9.40	\$	-	\$	1,179	\$	0.021
383	57,450	53.2%	\$	9.40	\$	-	\$	1,182	\$	0.021
384	57,600	53.3%	\$	9.40	\$	-	\$	1,185	\$	0.021
385	57,750	53.5%	\$	9.40	\$	-	\$	1,189	\$	0.021
386	57,900	53.6%	\$	9.40	\$	-	\$	1,192	\$	0.021
387	58,050	53.8%	\$	9.40	\$	-	\$	1,192	\$	0.021
388	58,200	53.9%	\$	9.40	\$	-	\$	1,198	\$	0.021
389	58,200	54.0%	\$	9.40	\$	-	\$	1,198	\$	0.021
390	58,500	54.2%	\$	9.40	\$	-	\$	1,201	\$	0.021
390 391		54.2%	ې \$	9.40 9.40	ې \$	-			ې \$	0.021
	58,650	54.4%	\$	9.40 9.40	\$	-	\$ \$	1,207		
392	58,800					-		1,210	\$	0.021
393	58,950	54.6%	\$	9.40	\$	-	\$	1,213	\$	0.021
394	59,100	54.7%	\$	9.40	\$	-	\$	1,216	\$	0.021
395	59,250	54.9%	\$	9.40	\$	-	\$	1,219	\$	0.021
396	59,400	55.0%	\$	9.40	\$	-	\$	1,222	\$	0.021
397	59,550	55.1%	\$	9.40	\$	-	\$	1,226	\$	0.021
398	59,700	55.3%	\$	9.40	\$	-	\$	1,229	\$	0.021
399	59,850	55.4%	\$	9.40	\$	-	\$	1,232	\$	0.021
400	60,000	55.6%	\$	9.40	\$	-	\$	1,235	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of			Customer	Base Tariff nand Charge		ase Tariff ergy Charge	c	ost per
Use	kWh	Load Factor	harge Cost	Cost		Cost		kWh
		(%)	(\$)	(\$)		(\$)	(	\$/kWh)
(1)	(2)	(3)	(4)	(5)		(6)		(15)
401	60,150	55.7%	\$ 9.40	\$ -	\$	1,238	\$	0.021
402	60,300	55.8%	\$ 9.40	\$ -	\$	1,241	\$	0.021
403	60,450	56.0%	\$ 9.40	\$ -	\$	1,244	\$	0.021
404	60,600	56.1%	\$ 9.40	\$ -	\$	1,247	\$	0.021
405	60,750	56.3%	\$ 9.40	\$ -	\$	1,250	\$	0.021
406	60,900	56.4%	\$ 9.40	\$ -	\$	1,253	\$	0.021
407	61,050	56.5%	\$ 9.40	\$ -	\$	1,256	\$	0.021
408	61,200	56.7%	\$ 9.40	\$ -	\$	1,260	\$	0.021
409	61,350	56.8%	\$ 9.40	\$ -	\$	1,263	\$	0.021
410	61,500	56.9%	\$ 9.40	\$ -	\$	1,266	\$	0.021
411	61,650	57.1%	\$ 9.40	\$ -	\$	1,269	\$	0.021
412	61,800	57.2%	\$ 9.40	\$ -	\$	1,272	\$	0.021
413	61,950	57.4%	\$ 9.40	\$ -	\$	1,275	\$	0.021
414	62,100	57.5%	\$ 9.40	\$ -	\$	1,278	\$	0.021
415	62,250	57.6%	\$ 9.40	\$ -	\$	1,281	\$	0.021
416	62,400	57.8%	\$ 9.40	\$ -	\$	1,284	\$	0.021
417	62,550	57.9%	\$ 9.40	\$ -	\$	1,287	\$	0.021
418	62,700	58.1%	\$ 9.40	\$ -	\$	1,290	\$	0.021
419	62,850	58.2%	\$ 9.40	\$ -	\$	1,293	\$	0.021
420	63,000	58.3%	\$ 9.40	\$ -	\$	1,297	\$	0.021
421	63,150	58.5%	\$ 9.40	\$ -	\$	1,300	\$	0.021
422	63,300	58.6%	\$ 9.40	\$ -	\$	1,303	\$	0.021
423	63,450	58.8%	\$ 9.40	\$ -	\$	1,306	\$	0.021
424	63,600	58.9%	\$ 9.40	\$ -	\$	1,309	\$	0.021
425	63,750	59.0%	\$ 9.40	\$ -	\$	1,312	\$	0.021
426	63,900	59.2%	\$ 9.40	\$ -	\$	1,315	\$	0.021
427	64,050	59.3%	\$ 9.40	\$ -	\$	1,318	\$	0.021
428	64,200	59.4%	\$ 9.40	\$ -	\$	1,321	\$	0.021
429	64,350	59.6%	\$ 9.40	\$ -	\$	1,324	\$	0.021
430	64,500	59.7%	\$ 9.40	\$ -	\$	1,327	\$	0.021
431	64,650	59.9%	\$ 9.40	\$ -	\$	1,331	\$	0.021
432	64,800	60.0%	\$ 9.40	\$ -	\$	1,334	\$	0.021
433	64,950	60.1%	\$ 9.40	\$ -	\$	1,337	\$	0.021
434	65,100	60.3%	\$ 9.40	\$ -	\$	1,340	\$	0.021
435	65,250	60.4%	\$ 9.40	\$ -	\$	1,343	\$	0.021
436	65,400	60.6%	\$ 9.40	\$ -	\$	1,346	\$	0.021
437	65,550	60.7%	\$ 9.40	\$ -	\$ \$ \$ \$ \$	1,349	\$	0.021
438	65,700	60.8%	\$ 9.40	\$ -	\$	1,352	\$	0.021
439	65,850	61.0%	\$ 9.40	\$ -	\$	1,355	\$	0.021
440	66,000	61.1%	\$ 9.40	\$ -	\$	1,358	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of				Customer	Base Tariff nand Charge	ase Tariff ergy Charge	с	ost per
Use	kWh	Load Factor	С	harge Cost	Cost	Cost		kWh
		(%)		(\$)	(\$)	(\$)	(	\$/kWh)
(1)	(2)	(3)		(4)	(5)	(6)		(15)
441	66,150	61.3%	\$	9.40	\$ -	\$ 1,361	\$	0.021
442	66,300	61.4%	\$	9.40	\$ -	\$ 1,364	\$	0.021
443	66,450	61.5%	\$	9.40	\$ -	\$ 1,368	\$	0.021
444	66,600	61.7%	\$	9.40	\$ -	\$ 1,371	\$	0.021
445	66,750	61.8%	\$	9.40	\$ -	\$ 1,374	\$	0.021
446	66,900	61.9%	\$	9.40	\$ -	\$ 1,377	\$	0.021
447	67,050	62.1%	\$	9.40	\$ -	\$ 1,380	\$	0.021
448	67,200	62.2%	\$	9.40	\$ -	\$ 1,383	\$	0.021
449	67,350	62.4%	\$	9.40	\$ -	\$ 1,386	\$	0.021
450	67,500	62.5%	\$	9.40	\$ -	\$ 1,389	\$	0.021
451	67,650	62.6%	\$	9.40	\$ -	\$ 1,392	\$	0.021
452	67,800	62.8%	\$	9.40	\$ -	\$ 1,395	\$	0.021
453	67,950	62.9%	\$	9.40	\$ -	\$ 1,398	\$	0.021
454	68,100	63.1%	\$	9.40	\$ -	\$ 1,402	\$	0.021
455	68,250	63.2%	\$	9.40	\$ -	\$ 1,405	\$	0.021
456	68,400	63.3%	\$	9.40	\$ -	\$ 1,408	\$	0.021
457	68,550	63.5%	\$	9.40	\$ -	\$ 1,411	\$	0.021
458	68,700	63.6%	\$	9.40	\$ -	\$ 1,414	\$	0.021
459	68,850	63.8%	\$	9.40	\$ -	\$ 1,417	\$	0.021
460	69,000	63.9%	\$	9.40	\$ -	\$ 1,420	\$	0.021
461	69,150	64.0%	\$	9.40	\$ -	\$ 1,423	\$	0.021
462	69,300	64.2%	\$	9.40	\$ -	\$ 1,426	\$	0.021
463	69,450	64.3%	\$	9.40	\$ -	\$ 1,429	\$	0.021
464	69,600	64.4%	\$	9.40	\$ -	\$ 1,432	\$	0.021
465	69,750	64.6%	\$	9.40	\$ -	\$ 1,435	\$	0.021
466	69,900	64.7%	\$	9.40	\$ -	\$ 1,439	\$	0.021
467	70,050	64.9%	\$	9.40	\$ -	\$ 1,442	\$	0.021
468	70,200	65.0%	\$	9.40	\$ -	\$ 1,445	\$	0.021
469	70,350	65.1%	\$	9.40	\$ -	\$ 1,448	\$	0.021
470	70,500	65.3%	\$	9.40	\$ -	\$ 1,451	\$	0.021
471	70,650	65.4%	\$	9.40	\$ -	\$ 1,454	\$	0.021
472	70,800	65.6%	\$	9.40	\$ -	\$ 1,457	\$	0.021
473	70,950	65.7%	\$	9.40	\$ -	\$ 1,460	\$	0.021
474	71,100	65.8%	\$	9.40	\$ -	\$ 1,463	\$	0.021
475	71,250	66.0%	\$	9.40	\$ -	\$ 1,466	\$	0.021
476	71,400	66.1%	\$	9.40	\$ -	\$ 1,469	\$	0.021
477	71,550	66.3%	\$	9.40	\$ -	\$ 1,473	\$	0.021
478	71,700	66.4%	\$	9.40	\$ -	\$ 1,476	\$	0.021
479	71,850	66.5%	\$	9.40	\$ -	\$ 1,479	\$	0.021
480	72,000	66.7%	\$	9.40	\$ -	\$ 1,482	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

					B	ase Tariff	В	ase Tariff		
Hours of			Custom	er	Den	nand Charge	Ene	rgy Charge	C	ost per
Use	kWh	Load Factor	Charge C	ost		Cost		Cost		kWh
		(%)	(\$)			(\$)		(\$)	(	\$/kWh)
(1)	(2)	(3)	(4)			(5)		(6)		(15)
481	72,150	66.8%	\$	9.40	\$	-	\$	1,485	\$	0.021
482	72,300	66.9%	\$	9.40	\$	-	\$	1,488	\$	0.021
483	72,450	67.1%	\$	9.40	\$	-	\$	1,491	\$	0.021
484	72,600	67.2%	\$	9.40	\$	-	\$	1,494	\$	0.021
485	72,750	67.4%	\$	9.40	\$	-	\$	1,497	\$	0.021
486	72,900	67.5%	\$	9.40	\$	-	\$	1,500	\$	0.021
487	73,050	67.6%	\$	9.40	\$	-	\$	1,503	\$	0.021
488	73,200	67.8%	\$	9.40	\$	-	\$	1,506	\$	0.021
489	73,350	67.9%	\$	9.40	\$	-	\$	1,510	\$	0.021
490	73,500	68.1%	\$	9.40	\$	-	\$	1,513	\$	0.021
491	73,650	68.2%	\$	9.40	\$	-	\$	1,516	\$	0.021
492	73,800	68.3%	\$	9.40	\$	_	\$	1,519	\$	0.021
493	73,950	68.5%	\$	9.40	\$	_	\$	1,522	\$	0.021
494	74,100	68.6%	\$	9.40	\$	-	\$	1,525	\$	0.021
495	74,250	68.8%	\$	9.40	\$	_	\$	1,528	\$	0.021
496	74,230	68.9%	\$	9.40 9.40	\$	-	\$	1,528	\$	0.021
490 497	74,400	69.0%	\$ \$	9.40 9.40	\$ \$	-	\$	1,531	ې \$	0.021
497	74,330 74,700	69.2%	\$ \$	9.40 9.40	\$ \$	-		1,534	ې \$	0.021
	74,700 74,850	69.3%	\$ \$	9.40 9.40	ې \$	-	\$ \$		ې \$	0.021
499			\$ \$	9.40 9.40	ې \$		ې \$	1,540	ې \$	
500	75,000	69.4%				-		1,544		0.021
501	75,150	69.6%	\$	9.40	\$	-	\$	1,547	\$	0.021
502	75,300	69.7%	\$	9.40	\$	-	\$	1,550	\$	0.021
503	75,450	69.9%	\$	9.40	\$	-	\$	1,553	\$	0.021
504	75,600	70.0%	\$	9.40	\$	-	\$	1,556	\$	0.021
505	75,750	70.1%	\$	9.40	\$	-	\$	1,559	\$	0.021
506	75,900	70.3%	\$	9.40	\$	-	\$	1,562	\$	0.021
507	76,050	70.4%	\$	9.40	\$	-	\$	1,565	\$	0.021
508	76,200	70.6%	\$	9.40	\$	-	\$	1,568	\$	0.021
509	76,350	70.7%	\$	9.40	\$	-	\$	1,571	\$	0.021
510	76,500	70.8%	\$	9.40	\$	-	\$	1,574	\$	0.021
511	76,650	71.0%	\$	9.40	\$	-	\$	1,577	\$	0.021
512	76,800	71.1%	\$	9.40	\$	-	\$	1,581	\$	0.021
513	76,950	71.3%	\$	9.40	\$	-	\$	1,584	\$	0.021
514	77,100	71.4%	\$	9.40	\$	-	\$ \$ \$ \$ \$ \$	1,587	\$	0.021
515	77,250	71.5%	\$	9.40	\$	-	\$	1,590	\$	0.021
516	77,400	71.7%	\$	9.40	\$	-	\$	1,593	\$	0.021
517	77,550	71.8%	\$	9.40	\$	-	\$	1,596	\$	0.021
518	77,700	71.9%	\$	9.40	\$	-	\$	1,599	\$	0.021
519	77,850	72.1%	\$	9.40	\$	-	\$	1,602	\$	0.021
520	78,000	72.2%	\$	9.40	\$		\$	1,605	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of				Customer		Base Tariff nand Charge		ase Tariff ergy Charge	с	ost per
Use	kWh	Load Factor	С	harge Cost		Cost		Cost		kWh
		(%)		(\$)		(\$)		(\$)	(	\$/kWh)
(1)	(2)	(3)		(4)		(5)		(6)		(15)
521	78,150	72.4%	\$	9.40	\$	-	\$	1,608	\$	0.021
522	78,300	72.5%	\$	9.40	\$	-	\$	1,611	\$	0.021
523	78,450	72.6%	\$	9.40	\$	-	\$	1,615	\$	0.021
524	78,600	72.8%	\$	9.40	\$	-	\$	1,618	\$	0.021
525	78,750	72.9%	\$	9.40	\$	-	\$	1,621	\$	0.021
526	78,900	73.1%	\$	9.40	\$	-	\$	1,624	\$	0.021
527	79,050	73.2%	\$	9.40	\$	-	\$	1,627	\$	0.021
528	79,200	73.3%	\$	9.40	\$	-	\$	1,630	\$	0.021
529	79,350	73.5%	\$	9.40	\$	-	\$	1,633	\$	0.021
530	79,500	73.6%	\$	9.40	\$	-	\$	1,636	\$	0.021
531	79,650	73.8%	\$	9.40	\$	-	\$	1,639	\$	0.021
532	79,800	73.9%	\$	9.40	\$	-	\$	1,642	\$	0.021
533	79,950	74.0%	\$	9.40	\$	-	\$	1,645	\$	0.021
534	80,100	74.2%	\$	9.40	\$	-	\$	1,648	\$	0.021
535	80,250	74.3%	\$	9.40	\$	-	\$	1,652	\$	0.021
536	80,400	74.4%	\$	9.40	\$	-	\$	1,655	\$	0.021
537	80,550	74.6%	\$	9.40	\$	-	\$	1,658	\$	0.021
538	80,700	74.7%	\$	9.40	\$	-	\$	1,661	\$	0.021
539	80,850	74.9%	\$	9.40	\$	-	\$	1,664	\$	0.021
540	81,000	75.0%	\$	9.40	\$	-	\$	1,667	\$	0.021
541	81,150	75.1%	\$	9.40	\$	-	\$	1,670	\$	0.021
542	81,300	75.3%	\$	9.40	\$	-	\$	1,673	\$	0.021
543	81,450	75.4%	\$	9.40	\$	-	\$	1,676	\$	0.021
544	81,600	75.6%	\$	9.40	\$	-	\$	1,679	\$	0.021
545	81,750	75.7%	\$	9.40	\$	-	\$	1,682	\$	0.021
546	81,900	75.8%	\$	9.40	\$	-	\$	1,686	\$	0.021
547	82,050	76.0%	\$	9.40	\$	-	\$	1,689	\$	0.021
548	82,200	76.1%	\$	9.40	\$	-	\$	1,692	\$	0.021
549	82,350	76.3%	\$	9.40	\$	-	\$	1,695	\$	0.021
550	82,500	76.4%	\$	9.40	\$	-	\$	1,698	\$	0.021
551	82,650	76.5%	\$	9.40	\$	-	\$	1,701	\$	0.021
552	82,800	76.7%	\$	9.40	\$	-	\$	1,704	\$	0.021
553	82,950	76.8%	\$	9.40	\$	-	Ś	1,707	\$	0.021
554	83,100	76.9%	\$	9.40	\$	-	\$	1,710	\$	0.021
555	83,250	77.1%	\$	9.40	\$	-	\$	1,713	\$	0.021
556	83,400	77.2%	\$	9.40	\$	-	\$	1,716	\$	0.021
557	83,550	77.4%	\$	9.40	\$	-	\$	1,719	\$	0.021
558	83,700	77.5%	\$	9.40	\$	-	\$	1,723	\$	0.021
559	83,850	77.6%	\$	9.40	\$	_	\$	1,725	\$	0.021
560	83,830 84,000	77.8%	\$	9.40	\$	-	\$ \$	1,720	\$	0.021
500	04,000	11.070	ڔ	5.40	ب	-	ڔ	1,729	ې	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of				Customer		Base Tariff nand Charge		ase Tariff ergy Charge	с	ost per
Use	kWh	Load Factor	С	harge Cost		Cost		Cost		kWh
		(%)		(\$)		(\$)		(\$)	(	\$/kWh)
(1)	(2)	(3)	(4)			(5)		(6)		(15)
561	84,150	77.9%	\$	9.40	\$	-	\$	1,732	\$	0.021
562	84,300	78.1%	\$	9.40	\$	-	\$	1,735	\$	0.021
563	84,450	78.2%	\$	9.40	\$	-	\$	1,738	\$	0.021
564	84,600	78.3%	\$	9.40	\$	-	\$	1,741	\$	0.021
565	84,750	78.5%	\$	9.40	\$	-	\$	1,744	\$	0.021
566	84,900	78.6%	\$	9.40	\$	-	\$	1,747	\$	0.021
567	85,050	78.8%	\$	9.40	\$	-	\$	1,750	\$	0.021
568	85,200	78.9%	\$	9.40	\$	-	\$	1,753	\$	0.021
569	85,350	79.0%	\$	9.40	\$	-	\$	1,757	\$	0.021
570	85,500	79.2%	\$	9.40	\$	-	\$	1,760	\$	0.021
571	85,650	79.3%	\$	9.40	\$	-	\$	1,763	\$	0.021
572	85,800	79.4%	\$	9.40	\$	-	\$	1,766	\$	0.021
573	85,950	79.6%	\$	9.40	\$	-	\$	1,769	\$	0.021
574	86,100	79.7%	\$	9.40	\$	-	\$	1,772	\$	0.021
575	86,250	79.9%	\$	9.40	\$	-	\$	1,775	\$	0.021
576	86,400	80.0%	\$	9.40	\$	-	\$	1,778	\$	0.021
577	86,550	80.1%	\$	9.40	\$	-	\$	1,781	\$	0.021
578	86,700	80.3%	\$	9.40	\$	-	\$	1,784	\$	0.021
579	86,850	80.4%	\$	9.40	\$	-	\$	1,787	\$	0.021
580	87,000	80.6%	\$	9.40	\$	-	\$	1,790	\$	0.021
581	87,150	80.7%	\$	9.40	\$	-	\$	1,794	\$	0.021
582	87,300	80.8%	\$	9.40	\$	-	\$	1,797	\$	0.021
583	87,450	81.0%	\$	9.40	\$	-	\$	1,800	\$	0.021
584	87,600	81.1%	\$	9.40	\$	-	\$	1,803	\$	0.021
585	87,750	81.3%	\$	9.40	\$	-	\$	1,806	\$	0.021
586	87,900	81.4%	\$	9.40	\$	-	\$	1,809	\$	0.021
587	88,050	81.5%	\$	9.40	\$	-	\$	1,812	\$	0.021
588	88,200	81.7%	\$	9.40	\$	-	\$	1,815	\$	0.021
589	88,350	81.8%	\$	9.40	\$	-	\$	1,818	\$	0.021
590	88,500	81.9%	\$	9.40	\$	-	\$	1,821	\$	0.021
591	88,650	82.1%	\$	9.40	\$	-	\$	1,824	\$	0.021
592	88,800	82.2%	\$	9.40	\$	-	\$	1,828	\$	0.021
593	88,950	82.4%	\$	9.40	\$	-	\$	1,831	\$	0.021
594	89,100	82.5%	\$	9.40	\$	-	\$	1,834	\$	0.021
595	89,250	82.6%	\$	9.40	\$	-	\$	1,837	\$	0.021
596	89,400	82.8%	\$	9.40	\$	-	\$	1,840	\$	0.021
597	89,550	82.9%	\$	9.40	\$	-	\$	1,843	\$	0.021
598	89,700	83.1%	\$	9.40	\$	-	\$	1,846	\$	0.021
599	89,850	83.2%	\$	9.40	\$	-	\$	1,849	\$	0.021
600	90,000	83.3%	\$	9.40	\$	-	\$	1,852	\$	0.021
000	50,000	00.070	Ŷ	5.40	Ŷ		Ŷ	1,002	Ŷ	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)										
(2)	Customer Charge	\$	9.40	/month							
(3)	Base Tariff Demand Charge	\$	-	/kW							
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh							

Hours of			(	Customer		Base Tariff nand Charge		ase Tariff ergy Charge	С	ost per
Use	kWh	Load Factor	Cl	narge Cost	Cost		Cost		kWh	
		(%)		(\$)		(\$)	(\$)		(\$/kWh)	
(1)	(2)	(3)		(4)		(5)		(6)		(15)
601	90,150	83.5%	\$	9.40	\$	_	\$	1,855	\$	0.021
602	90,300	83.6%	\$	9.40	\$	-	\$	1,858	\$	0.021
603	90,450	83.8%	\$	9.40	\$	-	\$	1,861	\$	0.021
604	90,600	83.9%	\$	9.40	\$	-	\$	1,865	\$	0.021
605	90,750	84.0%	\$	9.40	\$	-	\$	1,868	\$	0.021
606	90,900	84.2%	\$	9.40	\$	-	\$	1,871	\$	0.021
607	91,050	84.3%	\$	9.40	\$	-	\$	1,874	\$	0.021
608	91,200	84.4%	\$	9.40	\$	-	\$	1,877	\$	0.021
609	91,350	84.6%	\$	9.40	\$	-	\$	1,880	\$	0.021
610	91,500	84.7%	\$	9.40	\$	-	\$	1,883	\$	0.021
611	91,650	84.9%	\$	9.40	\$	-	\$	1,886	\$	0.021
612	91,800	85.0%	\$	9.40	\$	-	\$	1,889	\$	0.021
613	91,950	85.1%	\$	9.40	\$	-	\$	1,892	\$	0.021
614	92,100	85.3%	\$	9.40	\$	-	\$	1,895	\$	0.021
615	92,250	85.4%	\$	9.40	\$	-	\$	1,899	\$	0.021
616	92,400	85.6%	\$	9.40	\$	-	\$	1,902	\$	0.021
617	92,550	85.7%	\$	9.40	\$	-	\$	1,905	\$	0.021
618	92,700	85.8%	\$	9.40	\$	-	\$	1,908	\$	0.021
619	92,850	86.0%	\$	9.40	\$	-	\$	1,911	\$	0.021
620	93,000	86.1%	\$	9.40	\$	-	\$	1,914	\$	0.021
621	93,150	86.3%	\$	9.40	\$	-	\$	1,917	\$	0.021
622	93,300	86.4%	\$	9.40	\$	-	\$	1,920	\$	0.021
623	93,450	86.5%	\$	9.40	\$	-	\$	1,923	\$	0.021
624	93,600	86.7%	\$	9.40	\$	-	\$	1,926	\$	0.021
625	93,750	86.8%	\$	9.40	\$	-	\$	1,929	\$	0.021
626	93,900	86.9%	\$	9.40	\$	-	\$	1,932	\$	0.021
627	94,050	87.1%	\$	9.40	\$	-	\$	1,936	\$	0.021
628	94,200	87.2%	\$	9.40	\$	-	\$	1,939	\$	0.021
629	94,350	87.4%	\$	9.40	\$	-	\$	1,942	\$	0.021
630	94,500	87.5%	\$	9.40	\$	-	\$	1,945	\$	0.021
631	94,650	87.6%	\$	9.40	\$	-	\$	1,948	\$	0.021
632	94,800	87.8%	\$	9.40	\$	-	\$	1,951	\$	0.021
633	94,950	87.9%	\$	9.40	\$	-	\$	1,954	\$	0.021
634	95,100	88.1%	\$	9.40	\$	-	Ş	1,957	\$	0.021
635	95,250	88.2%	\$	9.40	\$	-	Ş	1,960	\$	0.021
636	95,400	88.3%	\$	9.40	\$	-	\$ \$ \$ \$ \$	1,963	\$	0.021
637	95,550	88.5%	\$	9.40	\$	-	Ş	1,966	\$	0.021
638	95,700	88.6%	\$	9.40	\$	-	Ş	1,970	\$	0.021
639	95,850	88.8%	\$	9.40	\$	-	Ş	1,973	\$	0.021
640	96,000	88.9%	\$	9.40	\$	-	\$	1,976	\$	0.021

(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)								
(2)	Customer Charge	\$	9.40	/month					
(3)	Base Tariff Demand Charge	\$	-	/kW					
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh					

Cost per kWh (\$/kWh) (15) \$ 0.021
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(1) Customer Demand

	AEP Ohio Schedule GS-TOU (1st Revised Sheet 221-1)							
(2)	Customer Charge	\$	9.40	/month				
(3)	Base Tariff Demand Charge	\$	-	/kW				
(4)	Base Tariff Energy Charge	\$	0.0206	/kWh				

Hours of				Customer	Base Tariff nand Charge	Cost		Cost per kWh	
Use	kWh	Load Factor	C	harge Cost	Cost				
		(%)		(\$)	(\$)	(\$)		(\$/kWh)	
(1)	(2)	(3)		(4)	(5)		(6)		(15)
681	102,150	94.6%	\$	9.40	\$ _	\$	2,102	\$	0.021
682	102,150	94.7%	\$	9.40	\$ _	\$	2,102	\$	0.021
683	102,450	94.9%	\$	9.40	\$ _	\$	2,105	\$	0.021
684	102,600	95.0%	\$	9.40	\$ -	\$	2,112	\$	0.021
685	102,750	95.1%	\$	9.40	\$ -	\$	2,115	\$	0.021
686	102,900	95.3%	\$	9.40	\$ -	\$	2,118	\$	0.021
687	103,050	95.4%	\$	9.40	\$ -	\$	2,121	\$	0.021
688	103,200	95.6%	\$	9.40	\$ -	\$	2,124	\$	0.021
689	103,350	95.7%	\$	9.40	\$ -	\$	2,127	\$	0.021
690	103,500	95.8%	\$	9.40	\$ -	\$	2,130	\$	0.021
691	103,650	96.0%	\$	9.40	\$ -	\$	2,133	\$	0.021
692	103,800	96.1%	\$	9.40	\$ -	\$	2,136	\$	0.021
693	103,950	96.3%	\$	9.40	\$ -	\$	2,139	\$	0.021
694	104,100	96.4%	\$	9.40	\$ -	\$	2,142	\$	0.021
695	104,250	96.5%	\$	9.40	\$ -	\$	2,145	\$	0.021
696	104,400	96.7%	\$	9.40	\$ -	\$	2,149	\$	0.021
697	104,550	96.8%	\$	9.40	\$ -	\$	2,152	\$	0.021
698	104,700	96.9%	\$	9.40	\$ -	\$	2,155	\$	0.021
699	104,850	97.1%	\$	9.40	\$ -	\$	2,158	\$	0.021
700	105,000	97.2%	\$	9.40	\$ -	\$	2,161	\$	0.021
701	105,150	97.4%	\$	9.40	\$ -	\$	2,164	\$	0.021
702	105,300	97.5%	\$	9.40	\$ -	\$	2,167	\$	0.021
703	105,450	97.6%	\$	9.40	\$ -	\$	2,170	\$	0.021
704	105,600	97.8%	\$	9.40	\$ -	\$	2,173	\$	0.021
705	105,750	97.9%	\$	9.40	\$ -	\$	2,176	\$	0.021
706	105,900	98.1%	\$	9.40	\$ -	\$	2,179	\$	0.021
707	106,050	98.2%	\$	9.40	\$ -	\$	2,183	\$	0.021
708	106,200	98.3%	\$	9.40	\$ -	\$	2,186	\$	0.021
709	106,350	98.5%	\$	9.40	\$ -	\$	2,189	\$	0.021
710	106,500	98.6%	\$	9.40	\$ -	\$	2,192	\$	0.021
711	106,650	98.8%	\$	9.40	\$ -	\$	2,195	\$	0.021
712	106,800	98.9%	\$	9.40	\$ -	\$	2,198	\$	0.021
713	106,950	99.0%	\$	9.40	\$ -	\$	2,201	\$	0.021
714	107,100	99.2%	\$	9.40	\$ -	\$	2,204	\$	0.021
715	107,250	99.3%	\$	9.40	\$ -	\$	2,207	\$	0.021
716	107,400	99.4%	\$	9.40	\$ -	\$	2,210	\$	0.021
717	107,550	99.6%	\$	9.40	\$ -	\$	2,213	\$	0.021
718	107,700	99.7%	\$	9.40	\$ -	\$	2,216	\$	0.021
719	107,850	99.9%	\$	9.40	\$ -	\$	2,220	\$	0.021
720	108,000	100.0%	\$	9.40	\$ -	\$	2,223	\$	0.021

#### **CERTIFICATE OF SERVICE**

I hereby certify that a true copy of the foregoing Direct Testimony and Exhibits of Steve W. Chriss on behalf of Walmart Inc. was served by electronic mail, upon the following Parties of Record on this 9<sup>th</sup> day of June, 2023.

stnourse@aep.com mjschuler@aep.com egallon@porterwright.com Christopher.Miller@icemiller.com matthew@msmckenzieltd.com werner.margard@ohioAGO.gov Ashley.wnek@ohioAGO.gov Ambrosia.wilson@ohioAGO.gov William.michael@occ.ohio.gov Angela.obrien@occ.ohio.gov Connor.semple@occ.ohio.gov mkurtz@BKLlawfirm.com kboehm@BKLlawfirm.com jkylercohn@BKLlawfirm.com dromig@armadapower.com bojko@carpenterlipps.com wygonski@carpenterlipps.com trent@hubaydougherty.com rdove@keglerbrown.com nbobb@keglerbrown.com jlaskey@norris-law.com brian.gibbs@nationwideenergypartners.com dparram@brickergraydon.com rmains@brickergraydon.com dborchers@brickergraydon.com kherrnstein@brickergraydon.com

<u>/s/ Carrie H. Grundmann</u> Carrie H. Grundmann (Ohio Bar ID 96138)

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

Summary: Testimony Direct Testimony and Exhibits of Steve W. Chriss on behalf of Walmart Inc. electronically filed by Carrie H. Grundmann on behalf of Walmart Inc..