EXHIBIT NO.	
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BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

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

SUPPLEMENTAL TESTIMONY OF LISA O. KELSO ON BEHALF OF OHIO POWER COMPANY

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BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO SUPPLEMENTAL TESTIMONY OF LISA O. KELSO ON BEHALF OF OHIO POWER COMPANY

PERSONAL DATA

1

2	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
3	A.	My name is Lisa O. Kelso. My business address is 700 Morrison Road, Gahanna, Ohio
4		43230.
5	Q.	BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?
6	A.	I am employed by Ohio Power Company ("AEP Ohio" or the "Company") as Vice
7		President—Regulatory & Finance.
0		WOULD VOLUME AND DESCRIPTION OF THE AND

8 Q. WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND

9 **PROFESSIONAL BACKGROUND?**

10 I graduated magna cum laude with a Bachelor of Business Administration from Ohio A. 11 University in 2003. I began work in 2003 with the Ohio Legislative Service Commission 12 Fellowship Program. After completing the Fellowship Program, I worked as an aide in 13 the Ohio Senate from January 2005 to August 2005. I left the Ohio Senate in August 14 2005 to pursue a Master of Accounting from The Ohio State University. I graduated in 15 June 2006 and joined the PwC (formerly PricewaterhouseCoopers) accounting firm, 16 where I worked until 2008. I joined American Electric Power Service Corporation 17 ("AEPSC") in 2008 as a Senior Auditor. In 2010, I was promoted to Audit Specialist and 18 in 2012 I joined AEP Transmission as a Business Operations Support Analyst. In 2013, I 19 became a Senior Financial Analyst and progressed through various positions before being

1		promoted to Manager – Transmission Business Planning & Analysis in 2015. In 2016, I
2		became Manager of Transmission Asset Strategy and Policy. In 2018, I became Director
3		- Business Operations Support at AEP Ohio. In March 2021, I moved to the Director -
4		Regulatory Services position, and in August 2021, I was promoted to my current position
5		of Vice President - Regulatory & Finance. I am a Certified Public Accountant licensed in
6		Ohio.
7	Q.	WHAT ARE YOUR RESPONSIBILITIES AS VICE PRESIDENT –
8		REGULATORY & FINANCE?
9	A.	I am responsible for leading the regulatory and financial activities of AEP Ohio. I
10		supervise the Regulatory Services Department, which is responsible for rate and
11		regulatory matters. I also direct and oversee the Business Operations Support
12		Department which develops operating and capital expenditure forecasts for AEP Ohio as
13		well as the short-term and long-term financial plans and forecasts used by AEP Ohio
14		management to monitor and maintain the Company's financial health and condition.
15	Q.	HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN ANY REGULATORY
16		PROCEEDINGS?
17	A.	Yes, I have submitted written testimony before this Commission in AEP Ohio's 2018 and
18		2019 Significantly Excessive Earnings Test ("SEET") filings (Case Nos. 19-1098-EL-
19		UNC and 20-1006-EL-UNC) and in the 2020 base rate case (Case No. 20-585-EL-AIR).
20	Q.	ARE YOU SPONSORING ANY EXHIBITS WITH YOUR TESTIMONY?
21	A.	Yes, I am sponsoring the following supplemental exhibits as accompanying documents:
22 23 24		 Exhibit LOK S-1 – Typical Bill Comparison by rate zone Exhibit LOK S-2 – Proposed residential and non-residential rates by year Exhibit LOK S-3 – Revenue requirement and rate calculation spreadsheets

1 2		 Exhibit LOK S-4 – Redlined copies of the Standard and Open Access gridSMART® Rider Tariff 					
3	<u>PUR</u>	POSE OF TESTIMONY					
4	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?					
5	A.	I am providing cost impact updates to the revenue requirement, rate calculations, and					
6		typical bill impacts associated with the Company's proposed gridSMART Phase 3					
7		implementation. Additionally, I provide supplemental information related to two of the					
8		technologies originally proposed by the Company in its filing.					
9	Q.	PLEASE EXPLAIN WHY YOU ARE ADOPTING COMPANY WITNESS					
10		SEGER-LAWSON'S DIRECT TESTIMONY IN THIS PROCEEDING.					
11	A.	I am adopting Company witness Seger-Lawson's direct testimony in this proceeding					
12		because she is no longer employed with the Company. Specifically, I am agreeing to					
13		adopt the following sections from her testimony, which have not changed since the					
14		Company filed its Application in July of 2019:					
15		• Background on the existing gridSMART Rider (Seger-Lawson Direct, pg 3);					
16		• Recovery of gridSMART Phase 3 costs through the existing gridSMART Rider					
17		(Seger-Lawson Direct, pg 3);					
18		• Reflection of gridSMART charges in customers' bills (Seger-Lawson Direct, pg 4)					
19		• State Policy (Seger-Lawson Direct, pgs 4-5);					
20		Additional technologies included in gridSMART Phase 3 not included in gridSMART					
21		Phase 1 or 2 (Seger-Lawson Direct, pg 6);					
22		• No assumed level of revenue credits for fiber services included in the analysis for this					
23		case (Seger-Lawson Direct, pg 7); and					

l		• Timeline for implementation of gridSMART Phase 3 costs (Seger-Lawson Direct, pg
2		7-8).
3	Q.	CAN YOU PLEASE SUMMARIZE THE ITEMS FROM COMPANY WITNESS
4		SEGER-LAWSON'S DIRECT TESTIMONY THAT YOU ARE UPDATING?
5	A.	Yes. I'm providing updates to the following items from Company witness Seger-
6		Lawson's direct testimony in this proceeding:
7		• Summary of AEP Ohio's requested rate change associated with the Company's
8		proposed gridSMART Phase 3 implementation based on supplemented costs;
9		• Treatment of uncollectible expense in the gridSMART Rider ¹ ;
10		• The revenue requirement associated with the Company's gridSMART Phase 3
11		proposal ² ;
12		• Impacts the Company's tariffs and the Company's proposed gridSMART Phase 3
13		implementation will have on customers' total bills; and
14		• Staff's recommendation for cost recovery of DA-Lite and Intelligent Line Sensors
15		through the Distribution Investment Rider (DIR).
16	REQ	DUESTED RATE CHANGES
17	Q.	HAVE THE ESTIMATED COSTS FOR THE PROPOSED GRIDSMART PHASE 3
18		IMPLEMENTATION CHANGED?
19	A.	Yes, as further described by Company witness Osterholt, the programs' costs have
20		increased since the Company's original filing date. One of the largest cost differences is
21		labor cost. With the labor shortage in the electrical industry, the Company expects this to

¹ Updates assume approval of the Stipulation in the Company's current base rate case (Case No. 20-585-EL-AIR). ² *Id*.

1		drive up anticipated project labor expenses. The Company has also adjusted the
2		anticipated costs to reflect cost of living increases as well as a larger allocation of labor to
3		be completed by contractors and consultants. Additionally, material costs have increased
4		and this issue has been compounded by shortages created by supply chain issues brought
5		about by the COVID-19 pandemic.
6	Q.	HAVE YOU PREPARED AN UPDATED SUMMARY OF AEP OHIO'S
7		REQUESTED RATE CHANGE ASSOCIATED WITH THE PROPOSEI
8		GRIDSMART PHASE 3 IMPLEMENTATION?
9	A.	Yes. Exhibit LOK S-1 (updates Exhibit DRSL-1) summarizes the rate impact of AEP
10		Ohio's gridSMART Phase 3 proposal on typical customer bills based on rates effective
11		August 27, 2021 (Cycle 1 September 2021). Exhibit LOK S-2 (updates Exhibit DRSL-2)
12		summarizes the proposed residential and non-residential rate by year $(2022 - 2037)$,
13		based on the updated forecasted capital and O&M associated with the gridSMART Phase
14		3 projects, and contains the rate calculations.
15	Q.	WILL THE RIDER REFLECT UNCOLLECTIBLE EXPENSE IN LIGHT OF
16		THE PENDING STIPULATION IN THE COMPANY'S CURRENT BASE RATE
17		CASE?
18	A.	No. Under the assumption that the pending stipulation in the Company's base rate case
19		20-585-EL-RDR is approved, the Company will not gross-up the rider costs for
20		uncollectible expense.

1	Q.	HOW DID YOU CALCULATE THE REVENUE REQUIREMENT FOR THIS
2		FILING?
3	A.	I was provided updated year-by-year Capital and O&M calculations for each
4		gridSMART Phase 3 technology or project provided by the Company's Grid
5		Modernization organization. I developed depreciation schedules based on useful life and
6		depreciation rates established by plant accounting. The tax gross up rate and the carrying
7		charges used for cost of capital and property tax assume approval of the stipulation in the
8		Company's current base rate case (Case No. 20-585-EL-RDR). Exhibit LOK S-3
9		(updates Exhibit DRSL-3) contains the revenue requirement and rate calculation
10		spreadsheets I used to develop the proposed rates contained in Exhibit LOK S-2.
11	Q.	HOW WAS THE REVENUE REQUIREMENT ALLOCATED BETWEEN THE
12		RESIDENTIAL AND NON-RESIDENTIAL CUSTOMER CLASSES?
13	A.	As noted in Company witness Seger-Lawson's direct testimony in this proceeding, the
14		Company continued the original 45/55 percentage allocation in this filing. But the
15		Company just conducted a base rate case so it would also be reasonable for the
16		Commission to consider updating the customer class allocation as part of its final
17		decision in this proceeding.
18	TAR	IFF AND CUSTOMER BILL IMPACTS
19	Q.	WILL THE UPDATED COSTS ALSO REQUIRE A CHANGE TO THE
20		COMPANY'S TARIFFS?
21	A.	Yes. Upon approval of the proposed gridSMART Phase 3 proposal, AEP Ohio will file
22		compliance tariffs to be effective for bills rendered beginning with the first billing cycle

1		of the month subsequent to the approval. A redline of the Standard and Open Access
2		gridSMART Phase Rider is provided in Exhibit LOK S-4 (updates Exhibit DRSL-4).
3	Q.	WHAT IMPACT WILL AEP OHIO'S PROPOSED GRIDSMART PHASE 3
4		IMPLEMENTATION HAVE ON CUSTOMERS' TOTAL BILLS?
5	A.	Upon implementation, residential customers in both the Columbus Southern Power and
6		Ohio Power rate zones using 1,000 kWh of electricity per month will see an estimated
7		monthly rate increase of \$0.43. The following table illustrates the updated rate changes
8		for select residential, commercial, and industrial customers. The current column reflects
9		rates as of August 27, 2021. The proposed column reflects current rates adjusted to
10		reflect estimated rates at the start of gridSMART Phase 3 project.
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Columbus Southern Power Rate Zone

SSO Monthly B				onthly Bills			
	Current		Proposed		Change	Tariff	
Residential							
1,000 kWh	\$	132.40	\$	132.83	0.3%	RR	
2,000 kWh	\$	249.30	\$	249.73	0.2%	RR	
Small Business							
500 KW demand and 100,000 kWh	\$	11,352.09	\$	11,355.61	0.0%	GS-2 Secondary	
1,000 KW demand and 300,000 kWh	\$	27,732.51	\$	27,736.03	0.0%	GS-3 Primary	
Industrail Business							
20,000 KW demand and 10,000,000 kWh	\$	590,884.86	\$	590,888.38	0.0%	GS-4	
50,000 KW demand and 25,000,000 kWh		1,470,700.86	\$ 1,470,704.38		0.0%	GS-4	
Ohio Power Rate Zone							
		SSC					
		Current	Proposed Ch		Change	Tariff	
Residential							
1,000 kWh	\$	132.38	\$	132.81	0.3%	RS	
2,000 kWh	\$	249.26	\$	249.69	0.2%	RS	
Small Business							
500 KW demand and 100,000 kWh	\$	12,146.26	\$	12,149.78	0.0%	GS-2 Secondary	
1,000 KW demand and 300,000 kWh	\$	28,038.30	\$	28,041.82	0.0%	GS-2 Primary	
Industrail Business							

\$1,393,598.35 \$1,393,601.87

0.0%

0.0%

GS-4 Subtransmission

GS-4 Transmission

2

3

20,000 KW demand and 10,000,000 kWh \$ 559,532.35 \$ 559,535.87

50,000 KW demand and 25,000,000 kWh

In addition, Exhibit LOK S-1 shows the rate changes for SSO customers at various

^{4 &}quot;typical" monthly usage levels for each major tariff schedule.

2	Q.	WHAT WAS STAFF'S RECOMMENDATION RELATED TO DA-LITE AND
3		INTELLIGENT LINE SENSORS IN THIS PROCEEDING?
4	A.	Staff stated that the distribution plant accounts associated with DA-Lite and intelligent line
5		sensors are already eligible for recovery through the DIR. ³
6	Q.	ARE ALL OF THE COSTS ASSOCIATED WITH D-SCADA AND INTELLIGENT
7		LINE SENSORS ELIGIBLE TO BE RECOVERED THROUGH THE DIR?
8	A.	No. There are information technology and telecommunications investments that are
9		associated with these two technologies that are not considered distribution plant and not
10		eligible for recovery through the DIR. Furthermore, as discussed by Company witness
11		Osterholt in his supplemental testimony in this proceeding, these two technologies are
12		considered smart grid technologies and should therefore be part of gridSMART Phase 3
13		and have their costs recovered through the gridSMART Rider.
14	Q.	DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?
15	A.	Yes.
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17		
18		
19		
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21		
22		

DA-LITE AND INTELLIGENT LINE SENSORS

1

³ Staff's Review and Recommendations regarding the application filed in Case No. 19-1475-EL-RDR, page 5, September 9, 2020.

Ohio Power Company Typical Bill Comparison Cycle 1 September 2021 vs. gridSMART Phase 3 Columbus Southern Power Rate Zone

Tariff kWh KW Current Proposed Difference Difference Residential RR1 Annual 100 \$27.16 \$0.43 \$27.59 1.6% 250 \$44.68 \$45.11 \$0.43 1.0% 500 \$73.94 \$74.37 \$0.43 0.6% 750 \$103.17 \$103.60 0.4% RR Annual \$0.43 1.500 \$190.85 \$191.28 \$0.43 0.2% 2,000 \$249.30 \$249.73 \$0.43 0.2% 10.7% GS-1 \$3.52 100 32.82 36.34 74.61 \$3.52 1.000 3 118 92 122 44 \$3.52 3.0% 750 6 94.99 98.51 \$3.52 3.7% 2,000 6 214.55 218.07 \$3.52 1.6% GS-2 Secondary 1,500 12 \$256.63 \$260.15 \$3.52 1.4% 4,000 6,000 12 30 \$379.72 \$710.45 \$383.24 \$713.97 \$3.52 \$3.52 0.9% 0.5% 10,000 30 \$907.03 \$910.55 \$3.52 0.4% 40 40 50 50 10,000 \$1.036.17 \$1,039.69 \$3.52 0.3% 14,000 \$1,232.75 \$1,236.27 \$3.52 0.3% 12,500 18,000 \$1.288.19 \$1,291,71 \$3.52 0.3% \$1,556.82 \$1,560.34 \$3.52 0.2% 75 150 15,000 \$1,733.90 \$1,737.42 \$3.52 0.2% 30.000 \$3,431,22 \$3,434,74 \$3.52 0.1% 60,000 300 \$6,825.88 \$6,829.40 100,000 500 \$11.352.09 \$11.355.61 \$3.52 0.0% GS-2 Primary 100,000 1,000 \$17,159.85 \$17,163.37 \$3.52 0.0% GS-3 Secondary \$2,462.68 30.000 75 \$2,466,20 \$3.52 0.1% 50,000 75 \$3,434.40 \$3,437.92 \$3.52 0.1% 30,000 36,000 100 100 \$2,785.53 \$2,789.05 \$3.52 0.1% \$3,077.05 \$3,080.57 \$3.52 0.1% 60,000 100,000 150 150 \$4,888.78 \$6,832.19 \$4,892.30 \$6,835.71 \$3.52 0.1% \$3.52 0.1% 90,000 300 \$8,283.43 \$8,286.95 \$3.52 0.0% 120.000 300 \$9 740 99 \$9 744 51 \$3.52 0.0% 150,000 300 \$11,198.56 \$11,202.08 0.0% 200,000 150,000 300 \$13.627.82 \$13,631,34 \$3.52 0.0% 500 \$13,781.36 \$13,784.88 \$3.52 0.0% 180,000 500 500 \$15,238.91 \$15,242.43 \$3.52 0.0% 200.000 \$16.210.62 \$16.214.14 \$3.52 0.0% 325,000 \$22,283.78 \$22,287.30 0.0% GS-3 Primary \$27,732.51 \$27,736.03 300.000 1.000 \$3.52 0.0% 360,000 1,000 \$30,904.31 \$30,907.83 \$3.52 0.0% 400,000 1,000 \$33,018.84 \$33,022,36 \$3.52 0.0% 650,000 1,000 \$46,234.67 \$46,238.19 \$3.52 0.0% GS-4 1,500,000 5,000 \$105,222.46 \$105,225.98 \$3.52 0.0% \$150,976,86 2 500 000 5 000 \$150,980,38 \$3.52 0.0% 3,250,000 5,000 \$185,292.66 \$185,296.18 \$3.52 0.0% 3,000,000 5,000,000 \$206,104.06 \$297,612.86 \$206,107.58 \$297,616.38 10,000 \$3.52 0.0% \$3.52 0.0% 10,000 6,500,000 6,000,000 10,000 \$366,244.46 \$366,247.98 \$3.52 0.0% 20.000 \$407.867.26 \$407.870.78 \$3.52 0.0% 10,000,000 20,000 \$590,884.86 \$590,888.38 \$3.52 0.0% 13,000,000 15,000,000 20,000 \$728.148.06 \$728,151.58 \$3.52 0.0% \$1,013,156.86 \$1.013.160.38 \$3.52 0.0% 50.000 25,000,000 32,500,000 50,000 \$1,470,700.86 \$1,470,704.38 \$3.52 0.0% 50.000 \$1.813.858.86 \$1.813.862.38 0.0% \$3.52

^{*} Typical bills assume 100% Power Factor

	Res	idential	Non-F	Residential		
As of September 2021	\$	1.30	\$	11.88		
	Res	idential	Non-Residential			
Year 1	\$	0.43	\$	3.52		
	Res	idential	Non-F	Residentia		
Year 1	\$	1.73	6	15.40		

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

<u>Tariff</u>	<u>kWh</u>	<u>KW</u>	Current	Proposed	<u>Difference</u>	<u>Difference</u>
Residential	100		\$27.16	\$27.59	\$0.43	1.6%
	250		\$44.68	\$45.11	\$0.43	1.0%
	500		\$73.93	\$74.36	\$0.43	0.6%
	750		\$103.15	\$103.58	\$0.43	0.4%
	1,000		\$132.38	\$132.81	\$0.43	0.3%
	1,500		\$190.82	\$191.25	\$0.43	0.2%
	2,000		\$249.26	\$249.69	\$0.43	0.2%
GS-1	100	3	\$41.93	\$45.45	\$3.52	8.39%
Secondary	500	3	\$75.05 \$116.42	\$78.57	\$3.52	4.69%
	1,000 750	6	\$95.73	\$119.94 \$99.25	\$3.52 \$3.52	3.0% 3.7%
	2,000	6	\$199.15	\$202.67	\$3.52	1.8%
GS-2	1,500	12	\$290.49	\$294.01	\$3.52	1.2%
GG-2	4,000	12	\$430.43	\$433.95	\$3.52	0.8%
	6,000	30	\$778.21	\$781.73	\$3.52	0.5%
	10,000	30	\$1,001.75	\$1,005.27	\$3.52	0.4%
	10,000	40	\$1,132.86	\$1,136.38	\$3.52	0.3%
	14,000	40	\$1,356.40	\$1,359.92	\$3.52	0.3%
	12,500	50	\$1,403.70	\$1,407.22	\$3.52	0.3%
	18,000	50 75	\$1,709.40	\$1,712.92	\$3.52	0.2%
	15,000 30,000	75 100	\$1,871.19 \$3,028.87	\$1,874.71 \$3,032.39	\$3.52 \$3.52	0.2% 0.1%
	36,000	100	\$3,360.83	\$3,364.35	\$3.52	0.1%
	30,000	150	\$3,684.45	\$3,687.97	\$3.52	0.1%
	60,000	300	\$7,310.95	\$7,314.47	\$3.52	0.1%
	90,000	300	\$8,970.71	\$8,974.23	\$3.52	0.0%
	100,000	500	\$12,146.26	\$12,149.78	\$3.52	0.0%
	150,000	500	\$14,912.54	\$14,916.06	\$3.52	0.0%
	180,000	500	\$16,572.28	\$16,575.80	\$3.52	0.0%
GS-3	18,000	50	\$1,709.40	\$1,712.92	\$3.52	0.2%
Secondary	30,000 50,000	75 75	\$2,701.08 \$3,807.60	\$2,704.60 \$3,811.12	\$3.52 \$3.52	0.1% 0.1%
	36,000	100	\$3,360.83	\$3,364.35	\$3.52	0.1%
	30,000	150	\$3,684.45	\$3,687.97	\$3.52	0.1%
	60,000	150	\$5,344.21	\$5,347.73	\$3.52	0.1%
	100,000	150	\$7,557.22	\$7,560.74	\$3.52	0.1%
	120,000	300	\$10,630.47	\$10,633.99	\$3.52	0.0%
	150,000	300	\$12,290.24	\$12,293.76	\$3.52	0.0%
	200,000	300	\$15,056.49	\$15,060.01	\$3.52	0.0%
	180,000 200,000	500 500	\$16,572.28 \$17,678.79	\$16,575.80 \$17,682.31	\$3.52 \$3.52	0.0% 0.0%
	325,000	500	\$24,594.45	\$24,597.97	\$3.52	0.0%
GS-2	200,000	1 000	¢22.029.07	£22.042.40	\$2.F2	0.0%
Primary	200,000 300,000	1,000 1,000	\$22,938.97 \$28,038.30	\$22,942.49 \$28,041.82	\$3.52 \$3.52	0.0%
GS-3	360,000	1,000	\$31,097.90	\$31,101.42	\$3.52	0.0%
Primary	400,000	1,000	\$33,137.63	\$33.141.15	\$3.52	0.0%
	650,000	1,000	\$45,885.96	\$45,889.48	\$3.52	0.0%
GS-2	4 500 000	5 000	000 704 05	000 700 47	40.50	0.00/
Subtransmission	1,500,000	5,000	\$99,794.95	\$99,798.47	\$3.52	0.0%
GS-3	2,500,000	5,000	\$142,499.35	\$142,502.87	\$3.52	0.0%
Subtransmission	3,250,000	5,000	\$174,527.65	\$174,531.17	\$3.52	0.0%
GS-4	3,000,000	10,000	\$196,101.55	\$196,105.07	\$3.52	0.0%
Subtransmission	5,000,000	10,000	\$281,510.35	\$281,513.87	\$3.52	0.0%
	6,500,000	10,000	\$345,566.95	\$345,570.47	\$3.52	0.0%
	10,000,000 13,000,000	20,000 20,000	\$559,532.35 \$687,645.55	\$559,535.87 \$687,649.07	\$3.52 \$3.52	0.0% 0.0%
	13,000,000	20,000	φυσ <i>τ</i> ,040.05	φυσι,049.07		0.0%
GS-4	25,000,000	50,000		\$1,393,601.87	\$3.52	0.0%
Transmission	32,500,000	50,000	φ1,713,881.35	\$1,713,884.87	\$3.52	0.0%

^{*} Typical bills assume 100% Power Factor

		idential	Non-Residential			
As of September 2021	\$	1.30	\$	11.88		
	Res	idential	Non-	Residential		
Year 1	\$	0.43	\$	3.52		
	Res	idential	Non-l	Residential		
Year 1	\$	1.73	\$	15.40		

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Monthly Rate Impact \$										
	Residential	Non-Residential								
Year 1	0.43	3.52								
Year 2	1.02	8.27								
Year 3	1.63	13.22								
Year 4	2.08	16.90								
Year 5	2.44	19.78								
Year 6	2.74	22.25								
Year 7	2.93	23.73								
Year 8	3.18	25.81								
Year 9	3.45	27.95								
Year 10	3.71	30.05								
Year 11	4.01	32.49								
Year 12	3.29	26.70								
Year 13	3.15	25.56								
Year 14	3.01	24.41								
Year 15	2.87	23.25								

<u>gridSMART</u>	E	stimated					gridSMART
Incremental Investment	gridSM	ART Spending	Annu	al Carrying Charge		Reve	enue Requirement
Total O&M	\$	6,694,370				\$	6,694,370
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			\$ \$ \$ \$ \$ \$ \$ \$	2,394,602 1,863,510 2,121,375 526,235 455,189 - 265,753 - 856,990		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2,394,602 1,863,510 2,121,375 526,235 455,189 - 265,753 - 856,990
			Total Reve	nue Requirement		\$	15,178,024
			Tax Gross	Up Rate			100.261%
			Total Reve	nue Requirement		\$	15,217,589.36
			Total Reve	nue Requirement		\$	15,217,589.36
Residential Base Distribution Non-Res Base Distribution		45% 55%	Non-Res R	Revenue Requirement evenue Requirement		\$ \$	6,847,915 8,369,674
				Customers ential Customers	1,314,525 198,123		5.21 42.24
				Customers ential Customers	Monthly Rate Monthly Rate	\$ \$	0.43 3.52

<u>gridSMART</u>	Estimated					gridSMART		
Incremental Investment	gridSM	ART Spending	Annual	Carrying Charge		Reve	enue Requirement	
Total O&M	\$	10,966,276				\$	10,966,276	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			\$ \$ \$ \$ \$ \$ \$ \$ \$	8,116,956 5,161,351 5,916,727 1,474,719 995,247 - 584,517 - 2,450,007		\$ \$ \$ \$ \$ \$ \$ \$ \$	8,116,956 5,161,351 5,916,727 1,474,719 995,247 - 584,517 - 2,450,007	
			Total Revenu	ue Requirement		\$	35,665,800	
			Tax Gross U	p Rate			100.261%	
			Revenue Red	quirement		\$	35,758,772.45	
			Total Revenu	ue Requirement		\$	35,758,772.45	
Residential Base Distribution Non-Res Base Distribution		45% 55%		Revenue Requirement venue Requirement		\$ \$	16,091,448 19,667,325	
			Residential C Non-Residen	Customers tial Customers	1,314,525 198,123		12.24 99.27	
			Residential C Non-Residen	Customers tial Customers	Monthly Rate Monthly Rate	\$ \$	1.02 8.27	

<u>gridSMART</u>	Estimated					gridSMART		
Incremental Investment	gridSM	ART Spending	Annua	l Carrying Charge		Reve	enue Requirement	
Total O&M	\$	15,608,868				\$	15,608,868	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			* * * * * * * * * *	14,571,060 8,477,226 9,859,633 2,393,265 1,289,036 115,400 420,558 219,178 4,047,531		\$ \$ \$ \$ \$ \$ \$ \$ \$	14,571,060 8,477,226 9,859,633 2,393,265 1,289,036 115,400 420,558 219,178 4,047,531	
				ue Requirement		\$	57,001,755	
			Tax Gross U Revenue Re Total Reven	•		\$ \$	100.261% 57,150,346.00 57,150,346.00	
Residential Base Distribution Non-Res Base Distribution		45% 55%		Revenue Requirement venue Requirement		\$	25,717,656 31,432,690	
			Residential (Non-Reside	Customers ntial Customers	1,314,525 198,123		19.56 158.65	
			Residential (Non-Reside	Customers ntial Customers	Monthly Rate Monthly Rate	\$ \$	1.63 13.22	

<u>gridSMART</u>	Estimated						gridSMART	
Incremental Investment	gridSM	IART Spending	Annua	l Carrying Charge		Reve	enue Requirement	
Total O&M	\$	18,934,624				\$	18,934,624	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			\$ \$ \$ \$ \$ \$ \$ \$ \$	17,361,162 11,783,057 13,516,802 3,281,393 1,572,087 186,476 379,210 212,580 5,654,288		\$ \$ \$ \$ \$ \$ \$ \$ \$	17,361,162 11,783,057 13,516,802 3,281,393 1,572,087 186,476 379,210 212,580 5,654,288	
			Total Reven	ue Requirement		\$	72,881,678	
			Tax Gross U	p Rate			100.261%	
			Revenue Re	quirement		\$	73,071,664.34	
			Total Reven	ue Requirement		\$	73,071,664.34	
Residential Base Distribution Non-Res Base Distribution		45% 55%	Non-Res Re		1,314,525	\$	32,882,249 40,189,415 25.01	
			Residential (198,123 Monthly Rate		202.85	
			Non-Resider	ntial Customers	Monthly Rate	\$	16.90	

<u>gridSMART</u>	Estimated						gridSMART		
Incremental Investment	gridSM.	ART Spending	Annu	al Carrying Charge		Revenue Requirement			
Total O&M	\$	21,447,008				\$	21,447,008		
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			* * * * * * * * *	16,893,223 15,031,876 17,893,158 4,138,614 1,844,239 254,514 337,861 205,982 7,251,897		\$ \$ \$ \$ \$ \$ \$ \$ \$	16,893,223 15,031,876 17,893,158 4,138,614 1,844,239 254,514 337,861 205,982 7,251,897		
			Total Reve	nue Requirement		\$	85,298,372		
			Tax Gross	Up Rate			100.261%		
			Revenue R	equirement		\$	85,520,725.40		
			Total Reve	nue Requirement		\$	85,520,725.40		
Residential Base Distribution Non-Res Base Distribution		45% 55%	·		\$ \$	38,484,326 47,036,399			
				Customers ential Customers	1,314,525 198,123		29.28 237.41		
				Customers ential Customers	Monthly Rate Monthly Rate	\$ \$	2.44 19.78		

<u>gridSMART</u>	Estimated						gridSMART	
Incremental Investment	gridSMA	ART Spending	Annua	l Carrying Charge		Reve	enue Requirement	
Total O&M	\$	24,564,223				\$	24,564,223	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	16,049,522 17,943,553 22,243,914 4,964,432 1,719,936 319,466 142,730 199,384 7,788,393		\$ \$ \$ \$ \$ \$ \$ \$ \$	16,049,522 17,943,553 22,243,914 4,964,432 1,719,936 319,466 142,730 199,384 7,788,393	
			Total Reven	ue Requirement		\$	95,935,553	
			Tax Gross U	Jp Rate			100.261%	
			Revenue Re	equirement		\$	96,185,635.61	
			Total Reven	ue Requirement		\$	96,185,635.61	
Residential Base Distribution Non-Res Base Distribution		45% 55%		Revenue Requirement evenue Requirement	1,314,525	\$ \$	43,283,536 52,902,100 32.93	
			Non-Reside	ntial Customers	198,123		267.02	
			Residential (Non-Reside	Customers ntial Customers	Monthly Rate Monthly Rate	\$ \$	2.74 22.25	

<u>gridSMART</u>	E	stimated					gridSMART	
Incremental Investment	gridSM	IART Spending	Ann	ual Carrying Charge		Revenue Requirement		
Total O&M	\$	24,727,788				\$	24,727,788	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			\$ \$ \$ \$ \$ \$ \$	15,199,592 21,035,032 26,135,688 5,758,343 1,452,665 336,765 - 192,786 7,457,312 enue Requirement		\$\$\$\$\$\$\$\$\$\$	15,199,592 21,035,032 26,135,688 5,758,343 1,452,665 336,765 - 192,786 7,457,312	
			Tax Gross	s Up Rate			100.261%	
				Requirement		\$	102,562,632.69	
Residential Base Distribution Non-Res Base Distribution		45% 55%	Non-Res	al Revenue Requirement Revenue Requirement	1044 505	\$	46,153,185 56,409,448	
				al Customers dential Customers	1,314,525 198,123		35.11 284.72	
				al Customers dential Customers	Monthly Rate Monthly Rate		2.93 23.73	

<u>gridSMART</u>	Estimated						
Incremental Investment	gridSM	ART Spending	Ar	nnual Carrying Charge	Revenue Requi		enue Requirement
Total O&M	\$	27,160,725				\$	27,160,725
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			* * * * * * * * * *	14,333,935 24,228,783 30,062,043 6,519,832 1,333,531 315,614 - 186,188 7,131,180		\$ \$ \$ \$ \$ \$ \$ \$ \$	14,333,935 24,228,783 30,062,043 6,519,832 1,333,531 315,614 - 186,188 7,131,180
			Total Re	evenue Requirement		\$	111,271,831
			Tax Gro	ss Up Rate			100.261%
			Revenue	e Requirement		\$	111,561,891.48
			Total Re	evenue Requirement		\$	111,561,891.48
Residential Base Distribution Non-Res Base Distribution		45% 55%		tial Revenue Requirement s Revenue Requirement		\$ \$	50,202,851 61,359,040
				tial Customers sidential Customers	1,314,525 198,123		38.19 309.7
				tial Customers sidential Customers	Monthly Rate Monthly Rate	\$ \$	3.18 25.81

<u>gridSMART</u>	Estimated				gridSMART		
Incremental Investment	gridSMART Spending Annual Carrying Charge F			Rev	enue Requirement		
Total O&M	\$	29,785,355				\$	29,785,355
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			***	13,467,307 27,446,304 34,061,175 7,248,378 1,220,957 294,463 - 179,589 6,810,033		\$ \$ \$ \$ \$ \$ \$ \$ \$	13,467,307 27,446,304 34,061,175 7,248,378 1,220,957 294,463 - 179,589 6,810,033
			Total Reve	nue Requirement		\$	120,513,562
			Tax Gross	Up Rate			100.261%
			Revenue R	equirement		\$	120,827,714.09
			Total Reve	nue Requirement		\$	120,827,714.09
Residential Base Distribution Non-Res Base Distribution		45% 55%	Non-Res R	Revenue Requirement evenue Requirement	1,314,525	\$	54,372,471 66,455,243 41.36
			Residential	ential Customers Customers ential Customers	198,123 Monthly Rate Monthly Rate	\$	335.42 3.45 27.95

<u>gridSMART</u>	E	stimated					gridSMART
Incremental Investment	gridSM	gridSMART Spending Annual Carrying Charge			Revenue Requirement		
Total O&M	\$	32,314,930				\$	32,314,930
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12,598,622 30,790,995 37,847,535 7,943,450 1,115,047 273,313 - 172,991 6,494,528		\$ \$ \$ \$ \$ \$ \$ \$ \$	12,598,622 30,790,995 37,847,535 7,943,450 1,115,047 273,313 - 172,991 6,494,528
				ue Requirement		\$	129,551,412 100.261%
			Tax Gross U Revenue Re Total Revenue			\$	129,889,123.77
Residential Base Distribution Non-Res Base Distribution		45% 55%	Residential F	Revenue Requirement venue Requirement		\$	58,450,106 71,439,018
			Residential (Non-Resider	Customers ntial Customers	1,314,525 198,123		44.46 360.58
			Residential (Non-Resider	Customers tial Customers	Monthly Rate Monthly Rate	\$ \$	3.71 30.05

<u>gridSMART</u>	Estimated					gridSMART		
Incremental Investment	gridSM/	ART Spending	Annua	l Carrying Charge		Rev	Revenue Requirement	
Total O&M	\$	35,414,791				\$	35,414,791	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			* * * * * * * * * *	11,752,552 34,421,170 42,111,162 8,487,389 1,161,692 252,162 - 166,393 6,316,990		\$\$\$\$\$\$\$\$\$\$	11,752,552 34,421,170 42,111,162 8,487,389 1,161,692 252,162 - 166,393 6,316,990	
			Total Reven	ue Requirement		\$	140,084,301	
			Tax Gross U	p Rate			100.261%	
			Revenue Re	quirement		\$	140,449,469.53	
			Total Reven	ue Requirement		\$	140,449,469.53	
Residential Base Distribution Non-Res Base Distribution		45% 55%		Revenue Requirement venue Requirement	1,314,525	\$	63,202,261 77,247,208 48.08	
				ntial Customers	198,123		389.9	
			Residential (Non-Resider	Customers ntial Customers	Monthly Rate Monthly Rate	\$ \$	4.01 32.49	

<u>gridSMART</u>	Estimated					gridSMART		
Incremental Investment	gridSMA	gridSMART Spending Annual Carrying Charge F				Rev	Revenue Requirement	
Total O&M	\$	9,370,453				\$	9,370,453	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			* * * * * * * * * *	10,899,226 35,178,713 43,556,063 8,388,853 1,203,702 231,011 - 159,795 6,140,562		\$ \$ \$ \$ \$ \$ \$ \$ \$	10,899,226 35,178,713 43,556,063 8,388,853 1,203,702 231,011 - 159,795 6,140,562	
			Total Reve	enue Requirement		\$	115,128,378	
			Tax Gross	Up Rate			100.261%	
			Revenue Requirement			\$	115,428,492.15	
			Total Reve	enue Requirement		\$	115,428,492.15	
Residential Base Distribution Non-Res Base Distribution		45% 55%	Non-Res F	Il Revenue Requirement Revenue Requirement	1,314,525	\$	51,942,821 63,485,671 39.51	
				lential Customers	198,123		320.44	
				l Customers lential Customers	Monthly Rate Monthly Rate	\$ \$	3.29 26.70	

<u>gridSMART</u>	Estimated					gridSMART		
Incremental Investment	gridSMART Spending Annual Carrying Charge R			Rev	enue Requirement			
Total O&M	\$	9,540,363				\$	9,540,363	
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			* * * * * * * * *	10,021,874 33,365,610 42,043,440 7,849,303 1,140,999 209,861 - 153,197 5,872,367		\$ \$ \$ \$ \$ \$ \$ \$ \$	10,021,874 33,365,610 42,043,440 7,849,303 1,140,999 209,861 - 153,197 5,872,367	
			Total Reve	enue Requirement		\$	110,197,014	
			Tax Gross	Up Rate			100.261%	
			Revenue F	Requirement		\$	110,484,272.68	
			Total Reve	enue Requirement		\$	110,484,272.68	
Residential Base Distribution Non-Res Base Distribution		45% 55%	Non-Res F	Il Revenue Requirement Revenue Requirement	4 244 525	\$ \$	49,717,923 60,766,350	
				ll Customers lential Customers	1,314,525 198,123		37.82 306.71	
				l Customers lential Customers	Monthly Rate Monthly Rate	\$ \$	3.15 25.56	

<u>gridSMART</u>	Estimated						gridSMART		
Incremental Investment	gridSM.	ART Spending	Ar	nnual Carrying Charge		Revenue Requireme			
Total O&M	\$	9,713,544				\$	9,713,544		
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			\$ \$ \$ \$ \$ \$ \$ \$ \$	9,142,332 31,501,361 40,534,852 7,309,752 1,078,295 188,710 - 146,599 5,604,173		\$ \$ \$ \$ \$ \$ \$ \$ \$	9,142,332 31,501,361 40,534,852 7,309,752 1,078,295 188,710 - 146,599 5,604,173		
			Total Re	evenue Requirement		\$	105,219,618		
			Tax Gro	ss Up Rate			100.261%		
			Revenue Requirement			\$	105,493,902.38		
			Total Re	evenue Requirement		\$	105,493,902.38		
Residential Base Distribution Non-Res Base Distribution		45% 55%		ntial Revenue Requirement s Revenue Requirement		\$	47,472,256 58,021,646		
				ntial Customers sidential Customers	1,314,525 198,123		36.11 292.86		
				ntial Customers sidential Customers	Monthly Rate Monthly Rate	\$ \$	3.01 24.41		

gridSMART Incremental Investment	Estimated gridSMART Spending Annual Carrying Charge F			gridSMART Revenue Requirement			
Total O&M	\$	9,890,611				\$	9,890,611
Capital - AMI Capital - VVO Capital - DACR Capital - Fiber Capital - Sensors Capital - Its Your Power Capital - EDI Capital - IVVO Capital - DA Lite			Tax Gross U			\$\$\$\$\$\$\$\$\$\$	8,260,838 29,607,562 39,037,199 6,770,202 1,015,592 167,560 - 140,000 5,335,979 100,225,542 100.261%
			Revenue Re Total Revenu	quirement ue Requirement		\$	100,486,808.18
Residential Base Distribution Non-Res Base Distribution		45% 55%		Revenue Requirement venue Requirement		\$ \$	45,219,064 55,267,745
			Residential (Non-Resider	Customers ntial Customers	1,314,525 198,123		34.4 278.96
			Residential (Non-Resider	Customers ntial Customers	Monthly Rate Monthly Rate	\$ \$	2.87 23.25

Exhibit LOK S-4 Page 1 of 2 18th 19th Revised Sheet No. 485-

1

Cancels 187th Revised Sheet No. 485-1

P.U.C.O. NO. 20

gridSMART PHASE 2 RIDER

Effective with the first billing cycle of September 2021 January 2022, all customer bills subject to the provisions of this Rider, including any bills rendered under special contract, shall be adjusted by the monthly gridSMART Phase 2 charge. This rider shall be adjusted periodically to recover amounts authorized by the Commission. This Rider is subject to reconciliation, including, but not limited to, refunds to customers, based upon the impact to the carrying charge rate recovered through this Rider of changes in Federal corporate income taxes due to the Tax Cuts and Jobs Act of 2017 or based upon the results of audits ordered by the Commission in accordance with the February 1, 2017 Opinion and Order dated

Residential Customers \$1.3073

Non-Residential \$11.8815.40

Filed pursuant to Order dated April 25, 2018 in Case No. 16-185219-1475-EL-SSO

Issued: July 28, 2021 _____ Effective: Cycle 1 September 2021 ___

Exhibit LOK S-4 Page 2 of 2 18th 19th Revised Sheet No. 485-1D Cancels 178th Revised Sheet No. 485-1D

P.U.C.O. NO. 20

OAD – gridSMART PHASE 2 RIDER (Open Access Distribution – gridSMART Phase 2 Rider)

Effective with the first billing cycle of September January 20212022, all customer bills subject to the provisions of this Rider, including any bills rendered under special contract, shall be adjusted by the monthly gridSMART Phase 2 charge. This rider shall be adjusted periodically to recover amounts authorized by the Commission. This Rider is subject to reconciliation, including, but not limited to, refunds to customers, based upon the impact to the carrying charge rate recovered through this Rider of changes in Federal corporate income taxes due to the Tax Cuts and Jobs Act of 2017 or based upon the results of audits ordered by the Commission in accordance with the February 1, 2017 Opinion and Order dated in Case No. 139-14751939-EL-RDR.

Residential Customers \$1.3073

Non-Residential \$11.8815.40

Filed pursuant to Order dated April 25, 2018 in Case No. 1619-1475-1852-EL-SSO

Issued: July 28, 2021 Effective: Cycle 1 September January 20242

2	In accordance with Rule 4901-1-05, Ohio Administrative Code, the PUCO's e-filing							
3	system will electronically serve notice of the filing of this document upon the following parties.							
4	In addition, I hereby certify that a service copy of the foregoing Supplemental Testimony of Lisa							
5	O. Kelso was sent by, or on behalf of, the undersigned counsel to the following parties of record							
6	this 15 th day of October, 2021, via electronic transmission.							
7 8 9	/s/ Steven T. Nourse Steven T. Nourse							
10	EMAIL SERVICE LIST							
11 12	paul@carpenterlipps.com;							
13	BarthRoyer@aol.com;							
14	bethany.allen@igs.com;							
15	cmooney@ohiopartners.org;							
16	ctavenor@theoec.org;							
17	dparram@bricker.com;							
18	drinebolt@opae.org;							
19	dborchers@bricker.com;							
20	evan.betterton@igs.com							
21	Fdarr2019@gmail.com;							
22	glpetrucci@vorys.com;							
23	jkylercohn@BKLlawfirm.com;							
24	Joe.Oliker@igs.com;							
25	Bojko@carpenterlipps.com;							
26	fykes@whitt-sturtevant.com;							
27	whitt@whitt-sturtevant.com;							
28	mpritchard@mwncmh.com;							
29	mfleisher@dickinsonwright.com;							
30	mkurtz@BKLlawfirm.com; Michael Nugant@ics.com;							
31 32	Michael.Nugent@igs.com; mleppla@theOEC.org;							
33	mo2753@att.com;							
34	nvijaykar@elpc.org;							
35	rdove@keglerbrown.com							

CERTIFICATE OF SERVICE

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

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6

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

10/15/2021 5:16:23 PM

in

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

Summary: Testimony Supplemental Testimony of Lisa O. Kelso electronically filed by Mr. Steven T. Nourse on behalf of Ohio Power Company