#### **BEFORE THE**

# PUBLIC UTILITIES COMMISSION OF OHIO

#### THE DAYTON POWER AND LIGHT COMPANY

CASE NO. 16-0395-EL-SSO CASE NO. 16-0397-EL-AAM CASE NO. 16-0396-EL-ATA

DIRECT TESTIMONY OF CLAIRE E. HALE

#### **OCTOBER 11, 2016**

- **D** MANAGEMENT POLICIES, PRACTICES, AND ORGANIZATION
- **OPERATING INCOME**
- $\Box \quad \textbf{RATE BASE}$
- $\Box$  ALLOCATIONS
- $\Box \quad RATE OF RETURN$
- RATES AND TARIFFS
- $\Box$  OTHER

#### **BEFORE THE**

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# DIRECT TESTIMONY OF

#### CLAIRE E. HALE

# ON BEHALF OF THE DAYTON POWER AND LIGHT COMPANY

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# 1 I. INTRODUCTION

#### 2 Q. Please state your name and business address.

A. My name is Claire E. Hale. My business address is 1065 Woodman Drive, Dayton, OH
4 45432.

5 Q. By whom and in what capacity are you employed?

A. I am employed by The Dayton Power and Light Company ("DP&L" or the "Company")
as a Rate Analyst II.

#### 8 Q. What are your responsibilities in your current position?

9 A. I am responsible for assisting in the development, analyses, revision, and administration
10 of the Company's tariff schedules, rate designs, and policies. This includes participating
11 in the development of the Company's rate cases and having responsibility for the
12 administration of certain riders, specifically the Transmission Cost Recovery Riders, the
13 Reliability Pricing Model Rider, and the Storm Cost Recovery Rider.

#### 14 Q. Will you describe briefly your educational and business background?

A. I received a Bachelor of Science degree in Mathematics from The Ohio State University
in June 2008. Prior to my position at DP&L, I was a Technical Analyst at Accenture,
where I worked on the Service Oriented Architecture Team providing client support on
middleware applications. I joined DP&L as a rate analyst in January 2011.

# 19 Q. Have you previously provided testimony before the Public Utilities Commission of 20 Ohio ("PUCO" or the "Commission")?

A. Yes. I sponsored testimony before the PUCO in Case No. 12-426-EL-SSO as well as in
 Case No. 15-1830-EL-AIR.

# 3 II. <u>PURPOSE OF TESTIMONY</u>

#### 4 Q. What is the purpose of this testimony?

5 A. The purpose of this testimony is to support and explain the Distribution Modernization
6 Rider ("DMR") rate design and the Clean Energy Rider.

#### 7 Q. Do you support any exhibits attached to your testimony?

8 A. Yes. I am supporting Exhibit CEH-1, DMR Rate Design.

# 9 III. DISTRIBUTION MODERNIZATION RIDER

#### 10 Q. Please explain the Distribution Modernization Rider.

A. As described by Company Witness Jackson, the Distribution Modernization Rider will
help to ensure that Ohio customers continue to receive reliable service. The DMR will be
billed on a service-rendered basis beginning January 2017 and will be billed to all
customers on a non-bypassable basis.

# 15 Q. Please describe DP&L's DMR rate design.

A. DP&L proposes to use a modified version of its current Service Stability Rider ("SSR") rate methodology for the basis of the structure for the DMR rate design. Using the current SSR rates as a starting point promotes the retail rate stability intended by the DMR. The modifications to the SSR rates bring the DMR rates in line with DP&L's more recent rate design, as proposed in its distribution rate case (see Company Witness Parke testimony in Case No. 15-1830-EL-AIR) and within this case (see Company 1 Witness Brown testimony). The modifications also simplify the rate structure with 2 minimal inter- and intra-class impact. <u>Exhibit CEH-1</u> attached to this testimony shows 3 the calculation of the DMR rates. Page 1 of this exhibit shows the calculation of the 4 proposed 2017 DMR rates by beginning with SSR rates, applying the rate design 5 modifications, and scaling those rates to meet the 2017 DMR revenue requirement.

#### 6 Q. Can you describe the calculation of the 2017 DMR rates more fully?

7 A. Yes. As noted above and shown in Exhibit CEH-1, the calculation begins with SSR rates 8 applied to the distribution forecast (supported by Company Witness Adams) for 2017. 9 This creates an SSR revenue requirement by tariff class. The desired rate design changes are then applied to each class's rates. These rate design changes impact the revenue 10 11 calculated for each class, so the new rates are then scaled up or down to bring the revenue 12 for each class back in line with that originally calculated from the SSR rates. This prevents rate design changes from causing any inter-class shifts in revenue. Finally, a 13 14 factor is calculated based on the 2017 DMR revenue requirement and the calculated 2017 SSR revenues. This factor is applied to the modified rates to determine 2017 DMR rates. 15

16

**Q**.

#### What modifications are you proposing to the rate design?

For Residential, the rate design changes are intended to bring the rates more in line with 17 A. 18 those proposed for the Standard Offer Rate. Specifically, the blocked rates for 19 Residential are removed to create a straight kWh rate, and the Residential Heating discount is also modified to a lower rate for all kWh in the winter months. For the 20 21 Secondary class, the rate design changes accomplish a few different objectives: exchange 22 the blocked kWh rates for a straight kWh rate; incorporate current School customers into 23 the Secondary class (in accordance with the elimination of that tariff in 2017); eliminate

1 the first five "free" kW by implementing a straight kW rate for all kW; and implement 2 the max charge rate changes discussed by Company Witness Parke. The rate design 3 changes for the Primary class also incorporate current School customers and the proposed 4 max charge rate changes. Finally, the Private Outdoor Lighting rates are changed to a 5 consistent kWh charge, rather than a varying per lamp charge. However, tariffed rates 6 are still shown on a per lamp basis for the convenience of customers. No rate design 7 changes are proposed for the Primary Substation, High Voltage, or Street Lighting 8 classes. All of these rate design changes employ average rates in order to minimize any 9 intra-class shifts. In the end, these changes simplify the rates for customers while 10 maintaining rate stability.

11 Q.

#### Have you proposed rates for the DMR for 2017?

Yes. For 2017, Exhibit CEH-1 Page 1 shows the proposed rates for implementation in 12 A. 13 January 2017.

#### IV. **CLEAN ENERGY RIDER** 14

#### 15 Does the Company propose any new riders or deferrals regarding environmental Q. 16 costs?

17 А. Yes, the Company proposes a new Clean Energy Rider that will facilitate future 18 investment in renewable and advanced technologies consistent with state and federal 19 policies. This rider, set initially at zero, will recover any currently unknown 20 environmental compliance costs, including but not limited to green energy initiatives, environmental expenses, and decommissioning costs. Once those costs are known, the 21 Company will apply for recovery of those costs through the non-bypassable Clean 22

Energy Rider in a separate proceeding. The timing of recovery will be on a case-by-case
 basis for each expense.

#### 3 Q. What is the nature of these environmental expenses?

4 Α. Many existing, pending, and future regulations aim to achieve a clean energy policy at both the state and national level. Encouraging the use of renewables, reducing pollutants 5 in both air and water, and environmentally sound long-term solutions are all part of that 6 overall policy goal. To that end, the Company expects it will incur environmental costs 7 8 as a result of its current ownership of generation assets. It also expects that, consistent 9 with state and federal policies, new renewable requirements will be imposed by future 10 regulations. Therefore the Company wishes to establish the Clean Energy Rider as a 11 mechanism to enable that investment and recover the related costs for compliance with those currently unknown or unquantifiable clean energy obligations. 12

# Q. Can you provide an example of the type of environmental expenses that DP&L expects to incur?

A. Yes. There are a number of pending regulations related to environmental
compliance. The generation plants are subject to a number of new environmental
regulations that are not yet finalized. Examples include revisions to the Cross State Air
Pollution Rule ("CSAPR") and implementation of the Resource Conservation and
Recovery Act ("RCRA") including the potential closing of existing ash ponds.

20

#### 20 Q. Why is it appropriate for the Company's customers to pay for these expenses?

A. Certain environmental and decommissioning expenses are related to activities involved in
 serving the Company's customers and were caused when the generation assets were

1	owned by the regulated entity and were for the benefit of DP&L's customers. It is
2	appropriate that these expenses are recovered on a non-bypassable basis because DP&L's
3	ownership of these assets benefitted all of DP&L's distribution customers. In fact, those
4	generation assets were originally placed in service years, and sometimes decades, before
5	the generation market was deregulated. Therefore, such environmental and
6	decommissioning expenses are related to customers' prior use of and benefit from those
7	generation assets. Additionally, any efforts to comply with clean energy obligations will
8	benefit all of the Company's customers, making non-bypassable recovery appropriate.

# 9 V. <u>CONCLUSION</u>

# 10 Q. Please summarize your testimony.

A. In summary, the DMR rate design described above maintains rate stability while still
updating rates for consistency across DP&L's tariffs. Additionally, the Clean Energy
Rider proposed above is reasonable and should be approved.

# 14 Q. Does this conclude your direct testimony?

15 A. Yes, it does.

#### The Dayton Power and Light Company Case No. 16-0395-EL-SSO Distribution Modernization Rider Allocation and Rate Design

																	Page 1 of 2
			2017 LTFR				SSR		SSR			SSR Revenue					
Line	Class/Description		Distribution Forecast <sup>1</sup>	SSR Rate	SSR Re	enue	Rate Design Changes <sup>2</sup>		Rate Design Revenue	S	cale Rates to SSR Level <sup>3</sup>	Under New Rate Design	I	OMR Revenue	DMR Rate	D	MR Revenue
(A)	(B)		(C)	(D)	(E) = (C)	* (D)	(F)		(G) = (C) * (F)		(H)	(I) = (C) * (H)	(J)	) = (H) * Line 1	(K) = (H) * (J) Line 2	(L	.) = (C) * (K)
1	Total Distribution Sales Fo	precast			\$ 112,69	8,439		\$	114,004,658			\$ 112,698,439	\$	145,000,000		\$	145,000,000
2	All kWb		14 140 910 971		\$ 86.78	1 525		\$	88 087 744					129%		\$	111 470 382
2	All LW				0 00,70			φ 						12270		φ 	
5	All KW		23,488,053		\$ 25,91	6,914		\$	25,916,914							\$	33,529,618
4																	
5	Total Residential			43.9%	\$ 49.49	5.276	44.9%	\$	51,178,441		43.9%	\$ 49.495.276	s	63.681.583	43.9%	\$	63.681.583
6	Basidantial Non Usating				¢ ю,ю	.,		Ψ	21,170,111		06.7%	•	Ψ	00,001,000	1013 / 0	Ψ	00,001,000
0	Residential Non-Heating										96.7%						
7	0-750	kWh	2,415,026,282	\$ 0.0103362	\$ 24,96	2,195	\$ 0.0097807	\$	23,620,556	\$	0.0094590	\$ 22,843,719			\$ 0.0121701	\$	29,391,173
8	> 750	kWh	1,154,728,278	\$ 0.0084287	\$ 9,73	2,858	\$ 0.0097807	\$	11,294,007	\$	0.0094590	\$ 10,922,568			\$ 0.0121701	\$	14,053,188
9	Residential Heating						15.27%	Res	sidential Heating Discount								
10	0-750 (S)	<i>k</i> Wh	348 685 541	\$0.0103362	\$ 3.60	1 083	\$ 0.0097807	\$	3 410 375	s	0.0094590	\$ 3 298 214			\$0.0121701	\$	4 243 547
10	0=750 (3)	1 11 11	348,083,341	\$ 0.0103302	\$ 5,00	4,085	\$ 0.0097807	ф Ф	1,005,001	9	0.0094590	3 3,298,214			\$ 0.0121701	ф ф	4,243,347
12	> /50 (S)	kwn	203,143,776	\$ 0.0084287	\$ 1,/1	2,238	\$ 0.0097807	\$	1,986,881	2	0.0094590	\$ 1,921,536			\$ 0.0121/01	\$	2,472,285
11	0-750 (W)	kWh	540,817,500	\$ 0.0103362	\$ 5,58	9,998	\$ 0.0082871	\$	4,481,782	\$	0.0080145	\$ 4,334,385			\$ 0.0103116	\$	5,576,703
13	> 750 (W)	kWh	770,459,802	\$ 0.0050540	\$ 3.89	3.904	\$ 0.0082871	\$	6.384.840	\$	0.0080145	\$ 6,174,854			\$ 0.0103116	\$	7.944.687
14	Total Secondary		,,	30 5%	\$ 34.40	5 206	20.09/	¢	34.062.026		30 5%	\$ 34 405 296	¢	44 266 522	30 5%	¢	44 266 522
14	Total Secondary			50.570	φ <b>34,4</b> 0	3,290	29.970	φ	34,002,020		30.370	\$ 54,405,290	Ģ	44,200,322	50.570	φ	44,200,322
15	Standard										101.0%	Secondary Scale Factor					
16	0-5	kW	2,671,804	\$ -	\$	-	\$ 0.9566038	\$	2,555,858	\$	0.9662442	\$ 2,581,615			\$1.2431886	\$	3,321,556
17	> 5	kW	10,460,046	\$1.2104318	\$ 12.66	1.172	\$ 0.9566038	\$	10,006,119	\$	0.9662442	\$ 10,106,959			\$1.2431886	\$	13,003,810
18	0-1 500	<i>k</i> Wh	510.092.604	\$0.0101459	\$ 517	5 349	\$ 0.0050927	\$	2 597 759	s	0.0051440	\$ 2 623 939			\$ 0.0066184	\$	3 376 011
10	1 501 105 000	1 33 71	0000104	\$ 0.0101457	0 10.00	5,547	\$ 0.0050927	¢	2,571,157	÷	0.0051440	\$ 2,025,757			\$ 0.0000104	¢	10.000.0011
19	1,501-125,000	kwn	2,880,174,472	\$ 0.0044547	\$ 12,83	0,313	\$ 0.0050927	\$	14,667,925	2	0.0051440	\$ 14,815,745			\$ 0.0066184	\$	19,062,225
20	> 125,000	kWh	644,223,215	\$ 0.0037842	\$ 2,43	7,869	\$ 0.0050927	\$	3,280,849	\$	0.0051440	\$ 3,313,913			\$ 0.0066184	\$	4,263,745
21	Max Charge																
22	0.5	1-W	187 755	¢	¢		¢	¢		¢		\$			¢	¢	
22	0=5		187,755		ф С	-	з - с	ې د	-	9	-					9	-
23	> 5	kW	821,639	s -	\$	-	\$ -	\$	-	\$	-	s -			s -	\$	-
24	0-1,500	kWh	26,962,977	\$ 0.0248410	\$ 66	9,787	\$ 0.0164054	\$	442,338	\$	0.0165707	\$ 446,796			\$ 0.0213202	\$	574,856
25	1.501-125.000	kWh	13,729,955	\$ 0.0248410	\$ 34	1.066	\$ 0.0164054	\$	225.245	s	0.0165707	\$ 227.515			\$ 0.0213202	\$	292.725
26	> 125,000	kWh	0	\$0.0248410	¢	-,	\$ 0.0164054	ŝ		ŝ	0.0165707	\$			\$0.0213202	ŝ	
20	>125,000	K VV 11	0	\$ 0.0248410	¢	-	\$ 0.0104034	ې	-	φ	0.0105707				\$ 0.0213202	ې	-
27	School																
28	0-5	kW	5,066	\$ -	\$	-	\$ 0.9566038	\$	4,846	\$	0.9662442	\$ 4,895			\$1.2431886	\$	6,298
29	> 5	kW	98,630	s -	\$	-	\$ 0.9566038	\$	94.349	\$	0.9662442	\$ 95,300			\$1.2431886	\$	122.615
30	0.1.500	1/W/b	1 500 771	\$ 0.0070018	¢ 1	1 0 3 0	\$ 0.0050027	¢	7 680	¢	0.0051440	\$ 7.766			\$ 0.0066184	¢	0.002
30	0-1,500	1 11 11	1,509,771	\$ 0.0079018	0 1	1,950	\$ 0.0050027	ф ф	7,089	9	0.0051440	3 7,700			\$ 0.0000184	ф ф	9,992
51	1,501-125,000	kwn	34,596,757	\$ 0.0079018	\$ 27	3,377	\$ 0.0050927	\$	176,192	2	0.0051440	\$ 1/7,967			\$ 0.0066184	\$	228,976
32	> 125,000	kWh	560,980	\$ 0.0079018	\$	4,433	\$ 0.0050927	\$	2,857	\$	0.0051440	\$ 2,886			\$ 0.0066184	\$	3,713
33	Total Primary			16.5%	\$ 18.60	8.439	16.3%	\$	18.574.763		16.5%	\$ 18.608.439	ŝ	23.941.979	16.5%	\$	23.941.979
34	Standard				,	.,			-, , ,		100.2%	Primary Scale Factor		., , .			-, , .
25	Standard	1-337	c 100 222	£ 1 4200700	0 0 67	0.054	6 1 4115750	æ	8 (22 22)	¢	1 41 41 2 4 2	e 0.027.002			£ 1.9104527	æ	11 112 642
55	All	K VV	0,108,235	\$ 1.4208780	\$ 8,0/	9,054	\$ 1.4113732	\$	8,022,231	\$	1.4141343	\$ 8,037,803			\$ 1.6194327	۰ ب	11,115,042
36	All	kWh	2,866,184,251	\$ 0.0033887	\$ 9,71	2,639	\$ 0.0034129	\$	9,782,073	\$	0.0034191	\$ 9,799,808			\$ 0.0043991	\$	12,608,623
37	Max Charge																
38	All	kW	99.790	s -	\$	-	s -	s	-	s	-	s -			s -	s	-
30	A 11	1/W/b	3 788 117	\$ 0.0240517	¢ (	4 5 2 0	\$ 0.0160610	¢	60.844	¢	0.0160010	\$ 60.055			\$ 0.0207030	¢	78 425
39	All	K VV 11	5,788,117	\$ 0.0249517	د ف	4,520	\$ 0.0100019	φ	00,844	φ	0.0100910	\$ 00,955			\$ 0.0207030	φ	78,425
40	School																
41	All	kW	40,256	\$ -	\$	-	\$ 1.4115752	\$	56,824	\$	1.4141343	\$ 56,927	1		\$ 1.8194527	\$	73,243
42	All	kWh	15,468,129	\$ 0.0079018	\$ 12	2.226	\$ 0.0034129	\$	52,792	\$	0.0034191	\$ 52,887			\$ 0.0043991	\$	68,046
43	Primary Substation			3.4%	\$ 370	7 704	3, 30%	\$	3 797 704	1	3.4%	\$ 3 797 704	\$	4 886 200	3.4%	¢	4 886 200
44	A 11	ьw	1 126 507	\$ 1 5002079	\$ 170	0.224	\$ 1 5002079	¢ ¢	1 700 224	¢	1 5002079	\$ 1700.224	<b></b>	.,500,200	\$ 1 9/18010	¢	2 187 554
44	All	1 117	1,120,507	\$ 1.3092978	φ 1,/C	0,234	\$ 1.5092978	ф ф	1,700,234	9	1.5092976	a 1,700,234	1		\$ 1.7+10719 \$ 0.0041707	ф ф	2,107,554
45	All	кwh	645,/33,135	\$ 0.0032482	\$ 2,09	1,470	\$ 0.0032482	\$	2,097,470	\$	0.0032482	s 2,097,470	1		\$ 0.0041792	\$	2,698,646
46	High Voltage			5.5%	\$ 6,15	3,565	5.4%	\$	6,153,565	1	5.5%	\$ 6,153,565	\$	7,917,297	5.5%	\$	7,917,297
47	All	kW	1,868,328	\$ 1.5395867	\$ 2,87	6,454	\$ 1.5395867	\$	2,876.454	\$	1.5395867	\$ 2,876.454	1		\$1.9808621	\$	3,700,901
48	Δ 11	kWb	978 943 609	\$ 0 0033476	\$ 3.27	7 1 1 2	\$ 0.0033476	\$	3 277 112	\$	0.0033476	\$ 3 277 112	1		\$ 0 00/13071	\$	4 216 306
40	All .		210,745,098	0.00000470	\$ 3,21 \$	0.202	0.00000470	ې م	5,277,112	φ	0.00000470	φ 3,277,112 φ	6	103 100	0.10/1	ф ф	-,210,390
49	Street Lighting			0.1%	\$ 15	0,393	0.1%	\$	150,393	1.	0.1%	\$ 150,393	\$	193,499	0.1%	\$	193,499
50	All	kWh	55,701,176	\$ 0.0027000	\$ 15	0,393	\$ 0.0027000	\$	150,393	\$	0.0027000	\$ 150,393	1		\$ 0.0034739	\$	193,499
51	Private Outdoor Lighting	g (lamp)	)	\$0.0007788	\$ 8	7,765	1			1			1				
52	9500 L HPS	lamn	12 328	\$0.1107400	s	1.365				1			1				
52	22000 L 1100	lome	0,000	\$0.2469900	e	1.077	1			1			1				
35	28000 L HPS	iamp	8,008	\$0.2468800	\$	1,9//	1			1			1				
54	7000 L Mercury	lamp	274,765	\$0.2129700	\$ 5	8,517	1			1			1				
55	21000 L Mercurv	lamp	52,962	\$0.3960400	\$ 2	0,975				1			1				
56	2500 L Incard	lamn	64	\$0.2630200	s	17	1			1			1				
57	7000 I Pl.	lom	1.04	\$0.2707200	¢	11 (0	1			1			1				
57	/000 L Fluor.	iamp	162	\$0.5707200	\$	00				1			1				
58	4000 L PT Mercury	lamp	8,201	\$0.5918600	\$	4,854				1			1				
59	Private Outdoor Lighting	g (kWh)	)				0.1%	\$	87,765	1	0.1%	\$ 87,765	\$	112,920	0.1%	\$	112,920
60	9500 L HPS	kWh	480.777				\$ 0.0028889	\$	1.389	\$	0.0028889	\$ 1.389	1		\$ 0.0037169	\$	1,787
61	28000 1 1100	1Wh	768 804				\$ 0.0028880	¢	2 221	¢	0.0028880	\$ 2.221	1		\$0.0037160	¢	2,00
01	20000 L HPS	1.117	/00,000				0.0020009	ф ¢	2,221	9	0.0020009	· 2,221	1		0.0037109	ې د	2,038
62	7000 L Mercury	kWh	20,607,391				\$ 0.0028889	\$	59,532	\$	0.0028889	\$ 59,532	1		\$ 0.0037169	\$	76,595
63	21000 L Mercury	kWh	8,156,083				\$ 0.0028889	\$	23,562	\$	0.0028889	\$ 23,562	1		\$ 0.0037169	\$	30,315
64	2500 L Incand	kWh	4,119				\$ 0.0028889	\$	12	\$	0.0028889	\$ 12	1		\$ 0.0037169	\$	15
65	7000 L Eluce	kWb	10 722				\$ 0.0028889	\$	21	ŝ	0.0028889	\$ 21	1		\$0,0037169	ŝ	40
	4000 L PT M	1.337	10,723				¢ 0.0020009	ې م	31	\$	0.0020009	φ 31 e 1.000	1		¢ 0.0037109	ф ¢	40
00	4000 L P1 Mercury	ĸwh	352,656				\$ 0.0028889	э	1,019	1.2	0.0028889	ə 1,019	1		⇒ 0.0037169	\$	1,511

1 Exhibit RJA-2

<sup>2</sup> Residential/Residential Heating (Summer): Sum Col (F) / Sum Col (D), Lines 7 thru 11

 $^2$  Residential Heating (Winter): Residential Heating (Summer)  $\ast$  (1 - Residential Heating Discount)

<sup>2</sup> Secondary (kW): Sum Col (F) / Sum Col (D), Lines 16, 17, 28, 29

 $^2$  Secondary (kWh): Sum Col (F) / Sum Col (D), Lines 18 thru 20, 30 thru 32

 $^2$  Secondary (Max Charge): Sum Col (F) / Sum Col (D)  $\ast$  2, Lines 16 thru 20, 28 thru 32

<sup>2</sup> Primary (kW): Sum Col (F) / Sum Col (D), Lines 35, 41

<sup>2</sup> Primary (kWh): Sum Col (F) / Sum Col (D), Lines 36, 42

<sup>2</sup> Primary (Max Charge): Sum Col (F) / Sum Col (D) \* 2.5, Lines 35, 36, 41, 42

Exhibit CEH-1

<sup>2</sup> Private Outdoor Lighting: Col (G) Line 59 / Sum (C), Lines 60-66

<sup>3</sup> Residential/Residential Heating: Col (F) \* Col (H), Line 6

3 Secondary: Col (F) \* Col (H), Line 15

<sup>3</sup> Primary: Col (F) \* Col (H), Line 34

# The Dayton Power and Light Company Case No. 16-0395-EL-SSO Distribution Modernization Rider Calculation of Private Outdoor Lighting Charges

Exhibit CEH-1

					Page 2 of 2		
			2017		2017		
Line	Description	kWh/Fixture	DMR	DMR C	harge/Fixture/Month		
			\$/kWh	\$/	Fixture/Month		
(A)	(B)	(C)	(D)	(E)			
				(1	E = (C) * (D)		
1	Private Outdoor Lighting						
2	9,500 Lumens High Pressure Sodium (HPS)	39	\$ 0.0037169	\$	0.1449576		
3	28,000 Lumens High Pressure Sodium (HPS)	96	\$ 0.0037169	\$	0.3568186		
4	7,000 Lumens Mercury	75	\$ 0.0037169	\$	0.2787645		
5	21,000 Lumens Mercury	154	\$ 0.0037169	\$	0.5723965		
6	2,500 Lumens Incandescent	64	\$ 0.0037169	\$	0.2378791		
7	7,000 Lumens Fluorescent	66	\$ 0.0037169	\$	0.2453128		
8	4,000 Lumens PT Mercury	43	\$ 0.0037169	\$	0.1598250		

#### **CERTIFICATE OF SERVICE**

I certify that a copy of the foregoing testimony has been served via electronic mail

upon the following counsel of record, this 11th day of October, 2016:

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1106453.1

# This foregoing document was electronically filed with the Public Utilities

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in

# Case No(s). 16-0395-EL-SSO, 16-0396-EL-ATA, 16-0397-EL-AAM

Summary: Testimony Direct Testimony of Claire E. Hale - October 11, 2016 (Refiled at Request of PUCO Due to DIS Technical Difficulties) electronically filed by Mr. Charles J. Faruki on behalf of The Dayton Power and Light Company