

## Distribution Platform Modernization

### Estimated Revenue Requirement Calculation

\*Estimates are across all three operating companies (OE, CEI and TE)

Assumptions		
<b>O&amp;M</b>	6%	of Capital Spend
<b>Debt</b>	51%	6.54%
<b>Equity</b>	49%	10.38%
<b>Income Tax</b>	36%	
<b>CAT Tax</b>	0.26%	

\*Assumptions are weighted averages across OE, CEI and TE

	<u>Circuit Work</u>	<u>Reclosers</u>	<u>SCADA</u>	<u>ADMS</u>	
<b>Book Life</b>	30	30	30	7	Years
<b>Tax Life</b>	20	20	20	3	Years
<b>In-Service Lag</b>	0.5	0.5	0.5	1.5	Years
<b>AFUDC</b>	0.8%	0.8%	0.8%	2.5%	
<b>Property Tax</b>	9.7%	9.7%	9.7%	0.0%	
<b>Capital - Yr 1</b>	\$30.0	\$60.0	\$5.0	\$5.0	\$100.0
<b>Capital - Yr 2</b>	\$85.0	\$45.0	\$10.0	\$10.0	\$150.0
<b>Capital - Yr 3</b>	\$125.0	\$45.0	\$15.0	\$15.0	\$200.0

\*Assumptions are weighted averages across OE, CEI and TE

(A)	(B)	(C)	(D)	(E) = (C) + (D)	(F)	(G) = (E) + (F)	(H) = -(D) + Prev (D)	(I)	(J) = (G) x 49% x 10.38%	(K) = (G) x 51% x 6.54%	(L) = (J) x (1 / (1 - 36%) - 1)	(M) = (B) x 12%	(N) = Sum((H)- (M)) x 0.26%	(O) = Sum ((H) - (N))
Year	Capital Spend	Gross Plant In- Service	Reserve	Net Plant	ADIT	Rate Base	Depreciation Expense	Property Tax	Equity Return	Interest Expense	Income Tax	O&M Expense	CAT Tax	Revenue Requirement
1	\$ 100.0	\$ 47.9	\$ (0.8)	\$ 47.1	\$ (7.0)	\$ 40.1	\$ 0.8	\$ 3.9	\$ 2.0	\$ 1.3	\$ 1.1	\$ 6.0	\$ 0.0	\$ 15.2
2	\$ 150.0	\$ 168.9	\$ (4.5)	\$ 164.4	\$ (20.7)	\$ 143.7	\$ 3.7	\$ 13.3	\$ 7.3	\$ 4.8	\$ 4.1	\$ 9.0	\$ 0.1	\$ 42.3
3	\$ 200.0	\$ 340.4	\$ (13.5)	\$ 326.9	\$ (23.2)	\$ 303.7	\$ 9.1	\$ 25.9	\$ 15.4	\$ 10.1	\$ 8.7	\$ 12.0	\$ 0.2	\$ 81.4
4	\$ -	\$ 446.5	\$ (28.3)	\$ 418.2	\$ (27.9)	\$ 390.3	\$ 14.7	\$ 32.4	\$ 19.8	\$ 13.0	\$ 11.2	\$ 13.0	\$ 0.3	\$ 104.4
5	\$ -	\$ 454.2	\$ (46.0)	\$ 408.2	\$ (33.4)	\$ 374.8	\$ 17.7	\$ 31.0	\$ 19.1	\$ 12.5	\$ 10.7	\$ 13.0	\$ 0.3	\$ 104.2

#### Notes

(C) Gross plant in-serviced on a half-year convention and grossed up for the capitalization Allowable Funds Used During Construction (AFUDC)

(C) Circuit ties, Reconductoring, Reclosers and SCADA are capitalized after 6 months; ADMS is capitalized after 18 months

(D) Book Life - Circuit Ties, Reconductoring, Reclosers, SCADA - approx. 30 years; ADMS - 7 years

(F) ADIT: Tax Depreciation - Three-year straight-line for ADMS and MACRS 20 for all remaining. Bonus Depreciation - Year 1 - 40%, Year 2 - 30%;

(I) Property Tax: Annual Property True Value x Property Tax Rate

(L) Then current composite tax rate

**Estimated Rate Calculations****\$/Customer/Month**

Rate Schedule Allocation of Annual Revenue Requirement							
	RS	GS	GP	GSU	ESIP & STL	TRF	POL
Allocation	56.69%	34.25%	3.59%	1.69%	2.64%	0.05%	1.09%
No. of Cust.	1,906,135	220,332	1,760	723	390,963	1,874	25,784

Notes

- 1) Revenue Requirement allocations per Schedule A from Case 07-551-EL-AIR  
 2) Current Number of Monthly Customers

Year	RS	GS	GP	GSU	ESIP & STL	TRF	POL
1	\$0.38	\$1.97	\$25.84	\$29.66	\$0.09	\$0.32	\$0.54
2	\$1.05	\$5.48	\$71.83	\$82.42	\$0.24	\$0.89	\$1.49
3	\$2.04	\$10.68	\$140.09	\$160.75	\$0.46	\$1.73	\$2.91
4	\$2.59	\$13.52	\$177.37	\$203.52	\$0.59	\$2.19	\$3.69
5	\$2.58	\$13.50	\$177.12	\$203.24	\$0.59	\$2.19	\$3.68

Notes

- 1) Monthly Charge = (Annual Revenue Requirement x Rate Schedule Allocation) / Customer Count / 12

\*Rates are weighted averages across all operating companies (OE, CEI, TE)

## Distribution Platform Modernization

### Estimated Non-Shopping Customer Bill Impacts

Rate Schedule	Level of Demand	Level of Usage	Current vs Year 1	Year 1 vs Year 2	Year 2 vs Year 3
	(kw/kVa)	(kWh)	Increase (%)	Increase (%)	Increase (%)
RS		500	0.5%	1.0%	1.4%
RS		750	0.4%	0.7%	1.0%
RS		1,000	0.3%	0.5%	0.7%
RS		1,250	0.2%	0.4%	0.6%
RS		1,500	0.2%	0.3%	0.5%
RS		2,000	0.1%	0.3%	0.4%
GS	10	500	1.3%	2.2%	3.2%
GS	10	1,000	1.0%	1.8%	2.6%
GS	10	3,000	0.6%	1.0%	1.5%
GS	1,000	50,000	0.0%	0.0%	0.0%
GS	1,000	100,000	0.0%	0.0%	0.0%
GS	1,000	300,000	0.0%	0.0%	0.0%
GP	500	25,000	0.4%	0.7%	1.1%
GP	500	100,000	0.2%	0.4%	0.6%
GP	500	200,000	0.1%	0.3%	0.4%
GP	5,000	250,000	0.0%	0.1%	0.1%
GP	5,000	1,000,000	0.0%	0.0%	0.1%
GP	5,000	2,000,000	0.0%	0.0%	0.0%
GSU	1,000	50,000	0.3%	0.5%	0.8%
GSU	1,000	200,000	0.2%	0.3%	0.4%
GSU	1,000	400,000	0.1%	0.2%	0.2%
GSU	10,000	500,000	0.0%	0.1%	0.1%
GSU	10,000	2,000,000	0.0%	0.0%	0.0%
GSU	10,000	4,000,000	0.0%	0.0%	0.0%

*\*Estimated bill Impacts are displayed for a typical customer. Actual customer impacts may be higher or lower based on customer specific usage characteristics.*

*\*\*Rates effective October 1, 2017*

TOTAL OHIO COMPANIES (OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY & THE TOLEDO EDISON COMPANY)										
Advanced Metering Infrastructure Rider (Rider AMI) - Rate Design										
Rate Calculation										
Line			RS	GS	GP	GSU	ESIP & STL	TRF	POL	
No.	Description	Source	Residential	Secondary	Primary	Subtransmission	Street Lighting	Traffic Lighting	Private Outdoor Lighting	Total
A	B	C	D	E	F	G	H	I	J	K
<b>CEI</b>										
1	Revenue Requirement	Revenue Requirement L14							\$	-
2	Revenue Requirement Allocation % per Schedule A (Excluding GT) from D Rate Case	Stip & Recommendation dated 2/11/08	56.69%	34.25%	3.59%	1.69%	2.64%	0.05%	1.09%	100.00%
3	Total Revenue Requirement per Rate Schedule (Excluding GT)	KL1 x L2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Annual Customer Counts	Forecast								
5	CEI Monthly Customer Charge	(L3/L4)								
<b>OE</b>										
6	Revenue Requirement	Revenue Requirement L15							\$	-
7	Revenue Requirement Allocation % per Schedule A (Excluding GT) from D Rate Case	Stip & Recommendation dated 2/11/08	63.85%	27.71%	5.32%	0.87%	1.42%	0.06%	0.78%	100.00%
8	Total Revenue Requirement per Rate Schedule (Excluding GT)	KL6 x L7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Annual Customer Counts	Forecast								
10	OE Monthly Customer Charge	(L8/L9)								
<b>TE</b>										
11	Revenue Requirement	Revenue Requirement L16							\$	-
12	Revenue Requirement Allocation % per Schedule A (Excluding GT) from D Rate Case	Stip & Recommendation dated 2/11/08	58.74%	32.58%	4.87%	0.11%	2.95%	0.05%	0.70%	100.00%
13	Total Revenue Requirement per Rate Schedule (Excluding GT)	KL11 x L12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Annual Customer Counts	Forecast								
15	TE Monthly Customer Charge	(L13/L14)								

The Cleveland Electric Illuminating Company  
Ohio Edison Company  
The Toledo Edison Company

### Rider AMI Revenue Requirement Calculation

	(\$ millions)	CEI	OE	TE	Total	Source
(1)	Gross Plant	\$ -	\$ -	\$ -	\$ -	Net Plant
(2)	Reserve	\$ -	\$ -	\$ -	\$ -	Net Plant
(3)	Net Plant	\$ -	\$ -	\$ -	\$ -	(1) + (2)
(4)	ADIT	\$ -	\$ -	\$ -	\$ -	- ADIT Balances
(5)	Rate Base	\$ -	\$ -	\$ -	\$ -	(3) + (4)
(6)	Depreciation Expense	\$ -	\$ -	\$ -	\$ -	Depr. Exp. Calc.
(7)	Property Tax Expense	\$ -	\$ -	\$ -	\$ -	Property Tax Exp. Calc.
(8)	O&M Expense	\$ -	\$ -	\$ -	\$ -	Estimated O&M Exp
(9)	Return @ 8.42%	\$ -	\$ -	\$ -	\$ -	(5) x (13)
(10)	Reconciliation	\$ -	\$ -	\$ -	\$ -	
(11)	Revenue Requirement	\$ -	\$ -	\$ -	\$ -	(6) + (7) + (8) + (9) + (10)

Capital Structure & Returns				
		% mix	rate	wtd rate
(12)	Debt	51%	6.54%	3.3%
(13)	Equity	49%	10.38%	5.1%
(14)				8.42%

	(a)	(b)	(c)	(d)	(e)	(f)	
	Revenue Requirement with Tax	Equity Return	Tax Rate	Income Tax	CAT 0.26%	Taxes	Rev. Req. + Tax
(15)	CEI	\$ -		\$ -	\$ -	\$ -	\$ -
(16)	OE	\$ -		\$ -	\$ -	\$ -	\$ -
(17)	TE	\$ -		\$ -	\$ -	\$ -	\$ -
	Total	\$ -		\$ -	\$ -	\$ -	\$ -

(a) = Weighted Cost of Equity x Rate Base

(b) = Current composite income tax rates

(c) = (a) x (1 / (1-(b))) - 1

(d) = (Rev. Req. + (c)) x (1/(1-.26%) - 1)

(e) = (c) + (d)

(f) = (e) + Rev. Req. from Line 11

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**Case No(s). 17-2436-EL-UNC**

Summary: Application Attachments B through E electronically filed by Mr. James F Lang on behalf of Ohio Edison Company and The Cleveland Electric Illuminating Company and The Toledo Edison Company