

MPSC Case No. U-20276

UPPCO Exhibit List

Part	UPPCO Exhibit No.	Schedule	Title	Witness
I	A-1	A1	Historical Revenue Deficiency (Sufficiency)	Nicholas E. Kates
I	A-1	A2	Historical Financial Metrics	Nicholas E. Kates
I	A-2	B1	Historical Rate Base	Nicholas E. Kates
I	A-2	B2	Historical Utility Plant	Nicholas E. Kates
I	A-2	B3	Historical Depreciation Reserve and Other Deductions	Nicholas E. Kates
I	A-2	B4	Historical Working Capital	Nicholas E. Kates
I	A-2	C1	Historical Adjusted Net Operating Income	Nicholas E. Kates
I	A-3	C2	Historical Revenue Conversion Factor	Nicholas E. Kates
I	A-3	C3	Historical Operating Revenue	Nicholas E. Kates
I	A-3	C4	Historical Fuel and Purchased Power/Cost of Gas Sold	Nicholas E. Kates
I	A-3	C5	Historical Operation and Maintenance Expenses	Nicholas E. Kates
I	A-3	C6	Historical Depreciation and Amortization Expenses	Nicholas E. Kates
I	A-3	C7	Historical General Taxes	Nicholas E. Kates
I	A-3	C8	Historical Federal Income Taxes	Nicholas E. Kates
I	A-3	C9	Historical State Income Taxes	Nicholas E. Kates
I	A-3	C10	Historical Other (or Local) Taxes	Nicholas E. Kates
I	A-3	C11	Historical Allowance for Funds Used During Construction	Nicholas E. Kates
I	A-4	D1	Historical Rate of Return Summary	Nicholas E. Kates
I	A-4	D2	Historical Cost of Long-Term Debt	Nicholas E. Kates
I	A-4	D3	Historical Cost of Short-Term Debt	Nicholas E. Kates
I	A-4	D4	Historical Cost of Preferred Stock	Nicholas E. Kates
I	A-4	D5	Historical Cost of Common Shareholders' Equity	Nicholas E. Kates
I	A-5	E1	Historical Sales, Load and Customer Data	Eric W. Stocking
I	A-11	A1	Projected Revenue Deficiency (Sufficiency)	Nicholas E. Kates
I	A-11	A2	Projected Financial Metrics	Nicholas E. Kates
I	A-12	B1	Projected Rate Base	Nicholas E. Kates
I	A-12	B2	Projected Utility Plant	Nicholas E. Kates
I	A-12	B3	Projected Accumulated Provision for Depreciation	Nicholas E. Kates
I	A-12	B4	Projected Working Capital	Nicholas E. Kates
I	A-12	B5	Projected Capital Expenditure Summary and Supporting Exhibits	Nicholas E. Kates
I	A-12	B5.1	Projected Power Generation CAPEX Summary	Nicholas E. Kates
I	A-12	B5.4	Projected Distribution & Substation CAPEX by Business Driver	Nicholas E. Kates
I	A-12	B5.5	Projected Advanced Metering Infrastructure (AMI) CAPEX	Nicholas E. Kates
I	A-12	B5.6	Projected Total Corporate General Plant CAPEX	Nicholas E. Kates
I	A-13	C1	Projected Net Operating Income	Nicholas E. Kates
I	A-13	C2	Projected Revenue Conversion Factor	Nicholas E. Kates
I	A-13	C3	Projected Sales Revenue	Nicholas E. Kates
I	A-13	C4	Projected Fuel and Purchased Power/Cost of Gas Sold	Nicholas E. Kates
I	A-13	C5	Projected Operation and Maintenance Expenses	Nicholas E. Kates
I	A-13	C6	Projected Depreciation and Amortization Expenses	Nicholas E. Kates
I	A-13	C7	Projected General Taxes	Nicholas E. Kates
I	A-13	C8	Projected Federal Income Taxes	Nicholas E. Kates
I	A-13	C9	Projected State Income Taxes	Nicholas E. Kates
I	A-13	C10	Projected Other (or Local) Taxes	Nicholas E. Kates
I	A-13	C11	Projected Allowance for Funds Used During Construction	Nicholas E. Kates
I	A-14	D1	Projected Rate of Return Summary	Nicholas E. Kates
I	A-14	D2	Projected Cost of Long-Term Debt	Nicholas E. Kates
I	A-14	D3	Projected Cost of Short-Term Debt	Nicholas E. Kates
I	A-14	D4	Projected Cost of Preferred Stock	Nicholas E. Kates
I	A-14	D5	Projected Cost of Common Shareholders' Equity	Nicholas E. Kates
I	A-15	E1.1	Projected Sales, Load and Customer Data	Eric W. Stocking
I	A-15	E1.2	Projected	Eric W. Stocking
I	A-15	E1.3	Projected	Eric W. Stocking
I	A-15	E2.1	Projected	Eric W. Stocking
I	A-15	E2.2	Projected	Eric W. Stocking

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UPPCO Exhibit List

Part	UPPCO Exhibit No.	Schedule	Title	Witness
I	A-16	F1	Projected Cost of Service Allocation Study	Gradon R. Haehnel
I	A-16	F2	Summary of Present and Proposed Revenues	Eric W. Stocking
I	A-16	F3	Detail of Present and Proposed Revenues	Eric W. Stocking
I	A-16	F4	Comparison of Present and Proposed Monthly Bills	Eric W. Stocking
I	A-16	F5	Proposed Tariff Sheets	Eric W. Stocking
I	A-17		2019 Financial Summary	Nicholas E. Kates
I	A-18		2019 Forecast Adjustments	Nicholas E. Kates
I	A-19		FERC 926 Summary	Nicholas E. Kates
I	A-20		AFUDC Calculation	Nicholas E. Kates
I	A-21		2019 LIBOR	Nicholas E. Kates
I	A-22		Q2-2018 CPI	Nicholas E. Kates
I	A-23		Salary & Wage Adjustment	Nicholas E. Kates
I	A-24		Uncollectible Accounts (Bad Debt Expense)	Nicholas E. Kates
I	A-25		Willis Towers & Watson Report - Pension & OPEB	Nicholas E. Kates
I	A-26		UPPCO Information Technology (IT) CAPEX	Nicholas E. Kates
I	A-27		UPPCO Capital Expenditures (CAPEX) by Business Line	Keith E. Moyle
I	A-28		UPPCO Facility CAPEX	Keith E. Moyle
I	A-29		UPPCO Substation CAPEX	Keith E. Moyle
I	A-30		UPPCO Generation CAPEX	Keith E. Moyle
I	A-31		UPPCO Distribution Reliability CAPEX	Keith E. Moyle
I	A-32		2013-2017 Reliability Indices (as Filed)	Keith E. Moyle
I	A-33		2013-2017 Reliability Indices (as Revised)	Keith E. Moyle
I	A-34		Major Event Days	Keith E. Moyle
I	A-35		Weather Outages by Cause	Keith E. Moyle
I	A-36		2015-2017 Pole Inspections	Keith E. Moyle
I	A-37		2015-2017 Underground Inspections	Keith E. Moyle
I	A-38		2018-2020 System Hardening and Reliability Projects	Keith E. Moyle
I	A-39		6 Year Distribution Line Clearance Program	Keith E. Moyle
I	A-40		Revenue Credit Update	Gradon R. Haehnel
I	A-41		2019 Escanaba Forecast Adjustments	Gradon R. Haehnel
I	A-42		PSCR Base	Eric W. Stocking
I	A-43		MPSC Staff Report U-17000	Jason Brynick
I	A-44		EIA Smart Meter Report	Jason Brynick
I	A-45		Itron OpenWay Riva Security	Jason Brynick
I	A-46		Non-Standard Meter Provision Cost Calculation	Jason Brynick
I	A-47		AMI Business Process Requirements Summary	Jason Brynick
I	A-48		AMI Project Cost Analysis	Jason Brynick
I	A-49		AMI Project Benefits for OWOC	Jason Brynick
I	A-50		AMI Project Benefits for MDM	Jason Brynick
I	A-51		AMI Financial Analysis	Jason Brynick
I	A-52		AMI Revenue Requirement	Jason Brynick
I	A-53		AMI Project Schedule	Jason Brynick
I	A-54		Non-Standard Meter Definition	Jason Brynick
I	A-55		Non-Standard Meter Provision	Jason Brynick
I	A-57		ROE Analyses Summary of Results	Adrien M. McKenzie
I	A-58		Regulatory Mechanisms	Adrien M. McKenzie
I	A-59		Capital Structure	Adrien M. McKenzie
I	A-60		DCF Model	Adrien M. McKenzie
I	A-61		DCF Model BR+SV Growth Rate	Adrien M. McKenzie
I	A-62		CAPM	Adrien M. McKenzie
I	A-63		Empirical CAPM	Adrien M. McKenzie
I	A-64		Electric Utility Risk Premium	Adrien M. McKenzie
I	A-65		Expected Earnings Approach	Adrien M. McKenzie
I	A-66		DCF Model - Non-Utility Group	Adrien M. McKenzie
II			Annual Reports to the MPSC P-521 (electric) P-522 (gas) for the most recent 2 years	
II	n/a	n/a	Annual Report to the SEC Form 10-K	
II	n/a	n/a	Quarterly Report to Shareholders (most recent 4 quarters)	

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UPPCO Exhibit List

Part	UPPCO Exhibit No.	Schedule	Title	Witness
II	n/a	n/a	Bond and other financial prospectuses for issuances during the past 2 years	
III	n/a	n/a	see "Pivot_Master"	
	B5 schedules from Juris			

Schedule A1

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Deficiency (Sufficiency)
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-1 (NEK-1)
Schedule: A1
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Rate Base	Exh. A-2 (NEK-x), Sch. B1	\$ 254,699,521	\$ 251,943,359	\$ 2,756,162
3					
4	Adjusted Net Operating Income	Exh. A-3 (NEK-x), Sch. C1	\$ 12,157,523	\$ 12,453,448	\$ (45,522)
5					
6	Overall Rate of Return	Line 4 ÷ Line 2	4.77%	4.94%	-1.65%
7					
8	Required Rate of Return	Exh. A-4 (NEK-x), Sch. D1	6.93%	6.93%	6.93%
9					
10	Income Requirements	Line 2 x Line 8	\$ 17,660,101	\$ 17,468,997	\$ 191,104
11					
12	Income Deficiency (Sufficiency)	Line 10 - Line 4	\$ 5,502,578	\$ 5,015,549	\$ 236,626
13					
14	Revenue Conversion Factor	Exh. A-3 (NEK-x), Sch. C2	1.6367	1.6367	1.6367
15					
16	Revenue Deficiency (Sufficiency)	Line 12 x Line 14	<u>\$ 9,006,069</u>	<u>\$ 8,208,948</u>	<u>\$ 387,286</u>
17					
18	Revenue Credit U-17564		\$ (4,333,333)	\$ (4,333,333)	\$ -
19					
20	Defer Pension & Transition Costs		(\$390,000)	(\$390,000)	
21					
22	Revenue Deficiency		<u>\$ 4,282,736</u>	<u>\$ 3,485,615</u>	<u>\$ 387,286</u>
23					
24	Percentage Increase (Decrease)		4.07%	3.34%	N/A
25					
26	Actual ROE		5.52%	5.87%	
27					
28	Revenue Deficiency		\$ 4,282,736	\$ 3,485,615	
29					

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Financial Basis

Case No.: U-20276
Exhibit No.: A-1 (NEK-1)
Schedule: A-2
Page: 1 of 6
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Description	Calendar Year				
		2017	2016	2015	2014	2013
1	Operating Revenue	105,302,888	108,640,595	120,128,340	121,295,461	113,050,599
2	Operating Expenses	88,083,295	91,129,784	107,481,791	99,639,110	95,369,251
3	Pre-Tax Operating Income	17,219,593	17,510,811	12,646,549	21,656,351	17,681,348
4	Income Taxes	4,229,957	4,678,675	2,882,182	6,951,060	5,301,478
5	Net Operating Income	12,989,636	12,832,136	9,764,367	14,705,291	12,379,870
6	Other Income and Deductions	12,910,635	644,816	71,259	18,822	1,161,081
7	AFUDC	-	71,773	112,343	-	-
8	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
9	Preferred Stock Dividends	-	-	-	-	-
10	Net Income Available for Common	(5,453,837)	6,867,059	4,514,546	10,719,766	10,177,959
11	Average Common Equity	162,917,890	172,621,728	174,249,670	182,532,745	100,923,087
12	Earned Rate of Return on Common Equity	-3.35%	3.98%	2.59%	5.87%	10.08%
13	Authorized Rate of Return on Common Equity	10.00%	10.00%	10.15%	10.15%	10.15%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Financial Basis

Case No.: U-20276
Exhibit No.: A-1 (NEK-1)
Schedule: A-2
Page: 2 of 6
Witness: Nicholas E. Kari

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Description	Calendar Year				
		2017	2016	2015	2014	2013
	<u>EBIT Interest Coverage Ratio</u>					
14	Pre-Tax Operating Income	17,219,593	17,510,811	12,646,549	21,656,351	17,681,348
15	Other Income and Deductions	12,910,635	644,816	71,259	18,822	1,161,081
16	AFUDC	-	71,773	112,343	-	-
17	Total EBIT	30,130,228	18,227,400	12,830,151	21,675,173	18,842,429
18	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
19	EBIT Interest Coverage Ratio	5.45	3.38	2.42	5.46	5.60
	<u>EBITDA Interest Coverage Ratio</u>					
20	Total EBIT	30,130,228	18,227,400	12,830,151	21,675,173	18,842,429
21	Depreciation and Amortization	11,788,518	11,224,107	9,545,547	9,666,150	9,328,730
22	Total EBITDA	41,918,746	29,451,507	22,375,698	31,341,323	28,171,159
23	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
24	EBITDA Interest Coverage Ratio	7.58	5.46	4.23	7.90	8.38
	<u>Funds Flow from Operations (FFO) Interest Coverage Ratio</u>					
25	Net Operating Income	12,989,636	12,832,136	9,764,367	14,705,291	12,379,870
26	Depreciation and Amortization	11,788,518	11,224,107	9,545,547	9,666,150	9,328,730
27	Deferred Income Tax	4,229,957	4,678,675	2,882,182	6,951,060	5,301,478
28	AFUDC	-	71,773	112,343	-	-
29	Other Major Recurring Non-Cash Items	-	-	-	-	-
30	Interest Paid	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
31	Less:					
32	Operating Lease Adjustment to Depreciation	-	-	-	-	-
33	Subtotal	34,540,949	34,198,725	27,595,344	35,289,204	30,373,070
34	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
35	FFO Interest Coverage Ratio	6.24	6.34	5.22	8.90	9.03

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Financial Basis

Case No.: U-20276
Exhibit No.: A-1 (NEK-1)
Schedule: A-2
Page: 3 of 6
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Description	Calendar Year				
		2017	2016	2015	2014	2013
	<u>Overall Fixed Charge Coverage Ratio</u>					
36	Net Income Available for Common	(5,453,837)	6,867,059	4,514,546	10,719,766	10,177,959
37	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
38	Subtotal Numerator	79,001	12,259,093	9,805,451	14,686,469	13,540,951
39	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
40	Preferred Stock Dividends	-	-	-	-	-
41	Subtotal Denominator	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
42	Overall Fixed Charge and Coverage Ratio	0.01	2.27	1.85	3.70	4.03
	<u>Cash Flow Coverage of Dividends Ratio</u>					
43	Net Income Available for Common	(5,453,837)	6,867,059	4,514,546	10,719,766	10,177,959
44	Depreciation and Amortization	11,788,518	11,224,107	9,545,547	9,666,150	9,328,730
45	Deferred Taxes	4,229,957	4,678,675	2,882,182	6,951,060	5,301,478
46	Subtotal	10,564,638	22,769,841	16,942,275	27,336,976	24,808,167
47	Common Dividends	-	-	-	-	-
48	Cash Flow Coverage of Dividends Ratio	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	<u>Common Dividend Payout Ratio</u>					
49	Common Dividends	-	-	-	-	-
50	Net Income Available for Common	(5,453,837)	6,867,059	4,514,546	10,719,766	10,177,959
51	Common Dividend Payout Ratio	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	<u>Permanent Capitalization</u>					
52	Long Term Debt	108,200,000	108,200,000	108,200,000	108,200,000	60,000,000
53	Preferred Stock	-	-	-	-	-
54	Common Equity	162,917,890	172,621,728	174,249,670	182,532,745	100,923,087
55	Total Permanent Capital	271,117,890	280,821,728	282,449,670	290,732,745	160,923,087
56	Long Term Debt	39.9%	38.5%	38.3%	37.2%	37.3%
57	Preferred Stock	0.0%	0.0%	0.0%	0.0%	0.0%
58	Common Equity	60.1%	61.5%	61.7%	62.8%	62.7%
59	Total Permanent Capital	100.0%	100.0%	100.0%	100.0%	100.0%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-1 (NEK-1)
Schedule: A-2
Page: 4 of 6
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Description	Calendar Year				
		2017	2016	2015	2014	2013
60	Operating Revenue	105,302,888	108,640,595	120,128,340	121,295,461	113,050,599
61	Operating Expense	88,083,295	91,129,784	107,481,791	99,639,110	95,369,251
62	Pre-Tax Operating Income	17,219,593	17,510,811	12,646,549	21,656,351	17,681,348
63	Income Taxes	4,229,957	4,678,675	2,882,182	6,951,060	5,301,478
64	Net Operating Income	12,989,636	12,832,136	9,764,367	14,705,291	12,379,870
65	Tax Impact of Pro-Forma Interest on NOI	-	-	-	-	-
66	AFUDC	-	71,773	112,343	-	-
67	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
68	Preferred Stock Dividends	-	-	-	-	-
69	Net Income Available for Common and JDITC	7,456,798	7,511,875	4,585,805	10,738,588	9,016,878
70	Return Assignable to JDITC	-	-	-	-	-
71	Net Income Available for Common	7,456,798	7,511,875	4,585,805	10,738,588	9,016,878
72	Average Common Equity	124,254,333	121,117,557	126,683,252	133,891,947	91,058,887
73	Earned Rate of Return on Common Equity	6.00%	6.20%	3.62%	8.02%	9.90%
74	Authorized Return on Equity	10.00%	10.00%	10.15%	10.15%	10.15%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-1 (NEK-1)
Schedule: A-2
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Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Description	Calendar Year				
		2017	2016	2015	2014	2013
	<u>EBIT Interest Coverage Ratio</u>					
75	Pre-Tax Operating Income	17,219,593	17,510,811	12,646,549	21,656,351	17,681,348
76	AFUDC	-	71,773	112,343	-	-
77	Total EBIT	17,219,593	17,582,584	12,758,892	21,656,351	17,681,348
78	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
79	EBIT Interest Coverage Ratio	3.11	3.26	2.41	5.46	5.26
	<u>EBITDA Interest Coverage Ratio</u>					
80	Total EBIT	17,219,593	17,582,584	12,758,892	21,656,351	17,681,348
81	Depreciation and Amortization	11,788,518	11,224,107	9,545,547	9,666,150	9,328,730
82	Total EBITDA	29,008,111	28,806,691	22,304,439	31,322,501	27,010,078
83	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
84	EBITDA Interest Coverage Ratio	5.24	5.34	4.22	7.90	8.03
	<u>Funds Flow from Operations (FFO)</u>					
	<u>Interest Coverage Ratio</u>					
85	Net Operating Income	12,989,636	12,832,136	9,764,367	14,705,291	12,379,870
86	Depreciation and Amortization	11,788,518	11,224,107	9,545,547	9,666,150	9,328,730
87	Deferred Income Tax	4,229,957	4,678,675	2,882,182	6,951,060	5,301,478
88	AFUDC	-	71,773	112,343	-	-
89	Other Major Recurring Non-Cash Items	-	-	-	-	-
90	Interest Paid	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
91	Less:					
92	Operating Lease Adjustment	-	-	-	-	-
93	Subtotal	34,540,949	34,198,725	27,595,344	35,289,204	30,373,070
94	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
95	FFO Interest Coverage Ratio	6.24	6.34	5.22	8.90	9.03
	<u>Overall Fixed Charge Coverage Ratio</u>					
96	Net Income Available for Common	7,456,798	7,511,875	4,585,805	10,738,588	9,016,878
97	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
98	Subtotal Numerator	12,989,636	12,903,909	9,876,710	14,705,291	12,379,870
99	Interest Charges	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
100	Preferred Stock Dividends	-	-	-	-	-
101	Subtotal Denominator	5,532,838	5,392,034	5,290,905	3,966,703	3,362,992
102	Overall Fixed Charge Coverage Ratio	2.35	2.39	1.87	3.71	3.68

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-1 (NEK-1)
Schedule: A-2
Page: 6 of 6
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Description	Calendar Year				
		2017	2016	2015	2014	2013
	<u>Cash Flow Coverage of Dividends Ratio</u>					
103	Net Income Available for Common	7,456,798	7,511,875	4,585,805	10,738,588	9,016,878
104	Depreciation and Amortization	11,788,518	11,224,107	9,545,547	9,666,150	9,328,730
105	Deferred Taxes	4,229,957	4,678,675	2,882,182	6,951,060	5,301,478
106	Subtotal	23,475,273	23,414,657	17,013,534	27,355,798	23,647,086
107	Common Dividends	-	-	-	-	-
108	Cash Flow Coverage of Dividends Ratio	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	<u>Common Dividend Payout Ratio</u>					
109	Common Dividends	-	-	-	-	-
110	Net Income Available for Common	7,456,798	7,511,875	4,585,805	10,738,588	9,016,878
111	Common Dividend Payout Ratio	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	<u>Permanent Capitalization</u>					
112	Long Term Debt (excluding Securitization)	108,200,000	108,200,000	108,200,000	108,200,000	60,000,000
113	Preferred Stock	-	-	-	-	-
114	Common Equity	124,254,333	121,117,557	126,683,252	133,891,947	91,058,887
115	Total Permanent Capital	232,454,333	229,317,557	234,883,252	242,091,947	151,058,887
116	Long Term Debt (Excluding Securitization)	46.5%	47.2%	46.1%	44.7%	39.7%
117	Preferred Stock	0.0%	0.0%	0.0%	0.0%	0.0%
118	Common Equity	53.5%	52.8%	53.9%	55.3%	60.3%
119	Total Permanent Capital	100.0%	100.0%	100.0%	100.0%	100.0%

Schedule B1

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Rate Base
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-2 (NEK-2)
Schedule: B1
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Integrated Retail	Wholesale
1					
2	Plant in Service	Exh A-2 (NEK-x), Sch B2	311,220,806	307,315,899	3,904,907
3	Plant Held for Future Use	Exh A-2 (NEK-x), Sch B2	-	-	-
4	Construction Work in Progress	Exh A-2 (NEK-x), Sch B2	13,128,567	12,894,456	234,111
5	Total Utility Plant		324,349,374	320,210,355	4,139,018
6					
7	Less: Depreciation Reserve	Exh A-2 (NEK-x), Sch B3	129,894,825	128,068,468	1,826,357
8					
9	Net Utility Plant	Line 5 - Line 7	194,454,548	192,141,887	2,312,661
10					
11	Net Capital Lease Property		-	-	-
12					
13	Total Utility Property and Plant	Line 9 + Line 11	194,454,548	192,141,887	2,312,661
14					
15	Less: Capital Lease Obligations		-	-	-
16					
17	Net Plant	Line 13 + Line 15	194,454,548	192,141,887	2,312,661
18					
19	Allowance for Working Capital	Exh A-2 (NEK-x), Sch B4	60,244,973	59,801,472	443,501
20					
21	Total Rate Base	Line 17 + Line 19	254,699,521	251,943,359	2,756,162

Schedule B2

Michigan Public Service Commission
Upper Peninsula Power Company
Total Utility Plant
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-2 (NEK-2)
Schedule: B2
Page: 1 of 1
Witness: Nicholas E. Kates

(a)		(b)	(c)	(d)	(e)
		MPSC			
Line No.	Description	Account No.	Total	Retail	Wholesale
1					
2	Plant in service	101	310,457,816	306,562,483	3,895,334
3	Plant purchased or sold	102	-	-	-
4	Experimental plant unclassified	103	-	-	-
5	Plant leased to others	104	-	-	-
6	Completed construction not classified	106	762,990	753,417	9,573
7	Plant in Service		311,220,806	307,315,899	3,904,907
8					
9	Plant held for future use	105			
10					
11	Construction work in progress	107	13,128,567	12,894,456	234,111
12					
13	Total Projected Test Period Utility Plant	Line 7 + Line 11	324,349,374	320,210,355	4,139,018

Schedule B3

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation Reserve and Other Deductions
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-2 (NEK-2)
Schedule: B3
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Total Historical Period Accumulated Provision for Depreciation	2017 Balance Sheet	<u>129,894,825</u>	<u>128,068,468</u>	<u>1,826,357</u>

Schedule B4

Michigan Public Service Commission
Upper Peninsula Power Company
Working Capital
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-2 (NEK-2)
Schedule: B4
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	<u>Assets</u>				
3					
4	Fuel Stock	2017 Balance Sheet	377,882	377,882	-
5	Materials & Supplies	2017 Balance Sheet	2,800,202	2,731,238	68,964
6	Customer Advances	2017 Balance Sheet	(2,062,867)	(2,062,867)	-
7	Special Deposits (Pension and Benefits)	2017 Balance Sheet	293,740	291,600	2,140
8	Customer Accounts Recievable	2017 Balance Sheet	13,926,531	13,825,057	101,474
9	Other Accounts Recievable	2017 Balance Sheet	319,133	316,808	2,325
10	Accum Provision Uncollectible Accounts	2017 Balance Sheet	(1,113,275)	(1,105,163)	(8,112)
11	Accounts Recievable from Assoc Co.	2017 Balance Sheet	-	-	-
12	Taxes Recievable Other Co.		-		
13	Misc and Accrued Assets	2017 Balance Sheet	234,400	232,692	1,708
14	Derivative Assets	2017 Balance Sheet	137,326	136,325	1,001
15	Other Deferred Debits	2017 Balance Sheet	62,046,796	61,594,700	452,096
16	Unamort Debt Exp.	2017 Balance Sheet	1,638,544	1,626,605	11,939
17	Prepayments	2017 Balance Sheet	1,394,631	1,379,082	15,549
18	Cash and BaNEK Balances	2017 Balance Sheet	2,675,282	2,665,553	9,729
19	Other	2017 Balance Sheet	5,830,501	5,830,501	0
20					
21	Total Assets	Sum of Lines 3 - 21	88,498,826	87,840,012	658,813
22					
23	<u>Liabilities</u>				
24	Def Cr SERP	2017 Balance Sheet	(4,962,471)	(4,926,313)	(36,158)
25	Accounts Payable	2017 Balance Sheet	(13,675,064)	(13,575,422)	(99,642)
26	Accounts Payable Other	2017 Balance Sheet	-	-	-
27	Accrued Interest	2017 Balance Sheet	(1,139,011)	(1,130,711)	(8,299)
28					
29	Tax Collections Payable	2017 Balance Sheet	(4,460)	(4,428)	(32)
30	Misc Current and Accrued Liabilities	2017 Balance Sheet	(4,362,694)	(4,330,906)	(31,788)
31	Derivative Liabilities	2017 Balance Sheet	-	-	-
32	Other Deferred Credits	2017 Balance Sheet	(1,631,571)	(1,619,683)	(11,888)
33	Regulatory Liabilities	2017 Balance Sheet	(887,977)	(881,507)	(6,470)
34	Taxes	2017 Balance Sheet	(1,590,605)	(1,569,571)	(21,034)
35					
36	Total Liabilities	Sum of Lines 27 - 40	(28,253,853)	(28,038,540)	(215,313)
37					
38	Total Projected Test Period Working Capital	Line 22 - Line 41	60,244,973	59,801,472	443,501

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Adjusted Net Operating Income
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule: C1
Page: 1 of 2
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Operating Revenues	Exh A-3 (NEK-x), Sch. C3	105,302,888	104,459,903	842,985
3					
4	<u>Operating Expenses</u>				
5	Fuel and Purchased Power (Electric Only)	Exh A-3 (NEK-x), Sch. C4	33,670,891	33,670,891	-
6	Operations and Maintenance Expenses	Exh A-3 (NEK-x), Sch. C5	36,181,557	35,481,121	700,436
7	Depreciation and Amortization	Exh A-3 (NEK-x), Sch. C6	11,785,410	11,620,862	164,548
8	General Taxes	Exh A-3 (NEK-x), Sch. C7	6,460,336	6,377,932	82,404
9	Income Taxes	Exh A-3 (NEK-x), Sch. C8 & C9	4,807,861	4,866,611	(58,750)
10	Total Operating Expenses	Sum of Lines 5 - 9	<u>92,906,055</u>	<u>92,017,417</u>	<u>888,638</u>
11					
12	Operating Income	Line 2 - Line 10	12,396,833	12,442,486	(45,653)
13					
14	<u>Operating Income Adjustments</u>				
15	Allowance For Funds Used During Construction				
16	Loss on Reacquired Securities				
17	Interest	2017 Income Statement	(250,403)	-	-
18	Income Tax Effect of Interest	2017 Income Statement	11,123	10,992	131
19	Interest Synchronization Adjustment	Exh A-3 (NEK-x), Sch. C1 page 2	(30)	(30)	(0)
20	Total Operating Income Adjustments	Sum of Lines 15 - 19	<u>(239,310)</u>	<u>10,962</u>	<u>131</u>
21					
22	Adjusted Net Operating Income	Line 12 - Line 20	<u><u>12,157,523</u></u>	<u><u>12,453,448</u></u>	<u><u>(45,522)</u></u>

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Actual Net Operating Income
for the Historical Year Ended, December 31, 2017
Net Operating Income

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C1
Page: 2 of 2
Witness: Nicholas E. Kates

Interest Synchronization Calculation

Line	Description	Source	Total	Retail	Wholesale
1	Rate Base	Exh. A-10 (NEK-7), Sch. B1	254,699,521	251,943,359	2,756,162
2	% of Capital Represented by Debt	Exh. A-12 (NEK-2), Sch. D1	45.5975%	45.5975%	45.5975%
3	Portion of Rate Base Funded by Debt	Line 1 x Line 2	116,136,575	114,879,834	1,256,740
4					
5	Cost of Debt	Exh. A-12 (NEK-2), Sch. D1	4.7198%	4.7198%	4.7198%
6	Interest Allowed	Line 3 x Line 5	5,481,430	5,422,114	59,316
7					
8	Interest Deduction on Taxes	Exh A-11 (NEK-8), Sch. C8	5,481,479	5,422,163	59,316
9					
10	Add Interest Deduct	Line 6 - Line 8	(49)	(49)	(1)
11					
12	Affect of Interest Allowed		(30.10)	(30)	(0)

Schedule C2

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Conversion Factor
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C2
Page: 1 of 1
Witness: Nicholas E. Kates

Line	Description	Calculations	Amount
1			
2	Income Before Income Taxes		100.000%
3			
4	Michigan Corporate Income Tax	Exh A-3 (NEK-x), Sch. C9	6.000%
5			
6	Wisconsin Corporate Income Tax	Exh A-3 (NEK-x), Sch. C9	0.000%
7			
8	Subtotal of State Income Tax	Line 4 + Line 6	6.000%
9			
10	Federal Income Tax Base	Line 2 - Line 8	94.000%
11			
12	Federal Income Tax Rate	Exh A-3 (NEK-x), Sch. C8	35.000%
13			
14	Effective Federal Income Tax	Line 10 * Line 12	32.900%
15			
16	Income After Taxes	Line 10 - Line 14	61.100%
17			
18	Gross Revenue Conversion Factor	Line 2 / Line 16	1.6367

Schedule C3

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Operating Revenue
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C3
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Present Revenues	2017 Income Statement	109,570,255	109,570,255	-
3					
4	Other Adjustments	2017 Income Statement	(4,267,367)	(5,110,352)	842,985
5					
6	Total Revenue	Line 2 + Line 4	<u>105,302,888</u>	<u>104,459,903</u>	<u>842,985</u>

Schedule C4

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Fuel and Purchased Power
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C4
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Fuel	2017 Income Statement	119,774	119,774	-
3	Purchased Power	2017 Income Statement	27,157,938	27,157,938	-
4	Transmission (PSCR Related)	2017 Income Statement	6,393,179	6,393,179	-
5					
6	Total Production		33,670,891	33,670,891	-

Schedule C5

Michigan Public Service Commission
Upper Peninsula Power Company
Historical Operation and Maintenance Expenses
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C5
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Operation and Maintenance Expenses:				
3	Production	2017 Income Statement	3,439,202	3,439,202	-
4	Distribution	2017 Income Statement	13,963,730	13,655,019	308,711
5	Transmission (Non PSCR Related)	2017 Income Statement	465,845	465,845	-
6	Customer Accounts	2017 Income Statement	4,766,762	4,766,762	-
7	Customer Service	2017 Income Statement	2,751,389	2,751,389	-
8	Sales	2017 Income Statement	-	-	-
9	Administrative and General	2017 Income Statement	10,794,629	10,402,904	391,725
10					
11	Total Operation and Maintenance Expenses		<u>36,181,557</u>	<u>35,481,121</u>	<u>700,436</u>

Schedule C6

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation and Amortization Expense
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C6
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Depreciation and Amortization Expense				
3	Depreciation & Amortization Expense	2017 Income Statement	11,785,410	11,620,862	164,548
4	Other Amortization Expense	2017 Income Statement	-	-	-
5					
6	Total Depreciation and Amortization Expense	Line 3 + Line 4	<u>11,785,410</u>	<u>11,620,862</u>	<u>164,548</u>

Schedule C7

Michigan Public Service Commission
Upper Peninsula Power Company
General Taxes
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C7
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Taxes Other Than Income Taxes				
3					
4	FEDERAL				
5	Retirement Benefits	2017 Income Statement	716,914	706,615	10,299
6	Unemployment Comp	2017 Income Statement	4,526	4,461	65
7	Super Fund Tax	2017 Income Statement	-	-	-
8	Highway Use Tax				
9					
10	STATE				
11	Gross Receipts Tax				
12	Unemployment Comp	2017 Income Statement	18,429	18,164	265
13	Unitary Fees	2017 Income Statement	-	-	-
14	Use Tax	2017 Income Statement	-	-	-
15	Unauthor Ins Tax	2017 Income Statement	-	-	-
16	Wis Recycling Fee	2017 Income Statement	-	-	-
17	Single Business Tax	2017 Income Statement	-	-	-
18	Property	2017 Income Statement	5,720,467	5,648,692	71,775
19					
20	LOCAL				
21	Real Est & Property				
22					
23	IBS				
24	IBS Payroll Tax	2017 Income Statement	-	-	-
25					
26	OTHER				
27	Franchise Tax Fees		-		
28					
29	Total Taxes Other Than Income Taxes	Sum of Lines 5 - 27	<u>6,460,336</u>	<u>6,377,932</u>	<u>82,404</u>

Schedule C8

Michigan Public Service Commission
Upper Peninsula Power Company
Federal Income Taxes
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C8
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line					
No.	Description	Source	Total	Integrated Retail	Wholesale
	Federal				
1	Book Income Before Taxes & Interest	Exhibit A-3 (NEK-x) Sch C-1	17,204,694	17,309,097	(104,403)
2	Interest Expense	Line 22	5,481,479	5,422,163	59,316
3	Income Reconciliation	Line 33	(7,617,139)	(7,517,895)	(99,244)
4	Taxable Income	Line 1 - Line 2 + Line 3	4,106,076	4,369,040	(262,964)
5					
6	Tax Rate		35.0000%	35.0000%	35.0000%
7					
8	Taxes Calculated	Line 4 * Line 6	1,437,127	1,529,164	(92,037)
9	Amort Tax Ref/Payment	Allocated on Energy	-	-	-
10	Tax Liability	Line 8 + Line 9	1,437,127	1,529,164	(92,037)
11					
12	Net Tax Adjustment	Line 43	2,574,267	2,533,657	40,610
13					
14	Taxes Allowable	Line 10 + Line 12	<u>4,011,394</u>	<u>4,062,821</u>	<u>(51,427)</u>
15					
16					
17					
18					
19	Interest Calc				
20	Rate Base	Exhibit A-2 (NEK-x) Sch B-1	254,699,521	251,943,359	2,756,162
21	x Weighted Cost of Debt	Exhibit A-4 (NEK-x) Sch D-1	2.1521%	2.1521%	2.1521%
22	Interest Expense		5,481,479	5,422,163	59,316
23					
24					
25	Net Income Additions/Deductions	Allocated on			
26	State Tax Liability		(262,090)	(278,875)	16,785
27	Energy	Energy	(240,000)	(240,000)	-
28	Rate Base	Rate Base	(69,713)	(68,889)	(824)
29	Demand	CP Less Interruptible	75,000	75,000	-
30	Distribution Plant	Distribution Plant	(2,315,528)	(2,269,345)	(46,183)
31	Customer	Customer	-	-	-
32	General & Common	Salaries and Wages	(4,804,808)	(4,735,785)	(69,023)
33	Total Additions/Deductions		<u>(7,617,139)</u>	<u>(7,517,895)</u>	<u>(99,244)</u>
34					
35					
36	Deferred Expense				
37	Energy	Energy	84,000	84,000	-
38	Rate Base	Rate Base	24,400	24,111	288
39	Demand	CP Less Interruptible	(26,250)	(26,250)	-
40	Distribution Plant	Distribution Plant	810,435	794,271	16,164
41	Customer	Customer	-	-	-
42	General & Common	Salaries and Wages	1,681,683	1,657,525	24,158
43	Total Deferreds		<u>2,574,267</u>	<u>2,533,657</u>	<u>40,610</u>

Schedule C9

Michigan Public Service Commission
Upper Peninsula Power Company
State Income Taxes
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C9
Page: 1 of 2
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
	Michigan State Taxes				
1	Book Income Before Taxes & Interest	Exhibit A-3 (NEK-x) Sch C-1	17,204,694	17,309,097	(104,403)
2	Interest Expense	Line 22	5,481,479	5,422,163	59,316
3	Income Reconciliation	Line 32	(7,355,049)	(7,239,020)	(116,029)
4	Taxable Income	Line 1 - Line 2 + Line 3	4,368,166	4,647,915	(279,749)
5					
6	Tax Rate		6.00000%	6.00000%	6.00000%
7					
8	Taxes Calculated	Line 4 * Line 6	262,090	278,875	(16,785)
9	Amort Tax Ref/Payment	Allocated on Energy	-	-	-
10	Tax Liability	Line 8 + Line 9	262,090	278,875	(16,785)
11					
12	Net Tax Adjustment	Line 42	534,378	524,916	9,462
13					
14	Taxes Allowable	Line 10 + Line 12	796,468	803,790	(7,323)
15					
16					
17					
18					
19	Interest Calc				
20	Rate Base	Exhibit A-2 (NEK-x) Sch B-1	254,699,521	251,943,359	2,756,162
21	x Weighted Cost of Debt	Exhibit A-4 (NEK-x) Sch D-1	2.1521%	2.1521%	2.1521%
22	Interest Expense		5,481,479	5,422,163	59,316
23					
24					
25	Net Income Additions/Deductions	Allocated on			
26	Energy	Energy	(240,000)	(240,000)	-
27	Rate Base	Rate Base	(69,713)	(68,889)	(824)
28	Demand	CP Less Interruptible	75,000	75,000	-
29	Distribution Plant	Distribution Plant	(2,315,528)	(2,269,345)	(46,183)
30	Customer	Customer	-	-	-
31	General & Common	Salaries and Wages	(4,804,808)	(4,735,785)	(69,023)
32	Total Additions/Deductions		<u>(7,355,049)</u>	<u>(7,239,020)</u>	<u>(116,029)</u>
33					
34					
35	Deferred Expense	Allocated on			
36	Energy	Energy	9,360	9,360	-
37	Rate Base	Rate Base	2,719	2,687	32
38	Demand	CP Less Interruptible	(2,925)	(2,925)	-
39	Distribution Plant	Distribution Plant	337,836	331,098	6,738
40	Customer	Customer	-	-	-
41	General & Common	Salaries and Wages	187,388	184,696	2,692
42	Total Deferreds		<u>534,378</u>	<u>524,916</u>	<u>9,462</u>

Schedule C10

Michigan Public Service Commission
Upper Peninsula Power Company
Other (or Local) Taxes
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C10
Page: 1 of 1
Witness: Nicholas E. Kates

(a) (b) (c) (d) (e)

Line

No.	Description	Source	Total	Retail	Wholesale
1					
2					

Schedule C11

Michigan Public Service Commission
Upper Peninsula Power Company
Allowance for Funds Used During Construction
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-3 (NEK-3)
Schedule No.: C11
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	AFUDC Debt		-	-	-
3	AFUDC Equity		-	-	-
4					
5	Total AFUDC	Line 2 + Line 3	-	-	-

Schedule D1

Michigan Public Service Commission
Upper Peninsula Power Company
Overall Rate of Return Summary
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-4 (NEK-4)
Schedule: D1
Page: 1 of 1
Witness: Nicholas E. Kates

Line No.	(a) Description	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
		Capital Structure			Cost Rate %	Weighted Cost			Pre-Tax Return	Percent Capital Incl ST	Weighted Cost Incl ST
		Amount (1)	Percent Capital	Percent of Total Capital		Capital	Total Cost %	Conversion Factor			
1											
2	Long-Term Debt	108,200,000	46.81%	42.46%	4.8821% (2)	2.29%	2.0728%		2.0728%	45.25%	2.2090%
3											
4	Preferred Stock	-	0.00%	0.00%	0.0000% (4)	0.00%	0.0000%		0.0000%	0.00%	0.0000%
5											
6	Common Shareholders' Equity	122,931,164	53.19%	48.24%	10.0000% (5)	5.32%	4.8237%	1.6367	7.8950%	51.41%	5.1407%
7											
8	Total Permanent Capital	<u>231,131,164</u>	<u>100.00%</u>			<u>7.60%</u>					
9											
10	Short-Term Debt	8,004,167		3.14%	2.5260% (3)		0.0793%		0.0793%	3.35%	0.0845%
11											
12	Job Development - ITC - Debt										
13	Job Development - ITC Equity										
14	Total Job Development - ITC	-		0.00%							
15											
16	Deferred Investment Tax Credit	-		0.00%		0.00%	0.0000%		0.0000%		
17											
18	Deferred Income Taxes (Net) - Federal	17,156,488		6.73%		0.00%	0.0000%		0.0000%		
19											
20	Capital Structure Adj	(1,444,062)		-0.57%		7.43%	-0.0421%		-0.0421%		
21											
22	Total	<u>254,847,757</u>		<u>100.00%</u>			<u>6.9337%</u>		<u>10.0050%</u>	<u>100.00%</u>	<u>7.4342%</u>

(1) See Exh. A-2, Sch. B1

(2) See Exh. A-4, Sch. D2

(3) See Exh. A-4, Sch. D3

(4) See Exh. A-4, Sch. D4

(5) See Exh. A-4, Sch. D5

Schedule D2

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Long-Term Debt
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-4 (NEK-4)
Schedule: D2
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Line No.	Description	Original Issue Date	Stated Maturity Date	Interest Rate (%)	Amount of Offering	Price to Public	Underwriting & Financing Expenses (%)	Net Proceeds to the Company (%)	Cost Based on Net Proceeds (%)	Amount Out-standing	Annual Cost
1											
2	Mortgage Bonds										
3											
4											
5	Total Mortgage Bonds									-	-
6											
7	Other Long-Term Debt										
8											
9											
10											
11											
12	Long-Term Intercompany Debt Adjustment to Booked Interest										
13	Long Term Intercompany Debt Prior to Sale									-	-
	Upper Peninsula Power Holding	9/16/2014	9/16/2024	3.95%	16,230,000		180,847	16,230,000	3.950%	16,230,000	641,085
		9/16/2014	9/16/2029	4.20%	27,050,000		300,581	27,050,000	4.200%	27,050,000	1,136,100
		9/16/2014	9/16/2034	4.43%	51,395,000		571,105	51,395,000	4.430%	51,395,000	2,276,799
		9/16/2014	9/16/2044	4.91%	13,525,000		150,291	13,525,000	4.910%	13,525,000	664,078
					108,200,000					108,200,000	4,718,061
14											
15	Amortization of Loss on Reacquired Debt										474,242
16	Amortization of Debt Disc and Exp										90,132
17	Adjustment to Booked Interest										-
18	Total Interest										5,282,435
19	Total Long-Term Debt									108,200,000	
20											
21	Unamortized Debt Discount,										
22	Premium and Expense										
23											
24	Total Long-Term Debt Balance									108,200,000	4.8821%

Schedule D3

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Short-Term Debt
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-4 (NEK-4)
Schedule: D3
Page: 1 of 1
Witness: Nicholas E. Kates

(a)		(b)	(c)
Line No.	Month	Balance Outstanding	Total Cost
1			
2	Commercial Paper	-	-
3			
4	Inter-Company Loans	-	-
5			
6	Letter of Credit	-	-
7			
8	Amortization of Upfront Fees	-	-
9			
10	Other	8,004,167	250,403
11			
12	Total	8,004,167	250,403
13			
14	Average Cost of Short-Term Debt		2.5260%

Schedule D4

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Preferred Stock
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-4 (NEK-4)
Schedule: D4
Page: 1 of 1
Witness: Nicholas E. Kates

[illegible]

Schedule D5

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Common Shareholders' Equity
for the Historical Year Ended, December 31, 2017

Case No.: U-20276
Exhibit No.: A-4 (NEK-4)
Schedule: D5
Page: 1 of 1
Witness: Nicholas E. Kates

Line No.	Description	Adjusted Common Equity	Return On Equity
1			
2	December	121,150,743	
3	January	122,600,222	
4	February	123,276,615	
5	March	121,614,797	
6	April	120,839,194	
7	May	122,701,205	
8	June	123,614,416	
9	July	122,193,948	
10	August	122,928,219	
11	September	123,949,007	
12	October	124,411,159	
13	November	124,326,053	
14	December	124,287,519	
15			
16	Average	122,931,164	10.0000%

Schedule E1

Michigan Public Service Commission
 Upper Peninsula Power Company
 Annual Service Area Sales by Major Customer Classes and System Output
 5-Year Historical

Case No.: U-20276
 Exhibit No.: A-5 (EWS-1)
 Schedule: E1
 Page: 1 of 1
 Witness: Eric W. Stocking

Line No.	Year	(a) <u>Residential</u>	(b) <u>Commercial</u>	(c) <u>Industrial</u>	(d) <u>Other</u>	(e) <u>Total</u>	(f) <u>Unit of Measure</u>	(g) <u>Millions</u>	(h) <u>% of Sales</u>	(i) <u>Unit of Measure</u>
		<u>Annual Sales</u>				<u>Losses and Company Use</u>				
1	Year 1									
2	Year 2									
3	Year 3									
4	Year 4									
5	Year 5									

See Schedule E1.1 Exhibit A-15 (EWS-2)

Schedule E1.1

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Service Area Sales by Major Customer Classes and System Output
5-Year Historical

Case No.: U-20276
Exhibit No.: A-5
Schedule: E1.1
Page: 1 of 1
Witness: Eric W. Stocking

Line No.	(a) Year	(b) Residential	(c) <u>Annual Sales</u>			(f) Total	(g) <u>Losses and Company Use</u>		(i) System Output kWh
			(d) Commercial	(e) Industrial	(f) Other		(g) kWh	(h) % of Sales	
1	2013	268,757,079	159,554,143	159,864,527	6,340,797	594,516,546	39,931,543	6.7%	634,448,089
2	2014	268,972,221	144,983,957	142,332,464	6,118,217	562,406,859	38,073,186	6.8%	600,480,045
3	2015	253,900,157	141,720,169	157,662,156	6,018,019	559,300,501	37,369,922	6.7%	596,670,423
4	2016	249,180,283	157,687,838	236,962,702	5,960,275	649,791,098	42,580,387	6.6%	692,371,485
5	2017	241,786,715	161,910,465	221,379,528	5,967,369	631,044,077	42,019,171	6.7%	673,063,248

Schedule E1.2

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Bundled Sales by Major Customer Classes and System Output
5-Year Historical

Case No.: U-20276
Exhibit No.: A-5
Schedule: E1.2
Page: 1 of 1
Witness: Eric W. Stocking

Line No.	(a) Year	(b) Residential	(c) <u>Annual Sales</u>			(f) Total	(g) <u>Losses and Company Use</u>		(i) System Output kWh
			(d) Commercial	(e) Industrial	(f) Other		(g) kWh	(h) % of Sales	
1	2013	268,757,079	135,861,166	141,963,996	6,340,797	552,923,038	36,869,896	6.7%	589,792,934
2	2014	268,972,221	106,864,500	101,089,383	6,118,217	483,044,321	32,408,323	6.7%	515,452,644
3	2015	253,900,157	99,544,266	113,391,756	6,018,019	472,854,198	31,665,348	6.7%	504,519,546
4	2016	249,180,283	141,865,640	165,523,870	5,960,275	562,530,068	37,144,025	6.6%	599,674,093
5	2017	241,786,715	142,458,500	154,384,890	5,967,369	544,597,474	35,918,694	6.6%	580,516,168

Schedule E1.3

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Electric Choice Sales by Major Customer Classes
5-Year Historical

Case No.: U-20276
Exhibit No.: A-5
Schedule: E1.3
Page: 1 of 1
Witness: Eric W. Stocking

	(a)	(b)	(c)	(d)	(e)	(f)
	<u>Annual Sales</u>					
Line						
No.	Year	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Other</u>	<u>Total</u>
1	2013	0	23,692,977	17,900,531	0	41,593,508
2	2014	0	38,119,457	41,243,081	0	79,362,538
3	2015	0	42,175,903	44,270,400	0	86,446,303
4	2016	0	15,822,198	71,438,832	0	87,261,030
5	2017	0	19,451,965	66,994,638	0	86,446,603

Schedule A1

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Deficiency (Sufficiency)
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-11 (NEK-5)
Schedule: A1
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Rate Base	Exh A-12 (NEK-6), Sch B1	\$ 281,736,440	\$ 278,888,974	\$ 2,847,466
3					
4	Adjusted Net Operating Income	Exh A-13 (NEK-7), Sch C1	\$ 11,086,417	\$ 11,262,295	\$ 124,122
5					
6	Overall Rate of Return	Line 4 ÷ Line 2	3.94%	4.04%	4.36%
7					
8	Required Rate of Return	Exh A-14 (NEK-8), Sch D1	7.57%	7.57%	7.57%
9					
10	Income Requirements	Line 2 x Line 8	\$ 21,326,322	\$ 21,110,780	\$ 215,542
11					
12	Income Deficiency (Sufficiency)	Line 10 - Line 4	\$ 10,239,904	\$ 9,848,484	\$ 91,420
13					
14	Revenue Conversion Factor	Exh. A-13 (NEK-7), Sch. C2	1.3466	1.3466	1.3466
15					
16	Revenue Deficiency (Sufficiency)	Line 12 x Line 14	\$ 13,789,055	\$ 13,261,969	\$ 123,106
17					
18	Revenue Credit U-17564		\$ (2,584,802)	\$ (2,584,802)	\$ -
19					
20	Revenue Credit U-17895		\$ -	\$ -	
21					
22	Revenue Credit Pension Liability		\$ (694,563)	\$ (694,563)	
23					
24	Revenue Deficiency		\$ 10,509,690	\$ 9,982,604	\$ 123,106
25					
26	Percentage Increase (Decrease)		10.14%	9.71%	N/A
27					
28	Actual ROE		3.86%	4.05%	
29					
30	Revenue Deficiency		\$ 10,509,690	\$ 9,982,604	
31					

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-11 (NEK-5)
Schedule: A-2
Page: 1 of 3
Witness: Nicholas E. Kates

(a)		(b)	(c)
Line			
No.	Description	No Rate Relief 12/31/2018	Full Rate Relief 12/31/2019
1	Operating Revenue	103,661,998	117,451,053
2	Operating Expense	91,080,044	91,080,044
3	Pre-Tax Operating Income	12,581,954	26,371,009
4	Income Taxes	927,804	4,477,107
5	Net Operating Income	11,654,150	21,893,902
6	Tax Impact of Pro-Forma Interest on NOI		
7	AFUDC and Other Income and Deductions	(567,733)	(567,733)
8	Interest Charges	(5,153,718)	(5,153,718)
9	Preferred Stock Dividends		
10	Net Income Available for Common and JDITC	5,932,699	16,172,452
11	Return Assignable to JDITC		
12	Net Income Available for Common	5,932,699	16,172,452
13	Average Common Equity	154,382,586	154,382,586
14	Earned Rate of Return on Common Equity	3.84%	10.50%
15	Requested Return on Equity	10.50%	10.50%

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-11 (NEK-5)
Schedule: A-2
Page: 2 of 3
Witness: Nicholas E. Kates

		(a)	(b)	(c)
Line			Fiscal Year	
No.	Description	No Rate Relief 12/31/2018	Full Rate Relief 12/31/2019	
	<u>EBIT Interest Coverage Ratio</u>			
16	Pre-Tax Operating Income	12,581,954	26,371,009	
17	AFUDC	(567,733)	(567,733)	
18	Total EBIT	12,014,221	25,803,276	
19	Interest Charges	5,153,718	5,153,718	
20	EBIT Interest Coverage Ratio	2.33	5.01	
	<u>EBITDA Interest Coverage Ratio</u>			
21	Total EBIT	12,014,221	25,803,276	
22	Depreciation and Amortization	11,169,782	11,169,782	
23	Total EBIDTA	23,184,003	36,973,058	
24	Interest Charges	5,153,718	5,153,718	
25	EBITDA Interest Coverage Ratio	4.50	7.17	
	<u>Funds Flow from Operations (FFO)</u>			
	<u>Interest Coverage Ratio</u>			
26	Net Operating Income	11,654,150	21,893,902	
27	Depreciation and Amortization	11,169,782	11,169,782	
28	Deferred Income Tax	927,804	3,692,578	
29	AFUDC	(567,733)	(567,733)	
30	Other Major Recurring Non-Cash Items	-	-	
31	Interest Paid	5,153,718	5,153,718	
	Less:			
32	Operating Lease Adjustment	-	-	
33	Subtotal	28,337,721	41,342,247	
34	Interest Charges	5,153,718	5,153,718	
35	FFO Interest Coverage Ratio	5.50	8.02	
	<u>Overall Fixed Charge Coverage Ratio</u>			
36	Net Income Available for Common	5,932,699	16,172,452	
37	Interest Charges, Net of Tax Benefit	5,153,718	5,153,718	
38	Subtotal Numerator	11,086,417	21,326,170	
39	Interest Charges	5,153,718	5,153,718	
40	Preferred Stock Dividends	-	-	
41	Subtotal Denominator	5,153,718	5,153,718	
42	Overall Fixed Charge Coverage Ratio	2.15	4.14	

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Metrics - Ratemaking Basis

Case No.: U-20276
Exhibit No.: A-11 (NEK-5)
Schedule: A-2
Page: 3 of 3
Witness: Nicholas E. Kates

	(a)	(b)	(c)
Line			
No.	Description	No Rate Relief 12/31/2019	Full Rate Relief 12/31/2019
	<u>Cash Flow Coverage of Dividends Ratio</u>		
43	Net Income Available for Common	5,932,699	16,172,452
44	Depreciation and Amortization		11,169,782
45	Deferred Taxes	927,804	3,692,578
46	Subtotal	6,860,503	31,034,812
47	Common Dividends		-
48	Cash Flow Coverage of Dividends Ratio	#DIV/0!	#DIV/0!
	<u>Common Dividend Payout Ratio</u>		
49	Common Dividends	-	-
50	Net Income Available for Common	5,932,699	16,172,452
51	Common Dividend Payout Ratio	#DIV/0!	#DIV/0!
	<u>Permanent Capitalization</u>		
52	Long Term Debt (excluding Securitization)	108,200,000	108,200,000
53	Preferred Stock	-	-
54	Common Equity	154,382,586	154,382,586
55	Total Permanent Capital	262,582,586	262,582,586
56	Long Term Debt (Excluding Securitization)	41.2%	41.2%
57	Preferred Stock	0.0%	0.0%
58	Common Equity	58.8%	58.8%
59	Total Permanent Capital	100.0%	100.0%

Schedule B1

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Rate Base
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B1
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Integrated Retail	Wholesale
1					
2	Plant in Service	Exh A-12 (NEK-6), Sch B2	365,923,506	361,819,679	4,103,827
3	Plant Held for Future Use	Exh A-12 (NEK-6), Sch B2	-	-	-
4	Construction Work in Progress	Exh A-12 (NEK-6), Sch B2	15,409,224	15,136,063	273,161
5	Total Utility Plant		381,332,731	376,955,742	4,376,988
6					
7	Less: Depreciation Reserve	Exh A-12 (NEK-6), Sch B3	148,844,112	146,947,626	1,896,485
8					
9	Net Utility Plant	Line 5 - Line 7	232,488,619	230,008,116	2,480,503
10					
11	Net Capital Lease Property		-	-	-
12					
13	Total Utility Property and Plant	Line 9 + Line 11	232,488,619	230,008,116	2,480,503
14					
15	Less: Capital Lease Obligations		-	-	-
16					
17	Net Plant	Line 13 + Line 15	232,488,619	230,008,116	2,480,503
18					
19	Allowance for Working Capital	Exh A-12 (NEK-6), Sch B4	49,247,821	48,880,858	366,963
20					
21	Total Rate Base	Line 17 + Line 19	281,736,440	278,888,974	2,847,466

Schedule B2

Michigan Public Service Commission
Upper Peninsula Power Company
Total Utility Plant
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B2
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
		MPSC			
Line No.	Description	Account No.	Total	Retail	Wholesale
1					
2	Plant in service	101	365,923,506	361,819,679	4,103,827
3	Plant purchased or sold	102	-	-	-
4	Experimental plant unclassified	103	-	-	-
5	Plant leased to others	104	-	-	-
6	Completed construction not classified	106	-	-	-
7	Plant in Service		<u>365,923,506</u>	<u>361,819,679</u>	<u>4,103,827</u>
8					
9	Plant held for future use	105			
10					
11	Construction work in progress	107	<u>15,409,224</u>	<u>15,136,063</u>	<u>273,161</u>
12					
13	Total Projected Test Period Utility Plant	Line 7 + Line 11	<u><u>381,332,731</u></u>	<u><u>376,955,742</u></u>	<u><u>4,376,988</u></u>

Schedule B3

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation Reserve and Other Deductions
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B3
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Total Projected Test Period Accumulated Provision for Depreciation	2019 Balance Sheet	<u>148,844,112</u>	<u>146,947,626</u>	<u>1,896,485</u>

Schedule B4

Michigan Public Service Commission
Upper Peninsula Power Company
Working Capital
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B4
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	<u>Assets</u>				
3					
4	Fuel Stock	2019 Balance Sheet	345,976	345,976	-
5	Materials & Supplies	2019 Balance Sheet	2,652,983	2,587,983	65,000
6	Customer Advances	2019 Balance Sheet	(2,132,329)	(2,132,329)	-
7	Special Deposits (Pension and Benefits)	2019 Balance Sheet	10,545,939	10,470,110	75,829
8	Customer Accounts Recievable	2019 Balance Sheet	11,432,497	11,350,293	82,204
9	Other Accounts Recievable	2019 Balance Sheet	-	-	-
10	Accum Provision Uncollectible Accounts	2019 Balance Sheet	(2,000,000)	(1,985,619)	(14,381)
11	Accounts Recievable from Assoc Co.	2019 Balance Sheet	-	-	-
12	Taxes Recievable Other Co.	2019 Balance Sheet	-	-	-
13	Misc and Accrued Assets	2019 Balance Sheet	-	-	-
14	Derivative Assets	2019 Balance Sheet	-	-	-
15	Other Deferred Debits	2019 Balance Sheet	48,696,621	48,346,474	350,147
16	Unamort Debt Exp.	2019 Balance Sheet	838,330	832,302	6,028
17	Prepayments	2019 Balance Sheet	1,227,188	1,215,127	12,061
18	Cash and Bank Balances	2019 Balance Sheet	1,270,293	1,263,604	6,689
19	Other	2019 Balance Sheet	4,892,078	4,892,078	0
20					
21	Total Assets	Sum of Lines 3 - 21	<u>77,769,577</u>	<u>77,185,999</u>	<u>583,577</u>
22					
23	<u>Liabilities</u>				
24	Def Cr SERP	2019 Balance Sheet	(2,400,475)	(2,383,214)	(17,260)
25	Accounts Payable	2019 Balance Sheet	(8,916,494)	(8,852,381)	(64,113)
26	Accounts Payable Other	2019 Balance Sheet	-	-	-
27	Accrued Interest	2019 Balance Sheet	(411,910)	(408,948)	(2,962)
28					
29	Tax Collections Payable	2019 Balance Sheet	(146,792)	(145,737)	(1,055)
30	Misc Current and Accrued Liabilities	2019 Balance Sheet	(3,719,592)	(3,692,847)	(26,745)
31	Derivative Liabilities	2019 Balance Sheet	-	-	-
32	Other Deferred Credits	2019 Balance Sheet	(1,415,819)	(1,405,639)	(10,180)
33	Regulatory Liabilities	2019 Balance Sheet	(9,014,928)	(8,950,108)	(64,821)
34	Taxes	2019 Balance Sheet	(2,495,745)	(2,466,267)	(29,478)
35					
36	Total Liabilities	Sum of Lines 27 - 40	<u>(28,521,756)</u>	<u>(28,305,141)</u>	<u>(216,615)</u>
37					
38	Total Projected Test Period Working Capital	Line 22 - Line 41	<u>49,247,821</u>	<u>48,880,858</u>	<u>366,963</u>

Schedule B5

Michigan Public Service Commission
Upper Peninsula Power Company
Miscellaneous Utility
Case No. U-20276

Capital Expenditures Exhibit Index

Title		Witness
Test Period Capital Expenditures		
A-12 B5	Summary	Kates
A-12 B5.1 p.1	Power Generation Summary	Kates / Moyle
A-12 B5.1 p.2	Power Generation by Facility	Kates / Moyle
A-12 B5.2	Capital Expenditures - Ship and Train	n/a
A-12 B5.3 p.1	Nuclear Production Plant & Nuclear Fuel	n/a
A-12 B5.4 p.1	Distribution Plant	Kates / Moyle
A-12 B5.5	Advanced Metering Infrastructure (AMI)	Brynick & Haehnel
A-12 B5.6	Corporate Staff Summary	Kates / Moyle

Schedule B5

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Summary

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B5
Page: 1 of 1
Witness: Nicholas E. Kates

(a)		(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Description	Historical	Projected Bridge Year	Projected Test Year	Reference	Last Rate Case Approved Spending Plan U-17895	Actual Spending Test Year U-17895
		12 mos. Ended 12/31/2017	12 mos. Ending 12/31/2018	12 mos. Ending 12/31/2019		12 mos. Ended 12/31/2016	12 mos. Ended 12/31/2016
1	Distribution	7,822,745	8,019,364	8,030,000	Exhibit A-45 (KEM-1)	5,890,000	6,360,984
2	Substation	2,385,328	1,155,000	2,330,578	Exhibit A-45 (KEM-1)	2,390,000	3,758,231
3	Generation	560,486	1,608,448	1,310,000	Exhibit A-45 (KEM-1)	907,500	455,381
4	Corporate General Plant						
5	IT	190,976	3,131,000	983,000		-	34,649
6	Fleet	1,278,198	1,352,950	1,420,598	Exhibit A-45 (KEM-1)	1,265,000	1,423,681
7	Facilities	608,662	2,300,000	1,208,000	Exhibit A-45 (KEM-1)	1,005,000	677,761
8	Special Projects	6,396,633	9,202,218	6,933,469		17,275,421	19,235,503
9	Total Capital Expenditures	19,243,027	26,768,980	22,215,645		28,732,921	31,946,191

Schedule B5.1

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Power Generation Summary

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B5.1
Page: 1 of 2
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Historical 12 mos. Ended 12/31/2017	Projected Bridge Year 12 mos. Ending 12/31/2018	Projected Test Year 12 mos. Ending 12/31/2019	Reference
1	Generation				
2	03 Facility	16,241	-	(800,000)	Exhibit A-45 (KEM-1)
3	04 Improve Reliability / Load Growth	5,613	18,448	80,000	Exhibit A-45 (KEM-1)
4	05 New Equipment / Equipment Upgrade	412,425	1,310,000	150,000	Exhibit A-45 (KEM-1)
5	07 Contractual / Regulatory / Statutory	(65,423)	280,000	1,880,000	Exhibit A-45 (KEM-1)
6	08 Special Projects	191,630	-	-	
7	Total Generation	<u>560,486</u>	<u>1,608,448</u>	<u>1,310,000</u>	

Schedule B5.1

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Power Generation by Facility

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B5.1
Page: 2 of 2
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)
Line No.	Description	Historical 12 mos. Ended 12/31/2017	Projected Bridge Year 12 mos. Ending 12/31/2018	Projected Test Year 12 mos. Ending 12/31/2019
1	Hydraulic Production Plant			
2	Hoist	389,241	1,176,146	
3	McClure		36,066	
4	Prickett		110,000	850,000
5	Victoria Bond Falls	19,845	182,848	310,000
6	Silver Lake			
7	Escanaba 1			
8	Escanaba 3			
9	Subtotal Hydraulic Production Plant	409,086	1,505,060	1,160,000
10				
11	Other Production Plant			
12	Gladstone			
13	Portage	78,000		
14	Miscellaneous	73,400	103,388	150,000
15	Subtotal Other Production Plant	151,400	103,388	150,000
16				
17	Total Production Capital	560,486	1,608,448	1,310,000

Schedule B5.4

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Distribution and Substation Plant by Business Driver

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B5.4
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Historical 12 mos. Ended 12/31/2017	Projected Bridge Year 12 mos. Ending 12/31/2018	Projected Test Year 12 mos. Ending 12/31/2019	Reference
1	Distribution				
2	03 Facility	-	9,364	-	Exhibit A-45 (KEM-1)
3	04 Improve Reliability / Load Growth	4,742,822	4,990,000	4,725,000	Exhibit A-45 (KEM-1)
4	05 New Equipment / Equipment Upgrade	1,916,359	1,270,000	1,625,000	Exhibit A-45 (KEM-1)
5	06 New Customer / Service	905,206	1,650,000	1,570,000	Exhibit A-45 (KEM-1)
6	07 Contractual / Regulatory / Statutory	258,357	100,000	110,000	Exhibit A-45 (KEM-1)
7	Subtotal Distribution	7,822,745	8,019,364	8,030,000	
8					
9	Substation				
10	05 New Equipment / Equipment Upgrade	779,594	635,000	755,000	Exhibit A-45 (KEM-1)
11	08 Special Projects	1,605,734	520,000	1,575,578	Exhibit A-45 (KEM-1)
12	Subtotal Substation	2,385,328	1,155,000	2,330,578	
13					
14	Total Distribution & Substation	10,208,073	9,174,364	10,360,578	
15					

Schedule B5.4

Michigan Public Service Commission
Upper Peninsula Power Company
UPPCO Capital Expenditures (CAPEX) Summary by Business Line
Worksheet CAPEX

Case No.: U-20276
Exhibit No.:
Schedule: CAPEX WP
Page: 1 of 1
Witness: Nicholas E. Kates

UPPCO Capital Expenditures (CAPEX) Summary by Business Line										
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Line			2016	2017	2018	2019	2 YR AVG.	2 YR VARIANCE	3 YR AVG.	3 YR VARIANCE
1	Distribution									
2	03	Facility	-	-	9,364	-	4,682	-100.0%	3,121	-100.0%
3	04	Improve Reliability / Load Growth	2,662,275	4,742,822	4,990,000	4,725,000	4,866,411	-2.9%	4,131,699	14.4%
4	05	New Equipment / Equipment Upgrade	2,343,812	1,916,359	1,270,000	1,625,000	1,593,179	2.0%	1,843,390	-11.8%
5	06	New Customer / Service	1,205,647	905,206	1,650,000	1,570,000	1,277,603	22.9%	1,253,618	25.2%
6	07	Contractual / Regulatory / Statutory	149,250	258,357	100,000	110,000	179,179	-38.6%	169,202	-35.0%
7	Distribution Total		6,360,984	7,822,745	8,019,364	8,030,000	7,921,054	1.4%	7,401,031	8.5%
8	Substation									
9	05	New Equipment / Equipment Upgrade	1,297,730	779,594	635,000	755,000	707,297	6.7%	904,108	-16.5%
10	08	Special Projects	2,460,501	1,605,734	520,000	1,575,578	1,062,867	48.2%	1,528,745	3.1%
11	Substation Total		3,758,231	2,385,328	1,155,000	2,330,578	1,770,164	31.7%	2,432,853	-4.2%
12	Generation									
13	03	Facility	110,185	16,241	-	-	8,121	-100.0%	42,142	-100.0%
14	04	Improve Reliability / Load Growth	-	5,613	18,448	80,000	12,030	565.0%	8,020	897.5%
15	05	New Equipment / Equipment Upgrade	59,024	412,425	1,310,000	150,000	861,213	-82.6%	593,816	-74.7%
16	07	Contractual / Regulatory / Statutory	228,290	(65,423)	280,000	1,080,000	107,288	906.6%	147,622	631.6%
17	08	Special Projects	57,882	191,630	-	-	95,815	-100.0%	83,171	-100.0%
18	Generation Total		455,381	560,486	1,608,448	1,310,000	1,084,467	20.8%	874,772	49.8%
19	Corporate									
20	01	IT	34,649	190,976	3,131,000	983,000	1,660,988	-40.8%	1,118,875	-12.1%
21	02	Fleet	1,423,681	1,278,198	1,352,950	1,420,598	1,315,574	8.0%	1,351,610	5.1%
22	03	Facility	677,761	608,662	2,300,000	1,208,000	1,454,331	-16.9%	1,195,474	1.0%
23	08	Special Projects	19,235,503	6,396,633	9,202,218	6,933,469	7,799,425	-11.1%	11,611,451	-40.3%
24	Corporate Total		21,371,595	8,474,468	15,986,168	10,545,067	12,230,318	-13.8%	15,277,410	-31.0%
25	TOTAL 5-YEAR CAPEX PLAN		31,946,191	19,243,027	26,768,980	22,215,645	23,006,004	-3.4%	25,986,066	-14.5%
26										
27	TOTAL CAPEX PLAN (Excluding Special Projects)		12,710,687	12,846,394	17,566,762	15,282,176	15,206,578	0.5%	14,374,615	6.3%

Schedule B5.5

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Advanced Metering Infrastructure (AMI)

Case No.: U-20276
Exhibit No.: A-12 (AMI-1)
Schedule: B5.5
Page: 1 of 1
Witness: Nicholas E. Kates

(a)		(b)	(c)	(d)
Line No.	Description	Historical	Projected Bridge Year	Projected Test
		12 mos. Ended 12/31/2017	12 mos. Ending 12/31/2018	12 mos. Ending 12/31/2019
1	Advanced Metering Infrastructure			
2	Meters		6,172,994	4,436,738
3	Field Area Network		935,595	1,382,386
4	Information Technology		1,594,401	1,114,346
5	Total AMI Capital Expenditures		8,702,990	6,933,470

Schedule B5.6

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Capital Expenditures
Total Corporate | General Plant

Case No.: U-20276
Exhibit No.: A-12 (NEK-6)
Schedule: B5.6
Page: 1 of 1
Witness: Nicholas E. Kates

(a)		(b)	(c)	(d)
Line No.	Description	Historical	Projected Bridge Year	Projected Test
		12 mos. Ended 12/31/2017	12 mos. Ending 12/31/2018	Year 12 mos. Ending 12/31/2019
1	Corporate General Plant			
2	IT	190,976	3,131,000	983,000
3	Fleet	1,278,198	1,352,950	1,420,598
4	Facility	608,662	2,300,000	1,208,000
5	Special Projects	6,396,633	9,202,218	6,933,469
6	Total Corporate General Plant	<u>8,474,468</u>	<u>15,986,168</u>	<u>10,545,067</u>

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Adjusted Net Operating Income
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule: C1
Page: 1 of 2
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Operating Revenues	Exh A-13 (NEK-7), Sch C3	103,661,998	102,819,014	842,984
3					
4	<u>Operating Expenses</u>				
5	Fuel and Purchased Power (Electric Only)	Exh A-13 (NEK-7), Sch C4	34,364,517	34,364,517	-
6	Operations and Maintenance Expenses	Exh A-13 (NEK-7), Sch C5	38,737,149	38,280,079	457,070
7	Depreciation and Amortization	Exh A-13 (NEK-7), Sch C6	11,169,782	11,015,149	154,633
8	General Taxes	Exh A-13 (NEK-7), Sch C7	6,808,596	6,730,509	78,087
9	Income Taxes	Exh A-13 (NEK-7), Sch C8 & C9	927,804	901,624	26,180
10	Total Operating Expenses	Sum of Lines 5 - 9	<u>92,007,848</u>	<u>91,291,877</u>	<u>715,971</u>
11					
12	Operating Income	Line 2 - Line 10	11,654,150	11,527,137	127,013
13					
14	<u>Operating Income Adjustments</u>				
15	Allowance For Funds Used During Construction	Exh A-13 (NEK-7), Sch C11	(257,800)	(255,017)	(2,783)
16	Loss on Reacquired Securities				
17	Interest	2019 Income Statement	(300,000)	-	-
18	Income Tax Effect of Interest	2019 Income Statement	(10,000)	(9,891)	(109)
19	Interest Synchronization Adjustment	Exh A-13 (NEK-7), Sch C1 page 2	67	67	1
20	Total Operating Income Adjustments	Sum of Lines 15 - 19	<u>(567,733)</u>	<u>(264,841)</u>	<u>(2,892)</u>
21					
22	Adjusted Net Operating Income	Line 12 - Line 20	<u>11,086,417</u>	<u>11,262,295</u>	<u>124,122</u>

Schedule C1

Michigan Public Service Commission
Upper Peninsula Power Company
Actual Net Operating Income
Projected 12 Month Period Ending 2019
Net Operating Income

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C1
Page: 2 of 2
Witness: Nicholas E. Kates

Interest Synchronization Calculation

Line	Description	Source	Total	Retail	Wholesale
1	Rate Base	Exh. A-10 (NEK-6), Sch B1	281,736,440	278,888,974	2,847,466
2	% of Capital Represented by Debt	Exh. A-12 (NEK-8), Sch D1	41.0329%	41.0329%	41.0329%
3	Portion of Rate Base Funded by Debt	Line 1 x Line 2	115,604,597	114,436,200	1,168,397
4					
5	Cost of Debt	Exh. A-12 (NEK-8), Sch D1	4.4581%	4.4581%	4.4581%
6	Interest Allowed	Line 3 x Line 5	5,153,809	5,101,720	52,089
7					
8	Interest Deduction on Taxes	Exh. A-11 (NEK-7), Sch C8	5,153,718	5,101,630	52,088
9					
10	Add Interest Deduct	Line 6 - Line 8	91	90	1
11					
12	Affect of Interest Allowed		67	67	1

Schedule C2

Michigan Public Service Commission
Upper Peninsula Power Company
Revenue Conversion Factor
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C2
Page: 1 of 1
Witness: Nicholas E. Kates

Line	Description	Calculations	Amount
1			
2	Income Before Income Taxes		100.000%
3			
4	Michigan Corporate Income Tax	Exh A-3 (NEK-7), Sch C9	6.000%
5			
6	Wisconsin Corporate Income Tax	Exh A-3 (NEK-7), Sch C9	0.000%
7			
8	Subtotal of State Income Tax	Line 4 + Line 6	6.000%
9			
10	Federal Income Tax Base	Line 2 - Line 8	94.000%
11			
12	Federal Income Tax Rate	Exh A-3 (NEK-7), Sch C8	21.000%
13			
14	Effective Federal Income Tax	Line 10 * Line 12	19.740%
15			
16	Income After Taxes	Line 10 - Line 14	74.260%
17			
18	Gross Revenue Conversion Factor	Line 2 / Line 16	1.3466

Schedule C3

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Operating Revenue
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C3
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Present Revenues	2019 Income Statement	99,831,400	99,831,400	-
3					
4	Other Adjustments	2019 Income Statement	3,830,598	2,987,614	842,984
5					
6	Total Revenue	Line 2 + Line 4	<u>103,661,998</u>	<u>102,819,014</u>	<u>842,984</u>

Schedule C4

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Fuel and Purchased Power
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C4
Page: 1 of 1
Witness: Nicholas E. Kates

(a) (b) (c) (d) (e)

Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Fuel	2019 Income Statement	245,895	245,895	-
3	Purchased Power	2019 Income Statement	25,778,134	25,778,134	-
4	Transmission (PSCR Related)	2019 Income Statement	8,340,488	8,340,488	-
5					
6	Total Production		<u>34,364,517</u>	<u>34,364,517</u>	<u>-</u>

Schedule C5

Michigan Public Service Commission
Upper Peninsula Power Company
Projected Operation and Maintenance Expenses
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C5
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Operation and Maintenance Expenses:				
3	Production	2019 Income Statement	5,255,082	5,255,082	-
4	Distribution	2019 Income Statement	13,827,210	13,525,545	301,665
5	Transmission (Non PSCR Related)	2019 Income Statement	449,609	449,609	-
6	Customer Accounts	2019 Income Statement	4,141,187	4,141,187	-
7	Customer Service	2019 Income Statement	2,999,025	2,999,025	-
8	Sales	2019 Income Statement	-	-	-
9	Administrative and General	2019 Income Statement	12,065,036	11,909,631	155,405
10					
11	Total Operation and Maintenance Expenses		<u>38,737,149</u>	<u>38,280,079</u>	<u>457,070</u>

Schedule C6

Michigan Public Service Commission
Upper Peninsula Power Company
Depreciation and Amortization Expense
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C6
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Depreciation and Amortization Expense				
3	Depreciation Expense	2019 Income Statement	11,169,782	11,015,149	154,633
4	Amortization Expense	2019 Income Statement	-	-	-
5					
6	Total Depreciation and Amortization Expense	Line 3 + Line 4	<u>11,169,782</u>	<u>11,015,149</u>	<u>154,633</u>

Schedule C7

Michigan Public Service Commission
Upper Peninsula Power Company
General Taxes
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C7
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	Taxes Other Than Income Taxes				
3					
4	FEDERAL				
5	Retirement Benefits	2019 Income Statement	755,561	745,413	10,148
6	Unemployment Comp	2019 Income Statement	4,770	4,706	64
7	Super Fund Tax	2019 Income Statement	-	-	-
8	Highway Use Tax				
9					
10	STATE				
11	Gross Receipts Tax				
12	Unemployment Comp	2019 Income Statement	19,422	19,161	261
13	Unitary Fees	2019 Income Statement	-	-	-
14	Use Tax	2019 Income Statement	-	-	-
15	Unauthor Ins Tax	2019 Income Statement	-	-	-
16	Wis Recycling Fee	2019 Income Statement	-	-	-
17	Single Business Tax	2019 Income Statement	-		
18	Property	2019 Income Statement	6,028,843	5,961,230	67,613
19					
20	LOCAL				
21	Real Est & Property				
22					
23	IBS				
24	IBS Payroll Tax	2019 Income Statement	-	-	-
25					
26	OTHER				
27	Franchise Tax Fees		-		
28					
29	Total Taxes Other Than Income Taxes	Sum of Lines 5 - 27	<u>6,808,596</u>	<u>6,730,509</u>	<u>78,087</u>

Schedule C8

Michigan Public Service Commission
Upper Peninsula Power Company
Federal Income Taxes
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C8
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
	Federal				
1	Book Income Before Taxes & Interest	Exhibit A-3 (NEK-7) Sch C-1	12,581,954	12,428,760	153,194
2	Interest Expense	Line 23	5,153,718	5,101,630	52,088
3	Income Reconciliation	Line 34	(7,782,550)	(7,700,103)	(82,447)
4			-	-	-
5	Taxable Income	Line 1 - Line 2 + Line 3 - Line 4	(354,314)	(372,973)	18,658
6					
7	Tax Rate		21.0000%	21.0000%	21.0000%
8					
9	Taxes Calculated	Line 4 * Line 6	(74,406)	(78,324)	3,918
10	TCJA Calc C	(938,469)	(938,469)	(938,469)	-
11	Tax Liability	Line 8 + Line 9	(1,012,875)	(1,016,793)	3,918
12					
13	Net Tax Adjustment	Line 43	1,601,756	1,584,674	17,082
14					
15	Taxes Allowable	Line 10 + Line 12	588,880	567,880	21,000
16					
17					
18					
19					
20	Interest Calc				
21	Rate Base	Exhibit A-2 (NEK-6) Sch B-1	281,736,440	278,888,974	2,847,466
22	x Weighted Cost of Debt	Exhibit A-4 (NEK-8) Sch D-1	1.8293%	1.8293%	1.8293%
23	Interest Expense		5,153,718	5,101,630	52,088
24					
25					
26	Net Income Additions/Deductions	Allocated on			
27	State Tax Liability		22,616	24,326	(1,710)
28	Energy	Energy	(228,803)	(228,803)	-
29	Rate Base	Rate Base	(69,713)	(68,952)	(761)
30	Demand	CP Less Interruptible	(2,133,827)	(2,133,827)	-
31	Distribution Plant	Distribution Plant	(1,199,211)	(1,175,293)	(23,918)
32	Customer	Customer	-	-	-
33	General & Common	Salaries and Wages	(4,173,612)	(4,117,554)	(56,058)
34	Total Additions/Deductions		<u>(7,782,550)</u>	<u>(7,700,103)</u>	<u>(82,447)</u>
35					
36					
37	Deferred Expense				
38	Energy	Energy	1,270	1,270	-
39	Rate Base	Rate Base	14,640	14,480	160
40	Demand	CP Less Interruptible	448,104	448,104	-
41	Distribution Plant	Distribution Plant	251,834	246,811	5,023
42	Customer	Customer	-	-	-
43	General & Common	Salaries and Wages	885,909	874,009	11,899
44	Total Deferrals		<u>1,601,756</u>	<u>1,584,674</u>	<u>17,082</u>

Schedule C9

Michigan Public Service Commission
Upper Peninsula Power Company
State Income Taxes
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C9
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
	Michigan State Taxes				
1	Book Income Before Taxes & Interest	Exhibit A-3 (NEK-7) Sch C-1	12,581,954	12,428,760	153,194
2	Interest Expense	Line 23	5,153,718	5,101,630	52,088
3	Income Reconciliation	Line 34	(7,805,166)	(7,732,567)	(72,599)
4			-	-	-
5	Taxable Income	Line 1 - Line 2 + Line 3 - Line 4	(376,930)	(405,437)	28,507
6					
7	Tax Rate		6.00000%	6.00000%	6.00000%
8					
9	Taxes Calculated	Line 4 * Line 6	(22,616)	(24,326)	1,710
10	TCJA Calc C	-	-	-	-
11	Tax Liability	Line 8 + Line 9	(22,616)	(24,326)	1,710
12					
13	Net Tax Adjustment	Line 42	361,539	358,069	3,470
14					
15	Taxes Allowable	Line 10 + Line 12	<u>338,923</u>	<u>333,743</u>	<u>5,180</u>
16					
17					
18					
19					
20	Interest Calc				
21	Rate Base	Exhibit A-2 (NEK-6) Sch B-1	281,736,440	278,888,974	2,847,466
22	x Weighted Cost of Debt	Exhibit A-4 (NEK-8) Sch D-1	1.8293%	1.8293%	1.8293%
23	Interest Expense		5,153,718	5,101,630	52,088
24					
25					
26	Net Income Additions/Deductions	Allocated on			
27	Energy	Energy	(229,843)	(229,843)	-
28	Rate Base	Rate Base	(69,713)	(68,952)	(761)
29	Demand	CP Less Interruptible	(2,513,876)	(2,513,876)	-
30	Distribution Plant	Distribution Plant	(735,642)	(720,970)	(14,672)
31	Customer	Customer	-	-	-
32	General & Common	Salaries and Wages	(4,256,091)	(4,198,925)	(57,166)
33	Total Additions/Deductions		<u>(7,805,166)</u>	<u>(7,732,567)</u>	<u>(72,599)</u>
34					
35					
36	Deferred Expense	Allocated on			
37	Energy	Energy	336	336	-
38	Rate Base	Rate Base	3,304	3,268	36
39	Demand	CP Less Interruptible	119,158	119,158	-
40	Distribution Plant	Distribution Plant	34,869	34,174	695
41	Customer	Customer	-	-	-
42	General & Common	Salaries and Wages	203,872	201,133	2,738
43	Total Deferreds		<u>361,539</u>	<u>358,069</u>	<u>3,470</u>

Schedule C10

Michigan Public Service Commission
Upper Peninsula Power Company
Other (or Local) Taxes
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C10
Page: 1 of 1
Witness: Nicholas E. Kates

(a) (b) (c) (d) (e)

Line

No.	Description	Source	Total	Retail	Wholesale
1					
2					

Schedule C11

Michigan Public Service Commission
Upper Peninsula Power Company
Allowance for Funds Used During Construction
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-13 (NEK-7)
Schedule No.: C11
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Source	Total	Retail	Wholesale
1					
2	AFUDC Debt	2019 Income Statement	(32,611)	(32,259)	(352)
3	AFUDC Equity	2019 Income Statement	(225,189)	(222,758)	(2,431)
4					
5	Total AFUDC	Line 2 + Line 3	<u>(257,800)</u>	<u>(255,017)</u>	<u>(2,783)</u>

Schedule D1

Michigan Public Service Commission
Upper Peninsula Power Company
Overall Rate of Return Summary
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-14 (NEK-8)
Schedule: D1
Page: 1 of 1
Witness: Nicholas E. Kates

Line No.	(a) Description	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
		Capital Structure			Cost Rate %	Weighted Cost			Pre-Tax Return	Percent Capital Incl ST	Weighted Cost Incl ST
		Amount (1)	Percent Capital	Percent of Total Capital		Capital	Total Cost %	Conversion Factor			
1											
2	Long-Term Debt	108,200,000	41.21%	38.37%	4.4639% (2)	1.84%	1.7129%		1.7129%	40.06%	1.7883%
3											
4	Preferred Stock	-	0.00%	0.00%	0.0000% (4)	0.00%	0.0000%		0.0000%	0.00%	0.0000%
5											
6	Common Shareholders' Equity	154,382,586	58.79%	54.75%	10.5000% (5)	6.17%	5.7489%	1.3466	7.7415%	57.16%	6.0019%
7											
8	Total Permanent Capital	262,582,586	100.00%			8.01%					
9											
10	Short-Term Debt	7,500,000		2.66%	4.3750% (3)		0.1164%		0.1164%	2.78%	0.1215%
11											
12	Job Development - ITC - Debt										
13	Job Development - ITC Equity										
14	Total Job Development - ITC	-		0.00%							
15											
16	Deferred Investment Tax Credit	-		0.00%		0.00%	0.0000%		0.0000%		
17											
18	Deferred Income Taxes (Net) - Federal	12,192,745		4.32%		0.00%	0.0000%		0.0000%		
19											
20	Capital Structure Adj	(306,387)		-0.11%		7.91%	-0.0086%		-0.0086%		
21											
22	Total	281,968,944		100.00%			7.5696%		9.5622%	100.00%	7.9117%

- (1) See Exh. A-2, Sch. B1
(2) See Exh. A-4, Sch. D2
(3) See Exh. A-4, Sch. D3
(4) See Exh. A-4, Sch. D4
(5) See Exh. A-4, Sch. D5

Schedule D2

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Long-Term Debt
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-14 (NEK-8)
Schedule: D2
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
Line No.	Description	Original Issue Date	Stated Maturity Date	Interest Rate (%)	Amount of Offering	Price to Public	Underwriting & Financing Expenses (%)	Net Proceeds to the Company (%)	Cost Based on Net Proceeds (%)	Amount Outstanding	Annual Cost
1											
2	Mortgage Bonds										
3											
4											
5	Total Mortgage Bonds									-	-
6											
7	Other Long-Term Debt										
8											
9											
10											
11											
12	Long-Term Intercompany Debt Adjustment to Booked Interest										
13	Long Term Intercompany Debt Prior to Sale										
	Upper Peninsula Power Holding	9/16/2014	9/16/2024	3.95%	16,230,000		180,847	16,230,000	3.950%	16,230,000	641,085
		9/16/2014	9/16/2029	4.20%	27,050,000		300,581	27,050,000	4.200%	27,050,000	1,136,100
		9/16/2014	9/16/2034	4.43%	51,395,000		571,105	51,395,000	4.430%	51,395,000	2,276,799
		9/16/2014	9/16/2044	4.91%	13,525,000		150,291	13,525,000	4.910%	13,525,000	664,078
					108,200,000					108,200,000	4,718,061
14											
15	Amortization of Loss on Recquired Debt										-
16	Amortization of Debt Disc and Exp										111,876
17	Adjustment to Booked Interest										-
18	Total Interest										4,829,937
19	Total Long-Term Debt									108,200,000	
20											
21	Unamortized Debt Discount,										
22	Premium and Expense										
23											
24	Total Long-Term Debt Balance									108,200,000	4.4639%

- (1) Average balances calculated by dividing the beginning and ending monthly balances by 24.
(2) This debt issue uses the 360 day bankers rule, interest rate in column i is adjusted to 365 days
(3) Rows 9-12 column j x column i, rows 28-31 column j x column d
(4) UPPHC intercompany long-term debt was issued August 28, 2014 with bridge loan variable rates until September 16, 2014 when the permanent financings were put in place and the rates were fixed.

Schedule D3

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Short-Term Debt
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-14 (NEK-8)
Schedule: D3
Page: 1 of 1
Witness: Nicholas E. Kates

	(a)	(b)	(c)
Line No.	Month	Balance Outstanding	Total Cost
1			
2	Commercial Paper		-
3			
4	Inter-Company Loans	-	-
5			
6	Letter of Credit	-	-
7			
8	Amortization of Upfront Fees	-	-
9			
10	Other	7,500,000	300,000
11			
12	Total	7,500,000	300,000
13			
14	Average Cost of Short-Term Debt		4.3750%

Schedule D4

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Preferred Stock
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-14 (NEK-8)
Schedule: D4
Page: 1 of 1
Witness: Nicholas E. Kates

[illegible]

Schedule D5

Michigan Public Service Commission
Upper Peninsula Power Company
Cost of Common Shareholders' Equity
Projected 12 Month Period Ending 2019

Case No.: U-20276
Exhibit No.: A-14 (NEK-8)
Schedule: D5
Page: 1 of 1
Witness: Nicholas E. Kates

Line No.	Description	Adjusted Common Equity	Return On Equity
1			
2	December	144,237,427	
3	January	150,683,414	
4	February	145,440,291	
5	March	151,796,770	
6	April	155,099,021	
7	May	154,561,273	
8	June	157,523,524	
9	July	155,479,786	
10	August	154,412,047	
11	September	160,739,123	
12	October	159,396,210	
13	November	158,678,296	
14	December	153,325,112	
15			
16	Average	154,382,586	10.5000%

Schedule E1.1

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Service Area Sales by Major Customer Classes and System Output
5-Year Projected

Case No.: U-20276
Exhibit No.: A-15
Schedule: E1.1
Page: 1 of 1
Witness: Eric W. Stocking

Line No.	(a) Year	(b) Residential	(c) <u>Annual Sales</u>			(f) Total	(g) <u>Losses and Company Use</u>		(i) System Output kWh
			(d) Commercial	(e) Industrial	(f) Other		(g) kWh	(h) % of Sales	
1	2019	232,367,004	159,480,581	222,538,054	4,599,131	618,984,770	40,985,542	6.6%	659,970,312
2	2020	226,340,721	159,284,768	220,587,910	2,922,490	609,135,890	40,263,828	6.6%	649,399,718
3	2021	220,314,074	159,094,955	218,637,994	2,091,074	600,138,098	39,595,135	6.6%	639,733,233
4	2022	214,281,287	158,906,988	216,688,078	2,091,074	591,967,427	38,977,972	6.6%	630,945,400
5	2023	208,242,930	158,719,487	214,738,162	2,091,074	583,791,654	38,360,491	6.6%	622,152,145

Schedule E1.2

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Bundled Sales by Major Customer Classes and System Output
5-Year Projected

Case No.: U-20276
Exhibit No.: A-15
Schedule: E1.2
Page: 1 of 1
Witness: Eric W. Stocking

Line No.	(a) Year	(b) Residential	(c) <u>Annual Sales</u>			(f) Total	(g) <u>Losses and Company Use</u>		(i) System Output kWh
			(d) Commercial	(e) Industrial	(f) Other		(g) kWh	(h) % of Sales	
1	2019	232,367,004	143,920,304	152,063,807	4,599,131	532,950,246	35,625,591	6.7%	568,575,837
2	2020	226,340,721	143,724,491	150,113,663	2,922,490	523,101,366	34,903,877	6.7%	558,005,243
3	2021	220,314,074	143,534,678	148,163,747	2,091,074	514,103,574	34,235,185	6.7%	548,338,759
4	2022	214,281,287	143,346,711	146,213,831	2,091,074	505,932,903	33,618,022	6.6%	539,550,925
5	2023	208,242,930	143,159,210	144,263,915	2,091,074	497,757,130	33,000,541	6.6%	530,757,671

Schedule E1.3

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Electric Choice Sales by Major Customer Classes
5-Year Projected

Case No.: U-20276
Exhibit No.: A-15
Schedule: E1.3
Page: 1 of 1
Witness: Eric W. Stocking

	(a)	(b)	(c)	(d)	(e)	(f)
			<u>Annual Sales</u>			
Line						
<u>No.</u>	<u>Year</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Other</u>	<u>Total</u>
1	2019	0	15,560,277	70,474,247	0	86,034,524
2	2020	0	15,560,277	70,474,247	0	86,034,524
3	2021	0	15,560,277	70,474,247	0	86,034,524
4	2022	0	15,560,277	70,474,247	0	86,034,524
5	2023	0	15,560,277	70,474,247	0	86,034,524

Schedule E2.1

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Service Area System Output,
Maximum Demand and Load Factor

Case No.: U-20276

Exhibit No.: A-15

Schedule: E2.1

Page: 1 of 1

Witness: Eric W. Stocking

	(a)	(b)	(c)	(d)
Line No.	<u>Year</u>	<u>System</u> <u>Output</u> <u>(kWh)</u>	<u>Maximum</u> <u>Demand</u> <u>(kW)</u>	<u>Annual</u> <u>Load</u> <u>Factor</u> <u>(%)</u>
1	2013	635,092,938	151.69	47.8%
2	2014	607,422,938	127.72	54.3%
3	2015	601,169,035	130.24	52.7%
4	2016	712,122,821	130.69	62.2%
5	2017	673,694,900	134.28	57.3%
6				
7	2019	659,970,312	123.23	61.1%
4	2020	649,399,718	122.33	60.6%
8	2021	639,733,233	121.43	60.1%
9	2022	630,945,400	120.53	59.8%
10	2023	622,152,145	119.64	59.4%

Schedule E2.2

Michigan Public Service Commission
Upper Peninsula Power Company
Annual Bundled System Output,
Maximum Demand and Load Factor

Case No.: U-20276

Exhibit No.: A-15

Schedule: E2.2

Page: 1 of 1

Witness: Eric W. Stocking

	(a)	(b)	(c)	(d)
Line		<u>System</u>	<u>Maximum</u>	<u>Annual</u>
<u>No.</u>	<u>Year</u>	<u>Output</u>	<u>Demand</u>	<u>Load</u>
		<u>(kWh)</u>	<u>(kW)</u>	<u>Factor</u>
				<u>(%)</u>
1	2013	593,154,941	144.5	46.9%
2	2014	520,698,880	112.9	52.6%
3	2015	514,722,732	115.5	50.9%
4	2016	624,861,792	115.8	61.6%
5	2017	587,248,297	117.8	56.9%
6				
7	2019	568,575,837	107.6	60.3%
4	2020	558,005,243	106.7	59.7%
8	2021	548,338,759	105.8	59.2%
9	2022	539,550,925	104.9	58.7%
10	2023	530,757,671	104.0	58.2%

Schedule F-2

Michigan Public Service Commission

Upper Peninsula Power Company

Summary of Present and Proposed Revenue by Rate Schedule

Case No.: U-20276
Exhibit No.: A-16
Schedule: F2
Page: 1 of 1
Witness: Eric W. Stocking

	(a)	(b)	(c)	(d)	(e)
Line No.	Description	Total Present Revenue	Total Proposed Revenue	Total Net Increase/ (Decrease)	Total Net Increase/ (Decrease) (%)
1	<u>UPPCO RETAIL SYSTEM</u>				
2	A-1	\$45,462,782	\$47,646,068	\$2,183,286	4.80%
3	AH-1	\$5,296,360	\$5,386,495	\$90,135	1.70%
4	C-1	\$9,980,344	\$13,307,638	\$3,327,294	33.34%
5	H-1	\$1,049,915	\$1,315,180	\$265,265	25.27%
6	P-1	\$11,314,915	\$13,012,844	\$1,697,929	15.01%
7	Cp-U	\$10,306,634	\$12,021,394	\$1,714,760	16.64%
8	WP-3	\$1,815,418	\$2,159,291	\$343,873	18.94%
9	RTMP	\$232,948	\$493,125	\$260,177	111.69%
10	RTMP-D	\$0	\$0	\$0	0.00%
11	Z-3 & Z-4	\$511,657	\$328,759	(\$182,898)	-35.75%
12	SL	\$1,713,121	\$1,163,863	(\$549,259)	-32.06%
13	A-2	\$3,830,833	\$4,149,741	\$318,908	8.32%
14					
15					
16	MPSC JURISDICTIONAL	\$91,514,926	\$100,984,397	\$9,469,471	10.35%

Michigan Public Service Commission

Upper Peninsula Power Company
Present and Proposed Revenue Detail

Case No.: U-20276
Exhibit No.: A-16
Schedule: F-3
Page: 1 of 13
Witness: Eric W. Stocking

Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Residential (A-1)						
2	Distribution						
3	Service Charge (\$/Month)	479,615	Cust	\$15.00	\$7,194,225	\$25.00	\$11,990,375
4	Energy Charge (\$/kWh)	189,803,391	kWh	\$0.10904	\$20,696,559	\$0.10396	\$19,732,030
5	Total - Distribution				\$27,890,784		\$31,722,405
6		39,968					
7	COSS - Distribution						\$30,310,814
8	% Deficient						-4.66%
9							
10	Power Supply						
11	Energy Charge (\$/kWh)	189,803,391	kWh	\$0.10023	\$19,023,994	\$0.08110	\$15,392,214
12	PSCR Revenues (\$/kWh)	189,803,391	kWh	-\$0.01665	-\$3,160,226	\$0.00000	\$0
13	Total - Power Supply				\$15,863,767		\$15,392,214
14							
15	Rate Realignment	189,803,391	kWh	\$0.00620	\$1,176,781	\$0.00000	\$0
16	Energy Optimization	189,803,391	kWh	\$0.00280	\$531,449	\$0.00280	\$531,449
17							
18	COSS - Power Supply						\$16,644,449
19	% Deficient						7.52%
20	Total Base				\$45,462,782		\$47,646,068

Michigan Public Service Commission

Upper Peninsula Power Company
Present and Proposed Revenue Detail

Case No.: U-20276
Exhibit No.: A-16
Schedule: F-3
Page: 2 of 13
Witness: Eric W. Stocking

Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Residential Heating (AH-1)						
2	Distribution						
3	Service Charge (\$/Month)	42,308	Cust	\$15.00	\$634,620	\$25.00	\$1,057,700
4	Energy Charge - Jun-Sep (\$/kWh)	5,665,183	kWh	\$0.10904	\$617,743	\$0.10396	\$588,954
5	Energy Charge - <500 kWh Oct-May (\$/kWh)	10,338,199	kWh	\$0.11995	\$1,240,067	\$0.10396	\$1,074,763
6	Energy Charge >500 kWh Oct-May (\$/kWh)	9,732,898	kWh	\$0.04076	\$396,745	\$0.05198	\$505,918
7	Total - Distribution				\$2,889,175		\$3,227,335
8		3,526					
9	COSS - Distribution						\$4,783,535
10	% Deficient						32.53%
11							
12	Power Supply						
13	Energy Charge - Jun-Sep (\$/kWh)	5,665,183	kWh	\$0.09656	\$547,030	\$0.08110	\$459,421
14	Energy Charge - <500 kWh Oct-May (\$/kWh)	10,338,199	kWh	\$0.08301	\$858,174	\$0.08110	\$838,382
15	Energy Charge >500 kWh Oct-May (\$/kWh)	9,732,898	kWh	\$0.12590	\$1,225,372	\$0.08110	\$789,295
16	PSCR Revenues (\$/kWh)	25,736,280	kWh	-\$0.01665	-\$428,509	\$0.00000	\$0
17	Total - Power Supply				\$2,202,067		\$2,087,098
18							
19	Rate Realignment	25,736,280	kWh	\$0.00517	\$133,057	\$0.00000	\$0
20	Energy Optimization	25,736,280	kWh	\$0.00280	\$72,062	\$0.00280	\$72,062
21							
22	COSS - Power Supply						\$1,425,040
23	% Deficient						-46.46%
24	Total Base				\$5,296,360		\$5,386,495

Michigan Public Service Commission

Upper Peninsula Power Company
Present and Proposed Revenue Detail

Case No.: U-20276
Exhibit No.: A-16
Schedule: F-3
Page: 3 of 13
Witness: Eric W. Stocking

Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Commercial (C-1)						
2	Distribution						
3	Service Charge (\$/Month)	59,721	Cust	\$17.00	\$1,015,257	\$50.00	\$2,986,050
4	Telemetry Charge (\$/Month)	60	Cust	\$8.75	\$525	\$32.88	\$1,973
5	Energy Charge (\$/kWh)	59,306,837	kWh	\$0.05760	\$3,416,245	\$0.07923	\$4,698,860
6	Total - Distribution				\$4,432,027		\$7,686,882
7							
8	COSS - Distribution						\$6,002,832
9	% Deficient						-28.05%
10							
11	Power Supply						
12	Energy Charge (\$/kWh)	58,438,996	kWh	\$0.11105	\$6,489,651	\$0.09266	\$5,414,718
13	PSCR Revenues (\$/kWh)	58,438,996	kWh	-\$0.01665	-\$973,009	\$0.00000	\$0
14	Total - Power Supply				\$5,516,641		\$5,414,718
15							
16	Rate Realignment	59,306,837	kWh	-\$0.00294	-\$174,362	\$0.00000	\$0
17	Energy Optimization	59,721	Cust	\$3.45	\$206,037	\$3.45	\$206,037
18							
19	COSS - Power Supply						\$4,710,854
20	% Deficient						-14.94%
21	Total Base				\$9,980,344		\$13,307,638

Michigan Public Service Commission

Upper Peninsula Power Company
Present and Proposed Revenue Detail

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Schedule: F-3
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Witness: Eric W. Stocking

Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Commercial Heating (H-1)						
2	Distribution						
3	Service Charge (\$/Month)	2,761	Cust	\$17.00	\$46,937	\$50.00	\$138,050
4	Energy Charge - Jun-Sep (\$/kWh)	2,147,018	kWh	\$0.05760	\$123,674	\$0.07923	\$170,107
5	Energy Charge - <1000 kWh Oct-May	1,205,562	kWh	\$0.06336	\$76,384	\$0.07923	\$95,516
6	Energy Charge >1000 kWh Oct-May	4,470,712	kWh	\$0.02273	\$101,628	\$0.03961	\$177,106
7	Total - Distribution				\$348,624		\$580,780
8		230					
9	COSS - Distribution						\$667,260
10	% Deficient						12.96%
11							
12	Power Supply						
13	Energy Charge - June- Sep (\$/kWh)	2,147,018	kWh	\$0.11205	\$240,573	\$0.09266	\$198,934
14	Energy Charge - <1000 kWh Oct-May	1,205,562	kWh	\$0.10301	\$124,185	\$0.09266	\$111,702
15	Energy Charge >1000 kWh Oct-May	4,470,712	kWh	\$0.10228	\$457,264	\$0.09266	\$414,238
16	PSCR Revenues (\$/kWh)	7,823,292	kWh	-\$0.01665	-\$130,258	\$0.00000	\$0
17	Total - Power Supply				\$691,765		\$724,874
18							
19	Rate Realignment	7,823,292	kWh	\$0.00000	\$0	\$0.00000	\$0
20	Energy Optimization	2,761	Cust	\$3.45	\$9,525	\$3.45	\$9,525
21							
22	COSS - Power Supply						\$613,956
23	% Deficient						-18.07%
24	Total Base				\$1,049,915		\$1,315,180

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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Med Commercial (P-1)						
2	Distribution						
3	Service Charge (\$/Month)	6,437	Cust	\$35.00	\$225,295	\$60.00	\$386,220
4	Telemetry Charge (\$/Month)	579	Cust	\$8.75	\$5,066	\$32.88	\$19,038
4	Demand Charge \$/kW	324,375	kW	\$4.00	\$1,297,500	\$5.50	\$1,784,063
5	Energy Charge (\$/kWh)	96,242,140	kWh	\$0.01801	\$1,732,898	\$0.02575	\$2,478,200
6	Total - Distribution				\$3,260,760		\$4,667,520
7							
8	COSS - Distribution	536					\$6,265,090
9	% Deficient						25.50%
10							
11	Power Supply						
12	Demand Charge \$/kW	277,385	kW	\$9.19	\$2,549,168	\$9.85	\$2,732,242
13	Energy Charge (\$/kWh)	77,658,016	kWh	\$0.08475	\$6,581,517	\$0.06949	\$5,396,605
14	PSCR Revenues (\$/kWh)	77,658,016	kWh	-\$0.01665	-\$1,293,006	\$0.00000	\$0
15	Total - Power Supply				\$7,837,679		\$8,128,848
16							
17	Rate Realignment	96,242,140	kWh	\$0.00000	\$0	\$0.00000	\$0
18	Energy Optimization	6,437	Cust	\$33.63	\$216,476	\$33.63	\$216,476
19							
20	COSS - Power Supply						\$9,375,669
21	% Deficient						13.30%
22	Total Base				\$11,314,915		\$13,012,844

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Line No.	Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Industrial (Cp-U)						
2	Distribution Service						
3	Firm Demand Charge - Secondary	138,654	kW	\$2.14	\$296,720	\$4.24	\$588,583
4	Firm Demand Charge - Primary	27,530	kW	\$2.06	\$56,712	\$4.08	\$112,190
5	Firm Demand Charge - Transmission	99,350	kW	\$1.99	\$197,377	\$3.91	\$387,999
6							
7	Interruptible Demand Charge - Secondary	43,650	kW	\$2.14	\$93,411	\$4.24	\$185,293
8	Interruptible Demand Charge - Primary	15,240	kW	\$2.06	\$31,394	\$4.08	\$62,106
9	Interruptible Demand Charge - Transmission	91,534	kW	\$1.99	\$181,849	\$3.91	\$357,475
10							
11	Customer Demand Charge (Secondary)	212,830	kW	\$2.60	\$553,358	\$5.09	\$1,084,150
12	Customer Demand Charge (Primary)	48,306	kW	\$1.95	\$94,197	\$3.87	\$187,013
13	Substation Transformer Capacity (Transmission)	264,514	kVA	\$0.75	\$198,386	\$1.95	\$516,514
14							
15	Customer Charge - Secondary	409	Cust	\$250.00	\$102,250	\$350.00	\$143,150
16	Customer Charge - Primary	55	Cust	\$325.00	\$17,875	\$425.00	\$23,375
17	Customer Charge - Transmission	73	Cust	\$750.00	\$54,750	\$850.00	\$62,050
18	Telemetry Charge	120	Cust	\$8.75	\$1,050	\$32.88	\$3,946
19							
20	Total Distribution Service				\$1,879,328		\$3,713,843
21							
22	COSS						\$3,713,843
23	% Deficient						0.00%
24							
25	Power Supply						
26	Firm Demand Charge - Secondary	88,825	kW	\$11.05	\$981,516	\$9.74	\$865,156
27	Firm Demand Charge - Primary	7,008	kW	\$10.66	\$74,705	\$9.62	\$67,417
28	Firm Demand Charge - Transmission	99,350	kW	\$10.26	\$1,019,660	\$9.60	\$953,760
29							
30	Interruptible Demand Charge - Secondary	43,650	kW	\$3.55	\$154,958	\$2.24	\$97,776
31	Interruptible Demand Charge - Primary	15,240	kW	\$3.16	\$48,158	\$2.12	\$32,309
32	Interruptible Demand Charge - Transmission	91,534	kW	\$2.76	\$252,937	\$2.10	\$192,221
33							
34	Energy Charge -						
35	On-Peak Energy Charge (Secondary)	22,981,083	kWh	\$0.09003	\$2,068,987	\$0.06149	\$1,413,107
36	On-Peak Energy Charge (Primary)	1,631,733	kWh	\$0.08678	\$141,602	\$0.05927	\$96,713
37	On-Peak Energy Charge (Transmission)	31,640,467	kWh	\$0.08360	\$2,645,290	\$0.05710	\$1,806,806
38	Off-Peak Energy Charge (Secondary)	26,224,694	kWh	\$0.05854	\$1,535,123	\$0.03998	\$1,048,481
39	Off-Peak Energy Charge (Primary)	1,863,880	kWh	\$0.05642	\$105,152	\$0.03853	\$71,818
40	Off-Peak Energy Charge (Transmission)	35,943,317	kWh	\$0.05435	\$1,953,406	\$0.03712	\$1,334,230
41							
42	PSCR Revenues (\$/kWh)	120,285,174	kWh	-\$0.01665	-\$2,002,748	\$0.00000	\$0
43							
44	Total Power Supply Costs				\$8,978,747		\$7,979,793
45							
46	Rate Realignment	154,788,600	kWh	-\$0.00568	-\$879,199	\$0.00000	\$0
47	Energy Optimization	537	Cust	\$610.35	\$327,758	\$610.35	\$327,758
48							
49	Standby Demand	0	kW	\$2.00	\$0	\$2.00	\$0
50							
51	COSS						\$8,307,551
52	% Deficient						3.95%
53	Total Base				\$10,306,634		\$12,021,394

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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Industrial (WP-3)						
2	Distribution Service						
3	Customer Charge (\$/Month)	24	Cust	\$750.00	\$18,000	\$850.00	\$20,400
4	Telemetry Charge	12	Cust	\$8.75	\$105	\$32.88	\$395
5	Demand Charges Firm (\$/kW)	68,821	kW	\$0.34	\$23,492	\$0.37	\$25,764
6	Demand Charges Interruptible (\$/kW)	50,883	kW	\$0.34	\$17,369	\$0.37	\$19,049
7	Substation Capacity Transformer (\$/kVA)	399,600	kVA	\$0.75	\$299,700	\$0.87	\$347,652
8	Total Distribution Service				\$358,666		\$413,260
9	COSS						\$608,428
10	% Deficient						47.23%
11							
12	Power Supply						
13	Demand Charge (\$/kW)	0	kW	\$12.66	\$0	\$12.66	\$0
14	Demand Charge Interruptible (\$/kW)	50,883	kW	\$5.16	\$262,556	\$5.16	\$262,556
15							
16	Energy Charge -						
17	On-Peak Energy (\$/kWh)	14,837,717	kWh	\$0.06595	\$978,547	\$0.05710	\$847,297
18	Off-Peak Energy (\$/kWh)	16,940,915	kWh	\$0.04361	\$738,793	\$0.03712	\$628,854
19	Total Energy Charges				\$1,717,341		\$1,476,151
20	PSCR Revenues (\$/kWh)	31,778,632	kWh	-\$0.01665	-\$529,114	\$0.00000	\$0
21	Total Power Supply Costs				\$1,450,783		\$1,738,707
22							
23	Rate Realignment	67,749,453	kWh	-\$0.00002	-\$1,355	\$0.00000	\$0
24	Energy Optimization	12	Cust	\$610.35	\$7,324	\$610.35	\$7,324
25							
26	COSS						\$1,550,862
27	% Deficient						-11%
28	Total Base				\$1,815,418		\$2,159,291

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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Real-Time Market Pricing (RTMP)						
2	Distribution Service						
3	Customer Charge (\$/Month)	12	Cust	\$1,000.00	\$12,000	\$15,224.08	\$182,689.00
4	Demand Charge (\$/kW)	410,016	kW	\$0.71	\$291,111	\$0.71	\$291,111.36
5							
6							
7	Power Supply						
8	Scheduling Charge (\$/Month)	12	Cust	\$1,000.00	\$12,000	\$1,000.00	\$12,000
9							
10	Rate Realignment	194,538,900	kWh	-\$0.00046	-\$89,488	\$0.00000	\$0
11	Energy Optimization	12	Cust	\$610.35	\$7,324	\$610.35	\$7,324
12							
13	Total Base				\$232,948		\$493,125

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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Real-Time Market Pricing (RTMP-D)						
2	Distribution Service						
3	Customer Charge (\$/Month)	0	Cust	\$1,000.00	\$0	\$1,000.00	\$0
4	Demand Charge (\$/kW)	0	kW	\$0.34	\$0	\$0.37	\$0
5							
6	Power Supply						
7	Scheduling Charge (\$/Month)	0	Cust	\$1,000.00	\$0	\$1,000.00	\$0
8	Energy Charge (\$/kWh)	0	kWh	\$0.00000	\$0	\$0.00000	\$0
9							
10	Rate Realignment	0	kWh	\$0.00000	\$0	\$0.00000	\$0
11	Energy Optimization	0	Cust	\$610.35	\$0	\$610.35	\$0
12							
13	Total Base				\$0		\$0

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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Private Lighting (Z-3) + (Z-4)						
2	100 watt (Sodium Vapor)	0	Lamps	\$21.71	\$406,672	\$16.70	\$0
3	250 watt (Sodium Vapor)	0	Lamps	\$33.27	\$69,069	\$24.25	\$0
4	400 watt (Sodium Vapor)	0	Lamps	\$40.26	\$21,740	\$35.15	\$0
5	175 watt (Mercury Vapor)	0	Lamps	\$19.26	\$4,854	\$21.05	\$0
6	400 watt (Mercury Vapor)	0	Lamps	\$35.96	\$0	\$37.82	\$0
7	400 watt (Metal Halide)	0	Lamps	\$39.99	\$0	\$41.26	\$0
8	1000 watt (Metal Halide)	12	Lamps	\$73.62	\$883	\$65.50	\$786
	SL-6 100 watt (LED)	18,732	Lamps			\$13.87	\$259,785
	SL-6 150 watt (LED)	252	Lamps			\$16.44	\$4,143
	SL-6 250 watt (LED)	2,616	Lamps			\$19.02	\$49,746
9	Add'l Wood Pole	1,188	Poles	\$4.51	\$5,358	\$4.51	\$5,358
10	Span of Conductor	1,164	Spans	\$3.26	\$3,795	\$3.26	\$3,795
11	Rate Realignment	984,615	kWh	\$0.01070	\$10,535	\$0.00000	\$0
12	Energy Optimization	15,135	Cust	\$0.34	\$5,145	\$0.34	\$5,146
13	PSCR Revenues (\$/kWh)	984,615	kWh	-\$0.01665	-\$16,394	\$0.00000	\$0
14	Total Base				\$511,657		\$328,759

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Line No.	Description	(b) Billing Determinants		(c) Present		(e) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Street Lighting (SL)						
2	SL-3 - Energy	323,765	kWh	\$0.16724	\$54,146	\$0.13227	\$42,825
3	SL-3 - Customer Charge	896	Cust	\$17.00	\$15,232	\$17.00	\$15,232
4	SL-5 0-99 watt (LED) (closed)	0	Lamps	\$11.33	\$0	\$11.33	\$0
5	SL-5 100-199 watt (LED) (closed)	0	Lamps	\$14.89	\$0	\$14.89	\$0
6	SL-5 200-299 watt (LED) (closed)	0	Lamps	\$18.45	\$0	\$18.45	\$0
7	SL-5 300-399 watt (LED) (closed)	0	Lamps	\$22.00	\$0	\$22.00	\$0
8	SL-5 100 watt (Sodium Vapor) (closed)	0	Lamps	\$12.60	\$605	\$11.60	\$0
9	SL-5 150 watt (Sodium Vapor) (closed)	0	Lamps	\$14.91	\$6,978	\$13.91	\$0
10	SL-5 250 watt (Sodium Vapor) (closed)	0	Lamps	\$19.35	\$5,341	\$18.35	\$0
11	SL -5 400 watt (Sodium Vapor) (closed)	0	Lamps	\$24.57	\$295	\$23.57	\$0
12	SL-5 400 watt (Mercury Vapor) (closed)	0	Lamps	\$29.13	\$0	\$29.13	\$0
13	SL-5 Add'l Wood Pole (closed)	0	Poles	\$4.51	\$0	\$4.51	\$0
14	SL-5 Span of Conductor (closed)	0	Spans	\$3.26	\$0	\$3.26	\$0
15	SL-6 70 watt (Sodium Vapor) (closed)	0	Lamps	\$18.95	\$67,083	\$15.95	\$0
16	SL-6 100 watt (Sodium Vapor)	0	Lamps	\$19.70	\$1,155,293	\$15.70	\$0
17	SL-6 150 watt (Sodium Vapor)	0	Lamps	\$23.90	\$347,316	\$20.90	\$0
18	SL-6 250 watt (Sodium Vapor)	0	Lamps	\$27.13	\$50,462	\$23.25	\$0
19	SL-6 400 watt (Sodium Vapor)	0	Lamps	\$38.21	\$3,210	\$34.15	\$0
20	SL-6 175 watt (Mercury Vapor)	0	Lamps	\$20.05	\$0	\$20.05	\$0
21	SL-6 400 watt (Mercury Vapor)	0	Lamps	\$36.82	\$0	\$36.82	\$0
22	SL-6 175 watt (Metal Halide)	0	Lamps	\$32.71	\$0	\$32.71	\$0
23	SL-6 400 watt (Metal Halide)	0	Lamps	\$40.26	\$0	\$40.26	\$0
24	SL-6 1000 watt (Metal Halide)	0	Lamps	\$74.20	\$0	\$74.20	\$0
25	SL-6 100 watt (LED)	62,316	Lamps	\$18.08	\$1,519	\$12.87	\$801,915
26	SL-6 150 watt (LED)	15,192	Lamps	\$21.45	\$4,118	\$15.44	\$234,598
27	SL-6 250 watt (LED)	2,280	Lamps	\$25.24	\$1,212	\$18.02	\$41,076
28	SL-6 Add'l Wood Pole	3,372	Poles	\$4.51	\$15,208	\$4.51	\$15,208
29	SL-6 Span of Conductor	3,636	Spans	\$3.26	\$11,853	\$3.26	\$11,853
30	Rate Realignment	3,614,516	kWh	\$0.00893	\$32,278	\$0.00000	\$0
31	Energy Optimization	3,396	Cust	\$0.34	\$1,156	\$0.34	\$1,155
32	PSCR Revenues (\$/kWh)	3,614,516	kWh	-\$0.01665	-\$60,182	\$0.00000	\$0
33	Total Base				\$1,713,121		\$1,163,863

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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Residential (A-2)						
2	Distribution						
3	Service Charge (\$/Month)	39,548	Cust	\$15.00	\$593,220	\$25.00	\$988,700
4	Energy Charge (\$/kWh)	16,826,943	kWh	\$0.10305	\$1,733,957	\$0.10396	\$1,749,335
5	Total - Distribution				\$2,327,177		\$2,738,035
6							
7	COSS - Distribution						\$2,593,426
8	% Deficient						-5.58%
9							
10	Power Supply						
11	Energy Charge (\$/kWh)	16,826,943	kWh	\$0.09724	\$1,636,252	\$0.08110	\$1,364,590
12	PSCR Revenues (\$/kWh)	16,826,943	kWh	-\$0.01665	-\$280,169	\$0.00000	\$0
13	Total - Power Supply				\$1,356,083		\$1,364,590
14							
15	Rate Realignment	16,826,943	kWh	\$0.00597	\$100,457	\$0.00000	\$0
16	Energy Optimization	16,826,943	kWh	\$0.00280	\$47,115	\$0.00280	\$47,115
17							
18	COSS - Power Supply						\$1,425,040
19	% Deficient						4.24%
20	Total Base				\$3,830,833		\$4,149,741

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Line No.	(a) Description	(b) Billing Determinants		(c) Present		(d) Proposed	
		Quantity	Units	Rate	Revenue	Rate	Revenue
1	Private Lighting (Z-4)						
2	100 watt (Sodium Vapor)		Lamps	\$0.00	\$0	\$0.00	\$0
3	250 watt (Sodium Vapor)		Lamps	\$0.00	\$0	\$0.00	\$0
4	400 watt (Sodium Vapor)		Lamps	\$0.00	\$0	\$0.00	\$0
5	175 watt (Mercury Vapor)		Lamps	\$0.00	\$0	\$0.00	\$0
6	400 watt (Metal Halide)		Lamps	\$0.00	\$0	\$0.00	\$0
7	1000 watt (Metal Halide)		Lamps	\$0.00	\$0	\$0.00	\$0
8	Add'l Wood Pole		Poles	\$0.00	\$0	\$0.00	\$0
9	Span of Conductor		Spans	\$0.00	\$0	\$0.00	\$0
10	Rate Realignment		kWh	\$0.00	\$0	\$0.00	\$0
11	Energy Optimization		Cust	\$0.00	\$0	\$0.00	\$0
12	PSCR Revenues (\$/kWh)		kWh	\$0.00	-\$1	\$0.00	\$0
13	Total Base						\$0

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line No.	Jurisdiction	Monthly kWh Use	Monthly kW	Present Net Monthly Bill	Proposed Net Monthly Bill	Increase		Proposed \$/kWh
						Amount	Percent	
	INTEGRATED RETAIL SYSTEM: RATE A-1							
1		0		\$15.00	\$25.00	\$10.00	66.67%	NA
2		50		\$24.94	\$34.25	\$9.31	37.33%	\$0.68506
3		100		\$34.88	\$43.51	\$8.62	24.72%	\$0.43506
4		150		\$44.82	\$52.76	\$7.94	17.70%	\$0.35172
5		200		\$54.76	\$62.01	\$7.25	13.23%	\$0.31006
6		250		\$64.71	\$71.26	\$6.56	10.14%	\$0.28506
7		300		\$74.65	\$80.52	\$5.87	7.86%	\$0.26839
8		350		\$84.59	\$89.77	\$5.18	6.13%	\$0.25648
9		400		\$94.53	\$99.02	\$4.49	4.75%	\$0.24756
10		450		\$104.47	\$108.28	\$3.81	3.64%	\$0.24061
11		500		\$114.41	\$117.53	\$3.12	2.72%	\$0.23506
12		550		\$124.35	\$126.78	\$2.43	1.95%	\$0.23051
13		600		\$134.29	\$136.03	\$1.74	1.30%	\$0.22672
14		650		\$144.23	\$145.29	\$1.05	0.73%	\$0.22352
15		700		\$154.18	\$154.54	\$0.36	0.24%	\$0.22077

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE AH-1								
1		0		\$15.00	\$25.00	\$10.00	66.67%	NA
2		100		\$34.24	\$43.51	\$9.27	27.08%	\$0.43506
3		300		\$72.71	\$80.52	\$7.81	10.74%	\$0.26839
4		500		\$111.18	\$117.53	\$6.35	5.71%	\$0.23506
5		700		\$144.81	\$147.61	\$2.80	1.93%	\$0.21087
6		1,000		\$195.26	\$192.73	-\$2.53	-1.30%	\$0.19273
7		1,500		\$279.34	\$267.93	-\$11.41	-4.09%	\$0.17862
8		2,000		\$363.42	\$343.13	-\$20.29	-5.58%	\$0.17157
9		2,500		\$447.51	\$418.33	-\$29.17	-6.52%	\$0.16733
10		3,000		\$531.59	\$493.53	-\$38.05	-7.16%	\$0.16451

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE C-1								
1		0		\$17.00	\$50.00	\$33.00	194.12%	NA
2		100		\$31.91	\$67.19	\$35.28	110.58%	\$0.67189
3		300		\$61.72	\$101.57	\$39.85	64.56%	\$0.33855
4		500		\$91.53	\$135.94	\$44.41	48.52%	\$0.27189
5		700		\$121.34	\$170.32	\$48.98	40.36%	\$0.24331
6		1,000		\$166.06	\$221.89	\$55.82	33.62%	\$0.22189
7		2,500		\$389.66	\$479.71	\$90.06	23.11%	\$0.19189
8		5,000		\$762.31	\$909.43	\$147.11	19.30%	\$0.18189
9		7,500		\$1,134.97	\$1,339.14	\$204.17	17.99%	\$0.17855
10		10,000		\$1,507.63	\$1,768.86	\$261.23	17.33%	\$0.17689

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE H-1								
1		0		\$17.00	\$50.00	\$33.00	194.12%	NA
2		100		\$32.08	\$67.19	\$35.11	109.43%	\$0.67189
3		300		\$62.24	\$101.57	\$39.32	63.17%	\$0.33855
4		500		\$92.41	\$135.94	\$43.54	47.11%	\$0.27189
5		700		\$122.57	\$170.32	\$47.75	38.96%	\$0.24331
6		1,000		\$167.81	\$221.89	\$54.07	32.22%	\$0.22189
7		1,500		\$229.44	\$294.62	\$65.19	28.41%	\$0.19642
8		2,000		\$291.06	\$367.36	\$76.30	26.22%	\$0.18368
9		2,500		\$352.68	\$440.10	\$87.42	24.79%	\$0.17604
10		3,000		\$414.30	\$512.84	\$98.54	23.78%	\$0.17095

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE P-1								
1		0	0	\$35.00	\$60.00	\$25.00	71.43%	NA
2		1,000	10	\$253.01	\$308.74	\$55.74	22.03%	\$0.30874
3		4,000	15	\$577.27	\$671.22	\$93.94	16.27%	\$0.16780
4		9,000	25	\$1,139.70	\$1,300.92	\$161.22	14.15%	\$0.14455
5		13,000	35	\$1,616.02	\$1,835.39	\$219.37	13.57%	\$0.14118
6		17,000	45	\$2,092.35	\$2,369.86	\$277.51	13.26%	\$0.13940
7		20,000	55	\$2,482.56	\$2,809.08	\$326.52	13.15%	\$0.14045
8		23,000	65	\$2,872.78	\$3,248.31	\$375.53	13.07%	\$0.14123
9		25,000	75	\$3,176.89	\$3,592.29	\$415.40	13.08%	\$0.14369
10		27,000	85	\$3,481.00	\$3,936.27	\$455.27	13.08%	\$0.14579
11		29,000	95	\$3,785.11	\$4,280.26	\$495.14	13.08%	\$0.14760
12		31,000	105	\$4,089.22	\$4,624.24	\$535.01	13.08%	\$0.14917

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE Cp-U								
1		0	0	\$3,748.09	\$9,150.23	\$5,402.14	144.13%	NA
2		160,000	420	\$18,272.23	\$25,171.14	\$6,898.91	37.76%	\$0.15732
3		320,000	840	\$32,796.36	\$41,192.04	\$8,395.68	25.60%	\$0.12873
4		480,000	1,260	\$47,320.50	\$57,212.95	\$9,892.46	20.91%	\$0.11919
5		640,000	1,680	\$61,844.63	\$73,233.86	\$11,389.23	18.42%	\$0.11443
6		800,000	2,100	\$76,368.76	\$89,254.77	\$12,886.00	16.87%	\$0.11157
7		960,000	2,520	\$90,892.90	\$105,275.68	\$14,382.78	15.82%	\$0.10966
8		1,120,000	2,940	\$105,417.03	\$121,296.59	\$15,879.55	15.06%	\$0.10830
9		1,280,000	3,360	\$119,941.17	\$137,317.49	\$17,376.33	14.49%	\$0.10728
10		1,440,000	3,780	\$134,465.30	\$153,338.40	\$18,873.10	14.04%	\$0.10649
11		1,600,000	4,200	\$148,989.44	\$169,359.31	\$20,369.87	13.67%	\$0.10585

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE WP-3								
1		0	0	\$9,975.00	\$11,551.00	\$1,576.00	15.80%	NA
2		600,000	1,200	\$39,978.78	\$46,939.26	\$6,960.47	17.41%	\$0.07823
3		1,200,000	2,400	\$69,982.56	\$82,327.51	\$12,344.95	17.64%	\$0.06861
4		1,800,000	3,600	\$99,986.34	\$117,715.77	\$17,729.42	17.73%	\$0.06540
5		2,400,000	4,800	\$129,990.13	\$153,104.02	\$23,113.90	17.78%	\$0.06379
6		3,000,000	6,000	\$159,993.91	\$188,492.28	\$28,498.37	17.81%	\$0.06283
7		3,600,000	7,200	\$189,997.69	\$223,880.54	\$33,882.85	17.83%	\$0.06219
8		4,200,000	8,400	\$220,001.47	\$259,268.79	\$39,267.32	17.85%	\$0.06173
9		4,800,000	9,600	\$250,005.25	\$294,657.05	\$44,651.80	17.86%	\$0.06139
10		5,400,000	10,800	\$280,009.03	\$330,045.31	\$50,036.27	17.87%	\$0.06112
11		6,000,000	12,000	\$310,012.81	\$365,433.56	\$55,420.75	17.88%	\$0.06091

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE RTMP								
1		0	0	\$2,000.00	\$16,224.08	\$14,224.08	711.20%	NA
2		600,000	1,200	\$2,852.00	\$17,076.08	\$14,224.08	498.74%	\$0.02846
3		1,200,000	2,400	\$3,704.00	\$17,928.08	\$14,224.08	384.02%	\$0.01494
4		1,800,000	3,600	\$4,556.00	\$18,780.08	\$14,224.08	312.21%	\$0.01043
5		2,400,000	4,800	\$5,408.00	\$19,632.08	\$14,224.08	263.02%	\$0.00818
6		3,000,000	6,000	\$6,260.00	\$20,484.08	\$14,224.08	227.22%	\$0.00683
7		3,600,000	7,200	\$7,112.00	\$21,336.08	\$14,224.08	200.00%	\$0.00593
8		4,200,000	8,400	\$7,964.00	\$22,188.08	\$14,224.08	178.60%	\$0.00528
9		4,800,000	9,600	\$8,816.00	\$23,040.08	\$14,224.08	161.34%	\$0.00480
10		5,400,000	10,800	\$9,668.00	\$23,892.08	\$14,224.08	147.13%	\$0.00442
11		6,000,000	12,000	\$10,520.00	\$24,744.08	\$14,224.08	135.21%	\$0.00412

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE RTMP-D								
1		0	0	\$2,000.00	\$2,000.00	\$0.00	0.00%	NA
2		600,000	1,200	\$2,409.62	\$2,449.24	\$39.62	1.64%	\$0.00408
3		1,200,000	2,400	\$2,819.24	\$2,898.49	\$79.24	2.81%	\$0.00242
4		1,800,000	3,600	\$3,228.86	\$3,347.73	\$118.86	3.68%	\$0.00186
5		2,400,000	4,800	\$3,638.49	\$3,796.97	\$158.48	4.36%	\$0.00158
6		3,000,000	6,000	\$4,048.11	\$4,246.21	\$198.11	4.89%	\$0.00142
7		3,600,000	7,200	\$4,457.73	\$4,695.46	\$237.73	5.33%	\$0.00130
8		4,200,000	8,400	\$4,867.35	\$5,144.70	\$277.35	5.70%	\$0.00122
9		4,800,000	9,600	\$5,276.97	\$5,593.94	\$316.97	6.01%	\$0.00117
10		5,400,000	10,800	\$5,686.59	\$6,043.18	\$356.59	6.27%	\$0.00112
11		6,000,000	12,000	\$6,096.21	\$6,492.43	\$396.21	6.50%	\$0.00108

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE SL-3								
1		0		\$0.00	\$0.00	\$0.00	NA	NA
2		100		\$2,850.00	\$2,127.59	-\$722.41	-25.35%	\$21.27595
3		200		\$5,700.00	\$4,255.19	-\$1,444.81	-25.35%	\$21.27595
4		300		\$8,550.00	\$6,382.78	-\$2,167.22	-25.35%	\$21.27595
5		400		\$11,400.00	\$8,510.38	-\$2,889.62	-25.35%	\$21.27595
6		500		\$14,250.00	\$10,637.97	-\$3,612.03	-25.35%	\$21.27595
7		600		\$17,100.00	\$12,765.57	-\$4,334.43	-25.35%	\$21.27595
8		700		\$19,950.00	\$14,893.16	-\$5,056.84	-25.35%	\$21.27595
9		800		\$22,800.00	\$17,020.76	-\$5,779.24	-25.35%	\$21.27595
10		900		\$25,650.00	\$19,148.35	-\$6,501.65	-25.35%	\$21.27595
11		1,000		\$28,500.00	\$21,275.95	-\$7,224.05	-25.35%	\$21.27595

Michigan Public Service Commission
Upper Peninsular Power Company
Comparison of Present and Proposed Monthly Bills

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE SL (1 Pole, 1 Span)								
1	100W - LED	100		\$25.85	\$20.64	-\$5.21	-20.16%	\$0.20639
2	150W - LED	100		\$29.22	\$23.21	-\$6.01	-20.56%	\$0.23212
3	250W - LED	100		\$33.01	\$25.79	-\$7.22	-21.88%	\$0.25786
4								
5								

Michigan Public Service Commission
Upper Peninsular Power Company
Comparison of Present and Proposed Monthly Bills

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase		Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent	\$/kWh
INTEGRATED RETAIL SYSTEM: RATE Z-3 (1 Pole, 1 Span)								
1	100W - LED	100		\$21.71	\$13.87	-\$7.84	-36.12%	\$0.13869
2	150W - LED	100		\$19.26	\$16.44	-\$2.82	-14.63%	\$0.16442
3	250W - LED	100		\$33.27	\$19.02	-\$14.25	-42.84%	\$0.19016
4								
5								
6								
7								

	(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)
Line		Monthly	Monthly	Present Net	Proposed Net	Increase			Proposed
No.	Jurisdiction	kWh Use	kW	Monthly Bill	Monthly Bill	Amount	Percent		\$/kWh
IRON RIVER SYSTEM: RATE A-2									
1		0		\$15.00	\$15.00	\$10.00	66.67%		NA
2		50		\$24.48	\$24.25	-\$0.01	-0.06%		\$0.50000
3		100		\$33.96	\$33.51	-\$10.03	-28.63%		\$0.25000
4		150		\$43.44	\$42.76	-\$20.04	-44.50%		\$0.16666
5		200		\$52.92	\$52.01	-\$30.06	-54.59%		\$0.12500
6		250		\$62.40	\$61.26	-\$40.07	-61.58%		\$0.10000
7		300		\$71.88	\$70.52	-\$50.09	-66.71%		\$0.08333
8		350		\$81.36	\$79.77	-\$60.10	-70.62%		\$0.07143
9		400		\$90.84	\$89.02	-\$70.12	-73.72%		\$0.06250
10		450		\$100.32	\$98.28	-\$80.13	-76.22%		\$0.05555
11		500		\$109.80	\$107.53	-\$90.15	-78.29%		\$0.05000
12		550		\$119.28	\$116.78	-\$100.16	-80.03%		\$0.04545
13		600		\$128.76	\$126.03	-\$110.17	-81.51%		\$0.04166
14		650		\$138.24	\$135.29	-\$120.19	-82.78%		\$0.03846
15		700		\$147.72	\$144.54	-\$130.20	-83.89%		\$0.03571

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC
4.00
4.00

~~8th-9th~~ Rev. Sheet No. D-

Replaces ~~7th-8th~~ Rev. Sheet No. D-

D2. Residential Service

A-1

WHO MAY TAKE SERVICE:

Any residential customer in a single family dwelling or a duplex using service for domestic purposes. This rate is also available to certain multiple dwellings in accordance with the standard rules. Services to garages and outbuildings not used for commercial purposes will also be classified as residential. Farm customers using electric service for the production of agricultural products for commercial purposes will be placed on the appropriate commercial rate. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

~~TERRITORY APPLICABLE:~~

~~All territory served in the Company's Integrated System.~~

CHARACTER OF SERVICE:

Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE

Service Charge:

\$~~1525~~.00/Mo. for Year-Round
\$~~0.49328219~~/Day for Year-Round
\$~~3050~~.00/Mo. for Seasonal
\$~~0.98631.6438~~/Day for Seasonal

Energy Charge:

\$~~0.10904-10396~~ per kWh for all kWh

POWER SUPPLY SERVICE (Optional)

Energy Charge:

Non-Capacity \$~~0.07562-06083~~ per kWh for all kWh
Capacity \$~~0.02461-02027~~ per kWh for all kWh

MINIMUM CHARGE:

The service charge included in the rate.

POWER SUPPLY COST RECOVERY CLAUSE:

This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~TAX CUTS & JOBS ACT CREDIT:~~

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

Continued on Sheet No. D-5.00

By G R Haehnel

xx-xx

Director - Regulatory Affairs
Marquette, Michigan

On and After: ~~07-01-18~~xx-

Issued Under Auth. of
Mich Public Serv Comm

Dated: ~~06-28-17~~xx-xx-xx

In Case No: U-~~2011~~20276

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

2nd Rev. Sheet No. D-5.00
Replaces 1st Rev. Sheet No. D-5.00

D2. Residential Service

A-1

Continued from Sheet No. D-4.00

TERMS OF PAYMENT:

Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:

Service is governed by the Company's Standard Rules and Regulations.

SEASONAL BILLING:

Service shall be billed for six months. Billing cycles for the business months of May through October shall apply for facilities normally utilized during summer months and November through April for facilities normally utilized during winter months.

Service may remain connected during the off-season, and incidental use during such period may be included with the first billing of the following season, however, the Company may issue bills for electric service to seasonal electric customers during the off-season period if the customer's electric usage since the last issued bill exceeds 500 kWh of electric energy.

Issued: 12-22-10
By J F Schott
VP External Affairs
Green Bay, Wisconsin

Effective for Service
On and After: 1-1-11
Issued Under Auth. of
Mich Public Serv Comm
Dated: 12-21-10
In Case No: U-16166

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC
6.00
6.00

~~8th-9th~~ Rev. Sheet No. D-
Replaces ~~7th-8th~~ Rev. Sheet No. D-

~~D2. Residential Service~~

~~A-2~~

*This sheet has been cancelled
and is reserved for future use.*

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~~WHO MAY TAKE SERVICE:~~

~~Any residential customer in a single family dwelling or a duplex using service for domestic purposes. This rate is also available to certain multiple dwellings in accordance with the standard rules. Services to garages and outbuildings not used for commercial purposes will also be classified as residential. Farm customers using electric service for the production of agricultural products for commercial purposes will be placed on the appropriate commercial rate. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.~~

~~TERRITORY APPLICABLE:~~

~~All territory served in the Company's Iron River District.~~

~~CHARACTER OF SERVICE:~~

~~Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.~~

~~RATE: DISTRIBUTION SERVICE~~

~~Service Charge:~~

~~_____ \$15.00/Mo. for Year-Round
_____ \$0.4932/Day for Year-Round
_____ \$30.00/Mo. for Seasonal
_____ \$0.9863/Day for Seasonal~~

~~Energy Charge:~~

~~_____ \$0.10305 per kWh for all kWh~~

~~POWER SUPPLY SERVICE (Optional)~~

~~Energy Charge:~~

~~Non-Capacity _____ \$0.07261 per kWh for all kWh
Capacity _____ \$0.02463 per kWh for all kWh~~

~~MINIMUM CHARGE:~~

~~The service charge included in the rate.~~

~~POWER SUPPLY COST RECOVERY CLAUSE:~~

~~This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.~~

~~ENERGY OPTIMIZATION SURCHARGE:~~

~~This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.~~

~~TAX CUTS & JOBS ACT CREDIT:~~

~~_____ This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

Continued on Sheet D-7.00

Issued: ~~07-24-18~~~~xx-xx-xx~~
Service
By G R Haehnel
~~xx-xx~~
Director - Regulatory Affairs
Marquette, Michigan

Effective for
On and After: ~~07-01-18~~~~xx-~~
Issued Under Auth. of
Mich Public Serv Comm
Dated: ~~06-28-18~~~~xx-xx-xx~~
In Case No: U-~~20111~~20276

UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC
7.00

~~2nd-3rd~~ Rev. Sheet No. D-

Replaces ~~1st-2nd~~ Rev. Sheet No. D-

7.00

D2. Residential Service		A-2
Continued from Sheet D-6.00		
<div>N N</div>	<p><i><u>This sheet has been cancelled and is reserved for future use.</u></i></p>	
<div>D</div>	<p>TERMS OF PAYMENT:</p> <p>Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.</p>	
<div>D</div>	<p>RULES APPLYING:</p> <p>Service is governed by the Company's Standard Rules and Regulations.</p>	
	<p>SEASONAL BILLING:</p> <p>Service shall be billed for six months. Billing cycles for the business months of May through October shall apply for facilities normally utilized during summer months and November through April for facilities normally utilized during winter months.</p> <p>Service may remain connected during the off-season, and incidental use during such period may be included with the first billing of the following season, however, the Company may issue bills for electric service to seasonal electric customers during the off-season period if the customer's electric usage since the last issued bill exceeds 500 kWh of electric energy.</p>	

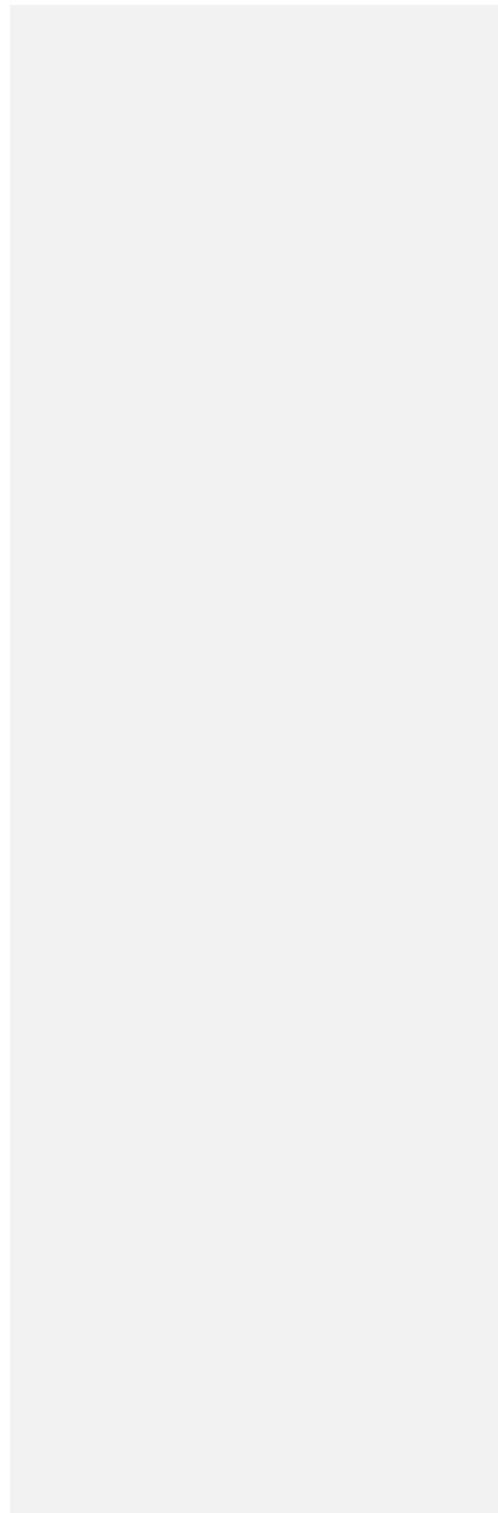
Issued: ~~12-22-10xx-xx-xx~~
Service By ~~G R Haehnel J F Schott~~
After: ~~1-1-11xx-xx-xx~~

Effective for
On and

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UPPER PENINSULA POWER COMPANY

R MPSC Vol No 8-ELECTRIC
8.00

~~7th-8th~~ Rev. Sheet No. D-

R
8.00

Replaces ~~6th-7th~~ Rev. Sheet No. D-

D2. Residential Heating Service

AH-1

WHO MAY TAKE SERVICE:

Any residential customer in a single family dwelling or a duplex using service for domestic purposes, provided the major electric space heating facilities are permanently installed and are the primary source of space heating. This rate is also available to certain multiple dwellings in accordance with the standard rules. Services to garages and outbuildings not used for commercial purposes will also be classified as residential. Farm customers using electric service for the production of agricultural products for commercial purposes will be placed on the appropriate commercial rate. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:

Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE:

DISTRIBUTION SERVICE

Service Charge:

~~\$1525.00~~ per month

~~\$0.4932-8219~~ per day

Energy Charge:

For billing months of June through September

~~\$0.10904-10396~~ per kWh for all kWh

For billing months of October through May

~~\$0.11995-10396~~ per kWh for the first 500 kWh

~~\$0.04076-05198~~ per kWh for the excess

POWER SUPPLY SERVICE (Optional)

Energy Charge:

For billing months of June through September

Non-Capacity ~~\$0.07200-06083~~ per kWh for all kWh

Capacity ~~\$0.02456-02027~~ per kWh for all kWh

For billing months of October through May

Non-Capacity ~~\$0.05845-06083~~ for the first 500 kWh

Capacity ~~\$0.02456-02027~~ for the first 500 kWh

Non-Capacity ~~\$0.10134-0.06083~~ for the excess kWh

Capacity ~~\$0.02456-0.02027~~ for the excess kWh

POWER SUPPLY COST RECOVERY CLAUSE:

This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

MINIMUM CHARGE:

The service charge included in the rate.

Continued on Sheet D-9.00

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~~xx-xx~~

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UPPER PENINSULA POWER COMPANY

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3rd Rev. Sheet No. D-9.00
Replaces 2nd Rev. Sheet No. D-9.00

D2. Residential Heating Service	AH-1
<p>Continued from Sheet D-8.00</p> <p>TAX CUTS & JOBS ACT CREDIT: This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.</p> <p>TERMS OF PAYMENT: Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.</p> <p>RULES APPLYING: 1) Service is governed by the Company's Standard Rules and Regulations. 2) Separately metered water heating on a separate circuit is available under rate "A-1". 3) Permanently installed heating equipment is heating equipment that is hard-wired into an electric panel which may or may not have a plug.</p>	

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Replaces ~~7th-8th~~ Rev. Sheet No. D-

12.00

D2. General Service

C-1

WHO MAY TAKE SERVICE:

Any customer for commercial or industrial purpose with a billing demand of less than 25 kW. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:

Single or three-phase, alternating current, 60 hertz at standard available voltages.

RATE:

DISTRIBUTION SERVICE:

Service Charge:

~~\$1750.00~~ per month

~~\$0.55891.6438~~ per day

Energy Charge:

~~\$0.05760-07923~~ per kWh for all kWh

POWER SUPPLY SERVICE (Optional)

Energy Charge:

Non-Capacity \$0.~~08924-07413~~ per kWh for all kWh

Capacity \$0.~~02181-01853~~ per kWh for all kWh

MINIMUM CHARGE:

The service charge included in the rate, plus the energy optimization surcharge.

POWER SUPPLY COST RECOVERY CLAUSE:

This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~TAX CUTS & JOBS ACT CREDIT:~~

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

TERMS OF PAYMENT:

Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:

- (1) Service is governed by the Company's Standard Rules and Regulations.
- (2) Conjunctional billing will not be permitted in cases where the customer is presently being served lighting and power loads through separate meters. In these instances, whenever the customer at his expense will arrange his wiring to receive energy through one single metered service, then this rate shall apply to his entire requirements.

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14.00

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Replaces ~~7th-8th~~ Rev. Sheet No. D-

D2. Commercial Heating Service

H-1

WHO MAY TAKE SERVICE:

Any customer for commercial purposes provided that their electric space heating facilities are permanently installed and are the primary source of space heating. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

CHARACTER OF SERVICE:

Single or three-phase, alternating current, 60 hertz, nominally at 120/240 volts.

RATE: DISTRIBUTION SERVICE

Service Charge:

~~\$1750.00~~ per month
~~\$0.55891.6438~~ per day

Energy Charge:

For billing months of June through September

~~\$0.05760-07923~~ per kWh for all kWh

For billing months of October through May

~~\$0.06336-07923~~ per kWh for first 1000 kWh

~~\$0.02273-03961~~ per kWh for the excess

POWER SUPPLY SERVICE (Optional)

Energy Charge:

For billing months of June through September

Non-Capacity ~~\$0.09050-07413~~ per kWh for all kWh

Capacity ~~\$0.02155-01853~~ per kWh for all kWh

For billing months of October through May

Non-Capacity ~~\$0.08146-07413~~ per kWh for first 1000 kWh

Capacity ~~\$0.02155-01853~~ per kWh for first 1000 kWh

Non-Capacity ~~\$0.08073-07413~~ per kWh for the excess

Capacity ~~\$0.02155-01853~~ per kWh for the excess

MINIMUM CHARGE:

The service charge included in the rate, plus the energy optimization charge.

POWER SUPPLY COST RECOVERY CLAUSE:

This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

TAX CUTS & JOBS ACT CREDIT:

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

Continued to Page D-14.10

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-14.10

D2. Commercial Heating Service	H-1
Continued from Page D-14.00	
TERMS OF PAYMENT:	
N N N N	
Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.	
RULES APPLYING:	
N N N N	
1) Service is governed by the Company's Standard Rules and Regulations. 2) Permanently installed heating equipment is heating equipment that is hard-wired into an electric panel which may or may not have a plug.	

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UPPER PENINSULA POWER COMPANY

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Replaces ~~7th-8th~~ Rev. Sheet No. D-

16.00

D2. Light and Power Service		P-1
WHO MAY TAKE SERVICE: Any customer for light and power purposes with a billing demand equal to or greater than 25 kW but less than 200 kW. To qualify, the customer must maintain a demand equal to or greater than 25 kW for three consecutive months and at least once in each succeeding twelve-month period. Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.		
CHARACTER OF SERVICE: Single or three-phase, alternating current, 60 hertz at standard available voltages.		
RATE: <u>DISTRIBUTION SERVICE</u>		
<u>R</u>	Service Charge:	
<u>R</u>	\$ 3560.00 per month	
	\$ 1.1507-9726 per day	
<u>R</u>	Demand Charge:	
	\$ 4.005.50 per kW per month	
<u>R</u>	Energy Charge:	
	\$ 0.01801-02575 per kWh for all kWh	
<u>POWER SUPPLY SERVICE (Optional)</u>		
<u>R</u>	Demand Charge:	
<u>R</u>	Capacity \$ 7.32-88 per kW per month	
	Non-Capacity \$ 1.87-97 per kW per month	
<u>R</u>	Energy Charge:	
	\$ 0.08475-06949 per kWh for all kWh	
MINIMUM CHARGE: The capacity charge for 25 kW or the contract minimum, whichever is greater, plus the energy optimization charge.		
POWER SUPPLY COST RECOVERY CLAUSE: This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.		
ENERGY OPTIMIZATION SURCHARGE: This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.		
<u>N</u>	TAX CUTS & JOBS ACT CREDIT:	
<u>N</u>	This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet	
<u>N</u>	No. D-80.00.	
POWER FACTOR BILLING ADJUSTMENT: This rate is subject to the Company's Power Factor Billing Adjustment.		
Continued on Sheet No. D-17.00		

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2nd Rev. Sheet No. D-17.00
Replaces 1st Rev. Sheet No. D-17.00

D2. Light and Power Service	P-1
<p>Continued from Sheet No. D-16.00</p> <p>TERMS OF PAYMENT: Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.</p> <p>DETERMINATION OF BILLING DEMAND: Billing demand shall be the maximum 15-minute demand during the month but not less than 25 kW.</p> <p>D RULES APPLYING: Service is governed by the Company's Standard Rules and Regulations.</p>	

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UPPER PENINSULA POWER COMPANY

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25.10
R 25.10

~~5th-6th~~ Rev. Sheet No. D-
Replaces ~~4th-5th~~ Rev. Sheet No. D-

D2. Large Commercial & Industrial Service

Cp-U

WHO MAY TAKE SERVICE:

This schedule is applicable to customers whose monthly demand is equal to or greater than 200 kW for three consecutive months and at least once in each succeeding 12 month period and others taking standby service. This service is not available for customers required to take service under the Power Supply Default Service. Customers taking service under the Retail Access Service Tariff (RAST) shall be responsible for the Distribution Charges but not the Power Supply Charges under this rate schedule. Customers that purchase power supply service from the Company shall be subject to both the Distribution and Power Supply charges contained in this rate schedule.

Customers that take service directly from the company-owned substation (i.e. Company owns no distribution facilities downstream of substation) will be classified as Transmission and receive the Substation Transformer Capacity charge.

MONTHLY RATE

	Secondary	Primary	Transmission
--	------------------	----------------	---------------------

DISTRIBUTION SERVICE

Customer Charge:

<u>R</u> Monthly	\$ 250 350.00	\$ 325 425.00	\$ 750 850.00
<u>R</u> Daily	\$ 8.21 9211.5068	\$ 10.68 4913.9726	
	\$ 24.65 7527.9452		

Demand Charge

<u>R</u> 1. Customer Demand:\$/KW	\$ 2.60 5.09	\$ 1.95 3.87	\$ 0.00 1.95
Per KW of maximum demand during the current and preceding 11 months, plus,			

<u>R</u> 2. On-Peak			
<u>R</u> Firm Demand: \$/KW	\$ 2.14 4.24	\$ 2.06 4.08	\$ 1.99 3.91
<u>R</u> Interruptible Demand: \$/KW	\$ 2.14 4.24	\$ 2.06 4.08	\$ 1.99 3.91

7:00 AM to 11:00 PM; Monday through Friday
(except holidays).

<u>R</u> Substation Transformer Capacity: \$/kVA	\$ 0.75 1.95
--	-------------------------

Continued to Sheet No. D-25.20

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Replaces ~~4th-5th~~ Rev. Sheet No. D-

D2. Large Commercial & Industrial Service				Cp-U
Continued from Sheet No. D-25.10				
POWER SUPPLY SERVICE (Optional)		Secondary	Primary	Transmission
On-Peak				
Firm Demand: \$/kW				
Capacity		\$ 6.11 5.36	\$ 5.89 5.29	
\$ 5.68 5.28				
Non-Capacity		\$ 4.94 4.38	\$ 4.77 4.33	
\$ 4.58 4.32				
Total		\$ 11.05 9.74	\$ 10.66 9.62	
\$ 10.26 9.60				
Interruptible Demand: \$/kW				
Capacity		\$1. 96 23	\$1. 75 ———17	
\$1. 52 16				
Non-Capacity		\$1. 59 ———01	\$ 1.41 0.95	
\$ 1.20 .94				
Total		\$ 3.55 2.24	\$ 3.16 2.12	\$ 2.76 2.10
7:00 AM to 11:00 PM; Monday through Friday (except holidays).				
Energy Charge				
1. On-Peak				
Energy Charge:\$/kWh		\$0. 0900 306149	\$0. 0867 805927	
\$0. 0836 005710				
7:00 AM to 11:00 PM; Monday through Friday (except holidays).				
2. Off-Peak				
Energy Charge:\$/kWh		\$0. 0585 403998	\$0. 0564 203853	
\$0. 0543 503712				
11:00 PM to 7:00 AM; Monday through Friday, all day Saturday, Sunday, and holidays.				
MINIMUM CHARGE				
The monthly minimum charge is the customer charge, demand charges, substation charges and the energy optimization charge.				
POWER SUPPLY COST RECOVERY CLAUSE				
This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.				
PRIMARY & TRANSMISSION CHARGES				
The customer shall provide a support for the company to terminate the primary conductors and install other required equipment. Customer owned substation equipment shall be operated and maintained by the customer. The support and substation equipment is subject to the company's inspection and approval.				
ENERGY OPTIMIZATION				
This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D- 73.00.				
DEFINITIONS				
For customers with company metering equipment installed at:				
Secondary		Under 6,000 volts		
Primary		6,000 volts to 15,000 volts, inclusive		

Transmission Over 15,000 volts
Continued to Sheet No. D-25.30

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1st Rev. Sheet No. D-25.30
Replaces Original Sheet No. D-25.30

D2. Large Commercial & Industrial Service Rules

Cp-U

Continued from Sheet No. D-25.20

The above listed voltages are phase-to-ground for wye-connected company systems and phase-to-phase for delta-connected company systems.

STANDBY SERVICE

Where service is made available to loads which can be served by a source of power other than the company's (excluding emergency standby maintained in the event of failure of company's supply), billing shall be at the above rate, but the monthly minimum demand charge (total of customer demand charge, on-peak demand charge, and substation transformer capacity charge) for standby service shall be not less than the following per KW of contracted demand:

Cp-U Secondary: \$3.50
Cp-U Primary: \$2.75
Cp-U Transmission: \$2.00

This standby service clause assumes that standby customers shall schedule normal maintenance of the customer-owned source of power during periods of the year that are satisfactory to the company. Accordingly, customers shall advise the company of planned maintenance with as much advance notice as possible. These waivers are granted on a conditional basis. The company will rescind the waiver of increased demand during times of emergency interruptions. The company shall confirm in writing the maintenance schedule that is satisfactory to both parties.

The portion of the on-peak demand shall be billed on a prorated basis on a \$/KW/day basis as shown below.

Pro-ration Formula - Firm Load:

On Peak Demand Charge * $\frac{\text{Number of Approved Nonholiday Weekdays in Billing Cycle}}{\text{Number of Nonholiday Weekdays in Billing Cycle}}$

Pro-ration Formula - Interruptible Load:

Variable Interruptible Demand Charge * $\frac{\text{Number of Approved Nonholiday Weekdays in Billing Cycle}}{\text{Number of Nonholiday Weekdays in Billing Cycle}}$

These billing benefits shall only apply to the unusual portion of the customer's monthly demand. All demands except that portion of the peak load demand resulting from a company-approved maintenance schedule shall be billed as standard normal demand in accordance with all other sections of this rate schedule. The above clause shall not apply to customer-owned generation served under the Standby Service clause of this rate schedule and/or Maintenance Rate of any net metering or parallel generation rate schedule because customers served under these clauses have similar provisions within their clauses.

If the highest demand in any month exceeds the contract demand, the minimum demand charge shall thereafter be based on the highest actual demand. The company may install suitable devices to limit the actual demand to the contract demand and may limit size of standby load to be served under this rate to the available system capacity at the customer's location.

Continued to Sheet No. D-25.40

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Replaces Original Sheet No. D-25.40

D4. Large Commercial & Industrial Service Rules

Cp-U

Continued from Sheet No. D-25.30

REACTIVE LOAD

The customer shall keep his lagging reactive load at a level that does not exceed his Kw demand and shall not operate with a leading reactive load.

SHORT TERM SERVICE

Short term and temporary service is available to customers requiring service for less than annual periods.

1. a) For holiday/decorative lighting see Schedule SL-X,
 b) For special events or construction see Sheet No. C-19.00, Section III - Line Extension Construction Policy Temporary Service.
2. Standard proration rules shall apply to the initial and final billing periods.
3. At the expiration of any month, the customer may cancel his contract for service under these provisions and may contract for one year or more under the standard rate applicable to his service.

VARIATION OF DEMAND

Variation of customer load shall be limited to time changing demand levels which are within system standards of operation as established by the company. Failure to take service in a manner which meets these standards may result in discontinuation of service.

Continued to Sheet No. D-25.50

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UPPER PENINSULA POWER COMPANY

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1st Rev. Sheet No. D-25.50
Replaces Original Sheet No. D-25.50

D4. Large Commercial & Industrial Service Rules

Cp-U

Continued from Sheet No. D-25.40

DETERMINATION OF DEMAND

The customer demand in kilowatts shall be the highest single 15 minute integrated load observed or recorded during the current or preceding 11 months. For new Cp-U customers, this demand provision applies on and after the date of transfer to this rate schedule.

The on-peak billing demand in kilowatts shall be the highest single 15 minute integrated load observed or recorded during each respective time period in the month, provided that no billing demand shall be less than 60% of the highest billing demand of the preceding 11 months and, in no case, less than 200 Kw.

Unusual on-peak billing demands approved by advance authority from the company shall be billed but will not be considered in the determination of the 60% ratchet. Customer requests for unusual demands shall be made in advance with as much allowance as possible. The advance authorization from the company shall be confirmed in writing.

HOLIDAYS

The days of the year which are considered holidays are: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

ESTIMATION PROCEDURE

In the event of loss of data for calculation of one or more billing parameters, the company shall forecast on the basis of historic billing parameters to obtain an estimate of current month's billing parameters. This estimate shall be subject to modification or replacement based on known and quantifiable operating conditions of the current month.

~~TAX CUTS & JOBS ACT CREDIT:~~

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

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UPPER PENINSULA POWER COMPANY

R MPSC Vol No 8-ELECTRIC
49.50

~~3rd-4th~~ Rev. Sheet No. D-

R 49.50

Replaces ~~2nd-3rd~~ Rev. Sheet No. D-

D2. Real-Time Market Pricing-Distribution Service

RTMP-D

WHO MAY TAKE SERVICE:

Any customer that qualifies for the WP-3 tariff schedule. Upon Company approval, Customer may take service under this tariff for a portion of its load and a portion of its load under the WP-3 tariff. Cp-U accounts that are associated accounts of the WP-3 account may take service under this tariff. See the Associated Accounts section of this tariff.

RATES: DELIVERY SERVICE

Customer Charge:

Monthly \$1,000
Daily \$32.8767
Demand Charge per month: \$0.~~34~~37/kW
Higher of the current month's maximum 15-minute demand in kW or 60% of maximum demand of current or preceding 11 months.

DISTRIBUTION SERVICE

See applicable tariff (Cp-U or WP-3) for distribution charges.

POWER SUPPLY SERVICE (Optional)

Transmission Service:

The Company will charge the customer for transmission costs that the Company is billed from the American Transmission Company (ATC), the Midwest Independent System Operator (MISO) or their successors for costs to provide transmission service the customer. Costs to provide transmission service to the customer shall be determined by using billing determinants such as demand and energy that the ATC and MISO use to bill the Company for transmission service. The Company will use the customer's contribution to these billing determinants used by the ATC and MISO to determine the customer's transmission charge. The Company shall provide supporting calculations in the monthly bill to the customer for determining customer transmission charges. The customer retains the right to audit transmission charges on an annual basis.

Generation Service

Generation service is non-firm subject to interruptions by UPPCO, the Midwest Independent System Operator, the American Transmission Company, or other regulating authorities.

Scheduling Charge per month: \$1,000

Energy Charge

Hourly Energy charges will be based on the applicable Locational Marginal Price (LMP) plus applicable Midwest Independent System Operator (MISO) charges and credits, plus \$1/MWh. The default LMP pricing node shall be UPPC.Integrated or its successor. Should the Company determine that another pricing node better reflects the LMPs that the Company incurs for service to the customer and there has been a minimum of a 10% pricing differential between the average real time price for 12 months between the two nodes and that use of another pricing node would prevent financial harm to the Company or Company's other customers taking system power, the Company will provide the customer with the alternative pricing node to be used for pricing along with information that demonstrates this new pricing node better reflects the LMPs the company incurs for service to the customer. The Company will provide a 90 day notice to the customer before changing pricing nodes and the pricing node will not be changed prior to January 1, 2013.

Continued on Sheet No. D-49.51

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By ~~S-C-Devon~~G R Haehnel
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Exhibit No.: A-16
Schedule: F5
Page 27 of 72
Witness: Eric W. Stocking

In Case No: U-~~17895~~20276

UPPER PENINSULA POWER COMPANY

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Replaces Original Sheet No. D-49.51

D2. Real-Time Market Pricing-Distribution Service	RTMP-D
<p>Continued from Sheet No. D-49.50</p> <p><u>Real-Time LMP Pricing (Default Energy Service)</u> Customer's load less customer's day ahead bidding option will be priced at the Real Time LMP at the applicable MISO pricing node plus applicable MISO fees/credits plus \$1/MWh, plus distribution losses.</p> <p><u>Day Ahead Bidding Option</u> If customer desires, Company will submit price sensitive demand bids into the MISO Day Ahead market. This will allow customer the ability to obtain a higher degree of price certainty on a Day Ahead basis. If customer's bid clears, customer will be subject to MISO Day Ahead LMP plus applicable charges and credits for nomination, including distribution losses.</p> <ul style="list-style-type: none">a. Bids must consist of total hourly consumption and maximum price per kWh.b. Customers are financially obligated to their price and volume defined in the customer's bid. Customers will be charged the day ahead LMP clearing price, plus MISO fees and credits, plus \$1/MWh, plus losses.c. Customers will be charged the real time LMP plus applicable MISO fees and credits, plus \$1/Mwh for any non firm load in excess of their purchased block of energy that clears in the Day Ahead market.d. Customers will be credited at the real time LMP less \$1/MWh less applicable MISO fees and credits that occur during the Operating Day for any non firm load that is less than their purchased block of energy that clears in the day ahead market, adjusted for losses.e. Bids must be received by the Company four hours in advance of the deadline for the Company to submit the bids for the MISO Day Ahead market. The Company's deadline to MISO is currently at 1100 EST, but is subject to change. The Company may accept late nominations, but is not obligated to do so.f. Upon settlement of the market, the Company will provide a mechanism to notify customers of the 24 hourly clearing prices and volumes for the operating day.g. Bids must be in increments of 100 kW.h. Customers are allowed three pricing levels, as defined by the Company which may change based on changing market conditions. <p><u>CONTRACT:</u> Customers desiring real time market pricing service shall be required to sign individual customer contracts. Customers desiring the commencement of interruptible service at the start of or during a calendar year shall be required to sign a contract prior to April 15th of the preceding year, unless otherwise approved by the company. Contracts shall be a minimum of one year, with a 90-day cancellation notice. Upon terminating service under this rate schedule, a customer shall not be eligible to begin taking service again under this rate schedule for a minimum period of one year, unless approved by the company. The company reserves the right to deny service under this rate schedule if existing customer sales switching to this rate schedule are not forecasted in a rate case proceeding and may cause harm to the company or other customers.</p> <p>Continued on Sheet No. D-49.52</p>	

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

1st Rev. Sheet No. D-49.52
Replaces Original Sheet No. D-49.52

D2. Real-Time Market Pricing-Distribution Service

RTMP-D

Continued from Sheet No. D-49.51

EMERGENCY INTERRUPTIONS

1. Occurrence

Emergency Interruptions may occur when the Company, the Transmission Operator or the Reliability Authority feel the distribution, transmission equipment, or supply to firm customers is in jeopardy. Such interruptions will be declared according to MPSC, MISO and company standard rules and regulations. Emergency interruptions consist of Transmission System Emergencies and Energy Emergency Alert Level 2 events.

2. Notification

The company shall endeavor to provide notice of interruption with as much lead time as possible. Notice to interrupt will be by a signal to designated equipment of the customer or, at the discretion of the company, through some designated verbal means. Under normal circumstances, a minimum of one hour will be given before each interruption. This is subject to change due to unmanageable capacity situations which could require interruption of loads to maintain system standards of operations.

PENALTY

Failure to remove all non-firm load when notified of an interruption shall result in the customer being assessed a financial penalty and Customer may be required to demonstrate to the Company that it can and will comply with future interruptions to remain on this rate schedule. Company retains sole discretion in the determination of customer compliance with future interruptions and if the Company has reasonable doubt of customer compliance with future interruptions, Company can immediately remove customer from this non-firm service and place customer on an applicable firm service rate schedule. Customer agrees to support Company in responding and cooperating with any investigations or audits performed to determine compliance with interruptions declared by MISO, American Transmission Company, an applicable regional reliability council, or applicable state or federal agency.

The financial penalty shall be billed the higher of the following:

- 1.) \$40/kW of the highest 15 minute demand of the non firm that was not interrupted during the interruption period, or
- 2.) The incremental costs incurred by the Company as a result of the customer's failure to comply with the interruption plus 10%. Incremental costs include but are not limited to purchase power costs, energy imbalance and other MISO fees, and fees and costs assessed by the applicable regional reliability council or other state or federal agency.

Continued on Sheet No. D-49.53

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D2. Real-Time Market Pricing-Distribution Service

RTMP-D

Continued from Sheet No. D-49.52

ASSOCIATED ACCOUNTS AFFILIATES:

Corporate Affiliates

CP-U accounts that are corporate affiliates that are owned and operated by the WP-3 account may take power supply service under this tariff. For purposes of this billing option, a "corporate affiliate" of the customer shall mean any wholly-owned subsidiary of the customer, and if the customer is a wholly-owned subsidiary, the customer's corporate parent and any wholly-owned subsidiaries of the Corporate parent. The associated CP-U account(s) shall pay their full distribution costs under the CP-U tariff.

Governmental Facilities

For Michigan Technological University Accounts ("MTU"), only meters and accounts of MTU taking service under the Cp-U rate schedule are eligible for aggregation under this billing option. The associated CP-U account(s) shall pay their full distribution costs under the CP-U tariff.

An Aggregated Billing Agreement must be signed before exercising this option.

TERMS OF PAYMENT:

Bills are due in 21 days from date of bill. A delayed payment charge of 2% shall be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

RULES APPLYING:

Service is governed by the Company's Standard Rules and Regulations.

ENERGY OPTIMIZATION SURCHARGE:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

MINIMUM CHARGE:

The minimum charge consists of the delivery service charges plus the energy optimization charges.

~~N~~
~~N~~
~~N~~
~~N~~

~~**TAX CUTS & JOBS ACT CREDIT:**~~

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet~~
~~No. D-80.00.~~

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UPPER PENINSULA POWER COMPANY

R MPSC Vol No 8-ELECTRIC
47.00

~~1st~~2nd Rev. Sheet No. D-

R
47.00

Replaces ~~Original-1st~~ Sheet No. D-

D2. Real-Time Market Pricing

RTMP

WHO MAY TAKE SERVICE:

Any customer interconnected directly with the American Transmission Company (ATC) with a demand in excess of 1,000 KW.

RATES: DELIVERY SERVICE

Customer Charge per month: ~~\$1,000~~\$15,224.08

Demand Charge per month: \$0.71 per kW

Higher of the current month's maximum 15-minute demand in kW or 60% of maximum demand of current or preceding 11 months.

POWER SUPPLY SERVICE (Optional)

Transmission Service:

The Company will charge the customer for transmission costs that the Company is billed from the American Transmission Company (ATC), the Midwest Independent System Operator (MISO) or their successors for costs to provide transmission service the customer. Costs to provide transmission service to the customer shall be determined by using billing determinants such as demand and energy that the ATC and MISO use to bill the Company for transmission service. The Company will use the customer's contribution to these billing determinants used by the ATC and MISO to determine the customer's transmission charge. The Company shall provide supporting calculations in the monthly bill to the customer for determining customer transmission charges. The customer retains the right to audit transmission charges on an annual basis.

Generation Service

Generation service is non-firm subject to interruptions by UPPCO, the MISO, the ATC, or other regulating authorities.

Scheduling Charge per month: \$1,000

Energy Charge

Hourly Energy charges will be based on the applicable Locational Marginal Price (LMP) plus applicable Midwest Independent System Operator (MISO) charges and credits, plus \$1/mWh. The default LMP pricing node shall be UPPC.Integrated or its successor. Should the Company determine that another pricing node better reflects the LMPs that the Company incurs for service to the customer and there has been a minimum of a 10% pricing differential between the average real time price for 12 months between the two nodes and that use of another pricing node would prevent financial harm to the Company or Company's other customers taking system power, the Company will provide the customer with the alternative pricing node to be used for pricing along with information that demonstrates this new pricing node better reflects the LMPs the company incurs for service to the customer. The Company will provide a 90 day notice to the customer before changing pricing nodes and the pricing node will not be changed prior to January 1, 2013.

Continued on Sheet No. D-47.10

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1st Rev. Sheet No. D-48.00
Replaces Original Sheet No. D-48.00

D2. Real-Time Market Pricing	RTMP
<p>Continued from Sheet No. D-47.10</p> <p>Applicable MISO fees/credits include, but are not limited to Schedule 17, Revenue Sufficiency Make Whole Payments, and Marginal Loss Credits.</p> <p><u>Real-Time LMP Pricing (Default Energy Service)</u> Customer's load less customer's day ahead bidding option will be priced at the Real Time LMP at the applicable MISO pricing node plus applicable MISO fees/credits plus \$1/Mwh.</p> <p><u>Day Ahead Bidding Option</u> If customer desires, Company will submit price sensitive demand bids into the MISO Day Ahead market. This will allow customer the ability to obtain a higher degree of price certainty on a Day Ahead basis. If customer's bid clears, customer will be subject to MISO Day Ahead LMP plus applicable charges and credits for nomination.</p> <ol style="list-style-type: none">Bids must consist of total hourly consumption and maximum price per kWh.Customers are financially obligated to their price and volume defined in the customer's bid. Customers will be charged the day ahead LMP clearing price, plus MISO fees and credits, plus \$1/MWh.Customers will be charged the real time LMP plus applicable MISO fees and credits, plus \$1/Mwh for any non firm load in excess of their purchased block of energy that clears in the Day Ahead market.Customers will be credited at the real time LMP less \$1/MWh less applicable MISO fees and credits that occur during the Operating Day for any non firm load that is less than their purchased block of energy that clears in the day ahead market.Bids must be received by the Company four hours in advance of the deadline for the Company to submit the bids for the MISO Day Ahead market. The Company's deadline to MISO is currently at 1100 EST, but is subject to change. The Company may accept late nominations, but is not obligated to do so.Upon settlement of the market, the Company will provide a mechanism to notify customers of the 24 hourly clearing prices and volumes for the operating day.Bids must be in increments of 100 KW.Customers are allowed three pricing levels, as defined by the Company which may change based on changing market conditions. <p><u>Customer Generation</u> Customer will be credited for generation in excess of the customer load delivered to the Company at the applicable LMP less \$1/MWh less applicable MISO charges and credits.</p> <p>Continued on Sheet No. D-49.00</p>	

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Replaces 1st Rev. Sheet No. D-49.00

D2. Real-Time Market Pricing	RTMP
<p>Continued from Sheet No. D-48.00</p> <p>Applicable MISO fees/credits include, but are not limited to Schedule 17, Revenue Sufficiency Make Whole Payments, and Marginal Loss Credits.</p> <p><u>Alternative Energy Pricing</u> In the event customer desires to obtain price certainty, and options to obtain price certainty are available, Company may enter into agreements for price certainty for quantities and prices acceptable to customer. Customer shall be responsible for all costs of obtaining price certainty plus \$1/MWh and any associated costs and fees. Customer is still responsible for delivery service charges, transmission service charge and the generation scheduling charge.</p> <p>Customers desiring alternative energy pricing must enter into written agreements with the Company.</p> <p><u>CONTRACT</u> Customers desiring real time market pricing service shall be required to sign individual customer contracts. Customers desiring the commencement of interruptible service at the start of or during a calendar year shall be required to sign a contract prior to April 15th of the preceding year, unless otherwise approved by the company. Contracts shall be a minimum of one year, with a 90-day cancellation notice. Upon terminating service under this rate schedule, a customer shall not be eligible to begin taking service again under this rate schedule for a minimum period of one year, unless approved by the company. The company reserves the right to deny service under this rate schedule if existing customer sales switching to this rate schedule are not forecasted in a rate case proceeding and may cause harm to the company or other customers.</p> <p><u>EMERGENCY INTERRUPTIONS</u></p> <p>1. <u>Occurrence</u> Emergency Interruptions may occur when the Company, the Transmission Operator or the Reliability Authority feel the distribution, transmission equipment, or supply to firm customers is in jeopardy. Such interruptions will be declared according to MPSC, MISO and company standard rules and regulations. Emergency interruptions consist of Transmission System Emergencies and Energy Emergency Alert Level 2 events.</p> <p>2. <u>Notification</u> The company shall endeavor to provide notice of interruption with as much lead time as possible. Notice to interrupt will be by a signal to designated equipment of the customer or, at the discretion of the company, through some designated verbal means. Under normal circumstances, a minimum of one hour will be given before each interruption. This is subject to change due to unmanageable capacity situations which could require interruption of loads to maintain system standards of operations.</p> <p>Continued on Sheet No. D-49.10</p>	

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D2. Real-Time Market Pricing	RTMP
Continued from Sheet No. D-49.00	
<p>3. <u>Penalty Billing</u></p> <p>Failure to remove all non-firm load when notified of an interruption shall result in the customer being assessed a financial penalty and Customer may be required to demonstrate to the Company that it can and will comply with future interruptions to remain on this rate schedule. Company retains sole discretion in the determination of customer compliance with future interruptions and if the Company has reasonable doubt of customer compliance with future interruptions, Company can immediately remove customer from this non-firm service and place customer on an applicable firm service rate schedule. Customer agrees to support Company in responding and cooperating with any investigations or audits performed to determine compliance with interruptions declared by MISO, American Transmission Company, an applicable regional reliability council, or applicable state or federal agency.</p> <p>The financial penalty shall be billed the higher of the following:</p> <ol style="list-style-type: none">1.) \$40/kW of the highest 15 minute demand of the non firm that was not interrupted during the interruption period, or2.) The incremental costs incurred by the Company as a result of the customer's failure to comply with the interruption plus 10%. Incremental costs include but are not limited to purchase power costs, energy imbalance and other MISO fees, and fees and costs assessed by the applicable regional reliability council or other state or federal agency. <p>Penalty billing in accordance with this clause shall occur if:</p> <ol style="list-style-type: none">1. The company provided a minimum of one hour to interrupt in advance and the customer fails to eliminate the interruptible demand which is designated for interruption by the time requested, or,2. The company provides less than the contracted notice to interrupt, the contracted notice period has expired, and the customer has not eliminated at least 100% of the interruptible demand which is designated for interruption. <p>TERMS OF PAYMENT:</p> <p>Bills are due in 21 days from date of bill. A delayed payment charge of 2% shall be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.</p> <p>RULES APPLYING:</p> <p>Service is governed by the Company's Standard Rules and Regulations.</p> <p>ENERGY OPTIMIZATION SURCHARGE:</p> <p>This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.</p> <p>TAX CUTS & JOBS ACT CREDIT:</p> <p>————— This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet</p> <p>————— No. D-80.00.</p>	

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UPPER PENINSULA POWER COMPANY

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~~7th-8th~~ Rev. Sheet No. D-

R 28.00

Replaces ~~6th-7th~~ Rev. Sheet No. D-

D2. Light and Power Service

WP-3

WHO MAY TAKE SERVICE:

Any customer for light and power purposes with a billing demand equal to or greater than 5,000 kW and a minimum of 500 kW of on-site generation, served at Transmission or Sub Transmission available voltages. To qualify, the customer must maintain a demand greater than 5,000 kW for three consecutive months in any twelve-month period. Once qualified for this rate schedule, Customer must attain a demand in excess of 5,000 kW once in each succeeding twelve-month period to remain eligible for this rate schedule. A minimum of 1,000 kW of interruptible load is required for interruptible service. Company retains the right to limit Interruptible loads to 8 Mw in total under this rate schedule.

Optional Power Supply Service is available only to Customers not taking power supply service under rate schedule RAST, or not required to receive service under rate schedule PSDS.

Customers that take service directly from the company-owned substation (i.e. Company owns no distribution facilities downstream of substation) will be classified as Transmission and receive the Substation Transformer Capacity charge.

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~~**TERRITORY APPLICABLE:**~~

~~All territory served in the Company's Integrated System.~~

CHARACTER OF SERVICE:

Three-phase, alternating current, 60 hertz at standard available voltages.

RATES:

DISTRIBUTION SERVICE

Customer Charge:

Monthly

\$~~750~~850.00

Daily

\$~~24.6575~~27.9452

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Customer Demand Charge per month: \$/kW

\$0.00

Firm Demand Charge per month: \$/kW

\$0.~~3437~~

Interruptible Demand Charge per month: \$/kW

\$0.~~3437~~

R
R

Substation Transformer Capacity: \$/kVa

\$0.~~7587~~

R

POWER SUPPLY SERVICE (Optional)

Firm Demand Charge per month: \$/kW

Capacity

\$6.99

Non-Capacity

\$5.67

Total

\$12.66

Interruptible Demand Charge per month: \$/kW

Capacity

\$2.84

Non-Capacity

\$2.32

Total

\$5.16

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On-Peak Energy: \$/kWh

\$0.~~06595~~05710

Off-Peak Energy: \$/kWh

\$0.~~04361~~03712

R
R

Continued on Sheet No. D-29.00

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~~xx-xx~~

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Case No.: U-20276
Exhibit No.: A-16
Schedule: F5
Page 38 of 72
Witness: Eric W. Stocking

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UPPER PENINSULA POWER COMPANY

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3rd Rev. Sheet No. D-29.00
Replaces 2nd Rev. Sheet No. D-29.00

D2. Light and Power Service	WP-3
<p>Continued from Sheet No. D-28.00</p> <p>On-Peak hours shall be between 7:00 a.m. and 11:00 p.m., Monday through Friday excluding holidays.</p> <p>Off-Peak hours shall be all hours between 11:00 p.m. and 7:00 a.m., Monday through Friday and all hours of the day on Saturday, Sunday and legal holidays. Legal holidays shall include New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.</p> <p>MINIMUM CHARGE: The monthly minimum charge is the customer charge, demand charges, substation charges and the energy optimization charge.</p> <p>POWER SUPPLY COST RECOVERY CLAUSE: This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.</p> <p>ENERGY OPTIMIZATION SURCHARGE: This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.</p> <p>TAX CUTS & JOBS ACT CREDIT: This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.</p> <p>POWER FACTOR BILLING ADJUSTMENT: This rate is subject to the Company's Power Factor Billing Adjustment.</p> <p>TERMS OF PAYMENT: Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.</p> <p>DETERMINATION OF BILLING DEMAND: Billing demand shall be the greatest of: (1) The maximum 15-minute demand in kW, subject to the off-peak provision. (2) 60% of the greatest billing demand of the previous 11 months.</p> <p>RULES APPLYING: See Cp-U Rules Starting at Sheet No. D-25.30.</p> <p>INTERRUPTIBLE OPTION: See Schedule CP-I for interruptible service. WP-3 customers are limited to 300 hours of interruption.</p>	

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78th Rev. Sheet No. D-
Replaces 67th Rev. Sheet No. D-

D2. Street Lighting Service	SL-3
WHO MAY TAKE SERVICE: Any municipality for customer owned, operated and maintained street lighting and/or traffic signal system.	
CHARACTER OF SERVICE: Single-phase, alternating current, 60 hertz, nominally at 120/240 volts.	
RATE: Service Charge: \$17.00 per month \$0.5589 per day Energy Charge (\$/kWh) Capacity \$0. <u>018720132</u> Non-Capacity \$0. <u>148521191</u> Total \$0. <u>167241323</u>	
MINIMUM CHARGE: The service charge included in the rate, plus the energy optimization charge.	
POWER SUPPLY COST RECOVERY CLAUSE: This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.	
ENERGY OPTIMIZATION SURCHARGE: This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.	
<u>N</u> <u>N</u> <u>N</u>	TAX CUTS & JOBS ACT CREDIT: This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.
TERMS OF PAYMENT: Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.	
CONTRACT: Minimum period of three years subject to automatic renewal periods of one year each. The contract may be terminated at the end of any yearly period upon 90 days written notice by either party. If the contract is terminated before the three year period, the customer may be responsible for the lesser of the cost of removal or the remaining monthly charges.	
RULES APPLYING: Service is governed by the Company's Standard Rules and Regulations.	

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UPPER PENINSULA POWER COMPANY

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8th Rev. Sheet No. D-51.00
Replaces 7th Rev. Sheet No. D-51.00

D2. Street Lighting Service (Closed)

SL-5

WHO MAY TAKE SERVICE:

Any municipality owning its own street lighting system including poles, fixtures, wires, transformers, time switches and other accessories. Additions to mercury vapor lighting services are closed to new customers. This option is closed to new customers effective January 1, 2014.

HOURS OF SERVICE:

All night - Dusk to Dawn

CHARACTER OF SERVICE:

Single-phase, alternating current, 60 hertz at the Company's distribution voltage.

RATE:

Light Emitting Diode (LED)

Non-Capacity

Watts

0-99
100-199
200-299
300-399

Per Lamp Per Month

All Night

\$10.75
\$14.14
\$17.52
\$20.90

Sodium Vapor

Non-Capacity

Lumens

9,000
14,000
27,000
45,000

Watts

100
150
250
400

Per Lamp Per Month

All Night

\$11.96
\$14.16
\$18.38
\$23.33

Mercury Vapor

Non-Capacity

Lumens

20,000

Watts

400

All Night

\$27.66

Capacity Energy: All Lights

\$0.01872 per kWh

Type of Facility

Additional Wood Pole

Span of Conductor (200 feet)

Monthly Charge

\$4.51/pole

\$3.26/span

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Replaces 4th Rev. Sheet No. D-52.00

D2. Street Lighting Service (Closed)	SL-5
<p>Continued from Sheet No. D-51.00</p> <p>MINIMUM CHARGE: The monthly lamp charge plus the Energy Optimization Surcharge shown on Sheet No. D-73.00.</p> <p>POWER SUPPLY COST RECOVERY CLAUSE: This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.</p> <p>ENERGY OPTIMIZATION SURCHARGE: This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.</p> <p>TAX CUTS & JOBS ACT CREDIT: This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.</p> <p>TERMS OF PAYMENT: Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.</p> <p>RULES APPLYING: See Schedule SL-X, starting on Sheet No, D-60.10</p> <p>PAYMENT OF BILLS See Schedule SL-X, starting on Sheet No. D-60.10</p> <p>SERVICE RULES See Schedule SL-X, starting on Sheet No. D-60.10</p> <p>EXTENSION OF SERVICE See Schedule SL-X, starting on Sheet No. D-60.10</p> <p>TERM OF CONTRACT See Schedule SL-X, starting on Sheet No. D-60.10</p>	

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UPPER PENINSULA POWER COMPANY

R MPSC Vol No 8-ELECTRIC
53.00
R
53.00

7th-8th Rev. Sheet No. D-
Replaces 6th-7th Rev. Sheet No. D-

D2. Street Lighting Service		SL-6
WHO MAY TAKE SERVICE:		
Any municipality from Company owned, operated and maintained street lighting system as available. Additions to mercury vapor lighting services are closed to new customers.		
HOURS OF SERVICE: All night - Dusk to Dawn		
CHARACTER OF SERVICE:		
Single-phase, alternating current, 60 hertz at the Company's distribution voltage.		
Non-Capacity Rate:		
<u>Sodium Vapor</u>		<u>Per Lamp Per Month</u>
<u>Lumens</u>	<u>Watts</u>	<u>All Night</u>
5,670	70	\$18.95 (Closed)
9,000	100	\$19.70
14,000	150	\$23.90
27,000	250	\$27.13
45,000	400	\$38.21
<u>Mercury Vapor</u>		<u>All Night</u>
<u>Lumens</u>	<u>Watts</u>	
7,500	175	\$20.05
20,000	400	\$36.82
<u>Metal Halide</u>		<u>All Night</u>
<u>Lumens</u>	<u>Watts</u>	
8,800	175	\$32.71
36,000	400	\$40.26
110,000	1,000	\$74.20
<u>Light Emitting Diode (LED)</u>		<u>All Night</u>
<u>Lumens</u>	<u>Watts</u>	
9,000*	100*	\$18.0812.87
14,000*	150*	\$21.4515.44
27,000*	250*	\$25.2418.02
Capacity Rate: All Lights		
\$0.01872 per kWh		
SPECIAL TERMS AND CONDITIONS		
The above charges are for lighting units on existing company-owned distribution facilities. The company will own and install the luminaires, complete with lamp, control device, and six-foot mast arm, mounted on an existing company pole. If the customer requests the following facilities, the monthly charges listed below shall be added to the above charges.		
<u>Type of Facility</u>		<u>Monthly Charge</u>
Additional Wood Pole		\$4.51/pole
Span of Conductor (200 feet)		\$3.26/span
* The wattages and lumens listed under the LED lamps are wattages and lumens of sodium vapor lamps to which the LED lamps are considered equivalent. Actual wattages and lumens of LED lamps may vary.		
Continued on Sheet No. D-54.00		

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Service
By G R Haehnel
xx-xx

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

3rd Rev. Sheet No. D-54.00
Replaces 2nd Rev. Sheet No. D-54.00

D2. Street Lighting Service

SL-6

Continued from Sheet No. D-53.00

MINIMUM CHARGE: The monthly lamp charge plus the Energy Optimization Surcharge shown on Sheet No. D-73.00.

POWER SUPPLY COST RECOVERY CLAUSE:

This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~TAX CUTS & JOBS ACT CREDIT:~~

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

TERMS OF PAYMENT:

Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

PAYMENT OF BILLS See Schedule SL-X, starting on Sheet No. D-60.10

SERVICE RULES See Schedule SL-X, starting on Sheet No. D-60.10

EXTENSION OF SERVICE See Schedule SL-X, starting on Sheet No. D-60.10

TERM OF CONTRACT See Schedule SL-X, starting on Sheet No. D-60.10

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UPPER PENINSULA POWER COMPANY

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7th-8th Rev. Sheet No. D-
Replaces 6th-7th Rev. Sheet No. D-

D2. Dusk To Dawn Outdoor Security Lighting

Z-3

WHO MAY TAKE SERVICE:

Any customer for dusk to dawn outdoor security lighting where customer takes service at the same premises under a standard rate schedule. Additions to mercury vapor lighting services are closed to new customers.

~~TERRITORY APPLICABLE~~

~~All territory served in the Company's Integrated System.~~

HOURS OF SERVICE:

Daily from dusk to dawn.

CHARACTER OF SERVICE:

Single-phase, alternating current, 60 hertz, nominally at 120 volts.

Non-Capacity Rate:

Light Emitting Diode (LED)

<u>Lumens</u>	<u>Watts</u>	<u>Monthly Charge</u>
9,000*	100*	\$13.87/Lamp
14,000*	150*	\$16.44/Lamp
27,000*	250*	\$19.02/Lamp

Sodium Vapor

<u>Lumens</u>	<u>Watts</u>	<u>Monthly Charge</u>
9,000	100	\$21.71/Lamp
27,000	250	\$33.27/Lamp
45,000	400	\$40.26/Lamp

Mercury Vapor

<u>Lumens</u>	<u>Watts</u>	<u>Monthly Charge</u>
7,500	175	\$19.26/Lamp
20,000	400	\$35.96/Lamp

Metal Halide

<u>Lumens</u>	<u>Watts</u>	<u>Monthly Charge</u>
36,000	400	\$39.99/Lamp
110,000	1,000	\$73.62/65.50/Lamp

Capacity Rate: All Lights

\$0.01872 per kWh

SPECIAL TERMS AND CONDITIONS

The above charges are for lighting on existing company-owned distribution facilities. The Company will own and install the luminaire, complete with lamp, control device and up to and including a 6-foot mast arm, mounted on an existing company pole. If the customer requests a mast arm in excess of 6 feet it will be considered special facilities. If the customer requests an additional pole and span, the monthly charges listed below shall be added to the above charges.

<u>Type of Facility</u>	<u>Monthly Charge</u>
Additional Wood Pole	\$4.51/pole
Span of Conductor (200 feet)	\$3.26/span

* The wattages and lumens listed under the LED lamps are wattages and lumens of sodium vapor lamps to which the LED lamps are considered equivalent. Actual wattages and lumens of LED lamps may vary.

Continued on Sheet No. D-58.00

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UPPER PENINSULA POWER COMPANY

D2. Dusk To Dawn Outdoor Security Lighting

Z-3

Continued from Sheet No. D-57.00

TERMS OF PAYMENT:

Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.

POWER SUPPLY COST RECOVERY CLAUSE:

This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.

ENERGY OPTIMIZATION SURCHARGE:

This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.

~~**TAX CUTS & JOBS ACT CREDIT:**~~

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

TERM OF CONTRACT

Minimum period of three years subject to automatic renewal periods of one year each. The contract may be terminated at the end of any yearly period upon 90 days written notice by either party. If the contract is terminated before the three year period, the customer may be responsible for the lesser of the cost of removal or the remaining monthly charges.

RULES APPLYING:

- (1) Service is governed by the Company's Standard Rules and Regulations.
- (2) Company will provide normal maintenance to the lighting unit including the fixture, lamp, ballast, photoelectric control, mounting brackets and all necessary wiring. Company will furnish all electric energy required for operation of unit.
- (3) Normal lamp replacement shall be the responsibility of the Company. Breakage by vandalism or malicious mischief shall be at customer's expense.
- (4) For service under this schedule, installation of the unit must be on an existing utility pole upon which the Company's secondary lines are already attached.
- (5) The customer shall make a special facilities, non-refundable payment for any conductor costs over 200 feet or for additional poles that are required to support the area light secondary.
- (6) Requested higher-than-standard mounting heights are considered a refundable special facility. The customer is required to pay the cost difference of a standard pole and the special pole.
- (7) Customers shall pay time and material costs for installation of lights in areas that the customer has previously requested removal of lights if both requests happen within a twelve-month time period.

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UPPER PENINSULA POWER COMPANY

R MPSC Vol No 8-ELECTRIC 7th-8th Rev. Sheet No. D-
59.00
R Replaces 6th-7th Rev. Sheet No. D-
59.00

~~D2. Dusk To Dawn Outdoor Security Lighting~~ ~~Z-4~~

*This sheet has been cancelled
and is reserved for future use.*

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~~WHO MAY TAKE SERVICE:~~

~~Any customer for dusk to dawn outdoor security lighting where customer
takes service at the same premises under a standard rate schedule.
Additions to mercury vapor lighting services are closed to new
customers.~~

~~TERRITORY APPLICABLE:~~

~~All territory served in the Company's Iron River District.~~

~~HOURS OF SERVICE:~~

~~Daily from dusk to dawn.~~

~~CHARACTER OF SERVICE:~~

~~Single-phase, alternating current, 60 hertz, nominally at 120 volts.~~

~~Non-Capacity Rate:~~

~~Sodium Vapor~~

Lumens	Watts	Monthly Charge
9,000	100	\$17.05/Lamp
27,000	250	\$30.72/Lamp
45,000	400	\$32.28/Lamp

~~Mercury Vapor~~

Lumens	Watts	Monthly Charge
7,500	175	\$17.59/Lamp

~~Metal Halide~~

Lumens	Watts	Monthly Charge
36,000	400	\$32.13/Lamp
110,000	1,000	\$54.71/Lamp

~~Capacity Rate: All Lights~~

~~\$0.01847 per kWh~~

~~SPECIAL TERMS AND CONDITIONS~~

~~The above charges are for lighting on existing company-owned distribution
facilities. The Company will own and install the luminaire, complete with
lamp, control device and up to and including a 6-foot mast arm, mounted on
an existing company pole. If the customer requests a mast arm in excess
of 6 feet it will be considered special facilities. If the customer
requests an additional pole and span, the monthly charges listed below
shall be added to the above charges.~~

Type of Facility	Monthly Charge
Additional Wood Pole	\$4.51/pole
Span of Conductor (200 feet)	\$3.26/span

Continued on Sheet D-60.00

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UPPER PENINSULA POWER COMPANY

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60.00
R Replaces 1st-2nd Rev. Sheet No. D-
60.00

~~D2. Dusk To Dawn Outdoor Security Lighting~~ ~~Z-4~~

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~~This sheet has been cancelled
and is reserved for future use.~~

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~~Continued from Sheet No. D-59.00~~

~~TERMS OF PAYMENT:~~

~~Bills are due in 21 days from date of bill. A delayed payment charge of 2% may be applied to the unpaid balance if the bill is not paid in full on or before the due date thereon.~~

~~POWER SUPPLY COST RECOVERY CLAUSE:~~

~~This rate is subject to the Company's Power Supply Cost Recovery shown on Sheet No. D-3.00.~~

N
N
N

~~ENERGY OPTIMIZATION SURCHARGE:~~

~~This rate is subject to the Energy Optimization Surcharge shown on Sheet No. D-73.00.~~

~~TAX CUTS & JOBS ACT CREDIT:~~

~~This rate is subject to the Tax Cuts & Jobs Act Credit shown on Sheet No. D-80.00.~~

~~TERM OF CONTRACT~~

~~Minimum period of three years subject to automatic renewal periods of one year each. The contract may be terminated at the end of any yearly period upon 90 days written notice by either party. If the contract is terminated before the three year period, the customer may be responsible for the lesser of the cost of removal or the remaining monthly charges.~~

~~RULES APPLYING:~~

- ~~(1) Service is governed by the Company's Standard Rules and Regulations.~~
- ~~(2) Company will provide normal maintenance to the lighting unit including the fixture, lamp, ballast, photoelectric control, mounting brackets and all necessary wiring. Company will furnish all electric energy required for operation of unit.~~
- ~~(3) Normal lamp replacement shall be the responsibility of the Company. Breakage by vandalism or malicious mischief shall be at customer's expense.~~
- ~~(4) For service under this schedule, installation of the unit must be on an existing utility pole upon which the Company's secondary lines are already attached.~~
- ~~(5) The customer shall make a special facilities, non-refundable payment for any conductor costs over 200 feet or for additional poles that are required to support the area light secondary.~~
- ~~(6) Requested higher than standard mounting heights are considered a refundable special facility. The customer is required to pay the cost difference of a standard pole and the special pole.~~
- ~~(7) Customers shall pay time and material costs for installation of lights in areas that the customer has previously requested removal of lights if both requests happen within a twelve-month time period.~~

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC
80.00

~~21nd~~ Rev. Sheet No. D-

Replaces 1stOriginal Sheet No. D-80.00

D2. Tax Cuts & Jobs Act of 2018

TCJA

*This sheet has been cancelled
and is reserved for future use.*

Tax Cuts & Jobs Act of 2018 Credit

~~Pursuant to the Michigan Public Service Commission's Order in Case No. U-20111, the Tax Cuts & Jobs Act of 2018 Credit provides an instrument by which savings associated with the Tax Cuts & Jobs Act of 2018 is refunded to retail electric customers.~~

~~The Tax Cuts & Jobs Act of 2018 Credit is a per kilowatt-hour credit for all customers receiving retail distribution service from Upper Peninsula Power Company. UPPCO will implement this credit in two steps. The credits effective on October 1, 2018 will be billed cumulatively as shown on Sheet No. D-80.00 and remain in effect until the date of the Michigan Public Service Commission's Order in UPPCO's next general rate proceeding.~~

Credit Effective October 1, 2018 - March 31, 2019

<u>Tariff</u>	<u>Distribution</u>	<u>Power Supply</u>
	<u>Surcharge</u>	<u>Surcharge</u>
A-1	(\$0.00589)	(\$0.00776)
A-2	(\$0.00530)	(\$0.00698)
AH-1	(\$0.00473)	(\$0.00623)
C-1	(\$0.00650)	(\$0.00857)
H-1	(\$0.00344)	(\$0.00453)
P-1	(\$0.00390)	(\$0.00514)
CP-U Sec.	(\$0.00378)	(\$0.00499)
CP-U Prim.	(\$0.00378)	(\$0.00499)
CP-U Tran.	(\$0.00378)	(\$0.00499)
WP-3	(\$0.00039)	(\$0.00052)
RTMP	(\$0.00012)	(\$0.00016)
SL-3	(\$0.00453)	(\$0.00596)
SL-5	(\$0.00453)	(\$0.00596)
SL-6	(\$0.00453)	(\$0.00596)
Z-3	(\$0.00564)	(\$0.00743)
Z-4	(\$0.00018)	(\$0.00023)

By G R Haehnel

~~18~~XX

Director of Regulatory Affairs
Marquette, Michigan

On and After: ~~XX10-1XX-~~

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

~~Original 1st Revision No.~~
~~Replaces Original No. D-70.00~~

D2. Parallel Generation - Net Metering Program

PG-1M

EFFECTIVE IN

All territory served.

AVAILABILITY

Available to retail customers taking full requirements service with renewable electric generation facilities that are interconnected with the Company's power supply and rated at 20 kW and less, where customer's delivery offsets retail electric consumption at the same site. If a customer has more than one electric generator, the generator's rating(s) shall be summed and the sum may not exceed 20 kW.

The Company's Net Metering Program is available on a first come, first served basis until the nameplate capacity of all participating generators is equal to the maximum program limit of 1% of the Company's previous year's peak demand measured in kW for the Company's retail load, allocated to include no more than 0.5% for customers generating 20 kW or less. The remaining 0.5% is allocated to customers generating more than 20 KW.

The Company's Net Metering Program application fee is \$25.

MONTHLY RATES

Distribution Charges:

A customer enrolled in the Net Metering Program shall pay the Distribution Charges associated with the Company's standard service tariff applicable to the customer when the customer's net usage results in a net flow of energy from the Company to the customer. When the customer's monthly net usage results in a net flow of energy from the customer to the Company, the customer shall be credited based on the Excess Generation rate below.

Power Supply Charges:

A customer enrolled in the Net Metering Program shall pay the Power Supply Charges associated with the Company's standard service tariff applicable to the customer when the customer's net usage results in a net flow of energy from the Company to the customer. When the customer's monthly net usage results in a net flow of energy from the customer to the Company, the customer shall be credited based on the Excess Generation rate below.

Excess Generation:

Excess generation shall be credited at the customer's applicable standard tariff's full retail rate (distribution service plus power supply service). The credit shall appear on the customer's next bill. Any credit not used to offset current charges shall be carried forward for use in subsequent billing periods.

Continued to Sheet No. D-71.00

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Service

By ~~J F Schott~~
~~xx-xx~~ VP-Director Regulatory Affairs
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Dated: ~~5-26-09xx-xx-xx~~
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UPPER PENINSULA POWER COMPANY

MPSC Vol No 98-ELECTRIC

~~1st Revision Original~~ No.
~~Replaces Original No. D-71.00~~

D2. Parallel Generation - Net Metering Program

PG-1M

Continued from Sheet No. D-70.00

Metering

The Company may determine the customer's net usage using the customer's existing meter if it is capable of reverse registration or may, at the Company's expense, install a single meter with separate registers measuring power flow in each direction. If the company uses the customer's existing meter, the Company shall test and calibrate the meter to assure accuracy in both directions. If the customer's meter is not capable of reverse registration and if meter upgrades or modifications are required, the Company shall provide a meter or meters capable of measuring the flow of energy in both directions to the customer at cost. Only the incremental cost above that for meter(s) provided by the Company to similarly situated non-generating customers shall be paid by the eligible customer. Generator meters will be supplied to the customer, at the customer's request, at cost.

TERMS AND CONDITIONS

1. A renewable energy resource comes from the sun or from thermal inertia of the earth and minimizes the output of toxic material in the conversion of the energy and includes, but is not limited to, all of the following:
 - a. Biomass
 - b. Solar and solar thermal energy
 - c. Wind energy
 - d. Kinetic energy of moving water, including the following:
 - i. Waves, tides or currents
 - ii. Water released through a dam
 - e. Geothermal energy
 - f. Municipal solid waste
 - g. Landfill gas produced by municipal solid waste.
2. The generation equipment must be located on the customer's premises, serving only the customer's premises and must be intended primarily to offset a portion or all of the customer's requirements for electricity.
3. At the customer's option, the customer's electric needs shall be determined by one of the following methods:
 - a. The customer's annual energy usage, measured in kWh, during the previous 12-month period.
 - b. When metered demand is available, the maximum integrated hourly demand measured in kW during the previous 12-month period.
 - c. In instances where complete and correct data is not available or where the customer is making changes on-site that will affect total usage, the Company and the customer shall mutually agree on a method to determine the customer's electric needs.

Continued to Sheet No. D-72.00

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~~xx-xx~~ VP-Director Regulatory Affairs
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UPPER PENINSULA POWER COMPANY

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~~1st-Revision~~Original No.
~~Replaces Original No. D-72.00~~

D2. Parallel Generation - Net Metering Program

PG-1M

Continued from Sheet No. D-71.00

TERMS AND CONDITIONS

4. At the customer's option, the generation capacity shall be determined by one of the following methods:
- Aggregate nameplate capacity of the generator(s).
 - An estimate of the expected annual kWh output of the generator(s).

Customer's shall not be allowed to switch their generation back and forth between two or more rate schedules to circumvent the intent of the rate design.

5. A customer using biomass blended with fossil-fuel as their renewable energy source must submit proof to the Company substantiating the percentage of the fossil fuel blend either by (1) separately metering the fossil fuel, or (2) providing other documentation that will allow the Company to correctly apply a generation credit to the output associated with the customer's renewable fuel only.

6. If a customer has more than one generator, the generator's ratings shall be summed. This sum shall be at 20 kW or less.

7. The customer is required to provide the Company with a capacity rating in kW of the generating unit and a projected monthly and annual kilowatt-hour output of the generating unit when completing the Company's Net Metering Application.

8. The requirements for interconnecting a generator with the Company's facilities are contained in the Michigan Public Service Commission's Electric Interconnection and Net Metering Standards Rules ([R460.601a - 460.656](#)) and the Company's Michigan Utility Generator Interconnection Requirements, copies of which will be provided to customers upon request. All requirements must be met prior to commencing service.

9. Under MCL 460.1183 and MCL 460.6a(14), any customer "participating" in the Net Metering Program or this new Distributed Generation Program before the new Distributed Generation Rider ("DG Rider") is approved may continue net metering for 10 years from original participation date or may opt to receive service under a DG tariff.

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In Case No: U-~~15787~~xxxxxx

UPPER PENINSULA POWER COMPANY

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Original Sheet No. D-72.10

D2. Parallel Generation - Modified Net Metering Program

PG-2

EFFECTIVE IN

All territory served.

AVAILABILITY

Available to retail customers taking full requirements service with renewable electric generation facilities that are interconnected with the Company's power supply and rated at greater than 20 kW and not more than 150 kW, where customer's delivery offsets retail electric power supply at the same site. If a customer has more than one electric generator, the generator's rating(s) shall be summed and the sum may not exceed 150 kW.

The Company's Net Metering Program is available on a first come, first served basis until the nameplate capacity of all participating generators is equal to the maximum program limit of 1% of the Company's previous year's peak demand measured in kW for the Company's retail load, allocated to include no more than 0.25% for customers generating at greater than 20 kW and not more than 150 kW.

MONTHLY RATES

Distribution Charges:

A customer enrolled in the Modified Net Metering Program shall pay the Distribution Charges at the Company's standard service tariff applicable to the customer for the customer's total consumption of energy from the Company to the customer.

Power Supply Charges:

A customer enrolled in the Modified Net Metering Program shall pay the Power Supply Charges associated with the Company's standard service tariff applicable to the customer.

Energy Charges: Charges that are related to a \$/kWh charge will be charged when the customer's net usage results in a monthly net flow of energy from the Company to the customer. When the customer's monthly net usage results in a net flow of energy from the customer to the Company, the customer's \$/kWh charges shall be credited based on the Excess Generation rate below.

Demand Charges: The customer shall pay the demand charge associated with the Company's standard service tariff applicable to the customer for the customer's total consumption of energy from the Company to the customer.

Excess Generation:

Excess generation shall be credited at the customer's applicable standard tariff's power supply service energy charges (\$/kWh). The credit shall appear on the customer's next bill. Any credit not used to offset current charges shall be carried forward for use in subsequent billing periods.

Continued to Sheet No. D-72.20

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UPPER PENINSULA POWER COMPANY

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Original Sheet No. D-72.20

D2. Parallel Generation - Modified Net Metering Program

PG-2

Continued from Sheet No. D-72.10

Metering

The Company may determine the customer's usage using the customer's existing meter if it has separate registers measuring power flow in each direction. If the company uses the customer's existing meter, the Company shall test and calibrate the meter to assure accuracy in both directions. If the customer's meter is not capable of measuring power flow in both directions, and if meter upgrades or modifications are required, the Company shall provide a meter or meters capable of measuring the flow of energy in both directions to the customer at cost. Only the incremental cost above that for meter(s) provided by the Company to similarly situated non-generating customers shall be paid by the eligible customer. Generator meters will be provided by the Company. The cost of the generator meter shall be considered a cost of operating the net metering program.

Costs and Fees

The Company's Modified Net Metering Program has the following fees and costs:

Application fee:	\$25
Interconnection application fee:	\$75
Engineering Review:	\$0
Distribution Study:	Actual Costs or Maximum Approved by the Commission
Distribution Upgrades:	Actual Costs or Maximum Approved by the Commission
Company Testing and Inspection fee:	\$0
All Interconnection Costs:	Actual Costs or Maximum Approved by the Commission

TERMS AND CONDITIONS

1. A renewable energy resource comes from the sun or from thermal inertia of the earth and minimizes the output of toxic material in the conversion of the energy and includes, but is not limited to, all of the following:
 - a. Biomass
 - b. Solar and solar thermal energy
 - c. Wind energy
 - d. Kinetic energy of moving water, including the following:
 - i. Waves, tides or currents
 - ii. Water released through a dam
 - e. Geothermal energy
 - f. Municipal solid waste
 - g. Landfill gas produced by municipal solid waste.

Continued to Sheet No. D-72.30

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VP Regulatory Affairs
Green Bay, Wisconsin

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.30

D2. Parallel Generation - Modified Net Metering Program

PG-2

Continued from Sheet No. D-72.20

TERMS AND CONDITIONS

2. The generation equipment must be located on the customer's premises, serving only the customer's premises and must be intended primarily to offset a portion or all of the customer's requirements for electricity.
3. At the customer's option, the customer's electric needs shall be determined by one of the following methods:
 - a. The customer's annual energy usage, measured in kWh, during the previous 12-month period.
 - b. When metered demand is available, the maximum integrated hourly demand measured in kW during the previous 12-month period.
 - c. In instances where complete and correct data is not available or where the customer is making changes on-site that will affect total usage, the Company and the customer shall mutually agree on a method to determine the customer's electric needs.
4. At the customer's option, the generation capacity shall be determined by one of the following methods:
 - a. Aggregate nameplate capacity of the generator(s).
 - b. An estimate of the expected annual kWh output of the generator(s).

Customer's shall not be allowed to switch their generation back and forth between two or more rate schedules to circumvent the intent of the rate design.

5. A customer using biomass blended with fossil-fuel as their renewable energy source must submit proof to the Company substantiating the percentage of the fossil fuel blend either by (1) separately metering the fossil fuel, or (2) providing other documentation that will allow the Company to correctly apply a generation credit to the output associated with the customer's renewable fuel only.
6. If a customer has more than one generator, the generator's ratings shall be summed. This sum shall be greater than 20 kW and not more than 150 kW.
7. The customer is required to provide the Company with a capacity rating in kW of the generating unit and a projected monthly and annual kilowatt-hour output of the generating unit when completing the Company's Net Metering Application.
8. The requirements for interconnecting a generator with the Company's facilities are contained in the Michigan Public Service Commission's Electric Interconnection and Net Metering Standards Rules ([R460.601a - 460.656](#)) and the Company's Michigan Utility Generator Interconnection Requirements, copies of which will be provided to customers upon request. All requirements must be met prior to commencing service.

9. Under MCL 460.1183 and MCL 460.6a(14), any customer "participating" in the Net Metering Program or this new Distributed Generation Program before the new Distributed Generation Rider ("DG Rider") is approved may continue net metering for 10 years from original participation date or may opt to receive service under a DG tariff.

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.40

D2. Parallel Generation - Methane Digesters

PG-3

EFFECTIVE IN
All territory served.

AVAILABILITY

Available to retail customers taking full requirements service with methane digester facilities that are interconnected with the Company's power supply and rated at greater than 150 kW and not more than 550 kW, where customer's delivery offsets retail electric power supply at the same site. If a customer has more than one electric generator, the generator's rating(s) shall be summed and the sum may not exceed 550 kW.

The Company's Net Metering Program is available on a first come, first served basis until the nameplate capacity of all participating generators is equal to the maximum program limit of 1% of the Company's previous year's peak demand measured in kW for the Company's retail load, allocated to include no more than 0.25% for customers generating at greater than 150 kW and not more than 550 kW.

MONTHLY RATES

Distribution Charges:

A customer enrolled in this program shall pay the Distribution Charges at the Company's standard service tariff applicable to the customer for the customer's imputed customer consumption. Imputed customer consumption is the sum of the metered on-site generation and the net of the bidirectional flow of power across the customer interconnection during the billing period.

Power Supply Charges:

A customer enrolled in this program shall pay the Power Supply Charges associated with the Company's standard service tariff applicable to the customer.

Energy Charges: Charges that are related to a \$/kWh charge will be charged when the customer's net usage results in a monthly net flow of energy from the Company to the customer. When the customer's monthly net usage results in a net flow of energy from the customer to the Company, the customer's \$/kWh charges shall be credited based on the Excess Generation rate below.

Demand Charges: The customer shall pay the demand charges (\$/KW) associated with the Company's standard service tariff applicable to the customer for the customer's imputed customer consumption. Imputed customer consumption is the sum of the metered on-site generation and the net of the bidirectional flow of power across the customer interconnection during the billing period.

Excess Generation:

Excess generation shall be credited at the customer's applicable standard tariff's power supply service energy charges (\$/kWh). The credit shall appear on the customer's next bill. Any credit not used to offset current charges shall be carried forward for use in subsequent billing periods.

Continued to Sheet No. D-72.50

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.50

D2. Parallel Generation - Methane Digesters

PG-3

Continued from Sheet No. D-72.40

Metering

The Company will utilize a meter or meters capable of measuring the flow of energy in both directions and generator output. If the company uses the customer's existing meter, the Company shall test and calibrate the meter to assure accuracy in both directions. If meter upgrades or modifications are required, the customer shall pay the costs incurred.

Costs and Fees

The Company's Modified Net Metering Program has the following fees and costs:

Application fee:	\$25
Interconnection application fee:	\$75
Engineering Review:	\$0
Distribution Study:	Actual Costs or Maximum Approved by the Commission
Distribution Upgrades:	Actual Costs or Maximum Approved by the Commission
Company Testing and Inspection fee:	\$0
All Interconnection Costs:	Actual Costs or Maximum Approved by the Commission

TERMS AND CONDITIONS

1. A renewable energy resource consisting of one or more methane digesters with an aggregate name plate capacity between 150 KW and 550 KW located on the customer's premises and metered at a single point of contact.
2. The generation equipment must be located on the customer's premises, serving only the customer's premises and must be intended primarily to offset a portion or all of the customer's requirements for electricity.
3. At the customer's option, the customer's electric needs shall be determined by one of the following methods:
 - a. The customer's annual energy usage, measured in kWh, during the previous 12-month period.
 - b. When metered demand is available, the maximum integrated hourly demand measured in kW during the previous 12-month period.
 - c. In instances where complete and correct data is not available or where the customer is making changes on-site that will affect total usage, the Company and the customer shall mutually agree on a method to determine the customer's electric needs.

Continued to Sheet No. D-72.60

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.60

D2. Parallel Generation - Methane Digesters

PG-3

Continued from Sheet No. D-72.50

TERMS AND CONDITIONS

4. At the customer's option, the generation capacity shall be determined by one of the following methods:
- Aggregate nameplate capacity of the generator(s).
 - An estimate of the expected annual kWh output of the generator(s).

Customer's shall not be allowed to switch their generation back and forth between two or more rate schedules to circumvent the intent of the rate design.

5. A customer using biomass blended with fossil-fuel as their renewable energy source must submit proof to the Company substantiating the percentage of the fossil fuel blend either by (1) separately metering the fossil fuel, or (2) providing other documentation that will allow the Company to correctly apply a generation credit to the output associated with the customer's renewable fuel only.
6. If a customer has more than one generator, the generator's ratings shall be summed. This sum shall be greater than 150 kW and not more than 550 kW.
7. The customer is required to provide the Company with a capacity rating in kW of the generating unit and a projected monthly and annual kilowatt-hour output of the generating unit when completing the Company's Net Metering Application.
8. The requirements for interconnecting a generator with the Company's facilities are contained in the Michigan Public Service Commission's Electric Interconnection and Net Metering Standards Rules ([R460.601a - 460.656](#)) and the Company's Michigan Utility Generator Interconnection Requirements, copies of which will be provided to customers upon request. All requirements must be met prior to commencing service.

N
N
N
N
N
N

9. Under MCL 460.1183 and MCL 460.6a(14), any customer "participating" in the Net Metering Program or this new Distributed Generation Program before the new Distributed Generation Rider ("DG Rider") is approved may continue net metering for 10 years from original participation date or may opt to receive service under a DG tariff.

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.80

D2. Distributed Generation Rider

DG

EFFECTIVE IN
All territory served.

AVAILABILITY

This Rider can be attached to any metered tariff, excluding riders, unless otherwise noted on the applicable metered tariff. The Distributed Generation Program is offered as authorized by 2008 PA 295, as amended by 2016 PA 342, 1939 PA 3, as amended by 2016 PA 341, Section (6) (a) (14).

The Distributed Generation Program is available for eligible Distributed Generation customers beginning the first business day of the month following receipt of a Commission order in MPSC Case No. U-20276. A customer participating in the Company's existing Net Metering Program approved by the Commission before a final order is issued in MPSC Case No. U-20276 shall have the option to take service under this tariff at the time service under the terms and conditions of the previous net metering program terminates in accordance with MCL 463.0183(1). In addition, under MCL 460.1183 and MCL 460.6a(14), any customer "participating" in the Net Meter Program or this new Distributed Generation Program before the new Distributed Generation Rider ("DG Rider") is approved may continue net metering for 10 years from original participation date or may opt to receive service under a DG tariff.

The Distributed Generation Program is voluntary and available on a first come, first served basis for new customer participants or existing customer participants increasing their aggregate generation. The combined Net Metering Program (tariffs: PG-NM, PG-2, and PG-3) and Distributed Generation Program size is equal to 1.0% of the Company's previous year's peak demand measured in kW for the Company's retail load.

Within the Program capacity, 0.5% is reserved for Category 1 Distributed Generation (PG-NM) customers, 0.25% is reserved for Category 2 Distributed Generation (PG-2) customers and 0.25% is reserved for Category 3 Distributed Generation (PG-3) customers. The Company shall notify the Commission upon the Program reaching capacity in any Category. If an existing customer who participates in the Company's existing Net Metering Program increases their aggregate generation following the effective date of this rider, then all generation on site will be subject to the terms and conditions of this tariff.

CHARACTER OF SERVICE:

As specified under the applicable Base Rate. The term Base Rate refers to the Rate Schedule under which the Customer takes service and that this Rider is associated with.

Continued to Sheet No. D-72.81

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.81

D2. Distributed Generation Rider	DG
<p>Continued from Sheet No. D-72.80</p> <p><u>DISTRIBUTED GENERATION DEFINITIONS</u></p> <ol style="list-style-type: none">1. A Category 1 (PG-NM) distributed generation customer has one or more Eligible Electric Generators with an aggregate nameplate capacity of 20 kW or less that use equipment certified by a nationally recognized testing laboratory to IEEE 1547-2018 testing standards and is in compliance with UL 1741-SA located on the customer's premises and metered at a single point of contact.2. A Category 2 (PG-2) distributed generation customer has one or more Eligible Electric Generators with an aggregate nameplate capacity greater than 20 kW but not more than 150 kW located on the customer's premises and metered at a single point of contact that use equipment certified by a nationally recognized testing laboratory to IEEE 1547-2018 testing standards and is in compliance with UL 1741-SA located on the customer's premises and metered at a single point of contact.3. A Category 3 (PG-3) distributed generation customer has one or more methane digesters with an aggregate nameplate capacity greater than 150 kW but not more than 550 kW located on the customer's premises and metered at a single point of contact that use equipment certified by a nationally recognized testing laboratory to IEEE 1547-2018 testing standards and is in compliance with UL 1741-SA located on the customer's premises and metered at a single point of contact.4. Eligible Electric Generator - a renewable energy system or a methane digester with a generation capacity limited to no more than 100% of the customer's electricity consumption for the previous 12 months and does not exceed the following:<ol style="list-style-type: none">a. For a renewable energy system, 150 kW of aggregate generation at a single siteb. For a methane digester, 550 kW of aggregate generation at a single site5. Inflow - the metered inflow delivered by the Company to the customer during the billing month or time-based pricing period.6. Outflow - the metered quantity of the customer's generation not used on site and exported to the utility during the billing month or time-based pricing period.7. Renewable Energy Resource - a resource that naturally replenishes over a human, not a geological, timeframe and that is ultimately derived from solar power, water power or wind power. Renewable energy resource does not include petroleum, nuclear, natural gas, or coal. A renewable energy resource comes from the sun or from thermal inertia of the earth and minimizes the output of toxic material in the conversion of the energy and includes, but is not limited to, all of the following:<ol style="list-style-type: none">a. Biomassb. Solar and solar thermal energyc. Wind energyd. Kinetic energy of moving water, including the following:<ol style="list-style-type: none">i. waves, tides or currentsii. water released through a dame. Geothermal energyf. Thermal energy produced from a geothermal heat pump <p>Continued to Sheet No. D-72.82</p>	

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UPPER PENINSULA POWER COMPANY

MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.82

D2. Distributed Generation Rider

DG

Continued from Sheet No. D-72.81

- a. Any of the following cleaner energy resources:
- i. Municipal solid waste, including the biogenic and anthropogenic fractions
 - ii. Landfill gas produced by municipal solid waste
 - iii. Fuel that has been manufactured in whole or significant part from waste, including, but not limited to, municipal solid waste. Fuel that meets the requirements of this subparagraph includes, but is not limited to, material that is listed under 40 CFR 241.3(b) or 241.4(a) or for which a nonwaste determination is made by the United States Environmental Protection Agency pursuant to 40 CFR 241.3(c). Pet coke, hazardous waste, coal waste, or scrap tires are not fuel that meets the requirements of this subparagraph.

CUSTOMER ELIGIBILITY

In order to be eligible to participate in the Distributed Generation Program, customers must generate a portion or all of their own retail electricity requirements with an Eligible Electric Generator which utilizes a Renewable Energy Resource, as defined above.

A customer's eligibility to participate in the Distributed Generation Program is conditioned on the full satisfaction of any payment term or condition imposed on the customer by pre-existing contracts or tariffs with the Company, including those imposed by participation in the Distributed Generation Program, or those required by the interconnection of the customer's Eligible Electric Generator to the Company's distribution system.

CUSTOMER BILLING - CATEGORY 1 (PG-NM), 2 (PG-2) AND 3 (PG-3) CUSTOMERS

Inflow

1. Full Service Customers - The customer will be billed according to their retail rate schedule, plus surcharges, and Power Supply Cost Recovery (PSCR) Factor on metered Inflow for the billing.
2. Retail Open Access Customers - The customer will be billed as stated on the customer's Retail Open Access Rate Schedule on metered Inflow for the billing period.

Outflow - The customer will be credited on Outflow for the billing period. The credit shall be applied to the current billing month and shall be used to offset power supply and PSCR charges on that bill. The credit shall not offset any delivery charges or other surcharges. Any excess credit not used will be carried forward to subsequent billing periods. Unused Outflow credit from previous months will be applied to the current billing month, if applicable, to offset the power supply component and PSCR components of the customer's bill. The Outflow Credit is nontransferable.

Continued to Sheet No. D-72.83

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MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.83

D2. Distributed Generation Rider

DG

Continued from Sheet No. D-72.82

1. Full Service Customers - The customer will be credited according to their rate schedule's Power Supply Charges, including the Power Supply Cost Recovery (PSCR) Factor, on metered Outflow for the billing period.
2. Retail Open Access Customers - The customer will be credited at rates determined by their Retail Service Supplier on metered Outflow for the billing period.

System Access Contribution (SAC)

Customers attaching this rider to residential secondary rate schedules, or to commercial secondary rate schedules that do not have delivery demand charges, shall be subject to the SAC charge. The SAC charge shall be as follows:

Residential Customers: \$XX.XX per kW of installed AC capacity, per month
Secondary Commercial Customers with no delivery demand charge: \$XX.XX per kW of installed AC capacity, per month.

APPLICATION FOR SERVICE

In order to participate in the Distributed Generation Program, a customer shall submit completed Interconnection and Distributed Generation Program Applications, including the application fee of \$50 to the Company. The Distributed Generation Program application fee is waived if the customer is transitioning from the Net Metering Program. If a customer does not act or correspond on an application for over 6 months, when some action is required by the customer, the application may be voided by the Company.

GENERATOR REQUIREMENTS

The Eligible Electric Generator(s) must be located on the customer's premises, serving only the customer's premises and must be intended primarily to offset a portion or all of the customer's requirement for electricity. Systems will be limited in size, not to exceed the Customer's self-service needs of the Rate Schedule to which this Rider is attached. The customer's requirement for electricity shall be determined by one of the following methods:

1. The customer's annual energy usage, measured in kWh, during the previous 12-month period
2. In instances where complete and correct data is not available or where the customer is making changes on-site that will affect total usage, the Company and the customer shall mutually agree on a method to determine the customer's annual electric requirement. The customer is required to provide the Company with a capacity rating in kW of the generating unit and a projected monthly and annual Kilowatt-hour output of the generating unit, along with a one-line of system and site plan when completing the Company's Distributed Generation Program Application.
3. The Company reserves the right to perform an on-site audit to ensure the size of the generation and associated outflow does not exceed the Customer's self-service needs of the Rate Schedule to which this rider is attached.

Continued to Sheet No. D-72.84

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MPSC Vol No 8-ELECTRIC

Original Sheet No. D-72.84

D2. Distributed Generation Rider

DG

Continued from Sheet No. D-72.83

The customer need not be the owner or operator of the eligible generation equipment but is ultimately responsible for ensuring compliance with all technical, engineering and operational requirements suitable for the Company's distribution system.

GENERATOR INTERCONNECTION REQUIREMENTS

The requirements for interconnecting a generator with the Company's facilities are contained in the Michigan Public Service Commission's Electric Interconnection Standards Rules (R460.601 - 460.656) and the Company's Michigan Utility Generator Interconnection Requirements, copies of which will be provided to customers upon request. All requirements must be met prior to commencing service. All such interconnection requirements must be met prior to the effective date of a customer's participation in the Distributed Generation Program. The customer must sign an Interconnection and Operating Agreement with the Company and fulfill all requirements as specified in the Agreement. The customer shall pay actual interconnection costs associated with participating in the Distributed Generation Program, subject to limits established by the Michigan Public Service Commission.

The Company must approve in writing any subsequent changes in the interconnection configuration before such changes are allowed. Operating in parallel with the Company's system without the Company's written approval of the interconnection and written approval of any subsequent changes to the interconnection will subject the Customer's equipment to disconnection.

METERING REQUIREMENTS

Metering requirements shall be specified by the Company, as detailed below. All metering must be capable of recording inflow and outflow and all parameters metered on the customer's otherwise applicable retail rate schedule, for both Full Service and Retail Open Access customers.

DISTRIBUTION LINE EXTENSION AND/OR EXTRAORDINARY FACILITIES

The Company reserves the right to make special contractual arrangements with Distributed Generation Program customers whose utility service requires investment in electric facilities. The Company further reserves the right to condition a customer's participation in the Distributed Generation Program on a satisfactory completion of any such contractual requirements.

CUSTOMER TERMINATION FROM THE DISTRIBUTED GENERATION PROGRAM

A participating customer may terminate participation in the Company's Distributed Generation Program at any time for any reason on sixty days' notice. If a customer who terminates participation in the Distributed Generation Program wishes to re-enroll, that customer must reapply as a new program participant, subject to program size limitations, application queue and application fees.

Continued to Sheet No. D-72.85

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UPPER PENINSULA POWER COMPANY

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D2. Distributed Generation Rider	DG
<p>Continued from Sheet No. D-72.84</p> <p>The Company may terminate a customer from the Distributed Generation Program if the customer fails to maintain the eligibility requirements, fails to comply with the terms of the interconnection and parallel operating agreement, or if the customer's facilities are determined not to be in compliance with technical, engineering, or operational requirements suitable for the Company's distribution system. The Company will provide sixty days' notice to the customer prior to termination from the Distributed Generation Program, except in situations the Company deems dangerous or hazardous. Such notice will include the reason(s) for termination.</p> <p>Upon customer termination from the Distributed Generation Program, any existing credit on the customer's account will be forfeited. Distributed Generation Program credit is non-transferrable.</p> <p><u>COMPANY TERMINATION OF THE DISTRIBUTED GENERATION PROGRAM</u> Company termination of the Distributed Generation Program may occur upon receipt of Commission approval. Upon Company termination of the Distributed Generation Program, any existing credit on the customer's account will be forfeited. Distributed Generation Program credit is non-transferrable.</p> <p><u>DISTRIBUTED GENERATION PROGRAM STATUS AND EVALUATION REPORTS</u> The Company will submit an annual status report to the Commission Staff by March 31 of each year including Distributed Generation Program data for the previous 12 months, ending December 31. The Company's status report shall maintain customer confidentiality.</p> <p><u>RENEWABLE ENERGY CREDITS</u> Renewable Energy Credits (RECs) are owned by the customer. The Company may purchase Renewable Energy Credits from participating Distributed Generation Program customers who are willing to sell RECs generated if the customer has a generator meter in place to accurately measure and verify generator output. REC certification costs are the responsibility of the customer. The Company will enter into a separate agreement with the customer for the purchase of any RECs.</p>	

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Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
SUM	1	SUMMARY AT PRESENT RATES	Reference								
SUM	2										
SUM	3	DEVELOPMENT OF RETURN									
SUM	4										
SUM	5	OPERATING REVENUE									
SUM	6	Base Sales of Electricity	SCH , LN	91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
SUM	7	Other Operating Revenue	SCH , LN	11,698,225	5,274,424	109,126	4,235,695	75,130	2,003,850		
SUM	8	TOTAL OPERATING REVENUE		102,819,013	59,818,061	2,349,765	31,030,873	490,960	9,129,355		
SUM	9										
SUM	10	OPERATING EXPENSES									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN	26,024,029	11,540,314	230,076	9,584,825	168,832	4,499,982		
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN	46,620,567	26,622,751	850,284	15,365,885	260,885	3,520,762		
SUM	13	Depreciation and Amortization Expense	SCH , LN	11,015,149	6,198,816	180,071	3,899,864	65,760	670,638		
SUM	14	Taxes Other Than Income Taxes	SCH , LN	6,730,509	3,795,582	109,567	2,390,824	40,329	394,208		
SUM	15	State and Federal Income Taxes	SCH , LN	901,624	1,729,601	221,382	(886,195)	(25,158)	(138,007)		
SUM	16	TOTAL OPERATING EXPENSES		91,291,877	49,887,064	1,591,380	30,355,203	510,648	8,947,583		
SUM	17										
SUM	18	OPERATING INCOME (RETURN)		11,527,136	9,930,997	758,385	675,670	(19,688)	181,773		
SUM	19										
SUM	20	OPERATING INCOME ADJUSTMENTS									
SUM	21	Allowance For Funds Used During Construction	TOTPLT	(255,017)	(142,082)	(3,941)	(92,066)	(1,540)	(15,387)		
SUM	22	Income Tax Effect of Interest	RATEBASE	(9,891)	(5,502)	(135)	(3,569)	(59)	(627)		
SUM	23	Interest Synchronization Adjustment	RATEBASE	67	37	1	24	0	4		
SUM	24	TOTAL OPERATING INCOME ADJUSTMENTS		(264,841)	(147,547)	(4,075)	(95,611)	(1,598)	(16,010)		
SUM	25	ADJUSTED OPERATING INCOME (RETURN)		11,262,295	9,783,450	754,310	580,059	(21,287)	165,762		
SUM	26										
SUM	27										
SUM	28	DEVELOPMENT OF RATE BASE									
SUM	29	Electric Plant in Service	SCH , LN	361,819,679	201,587,409	5,591,388	130,624,017	2,185,173	21,831,692		
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN	146,947,626	82,647,111	2,925,067	52,099,465	909,004	8,366,979		
SUM	31	Plus: Plant Held for Future Use	SCH , LN	0	0	0	0	0	0		
SUM	32	Plus: Constuction Work In Progress	SCH , LN	15,136,063	8,345,529	227,607	5,494,422	91,404	977,101		
SUM	33	Plus: Fuel Stock	SCH , LN	345,976	152,307	3,015	126,436	2,251	61,968		
SUM	34	Plus: Cash Working Capital	SCH , LN	43,301,043	24,718,639	811,085	14,623,584	249,227	2,898,509		
SUM	35	Plus: Utility Materials and Supplies	SCH , LN	2,587,983	1,565,716	47,879	902,428	15,789	56,171		
SUM	36	Plus: Prepayments	SCH , LN	1,215,127	696,298	21,124	422,207	7,204	68,294		
SUM	37	Plus: Cash & Bank Balances	SCH , LN	1,263,604	704,015	19,527	456,186	7,631	76,244		
SUM	38	Less: Deductions to Rate Base	SCH , LN	(167,125)	(10,267)	2,554	(80,231)	(883)	(78,298)		
SUM	39	TOTAL NET RATE BASE	SCH , LN	278,888,973	155,133,069	3,794,004	100,630,047	1,650,558	17,681,296		
SUM	40										
SUM	41										
SUM	42	RATE OF RETURN (PRESENT)		4.04%	6.31%	19.88%	0.58%	-1.29%	0.94%		
SUM	43	INDEX RATE OF RETURN (PRESENT)		1.00	1.56	4.92	0.14	-0.32	0.23		
SUM	44										
SUM	45										

Upper Peninsula Power Company Historical Cost of Service Allocation Study Forecast 12 Month Period ending December 31, 2019											
RETAIL SYSTEM											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1 (k)	S Iron River Residential A-2 (l)	S Res. Heating AH-1 (m)	(n)	S General Service C-1 (o)	S General Service C-2 (p)	S Commercial Heating H-1 (q)	S 25kW-200kW Light & Power P-1 (r)
		(a)	(b)								
SUM	1	SUMMARY AT PRESENT RATES	Reference								
SUM	2										
SUM	3	DEVELOPMENT OF RETURN									
SUM	4										
SUM	5	OPERATING REVENUE									
SUM	6	Base Sales of Electricity	SCH , LN	45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557
SUM	7	Other Operating Revenue	SCH , LN	4,315,646	380,188	578,590		1,324,780	0	168,692	1,682,843
SUM	8	TOTAL OPERATING REVENUE		49,760,095	4,222,750	5,835,216		11,477,055	0	1,204,031	12,863,400
SUM	9										
SUM	10	OPERATING EXPENSES									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN	9,418,481	832,066	1,289,767		2,928,678	0	377,172	3,878,051
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN	21,921,912	1,880,967	2,819,872		4,596,454	0	526,976	7,642,898
SUM	13	Depreciation and Amortization Expense	SCH , LN	5,089,573	429,280	679,963		1,144,281	0	137,477	2,023,636
SUM	14	Taxes Other Than Income Taxes	SCH , LN	3,115,172	262,299	418,111		699,874	0	84,320	1,238,570
SUM	15	State and Federal Income Taxes	SCH , LN	1,586,637	122,203	20,761		303,839	0	(8,950)	(929,348)
SUM	16	TOTAL OPERATING EXPENSES		41,131,776	3,526,815	5,228,473		9,673,126	0	1,116,995	13,853,808
SUM	17										
SUM	18	OPERATING INCOME (RETURN)		8,628,319	695,935	606,743		1,803,929	0	87,036	(990,408)
SUM	19										
SUM	20	OPERATING INCOME ADJUSTMENTS									
SUM	21	Allowance For Funds Used During Construction	TOTPLT	(116,471)	(9,781)	(15,830)		(26,553)	0	(3,236)	(48,168)
SUM	22	Income Tax Effect of Interest	RATEBASE	(4,512)	(383)	(608)		(1,028)	0	(125)	(1,859)
SUM	23	Interest Synchronization Adjustment	RATEBASE	30	3	4		7	0	1	13
SUM	24	TOTAL OPERATING INCOME ADJUSTMENTS		(120,952)	(10,161)	(16,434)		(27,574)	0	(3,360)	(50,015)
SUM	25	ADJUSTED OPERATING INCOME (RETURN)		8,507,366	685,774	590,310		1,776,355	0	83,676	(1,040,423)
SUM	26										
SUM	27										
SUM	28	DEVELOPMENT OF RATE BASE									
SUM	29	Electric Plant in Service	SCH , LN	165,250,320	13,877,539	22,459,549		37,673,672	0	4,591,184	68,341,096
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN	67,835,269	5,623,396	9,188,446		15,242,618	0	1,840,456	27,100,038
SUM	31	Plus: Plant Held for Future Use	SCH , LN	0	0	0		0	0	0	0
SUM	32	Plus: Construction Work In Progress	SCH , LN	6,839,646	574,793	931,089		1,575,187	0	192,599	2,897,907
SUM	33	Plus: Fuel Stock	SCH , LN	124,485	11,014	16,809		39,384	0	5,055	49,895
SUM	34	Plus: Cash Working Capital	SCH , LN	20,389,288	1,740,234	2,589,118		4,383,950	0	503,427	7,284,916
SUM	35	Plus: Utility Materials and Supplies	SCH , LN	1,284,364	106,874	174,478		271,244	0	32,447	439,252
SUM	36	Plus: Prepayments	SCH , LN	572,375	48,359	75,564		126,132	0	14,961	215,708
SUM	37	Plus: Cash & Bank Balances	SCH , LN	577,113	48,465	78,437		131,570	0	16,034	238,672
SUM	38	Less: Deductions to Rate Base	SCH , LN	(8,012)	(1,388)	(867)		(16,130)	0	(2,334)	(63,973)
SUM	39	TOTAL NET RATE BASE	SCH , LN	127,210,334	10,785,270	17,137,465		28,974,651	0	3,517,584	52,431,381
SUM	40										
SUM	41										
SUM	42	RATE OF RETURN (PRESENT)		6.69%	6.36%	3.44%		6.13%	0.00%	2.38%	-1.98%
SUM	43	INDEX RATE OF RETURN (PRESENT)		1.66	1.57	0.85		1.52	0.00	0.59	-0.49
SUM	44										
SUM	45										

Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019

RETAIL SYSTEM											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S		P		Q	T	Q
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3		
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	
SUM	1	SUMMARY AT PRESENT RATES	Reference								
SUM	2										
SUM	3	DEVELOPMENT OF RETURN									
SUM	4										
SUM	5	OPERATING REVENUE									
SUM	6	Base Sales of Electricity	SCH , LN		9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405	
SUM	7	Other Operating Revenue	SCH , LN		2,512,912	1,059,381	75,130	1,378,401	36	625,412	
SUM	8	TOTAL OPERATING REVENUE			12,364,369	5,486,387	490,960	6,387,022	302,516	2,439,817	
SUM	9										
SUM	10	OPERATING EXPENSES									
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN		5,665,942	2,400,924	168,832	3,096,186	0	1,403,796	
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN		5,037,418	2,599,556	260,885	2,176,976	490,290	853,495	
SUM	13	Depreciation and Amortization Expense	SCH , LN		1,206,883	594,470	65,760	546,653	670	123,315	
SUM	14	Taxes Other Than Income Taxes	SCH , LN		728,084	368,060	40,329	319,696	405	74,108	
SUM	15	State and Federal Income Taxes	SCH , LN		(332,640)	(251,736)	(25,158)	(55,746)	(48,766)	(33,495)	
SUM	16	TOTAL OPERATING EXPENSES			12,305,687	5,711,274	510,648	6,083,765	442,598	2,421,219	
SUM	17										
SUM	18	OPERATING INCOME (RETURN)			58,682	(224,887)	(19,688)	303,257	(140,082)	18,598	
SUM	19										
SUM	20	OPERATING INCOME ADJUSTMENTS									
SUM	21	Allowance For Funds Used During Construction	TOTPLT		(28,225)	(14,109)	(1,540)	(12,575)	(14)	(2,798)	
SUM	22	Income Tax Effect of Interest	RATEBASE		(1,115)	(557)	(59)	(499)	(1)	(127)	
SUM	23	Interest Synchronization Adjustment	RATEBASE		8	4	0	3	0	1	
SUM	24	TOTAL OPERATING INCOME ADJUSTMENTS			(29,332)	(14,662)	(1,598)	(13,071)	(14)	(2,925)	
SUM	25	ADJUSTED OPERATING INCOME (RETURN)			29,350	(239,549)	(21,287)	290,186	(140,097)	15,673	
SUM	26										
SUM	27										
SUM	28	DEVELOPMENT OF RATE BASE									
SUM	29	Electric Plant in Service	SCH , LN		40,045,305	20,018,066	2,185,173	17,842,066	19,572	3,970,054	
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN		15,748,296	7,916,353	909,004	6,922,939	4,579	1,439,461	
SUM	31	Plus: Plant Held for Future Use	SCH , LN		0	0	0	0	0	0	
SUM	32	Plus: Constuction Work In Progress	SCH , LN		1,726,963	828,729	91,404	806,830	776	169,495	
SUM	33	Plus: Fuel Stock	SCH , LN		76,989	32,102	2,251	42,637	0	19,331	
SUM	34	Plus: Cash Working Capital	SCH , LN		4,780,212	2,451,290	249,227	2,079,694	3,459	815,355	
SUM	35	Plus: Utility Materials and Supplies	SCH , LN		208,611	159,486	15,789	33,337	192	22,641	
SUM	36	Plus: Prepayments	SCH , LN		127,380	65,407	7,204	54,769	83	13,442	
SUM	37	Plus: Cash & Bank Balances	SCH , LN		139,853	69,910	7,631	62,311	68	13,865	
SUM	38	Less: Deductions to Rate Base	SCH , LN		(71,190)	2,206	(883)	(72,513)	25	(5,810)	
SUM	39	TOTAL NET RATE BASE	SCH , LN		31,428,207	15,706,431	1,650,558	14,071,218	19,547	3,590,532	
SUM	40										
SUM	41										
SUM	42	RATE OF RETURN (PRESENT)			0.09%	-1.53%	-1.29%	2.06%	-716.72%	0.44%	
SUM	43	INDEX RATE OF RETURN (PRESENT)			0.02	-0.38	-0.32	0.51	0.00	0.11	
SUM	44										
SUM	45										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
SUM	1	SUMMARY AT PRESENT RATES	Reference							
SUM	2									
SUM	3	DEVELOPMENT OF RETURN								
SUM	4									
SUM	5	OPERATING REVENUE								
SUM	6	Base Sales of Electricity	SCH , LN		67,986	12,665	1,660,422	1,741,073	449,624	49,942
SUM	7	Other Operating Revenue	SCH , LN		7,591	845	75,633	84,069	22,237	2,819
SUM	8	TOTAL OPERATING REVENUE			75,577	13,510	1,736,055	1,825,142	471,861	52,761
SUM	9									
SUM	10	OPERATING EXPENSES								
SUM	11	Operation & Maintenance Expense - Fuel & PP	SCH , LN		16,355	1,858	163,376	181,589	43,058	5,430
SUM	12	Operation and Maintenance Expense - Non Fuel	SCH , LN		52,148	7,143	390,816	450,107	351,566	48,611
SUM	13	Depreciation and Amortization Expense	SCH , LN		11,823	1,824	95,792	109,440	61,995	8,636
SUM	14	Taxes Other Than Income Taxes	SCH , LN		7,554	1,162	62,422	71,138	33,729	4,699
SUM	15	State and Federal Income Taxes	SCH , LN		(5,261)	47	246,893	241,679	(15,098)	(5,199)
SUM	16	TOTAL OPERATING EXPENSES			82,620	12,035	959,298	1,053,952	475,250	62,177
SUM	17									
SUM	18	OPERATING INCOME (RETURN)			(7,043)	1,475	776,758	771,190	(3,389)	(9,416)
SUM	19									
SUM	20	OPERATING INCOME ADJUSTMENTS								
SUM	21	Allowance For Funds Used During Construction	TOTPLT		(295)	(46)	(2,510)	(2,851)	(957)	(133)
SUM	22	Income Tax Effect of Interest	RATEBASE		(9)	(1)	(72)	(82)	(46)	(6)
SUM	23	Interest Synchronization Adjustment	RATEBASE		0	0	0	1	0	0
SUM	24	TOTAL OPERATING INCOME ADJUSTMENTS			(304)	(47)	(2,581)	(2,933)	(1,002)	(140)
SUM	25	ADJUSTED OPERATING INCOME (RETURN)			(7,347)	1,428	774,177	768,257	(4,391)	(9,555)
SUM	26									
SUM	27									
SUM	28	DEVELOPMENT OF RATE BASE								
SUM	29	Electric Plant in Service	SCH , LN		418,722	65,228	3,560,915	4,044,864	1,357,564	188,960
SUM	30	Less: Depreciation & Amortization Reserve	SCH , LN		235,842	33,802	2,108,177	2,377,822	480,418	66,827
SUM	31	Plus: Plant Held for Future Use	SCH , LN		0	0	0	0	0	0
SUM	32	Plus: Constuction Work In Progress	SCH , LN		16,838	2,655	142,428	161,922	57,666	8,020
SUM	33	Plus: Fuel Stock	SCH , LN		209	22	2,145	2,377	567	71
SUM	34	Plus: Cash Working Capital	SCH , LN		49,818	6,824	373,352	429,993	334,696	46,395
SUM	35	Plus: Utility Materials and Supplies	SCH , LN		4,221	611	37,992	42,823	4,430	626
SUM	36	Plus: Prepayments	SCH , LN		1,307	197	10,347	11,851	8,138	1,135
SUM	37	Plus: Cash & Bank Balances	SCH , LN		1,462	228	12,436	14,126	4,741	660
SUM	38	Less: Deductions to Rate Base	SCH , LN		663	72	7,178	7,913	(4,710)	(649)
SUM	39	TOTAL NET RATE BASE	SCH , LN		256,072	41,891	2,024,259	2,322,222	1,292,093	179,689
SUM	40									
SUM	41									
SUM	42	RATE OF RETURN (PRESENT)			-2.87%	3.41%	38.24%	33.08%	-0.34%	-5.32%
SUM	43	INDEX RATE OF RETURN (PRESENT)			-0.71	0.84	9.47	8.19	-0.08	-1.32
SUM	44									
SUM	45									

Upper Peninsula Power Company
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Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
SUM	46										
SUM	47	EQUALIZED RETURN AT PROPOSED ROR	Reference								
SUM	48										
SUM	49	DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)									
SUM	50										
SUM	51	RATE BASE	SCH , LN	278,888,973	155,133,069	3,794,004	100,630,047	1,650,558	17,681,296		
SUM	52										
SUM	53	RATE OF RETURN		7.57%	7.57%	7.57%	7.57%	7.57%	7.57%		
SUM	54										
SUM	55	RETURN (RATE BASE * ROR)	7.5696%	21,110,780	11,742,953	287,191	7,617,292	124,941	1,338,403		
SUM	56										
SUM	57	LESS:									
SUM	58	OPERATING EXPENSES									
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN	72,644,596	38,163,065	1,080,361	24,950,709	429,717	8,020,743		
SUM	60	Depreciation and Amortization Expense	SCH , LN I	11,015,149	6,198,816	180,071	3,899,864	65,760	670,638		
SUM	61	Taxes Other Than Income Taxes	SCH , LN I	6,730,509	3,795,582	109,567	2,390,824	40,329	394,208		
SUM	62	State and Federal Income Taxes	Calculated	4,315,108	2,408,765	59,478	1,552,910	25,525	268,430		
SUM	63	TOTAL OPERATING EXPENSES		94,705,362	50,566,228	1,429,476	32,794,307	561,330	9,354,020		
SUM	64										
SUM	65	EQUALS TOTAL COST OF SERVICE		115,816,141	62,309,180	1,716,667	40,411,599	686,271	10,692,424		
SUM	66										
SUM	67	LESS:									
SUM	68	Other Operating Revenue	SCH , LN I	11,698,225	5,274,424	109,126	4,235,695	75,130	2,003,850		
SUM	69										
SUM	70	LESS:									
SUM	71	Operating Income Adjustments (Present)	SCH , LN II	(264,841)	(147,547)	(4,075)	(95,611)	(1,598)	(16,010)		
SUM	72										
SUM	73	EQUALS:									
SUM	74	DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 7.57%		104,382,758	57,182,304	1,611,616	36,271,515	612,739	8,704,584		
SUM	75										
SUM	76	REVENUE DEFICIENCY (SUFFICIENCY)		13,261,969	2,638,667	(629,023)	9,476,337	196,910	1,579,078		
SUM	77										
SUM	78										
SUM	79	SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)		14.55%	4.84%	-28.07%	35.37%	47.35%	22.16%		
SUM	80			1.00	0.33	(1.93)	2.43	3.25	1.52		
SUM	81										
SUM	82										
SUM	83										
SUM	84										
SUM	85										
SUM	86										
SUM	87										
SUM	88										
SUM	89										
SUM	90										
SUM	91										
SUM	92										

Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
SUM	46										
SUM	47	EQUALIZED RETURN AT PROPOSED ROR	Reference								
SUM	48										
SUM	49	DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)									
SUM	50										
SUM	51	RATE BASE	SCH , LN	127,210,334	10,785,270	17,137,465		28,974,651	0	3,517,584	52,431,381
SUM	52										
SUM	53	RATE OF RETURN		7.57%	7.57%	7.57%		7.57%	7.57%	7.57%	7.57%
SUM	54										
SUM	55	RETURN (RATE BASE * ROR)		7.5696%	9,629,313	816,402		2,193,265	0	266,267	3,968,846
SUM	56										
SUM	57	LESS:									
SUM	58	OPERATING EXPENSES									
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN	31,340,393	2,713,034	4,109,638		7,525,132	0	904,148	11,520,949
SUM	60	Depreciation and Amortization Expense	SCH , LN I	5,089,573	429,280	679,963		1,144,281	0	137,477	2,023,636
SUM	61	Taxes Other Than Income Taxes	SCH , LN I	3,115,172	262,299	418,111		699,874	0	84,320	1,238,570
SUM	62	State and Federal Income Taxes	Calculated	1,975,504	167,478	265,782		448,340	0	54,336	806,865
SUM	63	TOTAL OPERATING EXPENSES		41,520,643	3,572,091	5,473,494		9,817,627	0	1,180,281	15,590,021
SUM	64										
SUM	65	EQUALS TOTAL COST OF SERVICE		51,149,956	4,388,493	6,770,731		12,010,892	0	1,446,548	19,558,866
SUM	66										
SUM	67	LESS:									
SUM	68	Other Operating Revenue	SCH , LN I	4,315,646	380,188	578,590		1,324,780	0	168,692	1,682,843
SUM	69										
SUM	70	LESS:									
SUM	71	Operating Income Adjustments (Present)	SCH , LN II	(120,952)	(10,161)	(16,434)		(27,574)	0	(3,360)	(50,015)
SUM	72										
SUM	73	EQUALS:									
SUM	74	DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 7.57%		46,955,263	4,018,465	6,208,575		10,713,686	0	1,281,216	17,926,038
SUM	75										
SUM	76	REVENUE DEFICIENCY (SUFFICIENCY)		1,510,814	175,903	951,949		561,411	0	245,877	6,745,481
SUM	77										
SUM	78										
SUM	79	SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)		3.32%	4.58%	18.11%		5.53%	0.00%	23.75%	60.33%
SUM	80			0.23	0.31	1.24		0.38	0.00	1.63	4.15
SUM	81										
SUM	82										
SUM	83										
SUM	84										
SUM	85										
SUM	86										
SUM	87										
SUM	88										
SUM	89										
SUM	90										
SUM	91										
SUM	92										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
SUM	46									
SUM	47	EQUALIZED RETURN AT PROPOSED ROR	Reference							
SUM	48									
SUM	49	DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)								
SUM	50									
SUM	51	RATE BASE	SCH , LN		31,428,207	15,706,431	1,650,558	14,071,218	19,547	3,590,532
SUM	52									
SUM	53	RATE OF RETURN			7.57%	7.57%	7.57%	7.57%	7.57%	7.57%
SUM	54									
SUM	55	RETURN (RATE BASE * ROR)		7.5696%	2,378,990	1,188,914	124,941	1,065,135	1,480	271,789
SUM	56									
SUM	57	LESS:								
SUM	58	OPERATING EXPENSES								
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		10,703,360	5,000,480	429,717	5,273,162	490,290	2,257,291
SUM	60	Depreciation and Amortization Expense	SCH , LN I		1,206,883	594,470	65,760	546,653	670	123,315
SUM	61	Taxes Other Than Income Taxes	SCH , LN I		728,084	368,060	40,329	319,696	405	74,108
SUM	62	State and Federal Income Taxes	Calculated		481,745	243,369	25,525	212,851	304	55,275
SUM	63	TOTAL OPERATING EXPENSES			13,120,072	6,206,379	561,330	6,352,362	491,669	2,509,989
SUM	64									
SUM	65	EQUALS TOTAL COST OF SERVICE			15,499,062	7,395,293	686,271	7,417,497	493,148	2,781,778
SUM	66									
SUM	67	LESS:								
SUM	68	Other Operating Revenue	SCH , LN I		2,512,912	1,059,381	75,130	1,378,401	36	625,412
SUM	69									
SUM	70	LESS:								
SUM	71	Operating Income Adjustments (Present)	SCH , LN II		(29,332)	(14,662)	(1,598)	(13,071)	(14)	(2,925)
SUM	72									
SUM	73	EQUALS:								
SUM	74	DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 7.57%			13,015,481	6,350,575	612,739	6,052,167	493,126	2,159,290
SUM	75									
SUM	76	REVENUE DEFICIENCY (SUFFICIENCY)			3,164,025	1,923,568	196,910	1,043,547	190,646	344,885
SUM	77									
SUM	78									
SUM	79	SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)			32.12%	43.45%	47.35%	20.84%	63.03%	19.01%
SUM	80				2.21	2.99	3.25	1.43	4.33	1.31
SUM	81									
SUM	82									
SUM	83									
SUM	84									
SUM	85									
SUM	86									
SUM	87									
SUM	88									
SUM	89									
SUM	90									
SUM	91									
SUM	92									

Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
SUM	46									
SUM	47	EQUALIZED RETURN AT PROPOSED ROR	Reference							
SUM	48									
SUM	49	DEVELOPMENT OF RETURN (EQUALIZED RATE LEVELS)								
SUM	50									
SUM	51	RATE BASE	SCH , LN		256,072	41,891	2,024,259	2,322,222	1,292,093	179,689
SUM	52									
SUM	53	RATE OF RETURN			7.57%	7.57%	7.57%	7.57%	7.57%	7.57%
SUM	54									
SUM	55	RETURN (RATE BASE * ROR)		7.5696%	19,384	3,171	153,228	175,783	97,806	13,602
SUM	56									
SUM	57	LESS:								
SUM	58	OPERATING EXPENSES								
SUM	59	Operation & Maintenance Expense - Fuel & PP	SCH , LN		68,503	9,001	554,192	631,696	394,624	54,041
SUM	60	Depreciation and Amortization Expense	SCH , LN I		11,823	1,824	95,792	109,440	61,995	8,636
SUM	61	Taxes Other Than Income Taxes	SCH , LN I		7,554	1,162	62,422	71,138	33,729	4,699
SUM	62	State and Federal Income Taxes	Calculated		4,004	652	31,672	36,327	20,324	2,827
SUM	63	TOTAL OPERATING EXPENSES			91,885	12,639	744,077	848,601	510,672	70,203
SUM	64									
SUM	65	EQUALS TOTAL COST OF SERVICE			111,268	15,810	897,305	1,024,384	608,478	83,805
SUM	66									
SUM	67	LESS:								
SUM	68	Other Operating Revenue	SCH , LN I		7,591	845	75,633	84,069	22,237	2,819
SUM	69									
SUM	70	LESS:								
SUM	71	Operating Income Adjustments (Present)	SCH , LN II		(304)	(47)	(2,581)	(2,933)	(1,002)	(140)
SUM	72									
SUM	73	EQUALS:								
SUM	74	DISTRIBUTION BASE RATE SALES @ EQUALIZED ROR 7.57%			103,982	15,012	824,253	943,247	587,243	81,125
SUM	75									
SUM	76	REVENUE DEFICIENCY (SUFFICIENCY)			35,996	2,347	(836,169)	(797,826)	137,619	31,183
SUM	77									
SUM	78									
SUM	79	SALES REVENUE INCREASE (DECREASE) TO RETAIL REVENUES (%)			52.95%	18.53%	-50.36%	-45.82%	30.61%	62.44%
SUM	80				3.64	1.27	(3.46)	(3.15)	2.10	4.29
SUM	81									
SUM	82									
SUM	83									
SUM	84									
SUM	85									
SUM	86									
SUM	87									
SUM	88									
SUM	89									
SUM	90									
SUM	91									
SUM	92									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
PLT	1	DEVELOPMENT OF RATE BASE - 13 Month Average									
PLT	2										
PLT	3	ELECTRIC PLANT IN SERVICE									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0	0	0	0		
PLT	7	302-Franchises and Consents	PTDPLT	5,959,890	3,269,976	85,951	2,194,831	36,348	372,785		
PLT	8	303-Misc. Intangible Plant	PTDPLT	26,126,906	14,334,889	376,791	9,621,677	159,340	1,634,210		
PLT	9	TOTAL INTANGIBLE		32,086,796	17,604,865	462,742	11,816,507	195,687	2,006,994		
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	143,334	66,008	1,095	57,766	882	17,583		
PLT	14	311-Structures & Improvements	DPROD	0	0	0	0	0	0		
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0	0	0	0		
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0	0	0	0		
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0	0	0	0		
PLT	19	Total Steam Production		143,334	66,008	1,095	57,766	882	17,583		
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	695,410	320,250	5,311	280,262	4,279	85,308		
PLT	23	331-Structures & Improvements	DPROD	2,265,400	1,043,260	17,303	912,996	13,938	277,904		
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	87,120,761	40,120,765	665,408	35,111,188	536,032	10,687,368		
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	865,620	398,634	6,611	348,860	5,326	106,188		
PLT	26	334-Accessory Electric Equipment	DPROD	6,273,173	2,888,915	47,913	2,528,198	38,597	769,549		
PLT	27	335-Misc Power Plant Equipment	DPROD	862,449	397,174	6,587	347,582	5,306	105,799		
PLT	28	336-Roads, Railroads, and Bridges	DPROD	992,918	457,257	7,584	400,163	6,109	121,804		
PLT	29	Total Steam Production		99,075,731	45,626,255	756,717	39,929,250	609,588	12,153,921		
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	63,016	29,020	481	25,397	388	7,730		
PLT	33	341-Structures & Improvements	DPROD	205,147	94,474	1,567	82,678	1,262	25,166		
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	1,351,574	622,425	10,323	544,708	8,316	165,802		
PLT	35	343-Other Production Engine	DPROD	2,487,784	1,145,672	19,001	1,002,620	15,307	305,184		
PLT	36	344-Generators	DPROD	1,056,338	486,464	8,068	425,723	6,499	129,584		
PLT	37	345-Accessory Electric Equipment	DPROD	753,936	347,202	5,758	303,849	4,639	92,488		
PLT	38	346-Misc Power Plant Equipment	DPROD	28,291	13,029	216	11,402	174	3,471		
PLT	39	Total Other Production Combustion Equipment		5,946,086	2,738,286	45,415	2,396,376	36,585	729,424		
PLT	40										
PLT	41	Production - Energy	DPROD	232,925	107,266	1,779	93,873	1,433	28,574		
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		105,398,076	48,537,815	805,006	42,477,265	648,488	12,929,502		
PLT	44										
PLT	45										
PLT	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
PLT	1	DEVELOPMENT OF RATE BASE - 13 Month Average									
PLT	2										
PLT	3	ELECTRIC PLANT IN SERVICE									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG	0	0	0		0	0	0	0
PLT	7	302-Franchises and Consents	PTDPLT	2,676,383	223,996	369,597		621,585	0	76,826	1,161,908
PLT	8	303-Misc. Intangible Plant	PTDPLT	11,732,701	981,951	1,620,236		2,724,896	0	336,790	5,093,563
PLT	9	TOTAL INTANGIBLE		14,409,085	1,205,947	1,989,833		3,346,480	0	413,617	6,255,471
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD	53,702	4,525	7,780		14,868	0	1,947	33,915
PLT	14	311-Structures & Improvements	DPROD	0	0	0		0	0	0	0
PLT	15	312-Boiler Plant Equipment	DPROD	0	0	0		0	0	0	0
PLT	16	314-Turbo-Generator Units	DPROD	0	0	0		0	0	0	0
PLT	17	315-Accessory Electric Equipment	DPROD	0	0	0		0	0	0	0
PLT	18	316-Misc Power Plant Equipment	DPROD	0	0	0		0	0	0	0
PLT	19	Total Steam Production		53,702	4,525	7,780		14,868	0	1,947	33,915
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD	260,546	21,955	37,748		72,135	0	9,448	164,543
PLT	23	331-Structures & Improvements	DPROD	848,767	71,522	122,971		234,989	0	30,777	536,024
PLT	24	332-Reservoirs, Dams and Waterways	DPROD	32,641,142	2,750,520	4,729,103		9,036,987	0	1,163,588	20,613,933
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD	324,318	27,329	46,988		89,790	0	11,760	204,817
PLT	26	334-Accessory Electric Equipment	DPROD	2,350,341	198,053	340,521		650,713	0	85,225	1,484,316
PLT	27	335-Misc Power Plant Equipment	DPROD	323,130	27,229	46,816		89,461	0	11,717	204,067
PLT	28	336-Roads, Railroads, and Bridges	DPROD	372,012	31,348	53,898		102,995	0	13,489	234,938
PLT	29	Total Steam Production		37,120,256	3,127,954	5,378,045		10,277,069	0	1,346,004	23,442,639
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD	23,610	1,989	3,421		6,537	0	856	14,910
PLT	33	341-Structures & Improvements	DPROD	76,861	6,477	11,136		21,280	0	2,787	48,541
PLT	34	342-Fuel Holders, Prod & Acc	DPROD	506,388	42,671	73,366		140,198	0	18,362	319,800
PLT	35	343-Other Production Engine	DPROD	932,087	78,543	135,042		258,056	0	33,798	588,643
PLT	36	344-Generators	DPROD	395,773	33,350	57,340		109,573	0	14,351	249,944
PLT	37	345-Accessory Electric Equipment	DPROD	282,474	23,803	40,925		78,205	0	10,243	178,391
PLT	38	346-Misc Power Plant Equipment	DPROD	10,600	893	1,536		2,935	0	384	6,694
PLT	39	Total Other Production Combustion Equipment		2,227,793	187,726	322,766		616,784	0	80,781	1,406,923
PLT	40										
PLT	41	Production - Energy	DPROD	87,269	7,354	12,644		24,161	0	3,164	55,113
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT		39,489,020	3,327,559	5,721,236		10,932,883	0	1,431,896	24,938,590
PLT	44										
PLT	45										
PLT	46										

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RETAIL SYSTEM											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S		P		Q	T	Q
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3		
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	
PLT	1	DEVELOPMENT OF RATE BASE - 13 Month Average									
PLT	2										
PLT	3	ELECTRIC PLANT IN SERVICE									
PLT	4										
PLT	5	INTANGIBLE PLANT									
PLT	6	301-Organization	SALWAGXAG		0	0	0	0	0	0	
PLT	7	302-Franchises and Consents	PTDPLT		678,256	334,511	36,348	307,398	277	65,110	
PLT	8	303-Misc. Intangible Plant	PTDPLT		2,973,334	1,466,428	159,340	1,347,566	1,216	285,427	
PLT	9	TOTAL INTANGIBLE			3,651,590	1,800,939	195,687	1,654,964	1,494	350,537	
PLT	10										
PLT	11	PRODUCTION PLANT									
PLT	12	Steam Production									
PLT	13	310-Land and Land Rights	DPROD		23,499	7,036	882	15,581	0	2,002	
PLT	14	311-Structures & Improvements	DPROD		0	0	0	0	0	0	
PLT	15	312-Boiler Plant Equipment	DPROD		0	0	0	0	0	0	
PLT	16	314-Turbo-Generator Units	DPROD		0	0	0	0	0	0	
PLT	17	315-Accessory Electric Equipment	DPROD		0	0	0	0	0	0	
PLT	18	316-Misc Power Plant Equipment	DPROD		0	0	0	0	0	0	
PLT	19	Total Steam Production			23,499	7,036	882	15,581	0	2,002	
PLT	20										
PLT	21	Hydraulic Production									
PLT	22	330-Land and Land Rights	DPROD		114,010	34,137	4,279	75,594	0	9,714	
PLT	23	331-Structures & Improvements	DPROD		371,404	111,206	13,938	246,259	0	31,645	
PLT	24	332-Reservoirs, Dams and Waterways	DPROD		14,283,119	4,276,679	536,032	9,470,408	0	1,216,960	
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD		141,915	42,492	5,326	94,097	0	12,092	
PLT	26	334-Accessory Electric Equipment	DPROD		1,028,463	307,944	38,597	681,921	0	87,628	
PLT	27	335-Misc Power Plant Equipment	DPROD		141,395	42,337	5,306	93,752	0	12,047	
PLT	28	336-Roads, Railroads, and Bridges	DPROD		162,785	48,741	6,109	107,935	0	13,870	
PLT	29	Total Steam Production			16,243,091	4,863,538	609,588	10,769,966	0	1,383,955	
PLT	30										
PLT	31	Other Production Combustion Equipment:									
PLT	32	340-Land and Land Rights	DPROD		10,331	3,093	388	6,850	0	880	
PLT	33	341-Structures & Improvements	DPROD		33,633	10,070	1,262	22,300	0	2,866	
PLT	34	342-Fuel Holders, Prod & Acc	DPROD		221,585	66,348	8,316	146,922	0	18,880	
PLT	35	343-Other Production Engine	DPROD		407,863	122,123	15,307	270,433	0	34,751	
PLT	36	344-Generators	DPROD		173,183	51,855	6,499	114,829	0	14,756	
PLT	37	345-Accessory Electric Equipment	DPROD		123,605	37,010	4,639	81,956	0	10,531	
PLT	38	346-Misc Power Plant Equipment	DPROD		4,638	1,389	174	3,075	0	395	
PLT	39	Total Other Production Combustion Equipment			974,838	291,888	36,585	646,366	0	83,059	
PLT	40										
PLT	41	Production - Energy	DPROD		38,187	11,434	1,433	25,320	0	3,254	
PLT	42										
PLT	43	TOTAL PRODUCTION PLANT			17,279,616	5,173,896	648,488	11,457,232	0	1,472,270	
PLT	44										
PLT	45										
PLT	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
PLT	1	DEVELOPMENT OF RATE BASE - 13 Month Average								
PLT	2									
PLT	3	ELECTRIC PLANT IN SERVICE								
PLT	4									
PLT	5	INTANGIBLE PLANT								
PLT	6	301-Organization	SALWAGXAG		0	0	0	0	0	0
PLT	7	302-Franchises and Consents	PTDPLT		7,157	1,131	62,881	71,169	12,980	1,802
PLT	8	303-Misc. Intangible Plant	PTDPLT		31,374	4,958	275,659	311,991	56,902	7,898
PLT	9	TOTAL INTANGIBLE			38,531	6,089	338,540	383,160	69,882	9,700
PLT	10									
PLT	11	PRODUCTION PLANT								
PLT	12	Steam Production								
PLT	13	310-Land and Land Rights	DPROD		91	19	769	879	190	25
PLT	14	311-Structures & Improvements	DPROD		0	0	0	0	0	0
PLT	15	312-Boiler Plant Equipment	DPROD		0	0	0	0	0	0
PLT	16	314-Turbo-Generator Units	DPROD		0	0	0	0	0	0
PLT	17	315-Accessory Electric Equipment	DPROD		0	0	0	0	0	0
PLT	18	316-Misc Power Plant Equipment	DPROD		0	0	0	0	0	0
PLT	19	Total Steam Production			91	19	769	879	190	25
PLT	20									
PLT	21	Hydraulic Production								
PLT	22	330-Land and Land Rights	DPROD		439	93	3,733	4,265	923	123
PLT	23	331-Structures & Improvements	DPROD		1,432	302	12,162	13,895	3,007	401
PLT	24	332-Reservoirs, Dams and Waterways	DPROD		55,055	11,605	467,714	534,374	115,630	15,404
PLT	25	333-Water Wheels, Turbines, and Generators	DPROD		547	115	4,647	5,309	1,149	153
PLT	26	334-Accessory Electric Equipment	DPROD		3,964	836	33,678	38,478	8,326	1,109
PLT	27	335-Misc Power Plant Equipment	DPROD		545	115	4,630	5,290	1,145	152
PLT	28	336-Roads, Railroads, and Bridges	DPROD		627	132	5,331	6,090	1,318	176
PLT	29	Total Steam Production			62,610	13,197	531,895	607,702	131,498	17,517
PLT	30									
PLT	31	Other Production Combustion Equipment:								
PLT	32	340-Land and Land Rights	DPROD		40	8	338	387	84	11
PLT	33	341-Structures & Improvements	DPROD		130	27	1,101	1,258	272	36
PLT	34	342-Fuel Holders, Prod & Acc	DPROD		854	180	7,256	8,290	1,794	239
PLT	35	343-Other Production Engine	DPROD		1,572	331	13,356	15,259	3,302	440
PLT	36	344-Generators	DPROD		668	141	5,671	6,479	1,402	187
PLT	37	345-Accessory Electric Equipment	DPROD		476	100	4,048	4,624	1,001	133
PLT	38	346-Misc Power Plant Equipment	DPROD		18	4	152	174	38	5
PLT	39	Total Other Production Combustion Equipment			3,758	792	31,922	36,472	7,892	1,051
PLT	40									
PLT	41	Production - Energy	DPROD		147	31	1,250	1,429	309	41
PLT	42									
PLT	43	TOTAL PRODUCTION PLANT			66,605	14,039	565,837	646,482	139,889	18,635
PLT	44									
PLT	45									
PLT	46									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
PLT	47	ELECTRIC PLANT IN SERVICE CONTINUED									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0	0	0	0		
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	718,841	308,928	4,812	308,509	4,368	92,223		
PLT	54	361-Structures & Improvements	DDISPSUB	1,160,603	498,779	7,770	498,102	7,053	148,899		
PLT	55	362-Station Equipment	DDISPSUB	35,495,021	15,254,292	237,630	15,233,586	215,696	4,553,817		
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	28,475,932	17,503,537	145,493	10,498,790	328,111	0		
PLT	58	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	59	Secondary - Demand	DDISTSEC	9,446,470	5,874,226	48,828	3,523,417	0	0		
PLT	60	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	61	Total Account 364		37,922,402	23,377,763	194,321	14,022,207	328,111	0		
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	18,685,403	11,485,511	95,470	6,889,120	215,301	0		
PLT	64	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	65	Secondary - Demand	DDISTSEC	1,653,557	1,028,254	8,547	616,757	0	0		
PLT	66	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	67	Total Account 365		20,338,960	12,513,765	104,017	7,505,877	215,301	0		
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0	0	0	0		
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	25,358,479	15,587,307	129,565	9,349,417	292,191	0		
PLT	71	Primary - Customer	CDISTPRI	0	0	0	0	0	0		
PLT	72	Secondary - Demand	DDISTSEC	1,464,537	910,712	7,570	546,254	0	0		
PLT	73	Secondary - Customer	CDISTSEC	0	0	0	0	0	0		
PLT	74	Total Account 367		26,823,016	16,498,019	137,135	9,895,671	292,191	0		
PLT	75	368-Line Transformers - Demand	DDISTSLT	29,866,874	18,572,519	154,379	11,139,976	0	0		
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0	0	0	0		
PLT	77	369-Services	CSERVICE	16,702,490	14,467,446	85,451	2,149,593	0	0		
PLT	78	370-Meters	CMETERS	7,709,182	6,066,295	6,525	1,541,674	23,877	70,811		
PLT	79	371-Inst. on Customer Premises	CUSTPREM	386,255	0	386,255	0	0	0		
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	1,979,655	0	1,979,655	0	0	0		
PLT	81	TOTAL DISTRIBUTION PLANT		179,103,300	107,557,806	3,297,951	62,295,195	1,086,597	4,865,750		
PLT	82				129,653,810	9,695,599					
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		284,501,376	156,095,621	4,102,957	104,772,460	1,735,085	17,795,252		
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
PLT	47	ELECTRIC PLANT IN SERVICE CONTINUED									
PLT	48										
PLT	49	TRANSMISSION PLANT	DTRAN	0	0	0		0	0	0	0
PLT	50										
PLT	51										
PLT	52	DISTRIBUTION PLANT									
PLT	53	360-Land and Land Rights	DDISPSUB	250,971	20,815	37,142		66,350	0	8,756	176,791
PLT	54	361-Structures & Improvements	DDISPSUB	405,205	33,606	59,968		107,125	0	14,137	285,437
PLT	55	362-Station Equipment	DDISPSUB	12,392,483	1,027,785	1,834,025		3,276,234	0	432,342	8,729,595
PLT	56	364-Towers and Fixtures									
PLT	57	Primary - Demand	DDISTPRI	14,252,999	1,176,286	2,074,253		3,087,105	0	402,439	5,090,535
PLT	58	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	59	Secondary - Demand	DDISTSEC	4,783,338	394,764	696,124		1,036,039	0	135,059	1,708,395
PLT	60	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	61	Total Account 364		19,036,336	1,571,050	2,770,376		4,123,144	0	537,498	6,798,930
PLT	62	365-Overhead Conductors & Devices									
PLT	63	Primary - Demand	DDISTPRI	9,352,566	771,858	1,361,088		2,025,704	0	264,073	3,340,319
PLT	64	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	65	Secondary - Demand	DDISTSEC	837,299	69,101	121,853		181,354	0	23,641	299,046
PLT	66	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	67	Total Account 365		10,189,865	840,959	1,482,941		2,207,057	0	287,715	3,639,365
PLT	68	366-Underground Conduit	DDISTSEC	0	0	0		0	0	0	0
PLT	69	367-Underground Conductor									
PLT	70	Primary - Demand	DDISTPRI	12,692,627	1,047,510	1,847,170		2,749,139	0	358,381	4,533,240
PLT	71	Primary - Customer	CDISTPRI	0	0	0		0	0	0	0
PLT	72	Secondary - Demand	DDISTSEC	741,586	61,202	107,924		160,623	0	20,939	264,862
PLT	73	Secondary - Customer	CDISTSEC	0	0	0		0	0	0	0
PLT	74	Total Account 367		13,434,213	1,108,712	1,955,094		2,909,762	0	379,320	4,798,101
PLT	75	368-Line Transformers - Demand	DDISTSLT	15,123,463	1,248,124	2,200,932		3,275,642	0	427,017	5,401,426
PLT	76	368-Line Transformers - Customer	CDISTSLT	0	0	0		0	0	0	0
PLT	77	369-Services	CSERVICE	12,363,683	918,477	1,185,286		1,775,622	0	81,584	275,288
PLT	78	370-Meters	CMETERS	5,074,615	595,586	396,093		998,147	0	67,115	421,353
PLT	79	371-Inst. on Customer Premises	CUSTPREM	0	0	0		0	0	0	0
PLT	80	373-Street Lighting / Signal Systems	CLIGHT	0	0	0		0	0	0	0
PLT	81	TOTAL DISTRIBUTION PLANT		88,270,833	7,365,115	11,921,858		18,739,083	0	2,235,484	30,526,285
PLT	82										
PLT	83										
PLT	84	TOTAL PROD, TRANS, & DIST PLANT		127,759,854	10,692,674	17,643,094		29,671,965	0	3,667,380	55,464,875
PLT	85										
PLT	86										
PLT	87										
PLT	88										
PLT	89										
PLT	90										
PLT	91										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM					
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
PLT	47	ELECTRIC PLANT IN SERVICE CONTINUED								
PLT	48									
PLT	49	TRANSMISSION PLANT	DTRAN		0	0	0	0	0	0
PLT	50									
PLT	51									
PLT	52	DISTRIBUTION PLANT								
PLT	53	360-Land and Land Rights	DDISPSUB		121,969	56,612	4,368	60,988	0	31,236
PLT	54	361-Structures & Improvements	DDISPSUB		196,924	91,403	7,053	98,468	0	50,431
PLT	55	362-Station Equipment	DDISPSUB		6,022,579	2,795,415	215,696	3,011,467	0	1,542,350
PLT	56	364-Towers and Fixtures								
PLT	57	Primary - Demand	DDISTPRI		2,246,822	1,918,711	328,111	0	0	0
PLT	58	Primary - Customer	CDISTPRI		0	0	0	0	0	0
PLT	59	Secondary - Demand	DDISTSEC		643,924	643,924	0	0	0	0
PLT	60	Secondary - Customer	CDISTSEC		0	0	0	0	0	0
PLT	61	Total Account 364			2,890,746	2,562,635	328,111	0	0	0
PLT	62	365-Overhead Conductors & Devices								
PLT	63	Primary - Demand	DDISTPRI		1,474,325	1,259,024	215,301	0	0	0
PLT	64	Primary - Customer	CDISTPRI		0	0	0	0	0	0
PLT	65	Secondary - Demand	DDISTSEC		112,716	112,716	0	0	0	0
PLT	66	Secondary - Customer	CDISTSEC		0	0	0	0	0	0
PLT	67	Total Account 365			1,587,041	1,371,740	215,301	0	0	0
PLT	68	366-Underground Conduit	DDISTSEC		0	0	0	0	0	0
PLT	69	367-Underground Conductor								
PLT	70	Primary - Demand	DDISTPRI		2,000,848	1,708,657	292,191	0	0	0
PLT	71	Primary - Customer	CDISTPRI		0	0	0	0	0	0
PLT	72	Secondary - Demand	DDISTSEC		99,831	99,831	0	0	0	0
PLT	73	Secondary - Customer	CDISTSEC		0	0	0	0	0	0
PLT	74	Total Account 367			2,100,678	1,808,488	292,191	0	0	0
PLT	75	368-Line Transformers - Demand	DDISTSLT		2,035,891	2,035,891	0	0	0	0
PLT	76	368-Line Transformers - Customer	CDISTSLT		0	0	0	0	0	0
PLT	77	369-Services	CSERVICE		17,099	17,099	0	0	0	0
PLT	78	370-Meters	CMETERS		124,712	55,060	23,877	45,776	13,244	11,791
PLT	79	371-Inst. on Customer Premises	CUSTPREM		0	0	0	0	0	0
PLT	80	373-Street Lighting / Signal Systems	CLIGHT		0	0	0	0	0	0
PLT	81	TOTAL DISTRIBUTION PLANT			15,097,639	10,794,343	1,086,597	3,216,699	13,244	1,635,808
PLT	82									
PLT	83									
PLT	84	TOTAL PROD, TRANS, & DIST PLANT			32,377,255	15,968,239	1,735,085	14,673,931	13,244	3,108,077
PLT	85									
PLT	86									
PLT	87									
PLT	88									
PLT	89									
PLT	90									
PLT	91									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
PLT	47	ELECTRIC PLANT IN SERVICE CONTINUED								
PLT	48									
PLT	49	TRANSMISSION PLANT	DTRAN		0	0	0	0	0	0
PLT	50									
PLT	51									
PLT	52	DISTRIBUTION PLANT								
PLT	53	360-Land and Land Rights	DDISPSUB		424	103	3,366	3,893		111
PLT	54	361-Structures & Improvements	DDISPSUB		684	167	5,434	6,285	1,306	178
PLT	55	362-Station Equipment	DDISPSUB		20,930	5,094	166,200	192,224	39,948	5,457
PLT	56	364-Towers and Fixtures								
PLT	57	Primary - Demand	DDISTPRI		12,278	3,140	102,195	117,613	24,473	3,407
PLT	58	Primary - Customer	CDISTPRI		0	0	0	0	0	0
PLT	59	Secondary - Demand	DDISTSEC		4,120	1,054	34,297	39,471	8,213	1,143
PLT	60	Secondary - Customer	CDISTSEC		0	0	0	0	0	0
PLT	61	Total Account 364			16,398	4,194	136,492	157,084	32,687	4,550
PLT	62	365-Overhead Conductors & Devices								
PLT	63	Primary - Demand	DDISTPRI		8,056	2,061	67,059	77,176	16,059	2,235
PLT	64	Primary - Customer	CDISTPRI		0	0	0	0	0	0
PLT	65	Secondary - Demand	DDISTSEC		721	184	6,004	6,909	1,438	200
PLT	66	Secondary - Customer	CDISTSEC		0	0	0	0	0	0
PLT	67	Total Account 365			8,778	2,245	73,062	84,085	17,497	2,436
PLT	68	366-Underground Conduit	DDISTSEC		0	0	0	0	0	0
PLT	69	367-Underground Conductor								
PLT	70	Primary - Demand	DDISTPRI		10,934	2,796	91,007	104,737	21,794	3,034
PLT	71	Primary - Customer	CDISTPRI		0	0	0	0	0	0
PLT	72	Secondary - Demand	DDISTSEC		639	163	5,317	6,119	1,273	177
PLT	73	Secondary - Customer	CDISTSEC		0	0	0	0	0	0
PLT	74	Total Account 367			11,573	2,960	96,324	110,857	23,067	3,211
PLT	75	368-Line Transformers - Demand	DDISTSLT		13,028	3,332	108,436	124,796	25,968	3,615
PLT	76	368-Line Transformers - Customer	CDISTSLT		0	0	0	0	0	0
PLT	77	369-Services	CSERVICE		22,545	3,221	59,685	85,451	0	0
PLT	78	370-Meters	CMETERS		6,525	0	0	6,525	0	0
PLT	79	371-Inst. on Customer Premises	CUSTPREM		0	0	0	0	338,445	47,810
PLT	80	373-Street Lighting / Signal Systems	CLIGHT		174,147	18,638	1,786,869	1,979,655	0	0
PLT	81	TOTAL DISTRIBUTION PLANT			275,033	39,954	2,435,869	2,750,856	479,727	67,368
PLT	82									
PLT	83									
PLT	84	TOTAL PROD, TRANS, & DIST PLANT			341,638	53,993	3,001,707	3,397,338	619,616	86,004
PLT	85									
PLT	86									
PLT	87									
PLT	88									
PLT	89									
PLT	90									
PLT	91									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
PLT	92										
PLT	93	ELECTRIC PLANT IN SERVICE CONTINUED									
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	591,264	364,536	13,408	183,465	3,326	26,529		
PLT	97	390-Structures & Improvements	SALWAGXAG	12,207,493	7,526,378	276,822	3,787,908	68,660	547,725		
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	6,144,262	3,788,168	139,330	1,906,526	34,558	275,680		
PLT	99	392-Transportation Equipment	SALWAGXAG	13,209,726	8,144,292	299,549	4,098,894	74,297	592,693		
PLT	100	393-Stores Equipment	SALWAGXAG	108,683	67,007	2,465	33,724	611	4,876		
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	2,596,203	1,600,657	58,873	805,585	14,602	116,486		
PLT	102	395-Laboratory Equipment	SALWAGXAG	2,091,057	1,289,215	47,418	648,842	11,761	93,821		
PLT	103	396-Power Operated Equipment	SALWAGXAG	1,934,666	1,192,794	43,871	600,315	10,881	86,804		
PLT	104	397-Communication Equipment	SALWAGXAG	6,171,425	3,804,915	139,946	1,914,954	34,711	276,899		
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	176,728	108,959	4,008	54,838	994	7,929		
PLT	106	TOTAL GENERAL PLANT		45,231,507	27,886,922	1,025,689	14,035,051	254,400	2,029,445		
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	0	0	0	0	0	0		
PLT	109										
PLT	110	TOTAL ELECTRIC PLANT IN SERVICE		361,819,679	201,587,409	5,591,388	130,624,017	2,185,173	21,831,692		
PLT	111										
PLT	112										
PLT	113										
PLT	114										
PLT	115										
PLT	116										
PLT	117										
PLT	118										
PLT	119										
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PLT	130										
PLT	131										
PLT	132										
PLT	133										
PLT	134										
PLT	135										
PLT	136										
PLT	137										
PLT	138										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
PLT	92	ELECTRIC PLANT IN SERVICE CONTINUED									
PLT	93										
PLT	94										
PLT	95	GENERAL PLANT									
PLT	96	389-Land and Land Rights	SALWAGXAG	301,719	25,868	36,949		60,853	0	6,669	86,546
PLT	97	390-Structures & Improvements	SALWAGXAG	6,229,415	534,089	762,875		1,256,395	0	137,694	1,786,869
PLT	98	391-Office Furniture & Equipment	SALWAGXAG	3,135,382	268,817	383,969		632,367	0	69,304	899,365
PLT	99	392-Transportation Equipment	SALWAGXAG	6,740,848	577,937	825,506		1,359,545	0	148,998	1,933,570
PLT	100	393-Stores Equipment	SALWAGXAG	55,460	4,755	6,792		11,186	0	1,226	15,908
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG	1,324,828	113,586	162,243		267,201	0	29,284	380,019
PLT	102	395-Laboratory Equipment	SALWAGXAG	1,067,055	91,486	130,675		215,212	0	23,586	306,078
PLT	103	396-Power Operated Equipment	SALWAGXAG	987,249	84,643	120,902		199,116	0	21,822	283,186
PLT	104	397-Communication Equipment	SALWAGXAG	3,149,243	270,005	385,667		635,163	0	69,610	903,341
PLT	105	398-Miscellaneous Equipment	SALWAGXAG	90,183	7,732	11,044		18,189	0	1,993	25,869
PLT	106	TOTAL GENERAL PLANT		23,081,382	1,978,919	2,826,622		4,655,226	0	510,187	6,620,750
PLT	107										
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT	0	0	0		0	0	0	0
PLT	109										
PLT	110	TOTAL ELECTRIC PLANT IN SERVICE		165,250,320	13,877,539	22,459,549		37,673,672	0	4,591,184	68,341,096
PLT	111										
PLT	112										
PLT	113										
PLT	114										
PLT	115										
PLT	116										
PLT	117										
PLT	118										
PLT	119										
PLT	120										
PLT	121										
PLT	122										
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PLT	124										
PLT	125										
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PLT	127										
PLT	128										
PLT	129										
PLT	130										
PLT	131										
PLT	132										
PLT	133										
PLT	134										
PLT	135										
PLT	136										
PLT	137										
PLT	138										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM					
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
PLT	92									
PLT	93	ELECTRIC PLANT IN SERVICE CONTINUED								
PLT	94									
PLT	95	GENERAL PLANT								
PLT	96	389-Land and Land Rights	SALWAGXAG		52,503	29,397	3,326	19,780	63	6,686
PLT	97	390-Structures & Improvements	SALWAGXAG		1,083,999	606,951	68,660	408,388	1,305	138,032
PLT	98	391-Office Furniture & Equipment	SALWAGXAG		545,597	305,490	34,558	205,550	657	69,474
PLT	99	392-Transportation Equipment	SALWAGXAG		1,172,995	656,781	74,297	441,917	1,412	149,364
PLT	100	393-Stores Equipment	SALWAGXAG		9,651	5,404	611	3,636	12	1,229
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG		230,537	129,082	14,602	86,853	277	29,356
PLT	102	395-Laboratory Equipment	SALWAGXAG		185,681	103,966	11,761	69,954	223	23,644
PLT	103	396-Power Operated Equipment	SALWAGXAG		171,794	96,191	10,881	64,722	207	21,876
PLT	104	397-Communication Equipment	SALWAGXAG		548,009	306,840	34,711	206,458	660	69,781
PLT	105	398-Miscellaneous Equipment	SALWAGXAG		15,693	8,787	994	5,912	19	1,998
PLT	106	TOTAL GENERAL PLANT			4,016,460	2,248,888	254,400	1,513,171	4,834	511,439
PLT	107									
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT		0	0	0	0	0	0
PLT	109									
PLT	110	TOTAL ELECTRIC PLANT IN SERVICE			40,045,305	20,018,066	2,185,173	17,842,066	19,572	3,970,054
PLT	111									
PLT	112									
PLT	113									
PLT	114									
PLT	115									
PLT	116									
PLT	117									
PLT	118									
PLT	119									
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PLT	133									
PLT	134									
PLT	135									
PLT	136									
PLT	137									
PLT	138									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
PLT	92									
PLT	93	ELECTRIC PLANT IN SERVICE CONTINUED								
PLT	94									
PLT	95	GENERAL PLANT								
PLT	96	389-Land and Land Rights	SALWAGXAG		504	67	2,885	3,456	8,733	1,219
PLT	97	390-Structures & Improvements	SALWAGXAG		10,405	1,389	59,556	71,349	180,304	25,169
PLT	98	391-Office Furniture & Equipment	SALWAGXAG		5,237	699	29,976	35,911	90,750	12,668
PLT	99	392-Transportation Equipment	SALWAGXAG		11,259	1,503	64,445	77,207	195,107	27,235
PLT	100	393-Stores Equipment	SALWAGXAG		93	12	530	635	1,605	224
PLT	101	394-Tools, Shop & Garage Equip.	SALWAGXAG		2,213	295	12,666	15,174	38,346	5,353
PLT	102	395-Laboratory Equipment	SALWAGXAG		1,782	238	10,201	12,222	30,885	4,311
PLT	103	396-Power Operated Equipment	SALWAGXAG		1,649	220	9,439	11,308	28,575	3,989
PLT	104	397-Communication Equipment	SALWAGXAG		5,260	702	30,108	36,070	91,152	12,724
PLT	105	398-Miscellaneous Equipment	SALWAGXAG		151	20	862	1,033	2,610	364
PLT	106	TOTAL GENERAL PLANT			38,553	5,145	220,668	264,366	668,067	93,257
PLT	107									
PLT	108	COMPLETED CONSTRUCTION NOT CLASSIFIED	PTDPLT		0	0	0	0	0	0
PLT	109									
PLT	110	TOTAL ELECTRIC PLANT IN SERVICE			418,722	65,228	3,560,915	4,044,864	1,357,564	188,960
PLT	111									
PLT	112									
PLT	113									
PLT	114									
PLT	115									
PLT	116									
PLT	117									
PLT	118									
PLT	119									
PLT	120									
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PLT	132									
PLT	133									
PLT	134									
PLT	135									
PLT	136									
PLT	137									
PLT	138									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
D&A	1	DEPRECIATION & AMORTIZATION RESERVE:									
D&A	2	PRODUCTION PLANT	PRODPLT	44,717,270	20,593,152	341,540	18,021,841	275,134	5,485,603		
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	4	DISTRIBUTION PLANT									
D&A	5	360-Land and Land Rights	PLT_360	364,977	156,852	2,443	156,639	2,218	46,825		
D&A	6	361-Structures & Improvements	PLT_361	766,921	329,591	5,134	329,144	4,660	98,392		
D&A	7	362-Station Equipment	PLT_362	11,334,771	4,871,216	75,883	4,864,604	68,879	1,454,189		
D&A	8	364-Towers and Fixtures	PLT_364	19,516,435	12,031,163	100,006	7,216,407	168,860	0		
D&A	9	365-Overhead Conductors & Devices	PLT_365	14,855,203	9,139,824	75,972	5,482,155	157,252	0		
D&A	10	366-Underground Conduit	PLT_366	0	0	0	0	0	0		
D&A	11	367-Underground Conductor	PLT_367	7,888,042	4,851,694	40,328	2,910,093	85,927	0		
D&A	12	368-Line Transformers	PLT_368	8,687,292	5,402,135	44,904	3,240,253	0	0		
D&A	13	369-Services	PLT_369	11,305,453	9,792,614	57,839	1,455,000	0	0		
D&A	14	370-Meters	PLT_370	1,508,275	1,186,850	1,277	301,623	4,671	13,854		
D&A	15	371-Inst. on Customer Premises	PLT_371	149,802	0	149,802	0	0	0		
D&A	16	373-Street Lighting / Signal Systems	PLT_373	1,562,322	0	1,562,322	0	0	0		
D&A	17	TOTAL DISTRIBUTION PLANT		77,939,493	47,761,939	2,115,911	25,955,917	492,467	1,613,259		
D&A	18	GENERAL & INTANGIBLE	INTGENPLT	24,290,863	14,292,020	467,616	8,121,708	141,403	1,268,116		
D&A	19	TOTAL DEPRECIATION & AMORTIZATION RESERVE		146,947,626	82,647,111	2,925,067	52,099,465	909,004	8,366,979		
D&A	20										
D&A	21	NET ELECTRIC PLANT IN SERVICE									
D&A	22	NET PRODUCTION PLANT		60,680,806	27,944,663	463,466	24,455,424	373,354	7,443,899		
D&A	23	NET TRANSMISSION PLANT		0	0	0	0	0	0		
D&A	24	NET DISTRIBUTION PLANT		101,163,807	59,795,867	1,182,040	36,339,278	594,130	3,252,491		
D&A	25	NET GENERAL & INTANGIBLE PLANT		53,027,440	31,199,767	1,020,815	17,729,850	308,685	2,768,323		
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		0	0	0	0	0	0		
D&A	27	TOTAL NET PLANT IN SERVICE		214,872,053	118,940,298	2,666,321	78,524,552	1,276,169	13,464,713		
D&A	28										
D&A	29	PLANT HELD FOR FUTURE USE									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0	0	0	0		
D&A	31	TRANSMISSION	TRANPLT	0	0	0	0	0	0		
D&A	32	DISTRIBUTION	DISTPLT	0	0	0	0	0	0		
D&A	33	GENERAL PLANT	INTGENPLT	0	0	0	0	0	0		
D&A	34	TOTAL PLANT HELD FOR FUTURE USE		0	0	0	0	0	0		
D&A	35										
D&A	36	CONSTRUCTION WORK IN PROGRESS									
D&A	37	PRODUCTION PLANT	PRODPLT	1,103,682	508,267	8,430	444,803	6,791	135,392		
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0	0	0	0		
D&A	39	DISTRIBUTION PLANT	TOTPLT	13,419,404	7,476,605	207,377	4,844,669	81,045	809,708		
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENPLT	612,977	360,657	11,800	204,950	3,568	32,001		
D&A	41	TOTAL CONSTRUCTION WORK IN PROGRESS		15,136,063	8,345,529	227,607	5,494,422	91,404	977,101		
D&A	42										
D&A	43	TOTAL NET PLANT IN SERVICE		230,008,116	127,285,827	2,893,928	84,018,975	1,367,573	14,441,814		
D&A	44										
D&A	45										
D&A	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Retail System			(n)	S		S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
				Integrated Retail Residential A-1	Iron River Residential A-2	Res. Heating AH-1		General Service C-1	General Service C-2		
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
D&A	1	DEPRECIATION & AMORTIZATION RESERVE:									
D&A	2	PRODUCTION PLANT	PRODPLT	16,754,017	1,411,784	2,427,350		4,638,497	0	607,511	10,580,702
D&A	3	TRANSMISSION PLANT	TRANPLT	0	0	0		0	0	0	0
D&A	4	DISTRIBUTION PLANT									
D&A	5	360-Land and Land Rights	PLT_360	127,426	10,568	18,858		33,688	0	4,446	89,762
D&A	6	361-Structures & Improvements	PLT_361	267,757	22,207	39,627		70,788	0	9,341	188,615
D&A	7	362-Station Equipment	PLT_362	3,957,342	328,207	585,667		1,046,213	0	138,062	2,787,657
D&A	8	364-Towers and Fixtures	PLT_364	9,796,885	808,527	1,425,750		2,121,940	0	276,619	3,499,010
D&A	9	365-Overhead Conductors & Devices	PLT_365	7,442,490	614,221	1,083,113		1,611,994	0	210,142	2,658,125
D&A	10	366-Underground Conduit	PLT_366	0	0	0		0	0	0	0
D&A	11	367-Underground Conductor	PLT_367	3,950,698	326,047	574,949		855,695	0	111,549	1,411,013
D&A	12	368-Line Transformers	PLT_368	4,398,918	363,038	640,179		952,777	0	124,205	1,571,097
D&A	13	369-Services	PLT_369	8,368,635	621,692	802,287		1,201,869	0	55,222	186,335
D&A	14	370-Meters	PLT_370	992,831	116,524	77,494		195,284	0	13,131	82,436
D&A	15	371-Inst. on Customer Premises	PLT_371	0	0	0		0	0	0	0
D&A	16	373-Street Lighting / Signal Systems	PLT_373	0	0	0		0	0	0	0
D&A	17	TOTAL DISTRIBUTION PLANT		39,302,983	3,211,032	5,247,924		8,090,248	0	942,717	12,474,051
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT	11,778,269	1,000,580	1,513,171		2,513,872	0	290,229	4,045,284
D&A	19	TOTAL DEPRECIATION & AMORTIZATION RESERVE		67,835,269	5,623,396	9,188,446		15,242,618	0	1,840,456	27,100,038
D&A	20										
D&A	21	NET ELECTRIC PLANT IN SERVICE									
D&A	22	NET PRODUCTION PLANT		22,735,003	1,915,775	3,293,885		6,294,386	0	824,385	14,357,888
D&A	23	NET TRANSMISSION PLANT		0	0	0		0	0	0	0
D&A	24	NET DISTRIBUTION PLANT		48,967,850	4,154,083	6,673,934		10,648,834	0	1,292,767	18,052,234
D&A	25	NET GENERAL & INTANGIBLE PLANT		25,712,197	2,184,286	3,303,284		5,487,834	0	633,575	8,830,937
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED		0	0	0		0	0	0	0
D&A	27	TOTAL NET PLANT IN SERVICE		97,415,051	8,254,143	13,271,103		22,431,054	0	2,750,727	41,241,058
D&A	28										
D&A	29	PLANT HELD FOR FUTURE USE									
D&A	30	PRODUCTION PLANT	PRODPLT	0	0	0		0	0	0	0
D&A	31	TRANSMISSION	TRANPLT	0	0	0		0	0	0	0
D&A	32	DISTRIBUTION	DISTPLT	0	0	0		0	0	0	0
D&A	33	GENERAL PLANT	INTGENLPLT	0	0	0		0	0	0	0
D&A	34	TOTAL PLANT HELD FOR FUTURE USE		0	0	0		0	0	0	0
D&A	35										
D&A	36	CONSTRUCTION WORK IN PROGRESS									
D&A	37	PRODUCTION PLANT	PRODPLT	413,512	34,845	59,910		114,484	0	14,994	261,146
D&A	38	TRANSMISSION PLANT	TRANPLT	0	0	0		0	0	0	0
D&A	39	DISTRIBUTION PLANT	TOTPLT	6,128,912	514,699	832,994		1,397,266	0	170,281	2,534,679
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT	297,223	25,249	38,185		63,437	0	7,324	102,082
D&A	41	TOTAL CONSTRUCTION WORK IN PROGRESS		6,839,646	574,793	931,089		1,575,187	0	192,599	2,897,907
D&A	42										
D&A	43	TOTAL NET PLANT IN SERVICE		104,254,697	8,828,937	14,202,193		24,006,241	0	2,943,326	44,138,965
D&A	44										
D&A	45										
D&A	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind	S	P	Q	T	Q
					CP-U Total	Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
D&A	1	DEPRECIATION & AMORTIZATION RESERVE:								
D&A	2	PRODUCTION PLANT	PRODPLT		7,331,227	2,195,130	275,134	4,860,963	0	624,640
D&A	3	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0
D&A	4	DISTRIBUTION PLANT								
D&A	5	360-Land and Land Rights	PLT_360		61,927	28,744	2,218	30,965	0	15,859
D&A	6	361-Structures & Improvements	PLT_361		130,126	60,399	4,660	65,067	0	33,325
D&A	7	362-Station Equipment	PLT_362		1,923,215	892,671	68,879	961,664	0	492,525
D&A	8	364-Towers and Fixtures	PLT_364		1,487,697	1,318,838	168,860	0	0	0
D&A	9	365-Overhead Conductors & Devices	PLT_365		1,159,145	1,001,894	157,252	0	0	0
D&A	10	366-Underground Conduit	PLT_366		0	0	0	0	0	0
D&A	11	367-Underground Conductor	PLT_367		617,762	531,835	85,927	0	0	0
D&A	12	368-Line Transformers	PLT_368		592,174	592,174	0	0	0	0
D&A	13	369-Services	PLT_369		11,574	11,574	0	0	0	0
D&A	14	370-Meters	PLT_370		24,400	10,772	4,671	8,956	2,591	2,307
D&A	15	371-Inst. on Customer Premises	PLT_371		0	0	0	0	0	0
D&A	16	373-Street Lighting / Signal Systems	PLT_373		0	0	0	0	0	0
D&A	17	TOTAL DISTRIBUTION PLANT			6,008,020	4,448,900	492,467	1,066,652	2,591	544,016
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT		2,409,049	1,272,322	141,403	995,324	1,988	270,805
D&A	19	TOTAL DEPRECIATION & AMORTIZATION RESERVE			15,748,296	7,916,353	909,004	6,922,939	4,579	1,439,461
D&A	20									
D&A	21	NET ELECTRIC PLANT IN SERVICE								
D&A	22	NET PRODUCTION PLANT			9,948,389	2,978,766	373,354	6,596,269	0	847,630
D&A	23	NET TRANSMISSION PLANT			0	0	0	0	0	0
D&A	24	NET DISTRIBUTION PLANT			9,089,619	6,345,442	594,130	2,150,046	10,653	1,091,792
D&A	25	NET GENERAL & INTANGIBLE PLANT			5,259,001	2,777,505	308,685	2,172,811	4,340	591,172
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED			0	0	0	0	0	0
D&A	27	TOTAL NET PLANT IN SERVICE			24,297,009	12,101,713	1,276,169	10,919,127	14,993	2,530,593
D&A	28									
D&A	29	PLANT HELD FOR FUTURE USE								
D&A	30	PRODUCTION PLANT	PRODPLT		0	0	0	0	0	0
D&A	31	TRANSMISSION	TRANPLT		0	0	0	0	0	0
D&A	32	DISTRIBUTION	DISTPLT		0	0	0	0	0	0
D&A	33	GENERAL PLANT	INTGENLPLT		0	0	0	0	0	0
D&A	34	TOTAL PLANT HELD FOR FUTURE USE			0	0	0	0	0	0
D&A	35									
D&A	36	CONSTRUCTION WORK IN PROGRESS								
D&A	37	PRODUCTION PLANT	PRODPLT		180,945	54,179	6,791	119,975	0	15,417
D&A	38	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0
D&A	39	DISTRIBUTION PLANT	TOTPLT		1,485,226	742,443	81,045	661,738	726	147,244
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT		60,792	32,107	3,568	25,117	50	6,834
D&A	41	TOTAL CONSTRUCTION WORK IN PROGRESS			1,726,963	828,729	91,404	806,830	776	169,495
D&A	42									
D&A	43	TOTAL NET PLANT IN SERVICE			26,023,972	12,930,442	1,367,573	11,725,957	15,769	2,700,088
D&A	44									
D&A	45									
D&A	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
D&A	1	DEPRECIATION & AMORTIZATION RESERVE:								
D&A	2	PRODUCTION PLANT	PRODPLT		28,259	5,956	240,068	274,283	59,351	7,906
D&A	3	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0
D&A	4	DISTRIBUTION PLANT								
D&A	5	360-Land and Land Rights	PLT_360		215	52	1,709	1,977	411	56
D&A	6	361-Structures & Improvements	PLT_361		452	110	3,591	4,153	863	118
D&A	7	362-Station Equipment	PLT_362		6,684	1,627	53,073	61,384	12,757	1,743
D&A	8	364-Towers and Fixtures	PLT_364		8,439	2,158	70,244	80,842	16,822	2,342
D&A	9	365-Overhead Conductors & Devices	PLT_365		6,411	1,640	53,363	61,414	12,779	1,779
D&A	10	366-Underground Conduit	PLT_366		0	0	0	0	0	0
D&A	11	367-Underground Conductor	PLT_367		3,403	870	28,327	32,600	6,784	944
D&A	12	368-Line Transformers	PLT_368		3,789	969	31,541	36,299	7,553	1,051
D&A	13	369-Services	PLT_369		15,260	2,180	40,399	57,839	0	0
D&A	14	370-Meters	PLT_370		1,277	0	0	1,277	0	0
D&A	15	371-Inst. on Customer Premises	PLT_371		0	0	0	0	131,260	18,542
D&A	16	373-Street Lighting / Signal Systems	PLT_373		137,435	14,709	1,410,177	1,562,322	0	0
D&A	17	TOTAL DISTRIBUTION PLANT			183,366	24,316	1,692,425	1,900,107	189,229	26,576
D&A	18	GENERAL & INTANGIBLE	INTGENLPLT		24,217	3,530	175,685	203,431	231,839	32,346
D&A	19	TOTAL DEPRECIATION & AMORTIZATION RESERVE			235,842	33,802	2,108,177	2,377,822	480,418	66,827
D&A	20									
D&A	21	NET ELECTRIC PLANT IN SERVICE								
D&A	22	NET PRODUCTION PLANT			38,347	8,083	325,769	372,199	80,538	10,729
D&A	23	NET TRANSMISSION PLANT			0	0	0	0	0	0
D&A	24	NET DISTRIBUTION PLANT			91,667	15,638	743,445	850,749	290,498	40,793
D&A	25	NET GENERAL & INTANGIBLE PLANT			52,866	7,705	383,523	444,095	506,109	70,611
D&A	26	COMPLETED CONSTRUCTION NOT CLASSIFIED			0	0	0	0	0	0
D&A	27	TOTAL NET PLANT IN SERVICE			182,880	31,426	1,452,737	1,667,042	877,146	122,133
D&A	28									
D&A	29	PLANT HELD FOR FUTURE USE								
D&A	30	PRODUCTION PLANT	PRODPLT		0	0	0	0	0	0
D&A	31	TRANSMISSION	TRANPLT		0	0	0	0	0	0
D&A	32	DISTRIBUTION	DISTPLT		0	0	0	0	0	0
D&A	33	GENERAL PLANT	INTGENLPLT		0	0	0	0	0	0
D&A	34	TOTAL PLANT HELD FOR FUTURE USE			0	0	0	0	0	0
D&A	35									
D&A	36	CONSTRUCTION WORK IN PROGRESS								
D&A	37	PRODUCTION PLANT	PRODPLT		697	147	5,925	6,770	1,465	195
D&A	38	TRANSMISSION PLANT	TRANPLT		0	0	0	0	0	0
D&A	39	DISTRIBUTION PLANT	TOTPLT		15,530	2,419	132,070	150,019	50,350	7,008
D&A	40	GENERAL & INTANGIBLE PLANT	INTGENLPLT		611	89	4,433	5,134	5,850	816
D&A	41	TOTAL CONSTRUCTION WORK IN PROGRESS			16,838	2,655	142,428	161,922	57,666	8,020
D&A	42									
D&A	43	TOTAL NET PLANT IN SERVICE			199,718	34,081	1,595,165	1,828,964	934,811	130,152
D&A	44									
D&A	45									
D&A	46									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
RBO	1	ADDITIONS AND DEDUCTIONS TO RATE BASE									
RBO	2										
RBO	3	PLUS: ADDITIONS TO RATE BASE									
RBO	4	Fuel Stock	ENEFUEL	345,976	152,307	3,015	126,436	2,251	61,968		
RBO	5	Cash Working Capital	OMXFPP	43,301,043	24,718,639	811,085	14,623,584	249,227	2,898,509		
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(107,456)	(49,486)	(821)	(43,307)	(661)	(13,182)		
RBO	8	Transmission	TRANPLT	0	0	0	0	0	0		
RBO	9	Distribution	DISTPLT	2,914,371	1,750,182	53,664	1,013,668	17,681	79,176		
RBO	10	General	GENLPLT	(218,932)	(134,980)	(4,965)	(67,933)	(1,231)	(9,823)		
RBO	11	Total Utility Material and Supplies		2,587,983	1,565,716	47,879	902,428	15,789	56,171		
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	329,250	183,441	5,088	118,866	1,988	19,866		
RBO	14	Insurance - Other	SALWAGES	324,828	200,268	7,366	100,792	1,827	14,574		
RBO	15	IT Related	TOTPLT	561,049	312,588	8,670	202,550	3,388	33,853		
RBO	16	Other Prepaid	SALWAGXAG	0	0	0	0	0	0		
RBO	17	Total Prepayments		1,215,127	696,298	21,124	422,207	7,204	68,294		
RBO	18	Cash & Bank Balances	TOTPLT	1,263,604	704,015	19,527	456,186	7,631	76,244		
RBO	19	TOTAL ADDITIONS TO RATE BASE		48,713,732	27,836,975	902,629	16,530,841	282,102	3,161,185		
RBO	20										
RBO	21	LESS: DEDUCTIONS TO RATE BASE									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	(2,136,687)	(1,190,452)	(33,019)	(771,386)	(12,904)	(128,925)		
RBO	24	Payroll	SALWAGES	(162,768)	(100,352)	(3,691)	(50,506)	(915)	(7,303)		
RBO	25	Taxes	TOTPLT	0	0	0	0	0	0		
RBO	26	Total Accumulated Deferred Income Taxes		(2,299,454)	(1,290,805)	(36,710)	(821,892)	(13,820)	(136,228)		
RBO	27	Customer Deposits	CUSTDEP	0	0	0	0	0	0		
RBO	28	Customer Advances for Construction	DISTPLT	2,132,329	1,280,538	39,264	741,660	12,937	57,930		
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		(167,125)	(10,267)	2,554	(80,231)	(883)	(78,298)		
RBO	30										
RBO	31										
RBO	32	TOTAL RATE BASE		278,888,973	155,133,069	3,794,004	100,630,047	1,650,558	17,681,296		
RBO	33										
RBO	34										
RBO	35										
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RBO	46										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
RBO	1	ADDITIONS AND DEDUCTIONS TO RATE BASE									
RBO	2										
RBO	3	PLUS: ADDITIONS TO RATE BASE									
RBO	4	Fuel Stock	ENEFUEL	124,485	11,014	16,809		39,384	0	5,055	49,895
RBO	5	Cash Working Capital	OMXFPP	20,389,288	1,740,234	2,589,118		4,383,950	0	503,427	7,284,916
RBO	6	Utility Material and Supplies:									
RBO	7	Production	PRODPLT	(40,260)	(3,393)	(5,833)		(11,146)	0	(1,460)	(25,426)
RBO	8	Transmission	TRANPLT	0	0	0		0	0	0	0
RBO	9	Distribution	DISTPLT	1,436,344	119,845	193,993		304,923	0	36,376	496,724
RBO	10	General	GENLPLT	(111,720)	(9,578)	(13,682)		(22,532)	0	(2,469)	(32,046)
RBO	11	Total Utility Material and Supplies		1,284,364	106,874	174,478		271,244	0	32,447	439,252
RBO	12	Prepayments									
RBO	13	Insurance - Plant Related	TOTPLT	150,375	12,628	20,438		34,282	0	4,178	62,189
RBO	14	Insurance - Other	SALWAGES	165,758	14,211	20,299		33,431	0	3,664	47,547
RBO	15	IT Related	TOTPLT	256,242	21,519	34,826		58,418	0	7,119	105,972
RBO	16	Other Prepaid	SALWAGXAG	0	0	0		0	0	0	0
RBO	17	Total Prepayments		572,375	48,359	75,564		126,132	0	14,961	215,708
RBO	18	Cash & Bank Balances	TOTPLT	577,113	48,465	78,437		131,570	0	16,034	238,672
RBO	19	TOTAL ADDITIONS TO RATE BASE		22,947,625	1,954,946	2,934,405		4,952,280	0	571,923	8,228,443
RBO	20										
RBO	21	LESS: DEDUCTIONS TO RATE BASE									
RBO	22	Accumulated Deferred Income Taxes									
RBO	23	Property	TOTPLT	(975,868)	(81,952)	(132,632)		(222,478)	0	(27,113)	(403,581)
RBO	24	Payroll	SALWAGES	(83,059)	(7,121)	(10,172)		(16,752)	0	(1,836)	(23,825)
RBO	25	Taxes	TOTPLT	0	0	0		0	0	0	0
RBO	26	Total Accumulated Deferred Income Taxes		(1,058,927)	(89,074)	(142,804)		(239,230)	0	(28,949)	(427,406)
RBO	27	Customer Deposits	CUSTDEP	0	0	0		0	0	0	0
RBO	28	Customer Advances for Construction	DISTPLT	1,050,916	87,686	141,937		223,100	0	26,615	363,433
RBO	29	TOTAL DEDUCTIONS TO RATE BASE		(8,012)	(1,388)	(867)		(16,130)	0	(2,334)	(63,973)
RBO	30										
RBO	31										
RBO	32	TOTAL RATE BASE		127,210,334	10,785,270	17,137,465		28,974,651	0	3,517,584	52,431,381
RBO	33										
RBO	34										
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Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM						(x)	(y)
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3		
		(a)	(b)		(t)	(u)	(v)	(w)				
RBO	1	ADDITIONS AND DEDUCTIONS TO RATE BASE										
RBO	2											
RBO	3	PLUS: ADDITIONS TO RATE BASE										
RBO	4	Fuel Stock	ENEFUEL		76,989	32,102	2,251	42,637	0	19,331		
RBO	5	Cash Working Capital	OMXFPP		4,780,212	2,451,290	249,227	2,079,694	3,459	815,355		
RBO	6	Utility Material and Supplies:										
RBO	7	Production	PRODPLT		(17,617)	(5,275)	(661)	(11,681)	0	(1,501)		
RBO	8	Transmission	TRANPLT		0	0	0	0	0	0		
RBO	9	Distribution	DISTPLT		245,669	175,646	17,681	52,342	216	26,618		
RBO	10	General	GENLPLT		(19,441)	(10,885)	(1,231)	(7,324)	(23)	(2,475)		
RBO	11	Total Utility Material and Supplies			208,611	159,486	15,789	33,337	192	22,641		
RBO	12	Prepayments										
RBO	13	Insurance - Plant Related	TOTPLT		36,441	18,216	1,988	16,236	18	3,613		
RBO	14	Insurance - Other	SALWAGES		28,844	16,150	1,827	10,867	35	3,673		
RBO	15	IT Related	TOTPLT		62,096	31,041	3,388	27,666	30	6,156		
RBO	16	Other Prepaid	SALWAGXAG		0	0	0	0	0	0		
RBO	17	Total Prepayments			127,380	65,407	7,204	54,769	83	13,442		
RBO	18	Cash & Bank Balances	TOTPLT		139,853	69,910	7,631	62,311	68	13,865		
RBO	19	TOTAL ADDITIONS TO RATE BASE			5,333,045	2,778,195	282,102	2,272,748	3,802	884,634		
RBO	20											
RBO	21	LESS: DEDUCTIONS TO RATE BASE										
RBO	22	Accumulated Deferred Income Taxes										
RBO	23	Property	TOTPLT		(236,483)	(118,215)	(12,904)	(105,364)	(116)	(23,445)		
RBO	24	Payroll	SALWAGES		(14,453)	(8,093)	(915)	(5,445)	(17)	(1,840)		
RBO	25	Taxes	TOTPLT		0	0	0	0	0	0		
RBO	26	Total Accumulated Deferred Income Taxes			(250,937)	(126,307)	(13,820)	(110,810)	(133)	(25,285)		
RBO	27	Customer Deposits	CUSTDEP		0	0	0	0	0	0		
RBO	28	Customer Advances for Construction	DISTPLT		179,746	128,513	12,937	38,297	158	19,475		
RBO	29	TOTAL DEDUCTIONS TO RATE BASE			(71,190)	2,206	(883)	(72,513)	25	(5,810)		
RBO	30											
RBO	31											
RBO	32	TOTAL RATE BASE			31,428,207	15,706,431	1,650,558	14,071,218	19,547	3,590,532		
RBO	33											
RBO	34											
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Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
RBO	1	ADDITIONS AND DEDUCTIONS TO RATE BASE								
RBO	2									
RBO	3	PLUS: ADDITIONS TO RATE BASE								
RBO	4	Fuel Stock	ENEFUEL		209	22	2,145	2,377	567	71
RBO	5	Cash Working Capital	OMXFPP		49,818	6,824	373,352	429,993	334,696	46,395
RBO	6	Utility Material and Supplies:								
RBO	7	Production	PRODPLT		(68)	(14)	(577)	(659)	(143)	(19)
RBO	8	Transmission	TRANPLT		0	0	0	0	0	0
RBO	9	Distribution	DISTPLT		4,475	650	39,636	44,762	7,806	1,096
RBO	10	General	GENLPLT		(187)	(25)	(1,068)	(1,280)	(3,234)	(451)
RBO	11	Total Utility Material and Supplies			4,221	611	37,992	42,823	4,430	626
RBO	12	Prepayments								
RBO	13	Insurance - Plant Related	TOTPLT		381	59	3,240	3,681	1,235	172
RBO	14	Insurance - Other	SALWAGES		277	37	1,585	1,899	4,798	670
RBO	15	IT Related	TOTPLT		649	101	5,522	6,272	2,105	293
RBO	16	Other Prepaid	SALWAGXAG		0	0	0	0	0	0
RBO	17	Total Prepayments			1,307	197	10,347	11,851	8,138	1,135
RBO	18	Cash & Bank Balances	TOTPLT		1,462	228	12,436	14,126	4,741	660
RBO	19	TOTAL ADDITIONS TO RATE BASE			57,017	7,883	436,271	501,171	352,572	48,887
RBO	20									
RBO	21	LESS: DEDUCTIONS TO RATE BASE								
RBO	22	Accumulated Deferred Income Taxes								
RBO	23	Property	TOTPLT		(2,473)	(385)	(21,029)	(23,887)	(8,017)	(1,116)
RBO	24	Payroll	SALWAGES		(139)	(19)	(794)	(951)	(2,404)	(336)
RBO	25	Taxes	TOTPLT		0	0	0	0	0	0
RBO	26	Total Accumulated Deferred Income Taxes			(2,611)	(404)	(21,823)	(24,838)	(10,421)	(1,451)
RBO	27	Customer Deposits	CUSTDEP		0	0	0	0	0	0
RBO	28	Customer Advances for Construction	DISTPLT		3,274	476	29,000	32,751	5,711	802
RBO	29	TOTAL DEDUCTIONS TO RATE BASE			663	72	7,178	7,913	(4,710)	(649)
RBO	30									
RBO	31									
RBO	32	TOTAL RATE BASE			256,072	41,891	2,024,259	2,322,222	1,292,093	179,689
RBO	33									
RBO	34									
RBO	35									
RBO	36									
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
REV	1	OPERATING REVENUES									
REV	2										
REV	3	SALES REVENUES									
REV	4	Sales of Electricity Revenues		91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
REV	5	TOTAL SALES OF ELECTRICITY		91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
REV	6										
REV	7	Revenue Credits:									
REV	8	450-Late Payment Revenues	CUST	118,158	101,938	3,716	12,476	10	18		
REV	9	451-Misc Service Revenue	CUST	2,154	1,858	68	227	0	0		
REV	10	453-Sales of Water and Water Power	ENERGY1	44,571	19,621	388	16,288	290	7,983		
REV	11	454-Rent from Electric Property	DISTPLT	193,318	116,095	3,560	67,239	1,173	5,252		
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	266,694	160,159	4,911	92,761	1,618	7,245		
REV	14	Capacity Revenue - EN447	ENERGY1	2,362,719	1,040,127	20,587	863,446	15,371	423,188		
REV	15	RTMP - Opportunity Sales	ENERGY1	8,710,611	3,834,626	75,897	3,183,257	56,668	1,560,163		
REV	16	Electric True-up	ENERGY1	0	0	0	0	0	0		
REV	17	Naturewise	ENERGY1	0	0	0	0	0	0		
REV	18	Ancillary Services - Non-Firm	ENERGY1	0	0	0	0	0	0		
REV	19	Total Revenue Credits		11,698,225	5,274,424	109,126	4,235,695	75,130	2,003,850		
REV	20										
REV	21	Total Revenue Requirements		102,819,013	59,818,061	2,349,765	31,030,873	490,960	9,129,355		
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
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Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
REV	1	OPERATING REVENUES									
REV	2										
REV	3	SALES REVENUES									
REV	4	Sales of Electricity Revenues		45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557
REV	5	TOTAL SALES OF ELECTRICITY		45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557
REV	6										
REV	7	Revenue Credits:									
REV	8	450-Late Payment Revenues	CUST	87,039	7,221	7,678		10,838	0	501	1,063
REV	9	451-Misc Service Revenue	CUST	1,586	132	140		198	0	9	19
REV	10	453-Sales of Water and Water Power	ENERGY1	16,037	1,419	2,165		5,074	0	651	6,428
REV	11	454-Rent from Electric Property	DISTPLT	95,277	7,950	12,868		20,226	0	2,413	32,949
REV	12	456-Other Electric Revenue									
REV	13	Other Miscellaneous Revenue	DISTPLT	131,440	10,967	17,752		27,903	0	3,329	45,455
REV	14	Capacity Revenue - EN447	ENERGY1	850,124	75,213	114,790		268,962	0	34,521	340,737
REV	15	RTMP - Opportunity Sales	ENERGY1	3,134,143	277,287	423,196		991,579	0	127,268	1,256,191
REV	16	Electric True-up	ENERGY1	0	0	0		0	0	0	0
REV	17	Naturewise	ENERGY1	0	0	0		0	0	0	0
REV	18	Ancillary Services - Non-Firm	ENERGY1	0	0	0		0	0	0	0
REV	19	Total Revenue Credits		4,315,646	380,188	578,590		1,324,780	0	168,692	1,682,843
REV	20										
REV	21	Total Revenue Requirements		49,760,095	4,222,750	5,835,216		11,477,055	0	1,204,031	12,863,400
REV	22										
REV	23										
REV	24										
REV	25										
REV	26										
REV	27										
REV	28										
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Forecast 12 Month Period ending December 31, 2019

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM					
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
REV	1	OPERATING REVENUES								
REV	2									
REV	3	SALES REVENUES								
REV	4	Sales of Electricity Revenues			9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405
REV	5	TOTAL SALES OF ELECTRICITY			9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405
REV	6									
REV	7	Revenue Credits:								
REV	8	450-Late Payment Revenues	CUST		97	74	10	13	2	2
REV	9	451-Misc Service Revenue	CUST		2	1	0	0	0	0
REV	10	453-Sales of Water and Water Power	ENERGY1		9,918	4,136	290	5,493	0	2,490
REV	11	454-Rent from Electric Property	DISTPLT		16,296	11,651	1,173	3,472	14	1,766
REV	12	456-Other Electric Revenue								
REV	13	Other Miscellaneous Revenue	DISTPLT		22,481	16,073	1,618	4,790	20	2,436
REV	14	Capacity Revenue - EN447	ENERGY1		525,769	219,226	15,371	291,172	0	132,016
REV	15	RTMP - Opportunity Sales	ENERGY1		1,938,348	808,219	56,668	1,073,461	0	486,702
REV	16	Electric True-up	ENERGY1		0	0	0	0	0	0
REV	17	Naturewise	ENERGY1		0	0	0	0	0	0
REV	18	Ancillary Services - Non-Firm	ENERGY1		0	0	0	0	0	0
REV	19	Total Revenue Credits			2,512,912	1,059,381	75,130	1,378,401	36	625,412
REV	20									
REV	21	Total Revenue Requirements			12,364,369	5,486,387	490,960	6,387,022	302,516	2,439,817
REV	22									
REV	23									
REV	24									
REV	25									
REV	26									
REV	27									
REV	28									
REV	29									
REV	30									
REV	31									
REV	32									
REV	33									
REV	34									
REV	35									
REV	36									
REV	37									
REV	38									
REV	39									
REV	40									
REV	41									
REV	42									
REV	43									
REV	44									
REV	45									
REV	46									

Upper Peninsula Power Company Historical Cost of Service Allocation Study Forecast 12 Month Period ending December 31, 2019										
RETAIL SYSTEM										
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
REV	1	OPERATING REVENUES								
REV	2									
REV	3	SALES REVENUES								
REV	4	Sales of Electricity Revenues			67,986	12,665	1,660,422	1,741,073	449,624	49,942
REV	5	TOTAL SALES OF ELECTRICITY			67,986	12,665	1,660,422	1,741,073	449,624	49,942
REV	6									
REV	7	Revenue Credits:								
REV	8	450-Late Payment Revenues	CUST		163	23	430	616	2,747	353
REV	9	451-Misc Service Revenue	CUST		3	0	8	11	50	6
REV	10	453-Sales of Water and Water Power	ENERGY1		27	3	276	306	73	9
REV	11	454-Rent from Electric Property	DISTPLT		297	43	2,629	2,969	518	73
REV	12	456-Other Electric Revenue								
REV	13	Other Miscellaneous Revenue	DISTPLT		410	59	3,627	4,096	714	100
REV	14	Capacity Revenue - EN447	ENERGY1		1,428	153	14,650	16,231	3,870	486
REV	15	RTMP - Opportunity Sales	ENERGY1		5,264	563	54,012	59,839	14,266	1,792
REV	16	Electric True-up	ENERGY1		0	0	0	0	0	0
REV	17	Naturewise	ENERGY1		0	0	0	0	0	0
REV	18	Ancillary Services - Non-Firm	ENERGY1		0	0	0	0	0	0
REV	19	Total Revenue Credits			7,591	845	75,633	84,069	22,237	2,819
REV	20									
REV	21	Total Revenue Requirements			75,577	13,510	1,736,055	1,825,142	471,861	52,761
REV	22									
REV	23									
REV	24									
REV	25									
REV	26									
REV	27									
REV	28									
REV	29									
REV	30									
REV	31									
REV	32									
REV	33									
REV	34									
REV	35									
REV	36									
REV	37									
REV	38									
REV	39									
REV	40									
REV	41									
REV	42									
REV	43									
REV	44									
REV	45									
REV	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	1	OPERATION & MAINTENANCE EXPENSE									
O&M	2										
O&M	3	FUEL AND PURCHASED POWER									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	24,878,134	10,951,968	216,767	9,091,612	161,848	4,455,939		
O&M	7	555 - Purchased Power - Demand	DPURCH	900,000	480,097	11,167	403,352	5,384	0		
O&M	8	Total Purchased Power		25,778,134	11,432,065	227,934	9,494,963	167,232	4,455,939		
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0	0	0	0		
O&M	12	547-Fuel Handling	ENEFUEL	245,895	108,249	2,143	89,861	1,600	44,042		
O&M	13	Total Fuel and Fuel Handling (501 & 547)		245,895	108,249	2,143	89,861	1,600	44,042		
O&M	14										
O&M	15	TOTAL FUEL AND PURCHASED POWER		26,024,029	11,540,314	230,076	9,584,825	168,832	4,499,982		
O&M	16										
O&M	17										
O&M	18	PRODUCTION EXPENSE									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	22	502-Steam Expense	DPROD	0	0	0	0	0	0		
O&M	23	505-Electric Expense	DPROD	0	0	0	0	0	0		
O&M	24	506-Miscellaneous	DPROD	0	0	0	0	0	0		
O&M	25	507-Rent	DPROD	0	0	0	0	0	0		
O&M	26	508-Supplies and Expenses	DPROD	0	0	0	0	0	0		
O&M	27	509-Allowances	DPROD	0	0	0	0	0	0		
O&M	28	Total Steam Production Operation		0	0	0	0	0	0		
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	32	511-Structures	DPROD	30,650	14,115	234	12,352	189	3,760		
O&M	33	512-Boilers	ENERGY1	0	0	0	0	0	0		
O&M	34	513-Electric Plant	ENERGY1	0	0	0	0	0	0		
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0	0	0	0		
O&M	36	Total Steam Production Maintenance		30,650	14,115	234	12,352	189	3,760		
O&M	37										
O&M	38	Total Steam Production O&M		30,650	14,115	234	12,352	189	3,760		
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
O&M	1	OPERATION & MAINTENANCE EXPENSE									
O&M	2										
O&M	3	FUEL AND PURCHASED POWER									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1	8,951,338	791,951	1,208,679		2,832,021	0	363,486	3,587,773
O&M	7	555 - Purchased Power - Demand	DPURCH	378,668	32,288	69,142		68,665	0	10,094	254,816
O&M	8	Total Purchased Power		9,330,006	824,239	1,277,820		2,900,686	0	373,579	3,842,589
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL	0	0	0		0	0	0	0
O&M	12	547-Fuel Handling	ENEFUEL	88,475	7,828	11,947		27,992	0	3,593	35,461
O&M	13	Total Fuel and Fuel Handling (501 & 547)		88,475	7,828	11,947		27,992	0	3,593	35,461
O&M	14										
O&M	15	TOTAL FUEL AND PURCHASED POWER		9,418,481	832,066	1,289,767		2,928,678	0	377,172	3,878,051
O&M	16										
O&M	17										
O&M	18	PRODUCTION EXPENSE									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO	0	0	0		0	0	0	0
O&M	22	502-Steam Expense	DPROD	0	0	0		0	0	0	0
O&M	23	505-Electric Expense	DPROD	0	0	0		0	0	0	0
O&M	24	506-Miscellaneous	DPROD	0	0	0		0	0	0	0
O&M	25	507-Rent	DPROD	0	0	0		0	0	0	0
O&M	26	508-Supplies and Expenses	DPROD	0	0	0		0	0	0	0
O&M	27	509-Allowances	DPROD	0	0	0		0	0	0	0
O&M	28	Total Steam Production Operation		0	0	0		0	0	0	0
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM	0	0	0		0	0	0	0
O&M	32	511-Structures	DPROD	11,483	968	1,664		3,179	0	416	7,252
O&M	33	512-Boilers	ENERGY1	0	0	0		0	0	0	0
O&M	34	513-Electric Plant	ENERGY1	0	0	0		0	0	0	0
O&M	35	514-Miscellaneous Plant	DPROD	0	0	0		0	0	0	0
O&M	36	Total Steam Production Maintenance		11,483	968	1,664		3,179	0	416	7,252
O&M	37										
O&M	38	Total Steam Production O&M		11,483	968	1,664		3,179	0	416	7,252
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

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RETAIL SYSTEM											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S		P		Q	T	Q
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3		
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	
O&M	1	OPERATION & MAINTENANCE EXPENSE									
O&M	2										
O&M	3	FUEL AND PURCHASED POWER									
O&M	4										
O&M	5	Purchased Power									
O&M	6	555 - Purchased Power - Energy	ENERGY1		5,536,062	2,308,331	161,848	3,065,882	0	1,390,057	
O&M	7	555 - Purchased Power - Demand	DPURCH		75,161	69,777	5,384	0	0	0	
O&M	8	Total Purchased Power			5,611,224	2,378,109	167,232	3,065,882	0	1,390,057	
O&M	9										
O&M	10	Fuel									
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL		0	0	0	0	0	0	
O&M	12	547-Fuel Handling	ENEFUEL		54,718	22,816	1,600	30,303	0	13,739	
O&M	13	Total Fuel and Fuel Handling (501 & 547)			54,718	22,816	1,600	30,303	0	13,739	
O&M	14										
O&M	15	TOTAL FUEL AND PURCHASED POWER			5,665,942	2,400,924	168,832	3,096,186	0	1,403,796	
O&M	16										
O&M	17										
O&M	18	PRODUCTION EXPENSE									
O&M	19										
O&M	20	Steam Production Operation									
O&M	21	500-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0	
O&M	22	502-Steam Expense	DPROD		0	0	0	0	0	0	
O&M	23	505-Electric Expense	DPROD		0	0	0	0	0	0	
O&M	24	506-Miscellaneous	DPROD		0	0	0	0	0	0	
O&M	25	507-Rent	DPROD		0	0	0	0	0	0	
O&M	26	508-Supplies and Expenses	DPROD		0	0	0	0	0	0	
O&M	27	509-Allowances	DPROD		0	0	0	0	0	0	
O&M	28	Total Steam Production Operation			0	0	0	0	0	0	
O&M	29										
O&M	30	Steam Production Maintenance									
O&M	31	510-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0	
O&M	32	511-Structures	DPROD		5,025	1,505	189	3,332	0	428	
O&M	33	512-Boilers	ENERGY1		0	0	0	0	0	0	
O&M	34	513-Electric Plant	ENERGY1		0	0	0	0	0	0	
O&M	35	514-Miscellaneous Plant	DPROD		0	0	0	0	0	0	
O&M	36	Total Steam Production Maintenance			5,025	1,505	189	3,332	0	428	
O&M	37										
O&M	38	Total Steam Production O&M			5,025	1,505	189	3,332	0	428	
O&M	39										
O&M	40										
O&M	41										
O&M	42										
O&M	43										
O&M	44										
O&M	45										
O&M	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
O&M	1	OPERATION & MAINTENANCE EXPENSE								
O&M	2									
O&M	3	FUEL AND PURCHASED POWER								
O&M	4									
O&M	5	Purchased Power								
O&M	6	555 - Purchased Power - Energy	ENERGY1		15,034	1,609	154,262	170,905	40,745	5,117
O&M	7	555 - Purchased Power - Demand	DPURCH		1,172	233	7,589	8,994	1,911	262
O&M	8	Total Purchased Power			16,206	1,842	161,851	179,899	42,656	5,379
O&M	9									
O&M	10	Fuel								
O&M	11	501-Fuel (Transportation and Handling)	ENEFUEL		0	0	0	0	0	0
O&M	12	547-Fuel Handling	ENEFUEL		149	16	1,525	1,689	403	51
O&M	13	Total Fuel and Fuel Handling (501 & 547)			149	16	1,525	1,689	403	51
O&M	14									
O&M	15	TOTAL FUEL AND PURCHASED POWER			16,355	1,858	163,376	181,589	43,058	5,430
O&M	16									
O&M	17									
O&M	18	PRODUCTION EXPENSE								
O&M	19									
O&M	20	Steam Production Operation								
O&M	21	500-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0
O&M	22	502-Steam Expense	DPROD		0	0	0	0	0	0
O&M	23	505-Electric Expense	DPROD		0	0	0	0	0	0
O&M	24	506-Miscellaneous	DPROD		0	0	0	0	0	0
O&M	25	507-Rent	DPROD		0	0	0	0	0	0
O&M	26	508-Supplies and Expenses	DPROD		0	0	0	0	0	0
O&M	27	509-Allowances	DPROD		0	0	0	0	0	0
O&M	28	Total Steam Production Operation			0	0	0	0	0	0
O&M	29									
O&M	30	Steam Production Maintenance								
O&M	31	510-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0
O&M	32	511-Structures	DPROD		19	4	165	188	41	5
O&M	33	512-Boilers	ENERGY1		0	0	0	0	0	0
O&M	34	513-Electric Plant	ENERGY1		0	0	0	0	0	0
O&M	35	514-Miscellaneous Plant	DPROD		0	0	0	0	0	0
O&M	36	Total Steam Production Maintenance			19	4	165	188	41	5
O&M	37									
O&M	38	Total Steam Production O&M			19	4	165	188	41	5
O&M	39									
O&M	40									
O&M	41									
O&M	42									
O&M	43									
O&M	44									
O&M	45									
O&M	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	47	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	48	PRODUCTION EXPENSE CONTINUED									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	1,262,913	581,595	9,646	508,976	7,770	154,925		
O&M	52	537-Hydraulic Expenses	DPROD	596	274	5	240	4	73		
O&M	53	538-Electric Expense	DPROD	1,440,209	663,244	11,000	580,429	8,861	176,675		
O&M	54	539-Miscellaneous	DPROD	53,278	24,536	407	21,472	328	6,536		
O&M	55	540-Rents	DPROD	84,260	38,803	644	33,958	518	10,336		
O&M	56	Total Hydraulic Power Generation Operation		2,841,256	1,308,452	21,701	1,145,076	17,482	348,546		
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	232,132	106,901	1,773	93,553	1,428	28,476		
O&M	60	542-Structures	DPROD	15,290	7,041	117	6,162	94	1,876		
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	244,051	112,390	1,864	98,357	1,502	29,938		
O&M	62	544-Electric Plant	DPROD	530,898	244,489	4,055	213,961	3,266	65,127		
O&M	63	545-Miscellaneous Plant	DPROD	5,467	2,518	42	2,203	34	671		
O&M	64	Total Hydraulic Power Generation Maintenance		1,027,838	473,339	7,850	414,237	6,324	126,088		
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		3,869,094	1,781,791	29,551	1,559,312	23,806	474,634		
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0	0	0	0		
O&M	70	548-Generation Expense	DPROD	5,430	2,501	41	2,188	33	666		
O&M	71	549-Miscellaneous	DPROD	(4,681)	(2,156)	(36)	(1,887)	(29)	(574)		
O&M	72	550-Rents	DPROD	0	0	0	0	0	0		
O&M	73	Total Combustion Turbine Production Operation		749	345	6	302	5	92		
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0	0	0	0		
O&M	77	552-Structures	DPROD	13,745	6,330	105	5,539	85	1,686		
O&M	78	553-Electric Plant	DPROD	17,769	8,183	136	7,161	109	2,180		
O&M	79	554-Miscellaneous Plant	DPROD	6,015	2,770	46	2,424	37	738		
O&M	80	Total Combustion Turbine Production Maintenance		37,529	17,283	287	15,125	231	4,604		
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		38,278	17,628	292	15,427	236	4,696		
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	1,317,060	579,802	11,476	481,314	8,568	235,899		
O&M	86	557-Other Expenses	DPROD	0	0	0	0	0	0		
O&M	87	Total System Control and Dispatch		1,317,060	579,802	11,476	481,314	8,568	235,899		
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		5,255,082	2,393,336	41,553	2,068,406	32,798	718,989		
O&M	90	TOTAL PRODUCTION O&M EXPENSE		31,279,111	13,933,650	271,630	11,653,230	201,630	5,218,970		
O&M	91										
O&M	92										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
O&M	47	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	48	PRODUCTION EXPENSE CONTINUED									
O&M	49										
O&M	50	Hydraulic Power Generation Operation									
O&M	51	535-Supervision & Engineering	SALWAGPO	473,170	39,872	68,554		131,001	0	17,157	298,822
O&M	52	537-Hydraulic Expenses	DPROD	223	19	32		62	0	8	141
O&M	53	538-Electric Expense	DPROD	539,597	45,469	78,178		149,392	0	19,566	340,773
O&M	54	539-Miscellaneous	DPROD	19,961	1,682	2,892		5,526	0	724	12,606
O&M	55	540-Rents	DPROD	31,569	2,660	4,574		8,740	0	1,145	19,937
O&M	56	Total Hydraulic Power Generation Operation		1,064,521	89,702	154,230		294,722	0	38,600	672,279
O&M	57										
O&M	58	Hydraulic Power Generation Maintenance									
O&M	59	541-Supervision & Engineering	SALWAGPM	86,972	7,329	12,601		24,079	0	3,154	54,926
O&M	60	542-Structures	DPROD	5,729	483	830		1,586	0	208	3,618
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD	91,437	7,705	13,248		25,315	0	3,316	57,746
O&M	62	544-Electric Plant	DPROD	198,909	16,761	28,818		55,070	0	7,213	125,618
O&M	63	545-Miscellaneous Plant	DPROD	2,048	173	297		567	0	74	1,294
O&M	64	Total Hydraulic Power Generation Maintenance		385,095	32,450	55,793		106,617	0	13,964	243,200
O&M	65										
O&M	66	Total Hydraulic Power Production O&M		1,449,616	122,153	210,023		401,339	0	52,564	915,479
O&M	67										
O&M	68	Combustion Turbine Production Operation									
O&M	69	546-Supervision & Engineering	SALWAGPO	0	0	0		0	0	0	0
O&M	70	548-Generation Expense	DPROD	2,034	171	295		563	0	74	1,285
O&M	71	549-Miscellaneous	DPROD	(1,754)	(148)	(254)		(486)	0	(64)	(1,108)
O&M	72	550-Rents	DPROD	0	0	0		0	0	0	0
O&M	73	Total Combustion Turbine Production Operation		281	24	41		78	0	10	177
O&M	74										
O&M	75	Combustion Turbine Production Maintenance									
O&M	76	551-Supervision & Engineering	SALWAGPM	0	0	0		0	0	0	0
O&M	77	552-Structures	DPROD	5,150	434	746		1,426	0	187	3,252
O&M	78	553-Electric Plant	DPROD	6,657	561	965		1,843	0	241	4,204
O&M	79	554-Miscellaneous Plant	DPROD	2,254	190	327		624	0	82	1,423
O&M	80	Total Combustion Turbine Production Maintenance		14,061	1,185	2,037		3,893	0	510	8,880
O&M	81										
O&M	82	Total Combustion Turbine Production O&M		14,341	1,208	2,078		3,971	0	520	9,057
O&M	83										
O&M	84	System Control and Dispatch									
O&M	85	556-System Load Control	DPRODLD	473,888	41,926	63,988		149,929	0	19,243	189,938
O&M	86	557-Other Expenses	DPROD	0	0	0		0	0	0	0
O&M	87	Total System Control and Dispatch		473,888	41,926	63,988		149,929	0	19,243	189,938
O&M	88										
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE		1,949,329	166,255	277,752		558,417	0	72,744	1,121,727
O&M	90	TOTAL PRODUCTION O&M EXPENSE		11,367,810	998,321	1,567,519		3,487,095	0	449,916	4,999,778
O&M	91										
O&M	92										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
O&M	47	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	48	PRODUCTION EXPENSE CONTINUED								
O&M	49									
O&M	50	Hydraulic Power Generation Operation								
O&M	51	535-Supervision & Engineering	SALWAGPO		207,050	61,995	7,770	137,284	0	17,641
O&M	52	537-Hydraulic Expenses	DPROD		98	29	4	65	0	8
O&M	53	538-Electric Expense	DPROD		236,117	70,699	8,861	156,557	0	20,118
O&M	54	539-Miscellaneous	DPROD		8,735	2,615	328	5,792	0	744
O&M	55	540-Rents	DPROD		13,814	4,136	518	9,159	0	1,177
O&M	56	Total Hydraulic Power Generation Operation			465,813	139,475	17,482	308,857	0	39,689
O&M	57									
O&M	58	Hydraulic Power Generation Maintenance								
O&M	59	541-Supervision & Engineering	SALWAGPM		38,057	11,395	1,428	25,234	0	3,243
O&M	60	542-Structures	DPROD		2,507	751	94	1,662	0	214
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD		40,011	11,980	1,502	26,529	0	3,409
O&M	62	544-Electric Plant	DPROD		87,039	26,061	3,266	57,711	0	7,416
O&M	63	545-Miscellaneous Plant	DPROD		896	268	34	594	0	76
O&M	64	Total Hydraulic Power Generation Maintenance			168,510	50,456	6,324	111,730	0	14,358
O&M	65									
O&M	66	Total Hydraulic Power Production O&M			634,323	189,930	23,806	420,587	0	54,046
O&M	67									
O&M	68	Combustion Turbine Production Operation								
O&M	69	546-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0
O&M	70	548-Generation Expense	DPROD		890	267	33	590	0	76
O&M	71	549-Miscellaneous	DPROD		(767)	(230)	(29)	(509)	0	(65)
O&M	72	550-Rents	DPROD		0	0	0	0	0	0
O&M	73	Total Combustion Turbine Production Operation			123	37	5	81	0	10
O&M	74									
O&M	75	Combustion Turbine Production Maintenance								
O&M	76	551-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0
O&M	77	552-Structures	DPROD		2,253	675	85	1,494	0	192
O&M	78	553-Electric Plant	DPROD		2,913	872	109	1,932	0	248
O&M	79	554-Miscellaneous Plant	DPROD		986	295	37	654	0	84
O&M	80	Total Combustion Turbine Production Maintenance			6,153	1,842	231	4,080	0	524
O&M	81									
O&M	82	Total Combustion Turbine Production O&M			6,276	1,879	236	4,161	0	535
O&M	83									
O&M	84	System Control and Dispatch								
O&M	85	556-System Load Control	DPRODLD		293,082	122,204	8,568	162,309	0	73,590
O&M	86	557-Other Expenses	DPROD		0	0	0	0	0	0
O&M	87	Total System Control and Dispatch			293,082	122,204	8,568	162,309	0	73,590
O&M	88									
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE			938,706	315,518	32,798	590,389	0	128,599
O&M	90	TOTAL PRODUCTION O&M EXPENSE			6,604,647	2,716,442	201,630	3,686,575	0	1,532,395
O&M	91									
O&M	92									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
O&M	47	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	48	PRODUCTION EXPENSE CONTINUED								
O&M	49									
O&M	50	Hydraulic Power Generation Operation								
O&M	51	535-Supervision & Engineering	SALWAGPO		798	168	6,780	7,746	1,676	223
O&M	52	537-Hydraulic Expenses	DPROD		0	0	3	4	1	0
O&M	53	538-Electric Expense	DPROD		910	192	7,732	8,834	1,912	255
O&M	54	539-Miscellaneous	DPROD		34	7	286	327	71	9
O&M	55	540-Rents	DPROD		53	11	452	517	112	15
O&M	56	Total Hydraulic Power Generation Operation			1,796	378	15,253	17,427	3,771	502
O&M	57									
O&M	58	Hydraulic Power Generation Maintenance								
O&M	59	541-Supervision & Engineering	SALWAGPM		147	31	1,246	1,424	308	41
O&M	60	542-Structures	DPROD		10	2	82	94	20	3
O&M	61	543-Reservoirs, Dams, and Waterways	DPROD		154	33	1,310	1,497	324	43
O&M	62	544-Electric Plant	DPROD		335	71	2,850	3,256	705	94
O&M	63	545-Miscellaneous Plant	DPROD		3	1	29	34	7	1
O&M	64	Total Hydraulic Power Generation Maintenance			650	137	5,518	6,304	1,364	182
O&M	65									
O&M	66	Total Hydraulic Power Production O&M			2,445	515	20,772	23,732	5,135	684
O&M	67									
O&M	68	Combustion Turbine Production Operation								
O&M	69	546-Supervision & Engineering	SALWAGPO		0	0	0	0	0	0
O&M	70	548-Generation Expense	DPROD		3	1	29	33	7	1
O&M	71	549-Miscellaneous	DPROD		(3)	(1)	(25)	(29)	(6)	(1)
O&M	72	550-Rents	DPROD		0	0	0	0	0	0
O&M	73	Total Combustion Turbine Production Operation			0	0	4	5	1	0
O&M	74									
O&M	75	Combustion Turbine Production Maintenance								
O&M	76	551-Supervision & Engineering	SALWAGPM		0	0	0	0	0	0
O&M	77	552-Structures	DPROD		9	2	74	84	18	2
O&M	78	553-Electric Plant	DPROD		11	2	95	109	24	3
O&M	79	554-Miscellaneous Plant	DPROD		4	1	32	37	8	1
O&M	80	Total Combustion Turbine Production Maintenance			24	5	201	230	50	7
O&M	81									
O&M	82	Total Combustion Turbine Production O&M			24	5	205	235	51	7
O&M	83									
O&M	84	System Control and Dispatch								
O&M	85	556-System Load Control	DPRODLD		796	85	8,167	9,048	2,157	271
O&M	86	557-Other Expenses	DPROD		0	0	0	0	0	0
O&M	87	Total System Control and Dispatch			796	85	8,167	9,048	2,157	271
O&M	88									
O&M	89	TOTAL NON-FUEL PRODUCTION O&M EXPENSE			3,285	610	29,308	33,202	7,384	967
O&M	90	TOTAL PRODUCTION O&M EXPENSE			19,640	2,468	192,684	214,791	50,442	6,397
O&M	91									
O&M	92									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	93	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	94										
O&M	95	TRANSMISSION EXPENSE									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0	0	0	0		
O&M	98	561.000-Load Dispatching	DTRANLD	15,000	6,603	131	5,482	98	2,687		
O&M	99	561.400-Sched. Sys Control & Disp Serv	DTRAN	83,831	36,042	561	35,993	510	10,725		
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN	297,495	127,903	1,992	127,730	1,808	38,061		
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN	6,028	2,592	40	2,588	37	771		
O&M	102	562-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	103	563-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	104	564-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	105	566-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	106	567-Rents	TRANPLT	0	0	0	0	0	0		
O&M	107	Total Transmission Operations		402,354	173,140	2,725	171,793	2,452	52,244		
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	8,314,260	3,574,591	55,685	3,569,739	50,540	1,063,706		
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	0	0	0	0	0	0		
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0	0	0	0		
O&M	113	Total Wheeling		8,314,260	3,574,591	55,685	3,569,739	50,540	1,063,706		
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0	0	0	0		
O&M	117	569-Structures	PLT_352	0	0	0	0	0	0		
O&M	118	570-Station Equipment	PLT_353	0	0	0	0	0	0		
O&M	119	571-Overhead Lines	OHTRAN	0	0	0	0	0	0		
O&M	120	572-Underground Lines	UGTRAN	0	0	0	0	0	0		
O&M	121	573-Miscellaneous	TRANPLT	0	0	0	0	0	0		
O&M	122	Total Transmission Maintenance		0	0	0	0	0	0		
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		8,716,614	3,747,731	58,410	3,741,532	52,992	1,115,950		
O&M	125										
O&M	126										
O&M	127	REGIONAL MARKET EXPENSE									
O&M	128	575.1-Operation Supervision	ENERGY1	0	0	0	0	0	0		
O&M	129	575.4-Capacity Market Administration	ENERGY1	0	0	0	0	0	0		
O&M	130	575.5-Ancillary Services Market Administration	ENERGY1	0	0	0	0	0	0		
O&M	131	575.6-Market Monitoring and Compliance	ENERGY1	0	0	0	0	0	0		
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY1	68,406	30,114	596	24,999	445	12,252		
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY1	5,077	2,235	44	1,855	33	909		
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY1	0	0	0	0	0	0		
O&M	135	575.8-Rents	ENERGY1	0	0	0	0	0	0		
O&M	136	TOTAL REGIONAL MARKET EXPENSE		73,483	32,349	640	26,854	478	13,162		
O&M	137										
O&M	138										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
O&M	93	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	94										
O&M	95	TRANSMISSION EXPENSE									
O&M	96	Transmission Operations:									
O&M	97	560-Supervision & Engineering	SALWAGTO	0	0	0		0	0	0	0
O&M	98	561.000-Load Dispatching	DTRANLD	5,397	477	729		1,708	0	219	2,163
O&M	99	561.400-Sched. Sys Control & Disp Serv	DTRAN	29,280	2,428	4,333		7,741	0	1,022	20,626
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN	103,908	8,618	15,378		27,470	0	3,625	73,196
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN	2,105	175	312		557	0	73	1,483
O&M	102	562-Station Equipment	PLT_353	0	0	0		0	0	0	0
O&M	103	563-Overhead Lines	OHTRAN	0	0	0		0	0	0	0
O&M	104	564-Underground Lines	UGTRAN	0	0	0		0	0	0	0
O&M	105	566-Miscellaneous	TRANPLT	0	0	0		0	0	0	0
O&M	106	567-Rents	TRANPLT	0	0	0		0	0	0	0
O&M	107	Total Transmission Operations		140,691	11,698	20,752		37,475	0	4,939	97,468
O&M	108										
O&M	109	Wheeling:									
O&M	110	565-Wheeling - Network	DTRAN	2,903,973	240,844	429,773		767,731	0	101,312	2,045,636
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN	0	0	0		0	0	0	0
O&M	112	565-Wheeling - Point to Point	DTRAN	0	0	0		0	0	0	0
O&M	113	Total Wheeling		2,903,973	240,844	429,773		767,731	0	101,312	2,045,636
O&M	114										
O&M	115	Transmission Maintenance									
O&M	116	568-Supervision & Engineering	SALWAGTM	0	0	0		0	0	0	0
O&M	117	569-Structures	PLT_352	0	0	0		0	0	0	0
O&M	118	570-Station Equipment	PLT_353	0	0	0		0	0	0	0
O&M	119	571-Overhead Lines	OHTRAN	0	0	0		0	0	0	0
O&M	120	572-Underground Lines	UGTRAN	0	0	0		0	0	0	0
O&M	121	573-Miscellaneous	TRANPLT	0	0	0		0	0	0	0
O&M	122	Total Transmission Maintenance		0	0	0		0	0	0	0
O&M	123										
O&M	124	TOTAL TRANSMISSION EXPENSE		3,044,664	252,543	450,525		805,207	0	106,252	2,143,104
O&M	125										
O&M	126										
O&M	127	REGIONAL MARKET EXPENSE									
O&M	128	575.1-Operation Supervision	ENERGY1	0	0	0		0	0	0	0
O&M	129	575.4-Capacity Market Administration	ENERGY1	0	0	0		0	0	0	0
O&M	130	575.5-Ancillary Services Market Administration	ENERGY1	0	0	0		0	0	0	0
O&M	131	575.6-Market Monitoring and Compliance	ENERGY1	0	0	0		0	0	0	0
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY1	24,613	2,178	3,323		7,787	0	999	9,865
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY1	1,827	162	247		578	0	74	732
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY1	0	0	0		0	0	0	0
O&M	135	575.8-Rents	ENERGY1	0	0	0		0	0	0	0
O&M	136	TOTAL REGIONAL MARKET EXPENSE		26,440	2,339	3,570		8,365	0	1,074	10,597
O&M	137										
O&M	138										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total (t)	S Secondary CP-U Sec (u)	P Large Commercial & Industrial Primary CP-U Prim (v)	Q Transmission CP-U Trans (w)	T Real-Time Market Pricing RTMP (x)	Q > 5,000kW Light & Power WP-3 (y)
		(a)	(b)							
O&M	93	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	94									
O&M	95	TRANSMISSION EXPENSE								
O&M	96	Transmission Operations:								
O&M	97	560-Supervision & Engineering	SALWAGTO		0	0	0	0	0	0
O&M	98	561.000-Load Dispatching	DTRANLD		3,338	1,392	98	1,849	0	838
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN		14,207	6,605	510	7,093	0	3,633
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN		50,417	23,439	1,808	25,170	0	12,891
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN		1,022	475	37	510	0	261
O&M	102	562-Station Equipment	PLT_353		0	0	0	0	0	0
O&M	103	563-Overhead Lines	OHTRAN		0	0	0	0	0	0
O&M	104	564-Underground Lines	UGTRAN		0	0	0	0	0	0
O&M	105	566-Miscellaneous	TRANPLT		0	0	0	0	0	0
O&M	106	567-Rents	TRANPLT		0	0	0	0	0	0
O&M	107	Total Transmission Operations			68,984	31,910	2,452	34,621	0	17,623
O&M	108									
O&M	109	Wheeling:								
O&M	110	565-Wheeling - Network	DTRAN		1,409,034	655,059	50,540	703,435	0	360,271
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN		0	0	0	0	0	0
O&M	112	565-Wheeling - Point to Point	DTRAN		0	0	0	0	0	0
O&M	113	Total Wheeling			1,409,034	655,059	50,540	703,435	0	360,271
O&M	114									
O&M	115	Transmission Maintenance								
O&M	116	568-Supervision & Engineering	SALWAGTM		0	0	0	0	0	0
O&M	117	569-Structures	PLT_352		0	0	0	0	0	0
O&M	118	570-Station Equipment	PLT_353		0	0	0	0	0	0
O&M	119	571-Overhead Lines	OHTRAN		0	0	0	0	0	0
O&M	120	572-Underground Lines	UGTRAN		0	0	0	0	0	0
O&M	121	573-Miscellaneous	TRANPLT		0	0	0	0	0	0
O&M	122	Total Transmission Maintenance			0	0	0	0	0	0
O&M	123									
O&M	124	TOTAL TRANSMISSION EXPENSE			1,478,018	686,970	52,992	738,056	0	377,894
O&M	125									
O&M	126									
O&M	127	REGIONAL MARKET EXPENSE								
O&M	128	575.1-Operation Supervision	ENERGY1		0	0	0	0	0	0
O&M	129	575.4-Capacity Market Administration	ENERGY1		0	0	0	0	0	0
O&M	130	575.5-Ancillary Services Market Administration	ENERGY1		0	0	0	0	0	0
O&M	131	575.6-Market Monitoring and Compliance	ENERGY1		0	0	0	0	0	0
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY1		15,222	6,347	445	8,430	0	3,822
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY1		1,130	471	33	626	0	284
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY1		0	0	0	0	0	0
O&M	135	575.8-Rents	ENERGY1		0	0	0	0	0	0
O&M	136	TOTAL REGIONAL MARKET EXPENSE			16,352	6,818	478	9,056	0	4,106
O&M	137									
O&M	138									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
O&M	93	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	94									
O&M	95	TRANSMISSION EXPENSE								
O&M	96	Transmission Operations:								
O&M	97	560-Supervision & Engineering	SALWAGTO		0	0	0	0	0	0
O&M	98	561.000-Load Dispatching	DTRANLD		9	1	93	103	25	3
O&M	99	561.400-Sched, Sys Control & Disp Serv	DTRAN		49	12	393	454	94	13
O&M	100	561.420-MISO Reimburse-Bal Auth Costs	DTRAN		175	43	1,394	1,612	335	46
O&M	101	561.800-Reliab, Plan & Stand Devel Serv	DTRAN		4	1	28	33	7	1
O&M	102	562-Station Equipment	PLT_353		0	0	0	0	0	0
O&M	103	563-Overhead Lines	OHTRAN		0	0	0	0	0	0
O&M	104	564-Underground Lines	UGTRAN		0	0	0	0	0	0
O&M	105	566-Miscellaneous	TRANPLT		0	0	0	0	0	0
O&M	106	567-Rents	TRANPLT		0	0	0	0	0	0
O&M	107	Total Transmission Operations			238	57	1,907	2,202	461	63
O&M	108									
O&M	109	Wheeling:								
O&M	110	565-Wheeling - Network	DTRAN		4,905	1,194	38,946	45,045	9,361	1,279
O&M	111	565-Wheeling - ATC Transmission Credit	DTRAN		0	0	0	0	0	0
O&M	112	565-Wheeling - Point to Point	DTRAN		0	0	0	0	0	0
O&M	113	Total Wheeling			4,905	1,194	38,946	45,045	9,361	1,279
O&M	114									
O&M	115	Transmission Maintenance								
O&M	116	568-Supervision & Engineering	SALWAGTM		0	0	0	0	0	0
O&M	117	569-Structures	PLT_352		0	0	0	0	0	0
O&M	118	570-Station Equipment	PLT_353		0	0	0	0	0	0
O&M	119	571-Overhead Lines	OHTRAN		0	0	0	0	0	0
O&M	120	572-Underground Lines	UGTRAN		0	0	0	0	0	0
O&M	121	573-Miscellaneous	TRANPLT		0	0	0	0	0	0
O&M	122	Total Transmission Maintenance			0	0	0	0	0	0
O&M	123									
O&M	124	TOTAL TRANSMISSION EXPENSE			5,142	1,250	40,854	47,246	9,822	1,342
O&M	125									
O&M	126									
O&M	127	REGIONAL MARKET EXPENSE								
O&M	128	575.1-Operation Supervision	ENERGY1		0	0	0	0	0	0
O&M	129	575.4-Capacity Market Administration	ENERGY1		0	0	0	0	0	0
O&M	130	575.5-Ancillary Services Market Administration	ENERGY1		0	0	0	0	0	0
O&M	131	575.6-Market Monitoring and Compliance	ENERGY1		0	0	0	0	0	0
O&M	132	575.70-Market Facil, Monitoring, & Compliance	ENERGY1		41	4	424	470	112	14
O&M	133	575.71-Market Fac, Monit, Compl-Transm	ENERGY1		3	0	31	35	8	1
O&M	134	575.72-ARS Monthly Operating Costs	ENERGY1		0	0	0	0	0	0
O&M	135	575.8-Rents	ENERGY1		0	0	0	0	0	0
O&M	136	TOTAL REGIONAL MARKET EXPENSE			44	5	456	505	120	15
O&M	137									
O&M	138									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	139	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	140										
O&M	141	DISTRIBUTION EXPENSES									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	2,358,155	1,350,048	149,898	746,706	12,457	99,046		
O&M	145	581-Load Dispatch	DDISPSUB	32,080	13,787	215	13,768	195	4,116		
O&M	146	582-Station Equipment	PLT_362	700,767	301,160	4,691	300,752	4,258	89,905		
O&M	147	583-Overhead Lines	OHDIST	132,972	81,917	681	49,134	1,240	0		
O&M	148	584-Underground Lines	UGDIST	20,972	12,899	107	7,737	228	0		
O&M	149	585-Street Lighting	PLT_373	184,558	0	184,558	0	0	0		
O&M	150	586-Metering	CMETERS	728,110	572,944	616	145,607	2,255	6,688		
O&M	151	587-Customer Installations	PLT_371	0	0	0	0	0	0		
O&M	152	588-Miscellaneous	DISTPLT	1,626,509	976,775	29,950	565,728	9,868	44,188		
O&M	153	589-Rents	DISTPLT	67,438	40,499	1,242	23,456	409	1,832		
O&M	154	Total Distribution Operation		5,851,560	3,350,029	371,958	1,852,887	30,911	245,774		
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	69,106	41,045	413	25,992	595	1,061		
O&M	158	591-Structures	PLT_361	0	0	0	0	0	0		
O&M	159	592-Station Equipment	PLT_362	899,960	386,765	6,025	386,240	5,469	115,460		
O&M	160	593-Overhead Lines	OHDIST	5,828,547	3,590,638	29,846	2,153,699	54,364	0		
O&M	161	594-Underground Lines	UGDIST	493,533	303,557	2,523	182,077	5,376	0		
O&M	162	595-Transformers	PLT_368	324,779	201,962	1,679	121,139	0	0		
O&M	163	596-Street Lighting	PLT_373	4,537	0	4,537	0	0	0		
O&M	164	597-Metering	CMETERS	9,779	7,695	8	1,956	30	90		
O&M	165	598-Miscellaneous	DISTPLT	43,745	26,270	806	15,215	265	1,188		
O&M	166	Total Distribution Maintenance		7,673,985	4,557,933	45,837	2,886,317	66,100	117,799		
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		13,525,545	7,907,962	417,795	4,739,205	97,011	363,573		
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD, TRAN, & DIST EXCL COST OF FUEL & PP		27,570,724	14,081,378	518,398	10,575,996	183,279	2,211,673		
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	431,052	383,446	612	46,930	38	26		
O&M	175	902-Meter Reading	CMETRDG	946,837	842,189	1,343	103,076	82	145		
O&M	176	903-Customer Records and Collection Expense	CUSTREC	1,469,272	1,307,084	2,085	159,975	128	0		
O&M	177	904-Uncollectible Accounts	EXP_904	1,294,026	747,846	1,259	58,251	0	486,669		
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0	0	0	0		
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		4,141,187	3,280,565	5,299	368,234	248	486,841		
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	RETAIL SYSTEM							
				S	S	S	S	S	S	S	
				Integrated Retail Residential A-1	Iron River Residential A-2	Res. Heating AH-1		General Service C-1	General Service C-2	Commercial Heating H-1	25kW-200kW Light & Power P-1
(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)		
O&M	139	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	140										
O&M	141	DISTRIBUTION EXPENSES									
O&M	142										
O&M	143	Operation									
O&M	144	580-Supervision	SALWAGDO	1,111,918	103,619	134,512		240,223	0	26,048	362,033
O&M	145	581-Load Dispatch	DDISPSUB	11,200	929	1,658		2,961	0	391	7,890
O&M	146	582-Station Equipment	PLT_362	244,661	20,291	36,209		64,682	0	8,536	172,346
O&M	147	583-Overhead Lines	OHDIST	66,704	5,505	9,708		14,448	0	1,883	23,824
O&M	148	584-Underground Lines	UGDIST	10,504	867	1,529		2,275	0	297	3,751
O&M	149	585-Street Lighting	PLT_373	0	0	0		0	0	0	0
O&M	150	586-Metering	CMETERS	479,283	56,251	37,410		94,272	0	6,339	39,796
O&M	151	587-Customer Installations	PLT_371	0	0	0		0	0	0	0
O&M	152	588-Miscellaneous	DISTPLT	801,623	66,886	108,267		170,177	0	20,301	277,221
O&M	153	589-Rents	DISTPLT	33,237	2,773	4,489		7,056	0	842	11,494
O&M	154	Total Distribution Operation		2,759,128	257,121	333,780		596,094	0	64,636	898,355
O&M	155										
O&M	156	Maintenance									
O&M	157	590-Supervision	SALWAGDM	33,419	2,761	4,865		7,373	0	961	12,909
O&M	158	591-Structures	PLT_361	0	0	0		0	0	0	0
O&M	159	592-Station Equipment	PLT_362	314,206	26,059	46,501		83,067	0	10,962	221,335
O&M	160	593-Overhead Lines	OHDIST	2,923,829	241,301	425,508		633,282	0	82,555	1,044,261
O&M	161	594-Underground Lines	UGDIST	247,184	20,400	35,973		53,539	0	6,979	88,283
O&M	162	595-Transformers	PLT_368	164,456	13,572	23,933		35,620	0	4,643	58,736
O&M	163	596-Street Lighting	PLT_373	0	0	0		0	0	0	0
O&M	164	597-Metering	CMETERS	6,437	755	502		1,266	0	85	534
O&M	165	598-Miscellaneous	DISTPLT	21,560	1,799	2,912		4,577	0	546	7,456
O&M	166	Total Distribution Maintenance		3,711,091	306,648	540,194		818,724	0	106,732	1,433,515
O&M	167										
O&M	168	TOTAL DISTRIBUTION EXPENSES		6,470,219	563,769	873,974		1,414,817	0	171,369	2,331,870
O&M	169										
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP		11,490,652	984,905	1,605,821		2,786,806	0	351,437	5,607,298
O&M	171										
O&M	172										
O&M	173	CUSTOMER ACCOUNTS EXPENSES									
O&M	174	901-Supervision	SALWAGCA	327,402	27,164	28,881		40,768	0	1,885	3,999
O&M	175	902-Meter Reading	CMETRDG	719,094	59,662	63,433		89,541	0	4,140	8,783
O&M	176	903-Customer Records and Collection Expense	CUSTREC	1,116,039	92,596	98,449		138,968	0	6,425	13,631
O&M	177	904-Uncollectible Accounts	EXP_904	578,873	59,330	109,643		7,435	0	0	17,215
O&M	178	905-Miscellaneous CA	CUSTCSS	0	0	0		0	0	0	0
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE		2,741,408	238,753	300,405		276,711	0	12,449	43,628
O&M	180										
O&M	181										
O&M	182										
O&M	183										
O&M	184										

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RETAIL SYSTEM										
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S	P	Q	T	Q	
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
O&M	139	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	140									
O&M	141	DISTRIBUTION EXPENSES								
O&M	142									
O&M	143	Operation								
O&M	144	580-Supervision	SALWAGDO		196,284	118,401	12,457	65,426	929	32,691
O&M	145	581-Load Dispatch	DDISPSUB		5,443	2,526	195	2,722	0	1,394
O&M	146	582-Station Equipment	PLT_362		118,902	55,189	4,258	59,454	0	30,450
O&M	147	583-Overhead Lines	OHDIST		10,220	8,980	1,240	0	0	0
O&M	148	584-Underground Lines	UGDIST		1,642	1,414	228	0	0	0
O&M	149	585-Street Lighting	PLT_373		0	0	0	0	0	0
O&M	150	586-Metering	CMETERS		11,779	5,200	2,255	4,323	1,251	1,114
O&M	151	587-Customer Installations	PLT_371		0	0	0	0	0	0
O&M	152	588-Miscellaneous	DISTPLT		137,108	98,028	9,868	29,212	120	14,855
O&M	153	589-Rents	DISTPLT		5,685	4,064	409	1,211	5	616
O&M	154	Total Distribution Operation			487,063	293,803	30,911	162,349	2,305	81,120
O&M	155									
O&M	156	Maintenance								
O&M	157	590-Supervision	SALWAGDM		6,046	4,749	595	701	0	359
O&M	158	591-Structures	PLT_361		0	0	0	0	0	0
O&M	159	592-Station Equipment	PLT_362		152,700	70,876	5,469	76,354	0	39,106
O&M	160	593-Overhead Lines	OHDIST		447,964	393,600	54,364	0	0	0
O&M	161	594-Underground Lines	UGDIST		38,652	33,275	5,376	0	0	0
O&M	162	595-Transformers	PLT_368		22,139	22,139	0	0	0	0
O&M	163	596-Street Lighting	PLT_373		0	0	0	0	0	0
O&M	164	597-Metering	CMETERS		158	70	30	58	17	15
O&M	165	598-Miscellaneous	DISTPLT		3,687	2,636	265	786	3	400
O&M	166	Total Distribution Maintenance			671,345	527,346	66,100	77,900	20	39,879
O&M	167									
O&M	168	TOTAL DISTRIBUTION EXPENSES			1,158,408	821,149	97,011	240,248	2,325	120,999
O&M	169									
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP			3,591,483	1,830,455	183,279	1,577,750	2,325	631,598
O&M	171									
O&M	172									
O&M	173	CUSTOMER ACCOUNTS EXPENSES								
O&M	174	901-Supervision	SALWAGCA		336	279	38	20	3	3
O&M	175	902-Meter Reading	CMETRDG		805	613	82	109	18	18
O&M	176	903-Customer Records and Collection Expense	CUSTREC		1,080	952	128	0	0	0
O&M	177	904-Uncollectible Accounts	EXP_904		33,602	33,602	0	0	486,669	0
O&M	178	905-Miscellaneous CA	CUSTCSS		0	0	0	0	0	0
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE			35,823	35,446	248	129	486,690	21
O&M	180									
O&M	181									
O&M	182									
O&M	183									
O&M	184									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
O&M	139	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	140									
O&M	141	DISTRIBUTION EXPENSES								
O&M	142									
O&M	143	Operation								
O&M	144	580-Supervision	SALWAGDO		2,509	338	18,242	21,088	112,871	15,939
O&M	145	581-Load Dispatch	DDISPSUB		19	5	150	174	36	5
O&M	146	582-Station Equipment	PLT_362		413	101	3,281	3,795	789	108
O&M	147	583-Overhead Lines	OHDIST		57	15	478	550	115	16
O&M	148	584-Underground Lines	UGDIST		9	2	75	87	18	3
O&M	149	585-Street Lighting	PLT_373		16,235	1,738	166,585	184,558	0	0
O&M	150	586-Metering	CMETERS		616	0	0	616	0	0
O&M	151	587-Customer Installations	PLT_371		0	0	0	0	0	0
O&M	152	588-Miscellaneous	DISTPLT		2,498	363	22,121	24,982	4,357	612
O&M	153	589-Rents	DISTPLT		104	15	917	1,036	181	25
O&M	154	Total Distribution Operation			22,460	2,575	211,850	236,885	118,365	16,708
O&M	155									
O&M	156	Maintenance								
O&M	157	590-Supervision	SALWAGDM		35	8	298	342	62	9
O&M	158	591-Structures	PLT_361		0	0	0	0	0	0
O&M	159	592-Station Equipment	PLT_362		531	129	4,214	4,874	1,013	138
O&M	160	593-Overhead Lines	OHDIST		2,519	644	20,964	24,127	5,020	699
O&M	161	594-Underground Lines	UGDIST		213	54	1,772	2,040	424	59
O&M	162	595-Transformers	PLT_368		142	36	1,179	1,357	282	39
O&M	163	596-Street Lighting	PLT_373		399	43	4,095	4,537	0	0
O&M	164	597-Metering	CMETERS		8	0	0	8	0	0
O&M	165	598-Miscellaneous	DISTPLT		67	10	595	672	117	16
O&M	166	Total Distribution Maintenance			3,914	925	33,118	37,956	6,920	961
O&M	167									
O&M	168	TOTAL DISTRIBUTION EXPENSES			26,374	3,500	244,968	274,842	125,285	17,668
O&M	169									
O&M	170	TOTAL OPER & MAINT PROD,TRAN,& DIST EXCL COST OF FUEL & PP			34,845	5,365	315,585	355,795	142,611	19,992
O&M	171									
O&M	172									
O&M	173	CUSTOMER ACCOUNTS EXPENSES								
O&M	174	901-Supervision	SALWAGCA		612	0	0	612	0	0
O&M	175	902-Meter Reading	CMETRDG		1,343	0	0	1,343	0	0
O&M	176	903-Customer Records and Collection Expense	CUSTREC		2,085	0	0	2,085	0	0
O&M	177	904-Uncollectible Accounts	EXP_904		0	0	0	0	1,214	46
O&M	178	905-Miscellaneous CA	CUSTCSS		0	0	0	0	0	0
O&M	179	TOTAL CUSTOMER ACCTS EXPENSE			4,040	0	0	4,040	1,214	46
O&M	180									
O&M	181									
O&M	182									
O&M	183									
O&M	184									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
O&M	185	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	233,451	151,595	4,678	54,573	792	21,814		
O&M	189	908-Customer Assistance	CUSTCSS	0	0	0	0	0	0		
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	2,489,275	1,616,450	49,879	581,906	8,440	232,600		
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	276,299	179,419	5,536	64,589	937	25,818		
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0	0	0	0		
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		2,999,025	1,947,464	60,093	701,068	10,169	280,231		
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0	0	0	0		
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0	0	0	0		
O&M	198	SALES EXPENSES TOTAL		0	0	0	0	0	0		
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		7,140,212	5,228,030	65,393	1,069,301	10,417	767,072		
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		34,710,936	19,309,408	583,791	11,645,297	193,695	2,978,744		
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	3,021,368	1,862,787	68,514	937,511	16,993	135,563		
O&M	206	921-Office Supplies & Expense	SALWAGXAG	1,207,138	744,246	27,374	374,567	6,789	54,162		
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0	0	0	0		
O&M	208	923-Outside Services - Legal	SALWAGXAG	1,758,927	1,084,445	39,886	545,784	9,893	78,919		
O&M	209	924-Property Insurance	TOTPLT	494,897	275,731	7,648	178,668	2,989	29,861		
O&M	210	925-Injuries and Damages	SALWAGXAG	661,298	407,715	14,996	205,197	3,719	29,671		
O&M	211	926-Pensions & Benefits	SALWAGES	3,943,621	2,431,390	89,427	1,223,681	22,181	176,942		
O&M	212	928-Regulatory Commission	SALWAGES	693,891	427,810	15,735	215,310	3,903	31,133		
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0	0	0	0		
O&M	214	930-Miscellaneous	SALWAGXAG	128,491	79,219	2,914	39,870	723	5,765		
O&M	215	931-Rents	GENLPLT	0	0	0	0	0	0		
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0	0	0	0		
O&M	217	TOTAL A&G EXPENSE		11,909,631	7,313,343	266,493	3,720,587	67,190	542,017		
O&M	218										
O&M	219	TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)		72,644,596	38,163,065	1,080,361	24,950,709	429,717	8,020,743		
O&M	220										
O&M	221	TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)		46,620,567	26,622,751	850,284	15,365,885	260,885	3,520,762		
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
O&M	185	OPERATION & MAINTENANCE EXPENSE CONTINUED									
O&M	186										
O&M	187	CUSTOMER SERVICE EXPENSES									
O&M	188	907-Supervision	SALWAGCS	127,580	10,814	13,201		23,867	0	2,184	17,722
O&M	189	908-Customer Assistance	CUSTCSS	0	0	0		0	0	0	0
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS	1,360,374	115,310	140,766		254,489	0	23,288	188,970
O&M	191	909-Informational and Instructional Expenses	CUSTCSS	150,996	12,799	15,624		28,247	0	2,585	20,975
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS	0	0	0		0	0	0	0
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE		1,638,950	138,923	169,592		306,603	0	28,057	227,667
O&M	194										
O&M	195	SALES EXPENSES									
O&M	196	912-Demonstrations and Selling	CUSTCSS	0	0	0		0	0	0	0
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS	0	0	0		0	0	0	0
O&M	198	SALES EXPENSES TOTAL		0	0	0		0	0	0	0
O&M	199										
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE		4,380,357	377,676	469,997		583,314	0	40,507	271,295
O&M	201										
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP		15,871,009	1,362,581	2,075,818		3,370,120	0	391,944	5,878,593
O&M	203										
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE									
O&M	205	920-Administrative Salaries	SALWAGXAG	1,541,787	132,188	188,812		310,959	0	34,079	442,252
O&M	206	921-Office Supplies & Expense	SALWAGXAG	615,996	52,813	75,437		124,239	0	13,616	176,695
O&M	207	922-A&G Expense Transferred	SALWAGXAG	0	0	0		0	0	0	0
O&M	208	923-Outside Services - Legal	SALWAGXAG	897,571	76,955	109,919		181,029	0	19,840	257,462
O&M	209	924-Property Insurance	TOTPLT	226,029	18,982	30,720		51,530	0	6,280	93,477
O&M	210	925-Injuries and Damages	SALWAGXAG	337,457	28,932	41,326		68,061	0	7,459	96,797
O&M	211	926-Pensions & Benefits	SALWAGES	2,012,407	172,537	246,446		405,877	0	44,482	577,246
O&M	212	928-Regulatory Commission	SALWAGES	354,089	30,358	43,363		71,415	0	7,827	101,568
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG	0	0	0		0	0	0	0
O&M	214	930-Miscellaneous	SALWAGXAG	65,568	5,622	8,030		13,224	0	1,449	18,808
O&M	215	931-Rents	GENLPLT	0	0	0		0	0	0	0
O&M	216	935-Maintenance of General Plant	GENLPLT	0	0	0		0	0	0	0
O&M	217	TOTAL A&G EXPENSE		6,050,903	518,386	744,053		1,226,334	0	135,032	1,764,306
O&M	218										
O&M	219	TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)		31,340,393	2,713,034	4,109,638		7,525,132	0	904,148	11,520,949
O&M	220										
O&M	221	TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)		21,921,912	1,880,967	2,819,872		4,596,454	0	526,976	7,642,898
O&M	222										
O&M	223										
O&M	224										
O&M	225										
O&M	226										
O&M	227										
O&M	228										
O&M	229										
O&M	230										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S	P	Q	T	Q	
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
O&M	185	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	186									
O&M	187	CUSTOMER SERVICE EXPENSES								
O&M	188	907-Supervision	SALWAGCS		26,601	10,800	792	15,010	2	6,802
O&M	189	908-Customer Assistance	CUSTCSS		0	0	0	0	0	0
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS		283,649	115,158	8,440	160,051	23	72,526
O&M	191	909-Informational and Instructional Expenses	CUSTCSS		31,484	12,782	937	17,765	3	8,050
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS		0	0	0	0	0	0
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE			341,735	138,740	10,169	192,826	28	87,378
O&M	194									
O&M	195	SALES EXPENSES								
O&M	196	912-Demonstrations and Selling	CUSTCSS		0	0	0	0	0	0
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS		0	0	0	0	0	0
O&M	198	SALES EXPENSES TOTAL			0	0	0	0	0	0
O&M	199									
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE			377,557	174,186	10,417	192,955	486,718	87,399
O&M	201									
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP			3,969,040	2,004,641	193,695	1,770,704	489,043	718,997
O&M	203									
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE								
O&M	205	920-Administrative Salaries	SALWAGXAG		268,291	150,221	16,993	101,077	323	34,163
O&M	206	921-Office Supplies & Expense	SALWAGXAG		107,191	60,018	6,789	40,384	129	13,649
O&M	207	922-A&G Expense Transferred	SALWAGXAG		0	0	0	0	0	0
O&M	208	923-Outside Services - Legal	SALWAGXAG		156,189	87,453	9,893	58,843	188	19,888
O&M	209	924-Property Insurance	TOTPLT		54,774	27,381	2,989	24,404	27	5,430
O&M	210	925-Injuries and Damages	SALWAGXAG		58,722	32,879	3,719	22,123	71	7,477
O&M	211	926-Pensions & Benefits	SALWAGES		350,185	196,075	22,181	131,930	421	44,591
O&M	212	928-Regulatory Commission	SALWAGES		61,616	34,500	3,903	23,213	74	7,846
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG		0	0	0	0	0	0
O&M	214	930-Miscellaneous	SALWAGXAG		11,410	6,388	723	4,299	14	1,453
O&M	215	931-Rents	GENLPLT		0	0	0	0	0	0
O&M	216	935-Maintenance of General Plant	GENLPLT		0	0	0	0	0	0
O&M	217	TOTAL A&G EXPENSE			1,068,378	594,916	67,190	406,272	1,247	134,498
O&M	218									
O&M	219	TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)			10,703,360	5,000,480	429,717	5,273,162	490,290	2,257,291
O&M	220									
O&M	221	TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)			5,037,418	2,599,556	260,885	2,176,976	490,290	853,495
O&M	222									
O&M	223									
O&M	224									
O&M	225									
O&M	226									
O&M	227									
O&M	228									
O&M	229									
O&M	230									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
O&M	185	OPERATION & MAINTENANCE EXPENSE CONTINUED								
O&M	186									
O&M	187	CUSTOMER SERVICE EXPENSES								
O&M	188	907-Supervision	SALWAGCS		230	30	1,142	1,403	2,903	372
O&M	189	908-Customer Assistance	CUSTCSS		0	0	0	0	0	0
O&M	190	908-Cust Assist - Energy Optimization	CUSTCSS		2,458	324	12,178	14,960	30,951	3,968
O&M	191	909-Informational and Instructional Expenses	CUSTCSS		273	36	1,352	1,661	3,435	440
O&M	192	910-Miscellaneous Cust Serv	CUSTCSS		0	0	0	0	0	0
O&M	193	TOTAL CUSTOMER SERVICE EXPENSE			2,961	391	14,672	18,024	37,289	4,780
O&M	194									
O&M	195	SALES EXPENSES								
O&M	196	912-Demonstrations and Selling	CUSTCSS		0	0	0	0	0	0
O&M	197	916-Miscellaneous Sales Expense	CUSTCSS		0	0	0	0	0	0
O&M	198	SALES EXPENSES TOTAL			0	0	0	0	0	0
O&M	199									
O&M	200	TOTAL CUSTOMER OPERATIONS EXPENSE			7,001	391	14,672	22,064	38,503	4,826
O&M	201									
O&M	202	TOTAL OPER & MAINT EXCL COST OF GAS AND A&G EXP			41,846	5,756	330,257	377,859	181,114	24,818
O&M	203									
O&M	204	ADMINISTRATIVE & GENERAL EXPENSE								
O&M	205	920-Administrative Salaries	SALWAGXAG		2,575	344	14,740	17,659	44,625	6,229
O&M	206	921-Office Supplies & Expense	SALWAGXAG		1,029	137	5,889	7,055	17,829	2,489
O&M	207	922-A&G Expense Transferred	SALWAGXAG		0	0	0	0	0	0
O&M	208	923-Outside Services - Legal	SALWAGXAG		1,499	200	8,581	10,280	25,979	3,627
O&M	209	924-Property Insurance	TOTPLT		573	89	4,871	5,533	1,857	258
O&M	210	925-Injuries and Damages	SALWAGXAG		564	75	3,226	3,865	9,767	1,363
O&M	211	926-Pensions & Benefits	SALWAGES		3,361	449	19,239	23,049	58,247	8,131
O&M	212	928-Regulatory Commission	SALWAGES		591	79	3,385	4,056	10,249	1,431
O&M	213	929-Duplicate Charges - Electric	SALWAGXAG		0	0	0	0	0	0
O&M	214	930-Miscellaneous	SALWAGXAG		110	15	627	751	1,898	265
O&M	215	931-Rents	GENLPLT		0	0	0	0	0	0
O&M	216	935-Maintenance of General Plant	GENLPLT		0	0	0	0	0	0
O&M	217	TOTAL A&G EXPENSE			10,302	1,388	60,559	72,248	170,452	23,793
O&M	218									
O&M	219	TOTAL OPERATION & MAINTENANCE EXP (INCL FUEL)			68,503	9,001	554,192	631,696	394,624	54,041
O&M	220									
O&M	221	TOTAL OPERATION & MAINTENANCE EXP (EXCL FUEL)			52,148	7,143	390,816	450,107	351,566	48,611
O&M	222									
O&M	223									
O&M	224									
O&M	225									
O&M	226									
O&M	227									
O&M	228									
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O&M	230									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
DAX	1	DEPRECIATION AND AMORTIZATION EXPENSE									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENPLT	0	0	0	0	0	0		
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	3,321,816	1,529,759	25,371	1,338,750	20,438	407,497		
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0	0	0	0		
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0	0	0	0		
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	4,635,026	2,783,495	85,348	1,612,141	28,120	125,921		
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	3,058,307	1,885,561	69,351	948,973	17,201	137,220		
DAX	13										
DAX	14	TOTAL DEPRECIATION EXPENSE		11,015,149	6,198,816	180,071	3,899,864	65,760	670,638		
DAX	15										
DAX	16	TOTAL AMORTIZATION EXPENSE		0	0	0	0	0	0		
DAX	17										
DAX	18	TOTAL DEPRECIATION & AMORTIZATION EXPENSE		11,015,149	6,198,816	180,071	3,899,864	65,760	670,638		
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
DAX	25										
DAX	26										
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DAX	45										
DAX	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
DAX	1	DEPRECIATION AND AMORTIZATION EXPENSE									
DAX	2										
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENPLT	0	0	0		0	0	0	0
DAX	4										
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT	1,244,570	104,874	180,315		344,570	0	45,129	785,986
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT	0	0	0		0	0	0	0
DAX	7										
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT	0	0	0		0	0	0	0
DAX	9										
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT	2,284,367	190,602	308,527		484,950	0	57,852	789,992
DAX	11										
DAX	12	GENERAL PLANT EXPENSE	GENLPLT	1,560,637	133,804	191,121		314,761	0	34,496	447,659
DAX	13										
DAX	14	TOTAL DEPRECIATION EXPENSE		5,089,573	429,280	679,963		1,144,281	0	137,477	2,023,636
DAX	15										
DAX	16	TOTAL AMORTIZATION EXPENSE		0	0	0		0	0	0	0
DAX	17										
DAX	18	TOTAL DEPRECIATION & AMORTIZATION EXPENSE		5,089,573	429,280	679,963		1,144,281	0	137,477	2,023,636
DAX	19										
DAX	20										
DAX	21										
DAX	22										
DAX	23										
DAX	24										
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DAX	45										
DAX	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
DAX	1	DEPRECIATION AND AMORTIZATION EXPENSE								
DAX	2									
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENPLT		0	0	0	0	0	0
DAX	4									
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT		544,599	163,065	20,438	361,096	0	46,401
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT		0	0	0	0	0	0
DAX	7									
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT		0	0	0	0	0	0
DAX	9									
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT		390,713	279,347	28,120	83,245	343	42,333
DAX	11									
DAX	12	GENERAL PLANT EXPENSE	GENPLT		271,571	152,058	17,201	102,312	327	34,581
DAX	13									
DAX	14	TOTAL DEPRECIATION EXPENSE			1,206,883	594,470	65,760	546,653	670	123,315
DAX	15									
DAX	16	TOTAL AMORTIZATION EXPENSE			0	0	0	0	0	0
DAX	17									
DAX	18	TOTAL DEPRECIATION & AMORTIZATION EXPENSE			1,206,883	594,470	65,760	546,653	670	123,315
DAX	19									
DAX	20									
DAX	21									
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DAX	45									
DAX	46									

Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
DAX	1	DEPRECIATION AND AMORTIZATION EXPENSE								
DAX	2									
DAX	3	INTANGIBLE PLANT AMORTIZATION	INTGENLPT		0	0	0	0	0	0
DAX	4									
DAX	5	HYDRAULIC PRODUCTION PLANT EXPENSE	PRODPLT		2,099	442	17,833	20,375	4,409	587
DAX	6	OTHER PRODUCTION PLANT EXPENSE	PRODPLT		0	0	0	0	0	0
DAX	7									
DAX	8	TRANSMISSION PLANT EXPENSE	TRANPLT		0	0	0	0	0	0
DAX	9									
DAX	10	DISTRIBUTION PLANT EXPENSE	DISTPLT		7,118	1,034	63,038	71,190	12,415	1,743
DAX	11									
DAX	12	GENERAL PLANT EXPENSE	GENLPLT		2,607	348	14,920	17,875	45,171	6,306
DAX	13									
DAX	14	TOTAL DEPRECIATION EXPENSE			11,823	1,824	95,792	109,440	61,995	8,636
DAX	15									
DAX	16	TOTAL AMORTIZATION EXPENSE			0	0	0	0	0	0
DAX	17									
DAX	18	TOTAL DEPRECIATION & AMORTIZATION EXPENSE			11,823	1,824	95,792	109,440	61,995	8,636
DAX	19									
DAX	20									
DAX	21									
DAX	22									
DAX	23									
DAX	24									
DAX	25									
DAX	26									
DAX	27									
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DAX	46									

Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
OTX	1	OTHER OPERATING EXPENSES									
OTX	2										
OTX	3	TAXES OTHER THAN INCOME TAXES									
OTX	4										
OTX	5	Payroll Related									
OTX	6	FICA	SALWAGES	745,413	459,575	16,903	231,297	4,193	33,445		
OTX	7	FUTA	SALWAGES	4,706	2,901	107	1,460	26	211		
OTX	8	SUTA	SALWAGES	19,161	11,814	435	5,946	108	860		
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0	0	0	0		
OTX	10	Unemployment Compensation	SALWAGES	0	0	0	0	0	0		
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	5,961,230	3,321,292	92,122	2,152,121	36,002	359,692		
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0	0	0	0		
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0	0	0	0		
OTX	18	Other	RATEBASE	0	0	0	0	0	0		
OTX	19	Total Other		0	0	0	0	0	0		
OTX	20										
OTX	21										
OTX	22	TOTAL TAXES OTHER THAN INCOME		6,730,509	3,795,582	109,567	2,390,824	40,329	394,208		
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
OTX	29										
OTX	30										
OTX	31										
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OTX	43										
OTX	44										
OTX	45										
OTX	46										

<p style="text-align: center;">Upper Peninsula Power Company Historical Cost of Service Allocation Study Forecast 12 Month Period ending December 31, 2019 RETAIL SYSTEM</p>											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
OTX	1	OTHER OPERATING EXPENSES									
OTX	2										
OTX	3	TAXES OTHER THAN INCOME TAXES									
OTX	4										
OTX	5	Payroll Related									
OTX	6	FICA	SALWAGES	380,380	32,612	46,583		76,718	0	8,408	109,110
OTX	7	FUTA	SALWAGES	2,401	206	294		484	0	53	689
OTX	8	SUTA	SALWAGES	9,778	838	1,197		1,972	0	216	2,805
OTX	9	IBS Payroll Taxes	SALWAGES	0	0	0		0	0	0	0
OTX	10	Unemployment Compensation	SALWAGES	0	0	0		0	0	0	0
OTX	11										
OTX	12	Real Estate & Property Tax	TOTPLT	2,722,613	228,642	370,037		620,700	0	75,643	1,125,967
OTX	13										
OTX	14	Excise and Use Tax	TOTPLT	0	0	0		0	0	0	0
OTX	15										
OTX	16	Other									
OTX	17	Unauthorized Insurance Tax	RATEBASE	0	0	0		0	0	0	0
OTX	18	Other	RATEBASE	0	0	0		0	0	0	0
OTX	19	Total Other		0	0	0		0	0	0	0
OTX	20										
OTX	21										
OTX	22	TOTAL TAXES OTHER THAN INCOME		3,115,172	262,299	418,111		699,874	0	84,320	1,238,570
OTX	23										
OTX	24										
OTX	25										
OTX	26										
OTX	27										
OTX	28										
OTX	29										
OTX	30										
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OTX	44										
OTX	45										
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Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind	S	P	Q	T	Q
					CP-U Total	Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
OTX	1	OTHER OPERATING EXPENSES								
OTX	2									
OTX	3	TAXES OTHER THAN INCOME TAXES								
OTX	4									
OTX	5	Payroll Related								
OTX	6	FICA	SALWAGES		66,191	37,062	4,193	24,937	80	8,428
OTX	7	FUTA	SALWAGES		418	234	26	157	1	53
OTX	8	SUTA	SALWAGES		1,701	953	108	641	2	217
OTX	9	IBS Payroll Taxes	SALWAGES		0	0	0	0	0	0
OTX	10	Unemployment Compensation	SALWAGES		0	0	0	0	0	0
OTX	11									
OTX	12	Real Estate & Property Tax	TOTPLT		659,774	329,811	36,002	293,960	322	65,409
OTX	13									
OTX	14	Excise and Use Tax	TOTPLT		0	0	0	0	0	0
OTX	15									
OTX	16	Other								
OTX	17	Unauthorized Insurance Tax	RATEBASE		0	0	0	0	0	0
OTX	18	Other	RATEBASE		0	0	0	0	0	0
OTX	19	Total Other			0	0	0	0	0	0
OTX	20									
OTX	21									
OTX	22	TOTAL TAXES OTHER THAN INCOME			728,084	368,060	40,329	319,696	405	74,108
OTX	23									
OTX	24									
OTX	25									
OTX	26									
OTX	27									
OTX	28									
OTX	29									
OTX	30									
OTX	31									
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Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
OTX	1	OTHER OPERATING EXPENSES								
OTX	2									
OTX	3	TAXES OTHER THAN INCOME TAXES								
OTX	4									
OTX	5	Payroll Related								
OTX	6	FICA	SALWAGES		635	85	3,637	4,357	11,010	1,537
OTX	7	FUTA	SALWAGES		4	1	23	28	70	10
OTX	8	SUTA	SALWAGES		16	2	93	112	283	40
OTX	9	IBS Payroll Taxes	SALWAGES		0	0	0	0	0	0
OTX	10	Unemployment Compensation	SALWAGES		0	0	0	0	0	0
OTX	11									
OTX	12	Real Estate & Property Tax	TOTPLT		6,899	1,075	58,669	66,642	22,367	3,113
OTX	13									
OTX	14	Excise and Use Tax	TOTPLT		0	0	0	0	0	0
OTX	15									
OTX	16	Other								
OTX	17	Unauthorized Insurance Tax	RATEBASE		0	0	0	0	0	0
OTX	18	Other	RATEBASE		0	0	0	0	0	0
OTX	19	Total Other			0	0	0	0	0	0
OTX	20									
OTX	21									
OTX	22	TOTAL TAXES OTHER THAN INCOME			7,554	1,162	62,422	71,138	33,729	4,699
OTX	23									
OTX	24									
OTX	25									
OTX	26									
OTX	27									
OTX	28									
OTX	29									
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Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	1	DEVELOPMENT OF PRESENT INCOME TAX EXPENSE									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
ITX	4	OTHER OPERATING REVENUE	SCH , LN	11,698,225	5,274,424	109,126	4,235,695	75,130	2,003,850		
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	102,819,013	59,818,061	2,349,765	31,030,873	490,960	9,129,355		
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	72,644,596	38,163,065	1,080,361	24,950,709	429,717	8,020,743		
ITX	8	DEPRECIATION EXPENSE	SCH , LN	11,015,149	6,198,816	180,071	3,899,864	65,760	670,638		
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0	0	0	0		
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	6,730,509	3,795,582	109,567	2,390,824	40,329	394,208		
ITX	11	NET OPERATING INCOME BEFORE TAXES & INTEREST		12,428,760	11,660,598	979,767	(210,524)	(44,846)	43,766		
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 1.83%)		5,101,630	2,837,801	69,403	1,840,794	30,193	323,439		
ITX	14										
ITX	15	SUBTOTAL BOOK INCOME BEFORE TAXES		7,327,130	8,822,796	910,365	(2,051,319)	(75,039)	(279,673)		
ITX	16										
ITX	17	STATE INCOME TAXES									
ITX	18										
ITX	19	NET INCOME ADDITIONS/DEDUCTIONS									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	229,843	105,847	1,755	92,631	1,414	28,196		
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	68,952	41,408	1,270	23,983	418	1,873		
ITX	23	Goodwill	RATEBASE	0	0	0	0	0	0		
ITX	24	Interest	RATEBASE	0	0	0	0	0	0		
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	2,513,876	1,157,688	19,200	1,013,136	15,467	308,385		
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	(271,965)	(163,325)	(5,008)	(94,594)	(1,650)	(7,389)		
ITX	29	Net Operating Loss	DISTPLT	(3,811,197)	(2,288,757)	(70,178)	(1,325,599)	(23,122)	(103,540)		
ITX	30	Plant Depreciation - Distribution	DISTPLT	4,484,655	2,693,192	82,579	1,559,840	27,208	121,836		
ITX	31	Contribution in Aid of Construction	DISTPLT	(53,903)	(32,371)	(993)	(18,748)	(327)	(1,464)		
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	33	Regulatory Liabilities	DISTPLT	(800,638)	(480,811)	(14,743)	(278,476)	(4,857)	(21,751)		
ITX	34	Regulatory Asset - Non-Current	DISTPLT	1,174,019	705,040	21,618	408,344	7,123	31,895		
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	4,297,737	2,649,716	97,457	1,333,561	24,172	192,831		
ITX	37	Plant Depreciation - General & Common	SALWAGES	554,297	341,745	12,569	171,995	3,118	24,870		
ITX	38	Retirement - Medical	SALWAGES	365,485	225,335	8,288	113,408	2,056	16,399		
ITX	39	Pension	SALWAGES	(865,430)	(533,570)	(19,625)	(268,537)	(4,868)	(38,830)		
ITX	40	Post Retirement - Life Insurance	SALWAGES	(119,248)	(73,521)	(2,704)	(37,002)	(671)	(5,350)		
ITX	41	SERP	SALWAGES	20,705	12,765	470	6,425	116	929		
ITX	42	Pension Restoration	SALWAGES	(54,620)	(33,676)	(1,239)	(16,948)	(307)	(2,451)		
ITX	43	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS		7,732,567	4,326,706	130,718	2,683,415	45,290	546,438		
ITX	44										
ITX	45	STATE TAXABLE INCOME		(405,437)	4,496,090	779,647	(4,734,734)	(120,330)	(826,111)		
ITX	46										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
ITX	1	DEVELOPMENT OF PRESENT INCOME TAX EXPENSE									
ITX	2	OPERATING REVENUES									
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN	45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557
ITX	4	OTHER OPERATING REVENUE	SCH , LN	4,315,646	380,188	578,590		1,324,780	0	168,692	1,682,843
ITX	5	TOTAL OPERATING REVENUES	SCH , LN	49,760,095	4,222,750	5,835,216		11,477,055	0	1,204,031	12,863,400
ITX	6	Less:									
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN	31,340,393	2,713,034	4,109,638		7,525,132	0	904,148	11,520,949
ITX	8	DEPRECIATION EXPENSE	SCH , LN	5,089,573	429,280	679,963		1,144,281	0	137,477	2,023,636
ITX	9	AMORTIZATION EXPENSE	SCH , LN	0	0	0		0	0	0	0
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN	3,115,172	262,299	418,111		699,874	0	84,320	1,238,570
ITX	11	NET OPERATING INCOME BEFORE TAXES & INTEREST		10,214,956	818,138	627,504		2,107,768	0	78,086	(1,919,756)
ITX	12	Less:									
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 1.83%)		2,327,019	197,292	313,490		530,024	0	64,346	959,111
ITX	14										
ITX	15	SUBTOTAL BOOK INCOME BEFORE TAXES		7,887,936	620,846	314,014		1,577,744	0	13,740	(2,878,867)
ITX	16										
ITX	17	STATE INCOME TAXES									
ITX	18										
ITX	19	NET INCOME ADDITIONS/DEDUCTIONS									
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT	86,114	7,256	12,476		23,842	0	3,123	54,384
ITX	21										
ITX	22	Customer Advances for Construction	DISTPLT	33,983	2,835	4,590		7,214	0	861	11,752
ITX	23	Goodwill	RATEBASE	0	0	0		0	0	0	0
ITX	24	Interest	RATEBASE	0	0	0		0	0	0	0
ITX	25										
ITX	26	Environmental Remediation	PRODPLT	941,863	79,366	136,459		260,763	0	34,153	594,817
ITX	27										
ITX	28	Deferred Income and Deductions	DISTPLT	(134,038)	(11,184)	(18,103)		(28,455)	0	(3,395)	(46,354)
ITX	29	Net Operating Loss	DISTPLT	(1,878,343)	(156,725)	(253,689)		(398,755)	0	(47,570)	(649,579)
ITX	30	Plant Depreciation - Distribution	DISTPLT	2,210,256	184,419	298,517		469,217	0	55,975	764,362
ITX	31	Contribution in Aid of Construction	DISTPLT	(26,566)	(2,217)	(3,588)		(5,640)	0	(673)	(9,187)
ITX	32	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	33	Regulatory Liabilities	DISTPLT	(394,594)	(32,924)	(53,294)		(83,769)	0	(9,993)	(136,460)
ITX	34	Regulatory Asset - Non-Current	DISTPLT	578,614	48,278	78,148		122,834	0	14,654	200,099
ITX	35										
ITX	36	Goodwill - General Plant Related	SALWAGES	2,193,111	188,030	268,576		442,323	0	48,476	629,080
ITX	37	Plant Depreciation - General & Common	SALWAGES	282,854	24,251	34,639		57,048	0	6,252	81,135
ITX	38	Retirement - Medical	SALWAGES	186,505	15,990	22,840		37,616	0	4,122	53,498
ITX	39	Pension	SALWAGES	(441,624)	(37,863)	(54,083)		(89,070)	0	(9,762)	(126,677)
ITX	40	Post Retirement - Life Insurance	SALWAGES	(60,852)	(5,217)	(7,452)		(12,273)	0	(1,345)	(17,455)
ITX	41	SERP	SALWAGES	10,566	906	1,294		2,131	0	234	3,031
ITX	42	Pension Restoration	SALWAGES	(27,872)	(2,390)	(3,413)		(5,622)	0	(616)	(7,995)
ITX	43	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS		3,559,977	302,813	463,916		799,405	0	94,496	1,398,451
ITX	44										
ITX	45	STATE TAXABLE INCOME		4,327,959	318,033	(149,902)		778,339	0	(80,757)	(4,277,318)
ITX	46										

Upper Peninsula Power Company
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Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind	S	P	Q	T	Q
					CP-U Total	Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
ITX	1	DEVELOPMENT OF PRESENT INCOME TAX EXPENSE								
ITX	2	OPERATING REVENUES								
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN		9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405
ITX	4	OTHER OPERATING REVENUE	SCH , LN		2,512,912	1,059,381	75,130	1,378,401	36	625,412
ITX	5	TOTAL OPERATING REVENUES	SCH , LN		12,364,369	5,486,387	490,960	6,387,022	302,516	2,439,817
ITX	6	Less:								
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN		10,703,360	5,000,480	429,717	5,273,162	490,290	2,257,291
ITX	8	DEPRECIATION EXPENSE	SCH , LN		1,206,883	594,470	65,760	546,653	670	123,315
ITX	9	AMORTIZATION EXPENSE	SCH , LN		0	0	0	0	0	0
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN		728,084	368,060	40,329	319,696	405	74,108
ITX	11	NET OPERATING INCOME BEFORE TAXES & INTEREST			(273,958)	(476,623)	(44,846)	247,510	(188,848)	(14,897)
ITX	12	Less:								
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 1.83%)			574,907	287,313	30,193	257,400	358	65,680
ITX	14									
ITX	15	SUBTOTAL BOOK INCOME BEFORE TAXES			(848,865)	(763,936)	(75,039)	(9,890)	(189,206)	(80,577)
ITX	16									
ITX	17	STATE INCOME TAXES								
ITX	18									
ITX	19	NET INCOME ADDITIONS/DEDUCTIONS								
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT		37,682	11,283	1,414	24,985	0	3,211
ITX	21									
ITX	22	Customer Advances for Construction	DISTPLT		5,812	4,156	418	1,238	5	630
ITX	23	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	24	Interest	RATEBASE		0	0	0	0	0	0
ITX	25									
ITX	26	Environmental Remediation	PRODPLT		412,141	123,404	15,467	273,269	0	35,115
ITX	27									
ITX	28	Deferred Income and Deductions	DISTPLT		(22,926)	(16,391)	(1,650)	(4,885)	(20)	(2,484)
ITX	29	Net Operating Loss	DISTPLT		(321,268)	(229,696)	(23,122)	(68,449)	(282)	(34,809)
ITX	30	Plant Depreciation - Distribution	DISTPLT		378,037	270,285	27,208	80,544	332	40,960
ITX	31	Contribution in Aid of Construction	DISTPLT		(4,544)	(3,249)	(327)	(968)	(4)	(492)
ITX	32	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	33	Regulatory Liabilities	DISTPLT		(67,490)	(48,254)	(4,857)	(14,379)	(59)	(7,312)
ITX	34	Regulatory Asset - Non-Current	DISTPLT		98,965	70,757	7,123	21,085	87	10,723
ITX	35									
ITX	36	Goodwill - General Plant Related	SALWAGES		381,630	213,681	24,172	143,776	459	48,595
ITX	37	Plant Depreciation - General & Common	SALWAGES		49,220	27,559	3,118	18,543	59	6,268
ITX	38	Retirement - Medical	SALWAGES		32,454	18,172	2,056	12,227	39	4,133
ITX	39	Pension	SALWAGES		(76,848)	(43,029)	(4,868)	(28,952)	(92)	(9,786)
ITX	40	Post Retirement - Life Insurance	SALWAGES		(10,589)	(5,929)	(671)	(3,989)	(13)	(1,348)
ITX	41	SERP	SALWAGES		1,839	1,029	116	693	2	234
ITX	42	Pension Restoration	SALWAGES		(4,850)	(2,716)	(307)	(1,827)	(6)	(618)
ITX	43	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS			889,265	391,063	45,290	452,912	507	93,019
ITX	44									
ITX	45	STATE TAXABLE INCOME			(1,738,130)	(1,154,998)	(120,330)	(462,802)	(189,713)	(173,596)
ITX	46									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
ITX	1	DEVELOPMENT OF PRESENT INCOME TAX EXPENSE								
ITX	2	OPERATING REVENUES								
ITX	3	SALES OF ELECTRICITY REVENUE	SCH , LN		67,986	12,665	1,660,422	1,741,073	449,624	49,942
ITX	4	OTHER OPERATING REVENUE	SCH , LN		7,591	845	75,633	84,069	22,237	2,819
ITX	5	TOTAL OPERATING REVENUES	SCH , LN		75,577	13,510	1,736,055	1,825,142	471,861	52,761
ITX	6	Less:								
ITX	7	O&M EXPENSE INCL COST OF SALES	SCH , LN		68,503	9,001	554,192	631,696	394,624	54,041
ITX	8	DEPRECIATION EXPENSE	SCH , LN		11,823	1,824	95,792	109,440	61,995	8,636
ITX	9	AMORTIZATION EXPENSE	SCH , LN		0	0	0	0	0	0
ITX	10	TAXES OTHER THAN INCOME TAXES	SCH , LN		7,554	1,162	62,422	71,138	33,729	4,699
ITX	11	NET OPERATING INCOME BEFORE TAXES & INTEREST			(12,304)	1,523	1,023,650	1,012,869	(18,486)	(14,615)
ITX	12	Less:								
ITX	13	Synchronized Interest (Rate Base * Composite Cost of Debt Rate of 1.83%)			4,684	766	37,029	42,480	23,636	3,287
ITX	14									
ITX	15	SUBTOTAL BOOK INCOME BEFORE TAXES			(16,988)	756	986,621	970,389	(42,122)	(17,902)
ITX	16									
ITX	17	STATE INCOME TAXES								
ITX	18									
ITX	19	NET INCOME ADDITIONS/DEDUCTIONS								
ITX	20	Plant Depreciation - NERCO/Soo Energy	PRODPLT		145	31	1,234	1,410	305	41
ITX	21									
ITX	22	Customer Advances for Construction	DISTPLT		106	15	938	1,059	185	26
ITX	23	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	24	Interest	RATEBASE		0	0	0	0	0	0
ITX	25									
ITX	26	Environmental Remediation	PRODPLT		1,589	335	13,496	15,419	3,337	444
ITX	27									
ITX	28	Deferred Income and Deductions	DISTPLT		(418)	(61)	(3,699)	(4,177)	(728)	(102)
ITX	29	Net Operating Loss	DISTPLT		(5,853)	(850)	(51,834)	(58,536)	(10,208)	(1,434)
ITX	30	Plant Depreciation - Distribution	DISTPLT		6,887	1,000	60,993	68,880	12,012	1,687
ITX	31	Contribution in Aid of Construction	DISTPLT		(83)	(12)	(733)	(828)	(144)	(20)
ITX	32	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	33	Regulatory Liabilities	DISTPLT		(1,229)	(179)	(10,889)	(12,297)	(2,145)	(301)
ITX	34	Regulatory Asset - Non-Current	DISTPLT		1,803	262	15,967	18,032	3,145	442
ITX	35									
ITX	36	Goodwill - General Plant Related	SALWAGES		3,663	489	20,967	25,119	63,477	8,861
ITX	37	Plant Depreciation - General & Common	SALWAGES		472	63	2,704	3,240	8,187	1,143
ITX	38	Retirement - Medical	SALWAGES		312	42	1,783	2,136	5,398	754
ITX	39	Pension	SALWAGES		(738)	(98)	(4,222)	(5,058)	(12,782)	(1,784)
ITX	40	Post Retirement - Life Insurance	SALWAGES		(102)	(14)	(582)	(697)	(1,761)	(246)
ITX	41	SERP	SALWAGES		18	2	101	121	306	43
ITX	42	Pension Restoration	SALWAGES		(47)	(6)	(266)	(319)	(807)	(113)
ITX	43	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS			6,526	1,019	45,958	53,503	67,775	9,439
ITX	44									
ITX	45	STATE TAXABLE INCOME			(23,514)	(263)	940,663	916,886	(109,898)	(27,342)
ITX	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	47	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED									
ITX	48										
ITX	49	STATE TAXABLE INCOME		(405,437)	4,496,090	779,647	(4,734,734)	(120,330)	(826,111)		
ITX	50										
ITX	51	STATE INCOME TAX @ 6.00%		(24,326)	269,765	46,779	(284,084)	(7,220)	(49,567)		
ITX	52										
ITX	53	LESS: DEFERRED TAX EXPENSE ADJUSTMENT									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	336	155	3	135	2	41		
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	3,268	1,963	60	1,137	20	89		
ITX	57	Goodwill	RATEBASE	0	0	0	0	0	0		
ITX	58	Interest	RATEBASE	0	0	0	0	0	0		
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	119,158	54,874	910	48,023	733	14,617		
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	(12,891)	(7,742)	(237)	(4,484)	(78)	(350)		
ITX	63	Net Operating Loss	DISTPLT	(180,651)	(108,487)	(3,326)	(62,833)	(1,096)	(4,908)		
ITX	64	Plant Depreciation - Distribution	DISTPLT	212,573	127,657	3,914	73,936	1,290	5,775		
ITX	65	Contribution in Aid of Construction	DISTPLT	(2,555)	(1,534)	(47)	(889)	(16)	(69)		
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	67	Regulatory Asset - Current	DISTPLT	(37,950)	(22,790)	(699)	(13,200)	(230)	(1,031)		
ITX	68	Regulatory Asset - Non-Current	DISTPLT	55,648	33,419	1,025	19,356	338	1,512		
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	203,713	125,597	4,619	63,211	1,146	9,140		
ITX	71	Plant Depreciation - General & Common	SALWAGES	26,274	16,199	596	8,153	148	1,179		
ITX	72	Retirement - Medical	SALWAGES	19,428	11,978	441	6,028	109	872		
ITX	73	Pension	SALWAGES	(41,021)	(25,291)	(930)	(12,729)	(231)	(1,841)		
ITX	74	Post Retirement - Life Insurance	SALWAGES	(5,652)	(3,485)	(128)	(1,754)	(32)	(254)		
ITX	75	SERP	SALWAGES	981	605	22	305	6	44		
ITX	76	Pension Restoration	SALWAGES	(2,589)	(1,596)	(59)	(803)	(15)	(116)		
ITX	77	SUBTOTAL DEFERRED EXPENSE ADJUSTMENT		358,069	201,521	6,163	123,592	2,094	24,700		
ITX	78										
ITX	79	STATE INCOME TAX ADJUSTMENTS									
ITX	80	TCJA Calculation C	RATEBASE	0	0	0	0	0	0		
ITX	81										
ITX	82	STATE INCOME TAX EXPENSE		333,743	471,286	52,942	(160,493)	(5,126)	(24,866)		
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										
ITX	93										
ITX	94										
ITX	95										
ITX	96	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED									
ITX	97										
ITX	98	FEDERAL INCOME TAXES									
ITX	99										
ITX	100	SUBTOTAL BOOK INCOME BEFORE TAXES	SCH , LN	7,327,130	8,822,796	910,365	(2,051,319)	(75,039)	(279,673)		
ITX	101										
ITX	102	NET INCOME ADDITIONS/DEDUCTIONS									
ITX	103	State Income Taxes	SCH , LN	(24,326)	269,765	46,779	(284,084)	(7,220)	(49,567)		
ITX	104										
ITX	105	Plant Depreciation - NERCO/Soo Energy	PRODPLT	228,803	105,368	1,748	92,212	1,408	28,068		
ITX	106										
ITX	107	Customer Advances for Construction	DISTPLT	68,952	41,408	1,270	23,983	418	1,873		

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
ITX	47	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED									
ITX	48										
ITX	49	STATE TAXABLE INCOME		4,327,959	318,033	(149,902)		778,339	0	(80,757)	(4,277,318)
ITX	50										
ITX	51	STATE INCOME TAX @ 6.00%		259,678	19,082	(8,994)		46,700	0	(4,845)	(256,639)
ITX	52										
ITX	53	LESS: DEFERRED TAX EXPENSE ADJUSTMENT									
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT	126	11	18		35	0	5	79
ITX	55										
ITX	56	Customer Advances for Construction	DISTPLT	1,611	134	218		342	0	41	557
ITX	57	Goodwill	RATEBASE	0	0	0		0	0	0	0
ITX	58	Interest	RATEBASE	0	0	0		0	0	0	0
ITX	59										
ITX	60	Environmental Remediation	PRODPLT	44,644	3,762	6,468		12,360	0	1,619	28,194
ITX	61										
ITX	62	Deferred Income and Deductions	DISTPLT	(6,353)	(530)	(858)		(1,349)	0	(161)	(2,197)
ITX	63	Net Operating Loss	DISTPLT	(89,033)	(7,429)	(12,025)		(18,901)	0	(2,255)	(30,790)
ITX	64	Plant Depreciation - Distribution	DISTPLT	104,766	8,741	14,150		22,241	0	2,653	36,231
ITX	65	Contribution in Aid of Construction	DISTPLT	(1,259)	(105)	(170)		(267)	0	(32)	(435)
ITX	66	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	67	Regulatory Asset - Current	DISTPLT	(18,704)	(1,561)	(2,526)		(3,971)	0	(474)	(6,468)
ITX	68	Regulatory Asset - Non-Current	DISTPLT	27,426	2,288	3,704		5,822	0	695	9,485
ITX	69										
ITX	70	Goodwill - General Plant Related	SALWAGES	103,953	8,913	12,730		20,966	0	2,298	29,818
ITX	71	Plant Depreciation - General & Common	SALWAGES	13,407	1,149	1,642		2,704	0	296	3,846
ITX	72	Retirement - Medical	SALWAGES	9,914	850	1,214		2,000	0	219	2,844
ITX	73	Pension	SALWAGES	(20,933)	(1,795)	(2,564)		(4,222)	0	(463)	(6,004)
ITX	74	Post Retirement - Life Insurance	SALWAGES	(2,884)	(247)	(353)		(582)	0	(64)	(827)
ITX	75	SERP	SALWAGES	501	43	61		101	0	11	144
ITX	76	Pension Restoration	SALWAGES	(1,321)	(113)	(162)		(266)	0	(29)	(379)
ITX	77	SUBTOTAL DEFERRED EXPENSE ADJUSTMENT		165,861	14,112	21,548		37,013	0	4,359	64,096
ITX	78										
ITX	79	STATE INCOME TAX ADJUSTMENTS									
ITX	80	TCJA Calculation C	RATEBASE	0	0	0		0	0	0	0
ITX	81										
ITX	82	STATE INCOME TAX EXPENSE		425,538	33,194	12,554		83,713	0	(486)	(192,543)
ITX	83										
ITX	84										
ITX	85										
ITX	86										
ITX	87										
ITX	88										
ITX	89										
ITX	90										
ITX	91										
ITX	92										
ITX	93										
ITX	94										
ITX	95										
ITX	96	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED									
ITX	97										
ITX	98	FEDERAL INCOME TAXES									
ITX	99										
ITX	100	SUBTOTAL BOOK INCOME BEFORE TAXES	SCH , LN	7,887,936	620,846	314,014		1,577,744	0	13,740	(2,878,867)
ITX	101										
ITX	102	NET INCOME ADDITIONS/DEDUCTIONS									
ITX	103	State Income Taxes	SCH , LN	259,678	19,082	(8,994)		46,700	0	(4,845)	(256,639)
ITX	104										
ITX	105	Plant Depreciation - NERCO/Soo Energy	PRODPLT	85,725	7,224	12,420		23,734	0	3,108	54,138
ITX	106										
ITX	107	Customer Advances for Construction	DISTPLT	33,983	2,835	4,590		7,214	0	861	11,752

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Large Commerical & Industrial Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
ITX	47	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED								
ITX	48									
ITX	49	STATE TAXABLE INCOME			(1,738,130)	(1,154,998)	(120,330)	(462,802)	(189,713)	(173,596)
ITX	50									
ITX	51	STATE INCOME TAX @ 6.00%			(104,288)	(69,300)	(7,220)	(27,768)	(11,383)	(10,416)
ITX	52									
ITX	53	LESS: DEFERRED TAX EXPENSE ADJUSTMENT								
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT		55	16	2	37	0	5
ITX	55									
ITX	56	Customer Advances for Construction	DISTPLT		276	197	20	59	0	30
ITX	57	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	58	Interest	RATEBASE		0	0	0	0	0	0
ITX	59									
ITX	60	Environmental Remediation	PRODPLT		19,535	5,849	733	12,953	0	1,664
ITX	61									
ITX	62	Deferred Income and Deductions	DISTPLT		(1,087)	(777)	(78)	(232)	(1)	(118)
ITX	63	Net Operating Loss	DISTPLT		(15,228)	(10,888)	(1,096)	(3,244)	(13)	(1,650)
ITX	64	Plant Depreciation - Distribution	DISTPLT		17,919	12,811	1,290	3,818	16	1,941
ITX	65	Contribution in Aid of Construction	DISTPLT		(215)	(154)	(16)	(46)	(0)	(23)
ITX	66	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	67	Regulatory Asset - Current	DISTPLT		(3,199)	(2,287)	(230)	(682)	(3)	(347)
ITX	68	Regulatory Asset - Non-Current	DISTPLT		4,691	3,354	338	999	4	508
ITX	69									
ITX	70	Goodwill - General Plant Related	SALWAGES		18,089	10,128	1,146	6,815	22	2,303
ITX	71	Plant Depreciation - General & Common	SALWAGES		2,333	1,306	148	879	3	297
ITX	72	Retirement - Medical	SALWAGES		1,725	966	109	650	2	220
ITX	73	Pension	SALWAGES		(3,643)	(2,040)	(231)	(1,372)	(4)	(464)
ITX	74	Post Retirement - Life Insurance	SALWAGES		(502)	(281)	(32)	(189)	(1)	(64)
ITX	75	SERP	SALWAGES		87	49	6	33	0	11
ITX	76	Pension Restoration	SALWAGES		(230)	(129)	(15)	(87)	(0)	(29)
ITX	77	SUBTOTAL DEFERRED EXPENSE ADJUSTMENT			40,607	18,123	2,094	20,391	24	4,285
ITX	78									
ITX	79	STATE INCOME TAX ADJUSTMENTS								
ITX	80	TCJA Calculation C	RATEBASE		0	0	0	0	0	0
ITX	81									
ITX	82	STATE INCOME TAX EXPENSE			(63,681)	(51,177)	(5,126)	(7,377)	(11,359)	(6,130)
ITX	83									
ITX	84									
ITX	85									
ITX	86									
ITX	87									
ITX	88									
ITX	89									
ITX	90									
ITX	91									
ITX	92									
ITX	93									
ITX	94									
ITX	95									
ITX	96	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED								
ITX	97									
ITX	98	FEDERAL INCOME TAXES								
ITX	99									
ITX	100	SUBTOTAL BOOK INCOME BEFORE TAXES	SCH , LN		(848,865)	(763,936)	(75,039)	(9,890)	(189,206)	(80,577)
ITX	101									
ITX	102	NET INCOME ADDITIONS/DEDUCTIONS								
ITX	103	State Income Taxes	SCH , LN		(104,288)	(69,300)	(7,220)	(27,768)	(11,383)	(10,416)
ITX	104									
ITX	105	Plant Depreciation - NERCO/Soo Energy	PRODPLT		37,511	11,232	1,408	24,872	0	3,196
ITX	106									
ITX	107	Customer Advances for Construction	DISTPLT		5,812	4,156	418	1,238	5	630

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
ITX	47	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED								
ITX	48									
ITX	49	STATE TAXABLE INCOME			(23,514)	(263)	940,663	916,886	(109,898)	(27,342)
ITX	50									
ITX	51	STATE INCOME TAX @ 6.00%			(1,411)	(16)	56,440	55,013	(6,594)	(1,640)
ITX	52									
ITX	53	LESS: DEFERRED TAX EXPENSE ADJUSTMENT								
ITX	54	Plant Depreciation - NERCO/Soo Energy	PRODPLT		0	0	2	2	0	0
ITX	55									
ITX	56	Customer Advances for Construction	DISTPLT		5	1	44	50	9	1
ITX	57	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	58	Interest	RATEBASE		0	0	0	0	0	0
ITX	59									
ITX	60	Environmental Remediation	PRODPLT		75	16	640	731	158	21
ITX	61									
ITX	62	Deferred Income and Deductions	DISTPLT		(20)	(3)	(175)	(198)	(35)	(5)
ITX	63	Net Operating Loss	DISTPLT		(277)	(40)	(2,457)	(2,775)	(484)	(68)
ITX	64	Plant Depreciation - Distribution	DISTPLT		326	47	2,891	3,265	569	80
ITX	65	Contribution in Aid of Construction	DISTPLT		(4)	(1)	(35)	(39)	(7)	(1)
ITX	66	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	67	Regulatory Asset - Current	DISTPLT		(58)	(8)	(516)	(583)	(102)	(14)
ITX	68	Regulatory Asset - Non-Current	DISTPLT		85	12	757	855	149	21
ITX	69									
ITX	70	Goodwill - General Plant Related	SALWAGES		174	23	994	1,191	3,009	420
ITX	71	Plant Depreciation - General & Common	SALWAGES		22	3	128	154	388	54
ITX	72	Retirement - Medical	SALWAGES		17	2	95	114	287	40
ITX	73	Pension	SALWAGES		(35)	(5)	(200)	(240)	(606)	(85)
ITX	74	Post Retirement - Life Insurance	SALWAGES		(5)	(1)	(28)	(33)	(83)	(12)
ITX	75	SERP	SALWAGES		1	0	5	6	14	2
ITX	76	Pension Restoration	SALWAGES		(2)	(0)	(13)	(15)	(38)	(5)
ITX	77	SUBTOTAL DEFERRED EXPENSE ADJUSTMENT			304	47	2,132	2,484	3,230	450
ITX	78									
ITX	79	STATE INCOME TAX ADJUSTMENTS								
ITX	80	TCJA Calculation C	RATEBASE		0	0	0	0	0	0
ITX	81									
ITX	82	STATE INCOME TAX EXPENSE			(1,106)	31	58,572	57,497	(3,364)	(1,191)
ITX	83									
ITX	84									
ITX	85									
ITX	86									
ITX	87									
ITX	88									
ITX	89									
ITX	90									
ITX	91									
ITX	92									
ITX	93									
ITX	94									
ITX	95									
ITX	96	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED								
ITX	97									
ITX	98	FEDERAL INCOME TAXES								
ITX	99									
ITX	100	SUBTOTAL BOOK INCOME BEFORE TAXES	SCH , LN		(16,988)	756	986,621	970,389	(42,122)	(17,902)
ITX	101									
ITX	102	NET INCOME ADDITIONS/DEDUCTIONS								
ITX	103	State Income Taxes	SCH , LN		(1,411)	(16)	56,440	55,013	(6,594)	(1,640)
ITX	104									
ITX	105	Plant Depreciation - NERCO/Soo Energy	PRODPLT		145	30	1,228	1,403	304	40
ITX	106									
ITX	107	Customer Advances for Construction	DISTPLT		106	15	938	1,059	185	26

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	108	Goodwill	RATEBASE	0	0	0	0	0	0		
ITX	109	Interest	RATEBASE	0	0	0	0	0	0		
ITX	110										
ITX	111	Environmental Remediation	PRODPLT	2,133,827	982,668	16,298	859,970	13,129	261,763		
ITX	112										
ITX	113	Deferred Income and Deductions	DISTPLT	(271,965)	(163,325)	(5,008)	(94,594)	(1,650)	(7,389)		
ITX	114	Net Operating Loss	DISTPLT	(2,703,734)	(1,623,687)	(49,786)	(940,405)	(16,403)	(73,453)		
ITX	115	Plant Depreciation - Distribution	DISTPLT	3,831,515	2,300,959	70,552	1,332,666	23,245	104,092		
ITX	116	Contribution in Aid of Construction	DISTPLT	(53,903)	(32,371)	(993)	(18,748)	(327)	(1,464)		
ITX	117	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	118	Regulatory Liabilities	DISTPLT	(800,638)	(480,811)	(14,743)	(278,476)	(4,857)	(21,751)		
ITX	119	Regulatory Asset - Non-Current	DISTPLT	1,174,019	705,040	21,618	408,344	7,123	31,895		
ITX	120										
ITX	121	Goodwill - General Plant Related	SALWAGES	4,297,737	2,649,716	97,457	1,333,561	24,172	192,831		
ITX	122	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	123	Plant Depreciation - General & Common	SALWAGES	472,925	291,576	10,724	146,746	2,660	21,219		
ITX	124	Retirement - Medical	SALWAGES	365,485	225,335	8,288	113,408	2,056	16,399		
ITX	125	Pension	SALWAGES	(865,430)	(533,570)	(19,625)	(268,537)	(4,868)	(38,830)		
ITX	126	Post Retirement - Life Insurance	SALWAGES	(119,248)	(73,521)	(2,704)	(37,002)	(671)	(5,350)		
ITX	127	SERP	SALWAGES	20,705	12,765	470	6,425	116	929		
ITX	128	Pension Restoration	SALWAGES	(54,620)	(33,676)	(1,239)	(16,948)	(307)	(2,451)		
ITX	129	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS		7,700,103	4,643,641	181,107	2,378,518	38,024	458,813		
ITX	130										
ITX	131	FEDERAL TAXABLE INCOME		(372,973)	4,179,156	729,258	(4,429,837)	(113,064)	(738,486)		
ITX	132	Federal Income Tax @ 21%		(78,324)	877,623	153,144	(930,266)	(23,743)	(155,082)		
ITX	133										
ITX	134										
ITX	135										
ITX	136										
ITX	137										
ITX	138										
ITX	139										
ITX	140										
ITX	141										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
ITX	108	Goodwill	RATEBASE	0	0	0		0	0	0	0
ITX	109	Interest	RATEBASE	0	0	0		0	0	0	0
ITX	110										
ITX	111	Environmental Remediation	PRODPLT	799,471	67,368	115,829		221,341	0	28,989	504,892
ITX	112										
ITX	113	Deferred Income and Deductions	DISTPLT	(134,038)	(11,184)	(18,103)		(28,455)	0	(3,395)	(46,354)
ITX	114	Net Operating Loss	DISTPLT	(1,332,532)	(111,183)	(179,972)		(282,884)	0	(33,747)	(460,823)
ITX	115	Plant Depreciation - Distribution	DISTPLT	1,888,357	157,560	255,042		400,881	0	47,823	653,042
ITX	116	Contribution in Aid of Construction	DISTPLT	(26,566)	(2,217)	(3,588)		(5,640)	0	(673)	(9,187)
ITX	117	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	118	Regulatory Liabilities	DISTPLT	(394,594)	(32,924)	(53,294)		(83,769)	0	(9,993)	(136,460)
ITX	119	Regulatory Asset - Non-Current	DISTPLT	578,614	48,278	78,148		122,834	0	14,654	200,099
ITX	120										
ITX	121	Goodwill - General Plant Related	SALWAGES	2,193,111	188,030	268,576		442,323	0	48,476	629,080
ITX	122	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0		0	0	0	0
ITX	123	Plant Depreciation - General & Common	SALWAGES	241,331	20,691	29,554		48,673	0	5,334	69,224
ITX	124	Retirement - Medical	SALWAGES	186,505	15,990	22,840		37,616	0	4,122	53,498
ITX	125	Pension	SALWAGES	(441,624)	(37,863)	(54,083)		(89,070)	0	(9,762)	(126,677)
ITX	126	Post Retirement - Life Insurance	SALWAGES	(60,852)	(5,217)	(7,452)		(12,273)	0	(1,345)	(17,455)
ITX	127	SERP	SALWAGES	10,566	906	1,294		2,131	0	234	3,031
ITX	128	Pension Restoration	SALWAGES	(27,872)	(2,390)	(3,413)		(5,622)	0	(616)	(7,995)
ITX	129	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS		3,859,262	324,986	459,392		845,735	0	89,226	1,117,165
ITX	130										
ITX	131	FEDERAL TAXABLE INCOME		4,028,674	295,860	(145,378)		732,009	0	(75,487)	(3,996,032)
ITX	132	Federal Income Tax @ 21%		846,022	62,131	(30,529)		153,722	0	(15,852)	(839,167)
ITX	133										
ITX	134										
ITX	135										
ITX	136										
ITX	137										
ITX	138										
ITX	139										
ITX	140										
ITX	141										

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
ITX	108	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	109	Interest	RATEBASE		0	0	0	0	0	0
ITX	110									
ITX	111	Environmental Remediation	PRODPLT		349,833	104,748	13,129	231,956	0	29,807
ITX	112									
ITX	113	Deferred Income and Deductions	DISTPLT		(22,926)	(16,391)	(1,650)	(4,885)	(20)	(2,484)
ITX	114	Net Operating Loss	DISTPLT		(227,913)	(162,951)	(16,403)	(48,559)	(200)	(24,694)
ITX	115	Plant Depreciation - Distribution	DISTPLT		322,980	230,921	23,245	68,814	283	34,994
ITX	116	Contribution in Aid of Construction	DISTPLT		(4,544)	(3,249)	(327)	(968)	(4)	(492)
ITX	117	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	118	Regulatory Liabilities	DISTPLT		(67,490)	(48,254)	(4,857)	(14,379)	(59)	(7,312)
ITX	119	Regulatory Asset - Non-Current	DISTPLT		98,965	70,757	7,123	21,085	87	10,723
ITX	120									
ITX	121	Goodwill - General Plant Related	SALWAGES		381,630	213,681	24,172	143,776	459	48,595
ITX	122	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0
ITX	123	Plant Depreciation - General & Common	SALWAGES		41,995	23,514	2,660	15,821	51	5,347
ITX	124	Retirement - Medical	SALWAGES		32,454	18,172	2,056	12,227	39	4,133
ITX	125	Pension	SALWAGES		(76,848)	(43,029)	(4,868)	(28,952)	(92)	(9,786)
ITX	126	Post Retirement - Life Insurance	SALWAGES		(10,589)	(5,929)	(671)	(3,989)	(13)	(1,348)
ITX	127	SERP	SALWAGES		1,839	1,029	116	693	2	234
ITX	128	Pension Restoration	SALWAGES		(4,850)	(2,716)	(307)	(1,827)	(6)	(618)
ITX	129	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS			753,571	326,391	38,024	389,155	(10,851)	80,509
ITX	130									
ITX	131	FEDERAL TAXABLE INCOME			(1,602,436)	(1,090,327)	(113,064)	(399,045)	(178,355)	(161,086)
ITX	132	Federal Income Tax @ 21%			(336,512)	(228,969)	(23,743)	(83,799)	(37,455)	(33,828)
ITX	133									
ITX	134									
ITX	135									
ITX	136									
ITX	137									
ITX	138									
ITX	139									
ITX	140									
ITX	141									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
ITX	108	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	109	Interest	RATEBASE		0	0	0	0	0	0
ITX	110									
ITX	111	Environmental Remediation	PRODPLT		1,348	284	11,456	13,088	2,832	377
ITX	112									
ITX	113	Deferred Income and Deductions	DISTPLT		(418)	(61)	(3,699)	(4,177)	(728)	(102)
ITX	114	Net Operating Loss	DISTPLT		(4,152)	(603)	(36,772)	(41,527)	(7,242)	(1,017)
ITX	115	Plant Depreciation - Distribution	DISTPLT		5,884	855	52,110	58,848	10,263	1,441
ITX	116	Contribution in Aid of Construction	DISTPLT		(83)	(12)	(733)	(828)	(144)	(20)
ITX	117	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	118	Regulatory Liabilities	DISTPLT		(1,229)	(179)	(10,889)	(12,297)	(2,145)	(301)
ITX	119	Regulatory Asset - Non-Current	DISTPLT		1,803	262	15,967	18,032	3,145	442
ITX	120									
ITX	121	Goodwill - General Plant Related	SALWAGES		3,663	489	20,967	25,119	63,477	8,861
ITX	122	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0
ITX	123	Plant Depreciation - General & Common	SALWAGES		403	54	2,307	2,764	6,985	975
ITX	124	Retirement - Medical	SALWAGES		312	42	1,783	2,136	5,398	754
ITX	125	Pension	SALWAGES		(738)	(98)	(4,222)	(5,058)	(12,782)	(1,784)
ITX	126	Post Retirement - Life Insurance	SALWAGES		(102)	(14)	(582)	(697)	(1,761)	(246)
ITX	127	SERP	SALWAGES		18	2	101	121	306	43
ITX	128	Pension Restoration	SALWAGES		(47)	(6)	(266)	(319)	(807)	(113)
ITX	129	SUBTOTAL NET INCOME ADDITIONS/DEDUCTIONS			5,502	1,045	106,134	112,681	60,691	7,735
ITX	130									
ITX	131	FEDERAL TAXABLE INCOME			(22,491)	(289)	880,487	857,708	(102,813)	(25,637)
ITX	132	Federal Income Tax @ 21%			(4,723)	(61)	184,902	180,119	(21,591)	(5,384)
ITX	133									
ITX	134									
ITX	135									
ITX	136									
ITX	137									
ITX	138									
ITX	139									
ITX	140									
ITX	141									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ITX	142	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED									
ITX	143	FEDERAL INCOME TAXES CONTINUED									
ITX	144										
ITX	145	LESS: DEFERRED TAX EXPENSE ADJUSTMENT									
ITX	146	Plant Depreciation - NERCO/Soo Energy	PRODPLT	1,270	585	10	512	8	156		
ITX	147										
ITX	148	Customer Advances for Construction	DISTPLT	14,480	8,696	267	5,036	88	393		
ITX	149	Goodwill	RATEBASE	0	0	0	0	0	0		
ITX	150	Interest	RATEBASE	0	0	0	0	0	0		
ITX	151										
ITX	152	Environmental Remediation	PRODPLT	448,104	206,360	3,423	180,594	2,757	54,970		
ITX	153										
ITX	154	Deferred Income and Deductions	DISTPLT	(57,113)	(34,298)	(1,052)	(19,865)	(346)	(1,552)		
ITX	155	Net Operating Loss	DISTPLT	(567,784)	(340,974)	(10,455)	(197,485)	(3,445)	(15,425)		
ITX	156	Plant Depreciation - Distribution	DISTPLT	804,618	483,201	14,816	279,860	4,882	21,859		
ITX	157	Contribution in Aid of Construction	DISTPLT	(11,320)	(6,798)	(208)	(3,937)	(69)	(308)		
ITX	158	Goodwill - Distribution Related	DISTPLT	0	0	0	0	0	0		
ITX	159	Regulatory Asset - Current	DISTPLT	(168,134)	(100,970)	(3,096)	(58,480)	(1,020)	(4,568)		
ITX	160	Regulatory Asset - Non-Current	DISTPLT	246,544	148,058	4,540	85,752	1,496	6,698		
ITX	161										
ITX	162	Goodwill - General Plant Related	SALWAGES	902,525	556,440	20,466	280,048	5,076	40,494		
ITX	163	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0	0	0	0		
ITX	164	Plant Depreciation - General & Common	SALWAGES	99,314	61,231	2,252	30,817	559	4,456		
ITX	165	Retirement - Medical	SALWAGES	86,075	53,068	1,952	26,709	484	3,862		
ITX	166	Pension	SALWAGES	(181,740)	(112,050)	(4,121)	(56,393)	(1,022)	(8,154)		
ITX	167	Post Retirement - Life Insurance	SALWAGES	(25,042)	(15,439)	(568)	(7,770)	(141)	(1,124)		
ITX	168	SERP	SALWAGES	4,348	2,681	99	1,349	24	195		
ITX	169	Pension Restoration	SALWAGES	(11,470)	(7,072)	(260)	(3,559)	(65)	(515)		
ITX	170	TOTAL DEFERRED INCOME TAX EXPENSE		1,584,674	902,719	28,063	543,186	9,266	101,440		
ITX	171										
ITX	172	FEDERAL INCOME TAX ADJUSTMENTS									
ITX	173	TCJA Calculation C	RATEBASE	(938,469)	(522,027)	(12,767)	(338,623)	(5,554)	(59,498)		
ITX	174										
ITX	175	FEDERAL INCOME TAX EXPENSE		567,880	1,258,315	168,440	(725,702)	(20,032)	(113,141)		
ITX	176										
ITX	177	TOTAL STATE & FEDERAL INCOME TAX EXPENSE		901,624	1,729,601	221,382	(886,195)	(25,158)	(138,007)		
ITX	178										
ITX	179	TOTAL OPERATING DEDUCTIONS		91,291,877	49,887,064	1,591,380	30,355,203	510,648	8,947,583		
ITX	180										
ITX	181										
ITX	182	TAX RATES									
ITX	183	STATE TAX RATE		6.00%							
ITX	184	FEDERAL TAX RATE - CURRENT		21.00%							
ITX	185	INCREMENTAL TAX RATE		0.257400							
ITX	186	1-INCREMENTAL TAX RATE		0.742600							
ITX	187	TAX GROSS-UP FACTOR		1.34660000							
ITX	188	STATE TAX RATE		4.74%							
ITX	189	WEIGHTED COST OF DEBT		1.8293%							
ITX	190										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
ITX	142	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED									
ITX	143	FEDERAL INCOME TAXES CONTINUED									
ITX	144										
ITX	145	LESS: DEFERRED TAX EXPENSE ADJUSTMENT									
ITX	146	Plant Depreciation - NERCO/Soo Energy	PRODPLT	476	40	69		132	0	17	300
ITX	147										
ITX	148	Customer Advances for Construction	DISTPLT	7,136	595	964		1,515	0	181	2,468
ITX	149	Goodwill	RATEBASE	0	0	0		0	0	0	0
ITX	150	Interest	RATEBASE	0	0	0		0	0	0	0
ITX	151										
ITX	152	Environmental Remediation	PRODPLT	167,889	14,147	24,324		46,482	0	6,088	106,027
ITX	153										
ITX	154	Deferred Income and Deductions	DISTPLT	(28,148)	(2,349)	(3,802)		(5,976)	0	(713)	(9,734)
ITX	155	Net Operating Loss	DISTPLT	(279,832)	(23,349)	(37,794)		(59,406)	0	(7,087)	(96,773)
ITX	156	Plant Depreciation - Distribution	DISTPLT	396,555	33,088	53,559		84,185	0	10,043	137,139
ITX	157	Contribution in Aid of Construction	DISTPLT	(5,579)	(465)	(753)		(1,184)	0	(141)	(1,929)
ITX	158	Goodwill - Distribution Related	DISTPLT	0	0	0		0	0	0	0
ITX	159	Regulatory Asset - Current	DISTPLT	(82,865)	(6,914)	(11,192)		(17,591)	0	(2,099)	(28,657)
ITX	160	Regulatory Asset - Non-Current	DISTPLT	121,509	10,138	16,411		25,795	0	3,077	42,021
ITX	161										
ITX	162	Goodwill - General Plant Related	SALWAGES	460,553	39,486	56,401		92,888	0	10,180	132,107
ITX	163	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES	0	0	0		0	0	0	0
ITX	164	Plant Depreciation - General & Common	SALWAGES	50,680	4,345	6,206		10,221	0	1,120	14,537
ITX	165	Retirement - Medical	SALWAGES	43,924	3,766	5,379		8,859	0	971	12,599
ITX	166	Pension	SALWAGES	(92,741)	(7,951)	(11,357)		(18,705)	0	(2,050)	(26,602)
ITX	167	Post Retirement - Life Insurance	SALWAGES	(12,779)	(1,096)	(1,565)		(2,577)	0	(282)	(3,666)
ITX	168	SERP	SALWAGES	2,219	190	272		448	0	49	636
ITX	169	Pension Restoration	SALWAGES	(5,853)	(502)	(717)		(1,181)	0	(129)	(1,679)
ITX	170	TOTAL DEFERRED INCOME TAX EXPENSE		743,144	63,171	96,404		163,904	0	19,225	278,795
ITX	171										
ITX	172	FEDERAL INCOME TAX ADJUSTMENTS									
ITX	173	TCJA Calculation C	RATEBASE	(428,066)	(36,293)	(57,668)		(97,501)	0	(11,837)	(176,433)
ITX	174										
ITX	175	FEDERAL INCOME TAX EXPENSE		1,161,099	89,009	8,207		220,126	0	(8,464)	(736,805)
ITX	176										
ITX	177	TOTAL STATE & FEDERAL INCOME TAX EXPENSE		1,586,637	122,203	20,761		303,839	0	(8,950)	(929,348)
ITX	178										
ITX	179	TOTAL OPERATING DEDUCTIONS		41,131,776	3,526,815	5,228,473		9,673,126	0	1,116,995	13,853,808
ITX	180										
ITX	181										
ITX	182	TAX RATES									
ITX	183	STATE TAX RATE									
ITX	184	FEDERAL TAX RATE - CURRENT									
ITX	185	INCREMENTAL TAX RATE									
ITX	186	1-INCREMENTAL TAX RATE									
ITX	187	TAX GROSS-UP FACTOR									
ITX	188	STATE TAX RATE									
ITX	189	WEIGHTED COST OF DEBT									
ITX	190										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
ITX	142	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED								
ITX	143	FEDERAL INCOME TAXES CONTINUED								
ITX	144									
ITX	145	LESS: DEFERRED TAX EXPENSE ADJUSTMENT								
ITX	146	Plant Depreciation - NERCO/Soo Energy	PRODPLT		208	62	8	138	0	18
ITX	147									
ITX	148	Customer Advances for Construction	DISTPLT		1,221	873	88	260	1	132
ITX	149	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	150	Interest	RATEBASE		0	0	0	0	0	0
ITX	151									
ITX	152	Environmental Remediation	PRODPLT		73,465	21,997	2,757	48,711	0	6,259
ITX	153									
ITX	154	Deferred Income and Deductions	DISTPLT		(4,814)	(3,442)	(346)	(1,026)	(4)	(522)
ITX	155	Net Operating Loss	DISTPLT		(47,862)	(34,220)	(3,445)	(10,197)	(42)	(5,186)
ITX	156	Plant Depreciation - Distribution	DISTPLT		67,826	48,493	4,882	14,451	59	7,349
ITX	157	Contribution in Aid of Construction	DISTPLT		(954)	(682)	(69)	(203)	(1)	(103)
ITX	158	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	159	Regulatory Asset - Current	DISTPLT		(14,173)	(10,133)	(1,020)	(3,020)	(12)	(1,536)
ITX	160	Regulatory Asset - Non-Current	DISTPLT		20,783	14,859	1,496	4,428	18	2,252
ITX	161									
ITX	162	Goodwill - General Plant Related	SALWAGES		80,142	44,873	5,076	30,193	96	10,205
ITX	163	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0
ITX	164	Plant Depreciation - General & Common	SALWAGES		8,819	4,938	559	3,322	11	1,123
ITX	165	Retirement - Medical	SALWAGES		7,643	4,280	484	2,880	9	973
ITX	166	Pension	SALWAGES		(16,138)	(9,036)	(1,022)	(6,080)	(19)	(2,055)
ITX	167	Post Retirement - Life Insurance	SALWAGES		(2,224)	(1,245)	(141)	(838)	(3)	(283)
ITX	168	SERP	SALWAGES		386	216	24	145	0	49
ITX	169	Pension Restoration	SALWAGES		(1,019)	(570)	(65)	(384)	(1)	(130)
ITX	170	TOTAL DEFERRED INCOME TAX EXPENSE			173,309	81,262	9,266	82,781	113	18,546
ITX	171									
ITX	172	FEDERAL INCOME TAX ADJUSTMENTS								
ITX	173	TCJA Calculation C	RATEBASE		(105,757)	(52,853)	(5,554)	(47,350)	(66)	(12,082)
ITX	174									
ITX	175	FEDERAL INCOME TAX EXPENSE			(268,959)	(200,559)	(20,032)	(48,369)	(37,408)	(27,364)
ITX	176									
ITX	177	TOTAL STATE & FEDERAL INCOME TAX EXPENSE			(332,640)	(251,736)	(25,158)	(55,746)	(48,766)	(33,495)
ITX	178									
ITX	179	TOTAL OPERATING DEDUCTIONS			12,305,687	5,711,274	510,648	6,083,765	442,598	2,421,219
ITX	180									
ITX	181									
ITX	182	TAX RATES								
ITX	183	STATE TAX RATE								
ITX	184	FEDERAL TAX RATE - CURRENT								
ITX	185	INCREMENTAL TAX RATE								
ITX	186	1-INCREMENTAL TAX RATE								
ITX	187	TAX GROSS-UP FACTOR								
ITX	188	STATE TAX RATE								
ITX	189	WEIGHTED COST OF DEBT								
ITX	190									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
ITX	142	DEVELOPMENT OF INCOME TAX EXPENSE CONTINUED								
ITX	143	FEDERAL INCOME TAXES CONTINUED								
ITX	144									
ITX	145	LESS: DEFERRED TAX EXPENSE ADJUSTMENT								
ITX	146	Plant Depreciation - NERCO/Soo Energy	PRODPLT		1	0	7	8	2	0
ITX	147									
ITX	148	Customer Advances for Construction	DISTPLT		22	3	197	222	39	5
ITX	149	Goodwill	RATEBASE		0	0	0	0	0	0
ITX	150	Interest	RATEBASE		0	0	0	0	0	0
ITX	151									
ITX	152	Environmental Remediation	PRODPLT		283	60	2,406	2,749	595	79
ITX	153									
ITX	154	Deferred Income and Deductions	DISTPLT		(88)	(13)	(777)	(877)	(153)	(21)
ITX	155	Net Operating Loss	DISTPLT		(872)	(127)	(7,722)	(8,721)	(1,521)	(214)
ITX	156	Plant Depreciation - Distribution	DISTPLT		1,236	179	10,943	12,358	2,155	303
ITX	157	Contribution in Aid of Construction	DISTPLT		(17)	(3)	(154)	(174)	(30)	(4)
ITX	158	Goodwill - Distribution Related	DISTPLT		0	0	0	0	0	0
ITX	159	Regulatory Asset - Current	DISTPLT		(258)	(38)	(2,287)	(2,582)	(450)	(63)
ITX	160	Regulatory Asset - Non-Current	DISTPLT		379	55	3,353	3,787	660	93
ITX	161									
ITX	162	Goodwill - General Plant Related	SALWAGES		769	103	4,403	5,275	13,330	1,861
ITX	163	Plant Depre - General & Common (Adj-Tax Sys)	SALWAGES		0	0	0	0	0	0
ITX	164	Plant Depreciation - General & Common	SALWAGES		85	11	485	580	1,467	205
ITX	165	Retirement - Medical	SALWAGES		73	10	420	503	1,271	177
ITX	166	Pension	SALWAGES		(155)	(21)	(887)	(1,062)	(2,684)	(375)
ITX	167	Post Retirement - Life Insurance	SALWAGES		(21)	(3)	(122)	(146)	(370)	(52)
ITX	168	SERP	SALWAGES		4	0	21	25	64	9
ITX	169	Pension Restoration	SALWAGES		(10)	(1)	(56)	(67)	(169)	(24)
ITX	170	TOTAL DEFERRED INCOME TAX EXPENSE			1,430	218	10,230	11,878	14,205	1,980
ITX	171									
ITX	172	FEDERAL INCOME TAX ADJUSTMENTS								
ITX	173	TCJA Calculation C	RATEBASE		(862)	(141)	(6,812)	(7,814)	(4,348)	(605)
ITX	174									
ITX	175	FEDERAL INCOME TAX EXPENSE			(4,155)	16	188,321	184,182	(11,733)	(4,009)
ITX	176									
ITX	177	TOTAL STATE & FEDERAL INCOME TAX EXPENSE			(5,261)	47	246,893	241,679	(15,098)	(5,199)
ITX	178									
ITX	179	TOTAL OPERATING DEDUCTIONS			82,620	12,035	959,298	1,053,952	475,250	62,177
ITX	180									
ITX	181									
ITX	182	TAX RATES								
ITX	183	STATE TAX RATE								
ITX	184	FEDERAL TAX RATE - CURRENT								
ITX	185	INCREMENTAL TAX RATE								
ITX	186	1-INCREMENTAL TAX RATE								
ITX	187	TAX GROSS-UP FACTOR								
ITX	188	STATE TAX RATE								
ITX	189	WEIGHTED COST OF DEBT								
ITX	190									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	1	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR									
S&W	2										
S&W	3	PRODUCTION SALARIES & WAGES EXPENSE									
S&W	4	Operation	OX_PROD	744,398	342,809	5,686	300,005	4,580	91,318		
S&W	5	Maintenance	MX_PROD	706,099	325,172	5,393	284,570	4,344	86,619		
S&W	6	TOTAL PRODUCTION S&W EXPENSE		1,450,497	667,981	11,079	584,576	8,925	177,937		
S&W	7										
S&W	8	SYSTEM CONTROL AND DISPATCH S&W EXPENSE									
S&W	9	556-Supervision & Engineering	OX_PROD	1,317,060	606,531	10,059	530,798	8,104	161,568		
S&W	10	557-Other Expenditures	MX_PROD	0	0	0	0	0	0		
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		1,317,060	606,531	10,059	530,798	8,104	161,568		
S&W	12										
S&W	13	TRANSMISSION SALARIES & WAGES EXPENSE									
S&W	14	Operation	OX_TRAN	0	0	0	0	0	0		
S&W	15	Maintenance	MX_TRAN	0	0	0	0	0	0		
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0	0	0	0		
S&W	17										
S&W	18	REGIONAL MARKET EXPENSE									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	68,406	30,114	596	24,999	445	12,252		
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	5,077	2,235	44	1,855	33	909		
S&W	21	TOTAL REGIONAL MARKET EXPENSE		73,483	32,349	640	26,854	478	13,162		
S&W	22										
S&W	23										
S&W	24										
S&W	25										
S&W	26										
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S&W	42										
S&W	43										
S&W	44										
S&W	45										
S&W	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
S&W	1	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR									
S&W	2										
S&W	3	PRODUCTION SALARIES & WAGES EXPENSE									
S&W	4	Operation	OX_PROD	278,900	23,502	40,408		77,216	0	10,113	176,134
S&W	5	Maintenance	MX_PROD	264,551	22,292	38,329		73,243	0	9,593	167,072
S&W	6	TOTAL PRODUCTION S&W EXPENSE		543,451	45,794	78,736		150,459	0	19,706	343,207
S&W	7										
S&W	8	SYSTEM CONTROL AND DISPATCH S&W EXPENSE									
S&W	9	556-Supervision & Engineering	OX_PROD	493,457	41,581	71,493		136,618	0	17,893	311,634
S&W	10	557-Other Expenditures	MX_PROD	0	0	0		0	0	0	0
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH		493,457	41,581	71,493		136,618	0	17,893	311,634
S&W	12										
S&W	13	TRANSMISSION SALARIES & WAGES EXPENSE									
S&W	14	Operation	OX_TRAN	0	0	0		0	0	0	0
S&W	15	Maintenance	MX_TRAN	0	0	0		0	0	0	0
S&W	16	TOTAL TRANSMISSION EXPENSE		0	0	0		0	0	0	0
S&W	17										
S&W	18	REGIONAL MARKET EXPENSE									
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM	24,613	2,178	3,323		7,787	0	999	9,865
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM	1,827	162	247		578	0	74	732
S&W	21	TOTAL REGIONAL MARKET EXPENSE		26,440	2,339	3,570		8,365	0	1,074	10,597
S&W	22										
S&W	23										
S&W	24										
S&W	25										
S&W	26										
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S&W	45										
S&W	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind	S	P	Q	T	Q
					CP-U Total	Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
S&W	1	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR								
S&W	2									
S&W	3	PRODUCTION SALARIES & WAGES EXPENSE								
S&W	4	Operation	OX_PROD		122,041	36,542	4,580	80,919	0	10,398
S&W	5	Maintenance	MX_PROD		115,762	34,662	4,344	76,756	0	9,863
S&W	6	TOTAL PRODUCTION S&W EXPENSE			237,803	71,204	8,925	157,675	0	20,261
S&W	7									
S&W	8	SYSTEM CONTROL AND DISPATCH S&W EXPENSE								
S&W	9	556-Supervision & Engineering	OX_PROD		215,927	64,653	8,104	143,170	0	18,398
S&W	10	557-Other Expenditures	MX_PROD		0	0	0	0	0	0
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH			215,927	64,653	8,104	143,170	0	18,398
S&W	12									
S&W	13	TRANSMISSION SALARIES & WAGES EXPENSE								
S&W	14	Operation	OX_TRAN		0	0	0	0	0	0
S&W	15	Maintenance	MX_TRAN		0	0	0	0	0	0
S&W	16	TOTAL TRANSMISSION EXPENSE			0	0	0	0	0	0
S&W	17									
S&W	18	REGIONAL MARKET EXPENSE								
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM		15,222	6,347	445	8,430	0	3,822
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM		1,130	471	33	626	0	284
S&W	21	TOTAL REGIONAL MARKET EXPENSE			16,352	6,818	478	9,056	0	4,106
S&W	22									
S&W	23									
S&W	24									
S&W	25									
S&W	26									
S&W	27									
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S&W	43									
S&W	44									
S&W	45									
S&W	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
S&W	1	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR								
S&W	2									
S&W	3	PRODUCTION SALARIES & WAGES EXPENSE								
S&W	4	Operation	OX_PROD		470	99	3,996	4,566	988	132
S&W	5	Maintenance	MX_PROD		446	94	3,791	4,331	937	125
S&W	6	TOTAL PRODUCTION S&W EXPENSE			917	193	7,787	8,897	1,925	256
S&W	7									
S&W	8	SYSTEM CONTROL AND DISPATCH S&W EXPENSE								
S&W	9	556-Supervision & Engineering	OX_PROD		832	175	7,071	8,078	1,748	233
S&W	10	557-Other Expenditures	MX_PROD		0	0	0	0	0	0
S&W	11	TOTAL SYSTEM CONTROL AND DISPATCH			832	175	7,071	8,078	1,748	233
S&W	12									
S&W	13	TRANSMISSION SALARIES & WAGES EXPENSE								
S&W	14	Operation	OX_TRAN		0	0	0	0	0	0
S&W	15	Maintenance	MX_TRAN		0	0	0	0	0	0
S&W	16	TOTAL TRANSMISSION EXPENSE			0	0	0	0	0	0
S&W	17									
S&W	18	REGIONAL MARKET EXPENSE								
S&W	19	575.70-Market Facil, Monitoring, & Compliance	OX_RM		41	4	424	470	112	14
S&W	20	575.71-Market Fac, Monit, Compl-Transm	OX_RM		3	0	31	35	8	1
S&W	21	TOTAL REGIONAL MARKET EXPENSE			44	5	456	505	120	15
S&W	22									
S&W	23									
S&W	24									
S&W	25									
S&W	26									
S&W	27									
S&W	28									
S&W	29									
S&W	30									
S&W	31									
S&W	32									
S&W	33									
S&W	34									
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S&W	37									
S&W	38									
S&W	39									
S&W	40									
S&W	41									
S&W	42									
S&W	43									
S&W	44									
S&W	45									
S&W	46									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	47	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR									
S&W	48										
S&W	49										
S&W	50	DISTRIBUTION SALARIES & WAGES EXPENSE									
S&W	51	Distribution Operations:									
S&W	52	580-Supervision	SALWAGDO	2,358,155	1,350,048	149,898	746,706	12,457	99,046		
S&W	53	581-Load Dispatch	DDISPSUB	32,080	13,787	215	13,768	195	4,116		
S&W	54	582-Station Equipment	PLT_362	700,767	301,160	4,691	300,752	4,258	89,905		
S&W	55	583-Overhead Lines	OHDIST	132,972	81,917	681	49,134	1,240	0		
S&W	56	584-Underground Lines	UGDIST	20,972	12,899	107	7,737	228	0		
S&W	57	585-Street Lighting	PLT_371	184,558	0	184,558	0	0	0		
S&W	58	586-Metering	CMETERS	728,110	572,944	616	145,607	2,255	6,688		
S&W	59	587-Customer Installations	PLT_3713	0	0	0	0	0	0		
S&W	60	588-Miscellaneous	DISTPLT	1,626,509	976,775	29,950	565,728	9,868	44,188		
S&W	61	589-Rents	DISTPLT	67,438	40,499	1,242	23,456	409	1,832		
S&W	62	Total Distribution Operation		5,851,560	3,350,029	371,958	1,852,887	30,911	245,774		
S&W	63										
S&W	64	Distribution Maintenance									
S&W	65	590-Supervision	SALWAGDM	69,106	41,045	413	25,992	595	1,061		
S&W	66	591-Structures	PLT_362	0	0	0	0	0	0		
S&W	67	592-Station Equipment	PLT_362	899,960	386,765	6,025	386,240	5,469	115,460		
S&W	68	593-Overhead Lines	OHDIST	5,828,547	3,590,638	29,846	2,153,699	54,364	0		
S&W	69	594-Underground Lines	UGDIST	493,533	303,557	2,523	182,077	5,376	0		
S&W	70	595-Transformers	PLT_368	324,779	201,962	1,679	121,139	0	0		
S&W	71	596-Street Lighting	PLT_373	4,537	0	4,537	0	0	0		
S&W	72	597-Metering	CMETERS	9,779	7,695	8	1,956	30	90		
S&W	73	598-Miscellaneous	DISTPLT	43,745	26,270	806	15,215	265	1,188		
S&W	74	Total Distribution Maintenance	MX_DIST	7,673,985	4,557,933	45,837	2,886,317	66,100	117,799		
S&W	75										
S&W	76	TOTAL DISTRIBUTION		13,525,545	7,907,962	417,795	4,739,205	97,011	363,573		
S&W	77										
S&W	78										
S&W	79										
S&W	80										
S&W	81										
S&W	82										
S&W	83										
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S&W	90										
S&W	91										
S&W	92										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail		S Iron River		S Res. Heating		S General Service	S General Service	S Commercial Heating	S 25kW-200kW Light & Power
				Residential A-1	Residential A-2	Res. Heating AH-1				C-1	C-2	H-1	P-1
		(a)	(b)	(k)	(l)	(m)	(n)			(o)	(p)	(q)	(r)
S&W	47	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR											
S&W	48												
S&W	49												
S&W	50	DISTRIBUTION SALARIES & WAGES EXPENSE											
S&W	51	Distribution Operations:											
S&W	52	580-Supervision	SALWAGDO	1,111,918	103,619	134,512				240,223	0	26,048	362,033
S&W	53	581-Load Dispatch	DDISPSUB	11,200	929	1,658				2,961	0	391	7,890
S&W	54	582-Station Equipment	PLT_362	244,661	20,291	36,209				64,682	0	8,536	172,346
S&W	55	583-Overhead Lines	OHDIST	66,704	5,505	9,708				14,448	0	1,883	23,824
S&W	56	584-Underground Lines	UGDIST	10,504	867	1,529				2,275	0	297	3,751
S&W	57	585-Street Lighting	PLT_371	0	0	0				0	0	0	0
S&W	58	586-Metering	CMETERS	479,283	56,251	37,410				94,272	0	6,339	39,796
S&W	59	587-Customer Installations	PLT_3713	0	0	0				0	0	0	0
S&W	60	588-Miscellaneous	DISTPLT	801,623	66,886	108,267				170,177	0	20,301	277,221
S&W	61	589-Rents	DISTPLT	33,237	2,773	4,489				7,056	0	842	11,494
S&W	62	Total Distribution Operation		2,759,128	257,121	333,780				596,094	0	64,636	898,355
S&W	63												
S&W	64	Distribution Maintenance											
S&W	65	590-Supervision	SALWAGDM	33,419	2,761	4,865				7,373	0	961	12,909
S&W	66	591-Structures	PLT_362	0	0	0				0	0	0	0
S&W	67	592-Station Equipment	PLT_362	314,206	26,059	46,501				83,067	0	10,962	221,335
S&W	68	593-Overhead Lines	OHDIST	2,923,829	241,301	425,508				633,282	0	82,555	1,044,261
S&W	69	594-Underground Lines	UGDIST	247,184	20,400	35,973				53,539	0	6,979	88,283
S&W	70	595-Transformers	PLT_368	164,456	13,572	23,933				35,620	0	4,643	58,736
S&W	71	596-Street Lighting	PLT_373	0	0	0				0	0	0	0
S&W	72	597-Metering	CMETERS	6,437	755	502				1,266	0	85	534
S&W	73	598-Miscellaneous	DISTPLT	21,560	1,799	2,912				4,577	0	546	7,456
S&W	74	Total Distribution Maintenance	MX_DIST	3,711,091	306,648	540,194				818,724	0	106,732	1,433,515
S&W	75												
S&W	76	TOTAL DISTRIBUTION		6,470,219	563,769	873,974				1,414,817	0	171,369	2,331,870
S&W	77												
S&W	78												
S&W	79												
S&W	80												
S&W	81												
S&W	82												
S&W	83												
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S&W	90												
S&W	91												
S&W	92												

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RETAIL SYSTEM												
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind	S			P	Q	T	Q
					CP-U Total	Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3		
		(a)	(b)	(s)	(t)	(u)	(v)	(w)		(x)		(y)
S&W	47	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR										
S&W	48											
S&W	49											
S&W	50	DISTRIBUTION SALARIES & WAGES EXPENSE										
S&W	51	Distribution Operations:										
S&W	52	580-Supervision	SALWAGDO		196,284	118,401	12,457	65,426		929		32,691
S&W	53	581-Load Dispatch	DDISPSUB		5,443	2,526	195	2,722		0		1,394
S&W	54	582-Station Equipment	PLT_362		118,902	55,189	4,258	59,454		0		30,450
S&W	55	583-Overhead Lines	OHDIST		10,220	8,980	1,240	0		0		0
S&W	56	584-Underground Lines	UGDIST		1,642	1,414	228	0		0		0
S&W	57	585-Street Lighting	PLT_371		0	0	0	0		0		0
S&W	58	586-Metering	CMETERS		11,779	5,200	2,255	4,323		1,251		1,114
S&W	59	587-Customer Installations	PLT_3713		0	0	0	0		0		0
S&W	60	588-Miscellaneous	DISTPLT		137,108	98,028	9,868	29,212		120		14,855
S&W	61	589-Rents	DISTPLT		5,685	4,064	409	1,211		5		616
S&W	62	Total Distribution Operation			487,063	293,803	30,911	162,349		2,305		81,120
S&W	63											
S&W	64	Distribution Maintenance										
S&W	65	590-Supervision	SALWAGDM		6,046	4,749	595	701		0		359
S&W	66	591-Structures	PLT_362		0	0	0	0		0		0
S&W	67	592-Station Equipment	PLT_362		152,700	70,876	5,469	76,354		0		39,106
S&W	68	593-Overhead Lines	OHDIST		447,964	393,600	54,364	0		0		0
S&W	69	594-Underground Lines	UGDIST		38,652	33,275	5,376	0		0		0
S&W	70	595-Transformers	PLT_368		22,139	22,139	0	0		0		0
S&W	71	596-Street Lighting	PLT_373		0	0	0	0		0		0
S&W	72	597-Metering	CMETERS		158	70	30	58		17		15
S&W	73	598-Miscellaneous	DISTPLT		3,687	2,636	265	786		3		400
S&W	74	Total Distribution Maintenance			671,345	527,346	66,100	77,900		20		39,879
S&W	75											
S&W	76	TOTAL DISTRIBUTION			1,158,408	821,149	97,011	240,248		2,325		120,999
S&W	77											
S&W	78											
S&W	79											
S&W	80											
S&W	81											
S&W	82											
S&W	83											
S&W	84											
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S&W	87											
S&W	88											
S&W	89											
S&W	90											
S&W	91											
S&W	92											

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
S&W	47	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR								
S&W	48									
S&W	49									
S&W	50	DISTRIBUTION SALARIES & WAGES EXPENSE								
S&W	51	Distribution Operations:								
S&W	52	580-Supervision	SALWAGDO		2,509	338	18,242	21,088	112,871	15,939
S&W	53	581-Load Dispatch	DDISPSUB		19	5	150	174	36	5
S&W	54	582-Station Equipment	PLT_362		413	101	3,281	3,795	789	108
S&W	55	583-Overhead Lines	OHDIST		57	15	478	550	115	16
S&W	56	584-Underground Lines	UGDIST		9	2	75	87	18	3
S&W	57	585-Street Lighting	PLT_371		0	0	0	0	161,714	22,844
S&W	58	586-Metering	CMETERS		616	0	0	616	0	0
S&W	59	587-Customer Installations	PLT_3713		0	0	0	0	0	0
S&W	60	588-Miscellaneous	DISTPLT		2,498	363	22,121	24,982	4,357	612
S&W	61	589-Rents	DISTPLT		104	15	917	1,036	181	25
S&W	62	Total Distribution Operation			6,225	838	45,265	52,327	280,079	39,552
S&W	63									
S&W	64	Distribution Maintenance								
S&W	65	590-Supervision	SALWAGDM		35	8	298	342	62	9
S&W	66	591-Structures	PLT_362		0	0	0	0	0	0
S&W	67	592-Station Equipment	PLT_362		531	129	4,214	4,874	1,013	138
S&W	68	593-Overhead Lines	OHDIST		2,519	644	20,964	24,127	5,020	699
S&W	69	594-Underground Lines	UGDIST		213	54	1,772	2,040	424	59
S&W	70	595-Transformers	PLT_368		142	36	1,179	1,357	282	39
S&W	71	596-Street Lighting	PLT_373		399	43	4,095	4,537	0	0
S&W	72	597-Metering	CMETERS		8	0	0	8	0	0
S&W	73	598-Miscellaneous	DISTPLT		67	10	595	672	117	16
S&W	74	Total Distribution Maintenance	MX_DIST		3,914	925	33,118	37,956	6,920	961
S&W	75									
S&W	76	TOTAL DISTRIBUTION			10,138	1,762	78,383	90,284	286,998	40,513
S&W	77									
S&W	78									
S&W	79									
S&W	80									
S&W	81									
S&W	82									
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S&W	90									
S&W	91									
S&W	92									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	93	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR									
S&W	94										
S&W	95	Customer Accounting Expense									
S&W	96	901-Supervision	SALWAGCA	431,052	383,446	612	46,930	38	26		
S&W	97	902-Meter Reading	CMETRDG	946,837	842,189	1,343	103,076	82	145		
S&W	98	903-Billing & Cashiering	CUSTREC	1,469,272	1,307,084	2,085	159,975	128	0		
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		2,847,161	2,532,720	4,040	309,982	248	171		
S&W	101										
S&W	102	CUSTOMER SERVICE EXPENSES									
S&W	103	907-Supervision	SALWAGCS	233,451	151,595	4,678	54,573	792	21,814		
S&W	104	908-Customer Assistance	CUSTCSS	2,489,275	1,616,450	49,879	581,906	8,440	232,600		
S&W	105	909-Advertisement	CUSTCSS	276,299	179,419	5,536	64,589	937	25,818		
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0	0	0	0		
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		2,999,025	1,947,464	60,093	701,068	10,169	280,231		
S&W	108										
S&W	109	SALES EXPENSES									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0	0	0	0		
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0	0	0	0		
S&W	112	TOTAL SALES EXPENSES		0	0	0	0	0	0		
S&W	113										
S&W	114	TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE		22,212,771	13,695,007	503,706	6,892,482	124,934	996,641		
S&W	115										
S&W	116	ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP									
S&W	117	Operation	SALWAGXAG	3,021,368	1,862,787	68,514	937,511	16,993	135,563		
S&W	118	Maintenance	SALWAGXAG	0	0	0	0	0	0		
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		3,021,368	1,862,787	68,514	937,511	16,993	135,563		
S&W	120										
S&W	121	TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE		25,234,139	15,557,794	572,220	7,829,994	141,927	1,132,204		
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
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S&W	136										
S&W	137										

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
S&W	93	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR									
S&W	94										
S&W	95	Customer Accounting Expense									
S&W	96	901-Supervision	SALWAGCA	327,402	27,164	28,881		40,768	0	1,885	3,999
S&W	97	902-Meter Reading	CMETRDG	719,094	59,662	63,433		89,541	0	4,140	8,783
S&W	98	903-Billing & Cashiering	CUSTREC	1,116,039	92,596	98,449		138,968	0	6,425	13,631
S&W	99	905-Miscellaneous	CUSTCSS	0	0	0		0	0	0	0
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE		2,162,535	179,423	190,762		269,276	0	12,449	26,413
S&W	101										
S&W	102	CUSTOMER SERVICE EXPENSES									
S&W	103	907-Supervision	SALWAGCS	127,580	10,814	13,201		23,867	0	2,184	17,722
S&W	104	908-Customer Assistance	CUSTCSS	1,360,374	115,310	140,766		254,489	0	23,288	188,970
S&W	105	909-Advertisement	CUSTCSS	150,996	12,799	15,624		28,247	0	2,585	20,975
S&W	106	910-Miscellaneous	CUSTCSS	0	0	0		0	0	0	0
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE		1,638,950	138,923	169,592		306,603	0	28,057	227,667
S&W	108										
S&W	109	SALES EXPENSES									
S&W	110	912-Demonstrations & Selling	OX_902_3	0	0	0		0	0	0	0
S&W	111	916-Miscellaneous Sales Expense	OX_902_3	0	0	0		0	0	0	0
S&W	112	TOTAL SALES EXPENSES		0	0	0		0	0	0	0
S&W	113										
S&W	114	TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE		11,335,051	971,828	1,388,127		2,286,138	0	250,548	3,251,388
S&W	115										
S&W	116	ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP									
S&W	117	Operation	SALWAGXAG	1,541,787	132,188	188,812		310,959	0	34,079	442,252
S&W	118	Maintenance	SALWAGXAG	0	0	0		0	0	0	0
S&W	119	TOTAL ADMINISTRATIVE & GENERAL		1,541,787	132,188	188,812		310,959	0	34,079	442,252
S&W	120										
S&W	121	TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE		12,876,838	1,104,016	1,576,940		2,597,097	0	284,627	3,693,640
S&W	122										
S&W	123										
S&W	124										
S&W	125										
S&W	126										
S&W	127										
S&W	128										
S&W	129										
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S&W	135										
S&W	136										
S&W	137										

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RETAIL SYSTEM												
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind	S			P	Q	T	Q
					CP-U Total	Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3		
		(a)	(b)	(s)	(t)	(u)	(v)	(w)		(x)		(y)
S&W	93	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR										
S&W	94											
S&W	95	Customer Accounting Expense										
S&W	96	901-Supervision	SALWAGCA		336	279	38	20		3		3
S&W	97	902-Meter Reading	CMETRDG		805	613	82	109		18		18
S&W	98	903-Billing & Cashiering	CUSTREC		1,080	952	128	0		0		0
S&W	99	905-Miscellaneous	CUSTCSS		0	0	0	0		0		0
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE			2,221	1,844	248	129		21		21
S&W	101											
S&W	102	CUSTOMER SERVICE EXPENSES										
S&W	103	907-Supervision	SALWAGCS		26,601	10,800	792	15,010		2		6,802
S&W	104	908-Customer Assistance	CUSTCSS		283,649	115,158	8,440	160,051		23		72,526
S&W	105	909-Advertisement	CUSTCSS		31,484	12,782	937	17,765		3		8,050
S&W	106	910-Miscellaneous	CUSTCSS		0	0	0	0		0		0
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE			341,735	138,740	10,169	192,826		28		87,378
S&W	108											
S&W	109	SALES EXPENSES										
S&W	110	912-Demonstrations & Selling	OX_902_3		0	0	0	0		0		0
S&W	111	916-Miscellaneous Sales Expense	OX_902_3		0	0	0	0		0		0
S&W	112	TOTAL SALES EXPENSES			0	0	0	0		0		0
S&W	113											
S&W	114	TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE			1,972,446	1,104,408	124,934	743,104		2,374		251,163
S&W	115											
S&W	116	ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP										
S&W	117	Operation	SALWAGXAG		268,291	150,221	16,993	101,077		323		34,163
S&W	118	Maintenance	SALWAGXAG		0	0	0	0		0		0
S&W	119	TOTAL ADMINISTRATIVE & GENERAL			268,291	150,221	16,993	101,077		323		34,163
S&W	120											
S&W	121	TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE			2,240,737	1,254,629	141,927	844,181		2,697		285,326
S&W	122											
S&W	123											
S&W	124											
S&W	125											
S&W	126											
S&W	127											
S&W	128											
S&W	129											
S&W	130											
S&W	131											
S&W	132											
S&W	133											
S&W	134											
S&W	135											
S&W	136											
S&W	137											

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
S&W	93	DEVELOPMENT OF SALARIES & WAGES ALLOCATION FACTOR								
S&W	94									
S&W	95	Customer Accounting Expense								
S&W	96	901-Supervision	SALWAGCA		612	0	0	612	0	0
S&W	97	902-Meter Reading	CMETRDG		1,343	0	0	1,343	0	0
S&W	98	903-Billing & Cashiering	CUSTREC		2,085	0	0	2,085	0	0
S&W	99	905-Miscellaneous	CUSTCSS		0	0	0	0	0	0
S&W	100	TOTAL CUSTOMER ACCOUNTING EXPENSE			4,040	0	0	4,040	0	0
S&W	101									
S&W	102	CUSTOMER SERVICE EXPENSES								
S&W	103	907-Supervision	SALWAGCS		230	30	1,142	1,403	2,903	372
S&W	104	908-Customer Assistance	CUSTCSS		2,458	324	12,178	14,960	30,951	3,968
S&W	105	909-Advertisement	CUSTCSS		273	36	1,352	1,661	3,435	440
S&W	106	910-Miscellaneous	CUSTCSS		0	0	0	0	0	0
S&W	107	TOTAL CUSTOMER SERVICE EXPENSE			2,961	391	14,672	18,024	37,289	4,780
S&W	108									
S&W	109	SALES EXPENSES								
S&W	110	912-Demonstrations & Selling	OX_902_3		0	0	0	0	0	0
S&W	111	916-Miscellaneous Sales Expense	OX_902_3		0	0	0	0	0	0
S&W	112	TOTAL SALES EXPENSES			0	0	0	0	0	0
S&W	113									
S&W	114	TOTAL O&M SALARIES & WAGES EXPENSE EXCL A&G EXPENSE								
S&W	115				18,933	2,527	108,368	129,827	328,081	45,798
S&W	116	ADMINISTRATIVE & GENERAL SALARIES & WAGES EXP								
S&W	117	Operation	SALWAGXAG		2,575	344	14,740	17,659	44,625	6,229
S&W	118	Maintenance	SALWAGXAG		0	0	0	0	0	0
S&W	119	TOTAL ADMINISTRATIVE & GENERAL			2,575	344	14,740	17,659	44,625	6,229
S&W	120									
S&W	121	TOTAL OPER & MAINTENANCE SALARIES & WAGES EXPENSE								
S&W	122				21,508	2,870	123,108	147,486	372,707	52,027
S&W	123									
S&W	124									
S&W	125									
S&W	126									
S&W	127									
S&W	128									
S&W	129									
S&W	130									
S&W	131									
S&W	132									
S&W	133									
S&W	134									
S&W	135									
S&W	136									
S&W	137									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
S&W	138										
AF	1	ALLOCATION FACTOR TABLE									
AF	2										
AF	3	ENERGY - PRODUCTION RELATED									
AF	4	Energy @ Meter (kWh Sales)	ENERGY2	532,950,246	232,367,004	4,599,131	192,895,980	3,569,045	99,519,086		
AF	5	Energy @ Generation with losses(kWh)	ENERGY1	573,020,213	252,257,619	4,992,817	209,407,876	3,727,867	102,634,034		
AF	6	Energy @ Generation with losses (kWh)	ENEFUEL	573,020,213	252,257,619	4,992,817	209,407,876	3,727,867	102,634,034		
AF	7										
AF	8	Energy - RTMP	ERTMP	1	0	0	0	0	1		
AF	9										
AF	10										
AF	11	DEMAND									
AF	12	DEMAND - PRODUCTION RELATED									
AF	13	Demand Production (12CP 75% & Energy 25%)	DPROD	1.0000	0.4605	0.0076	0.4030	0.0062	0.1227		
AF	14										
AF	15										
AF	16	Production Load Dispatching (Average Demand)	DPRODLD	65,413	28,797	570	23,905	426	11,716		
AF	17	Purchased Capacity (1CP Firm Load Only)	DPURCH	102,405	54,627	1,271	45,895	613	0		
AF	18										
AF	19	DEMAND - TRANSMISSION RELATED									
AF	20	Demand Transmission (12CP no AES or RTMP)	DTRAN	1,208,686	519,656	8,095	518,951	7,347	154,636		
AF	21	Transmission Load Dispatching (Average Demand)	DTRANLD	65,413	28,797	570	23,905	426	11,716		
AF	22										
AF	23	DEMAND - DISTRIBUTION RELATED									
AF	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB	1,209,746	519,899	8,099	519,193	7,351	155,204		
AF	25										
AF	26	Demand Distribution Primary Lines (NCP)	DDISTPRI	247,485	152,124	1,264	91,245	2,852	0		
AF	27										
AF	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC	244,633	152,124	1,264	91,245	0	0		
AF	29										
AF	30	Demand Distribution Line Transformers (NCP)	DDISTSLT	244,633	152,124	1,264	91,245	0	0		
AF	31	Distribution Load Dispatching	DDISTLD	60,839	26,526	525	22,020	407	11,361		
AF	32										
AF	33	Minimum System - Demand Allocation Factors									
AF	34	Primary									
AF	35	kW Capability of Minimum	64.00%								
AF	36	NCP * kW Capability Minimum	158,390								
AF	37	Dist Pri Min kW Allocated on Number of Primary Customers		158,390	136,669	4,981	16,727	13	0		
AF	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS	89,206	15,455	(3,606)	74,518	2,838	0		
AF	39	Secondary									
AF	40	Demand Distribution Secondary Lines (NCP)		244,633	152,124	1,264	91,245	0	0		
AF	41	Demand Adjustment									
AF	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS	84,918	38,031	1,264	45,623	0	0		
AF	43										
AF	44										
AF	45										
AF	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
S&W	138										
AF	1	ALLOCATION FACTOR TABLE									
AF	2										
AF	3	ENERGY - PRODUCTION RELATED									
AF	4	Energy @ Meter (kWh Sales)	ENERGY2	189,919,815	16,802,756	25,644,433		60,086,760	0	7,712,051	76,121,492
AF	5	Energy @ Generation with losses(kWh)	ENERGY1	206,176,951	18,241,071	27,839,596		65,230,187	0	8,372,203	82,637,492
AF	6	Energy @ Generation with losses (kWh)	ENEFUEL	206,176,951	18,241,071	27,839,596		65,230,187	0	8,372,203	82,637,492
AF	7										
AF	8	Energy - RTMP	ERTMP	0	0	0		0	0	0	0
AF	9										
AF	10										
AF	11	DEMAND									
AF	12	DEMAND - PRODUCTION RELATED									
AF	13	Demand Production (12CP 75% & Energy 25%)	DPROD	0.3747	0.0316	0.0543		0.1037	0.0000	0.0136	0.2366
AF	14										
AF	15										
AF	16	Production Load Dispatching (Average Demand)	DPRODLD	23,536	2,082	3,178		7,446	0	956	9,434
AF	17	Purchased Capacity (1CP Firm Load Only)	DPURCH	43,086	3,674	7,867		7,813	0	1,148	28,994
AF	18										
AF	19	DEMAND - TRANSMISSION RELATED									
AF	20	Demand Transmission (12CP no AES or RTMP)	DTRAN	422,165	35,013	62,478		111,609	0	14,728	297,384
AF	21	Transmission Load Dispatching (Average Demand)	DTRANLD	23,536	2,082	3,178		7,446	0	956	9,434
AF	22										
AF	23	DEMAND - DISTRIBUTION RELATED									
AF	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB	422,362	35,029	62,507		111,661	0	14,735	297,523
AF	25										
AF	26	Demand Distribution Primary Lines (NCP)	DDISTPRI	123,873	10,223	18,027		26,830	0	3,498	44,242
AF	27										
AF	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC	123,873	10,223	18,027		26,830	0	3,498	44,242
AF	29										
AF	30	Demand Distribution Line Transformers (NCP)	DDISTSLT	123,873	10,223	18,027		26,830	0	3,498	44,242
AF	31	Distribution Load Dispatching	DDISTLD	21,680	1,918	2,927		6,859	0	880	8,690
AF	32										
AF	33	Minimum System - Demand Allocation Factors									
AF	34	Primary									
AF	35	kW Capability of Minimum	64.00%								
AF	36	NCP * kW Capability Minimum	158,390								
AF	37	Dist Pri Min kW Allocated on Number of Primary Customers		116,693	9,682	10,294		14,530	0	672	1,425
AF	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS	7,180	541	7,734		12,300	0	2,826	42,817
AF	39	Secondary									
AF	40	Demand Distribution Secondary Lines (NCP)		123,873	10,223	18,027		26,830	0	3,498	44,242
AF	41	Demand Adjustment		0.2500	0.2500	0.2500		0.5000	0.5000	0.5000	0.5000
AF	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS	30,968	2,556	4,507		13,415	0	1,749	22,121
AF	43										
AF	44										
AF	45										
AF	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S	P	Q	T	Q	
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3	
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
S&W	138									
AF	1	ALLOCATION FACTOR TABLE								
AF	2									
AF	3	ENERGY - PRODUCTION RELATED								
AF	4	Energy @ Meter (kWh Sales)	ENERGY2		121,018,237	48,975,676	3,569,045	68,473,516	0	31,045,571
AF	5	Energy @ Generation with losses(kWh)	ENERGY1		127,512,598	53,167,994	3,727,867	70,616,737	0	32,017,297
AF	6	Energy @ Generation with losses (kWh)	ENEFUEL		127,512,598	53,167,994	3,727,867	70,616,737	0	32,017,297
AF	7									
AF	8	Energy - RTMP	ERTMP		0	0	0	0	1	0
AF	9									
AF	10									
AF	11	DEMAND								
AF	12	DEMAND - PRODUCTION RELATED								
AF	13	Demand Production (12CP 75% & Energy 25%)	DPROD		0.1639	0.0491	0.0062	0.1087	0.0000	0.0140
AF	14									
AF	15									
AF	16	Production Load Dispatching (Average Demand)	DPRODLD		14,556	6,069	426	8,061	0	3,655
AF	17	Purchased Capacity (1CP Firm Load Only)	DPURCH		8,552	7,939	613	0	0	0
AF	18									
AF	19	DEMAND - TRANSMISSION RELATED								
AF	20	Demand Transmission (12CP no AES or RTMP)	DTRAN		204,838	95,229	7,347	102,262	0	52,374
AF	21	Transmission Load Dispatching (Average Demand)	DTRANLD		14,556	6,069	426	8,061	0	3,655
AF	22									
AF	23	DEMAND - DISTRIBUTION RELATED								
AF	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB		205,262	95,274	7,351	102,637	0	52,567
AF	25									
AF	26	Demand Distribution Primary Lines (NCP)	DDISTPRI		19,527	16,676	2,852	0	0	0
AF	27									
AF	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC		19,527	16,676	0	0	0	0
AF	29									
AF	30	Demand Distribution Line Transformers (NCP)	DDISTSLT		16,676	16,676	0	0	0	0
AF	31	Distribution Load Dispatching	DDISTLD		13,815	5,591	407	7,817	0	3,544
AF	32									
AF	33	Minimum System - Demand Allocation Factors								
AF	34	Primary								
AF	35	kW Capability of Minimum	64.00%							
AF	36	NCP * kW Capability Minimum	158,390							
AF	37	Dist Pri Min kW Allocated on Number of Primary Customers			113	100	13	0	0	0
AF	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		19,414	16,576	2,838	0	0	0
AF	39	Secondary								
AF	40	Demand Distribution Secondary Lines (NCP)			16,676	16,676	0	0	0	0
AF	41	Demand Adjustment				0.5000				
AF	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		8,338	8,338	0	0	0	0
AF	43									
AF	44									
AF	45									
AF	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
S&W	138									
AF	1	ALLOCATION FACTOR TABLE								
AF	2									
AF	3	ENERGY - PRODUCTION RELATED								
AF	4	Energy @ Meter (kWh Sales)	ENERGY2		318,981	34,140	3,272,956	3,626,076	864,478	108,577
AF	5	Energy @ Generation with losses(kWh)	ENERGY1		346,285	37,062	3,553,121	3,936,468	938,478	117,871
AF	6	Energy @ Generation with losses (kWh)	ENEFUEL		346,285	37,062	3,553,121	3,936,468	938,478	117,871
AF	7									
AF	8	Energy - RTMP	ERTMP		0	0	0	0	0	0
AF	9									
AF	10									
AF	11	DEMAND								
AF	12	DEMAND - PRODUCTION RELATED								
AF	13	Demand Production (12CP 75% & Energy 25%)	DPROD		0.0006	0.0001	0.0054	0.0061	0.0013	0.0002
AF	14									
AF	15									
AF	16	Production Load Dispatching (Average Demand)	DPRODLD		40	4	406	449	107	13
AF	17	Purchased Capacity (1CP Firm Load Only)	DPURCH		133	27	864	1,023	217	30
AF	18									
AF	19	DEMAND - TRANSMISSION RELATED								
AF	20	Demand Transmission (12CP no AES or RTMP)	DTRAN		713	174	5,662	6,548	1,361	186
AF	21	Transmission Load Dispatching (Average Demand)	DTRANLD		40	4	406	449	107	13
AF	22									
AF	23	DEMAND - DISTRIBUTION RELATED								
AF	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB		713	174	5,664	6,551	1,362	186
AF	25									
AF	26	Demand Distribution Primary Lines (NCP)	DDISTPRI		107	27	888	1,022	213	30
AF	27									
AF	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC		107	27	888	1,022	213	30
AF	29									
AF	30	Demand Distribution Line Transformers (NCP)	DDISTSLT		107	27	888	1,022	213	30
AF	31	Distribution Load Dispatching	DDISTLD		36	4	374	414	99	12
AF	32									
AF	33	Minimum System - Demand Allocation Factors								
AF	34	Primary								
AF	35	kW Capability of Minimum	64.00%							
AF	36	NCP * kW Capability Minimum	158,390							
AF	37	Dist Pri Min kW Allocated on Number of Primary Customers			218	31	577	826	3,682	473
AF	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0	(4)	311	307	(3,470)	(443)
AF	39	Secondary								
AF	40	Demand Distribution Secondary Lines (NCP)			107	27	888	1,022	213	30
AF	41	Demand Adjustment			1.0000	1.0000	1.0000		1.0000	1.0000
AF	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		107	27	888	1,022	213	30
AF	43									
AF	44									
AF	45									
AF	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	47	ALLOCATION FACTOR TABLE CONTINUED									
AF	48										
AF	49	<u>CUSTOMER</u>									
AF	50										
AF	51	Minimum System - Customer Allocation Factors									
AF	52	Primary									
AF	53	Number of Primary Customers - MS	CDISTPRI	54,250	46,810	1,706	5,729	5	0		
AF	54	Secondary									
AF	55	Number of Secondary Customers		53,962	46,810	1,423	5,729	-	0		
AF	56	Residential Customer Adjustment									
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	30,557	23,405	1,423	5,729	0	0		
AF	58	Line Transformers									
AF	59	Number of Line Transformer Customers		53,964	46,810	1,423	5,729	-	2		
AF	60	Line Transformer Adjustment									
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	28,823	23,405	1,423	3,993	0	2		
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	42,870,830	37,134,070	219,330	5,517,430	0	0		
AF	65	370-Meters (New Meter Cost)	CMETERS	8,440,210	6,641,535	7,144	1,687,864	26,141	77,526		
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	1,860	0	1,860	0	0	0		
AF	68	373-Street Lighting & Signal Systems	CLIGHT	3,626,076	0	3,626,076	0	0	0		
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	54,258	46,810	1,706	5,729	5	8		
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	52,626	46,810	75	5,729	5	8		
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	631,416	561,716	896	68,749	55	0		
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.5000	0.2180	0.0043	0.1810	0.0033	0.0934		
AF	77	50% Number of Customers		0.5000	0.4314	0.0157	0.0528	0.0000	0.0001		
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	1.0000	0.6494	0.0200	0.2338	0.0034	0.0934		
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	631,416	561,716	896	68,749	55	0		
AF	83	Number of Customers (Average Annual)	CUST	54,258	46,810	1,706	5,729	5	8		
AF	84	Number of Services (Customers)	CSERV	52,822	46,810	283	5,729	0	0		
AF	85	Number of Lamps	CLAMP	8,731	0	8,731	0	0	0		
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AF	47	ALLOCATION FACTOR TABLE CONTINUED									
AF	48										
AF	49	<u>CUSTOMER</u>									
AF	50										
AF	51	Minimum System - Customer Allocation Factors									
AF	52	Primary									
AF	53	Number of Primary Customers - MS	CDISTPRI	39,968	3,316	3,526		4,977	0	230	488
AF	54	Secondary									
AF	55	Number of Secondary Customers		39,968	3,316	3,526		4,977	0	230	488
AF	56	Residential Customer Adjustment		0.5000	0.5000	0.5000		1.00	1.00	1.00	1.00
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	19,984	1,658	1,763		4,977	0	230	488
AF	58	Line Transformers									
AF	59	Number of Line Transformer Customers		39,968	3,316	3,526		4,977	0	230	488
AF	60	Line Transformer Adjustment		2.00	2.00	2.00		1.50	1.50	1.50	1.00
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	19,984	1,658	1,763		3,318	0	153	488
AF	62										
AF	63										
AF	64	369-Service Investment (Replacement Costs)	CSERVICE	31,734,272	2,357,485	3,042,313		4,557,547	0	209,406	706,590
AF	65	370-Meters (New Meter Cost)	CMETERS	5,555,818	652,063	433,653		1,092,797	0	73,479	461,308
AF	66										
AF	67	371-Installation on Customer Premises	CUSTPREM	0	0	0		0	0	0	0
AF	68	373-Street Lighting & Signal Systems	CLIGHT	0	0	0		0	0	0	0
AF	69										
AF	70	Customer Deposits (Number of Customers)	CUSTDEP	39,968	3,316	3,526		4,977	0	230	488
AF	71										
AF	72	902-Meter Reading (Number of Customers)	CMETRDG	39,968	3,316	3,526		4,977	0	230	488
AF	73	903-Customer Records & Collections (Bills)	CUSTREC	479,615	39,793	42,308		59,721	0	2,761	5,858
AF	74										
AF	75	905, 908-916 - Customer Service and Sales Composite									
AF	76	50% Energy @ Meter		0.1782	0.0158	0.0241		0.0564	0.0000	0.0072	0.0714
AF	77	50% Number of Customers		0.3683	0.0306	0.0325		0.0459	0.0000	0.0021	0.0045
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.5465	0.0463	0.0565		0.1022	0.0000	0.0094	0.0759
AF	79										
AF	80										
AF	81										
AF	82	Number of Total Bills	CUSTBILLS	479,615	39,793	42,308		59,721	0	2,761	5,858
AF	83	Number of Customers (Average Annual)	CUST	39,968	3,316	3,526		4,977	0	230	488
AF	84	Number of Services (Customers)	CSERV	39,968	3,316	3,526		4,977	0	230	488
AF	85	Number of Lamps	CLAMP	0	0	0		0	0	0	0
AF	86										
AF	87										
AF	88										
AF	89										
AF	90										
AF	91										
AF	92										

Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM						(x)	(y)
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3		
		(a)	(b)		(t)	(u)	(v)	(w)				
AF	47	ALLOCATION FACTOR TABLE CONTINUED										
AF	48											
AF	49	<u>CUSTOMER</u>										
AF	50											
AF	51	Minimum System - Customer Allocation Factors										
AF	52	Primary										
AF	53	Number of Primary Customers - MS	CDISTPRI		39	34	5	0	0	0		
AF	54	Secondary										
AF	55	Number of Secondary Customers			34	34	0	0	0	0		
AF	56	Residential Customer Adjustment				1.00	1.00	1.00	1.00	1.00		
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		34	34	0	0	0	0		
AF	58	Line Transformers										
AF	59	Number of Line Transformer Customers			34	34	0	0	1	1		
AF	60	Line Transformer Adjustment				1.00	1.00	1.00	1.00	1.00		
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		34	34	0	0	1	1		
AF	62											
AF	63											
AF	64	369-Service Investment (Replacement Costs)	CSERVICE		43,888	43,888	0	0	0	0		
AF	65	370-Meters (New Meter Cost)	CMETERS		136,538	60,281	26,141	50,117	14,500	12,909		
AF	66											
AF	67	371-Installation on Customer Premises	CUSTPREM		0	0	0	0	0	0		
AF	68	373-Street Lighting & Signal Systems	CLIGHT		0	0	0	0	0	0		
AF	69											
AF	70	Customer Deposits (Number of Customers)	CUSTDEP		45	34	5	6	1	1		
AF	71											
AF	72	902-Meter Reading (Number of Customers)	CMETRDG		45	34	5	6	1	1		
AF	73	903-Customer Records & Collections (Bills)	CUSTREC		464	409	55	0	0	0		
AF	74											
AF	75	905, 908-916 - Customer Service and Sales Composite										
AF	76	50% Energy @ Meter			0.1135	0.0459	0.0033	0.0642	0.0000	0.0291		
AF	77	50% Number of Customers			0.0004	0.0003	0.0000	0.0001	0.0000	0.0000		
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.1139	0.0463	0.0034	0.0643	0.0000	0.0291		
AF	79											
AF	80											
AF	81											
AF	82	Number of Total Bills	CUSTBILLS		464	409	55	0	0	0		
AF	83	Number of Customers (Average Annual)	CUST		45	34	5	6	1	1		
AF	84	Number of Services (Customers)	CSERV		34	34	0	0	0	0		
AF	85	Number of Lamps	CLAMP		0	0	0	0	0	0		
AF	86											
AF	87											
AF	88											
AF	89											
AF	90											
AF	91											
AF	92											

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3 (aa)	S Street Light (Closed) SL-5 (ab)	S Street Lighting SL-6 (ac)	Street Lighting Total (ad)	S Integrated OSL Z-3 (ae)	S Iron River OSL Z-4 (af)
		(a)	(b)	(z)						
AF	47	ALLOCATION FACTOR TABLE CONTINUED								
AF	48									
AF	49	<u>CUSTOMER</u>								
AF	50									
AF	51	Minimum System - Customer Allocation Factors								
AF	52	Primary								
AF	53	Number of Primary Customers - MS	CDISTPRI		75	11	198	283	1,261	162
AF	54	Secondary								
AF	55	Number of Secondary Customers			0	0	0	0	1,261	162
AF	56	Residential Customer Adjustment			1.00	1.00	1.00	0	1.00	1.00
AF	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		0	0	0	0	1,261	162
AF	58	Line Transformers								
AF	59	Number of Line Transformer Customers			0	0	0	0	1,261	162
AF	60	Line Transformer Adjustment			1.00	1.00	1.00	0	1.00	1.00
AF	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		0	0	0	0	1,261	162
AF	62									
AF	63									
AF	64	369-Service Investment (Replacement Costs)	CSERVICE		57,868	8,267	153,195	219,330	0	0
AF	65	370-Meters (New Meter Cost)	CMETERS		7,144	0	0	7,144	0	0
AF	66									
AF	67	371-Installation on Customer Premises	CUSTPREM		0	0	0	0	1,630	230
AF	68	373-Street Lighting & Signal Systems	CLIGHT		318,981	34,140	3,272,956	3,626,076	0	0
AF	69									
AF	70	Customer Deposits (Number of Customers)	CUSTDEP		75	11	198	283	1,261	162
AF	71									
AF	72	902-Meter Reading (Number of Customers)	CMETRDG		75	0	0	75	0	0
AF	73	903-Customer Records & Collections (Bills)	CUSTREC		896	0	0	896	0	0
AF	74									
AF	75	905, 908-916 - Customer Service and Sales Composite								
AF	76	50% Energy @ Meter			0.0003	0.0000	0.0031	0.0034	0.0008	0.0001
AF	77	50% Number of Customers			0.0007	0.0001	0.0018	0.0026	0.0116	0.0015
AF	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.0010	0.0001	0.0049	0.0060	0.0124	0.0016
AF	79									
AF	80									
AF	81									
AF	82	Number of Total Bills	CUSTBILLS		896	0	0	896	0	0
AF	83	Number of Customers (Average Annual)	CUST		75	11	198	283	1,261	162
AF	84	Number of Services (Customers)	CSERV		75	11	198	283	0	0
AF	85	Number of Lamps	CLAMP		0	123	6,748	6,871	1,630	230
AF	86									
AF	87									
AF	88									
AF	89									
AF	90									
AF	91									
AF	92									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	93	ALLOCATION FACTOR TABLE CONTINUED									
AF	94	INTERNALLY DEVELOPED ALLOCATION FACTORS									
AF	95										
AF	96	Plant									
AF	97	Intangible Plant In Service	INTPLT	32,086,796	17,604,865	462,742	11,816,507	195,687	2,006,994		
AF	98	Production Plant In Service	PRODPLT	105,398,076	48,537,815	805,006	42,477,265	648,488	12,929,502		
AF	99	Transmission Plant In Service	TRANPLT	0	0	0	0	0	0		
AF	100	Distribution Plant in Service	DISTPLT	179,103,300	107,557,806	3,297,951	62,295,195	1,086,597	4,865,750		
AF	101	General Plant in Service	GENPLT	45,231,507	27,886,922	1,025,689	14,035,051	254,400	2,029,445		
AF	102	Intangible and General Plant in Service	INTGENPLT	77,318,303	45,491,787	1,488,431	25,851,558	450,088	4,036,439		
AF	103	Total Transmission and Distribution Plant	TDPLT	179,103,300	107,557,806	3,297,951	62,295,195	1,086,597	4,865,750		
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT	284,501,376	156,095,621	4,102,957	104,772,460	1,735,085	17,795,252		
AF	105	Total Electric Plant In Service	TOTPLT	361,819,679	201,587,409	5,591,388	130,624,017	2,185,173	21,831,692		
AF	106	Net Electric Plant In Service	NETPLT	214,872,053	118,940,298	2,666,321	78,524,552	1,276,169	13,464,713		
AF	107	Rate Base	RATEBASE	278,888,973	155,133,069	3,794,004	100,630,047	1,650,558	17,681,296		
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	Distribution Plant in Service									
AF	116	Acct 360-Land and Land Rights	PLT_360	718,841	308,928	4,812	308,509	4,368	92,223		
AF	117	Acct 361-Structures & Improvements	PLT_361	1,160,603	498,779	7,770	498,102	7,053	148,899		
AF	118	Acct 362-Station Equipment	PLT_362	35,495,021	15,254,292	237,630	15,233,586	215,696	4,553,817		
AF	119	Acct 364-Towers and Fixtures	PLT_364	37,922,402	23,377,763	194,321	14,022,207	328,111	0		
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	20,338,960	12,513,765	104,017	7,505,877	215,301	0		
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0	0	0	0		
AF	122	Acct 367 - Underground Conductor	PLT_367	26,823,016	16,498,019	137,135	9,895,671	292,191	0		
AF	123	Acct 368-Line Transformers	PLT_368	29,866,874	18,572,519	154,379	11,139,976	0	0		
AF	124	Acct 369-Services	PLT_369	16,702,490	14,467,446	85,451	2,149,593	0	0		
AF	125	Acct 370-Meters	PLT_370	7,709,182	6,066,295	6,525	1,541,674	23,877	70,811		
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	386,255	0	386,255	0	0	0		
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	1,979,655	0	1,979,655	0	0	0		
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	58,261,363	35,891,528	298,339	21,528,084	543,412	0		
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	26,823,016	16,498,019	137,135	9,895,671	292,191	0		
AF	130	Accounts 371&373	PLT_3713	2,365,910	0	2,365,910	0	0	0		
AF	131										
AF	132	Accts 360-362-Distribution Substation	PLT_SUB	37,374,466	16,061,999	250,212	16,040,197	227,117	4,794,939		
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	72,519,814	44,576,355	370,529	26,737,327	835,603	0		
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0	0	0	0		
AF	135										
AF	136										
AF	137										
AF	138										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AF	93	ALLOCATION FACTOR TABLE CONTINUED									
AF	94	INTERNALLY DEVELOPED ALLOCATION FACTORS									
AF	95										
AF	96	Plant									
AF	97	Intangible Plant In Service	INTPLT	14,409,085	1,205,947	1,989,833		3,346,480	0	413,617	6,255,471
AF	98	Production Plant In Service	PRODPLT	39,489,020	3,327,559	5,721,236		10,932,883	0	1,431,896	24,938,590
AF	99	Transmission Plant In Service	TRANPLT	0	0	0		0	0	0	0
AF	100	Distribution Plant In Service	DISTPLT	88,270,833	7,365,115	11,921,858		18,739,083	0	2,235,484	30,526,285
AF	101	General Plant In Service	GENPLT	23,081,382	1,978,919	2,826,622		4,655,226	0	510,187	6,620,750
AF	102	Intangible and General Plant In Service	INTGENPLT	37,490,466	3,184,866	4,816,455		8,001,706	0	923,803	12,876,221
AF	103	Total Transmission and Distribution Plant	TDPLT	88,270,833	7,365,115	11,921,858		18,739,083	0	2,235,484	30,526,285
AF	104	Prod, Trans, and Distr Plant In Service	PTDPLT	127,759,854	10,692,674	17,643,094		29,671,965	0	3,667,380	55,464,875
AF	105	Total Electric Plant In Service	TOTPLT	165,250,320	13,877,539	22,459,549		37,673,672	0	4,591,184	68,341,096
AF	106	Net Electric Plant In Service	NETPLT	97,415,051	8,254,143	13,271,103		22,431,054	0	2,750,727	41,241,058
AF	107	Rate Base	RATEBASE	127,210,334	10,785,270	17,137,465		28,974,651	0	3,517,584	52,431,381
AF	108										
AF	109										
AF	110										
AF	111										
AF	112										
AF	113										
AF	114										
AF	115	Distribution Plant in Service									
AF	116	Acct 360-Land and Land Rights	PLT_360	250,971	20,815	37,142		66,350	0	8,756	176,791
AF	117	Acct 361-Structures & Improvements	PLT_361	405,205	33,606	59,968		107,125	0	14,137	285,437
AF	118	Acct 362-Station Equipment	PLT_362	12,392,483	1,027,785	1,834,025		3,276,234	0	432,342	8,729,595
AF	119	Acct 364-Towers and Fixtures	PLT_364	19,036,336	1,571,050	2,770,376		4,123,144	0	537,498	6,798,930
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365	10,189,865	840,959	1,482,941		2,207,057	0	287,715	3,639,365
AF	121	Acct 366-Underground Conduit	PLT_366	0	0	0		0	0	0	0
AF	122	Acct 367 - Underground Conductor	PLT_367	13,434,213	1,108,712	1,955,094		2,909,762	0	379,320	4,798,101
AF	123	Acct 368-Line Transformers	PLT_368	15,123,463	1,248,124	2,200,932		3,275,642	0	427,017	5,401,426
AF	124	Acct 369-Services	PLT_369	12,363,683	918,477	1,185,286		1,775,622	0	81,584	275,288
AF	125	Acct 370-Meters	PLT_370	5,074,615	595,586	396,093		998,147	0	67,115	421,353
AF	126	Acct 371-Inst. on Customer Premises	PLT_371	0	0	0		0	0	0	0
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0	0	0		0	0	0	0
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	29,226,201	2,412,009	4,253,317		6,330,202	0	825,213	10,438,295
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	13,434,213	1,108,712	1,955,094		2,909,762	0	379,320	4,798,101
AF	130	Accounts 371&373	PLT_3713	0	0	0		0	0	0	0
AF	131										
AF	132	Accts 360-362-Distribution Substation	PLT_SUB	13,048,659	1,082,205	1,931,135		3,449,709	0	455,235	9,191,823
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	36,298,191	2,995,654	5,282,511		7,861,948	0	1,024,893	12,964,094
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0	0	0		0	0	0	0
AF	135										
AF	136										
AF	137										
AF	138										

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RETAIL SYSTEM										
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S Large Commercial & Industrial			T Real-Time Market Pricing RTMP	Q Transmission CP-U Trans	Q > 5,000kW Light & Power WP-3
					Secondary CP-U Sec	Primary CP-U Prim	P			
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
AF	93	ALLOCATION FACTOR TABLE CONTINUED								
AF	94	INTERNALLY DEVELOPED ALLOCATION FACTORS								
AF	95									
AF	96	Plant								
AF	97	Intangible Plant In Service	INTPLT		3,651,590	1,800,939	195,687	1,654,964	1,494	350,537
AF	98	Production Plant In Service	PRODPLT		17,279,616	5,173,896	648,488	11,457,232	0	1,472,270
AF	99	Transmission Plant in Service	TRANPLT		0	0	0	0	0	0
AF	100	Distribution Plant in Service	DISTPLT		15,097,639	10,794,343	1,086,597	3,216,699	13,244	1,635,808
AF	101	General Plant in Service	GENLPLT		4,016,460	2,248,888	254,400	1,513,171	4,834	511,439
AF	102	Intangible and General Plant in Service	INTGENLPLT		7,668,050	4,049,827	450,088	3,168,135	6,328	861,976
AF	103	Total Transmission and Distribution Plant	TDPLT		15,097,639	10,794,343	1,086,597	3,216,699	13,244	1,635,808
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT		32,377,255	15,968,239	1,735,085	14,673,931	13,244	3,108,077
AF	105	Total Electric Plant In Service	TOTPLT		40,045,305	20,018,066	2,185,173	17,842,066	19,572	3,970,054
AF	106	Net Electric Plant In Service	NETPLT		24,297,009	12,101,713	1,276,169	10,919,127	14,993	2,530,593
AF	107	Rate Base	RATEBASE		31,428,207	15,706,431	1,650,558	14,071,218	19,547	3,590,532
AF	108									
AF	109									
AF	110									
AF	111									
AF	112									
AF	113									
AF	114									
AF	115	Distribution Plant in Service								
AF	116	Acct 360-Land and Land Rights	PLT_360		121,969	56,612	4,368	60,988	0	31,236
AF	117	Acct 361-Structures & Improvements	PLT_361		196,924	91,403	7,053	98,468	0	50,431
AF	118	Acct 362-Station Equipment	PLT_362		6,022,579	2,795,415	215,696	3,011,467	0	1,542,350
AF	119	Acct 364-Towers and Fixtures	PLT_364		2,890,746	2,562,635	328,111	0	0	0
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365		1,587,041	1,371,740	215,301	0	0	0
AF	121	Acct 366-Underground Conduit	PLT_366		0	0	0	0	0	0
AF	122	Acct 367 - Underground Conductor	PLT_367		2,100,678	1,808,488	292,191	0	0	0
AF	123	Acct 368-Line Transformers	PLT_368		2,035,891	2,035,891	0	0	0	0
AF	124	Acct 369-Services	PLT_369		17,099	17,099	0	0	0	0
AF	125	Acct 370-Meters	PLT_370		124,712	55,060	23,877	45,776	13,244	11,791
AF	126	Acct 371-Inst. on Customer Premises	PLT_371		0	0	0	0	0	0
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373		0	0	0	0	0	0
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		4,477,787	3,934,374	543,412	0	0	0
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		2,100,678	1,808,488	292,191	0	0	0
AF	130	Accounts 371&373	PLT_3713		0	0	0	0	0	0
AF	131									
AF	132	Accts 360-362-Distribution Substation	PLT_SUB		6,341,471	2,943,431	227,117	3,170,923	0	1,624,017
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		5,721,995	4,886,392	835,603	0	0	0
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0	0	0	0	0	0
AF	135									
AF	136									
AF	137									
AF	138									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(z)	RETAIL SYSTEM					
					S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)		(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AF	93	ALLOCATION FACTOR TABLE CONTINUED								
AF	94	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AF	95									
AF	96	Plant								
AF	97	Intangible Plant In Service	INTPLT		38,531	6,089	338,540	383,160	69,882	9,700
AF	98	Production Plant In Service	PRODPLT		66,605	14,039	565,837	646,482	139,889	18,635
AF	99	Transmission Plant in Service	TRANPLT		0	0	0	0	0	0
AF	100	Distribution Plant in Service	DISTPLT		275,033	39,954	2,435,869	2,750,856	479,727	67,368
AF	101	General Plant in Service	GENLPLT		38,553	5,145	220,668	264,366	668,067	93,257
AF	102	Intangible and General Plant in Service	INTGENLPLT		77,083	11,235	559,208	647,526	737,948	102,957
AF	103	Total Transmission and Distribution Plant	TOTPLT		275,033	39,954	2,435,869	2,750,856	479,727	67,368
AF	104	Prod, Trans, and Distr Plant in Service	PTDPLT		341,638	53,993	3,001,707	3,397,338	619,616	86,004
AF	105	Total Electric Plant In Service	TOTPLT		418,722	65,228	3,560,915	4,044,864	1,357,564	188,960
AF	106	Net Electric Plant In Service	NETPLT		182,880	31,426	1,452,737	1,667,042	877,146	122,133
AF	107	Rate Base	RATEBASE		256,072	41,891	2,024,259	2,322,222	1,292,093	179,689
AF	108									
AF	109									
AF	110									
AF	111									
AF	112									
AF	113									
AF	114									
AF	115	Distribution Plant in Service								
AF	116	Acct 360-Land and Land Rights	PLT_360		424	103	3,366	3,893	809	111
AF	117	Acct 361-Structures & Improvements	PLT_361		684	167	5,434	6,285	1,306	178
AF	118	Acct 362-Station Equipment	PLT_362		20,930	5,094	166,200	192,224	39,948	5,457
AF	119	Acct 364-Towers and Fixtures	PLT_364		16,398	4,194	136,492	157,084	32,687	4,550
AF	120	Acct 365-Overhead Conductors & Devices	PLT_365		8,778	2,245	73,062	84,085	17,497	2,436
AF	121	Acct 366-Underground Conduit	PLT_366		0	0	0	0	0	0
AF	122	Acct 367 - Underground Conductor	PLT_367		11,573	2,960	96,324	110,857	23,067	3,211
AF	123	Acct 368-Line Transformers	PLT_368		13,028	3,332	108,436	124,796	25,968	3,615
AF	124	Acct 369-Services	PLT_369		22,545	3,221	59,685	85,451	0	0
AF	125	Acct 370-Meters	PLT_370		6,525	0	0	6,525	0	0
AF	126	Acct 371-Inst. on Customer Premises	PLT_371		0	0	0	0	338,445	47,810
AF	127	Acct 373-Street Lighting / Signal Systems	PLT_373		174,147	18,638	1,786,869	1,979,655	0	0
AF	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		25,176	6,439	209,554	241,169	50,183	6,986
AF	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		11,573	2,960	96,324	110,857	23,067	3,211
AF	130	Accounts 371&373	PLT_3713		174,147	18,638	1,786,869	1,979,655	338,445	47,810
AF	131									
AF	132	Accts 360-362-Distribution Substation	PLT_SUB		22,038	5,364	175,000	202,402	42,063	5,746
AF	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		31,268	7,997	260,261	299,526	62,326	8,676
AF	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0	0	0	0	0	0
AF	135									
AF	136									
AF	137									
AF	138									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	139	ALLOCATION FACTOR TABLE CONTINUED									
AF	140	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>									
AF	141										
AF	142	Production Expense									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	1,578,496	726,927	12,056	636,161	9,712	193,639		
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	863,885	397,835	6,598	348,161	5,315	105,975		
AF	145	Salaries and Wages Production Operation	SALWAGPO	744,398	342,809	5,686	300,005	4,580	91,318		
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	706,099	325,172	5,393	284,570	4,344	86,619		
AF	147										
AF	148	Transmission Expense									
AF	149	O&M Accounts 561-567	OX_TRAN	402,354	173,140	2,725	171,793	2,452	52,244		
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0	0	0	0		
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0	0	0	0		
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0	0	0	0		
AF	153										
AF	154	Regional Market Expens									
AF	155	O&M Accounts 575	OX_RM	73,483	32,349	640	26,854	478	13,162		
AF	156										
AF	157	Distribution Expense									
AF	158	Acct 580-Supervision	OX_580	2,358,155	1,350,048	149,898	746,706	12,457	99,046		
AF	159	Acct 581-Load Dispatch	OX_581	32,080	13,787	215	13,768	195	4,116		
AF	160	Acct 582-Station Equipment	OX_582	700,767	301,160	4,691	300,752	4,258	89,905		
AF	161	Acct 583-Overhead Lines	OX_583	132,972	81,917	681	49,134	1,240	0		
AF	162	Acct 584-Underground Lines	OX_584	20,972	12,899	107	7,737	228	0		
AF	163	Acct 585-Street Lighting	OX_585	184,558	0	184,558	0	0	0		
AF	164	Acct 586-Metering	OX_586	728,110	572,944	616	145,607	2,255	6,688		
AF	165	Acct 587-Customer Installations	OX_587	0	0	0	0	0	0		
AF	166	Acct 588-Miscellaneous	OX_588	1,626,509	976,775	29,950	565,728	9,868	44,188		
AF	167	Acct 589-Rents	OX_589	67,438	40,499	1,242	23,456	409	1,832		
AF	168	Acct 590-Supervision	MX_590	69,106	41,045	413	25,992	595	1,061		
AF	169	Acct 592-Station Equipment	MX_592	899,960	386,765	6,025	386,240	5,469	115,460		
AF	170	Acct 593-Overhead Lines	MX_593	5,828,547	3,590,638	29,846	2,153,699	54,364	0		
AF	171	Acct 594-Underground Lines	MX_594	493,533	303,557	2,523	182,077	5,376	0		
AF	172	Acct 595-Transformers	MX_595	324,779	201,962	1,679	121,139	0	0		
AF	173	Acct 596-Street Lighting	MX_596	4,537	0	4,537	0	0	0		
AF	174	Acct 597-Metering	MX_597	9,779	7,695	8	1,956	30	90		
AF	175	Acct 598-Miscellaneous	MX_598	43,745	26,270	806	15,215	265	1,188		
AF	176	O&M Accounts 581-589	OX_DIST	3,493,405	1,999,981	222,060	1,106,181	18,454	146,728		
AF	177	O&M Accounts 591-598	MX_DIST	7,604,880	4,516,888	45,424	2,860,326	65,504	116,738		
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	5,851,560	3,350,029	371,958	1,852,887	30,911	245,774		
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	7,673,985	4,557,933	45,837	2,886,317	66,100	117,799		
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	RETAIL SYSTEM				General Service C-1	General Service C-2	Commercial Heating H-1	25kW-200kW Light & Power P-1
				S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)				
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AF	139	ALLOCATION FACTOR TABLE CONTINUED									
AF	140	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>									
AF	141										
AF	142	Production Expense									
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	591,408	49,835	85,684		163,736	0	21,445	373,493
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	323,668	27,274	46,894		89,610	0	11,736	204,407
AF	145	Salaries and Wages Production Operation	SALWAGPO	278,900	23,502	40,408		77,216	0	10,113	176,134
AF	146	Salaries and Wages Production Maintenance	SALWAGPM	264,551	22,292	38,329		73,243	0	9,593	167,072
AF	147										
AF	148	Transmission Expense									
AF	149	O&M Accounts 561-567	OX_TRAN	140,691	11,698	20,752		37,475	0	4,939	97,468
AF	150	O&M Accounts 569-573	MX_TRAN	0	0	0		0	0	0	0
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO	0	0	0		0	0	0	0
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM	0	0	0		0	0	0	0
AF	153										
AF	154	Regional Market Expens									
AF	155	O&M Accounts 575	OX_RM	26,440	2,339	3,570		8,365	0	1,074	10,597
AF	156										
AF	157	Distribution Expense									
AF	158	Acct 580-Supervision	OX_580	1,111,918	103,619	134,512		240,223	0	26,048	362,033
AF	159	Acct 581-Load Dispatch	OX_581	11,200	929	1,658		2,961	0	391	7,890
AF	160	Acct 582-Station Equipment	OX_582	244,661	20,291	36,209		64,682	0	8,536	172,346
AF	161	Acct 583-Overhead Lines	OX_583	66,704	5,505	9,708		14,448	0	1,883	23,824
AF	162	Acct 584-Underground Lines	OX_584	10,504	867	1,529		2,275	0	297	3,751
AF	163	Acct 585-Street Lighting	OX_585	0	0	0		0	0	0	0
AF	164	Acct 586-Metering	OX_586	479,283	56,251	37,410		94,272	0	6,339	39,796
AF	165	Acct 587-Customer Installations	OX_587	0	0	0		0	0	0	0
AF	166	Acct 588-Miscellaneous	OX_588	801,623	66,886	108,267		170,177	0	20,301	277,221
AF	167	Acct 589-Rents	OX_589	33,237	2,773	4,489		7,056	0	842	11,494
AF	168	Acct 590-Supervision	MX_590	33,419	2,761	4,865		7,373	0	961	12,909
AF	169	Acct 592-Station Equipment	MX_592	314,206	26,059	46,501		83,067	0	10,962	221,335
AF	170	Acct 593-Overhead Lines	MX_593	2,923,829	241,301	425,508		633,282	0	82,555	1,044,261
AF	171	Acct 594-Underground Lines	MX_594	247,184	20,400	35,973		53,539	0	6,979	88,283
AF	172	Acct 595-Transformers	MX_595	164,456	13,572	23,933		35,620	0	4,643	58,736
AF	173	Acct 596-Street Lighting	MX_596	0	0	0		0	0	0	0
AF	174	Acct 597-Metering	MX_597	6,437	755	502		1,266	0	85	534
AF	175	Acct 598-Miscellaneous	MX_598	21,560	1,799	2,912		4,577	0	546	7,456
AF	176	O&M Accounts 581-589	OX_DIST	1,647,210	153,502	199,268		355,870	0	38,588	536,321
AF	177	O&M Accounts 591-598	MX_DIST	3,677,672	303,886	535,329		811,351	0	105,771	1,420,606
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO	2,759,128	257,121	333,780		596,094	0	64,636	898,355
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM	3,711,091	306,648	540,194		818,724	0	106,732	1,433,515
AF	180										
AF	181										
AF	182										
AF	183										
AF	184										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM					
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
AF	139	ALLOCATION FACTOR TABLE CONTINUED								
AF	140	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AF	141									
AF	142	Production Expense								
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		258,788	77,487	9,712	171,589	0	22,049
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		141,631	42,407	5,315	93,908	0	12,067
AF	145	Salaries and Wages Production Operation	SALWAGPO		122,041	36,542	4,580	80,919	0	10,398
AF	146	Salaries and Wages Production Maintenance	SALWAGPM		115,762	34,662	4,344	76,756	0	9,863
AF	147									
AF	148	Transmission Expense								
AF	149	O&M Accounts 561-567	OX_TRAN		68,984	31,910	2,452	34,621	0	17,623
AF	150	O&M Accounts 569-573	MX_TRAN		0	0	0	0	0	0
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO		0	0	0	0	0	0
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM		0	0	0	0	0	0
AF	153									
AF	154	Regional Market Expens								
AF	155	O&M Accounts 575	OX_RM		16,352	6,818	478	9,056	0	4,106
AF	156									
AF	157	Distribution Expense								
AF	158	Acct 580-Supervision	OX_580		196,284	118,401	12,457	65,426	929	32,691
AF	159	Acct 581-Load Dispatch	OX_581		5,443	2,526	195	2,722	0	1,394
AF	160	Acct 582-Station Equipment	OX_582		118,902	55,189	4,258	59,454	0	30,450
AF	161	Acct 583-Overhead Lines	OX_583		10,220	8,980	1,240	0	0	0
AF	162	Acct 584-Underground Lines	OX_584		1,642	1,414	228	0	0	0
AF	163	Acct 585-Street Lighting	OX_585		0	0	0	0	0	0
AF	164	Acct 586-Metering	OX_586		11,779	5,200	2,255	4,323	1,251	1,114
AF	165	Acct 587-Customer Installations	OX_587		0	0	0	0	0	0
AF	166	Acct 588-Miscellaneous	OX_588		137,108	98,028	9,868	29,212	120	14,855
AF	167	Acct 589-Rents	OX_589		5,685	4,064	409	1,211	5	616
AF	168	Acct 590-Supervision	MX_590		6,046	4,749	595	701	0	359
AF	169	Acct 592-Station Equipment	MX_592		152,700	70,876	5,469	76,354	0	39,106
AF	170	Acct 593-Overhead Lines	MX_593		447,964	393,600	54,364	0	0	0
AF	171	Acct 594-Underground Lines	MX_594		38,652	33,275	5,376	0	0	0
AF	172	Acct 595-Transformers	MX_595		22,139	22,139	0	0	0	0
AF	173	Acct 596-Street Lighting	MX_596		0	0	0	0	0	0
AF	174	Acct 597-Metering	MX_597		158	70	30	58	17	15
AF	175	Acct 598-Miscellaneous	MX_598		3,687	2,636	265	786	3	400
AF	176	O&M Accounts 581-589	OX_DIST		290,778	175,401	18,454	96,923	1,376	48,429
AF	177	O&M Accounts 591-598	MX_DIST		665,300	522,597	65,504	77,198	20	39,520
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO		487,063	293,803	30,911	162,349	2,305	81,120
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM		671,345	527,346	66,100	77,900	20	39,879
AF	180									
AF	181									
AF	182									
AF	183									
AF	184									

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AF	139	ALLOCATION FACTOR TABLE CONTINUED								
AF	140	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AF	141									
AF	142	Production Expense								
AF	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		998	210	8,474	9,682	2,095	279
AF	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		546	115	4,638	5,299	1,147	153
AF	145	Salaries and Wages Production Operation	SALWAGPO		470	99	3,996	4,566	988	132
AF	146	Salaries and Wages Production Maintenance	SALWAGPM		446	94	3,791	4,331	937	125
AF	147									
AF	148	Transmission Expense								
AF	149	O&M Accounts 561-567	OX_TRAN		238	57	1,907	2,202	461	63
AF	150	O&M Accounts 569-573	MX_TRAN		0	0	0	0	0	0
AF	151	Salaries & Wages Accounts 561-567	SALWAGTO		0	0	0	0	0	0
AF	152	Salaries & Wages Accounts 569-573	SALWAGTM		0	0	0	0	0	0
AF	153									
AF	154	Regional Market Expens								
AF	155	O&M Accounts 575	OX_RM		44	5	456	505	120	15
AF	156									
AF	157	Distribution Expense								
AF	158	Acct 580-Supervision	OX_580		2,509	338	18,242	21,088	112,871	15,939
AF	159	Acct 581-Load Dispatch	OX_581		19	5	150	174	36	5
AF	160	Acct 582-Station Equipment	OX_582		413	101	3,281	3,795	789	108
AF	161	Acct 583-Overhead Lines	OX_583		57	15	478	550	115	16
AF	162	Acct 584-Underground Lines	OX_584		9	2	75	87	18	3
AF	163	Acct 585-Street Lighting	OX_585		16,235	1,738	166,585	184,558	0	0
AF	164	Acct 586-Metering	OX_586		616	0	0	616	0	0
AF	165	Acct 587-Customer Installations	OX_587		0	0	0	0	0	0
AF	166	Acct 588-Miscellaneous	OX_588		2,498	363	22,121	24,982	4,357	612
AF	167	Acct 589-Rents	OX_589		104	15	917	1,036	181	25
AF	168	Acct 590-Supervision	MX_590		35	8	298	342	62	9
AF	169	Acct 592-Station Equipment	MX_592		531	129	4,214	4,874	1,013	138
AF	170	Acct 593-Overhead Lines	MX_593		2,519	644	20,964	24,127	5,020	699
AF	171	Acct 594-Underground Lines	MX_594		213	54	1,772	2,040	424	59
AF	172	Acct 595-Transformers	MX_595		142	36	1,179	1,357	282	39
AF	173	Acct 596-Street Lighting	MX_596		399	43	4,095	4,537	0	0
AF	174	Acct 597-Metering	MX_597		8	0	0	8	0	0
AF	175	Acct 598-Miscellaneous	MX_598		67	10	595	672	117	16
AF	176	O&M Accounts 581-589	OX_DIST		19,951	2,238	193,608	215,798	5,495	768
AF	177	O&M Accounts 591-598	MX_DIST		3,878	917	32,820	37,615	6,857	952
AF	178	Salaries & Wages Accounts 581-589	SALWAGDO		6,225	838	45,265	52,327	280,079	39,552
AF	179	Salaries & Wages Accounts 591-598	SALWAGDM		3,914	925	33,118	37,956	6,920	961
AF	180									
AF	181									
AF	182									
AF	183									
AF	184									

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Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	185	ALLOCATION FACTOR TABLE CONTINUED									
AF	186	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>									
AF	187										
AF	188	Customer Accounting Expense									
AF	189	Account 902	OX_902	946,837	842,189	1,343	103,076	82	145		
AF	190	Account 903	OX_903	1,469,272	1,307,084	2,085	159,975	128	0		
AF	191	Account 904	OX_904	1,294,026	747,846	1,259	58,251	0	486,669		
AF	192	Accounts 902 & 903	OX_902_3	2,416,109	2,149,273	3,428	263,052	210	145		
AF	193	O&M Accounts 902-905	OX_CA	3,710,135	2,897,119	4,688	321,303	210	486,815		
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	2,416,109	2,149,273	3,428	263,052	210	145		
AF	195										
AF	196	Customer Service Expense									
AF	197	Account908	OX_908	0	0	0	0	0	0		
AF	198	Account909	OX_909	276,299	179,419	5,536	64,589	937	25,818		
AF	199	Account910	OX_910	0	0	0	0	0	0		
AF	200	O&M Accounts 908-910	OX_CS	2,765,574	1,795,869	55,416	646,495	9,377	258,417		
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	2,999,025	1,947,464	60,093	701,068	10,169	280,231		
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	7,140,212	5,228,030	65,393	1,069,301	10,417	767,072		
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	22,212,771	13,695,007	503,706	6,892,482	124,934	996,641		
AF	206	Total Salaries and Wages Expense	SALWAGES	25,234,139	15,557,794	572,220	7,829,994	141,927	1,132,204		
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	45,326,541	25,874,905	849,025	15,307,633	260,885	3,034,092		
AF	209										
AF	210										
AF	211										
AF	212										
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Upper Peninsula Power Company Historical Cost of Service Allocation Study Forecast 12 Month Period ending December 31, 2019											
RETAIL SYSTEM											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AF	185	ALLOCATION FACTOR TABLE CONTINUED									
AF	186	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>									
AF	187										
AF	188	Customer Accounting Expense									
AF	189	Account 902	OX_902	719,094	59,662	63,433		89,541	0	4,140	8,783
AF	190	Account 903	OX_903	1,116,039	92,596	98,449		138,968	0	6,425	13,631
AF	191	Account 904	OX_904	578,873	59,330	109,643		7,435	0	0	17,215
AF	192	Accounts 902 & 903	OX_902_3	1,835,133	152,258	161,882		228,508	0	10,564	22,414
AF	193	O&M Accounts 902-905	OX_CA	2,414,006	211,589	271,524		235,944	0	10,564	39,629
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA	1,835,133	152,258	161,882		228,508	0	10,564	22,414
AF	195										
AF	196	Customer Service Expense									
AF	197	Account908	OX_908								
AF	198	Account909	OX_909	150,996	12,799	15,624		28,247	0	2,585	20,975
AF	199	Account910	OX_910	0	0	0		0	0	0	0
AF	200	O&M Accounts 908-910	OX_CS	1,511,370	128,109	156,390		282,736	0	25,873	209,945
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS	1,638,950	138,923	169,592		306,603	0	28,057	227,667
AF	202										
AF	203	Total Customer Operations Expense	OMXCUST	4,380,357	377,676	469,997		583,314	0	40,507	271,295
AF	204										
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	11,335,051	971,828	1,388,127		2,286,138	0	250,548	3,251,388
AF	206	Total Salaries and Wages Expense	SALWAGES	12,876,838	1,104,016	1,576,940		2,597,097	0	284,627	3,693,640
AF	207										
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	21,343,039	1,821,637	2,710,229		4,589,019	0	526,976	7,625,684
AF	209										
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AF	211										
AF	212										
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Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
AF	185	ALLOCATION FACTOR TABLE CONTINUED								
AF	186	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AF	187									
AF	188	Customer Accounting Expense								
AF	189	Account 902	OX_902		805	613	82	109	18	18
AF	190	Account 903	OX_903		1,080	952	128	0	0	0
AF	191	Account 904	OX_904		33,602	33,602	0	0	486,669	0
AF	192	Accounts 902 & 903	OX_902_3		1,885	1,565	210	109	18	18
AF	193	O&M Accounts 902-905	OX_CA		35,486	35,167	210	109	486,687	18
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA		1,885	1,565	210	109	18	18
AF	195									
AF	196	Customer Service Expense								
AF	197	Account908	OX_908		0					
AF	198	Account909	OX_909		31,484	12,782	937	17,765	3	8,050
AF	199	Account910	OX_910		0	0	0	0	0	0
AF	200	O&M Accounts 908-910	OX_CS		315,133	127,940	9,377	177,816	25	80,576
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS		341,735	138,740	10,169	192,826	28	87,378
AF	202									
AF	203	Total Customer Operations Expense	OMXCUST		377,557	174,186	10,417	192,955	486,718	87,399
AF	204									
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		1,972,446	1,104,408	124,934	743,104	2,374	251,163
AF	206	Total Salaries and Wages Expense	SALWAGES		2,240,737	1,254,629	141,927	844,181	2,697	285,326
AF	207									
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		5,003,816	2,565,955	260,885	2,176,976	3,621	853,495
AF	209									
AF	210									
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AF	212									
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Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AF	185	ALLOCATION FACTOR TABLE CONTINUED								
AF	186	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AF	187									
AF	188	Customer Accounting Expense								
AF	189	Account 902	OX_902		1,343	0	0	1,343	0	0
AF	190	Account 903	OX_903		2,085	0	0	2,085	0	0
AF	191	Account 904	OX_904		0	0	0	0	1,214	46
AF	192	Accounts 902 & 903	OX_902_3		3,428	0	0	3,428	0	0
AF	193	O&M Accounts 902-905	OX_CA		3,428	0	0	3,428	1,214	46
AF	194	Salaries & Wages Accounts 902-905	SALWAGCA		3,428	0	0	3,428	0	0
AF	195									
AF	196	Customer Service Expense								
AF	197	Account908	OX_908					0		
AF	198	Account909	OX_909		273	36	1,352	1,661	3,435	440
AF	199	Account910	OX_910		0	0	0	0	0	0
AF	200	O&M Accounts 908-910	OX_CS		2,731	360	13,530	16,621	34,387	4,408
AF	201	Salaries & Wages Accounts 908-910	SALWAGCS		2,961	391	14,672	18,024	37,289	4,780
AF	202									
AF	203	Total Customer Operations Expense	OMXCUST		7,001	391	14,672	22,064	38,503	4,826
AF	204									
AF	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		18,933	2,527	108,368	129,827	328,081	45,798
AF	206	Total Salaries and Wages Expense	SALWAGES		21,508	2,870	123,108	147,486	372,707	52,027
AF	207									
AF	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		52,148	7,143	390,816	450,107	350,352	48,566
AF	209									
AF	210									
AF	211									
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AF	229									
AF	230									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AF	231	REVENUES AND BILLING DETERMINANTS									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
AF	234	Present Rate Sales Revenue	CLAIMREV	104,382,758	57,182,304	1,611,616	36,271,515	612,739	8,704,584		
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	127,210,334	127,210,334	0	0	0	0		
AF	238	Residential A-2 Sales Revenue	SREVRA2	10,785,270	10,785,270	0	0	0	0		
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	17,137,465	17,137,465	0	0	0	0		
AF	240	General Service C1 Sales Revenue	SREVGSC1	28,974,651	0	0	28,974,651	0	0		
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	3,517,584	0	0	3,517,584	0	0		
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	52,431,381	0	0	52,431,381	0	0		
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCSSEC	15,706,431	0	0	15,706,431	0	0		
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCPRI	1,650,558	0	0	0	1,650,558	0		
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	14,071,218	0	0	0	0	14,071,218		
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	19,547	0	0	0	0	19,547		
AF	248	Light and Power WP-3 Sales Revenue	SREVLWP3	3,590,532	0	0	0	0	3,590,532		
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	256,072	0	256,072	0	0	0		
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	41,891	0	41,891	0	0	0		
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	2,024,259	0	2,024,259	0	0	0		
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	1,292,093	0	1,292,093	0	0	0		
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	179,689	0	179,689	0	0	0		
AF	254	Total Rate Base		278,888,973	155,133,069	3,794,004	0	1,650,558	17,681,296		
AF	255										
AF	256										
AF	257	<u>PRESENT REVENUES FROM SALES INPUT</u>									
AF	258										
AF	259	Total Sales of Electricity Revenues		91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
AF	261										
AF	262										
AF	263	<u>BILLING DETERMINANT INPUTS</u>									
AF	264	Number of Customer Bills	SCH , LN	631,416	561,716	896	68,749	55	0		
AF	265	Annual kWh Sales @ Meter	SCH , LN	532,950,246	232,367,004	4,599,131	192,895,980	3,569,045	99,519,086		
AF	266	Annual kW - Billed		658,730	0	0	463,029	27,530	168,171		
AF	267										
AF	268										
AF	269	<u>RATE OF RETURN</u>									
AF	270	Rate of Return (Equalized)	SCH , LN	7.57%	7.57%	7.57%	7.57%	7.57%	7.57%		
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AF	231	REVENUES AND BILLING DETERMINANTS									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV	45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557
AF	234	Present Rate Sales Revenue	CLAIMREV	46,955,263	4,018,465	6,208,575		10,713,686	0	1,281,216	17,926,038
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1	127,210,334	0	0		0	0	0	0
AF	238	Residential A-2 Sales Revenue	SREVRA2	0	10,785,270	0		0	0	0	0
AF	239	Residential AH-1 Sales Revenue	SREVRAH1	0	0	17,137,465		0	0	0	0
AF	240	General Service C1 Sales Revenue	SREVGSC1	0	0	0		28,974,651	0	0	0
AF	241	General Service C2 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	3,517,584	0
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	52,431,381
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLICISEC	0	0	0		0	0	0	0
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLICIPRI	0	0	0		0	0	0	0
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
AF	248	Light and Power WP-3 Sales Revenue	SREVLWP3	0	0	0		0	0	0	0
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
AF	254	Total Rate Base									
AF	255										
AF	256										
AF	257	PRESENT REVENUES FROM SALES INPUT									
AF	258										
AF	259	Total Sales of Electricity Revenues		45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		45,444,449	3,842,562	5,256,626		10,152,275		1,035,339	11,180,557
AF	261										
AF	262										
AF	263	BILLING DETERMINANT INPUTS									
AF	264	Number of Customer Bills	SCH , LN	479,615	39,793	42,308		59,721	-	2,761	5,858
AF	265	Annual kWh Sales @ Meter	SCH , LN	189,919,815	16,802,756	25,644,433		60,086,760	0	7,712,051	76,121,492
AF	266	Annual kW - Billed		0	0	0		0	0	0	324,375
AF	267										
AF	268										
AF	269	RATE OF RETURN									
AF	270	Rate of Return (Equalized)	SCH , LN	7.57%	7.57%	7.57%		7.57%	7.57%	7.57%	7.57%
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

Upper Peninsula Power Company
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RETAIL SYSTEM											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S		P		Q	T	Q
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3		
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	
AF	231	REVENUES AND BILLING DETERMINANTS									
AF	232										
AF	233	Sales of Electricity Revenue - Present	SALESREV		9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405	
AF	234	Present Rate Sales Revenue	CLAIMREV		13,015,481	6,350,575	612,739	6,052,167	493,126	2,159,290	
AF	235										
AF	236										
AF	237	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0	
AF	238	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0	
AF	239	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0	
AF	240	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0	
AF	241	General Service C2 Sales Revenue	SREVGSC2		0	0	0	0	0	0	
AF	242	Commercial Heating H-1 Sales Revenue	SREVCCH1		0	0	0	0	0	0	
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0	
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		15,706,431	15,706,431	0	0	0	0	
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		1,650,558	0	1,650,558	0	0	0	
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		14,071,218	0	0	14,071,218	0	0	
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	19,547	0	
AF	248	Light and Power WP-3 Sales Revenue	SREVLPPW3		0	0	0	0	0	3,590,532	
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0	
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0	
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0	
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0	
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0	
AF	254	Total Rate Base			31,428,207						
AF	255										
AF	256										
AF	257	PRESENT REVENUES FROM SALES INPUT									
AF	258										
AF	259	Total Sales of Electricity Revenues			9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405	
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405	
AF	261										
AF	262										
AF	263	BILLING DETERMINANT INPUTS									
AF	264	Number of Customer Bills	SCH , LN		464	409	55	-	-	-	
AF	265	Annual kWh Sales @ Meter	SCH , LN		121,018,237	48,975,676	3,569,045	68,473,516	0	31,045,571	
AF	266	Annual kW - Billed			265,534	138,654	27,530	99,350	0	68,821	
AF	267										
AF	268										
AF	269	RATE OF RETURN									
AF	270	Rate of Return (Equalized)	SCH , LN		7.57%	7.57%	7.57%	7.57%	7.57%	7.57%	
AF	271										
AF	272										
AF	273										
AF	274										
AF	275										
AF	276										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AF	231	REVENUES AND BILLING DETERMINANTS								
AF	232									
AF	233	Sales of Electricity Revenue - Present	SALESREV		67,986	12,665	1,660,422	1,741,073	449,624	49,942
AF	234	Present Rate Sales Revenue	CLAIMREV		103,982	15,012	824,253	943,247	587,243	81,125
AF	235									
AF	236									
AF	237	Residential A-1 Sales Revenue	SREVR A1		0	0	0	0	0	0
AF	238	Residential A-2 Sales Revenue	SREVR A2		0	0	0	0	0	0
AF	239	Residential AH-1 Sales Revenue	SREVR AH1		0	0	0	0	0	0
AF	240	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0
AF	241	General Service C2 Sales Revenue	SREVGSC2		0	0	0	0	0	0
AF	242	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0
AF	243	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0
AF	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVL CISEC		0	0	0	0	0	0
AF	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVL CIPRI		0	0	0	0	0	0
AF	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVL CITRAN		0	0	0	0	0	0
AF	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0
AF	248	Light and Power WP-3 Sales Revenue	SREVL PWP3		0	0	0	0	0	0
AF	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		256,072	0	0	256,072	0	0
AF	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	41,891	0	41,891	0	0
AF	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	2,024,259	2,024,259	0	0
AF	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSL3		0	0	0	0	1,292,093	0
AF	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSL4		0	0	0	0	0	179,689
AF	254	Total Rate Base						2,322,222		
AF	255									
AF	256									
AF	257	PRESENT REVENUES FROM SALES INPUT								
AF	258									
AF	259	Total Sales of Electricity Revenues			67,986	12,665	1,660,422	1,741,073	449,624	49,942
AF	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			67,986	12,665	1,660,422	1,741,073	449,624	49,942
AF	261									
AF	262									
AF	263	BILLING DETERMINANT INPUTS								
AF	264	Number of Customer Bills	SCH , LN		896	-	-	896	-	-
AF	265	Annual kWh Sales @ Meter	SCH , LN		318,981	34,140	3,272,956	3,626,076	864,478	108,577
AF	266	Annual kW - Billed			0	0	0	0	0	0
AF	267									
AF	268									
AF	269	RATE OF RETURN								
AF	270	Rate of Return (Equalized)	SCH , LN		7.57%	7.57%	7.57%	7.57%	7.57%	7.57%
AF	271									
AF	272									
AF	273									
AF	274									
AF	275									
AF	276									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	1	ALLOCATION FACTOR PROPORTIONS TABLE									
AP	2										
AP	3	<u>ENERGY - PRODUCTION RELATED</u>									
AP	4	Energy @ Meter (kWh Sales)	ENERGY2	1.00000	0.43600	0.00863	0.36194	0.00670	0.18673		
AP	5	Energy @ Generation with losses(kWh)	ENERGY1	1.00000	0.44022	0.00871	0.36545	0.00651	0.17911		
AP	6	Energy @ Generation with losses (kWh)	ENEFUEL	1.00000	0.44022	0.00871	0.36545	0.00651	0.17911		
AP	7										
AP	8	Energy - RTMP	ERTMP	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	9										
AP	10										
AP	11	<u>DEMAND</u>									
AP	12	<u>DEMAND - PRODUCTION RELATED</u>									
AP	13	Demand Production (12CP 75% & Energy 25%)	DPROD	1.00000	0.46052	0.00764	0.40302	0.00615	0.12267		
AP	14										
AP	15										
AP	16	Production Load Dispatching (Average Demand)	DPRODLD	1.00000	0.44022	0.00871	0.36545	0.00651	0.17911		
AP	17	Purchased Capacity (1CP Firm Load Only)	DPURCH	1.00000	0.53344	0.01241	0.44817	0.00598	0.00000		
AP	18										
AP	19	<u>DEMAND - TRANSMISSION RELATED</u>									
AP	20	Demand Transmission (12CP no AES or RTMP)	DTRAN	1.00000	0.42993	0.00670	0.42935	0.00608	0.12794		
AP	21	Transmission Load Dispatching (Average Demand)	DTRANLD	1.00000	0.44022	0.00871	0.36545	0.00651	0.17911		
AP	22										
AP	23	<u>DEMAND - DISTRIBUTION RELATED</u>									
AP	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	25										
AP	26	Demand Distribution Primary Lines (NCP)	DDISTPRI	1.00000	0.61468	0.00511	0.36869	0.01152	0.00000		
AP	27										
AP	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC	1.00000	0.62184	0.00517	0.37299	0.00000	0.00000		
AP	29										
AP	30	Demand Distribution Line Transformers (NCP)	DDISTSLT	1.00000	0.62184	0.00517	0.37299	0.00000	0.00000		
AP	31	Distribution Load Dispatching	DDISTLD	1.00000	0.43600	0.00863	0.36194	0.00670	0.18673		
AP	32										
AP	33	Minimum System - Demand Allocation Factors									
AP	34	Primary									
AP	35	kW Capability of Minimum	64.00%								
AP	36	NCP * kW Capability Minimum	158,390								
AP	37	Dist Pri Min kW Allocated on Number of Primary Customers									
AP	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS	1.00000	0.17325	(0.04042)	0.83535	0.03182	0.00000		
AP	39	Secondary									
AP	40	Demand Distribution Secondary Lines (NCP)									
AP	41	Demand Adjustment									
AP	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS	1.00000	0.44785	0.01489	0.53725	0.00000	0.00000		
AP	43										
AP	44										
AP	45										
AP	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	RETAIL SYSTEM				General Service C-1	General Service C-2	Commercial Heating H-1	25kW-200kW Light & Power P-1
				S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)				
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AP	1	ALLOCATION FACTOR PROPORTIONS TABLE									
AP	2										
AP	3	<u>ENERGY - PRODUCTION RELATED</u>									
AP	4	Energy @ Meter (kWh Sales)	ENERGY2	0.35636	0.03153	0.04812		0.11274	0.00000	0.01447	0.14283
AP	5	Energy @ Generation with losses(kWh)	ENERGY1	0.35981	0.03183	0.04858		0.11384	0.00000	0.01461	0.14421
AP	6	Energy @ Generation with losses (kWh)	ENEFUEL	0.35981	0.03183	0.04858		0.11384	0.00000	0.01461	0.14421
AP	7										
AP	8	Energy - RTMP	ERTMP	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	9										
AP	10										
AP	11	<u>DEMAND</u>									
AP	12	<u>DEMAND - PRODUCTION RELATED</u>									
AP	13	Demand Production (12CP 75% & Energy 25%)	DPROD	0.37467	0.03157	0.05428		0.10373	0.00000	0.01359	0.23661
AP	14										
AP	15										
AP	16	Production Load Dispatching (Average Demand)	DPRODL	0.35981	0.03183	0.04858		0.11384	0.00000	0.01461	0.14421
AP	17	Purchased Capacity (1CP Firm Load Only)	DPURCH	0.42074	0.03588	0.07682		0.07629	0.00000	0.01122	0.28313
AP	18										
AP	19	<u>DEMAND - TRANSMISSION RELATED</u>									
AP	20	Demand Transmission (12CP no AES or RTMP)	DTRAN	0.34928	0.02897	0.05169		0.09234	0.00000	0.01219	0.24604
AP	21	Transmission Load Dispatching (Average Demand)	DTRANLD	0.35981	0.03183	0.04858		0.11384	0.00000	0.01461	0.14421
AP	22										
AP	23	<u>DEMAND - DISTRIBUTION RELATED</u>									
AP	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	25										
AP	26	Demand Distribution Primary Lines (NCP)	DDISTPRI	0.50053	0.04131	0.07284		0.10841	0.00000	0.01413	0.17877
AP	27										
AP	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC	0.50636	0.04179	0.07369		0.10967	0.00000	0.01430	0.18085
AP	29										
AP	30	Demand Distribution Line Transformers (NCP)	DDISTSLT	0.50636	0.04179	0.07369		0.10967	0.00000	0.01430	0.18085
AP	31	Distribution Load Dispatching	DDISTLD	0.35636	0.03153	0.04812		0.11274	0.00000	0.01447	0.14283
AP	32										
AP	33	Minimum System - Demand Allocation Factors									
AP	34	Primary									
AP	35	kW Capability of Minimum	64.00%								
AP	36	NCP * kW Capability Minimum	158,390								
AP	37	Dist Pri Min kW Allocated on Number of Primary Customers									
AP	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS	0.08049	0.00607	0.08669		0.13788	0.00000	0.03168	0.47998
AP	39	Secondary									
AP	40	Demand Distribution Secondary Lines (NCP)									
AP	41	Demand Adjustment									
AP	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS	0.36468	0.03010	0.05307		0.15798	0.00000	0.02059	0.26050
AP	43										
AP	44										
AP	45										
AP	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
AP	1	ALLOCATION FACTOR PROPORTIONS TABLE								
AP	2									
AP	3	<u>ENERGY - PRODUCTION RELATED</u>								
AP	4	Energy @ Meter (kWh Sales)	ENERGY2		0.22707	0.09190	0.00670	0.12848	0.00000	0.05825
AP	5	Energy @ Generation with losses(kWh)	ENERGY1		0.22253	0.09279	0.00651	0.12324	0.00000	0.05587
AP	6	Energy @ Generation with losses (kWh)	ENEFUEL		0.22253	0.09279	0.00651	0.12324	0.00000	0.05587
AP	7									
AP	8	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000	0.00000	1.00000	0.00000
AP	9									
AP	10									
AP	11	<u>DEMAND</u>								
AP	12	<u>DEMAND - PRODUCTION RELATED</u>								
AP	13	Demand Production (12CP 75% & Energy 25%)	DPROD		0.16395	0.04909	0.00615	0.10870	0.00000	0.01397
AP	14									
AP	15									
AP	16	Production Load Dispatching (Average Demand)	DPRODLD		0.22253	0.09279	0.00651	0.12324	0.00000	0.05587
AP	17	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.08351	0.07753	0.00598	0.00000	0.00000	0.00000
AP	18									
AP	19	<u>DEMAND - TRANSMISSION RELATED</u>								
AP	20	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.16947	0.07879	0.00608	0.08461	0.00000	0.04333
AP	21	Transmission Load Dispatching (Average Demand)	DTRANLD		0.22253	0.09279	0.00651	0.12324	0.00000	0.05587
AP	22									
AP	23	<u>DEMAND - DISTRIBUTION RELATED</u>								
AP	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	25									
AP	26	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.07890	0.06738	0.01152	0.00000	0.00000	0.00000
AP	27									
AP	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.06817	0.06817	0.00000	0.00000	0.00000	0.00000
AP	29									
AP	30	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.06817	0.06817	0.00000	0.00000	0.00000	0.00000
AP	31	Distribution Load Dispatching	DDISTLD		0.22707	0.09190	0.00670	0.12848	0.00000	0.05825
AP	32									
AP	33	Minimum System - Demand Allocation Factors								
AP	34	Primary								
AP	35	kW Capability of Minimum	64.00%							
AP	36	NCP * kW Capability Minimum	158,390							
AP	37	Dist Pri Min kW Allocated on Number of Primary Custom								
AP	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.21763	0.18582	0.03182	0.00000	0.00000	0.00000
AP	39	Secondary								
AP	40	Demand Distribution Secondary Lines (NCP)								
AP	41	Demand Adjustment								
AP	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.09819	0.09819	0.00000	0.00000	0.00000	0.00000
AP	43									
AP	44									
AP	45									
AP	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AP	1	ALLOCATION FACTOR PROPORTIONS TABLE								
AP	2									
AP	3	<u>ENERGY - PRODUCTION RELATED</u>								
AP	4	Energy @ Meter (kWh Sales)	ENERGY2		0.00060	0.00006	0.00614	0.00680	0.00162	0.00020
AP	5	Energy @ Generation with losses(kWh)	ENERGY1		0.00060	0.00006	0.00620	0.00687	0.00164	0.00021
AP	6	Energy @ Generation with losses (kWh)	ENEFUEL		0.00060	0.00006	0.00620	0.00687	0.00164	0.00021
AP	7									
AP	8	Energy - RTMP	ERTMP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	9									
AP	10									
AP	11	<u>DEMAND</u>								
AP	12	<u>DEMAND - PRODUCTION RELATED</u>								
AP	13	Demand Production (12CP 75% & Energy 25%)	DPROD		0.00063	0.00013	0.00537	0.00613	0.00133	0.00018
AP	14									
AP	15									
AP	16	Production Load Dispatching (Average Demand)	DPRODLD		0.00060	0.00006	0.00620	0.00687	0.00164	0.00021
AP	17	Purchased Capacity (1CP Firm Load Only)	DPURCH		0.00130	0.00026	0.00843	0.00999	0.00212	0.00029
AP	18									
AP	19	<u>DEMAND - TRANSMISSION RELATED</u>								
AP	20	Demand Transmission (12CP no AES or RTMP)	DTRAN		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	21	Transmission Load Dispatching (Average Demand)	DTRANLD		0.00060	0.00006	0.00620	0.00687	0.00164	0.00021
AP	22									
AP	23	<u>DEMAND - DISTRIBUTION RELATED</u>								
AP	24	Demand Distribution Primary Substation (12 CP)	DDISPSUB		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	25									
AP	26	Demand Distribution Primary Lines (NCP)	DDISTPRI		0.00043	0.00011	0.00359	0.00413	0.00086	0.00012
AP	27									
AP	28	Demand Distribution Secondary Lines (NCP)	DDISTSEC		0.00044	0.00011	0.00363	0.00418	0.00087	0.00012
AP	29									
AP	30	Demand Distribution Line Transformers (NCP)	DDISTSLT		0.00044	0.00011	0.00363	0.00418	0.00087	0.00012
AP	31	Distribution Load Dispatching	DDISTLD		0.00060	0.00006	0.00614	0.00680	0.00162	0.00020
AP	32									
AP	33	Minimum System - Demand Allocation Factors								
AP	34	Primary								
AP	35	kW Capability of Minimum	64.00%							
AP	36	NCP * kW Capability Minimum	158,390							
AP	37	Dist Pri Min kW Allocated on Number of Primary Custom								
AP	38	Adj Dist Pri (Ln 26) less Alloc Min kW Cap (Ln 37)	DDISTPRIMS		0.00000	-0.00004	0.00349	0.00344	-0.03890	-0.00497
AP	39	Secondary								
AP	40	Demand Distribution Secondary Lines (NCP)								
AP	41	Demand Adjustment								
AP	42	Adjusted Demand Distribution Primary Lines (NCP)	DDISTSECMS		0.00126	0.00032	0.01046	0.01204	0.00250	0.00035
AP	43									
AP	44									
AP	45									
AP	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	47	ALLOCATION PROPORTIONS TABLE CONTINUED									
AP	48										
AP	49	<u>CUSTOMER</u>									
AP	50										
AP	51	Minimum System - Customer Allocation Factors									
AP	52	Primary									
AP	53	Number of Primary Customers - MS	CDISTPRI	1.00000	0.86286	0.03145	0.10561	0.00008	0.00000		
AP	54	Secondary									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	1.00000	0.76594	0.04657	0.18749	0.00000	0.00000		
AP	58	Line Transformers									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	1.00000	0.81201	0.04938	0.13855	0.00000	0.00007		
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	1.00000	0.86619	0.00512	0.12870	0.00000	0.00000		
AP	65	370-Meters (New Meter Cost)	CMETERS	1.00000	0.78689	0.00085	0.19998	0.00310	0.00919		
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	68	373-Street Lighting & Signal Systems	CLIGHT	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	1.00000	0.86273	0.03145	0.10559	0.00008	0.00015		
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	1.00000	0.88948	0.00142	0.10886	0.00009	0.00015		
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	1.00000	0.88961	0.00142	0.10888	0.00009	0.00000		
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		1.00000	0.43600	0.00863	0.36194	0.00670	0.18673		
AP	77	50% Number of Customers		1.00000	0.86273	0.03145	0.10559	0.00008	0.00015		
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	1.00000	0.64937	0.02004	0.23377	0.00339	0.09344		
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	1.00000	0.88961	0.00142	0.10888	0.00009	0.00000		
AP	83	Number of Customers (Average Annual)	CUST	1.00000	0.86273	0.03145	0.10559	0.00008	0.00015		
AP	84	Number of Services (Customers)	CSERV	1.00000	0.88618	0.00536	0.10846	0.00000	0.00000		
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AP	47	ALLOCATION PROPORTIONS TABLE CONTINUED									
AP	48										
AP	49	<u>CUSTOMER</u>									
AP	50										
AP	51	Minimum System - Customer Allocation Factors									
AP	52	Primary									
AP	53	Number of Primary Customers - MS	CDISTPRI	0.73674	0.06113	0.06499		0.09174	0.00000	0.00424	0.00900
AP	54	Secondary									
AP	55	Number of Secondary Customers									
AP	56	Residential Customer Adjustment									
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC	0.65399	0.05426	0.05769		0.16287	0.00000	0.00753	0.01598
AP	58	Line Transformers									
AP	59	Number of Line Transformer Customers									
AP	60	Line Transformer Adjustment									
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT	0.69332	0.05752	0.06116		0.11511	0.00000	0.00532	0.01694
AP	62										
AP	63										
AP	64	369-Service Investment (Replacement Costs)	CSERVICE	0.74023	0.05499	0.07096		0.10631	0.00000	0.00488	0.01648
AP	65	370-Meters (New Meter Cost)	CMETERS	0.65826	0.07726	0.05138		0.12948	0.00000	0.00871	0.05466
AP	66										
AP	67	371-Installation on Customer Premises	CUSTPREM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	68	373-Street Lighting & Signal Systems	CLIGHT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	69										
AP	70	Customer Deposits (Number of Customers)	CUSTDEP	0.73663	0.06112	0.06498		0.09172	0.00000	0.00424	0.00900
AP	71										
AP	72	902-Meter Reading (Number of Customers)	CMETRDG	0.75947	0.06301	0.06699		0.09457	0.00000	0.00437	0.00928
AP	73	903-Customer Records & Collections (Bills)	CUSTREC	0.75959	0.06302	0.06700		0.09458	0.00000	0.00437	0.00928
AP	74										
AP	75	905, 908-916 - Customer Service and Sales Composite									
AP	76	50% Energy @ Meter		0.35636	0.03153	0.04812		0.11274	0.00000	0.01447	0.14283
AP	77	50% Number of Customers		0.73663	0.06112	0.06498		0.09172	0.00000	0.00424	0.00900
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS	0.54649	0.04632	0.05655		0.10223	0.00000	0.00936	0.07591
AP	79										
AP	80										
AP	81										
AP	82	Number of Total Bills	CUSTBILLS	0.75959	0.06302	0.06700		0.09458	0.00000	0.00437	0.00928
AP	83	Number of Customers (Average Annual)	CUST	0.73663	0.06112	0.06498		0.09172	0.00000	0.00424	0.00900
AP	84	Number of Services (Customers)	CSERV	0.75666	0.06278	0.06675		0.09422	0.00000	0.00436	0.00924
AP	85										
AP	86										
AP	87										
AP	88										
AP	89										
AP	90										
AP	91										

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
AP	47	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	48									
AP	49	<u>CUSTOMER</u>								
AP	50									
AP	51	Minimum System - Customer Allocation Factors								
AP	52	Primary								
AP	53	Number of Primary Customers - MS	CDISTPRI		0.00071	0.00063	0.00008	0.00000	0.00000	0.00000
AP	54	Secondary								
AP	55	Number of Secondary Customers								
AP	56	Residential Customer Adjustment								
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		0.00112	0.00112	0.00000	0.00000	0.00000	0.00000
AP	58	Line Transformers								
AP	59	Number of Line Transformer Customers								
AP	60	Line Transformer Adjustment								
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		0.00118	0.00118	0.00000	0.00000	0.00003	0.00003
AP	62									
AP	63									
AP	64	369-Service Investment (Replacement Costs)	CSERVICE		0.00102	0.00102	0.00000	0.00000	0.00000	0.00000
AP	65	370-Meters (New Meter Cost)	CMETERS		0.01618	0.00714	0.00310	0.00594	0.00172	0.00153
AP	66									
AP	67	371-Installation on Customer Premises	CUSTPREM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	68	373-Street Lighting & Signal Systems	CLIGHT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	69									
AP	70	Customer Deposits (Number of Customers)	CUSTDEP		0.00082	0.00063	0.00008	0.00011	0.00002	0.00002
AP	71									
AP	72	902-Meter Reading (Number of Customers)	CMETRDG		0.00085	0.00065	0.00009	0.00012	0.00002	0.00002
AP	73	903-Customer Records & Collections (Bills)	CUSTREC		0.00073	0.00065	0.00009	0.00000	0.00000	0.00000
AP	74									
AP	75	905, 908-916 - Customer Service and Sales Composite								
AP	76	50% Energy @ Meter			0.22707	0.09190	0.00670	0.12848	0.00000	0.05825
AP	77	50% Number of Customers			0.00082	0.00063	0.00008	0.00011	0.00002	0.00002
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.11395	0.04626	0.00339	0.06430	0.00001	0.02914
AP	79									
AP	80									
AP	81									
AP	82	Number of Total Bills	CUSTBILLS		0.00073	0.00065	0.00009	0.00000	0.00000	0.00000
AP	83	Number of Customers (Average Annual)	CUST		0.00082	0.00063	0.00008	0.00011	0.00002	0.00002
AP	84	Number of Services (Customers)	CSERV		0.00065	0.00065	0.00000	0.00000	0.00000	0.00000
AP	85									
AP	86									
AP	87									
AP	88									
AP	89									
AP	90									
AP	91									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3 (aa)	S Street Light (Closed) SL-5 (ab)	S Street Lighting SL-6 (ac)	Street Lighting Total (ad)	S Integrated OSL Z-3 (ae)	S Iron River OSL Z-4 (af)
		(a)	(b)	(z)						
AP	47	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	48									
AP	49	<u>CUSTOMER</u>								
AP	50									
AP	51	Minimum System - Customer Allocation Factors								
AP	52	Primary								
AP	53	Number of Primary Customers - MS	CDISTPRI		0.00138	0.00020	0.00364	0.00522	0.02325	0.00298
AP	54	Secondary								
AP	55	Number of Secondary Customers								
AP	56	Residential Customer Adjustment								
AP	57	Adjusted Number of Secondary Customers - MS	CDISTSEC		0.00000	0.00000	0.00000	0.00000	0.04128	0.00530
AP	58	Line Transformers								
AP	59	Number of Line Transformer Customers								
AP	60	Line Transformer Adjustment								
AP	61	Adjusted Number of Secondary Customers 368 - MS	CDISTSLT		0.00000	0.00000	0.00000	0.00000	0.04376	0.00562
AP	62									
AP	63									
AP	64	369-Service Investment (Replacement Costs)	CSERVICE		0.00135	0.00019	0.00357	0.00512	0.00000	0.00000
AP	65	370-Meters (New Meter Cost)	CMETERS		0.00085	0.00000	0.00000	0.00085	0.00000	0.00000
AP	66									
AP	67	371-Installation on Customer Premises	CUSTPREM		0.00000	0.00000	0.00000	0.00000	0.87622	0.12379
AP	68	373-Street Lighting & Signal Systems	CLIGHT		0.08797	0.00942	0.90262	1.00000	0.00000	0.00000
AP	69									
AP	70	Customer Deposits (Number of Customers)	CUSTDEP		0.00138	0.00020	0.00364	0.00522	0.02325	0.00298
AP	71									
AP	72	902-Meter Reading (Number of Customers)	CMETRDG		0.00142	0.00000	0.00000	0.00142	0.00000	0.00000
AP	73	903-Customer Records & Collections (Bills)	CUSTREC		0.00142	0.00000	0.00000	0.00142	0.00000	0.00000
AP	74									
AP	75	905, 908-916 - Customer Service and Sales Composite								
AP	76	50% Energy @ Meter			0.00060	0.00006	0.00614	0.00680	0.00162	0.00020
AP	77	50% Number of Customers			0.00138	0.00020	0.00364	0.00522	0.02325	0.00298
AP	78	905, 908-916 - Customer Service and Sales	CUSTCSS		0.00099	0.00013	0.00489	0.00601	0.01243	0.00159
AP	79									
AP	80									
AP	81									
AP	82	Number of Total Bills	CUSTBILLS		0.00142	0.00000	0.00000	0.00142	0.00000	0.00000
AP	83	Number of Customers (Average Annual)	CUST		0.00138	0.00020	0.00364	0.00522	0.02325	0.00298
AP	84	Number of Services (Customers)	CSERV		0.00141	0.00020	0.00374	0.00536	0.00000	0.00000
AP	85									
AP	86									
AP	87									
AP	88									
AP	89									
AP	90									
AP	91									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	92										
AP	93	ALLOCATION PROPORTIONS TABLE CONTINUED									
AP	94	INTERNALLY DEVELOPED ALLOCATION FACTORS									
AP	95										
AP	96	Plant									
AP	97	Intangible Plant In Service	INTPLT	1.00000	0.54866	0.01442	0.36827	0.00610	0.06255		
AP	98	Production Plant In Service	PRODPLT	1.00000	0.46052	0.00764	0.40302	0.00615	0.12267		
AP	99	Transmission Plant In Service	TRANPLT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	100	Distribution Plant In Service	DISTPLT	1.00000	0.60054	0.01841	0.34782	0.00607	0.02717		
AP	101	General Plant In Service	GENLPLT	1.00000	0.61654	0.02268	0.31029	0.00562	0.04487		
AP	102	Intangible and General Plant In Service	INTGENLPLT	1.00000	0.58837	0.01925	0.33435	0.00582	0.05221		
AP	103	Total Transmission and Distribution Plant	TDPLT	1.00000	0.60054	0.01841	0.34782	0.00607	0.02717		
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	1.00000	0.54866	0.01442	0.36827	0.00610	0.06255		
AP	105	Total Electric Plant In Service	TOTPLT	1.00000	0.55715	0.01545	0.36102	0.00604	0.06034		
AP	106	Net Electric Plant In Service	NETPLT	1.00000	0.55354	0.01241	0.36545	0.00594	0.06266		
AP	107	Rate Base	RATEBASE	1.00000	0.55625	0.01360	0.36082	0.00592	0.06340		
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	Distribution Plant in Service									
AP	116	Acct 360-Land and Land Rights	PLT_360	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	117	Acct 361-Structures & Improvements	PLT_361	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	118	Acct 362-Station Equipment	PLT_362	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	119	Acct 364-Towers and Fixtures	PLT_364	1.00000	0.61646	0.00512	0.36976	0.00865	0.00000		
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	1.00000	0.61526	0.00511	0.36904	0.01059	0.00000		
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	122	Acct 367 - Underground Conductor	PLT_367	1.00000	0.61507	0.00511	0.36892	0.01089	0.00000		
AP	123	Acct 368-Line Transformers	PLT_368	1.00000	0.62184	0.00517	0.37299	0.00000	0.00000		
AP	124	Acct 369-Services	PLT_369	1.00000	0.86619	0.00512	0.12870	0.00000	0.00000		
AP	125	Acct 370-Meters	PLT_370	1.00000	0.78689	0.00085	0.19998	0.00310	0.00919		
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	1.00000	0.61604	0.00512	0.36951	0.00933	0.00000		
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	1.00000	0.61507	0.00511	0.36892	0.01089	0.00000		
AP	130	Accounts 371&373	PLT_3713	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	131										
AP	132	Accts 360-362-Distribution Substation	PLT_SUB	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	1.00000	0.61468	0.00511	0.36869	0.01152	0.00000		
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	135										
AP	136										
AP	137										
AP	138										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AP	92	ALLOCATION PROPORTIONS TABLE CONTINUED									
AP	93	INTERNALLY DEVELOPED ALLOCATION FACTORS									
AP	94										
AP	95										
AP	96	Plant									
AP	97	Intangible Plant In Service	INTPLT	0.44907	0.03758	0.06201		0.10429	0.00000	0.01289	0.19495
AP	98	Production Plant In Service	PRODPLT	0.37467	0.03157	0.05428		0.10373	0.00000	0.01359	0.23661
AP	99	Transmission Plant in Service	TRANPLT	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	100	Distribution Plant in Service	DISTPLT	0.49285	0.04112	0.06656		0.10463	0.00000	0.01248	0.17044
AP	101	General Plant in Service	GENLPLT	0.51029	0.04375	0.06249		0.10292	0.00000	0.01128	0.14637
AP	102	Intangible and General Plant in Service	INTGENLPLT	0.48488	0.04119	0.06229		0.10349	0.00000	0.01195	0.16654
AP	103	Total Transmission and Distribution Plant	TDPLT	0.49285	0.04112	0.06656		0.10463	0.00000	0.01248	0.17044
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT	0.44907	0.03758	0.06201		0.10429	0.00000	0.01289	0.19495
AP	105	Total Electric Plant In Service	TOTPLT	0.45672	0.03835	0.06207		0.10412	0.00000	0.01269	0.18888
AP	106	Net Electric Plant In Service	NETPLT	0.45336	0.03841	0.06176		0.10439	0.00000	0.01280	0.19193
AP	107	Rate Base	RATEBASE	0.45613	0.03867	0.06145		0.10389	0.00000	0.01261	0.18800
AP	108										
AP	109										
AP	110										
AP	111										
AP	112										
AP	113										
AP	114										
AP	115	Distribution Plant in Service									
AP	116	Acct 360-Land and Land Rights	PLT_360	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	117	Acct 361-Structures & Improvements	PLT_361	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	118	Acct 362-Station Equipment	PLT_362	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	119	Acct 364-Towers and Fixtures	PLT_364	0.50198	0.04143	0.07305		0.10873	0.00000	0.01417	0.17929
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365	0.50100	0.04135	0.07291		0.10851	0.00000	0.01415	0.17894
AP	121	Acct 366-Underground Conduit	PLT_366	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	122	Acct 367 - Underground Conductor	PLT_367	0.50085	0.04133	0.07289		0.10848	0.00000	0.01414	0.17888
AP	123	Acct 368-Line Transformers	PLT_368	0.50636	0.04179	0.07369		0.10967	0.00000	0.01430	0.18085
AP	124	Acct 369-Services	PLT_369	0.74023	0.05499	0.07096		0.10631	0.00000	0.00488	0.01648
AP	125	Acct 370-Meters	PLT_370	0.65826	0.07726	0.05138		0.12948	0.00000	0.00871	0.05466
AP	126	Acct 371-Inst. on Customer Premises	PLT_371	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST	0.50164	0.04140	0.07300		0.10865	0.00000	0.01416	0.17916
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST	0.50085	0.04133	0.07289		0.10848	0.00000	0.01414	0.17888
AP	130	Accounts 371&373	PLT_3713	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	131										
AP	132	Accts 360-362-Distribution Substation	PLT_SUB	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI	0.50053	0.04131	0.07284		0.10841	0.00000	0.01413	0.17877
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	135										
AP	136										
AP	137										
AP	138										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
AP	92	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	93	INTERNALLY DEVELOPED ALLOCATION FACTORS								
AP	94									
AP	95									
AP	96	Plant								
AP	97	Intangible Plant In Service	INTPLT		0.11380	0.05613	0.00610	0.05158	0.00005	0.01092
AP	98	Production Plant In Service	PRODPLT		0.16395	0.04909	0.00615	0.10870	0.00000	0.01397
AP	99	Transmission Plant in Service	TRANPLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	100	Distribution Plant in Service	DISTPLT		0.08430	0.06027	0.00607	0.01796	0.00007	0.00913
AP	101	General Plant in Service	GENLPLT		0.08880	0.04972	0.00562	0.03345	0.00011	0.01131
AP	102	Intangible and General Plant in Service	INTGENLPLT		0.09918	0.05238	0.00582	0.04098	0.00008	0.01115
AP	103	Total Transmission and Distribution Plant	TDPLT		0.08430	0.06027	0.00607	0.01796	0.00007	0.00913
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT		0.11380	0.05613	0.00610	0.05158	0.00005	0.01092
AP	105	Total Electric Plant In Service	TOTPLT		0.11068	0.05533	0.00604	0.04931	0.00005	0.01097
AP	106	Net Electric Plant In Service	NETPLT		0.11308	0.05632	0.00594	0.05082	0.00007	0.01178
AP	107	Rate Base	RATEBASE		0.11269	0.05632	0.00592	0.05045	0.00007	0.01287
AP	108									
AP	109									
AP	110									
AP	111									
AP	112									
AP	113									
AP	114									
AP	115	Distribution Plant in Service								
AP	116	Acct 360-Land and Land Rights	PLT_360		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	117	Acct 361-Structures & Improvements	PLT_361		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	118	Acct 362-Station Equipment	PLT_362		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	119	Acct 364-Towers and Fixtures	PLT_364		0.07623	0.06758	0.00865	0.00000	0.00000	0.00000
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365		0.07803	0.06744	0.01059	0.00000	0.00000	0.00000
AP	121	Acct 366-Underground Conduit	PLT_366		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	122	Acct 367 - Underground Conductor	PLT_367		0.07832	0.06742	0.01089	0.00000	0.00000	0.00000
AP	123	Acct 368-Line Transformers	PLT_368		0.06817	0.06817	0.00000	0.00000	0.00000	0.00000
AP	124	Acct 369-Services	PLT_369		0.00102	0.00102	0.00000	0.00000	0.00000	0.00000
AP	125	Acct 370-Meters	PLT_370		0.01618	0.00714	0.00310	0.00594	0.00172	0.00153
AP	126	Acct 371-Inst. on Customer Premises	PLT_371		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		0.07686	0.06753	0.00933	0.00000	0.00000	0.00000
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		0.07832	0.06742	0.01089	0.00000	0.00000	0.00000
AP	130	Accounts 371&373	PLT_3713		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	131									
AP	132	Accts 360-362-Distribution Substation	PLT_SUB		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		0.07890	0.06738	0.01152	0.00000	0.00000	0.00000
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	135									
AP	136									
AP	137									
AP	138									

Upper Peninsula Power Company
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Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AP	92									
AP	93	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	94	INTERNALLY DEVELOPED ALLOCATION FACTORS								
AP	95									
AP	96	Plant								
AP	97	Intangible Plant In Service	INTPLT		0.00120	0.00019	0.01055	0.01194	0.00218	0.00030
AP	98	Production Plant In Service	PRODPLT		0.00063	0.00013	0.00537	0.00613	0.00133	0.00018
AP	99	Transmission Plant in Service	TRANPLT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	100	Distribution Plant in Service	DISTPLT		0.00154	0.00022	0.01360	0.01536	0.00268	0.00038
AP	101	General Plant in Service	GENPLT		0.00085	0.00011	0.00488	0.00584	0.01477	0.00206
AP	102	Intangible and General Plant in Service	INTGENPLT		0.00100	0.00015	0.00723	0.00837	0.00954	0.00133
AP	103	Total Transmission and Distribution Plant	TDPLT		0.00154	0.00022	0.01360	0.01536	0.00268	0.00038
AP	104	Prod, Trans, and Distr Plant in Service	PTDPLT		0.00120	0.00019	0.01055	0.01194	0.00218	0.00030
AP	105	Total Electric Plant In Service	TOTPLT		0.00116	0.00018	0.00984	0.01118	0.00375	0.00052
AP	106	Net Electric Plant In Service	NETPLT		0.00085	0.00015	0.00676	0.00776	0.00408	0.00057
AP	107	Rate Base	RATEBASE		0.00092	0.00015	0.00726	0.00833	0.00463	0.00064
AP	108									
AP	109									
AP	110									
AP	111									
AP	112									
AP	113									
AP	114									
AP	115	Distribution Plant in Service								
AP	116	Acct 360-Land and Land Rights	PLT_360		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	117	Acct 361-Structures & Improvements	PLT_361		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	118	Acct 362-Station Equipment	PLT_362		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	119	Acct 364-Towers and Fixtures	PLT_364		0.00043	0.00011	0.00360	0.00414	0.00086	0.00012
AP	120	Acct 365-Overhead Conductors & Devices	PLT_365		0.00043	0.00011	0.00359	0.00413	0.00086	0.00012
AP	121	Acct 366-Underground Conduit	PLT_366		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	122	Acct 367 - Underground Conductor	PLT_367		0.00043	0.00011	0.00359	0.00413	0.00086	0.00012
AP	123	Acct 368-Line Transformers	PLT_368		0.00044	0.00011	0.00363	0.00418	0.00087	0.00012
AP	124	Acct 369-Services	PLT_369		0.00135	0.00019	0.00357	0.00512	0.00000	0.00000
AP	125	Acct 370-Meters	PLT_370		0.00085	0.00000	0.00000	0.00085	0.00000	0.00000
AP	126	Acct 371-Inst. on Customer Premises	PLT_371		0.00000	0.00000	0.00000	0.00000	0.87622	0.12378
AP	127	Acct 373-Street Lighting / Signal Systems	PLT_373		0.08797	0.00942	0.90262	1.00000	0.00000	0.00000
AP	128	Distribution Overhead Lines Plant Accts 364 & 365	OHDIST		0.00043	0.00011	0.00360	0.00414	0.00086	0.00012
AP	129	Distribution Underground Lines Plant Accts 366 & 367	UGDIST		0.00043	0.00011	0.00359	0.00413	0.00086	0.00012
AP	130	Accounts 371&373	PLT_373		0.07361	0.00788	0.75526	0.83674	0.14305	0.02021
AP	131									
AP	132	Accts 360-362-Distribution Substation	PLT_SUB		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	133	Accts 364 thru 367-Distribution Primary	PLT_DPRI		0.00043	0.00011	0.00359	0.00413	0.00086	0.00012
AP	134	Accts 364 thru 367-Distribution Secondary	PLT_DSEC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	135									
AP	136									
AP	137									
AP	138									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	139	ALLOCATION PROPORTIONS TABLE CONTINUED									
AP	140	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>									
AP	141										
AP	142	Production Expense									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	1.00000	0.46052	0.00764	0.40302	0.00615	0.12267		
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	1.00000	0.46052	0.00764	0.40302	0.00615	0.12267		
AP	145	Salaries and Wages Production Operation	SALWAGPO	1.00000	0.46052	0.00764	0.40302	0.00615	0.12267		
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	1.00000	0.46052	0.00764	0.40302	0.00615	0.12267		
AP	147										
AP	148	Transmission Expense									
AP	149	O&M Accounts 561-567	OX_TRAN	1.00000	0.43032	0.00677	0.42697	0.00609	0.12985		
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	153										
AP	154	Regional Market Expens									
AP	155	O&M Accounts 575	OX_RM	1.00000	0.44022	0.00871	0.36545	0.00651	0.17911		
AP	156										
AP	157	Distribution Expense									
AP	158	Acct 580-Supervision	OX_580	1.00000	0.57250	0.06357	0.31665	0.00528	0.04200		
AP	159	Acct 581-Load Dispatch	OX_581	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	160	Acct 582-Station Equipment	OX_582	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	161	Acct 583-Overhead Lines	OX_583	1.00000	0.61604	0.00512	0.36951	0.00933	0.00000		
AP	162	Acct 584-Underground Lines	OX_584	1.00000	0.61507	0.00511	0.36892	0.01089	0.00000		
AP	163	Acct 585-Street Lighting	OX_585	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	164	Acct 586-Metering	OX_586	1.00000	0.78689	0.00085	0.19998	0.00310	0.00919		
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	166	Acct 588-Miscellaneous	OX_588	1.00000	0.60054	0.01841	0.34782	0.00607	0.02717		
AP	167	Acct 589-Rents	OX_589	1.00000	0.60054	0.01841	0.34782	0.00607	0.02717		
AP	168	Acct 590-Supervision	MX_590	1.00000	0.59395	0.00597	0.37612	0.00861	0.01535		
AP	169	Acct 592-Station Equipment	MX_592	1.00000	0.42976	0.00669	0.42918	0.00608	0.12829		
AP	170	Acct 593-Overhead Lines	MX_593	1.00000	0.61604	0.00512	0.36951	0.00933	0.00000		
AP	171	Acct 594-Underground Lines	MX_594	1.00000	0.61507	0.00511	0.36892	0.01089	0.00000		
AP	172	Acct 595-Transformers	MX_595	1.00000	0.62184	0.00517	0.37299	0.00000	0.00000		
AP	173	Acct 596-Street Lighting	MX_596	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	174	Acct 597-Metering	MX_597	1.00000	0.78689	0.00085	0.19998	0.00310	0.00919		
AP	175	Acct 598-Miscellaneous	MX_598	1.00000	0.60054	0.01841	0.34782	0.00607	0.02717		
AP	176	O&M Accounts 581-589	OX_DIST	1.00000	0.57250	0.06357	0.31665	0.00528	0.04200		
AP	177	O&M Accounts 591-598	MX_DIST	1.00000	0.59395	0.00597	0.37612	0.00861	0.01535		
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	1.00000	0.57250	0.06357	0.31665	0.00528	0.04200		
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	1.00000	0.59395	0.00597	0.37612	0.00861	0.01535		
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	RETAIL SYSTEM				General Service C-1	General Service C-2	Commercial Heating H-1	25kW-200kW Light & Power P-1
				S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)				
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AP	139	ALLOCATION PROPORTIONS TABLE CONTINUED									
AP	140	INTERNALLY DEVELOPED ALLOCATION FACTORS									
AP	141										
AP	142	Production Expense									
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD	0.37467	0.03157	0.05428		0.10373	0.00000	0.01359	0.23661
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD	0.37467	0.03157	0.05428		0.10373	0.00000	0.01359	0.23661
AP	145	Salaries and Wages Production Operation	SALWAGPO	0.37467	0.03157	0.05428		0.10373	0.00000	0.01359	0.23661
AP	146	Salaries and Wages Production Maintenance	SALWAGPM	0.37467	0.03157	0.05428		0.10373	0.00000	0.01359	0.23661
AP	147										
AP	148	Transmission Expense									
AP	149	O&M Accounts 561-567	OX_TRAN	0.34967	0.02907	0.05158		0.09314	0.00000	0.01228	0.24224
AP	150	O&M Accounts 569-573	MX_TRAN	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	153										
AP	154	Regional Market Expens									
AP	155	O&M Accounts 575	OX_RM	0.35981	0.03183	0.04858		0.11384	0.00000	0.01461	0.14421
AP	156										
AP	157	Distribution Expense									
AP	158	Acct 580-Supervision	OX_580	0.47152	0.04394	0.05704		0.10187	0.00000	0.01105	0.15352
AP	159	Acct 581-Load Dispatch	OX_581	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	160	Acct 582-Station Equipment	OX_582	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	161	Acct 583-Overhead Lines	OX_583	0.50164	0.04140	0.07300		0.10865	0.00000	0.01416	0.17916
AP	162	Acct 584-Underground Lines	OX_584	0.50085	0.04133	0.07289		0.10848	0.00000	0.01414	0.17888
AP	163	Acct 585-Street Lighting	OX_585	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	164	Acct 586-Metering	OX_586	0.65826	0.07726	0.05138		0.12948	0.00000	0.00871	0.05466
AP	165	Acct 587-Customer Installations	OX_587	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	166	Acct 588-Miscellaneous	OX_588	0.49285	0.04112	0.06656		0.10463	0.00000	0.01248	0.17044
AP	167	Acct 589-Rents	OX_589	0.49285	0.04112	0.06656		0.10463	0.00000	0.01248	0.17044
AP	168	Acct 590-Supervision	MX_590	0.48359	0.03996	0.07039		0.10669	0.00000	0.01391	0.18680
AP	169	Acct 592-Station Equipment	MX_592	0.34913	0.02896	0.05167		0.09230	0.00000	0.01218	0.24594
AP	170	Acct 593-Overhead Lines	MX_593	0.50164	0.04140	0.07300		0.10865	0.00000	0.01416	0.17916
AP	171	Acct 594-Underground Lines	MX_594	0.50085	0.04133	0.07289		0.10848	0.00000	0.01414	0.17888
AP	172	Acct 595-Transformers	MX_595	0.50636	0.04179	0.07369		0.10967	0.00000	0.01430	0.18085
AP	173	Acct 596-Street Lighting	MX_596	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	174	Acct 597-Metering	MX_597	0.65826	0.07726	0.05138		0.12948	0.00000	0.00871	0.05466
AP	175	Acct 598-Miscellaneous	MX_598	0.49285	0.04112	0.06656		0.10463	0.00000	0.01248	0.17044
AP	176	O&M Accounts 581-589	OX_DIST	0.47152	0.04394	0.05704		0.10187	0.00000	0.01105	0.15352
AP	177	O&M Accounts 591-598	MX_DIST	0.48359	0.03996	0.07039		0.10669	0.00000	0.01391	0.18680
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO	0.47152	0.04394	0.05704		0.10187	0.00000	0.01105	0.15352
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM	0.48359	0.03996	0.07039		0.10669	0.00000	0.01391	0.18680
AP	180										
AP	181										
AP	182										
AP	183										
AP	184										

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RETAIL SYSTEM										
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	Large Comm & Ind CP-U Total	S Large Commercial & Industrial			T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3	
					Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans			
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
AP	139	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	140	INTERNALLY DEVELOPED ALLOCATION FACTORS								
AP	141									
AP	142	Production Expense								
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		0.16395	0.04909	0.00615	0.10870	0.00000	0.01397
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		0.16395	0.04909	0.00615	0.10870	0.00000	0.01397
AP	145	Salaries and Wages Production Operation	SALWAGPO		0.16395	0.04909	0.00615	0.10870	0.00000	0.01397
AP	146	Salaries and Wages Production Maintenance	SALWAGPM		0.16395	0.04909	0.00615	0.10870	0.00000	0.01397
AP	147									
AP	148	Transmission Expense								
AP	149	O&M Accounts 561-567	OX_TRAN		0.17145	0.07931	0.00609	0.08605	0.00000	0.04380
AP	150	O&M Accounts 569-573	MX_TRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	153									
AP	154	Regional Market Expens								
AP	155	O&M Accounts 575	OX_RM		0.22253	0.09279	0.00651	0.12324	0.00000	0.05587
AP	156									
AP	157	Distribution Expense								
AP	158	Acct 580-Supervision	OX_580		0.08324	0.05021	0.00528	0.02774	0.00039	0.01386
AP	159	Acct 581-Load Dispatch	OX_581		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	160	Acct 582-Station Equipment	OX_582		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	161	Acct 583-Overhead Lines	OX_583		0.07686	0.06753	0.00933	0.00000	0.00000	0.00000
AP	162	Acct 584-Underground Lines	OX_584		0.07832	0.06742	0.01089	0.00000	0.00000	0.00000
AP	163	Acct 585-Street Lighting	OX_585		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	164	Acct 586-Metering	OX_586		0.01618	0.00714	0.00310	0.00594	0.00172	0.00153
AP	165	Acct 587-Customer Installations	OX_587		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	166	Acct 588-Miscellaneous	OX_588		0.08430	0.06027	0.00607	0.01796	0.00007	0.00913
AP	167	Acct 589-Rents	OX_589		0.08430	0.06027	0.00607	0.01796	0.00007	0.00913
AP	168	Acct 590-Supervision	MX_590		0.08748	0.06872	0.00861	0.01015	0.00000	0.00520
AP	169	Acct 592-Station Equipment	MX_592		0.16967	0.07876	0.00608	0.08484	0.00000	0.04345
AP	170	Acct 593-Overhead Lines	MX_593		0.07686	0.06753	0.00933	0.00000	0.00000	0.00000
AP	171	Acct 594-Underground Lines	MX_594		0.07832	0.06742	0.01089	0.00000	0.00000	0.00000
AP	172	Acct 595-Transformers	MX_595		0.06817	0.06817	0.00000	0.00000	0.00000	0.00000
AP	173	Acct 596-Street Lighting	MX_596		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	174	Acct 597-Metering	MX_597		0.01618	0.00714	0.00310	0.00594	0.00172	0.00153
AP	175	Acct 598-Miscellaneous	MX_598		0.08430	0.06027	0.00607	0.01796	0.00007	0.00913
AP	176	O&M Accounts 581-589	OX_DIST		0.08324	0.05021	0.00528	0.02774	0.00039	0.01386
AP	177	O&M Accounts 591-598	MX_DIST		0.08748	0.06872	0.00861	0.01015	0.00000	0.00520
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO		0.08324	0.05021	0.00528	0.02774	0.00039	0.01386
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM		0.08748	0.06872	0.00861	0.01015	0.00000	0.00520
AP	180									
AP	181									
AP	182									
AP	183									
AP	184									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AP	139	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	140	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AP	141									
AP	142	Production Expense								
AP	143	O&M Exp Prod Oper Accts 502-509,537-539,548,549	OX_PROD		0.00063	0.00013	0.00537	0.00613	0.00133	0.00018
AP	144	O&M Exp Prod Maint Accts 511-514,542-545,552-554	MX_PROD		0.00063	0.00013	0.00537	0.00613	0.00133	0.00018
AP	145	Salaries and Wages Production Operation	SALWAGPO		0.00063	0.00013	0.00537	0.00613	0.00133	0.00018
AP	146	Salaries and Wages Production Maintenance	SALWAGPM		0.00063	0.00013	0.00537	0.00613	0.00133	0.00018
AP	147									
AP	148	Transmission Expense								
AP	149	O&M Accounts 561-567	OX_TRAN		0.00059	0.00014	0.00474	0.00547	0.00115	0.00016
AP	150	O&M Accounts 569-573	MX_TRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	151	Salaries & Wages Accounts 561-567	SALWAGTO		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	152	Salaries & Wages Accounts 569-573	SALWAGTM		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	153									
AP	154	Regional Market Expens								
AP	155	O&M Accounts 575	OX_RM		0.00060	0.00006	0.00620	0.00687	0.00164	0.00021
AP	156									
AP	157	Distribution Expense								
AP	158	Acct 580-Supervision	OX_580		0.00106	0.00014	0.00774	0.00894	0.04786	0.00676
AP	159	Acct 581-Load Dispatch	OX_581		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	160	Acct 582-Station Equipment	OX_582		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	161	Acct 583-Overhead Lines	OX_583		0.00043	0.00011	0.00360	0.00414	0.00086	0.00012
AP	162	Acct 584-Underground Lines	OX_584		0.00043	0.00011	0.00359	0.00413	0.00086	0.00012
AP	163	Acct 585-Street Lighting	OX_585		0.08797	0.00942	0.90262	1.00000	0.00000	0.00000
AP	164	Acct 586-Metering	OX_586		0.00085	0.00000	0.00000	0.00085	0.00000	0.00000
AP	165	Acct 587-Customer Installations	OX_587		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	166	Acct 588-Miscellaneous	OX_588		0.00154	0.00022	0.01360	0.01536	0.00268	0.00038
AP	167	Acct 589-Rents	OX_589		0.00154	0.00022	0.01360	0.01536	0.00268	0.00038
AP	168	Acct 590-Supervision	MX_590		0.00051	0.00012	0.00432	0.00495	0.00090	0.00013
AP	169	Acct 592-Station Equipment	MX_592		0.00059	0.00014	0.00468	0.00542	0.00113	0.00015
AP	170	Acct 593-Overhead Lines	MX_593		0.00043	0.00011	0.00360	0.00414	0.00086	0.00012
AP	171	Acct 594-Underground Lines	MX_594		0.00043	0.00011	0.00359	0.00413	0.00086	0.00012
AP	172	Acct 595-Transformers	MX_595		0.00044	0.00011	0.00363	0.00418	0.00087	0.00012
AP	173	Acct 596-Street Lighting	MX_596		0.08797	0.00942	0.90262	1.00000	0.00000	0.00000
AP	174	Acct 597-Metering	MX_597		0.00085	0.00000	0.00000	0.00085	0.00000	0.00000
AP	175	Acct 598-Miscellaneous	MX_598		0.00154	0.00022	0.01360	0.01536	0.00268	0.00038
AP	176	O&M Accounts 581-589	OX_DIST		0.00571	0.00064	0.05542	0.06177	0.00157	0.00022
AP	177	O&M Accounts 591-598	MX_DIST		0.00051	0.00012	0.00432	0.00495	0.00090	0.00013
AP	178	Salaries & Wages Accounts 581-589	SALWAGDO		0.00106	0.00014	0.00774	0.00894	0.04786	0.00676
AP	179	Salaries & Wages Accounts 591-598	SALWAGDM		0.00051	0.00012	0.00432	0.00495	0.00090	0.00013
AP	180									
AP	181									
AP	182									
AP	183									
AP	184									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	185	ALLOCATION PROPORTIONS TABLE CONTINUED									
AP	186	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>									
AP	187										
AP	188	Customer Accounting Expense									
AP	189	Account 902	OX_902	1.00000	0.88948	0.00142	0.10886	0.00009	0.00015		
AP	190	Account 903	OX_903	1.00000	0.88961	0.00142	0.10888	0.00009	0.00000		
AP	191	Account 904	OX_904	1.00000	0.57792	0.00097	0.04502	0.00000	0.37609		
AP	192	Accounts 902 & 903	OX_902_3	1.00000	0.88956	0.00142	0.10887	0.00009	0.00006		
AP	193	O&M Accounts 902-905	OX_CA	1.00000	0.78087	0.00126	0.08660	0.00006	0.13121		
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	1.00000	0.88956	0.00142	0.10887	0.00009	0.00006		
AP	195										
AP	196	Customer Service Expense									
AP	197	Account908	OX_908	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	198	Account909	OX_909	1.00000	0.64937	0.02004	0.23377	0.00339	0.09344		
AP	199	Account910	OX_910	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	200	O&M Accounts 908-910	OX_CS	1.00000	0.64937	0.02004	0.23377	0.00339	0.09344		
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	1.00000	0.64937	0.02004	0.23377	0.00339	0.09344		
AP	202										
AP	203	Total Customer Operations Expense	OMXCUST	1.00000	0.73220	0.00916	0.14976	0.00146	0.10743		
AP	204										
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	1.00000	0.61654	0.02268	0.31029	0.00562	0.04487		
AP	206	Total Salaries and Wages Expense	SALWAGES	1.00000	0.61654	0.02268	0.31029	0.00562	0.04487		
AP	207										
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	1.00000	0.57086	0.01873	0.33772	0.00576	0.06694		
AP	209										
AP	210										
AP	211										
AP	212										
AP	213										
AP	214										
AP	215										
AP	216										
AP	217										
AP	218										
AP	219										
AP	220										
AP	221										
AP	222										
AP	223										
AP	224										
AP	225										
AP	226										
AP	227										
AP	228										
AP	229										
AP	230										
AP	231	REVENUES AND BILLING DETERMINANTS									
AP	232										
AP	233	Sales of Electricity Revenue - Present	SALESREV	1.00000	0.59859	0.02459	0.29406	0.00456	0.07820		
AP	234	Present Rate Sales Revenue	CLAIMREV	1.00000	0.54781	0.01544	0.34749	0.00587	0.08339		
AP	235										
AP	236										
AP	237	Residential A-1 Sales Revenue	SREVRA1	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000		
AP	238	Residential A-2 Sales Revenue	SREVRA2	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000		
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	1.00000	1.00000	0.00000	0.00000	0.00000	0.00000		
AP	240	General Service C1 Sales Revenue	SREVGSC1	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCSIC	1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCPRI	1.00000	0.00000	0.00000	0.00000	1.00000	0.00000		

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail		S Iron River		S Res. Heating		S General Service		S General Service		S Commercial Heating		S 25kW-200kW	
				A-1	A-2	AH-1				C-1	C-2	H-1	P-1				
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)						
AP	185	ALLOCATION PROPORTIONS TABLE CONTINUED															
AP	186	INTERNALLY DEVELOPED ALLOCATION FACTORS															
AP	187																
AP	188	Customer Accounting Expense															
AP	189	Account 902	OX_902	0.75947	0.06301	0.06699		0.09457	0.00000	0.00437	0.00928						
AP	190	Account 903	OX_903	0.75959	0.06302	0.06700		0.09458	0.00000	0.00437	0.00928						
AP	191	Account 904	OX_904	0.44734	0.04585	0.08473		0.00575	0.00000	0.00000	0.01330						
AP	192	Accounts 902 & 903	OX_902_3	0.75954	0.06302	0.06700		0.09458	0.00000	0.00437	0.00928						
AP	193	O&M Accounts 902-905	OX_CA	0.65065	0.05703	0.07318		0.06359	0.00000	0.00285	0.01068						
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA	0.75954	0.06302	0.06700		0.09458	0.00000	0.00437	0.00928						
AP	195																
AP	196	Customer Service Expense															
AP	197	Account908	OX_908	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000						
AP	198	Account909	OX_909	0.54649	0.04632	0.05655		0.10223	0.00000	0.00936	0.07591						
AP	199	Account910	OX_910	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000						
AP	200	O&M Accounts 908-910	OX_CS	0.54649	0.04632	0.05655		0.10223	0.00000	0.00936	0.07591						
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS	0.54649	0.04632	0.05655		0.10223	0.00000	0.00936	0.07591						
AP	202																
AP	203	Total Customer Operations Expense	OMXCUST	0.61348	0.05289	0.06582		0.08169	0.00000	0.00567	0.03800						
AP	204																
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG	0.51029	0.04375	0.06249		0.10292	0.00000	0.01128	0.14637						
AP	206	Total Salaries and Wages Expense	SALWAGES	0.51029	0.04375	0.06249		0.10292	0.00000	0.01128	0.14637						
AP	207																
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP	0.47087	0.04019	0.05979		0.10124	0.00000	0.01163	0.16824						
AP	209																
AP	210																
AP	211																
AP	212																
AP	213																
AP	214																
AP	215																
AP	216																
AP	217																
AP	218																
AP	219																
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AP	221																
AP	222																
AP	223																
AP	224																
AP	225																
AP	226																
AP	227																
AP	228																
AP	229																
AP	230																
AP	231	REVENUES AND BILLING DETERMINANTS															
AP	232																
AP	233	Sales of Electricity Revenue - Present	SALESREV	0.49873	0.04217	0.05769		0.11142	0.00000	0.01136	0.12270						
AP	234	Present Rate Sales Revenue	CLAIMREV	0.44984	0.03850	0.05948		0.10264	0.00000	0.01227	0.17173						
AP	235																
AP	236																
AP	237	Residential A-1 Sales Revenue	SREVRA1	1.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000						
AP	238	Residential A-2 Sales Revenue	SREVRA2	0.00000	1.00000	0.00000		0.00000	0.00000	0.00000	0.00000						
AP	239	Residential AH-1 Sales Revenue	SREVRAH1	0.00000	0.00000	1.00000		0.00000	0.00000	0.00000	0.00000						
AP	240	General Service C1 Sales Revenue	SREVGSC1	0.00000	0.00000	0.00000		1.00000	0.00000	0.00000	0.00000						
AP	241	General Service C2 Sales Revenue	SREVGSC2	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000						
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1	0.00000	0.00000	0.00000		0.00000	0.00000	1.00000	0.00000						
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	1.00000						
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLICISEC	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000						
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLICIPRI	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000						

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
AP	185	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	186	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AP	187									
AP	188	Customer Accounting Expense								
AP	189	Account 902	OX_902		0.00085	0.00065	0.00009	0.00012	0.00002	0.00002
AP	190	Account 903	OX_903		0.00073	0.00065	0.00009	0.00000	0.00000	0.00000
AP	191	Account 904	OX_904		0.02597	0.02597	0.00000	0.00000	0.37609	0.00000
AP	192	Accounts 902 & 903	OX_902_3		0.00078	0.00065	0.00009	0.00005	0.00001	0.00001
AP	193	O&M Accounts 902-905	OX_CA		0.00956	0.00948	0.00006	0.00003	0.13118	0.00000
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA		0.00078	0.00065	0.00009	0.00005	0.00001	0.00001
AP	195									
AP	196	Customer Service Expense								
AP	197	Account908	OX_908		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	198	Account909	OX_909		0.11395	0.04626	0.00339	0.06430	0.00001	0.02914
AP	199	Account910	OX_910		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	200	O&M Accounts 908-910	OX_CS		0.11395	0.04626	0.00339	0.06430	0.00001	0.02914
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS		0.11395	0.04626	0.00339	0.06430	0.00001	0.02914
AP	202									
AP	203	Total Customer Operations Expense	OMXCUST		0.05288	0.02440	0.00146	0.02702	0.06817	0.01224
AP	204									
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		0.08880	0.04972	0.00562	0.03345	0.00011	0.01131
AP	206	Total Salaries and Wages Expense	SALWAGES		0.08880	0.04972	0.00562	0.03345	0.00011	0.01131
AP	207									
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		0.11039	0.05661	0.00576	0.04803	0.00008	0.01883
AP	209									
AP	210									
AP	211									
AP	212									
AP	213									
AP	214									
AP	215									
AP	216									
AP	217									
AP	218									
AP	219									
AP	220									
AP	221									
AP	222									
AP	223									
AP	224									
AP	225									
AP	226									
AP	227									
AP	228									
AP	229									
AP	230									
AP	231	REVENUES AND BILLING DETERMINANTS								
AP	232									
AP	233	Sales of Electricity Revenue - Present	SALESREV		0.10811	0.04858	0.00456	0.05497	0.00332	0.01991
AP	234	Present Rate Sales Revenue	CLAIMREV		0.12469	0.06084	0.00587	0.05798	0.00472	0.02069
AP	235									
AP	236									
AP	237	Residential A-1 Sales Revenue	SREVRA1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	238	Residential A-2 Sales Revenue	SREVRA2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	239	Residential AH-1 Sales Revenue	SREVRAH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	240	General Service C1 Sales Revenue	SREVGSC1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	241	General Service C2 Sales Revenue	SREVGSC2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCSIC		1.00000	1.00000	0.00000	0.00000	0.00000	0.00000
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCPRI		1.00000	0.00000	1.00000	0.00000	0.00000	0.00000

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AP	185	ALLOCATION PROPORTIONS TABLE CONTINUED								
AP	186	<u>INTERNALLY DEVELOPED ALLOCATION FACTORS</u>								
AP	187									
AP	188	Customer Accounting Expense								
AP	189	Account 902	OX_902		0.00142	0.00000	0.00000	0.00142	0.00000	0.00000
AP	190	Account 903	OX_903		0.00142	0.00000	0.00000	0.00142	0.00000	0.00000
AP	191	Account 904	OX_904		0.00000	0.00000	0.00000	0.00000	0.00094	0.00004
AP	192	Accounts 902 & 903	OX_902_3		0.00142	0.00000	0.00000	0.00142	0.00000	0.00000
AP	193	O&M Accounts 902-905	OX_CA		0.00092	0.00000	0.00000	0.00092	0.00033	0.00001
AP	194	Salaries & Wages Accounts 902-905	SALWAGCA		0.00142	0.00000	0.00000	0.00142	0.00000	0.00000
AP	195									
AP	196	Customer Service Expense								
AP	197	Account908	OX_908		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	198	Account909	OX_909		0.00099	0.00013	0.00489	0.00601	0.01243	0.00159
AP	199	Account910	OX_910		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	200	O&M Accounts 908-910	OX_CS		0.00099	0.00013	0.00489	0.00601	0.01243	0.00159
AP	201	Salaries & Wages Accounts 908-910	SALWAGCS		0.00099	0.00013	0.00489	0.00601	0.01243	0.00159
AP	202									
AP	203	Total Customer Operations Expense	OMXCUST		0.00098	0.00005	0.00205	0.00309	0.00539	0.00068
AP	204									
AP	205	Salaries & Wages Excluding Admin & Gen exp	SALWAGXAG		0.00085	0.00011	0.00488	0.00584	0.01477	0.00206
AP	206	Total Salaries and Wages Expense	SALWAGES		0.00085	0.00011	0.00488	0.00584	0.01477	0.00206
AP	207									
AP	208	Total O&M less Fuel and Purchased Power & Acct 904	OMXFPP		0.00115	0.00016	0.00862	0.00993	0.00773	0.00107
AP	209									
AP	210									
AP	211									
AP	212									
AP	213									
AP	214									
AP	215									
AP	216									
AP	217									
AP	218									
AP	219									
AP	220									
AP	221									
AP	222									
AP	223									
AP	224									
AP	225									
AP	226									
AP	227									
AP	228									
AP	229									
AP	230									
AP	231	REVENUES AND BILLING DETERMINANTS								
AP	232									
AP	233	Sales of Electricity Revenue - Present	SALESREV		0.00075	0.00014	0.01822	0.01911	0.00493	0.00055
AP	234	Present Rate Sales Revenue	CLAIMREV		0.00100	0.00014	0.00790	0.00904	0.00563	0.00078
AP	235									
AP	236									
AP	237	Residential A-1 Sales Revenue	SREVRA1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	238	Residential A-2 Sales Revenue	SREVRA2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	239	Residential AH-1 Sales Revenue	SREVRAH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	240	General Service C1 Sales Revenue	SREVGSC1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	241	General Service C2 Sales Revenue	SREVGSC2		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	242	Commercial Heating H-1 Sales Revenue	SREVCH1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	243	Light and Power P-1 Sales Revenue	SREVLPP1		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	244	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCSIC		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	245	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCPRI		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	248	Light and Power WP-3 Sales Revenue	SREVLWP3	1.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	1.00000	0.00000	1.00000	0.00000	0.00000	0.00000		
AP	254	Total Rate Base					0.00000				
AP	255										
AP	256										
AP	257	<u>PRESENT REVENUES FROM SALES INPUT</u>									
AP	258										
AP	259	Total Sales of Electricity Revenues		1.00000	0.59859	0.02459	0.29406	0.00456	0.07820		
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		1.00000	0.59859	0.02459	0.29406	0.00456	0.07820		
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
AP	266										
AP	267										
AP	268										
AP	269										
AP	270										
AP	271										
AP	272										
AP	273										
AP	274										
AP	276										

<p style="text-align: center;">Upper Peninsula Power Company Historical Cost of Service Allocation Study Forecast 12 Month Period ending December 31, 2019 RETAIL SYSTEM</p>											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	248	Light and Power WP-3 Sales Revenue	SREVLWP3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
AP	254	Total Rate Base									
AP	255										
AP	256										
AP	257	<u>PRESENT REVENUES FROM SALES INPUT</u>									
AP	258										
AP	259	Total Sales of Electricity Revenues		0.49873	0.04217	0.05769		0.11142	0.00000	0.01136	0.12270
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)		0.49873	0.04217	0.05769		0.11142	0.00000	0.01136	0.12270
AP	261										
AP	262										
AP	263										
AP	264										
AP	265										
AP	266										
AP	267										
AP	268										
AP	269										
AP	269										
AP	270										
AP	271										
AP	272										
AP	273										
AP	274										
AP	276										

Upper Peninsula Power Company
Historical Cost of Service Allocation Study
Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	Large Comm & Ind						Real-Time Market Pricing RTMP	Light & Power WP-3
					CP-U Total	Secondary CP-U Sec	Primary CP-U Prim	Transmission CP-U Trans	Q CP-U Trans	T CP-U Trans		
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)		
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCTRAN		1.00000	0.00000	0.00000	1.00000	0.00000	0.00000		
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0.00000	0.00000	0.00000	0.00000	1.00000	0.00000		
AP	248	Light and Power WP-3 Sales Revenue	SREVLWP3		0.00000	0.00000	0.00000	0.00000	0.00000	1.00000		
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
AP	254	Total Rate Base										
AP	255											
AP	256											
AP	257	<u>PRESENT REVENUES FROM SALES INPUT</u>										
AP	258											
AP	259	Total Sales of Electricity Revenues			0.10811	0.04858	0.00456	0.05497	0.00332	0.01991		
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			0.10811	0.04858	0.00456	0.05497	0.00332	0.01991		
AP	261											
AP	262											
AP	263											
AP	264											
AP	265											
AP	266											
AP	267											
AP	268											
AP	269											
AP	269											
AP	270											
AP	271											
AP	272											
AP	273											
AP	274											
AP	276											

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
AP	246	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCTRAN		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	247	Real Time Market Pricing Sales Revenue	SREVRTMP		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	248	Light and Power WP-3 Sales Revenue	SREVLWP3		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AP	249	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		1.00000	0.00000	0.00000	1.00000	0.00000	0.00000
AP	250	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0.00000	1.00000	0.00000	1.00000	0.00000	0.00000
AP	251	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0.00000	0.00000	1.00000	1.00000	0.00000	0.00000
AP	252	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0.00000	0.00000	0.00000	0.00000	1.00000	0.00000
AP	253	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0.00000	0.00000	0.00000	0.00000	0.00000	1.00000
AP	254	Total Rate Base								
AP	255									
AP	256									
AP	257	<u>PRESENT REVENUES FROM SALES INPUT</u>								
AP	258									
AP	259	Total Sales of Electricity Revenues			0.00075	0.00014	0.01822	0.01911	0.00493	0.00055
AP	260	Sales of Electricity Revenues Excl Cost of Gas (Present)			0.00075	0.00014	0.01822	0.01911	0.00493	0.00055
AP	261									
AP	262									
AP	263									
AP	264									
AP	265									
AP	266									
AP	267									
AP	268									
AP	269									
AP	269									
AP	270									
AP	271									
AP	272									
AP	273									
AP	274									
AP	276									

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERCIAL SECONDARY	TOTAL COMMERCIAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ADA	1	ALLOCATED DIRECT ASSIGNMENTS									
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS									
ADA	3										
ADA	4	904 Uncollectible Accounts (Write-Offs)									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	467,513	467,513	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	47,917	47,917	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	88,550	88,550	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	6,005	0	0	6,005	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	13,903	0	0	13,903	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	27,138	0	0	27,138	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCTRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	393,047	0	0	0	0	393,047		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	980	0	980	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	37	0	37	0	0	0		
ADA	23										
ADA	24	Total Account 904	EXP_904	1,045,090	603,980	1,017	47,045	0	393,047		
ADA	25										
ADA	26	Total Account 904	EXP_904	1.00000	0.57792	0.00097	0.04502	0.00000	0.37609		
ADA	27										
ADA	28										
ADA	29										
ADA	30										
ADA	31										
ADA	32										
ADA	33										
ADA	34										
ADA	35										
ADA	36										
ADA	37										
ADA	38										
ADA	39										
ADA	40										
ADA	41										
ADA	42										
ADA	43										
ADA	44										
ADA	45										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
ADA	1	ALLOCATED DIRECT ASSIGNMENTS									
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS									
ADA	3										
ADA	4	904 Uncollectible Accounts (Write-Offs)									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	467,513	0	0		0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	47,917	0		0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	88,550		0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0		6,005	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SRELVCH1	0	0	0		0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	13,903
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCEC	0	0	0		0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCPRI	0	0	0		0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCTRAN	0	0	0		0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLWP3	0	0	0		0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
ADA	23										
ADA	24	Total Account 904	EXP_904	467,513	47,917	88,550		6,005	0	0	13,903
ADA	25										
ADA	26	Total Account 904	EXP_904	0.44734	0.04585	0.08473		0.00575	0.00000	0.00000	0.01330
ADA	27										
ADA	28										
ADA	29										
ADA	30										
ADA	31										
ADA	32										
ADA	33										
ADA	34										
ADA	35										
ADA	36										
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ADA	38										
ADA	39										
ADA	40										
ADA	41										
ADA	42										
ADA	43										
ADA	44										
ADA	45										

Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM					
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
ADA	1	ALLOCATED DIRECT ASSIGNMENTS								
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS								
ADA	3									
ADA	4	904 Uncollectible Accounts (Write-Offs)								
ADA	5									
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		27,138	27,138	0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	393,047	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPPW3		0	0	0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0
ADA	23									
ADA	24	Total Account 904	EXP_904		27,138	27,138	0	0	393,047	0
ADA	25									
ADA	26	Total Account 904	EXP_904		0.02597	0.02597	0.00000	0.00000	0.37609	0.00000
ADA	27									
ADA	28									
ADA	29									
ADA	30									
ADA	31									
ADA	32									
ADA	33									
ADA	34									
ADA	35									
ADA	36									
ADA	37									
ADA	38									
ADA	39									
ADA	40									
ADA	41									
ADA	42									
ADA	43									
ADA	44									
ADA	45									

Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
ADA	1	ALLOCATED DIRECT ASSIGNMENTS								
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS								
ADA	3									
ADA	4	904 Uncollectible Accounts (Write-Offs)								
ADA	5									
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		0	0	0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLWP3		0	0	0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	980	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	37
ADA	23									
ADA	24	Total Account 904	EXP_904		0	0	0	0	980	37
ADA	25									
ADA	26	Total Account 904	EXP_904		0.00000	0.00000	0.00000	0.00000	0.00094	0.00004
ADA	27									
ADA	28									
ADA	29									
ADA	30									
ADA	31									
ADA	32									
ADA	33									
ADA	34									
ADA	35									
ADA	36									
ADA	37									
ADA	38									
ADA	39									
ADA	40									
ADA	41									
ADA	42									
ADA	43									
ADA	44									
ADA	45									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
ADA	46										
ADA	1	ALLOCATED DIRECT ASSIGNMENTS									
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS									
ADA	3										
ADA	4	AVAILABLE									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0	0	0	0		
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0	0	0	0		
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0	0	0	0		
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0	0	0	0		
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0	0	0	0		
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0	0	0	0		
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0	0	0	0		
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCSSEC	0	0	0	0	0	0		
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCPRI	0	0	0	0	0	0		
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCTRAN	0	0	0	0	0	0		
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0	0	0	0		
ADA	17	Light and Power WP-3 Sales Revenue	SREVLWP3	0	0	0	0	0	0		
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0	0	0	0		
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0	0	0	0		
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0	0	0	0		
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0	0	0	0		
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0	0	0	0		
ADA	23										
ADA	24	Total Available	SREVAVAL	0	0	0	0	0	0		
ADA	25										
ADA	26	Total Available	SREVAVAL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
ADA	27										
ADA	28										
ADA	29										
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ADA	46										

Upper Peninsula Power Company Historical Cost of Service Allocation Study Forecast 12 Month Period ending December 31, 2019 RETAIL SYSTEM											
SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
ADA	46										
ADA	1	ALLOCATED DIRECT ASSIGNMENTS									
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS									
ADA	3										
ADA	4	AVAILABLE									
ADA	5										
ADA	6	Residential A-1 Sales Revenue	SREVRA1	0	0	0		0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2	0	0	0		0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1	0	0	0		0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1	0	0	0		0	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2	0	0	0		0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1	0	0	0		0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1	0	0	0		0	0	0	0
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC	0	0	0		0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI	0	0	0		0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN	0	0	0		0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP	0	0	0		0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLWP3	0	0	0		0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3	0	0	0		0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5	0	0	0		0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6	0	0	0		0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3	0	0	0		0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4	0	0	0		0	0	0	0
ADA	23										
ADA	24	Total Available	SREVAVAL	0	0	0		0	0	0	0
ADA	25										
ADA	26	Total Available	SREVAVAL	0.00000	0.00000	0.00000		0.00000	0.00000	0.00000	0.00000
ADA	27										
ADA	28										
ADA	29										
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ADA	32										
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ADA	45										
ADA	46										

Upper Peninsula Power Company
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RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)	(s)	(t)	(u)	(v)	(w)	(x)	(y)
ADA	46									
ADA	1	ALLOCATED DIRECT ASSIGNMENTS								
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS								
ADA	3									
ADA	4	AVAILABLE								
ADA	5									
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		0	0	0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLPPW3		0	0	0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0
ADA	23									
ADA	24	Total Available	SREVAVAL		0	0	0	0	0	0
ADA	25									
ADA	26	Total Available	SREVAVAL		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ADA	27									
ADA	28									
ADA	29									
ADA	30									
ADA	31									
ADA	32									
ADA	33									
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ADA	43									
ADA	44									
ADA	45									
ADA	46									

Upper Peninsula Power Company
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Forecast 12 Month Period ending December 31, 2019
RETAIL SYSTEM

SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
ADA	46									
ADA	1	ALLOCATED DIRECT ASSIGNMENTS								
ADA	2	DIRECT ASSIGN TO CLASSES W/SALES REV FUNCTIONS								
ADA	3									
ADA	4	AVAILABLE								
ADA	5									
ADA	6	Residential A-1 Sales Revenue	SREVRA1		0	0	0	0	0	0
ADA	7	Residential A-2 Sales Revenue	SREVRA2		0	0	0	0	0	0
ADA	8	Residential AH-1 Sales Revenue	SREVRAH1		0	0	0	0	0	0
ADA	9	General Service C1 Sales Revenue	SREVGSC1		0	0	0	0	0	0
ADA	10	General Service C1 Sales Revenue	SREVGSC2		0	0	0	0	0	0
ADA	11	Commercial Heating H-1 Sales Revenue	SREVCH1		0	0	0	0	0	0
ADA	12	Light and Power P-1 Sales Revenue	SREVLPP1		0	0	0	0	0	0
ADA	13	Large Commercial & Indust CP-U Sec Sales Rev	SREVLCISEC		0	0	0	0	0	0
ADA	14	Large Commercial & Indust CP-U Prim Sales Rev	SREVLCIPRI		0	0	0	0	0	0
ADA	15	Large Commercial & Indust CP-U Trans Sales Rev	SREVLCITRAN		0	0	0	0	0	0
ADA	16	Real Time Market Pricing Sales Revenue	SREVRTMP		0	0	0	0	0	0
ADA	17	Light and Power WP-3 Sales Revenue	SREVLWP3		0	0	0	0	0	0
ADA	18	Street Lighting Municipality SL-3 Sales Revenue	SREVSL3		0	0	0	0	0	0
ADA	19	Street Lighting Municipality SL-5 Sales Revenue	SREVSL5		0	0	0	0	0	0
ADA	20	Street Lighting Municipality SL-6 Sales Revenue	SREVSL6		0	0	0	0	0	0
ADA	21	Lighting-Customer Owned Z-3 Sales Revenue	SREVOSLZ3		0	0	0	0	0	0
ADA	22	Lighting-Customer Owned Z-4 Sales Revenue	SREVOSLZ4		0	0	0	0	0	0
ADA	23									
ADA	24	Total Available	SREVAVAIL		0	0	0	0	0	0
ADA	25									
ADA	26	Total Available	SREVAVAIL		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ADA	27									
ADA	28									
ADA	29									
ADA	30									
ADA	31									
ADA	32									
ADA	33									
ADA	34									
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Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	INTEGRATED RETAIL SYSTEM	TOTAL RESIDENTIAL	TOTAL LIGHTING	TOTAL COMMERICAL SECONDARY	TOTAL COMMERICAL PRIMARY	TOTAL TRANSMISSION	(i)	(j)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)		
RRW	1	REVENUE REQUIREMENTS									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	-----									
RRW	5	RATE BASE		278,888,973	155,133,069	3,794,004	100,630,047	1,650,558	17,681,296		
RRW	6	NET OPER INC (PRESENT RATES)		11,262,295	9,783,450	754,310	580,059	(21,287)	165,762		
RRW	7	RATE OF RETURN (PRES RATES)		4.04%	6.31%	19.88%	0.58%	-1.29%	0.94%		
RRW	8	RELATIVE RATE OF RETURN		1.00	1.56	4.92	0.14	-0.32	0.23		
RRW	9	SALES REVENUE (PRE RATES)		91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
RRW	10	REVENUE PRES RATES \$/KWH		\$0.1710	\$0.2347	\$0.4872	\$0.1389	\$0.1165	\$0.0716		
RRW	11	REVENUE REQUIRED - \$/MO/CUST		\$1,731.74	\$1,165.22	\$30,008.56	\$4,677.04	\$0.00	\$0.00		
RRW	12	SALES REV REQUIRED \$/KW		\$138.33	\$0.00	\$0.00	\$57.87	\$15.10	\$42.37		
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	-----									
RRW	16	CLAIMED RATE OF RETURN		7.57%	7.57%	7.57%	7.57%	7.57%	7.57%		
RRW	17	RETURN REQ FOR CLAIMED ROR		21,110,780	11,742,953	287,191	7,617,292	124,941	1,338,403		
RRW	18	SALES REVENUE REQ CLAIMED ROR		104,382,758	57,182,304	1,611,616	36,271,515	612,739	8,704,584		
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		13,261,969	2,638,667	(629,023)	9,476,337	196,910	1,579,078		
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		12.71%	4.61%	-39.03%	26.13%	32.14%	18.14%		
RRW	21	ANNUAL BOOKED KWH SALES		532,950,246	232,367,004	4,599,131	192,895,980	3,569,045	99,519,086		
RRW	22	SALES REV REQUIRED \$/KWH		\$0.1959	\$0.2461	\$0.3504	\$0.1880	\$0.1717	\$0.0875		
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) \$/KWH		\$0.0249	\$0.0114	(\$0.1368)	\$0.0491	\$0.0552	\$0.0159		
RRW	24										
RRW	25										
RRW	26										
RRW	27										
RRW	28										
RRW	29										
RRW	30										
RRW	31										
RRW	32										
RRW	33										
RRW	34										
RRW	35										
RRW	36										
RRW	37										
RRW	38										
RRW	39										
RRW	40										
RRW	41										
RRW	42										
RRW	43										
RRW	44										
RRW	45										
RRW	46										

Upper Peninsula Power Company
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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	RETAIL SYSTEM				General Service C-1	General Service C-2	Commercial Heating H-1	25kW-200kW Light & Power P-1
				S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	(n)				
		(a)	(b)	(k)	(l)	(m)		(o)	(p)	(q)	(r)
RRW	1	REVENUE REQUIREMENTS									
RRW	2										
RRW	3	PRESENT RATES									
RRW	4	-----									
RRW	5	RATE BASE		127,210,334	10,785,270	17,137,465		28,974,651	0	3,517,584	52,431,381
RRW	6	NET OPER INC (PRESENT RATES)		8,507,366	685,774	590,310		1,776,355	0	83,676	(1,040,423)
RRW	7	RATE OF RETURN (PRES RATES)		6.69%	6.36%	3.44%		6.13%	0.00%	2.38%	-1.98%
RRW	8	RELATIVE RATE OF RETURN		1.66	1.57	0.85		1.52	0.00	0.59	-0.49
RRW	9	SALES REVENUE (PRE RATES)		45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557
RRW	10	REVENUE PRES RATES \$/KWH		\$0.2393	\$0.2287	\$0.2050		\$0.1690	\$0.0000	\$0.1342	\$0.1469
RRW	11	REVENUE REQUIRED - \$/MO/CUST		\$1,137.02	\$1,158.77	\$1,490.96		\$2,039.94	\$0.00	\$4,499.84	\$22,903.16
RRW	12	SALES REV REQUIRED \$/KW		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$34.47
RRW	13										
RRW	14	CLAIMED RATE OF RETURN									
RRW	15	-----									
RRW	16	CLAIMED RATE OF RETURN		7.57%	7.57%	7.57%		7.57%	7.57%	7.57%	7.57%
RRW	17	RETURN REQ FOR CLAIMED ROR		9,629,313	816,402	1,297,238		2,193,265	0	266,267	3,968,846
RRW	18	SALES REVENUE REQ CLAIMED ROR		46,955,263	4,018,465	6,208,575		10,713,686	0	1,281,216	17,926,038
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV		1,510,814	175,903	951,949		561,411	0	245,877	6,745,481
RRW	20	PERCENT INCREASE/DECREASE REQUIRED		3.22%	4.38%	15.33%		5.24%	0.00%	19.19%	37.63%
RRW	21	ANNUAL BOOKED KWH SALES		189,919,815	16,802,756	25,644,433		60,086,760	0	7,712,051	76,121,492
RRW	22	SALES REV REQUIRED \$/KWH		\$0.2472	\$0.2392	\$0.2421		\$0.1783	\$0.0000	\$0.1661	\$0.2355
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) \$/KWH		\$0.0080	\$0.0105	\$0.0371		\$0.0093	\$0.0000	\$0.0319	\$0.0886
RRW	24										
RRW	25										
RRW	26										
RRW	27										
RRW	28										
RRW	29										
RRW	30										
RRW	31										
RRW	32										
RRW	33										
RRW	34										
RRW	35										
RRW	36										
RRW	37										
RRW	38										
RRW	39										
RRW	40										
RRW	41										
RRW	42										
RRW	43										
RRW	44										
RRW	45										
RRW	46										

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS	(s)	RETAIL SYSTEM					
					Large Comm & Ind CP-U Total	S Secondary CP-U Sec	P Large Commerical & Industrial Primary CP-U Prim	Q Transmission CP-U Trans	T Real-Time Market Pricing RTMP	Q > 5,000kW Light & Power WP-3
		(a)	(b)		(t)	(u)	(v)	(w)	(x)	(y)
RRW	1	REVENUE REQUIREMENTS								
RRW	2									
RRW	3	PRESENT RATES								
RRW	4	-----								
RRW	5	RATE BASE			31,428,207	15,706,431	1,650,558	14,071,218	19,547	3,590,532
RRW	6	NET OPER INC (PRESENT RATES)			29,350	(239,549)	(21,287)	290,186	(140,097)	15,673
RRW	7	RATE OF RETURN (PRES RATES)			0.09%	-1.53%	-1.29%	2.06%	0.00%	0.44%
RRW	8	RELATIVE RATE OF RETURN			0.02	-0.38	-0.32	0.51	0.00	0.11
RRW	9	SALES REVENUE (PRE RATES)			9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405
RRW	10	REVENUE PRES RATES \$/KWH			\$0.0814	\$0.0904	\$0.1165	\$0.0731	\$0.0000	\$0.0584
RRW	11	REVENUE REQUIRED - \$/MO/CUST			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RRW	12	SALES REV REQUIRED \$/KW			\$37.10	\$31.93	\$15.10	\$50.41	\$0.00	\$26.36
RRW	13									
RRW	14	CLAIMED RATE OF RETURN								
RRW	15	-----								
RRW	16	CLAIMED RATE OF RETURN			7.57%	7.57%	7.57%	7.57%	7.57%	7.57%
RRW	17	RETURN REQ FOR CLAIMED ROR			2,378,990	1,188,914	124,941	1,065,135	1,480	271,789
RRW	18	SALES REVENUE REQ CLAIMED ROR			13,015,481	6,350,575	612,739	6,052,167	493,126	2,159,290
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV			3,164,025	1,923,568	196,910	1,043,547	190,646	344,885
RRW	20	PERCENT INCREASE/DECREASE REQUIRED			24.31%	30.29%	32.14%	17.24%	38.66%	15.97%
RRW	21	ANNUAL BOOKED KWH SALES			121,018,237	48,975,676	3,569,045	68,473,516	0	31,045,571
RRW	22	SALES REV REQUIRED \$/KWH			\$0.1075	\$0.1297	\$0.1717	\$0.0884	\$0.0000	\$0.0696
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) \$/KWH			\$0.0261	\$0.0393	\$0.0552	\$0.0152	\$0.0000	\$0.0111
RRW	24									
RRW	25									
RRW	26									
RRW	27									
RRW	28									
RRW	29									
RRW	30									
RRW	31									
RRW	32									
RRW	33									
RRW	34									
RRW	35									
RRW	36									
RRW	37									
RRW	38									
RRW	39									
RRW	40									
RRW	41									
RRW	42									
RRW	43									
RRW	44									
RRW	45									
RRW	46									

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SUB SCHEDULE	LINE NO.	DESCRIPTION	ALLOCATION BASIS		S Street Lighting SL-3	S Street Light (Closed) SL-5	S Street Lighting SL-6	Street Lighting Total	S Integrated OSL Z-3	S Iron River OSL Z-4
		(a)	(b)	(z)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)
RRW	1	REVENUE REQUIREMENTS								
RRW	2									
RRW	3	PRESENT RATES								
RRW	4	-----								
RRW	5	RATE BASE			256,072	41,891	2,024,259	2,322,222	1,292,093	179,689
RRW	6	NET OPER INC (PRESENT RATES)			(7,347)	1,428	774,177	768,257	(4,391)	(9,555)
RRW	7	RATE OF RETURN (PRES RATES)			-2.87%	3.41%	38.24%	33.08%	-0.34%	-5.32%
RRW	8	RELATIVE RATE OF RETURN			-0.71	0.84	9.47	8.19	-0.08	-1.32
RRW	9	SALES REVENUE (PRE RATES)			67,986	12,665	1,660,422	1,741,073	449,624	49,942
RRW	10	REVENUE PRES RATES \$/KWH			\$0.2131	\$0.3710	\$0.5073	\$0.4802	\$0.5201	\$0.4600
RRW	11	REVENUE REQUIRED - \$/MO/CUST			\$910.53	\$0.00	\$0.00	\$23,317.94	\$0.00	\$0.00
RRW	12	SALES REV REQUIRED \$/KW			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
RRW	13									
RRW	14	CLAIMED RATE OF RETURN								
RRW	15	-----								
RRW	16	CLAIMED RATE OF RETURN			7.57%	7.57%	7.57%	7.57%	7.57%	7.57%
RRW	17	RETURN REQ FOR CLAIMED ROR			19,384	3,171	153,228	175,783	97,806	13,602
RRW	18	SALES REVENUE REQ CLAIMED ROR			103,982	15,012	824,253	943,247	587,243	81,125
RRW	19	REVENUE DEFICIENCY (SUFFICIENCY) SALES REV			35,996	2,347	(836,169)	(797,826)	137,619	31,183
RRW	20	PERCENT INCREASE/DECREASE REQUIRED			34.62%	15.64%	0.00%	-84.58%	23.43%	38.44%
RRW	21	ANNUAL BOOKED KWH SALES			318,981	34,140	3,272,956	3,626,076	864,478	108,577
RRW	22	SALES REV REQUIRED \$/KWH			\$0.3260	\$0.4397	\$0.2518	\$0.2601	\$0.6793	\$0.7472
RRW	23	REVENUE DEFICIENCY (SUFFICIENCY) \$/KWH			\$0.1128	\$0.0688	(\$0.2555)	(\$0.2200)	\$0.1592	\$0.2872
RRW	24									
RRW	25									
RRW	26									
RRW	27									
RRW	28									
RRW	29									
RRW	30									
RRW	31									
RRW	32									
RRW	33									
RRW	34									
RRW	35									
RRW	36									
RRW	37									
RRW	38									
RRW	39									
RRW	40									
RRW	41									
RRW	42									
RRW	43									
RRW	44									
RRW	45									
RRW	46									

RETAIL SYSTEM

LINE NO.	COS Without Minimum System	INTEGRATED	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL			
	DESCRIPTION	RETAIL SYSTEM	RESIDENTIAL	LIGHTING	COMMERICAL SECONDARY	COMMERICAL PRIMARY	TRANSMISSION			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIREMENTS									
2										
3	RATE OF RETURN		4.04%	6.31%	19.88%	0.58%	-1.29%	0.94%		
4										
5	REVENUES REQUIRED									
6	DEMAND COMPONENTS	59,046,581	59,046,581	35,150,383	840,503	18,979,117	299,568	3,777,011		
7	PRODUCTION COSTS									
8	PRODUCTION DEMAND COMPONENT		15,983,656	8,949,084	327,849	4,857,895	63,618	1,785,210		
9	PURCHASED CAPACITY COMPONENT		900,000	480,097	11,167	403,352	5,384	0		
10	TRANSMISSION DEMAND PSCR COMPONENT		8,998,055	4,033,271	77,730	3,708,086	51,628	1,127,340		
11	TRANSMISSION COSTS									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	DISTRIBUTION COSTS									
15	DISTRIBUTION SUBSTATIONS COMPONENT		7,620,810	4,030,365	130,977	2,562,798	32,208	864,461		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		17,879,039	12,189,198	192,356	5,350,756	146,729	0		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		3,558,909	2,424,537	36,713	1,097,660	0	0		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		4,106,112	3,043,831	63,711	998,570	0	0		
19	CUSTOMER COMPONENTS	17,918,267	17,918,267	13,151,750	1,275,262	2,650,810	24,418	816,028		
20	CUSTOMER DISTRIBUTION COSTS									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0	0	0	0		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0	0	0	0		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0	0	0	0		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		1,860,613	1,625,390	20,950	214,273	0	0		
25	METERING COMPONENT		3,773,529	2,825,397	1,798	617,785	7,312	321,237		
26	STREET AND AREA LIGHTING COMPONENT		1,127,315	0	1,127,315	0	0	0		
27	OTHER CUSTOMER COSTS									
28	METER READING COMPONENT		2,186,416	1,951,047	2,502	231,444	160	1,263		
29	CUST ACCT, SALES, & SERVICE COMPONENT		8,970,395	6,749,916	122,696	1,587,308	16,946	493,528		
30	CUSTOMER OTHER COMPONENT		0	0	0	0	0	0		
31	ENERGY COMPONENTS	14,155,940	14,155,940	6,241,504	124,875	5,165,251	91,844	2,532,467		
32	PRODUCTION ENERGY COMPONENT		14,155,940	6,241,504	124,875	5,165,251	91,844	2,532,467		
33	TOTAL COMPANY	91,120,789	91,120,789	54,543,637	2,240,639	26,795,178	415,830	7,125,505		
34										
35										
36										
37										
38	Annual kWh Sales @ Meter		532,950,246	232,367,004	4,599,131	192,895,980	3,569,045	99,519,086		
39	Annual kW - Billed		658,730	0	0	463,029	27,530	168,171		
40	Number of Customers (Average Annual)		54,258	46,810	1,706	5,729	5	8		
41										
42	Use per Month per Customer (kWh/Cust/12)		819	414	225	2,806	64,892	1,025,970		
43	NCP per Customer (NCP/Cust)		22.30	11.11	4.75	90.62	1,603.94	19,200.47		
44										
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RETAIL SYSTEM

LINE NO.	COS Without Minimum System DESCRIPTION	RETAIL SYSTEM									
		S Integrated Retail Residential A-1	S Iron River Residential A-2	S Res. Heating AH-1	S General Service C-1	S General Service C-2	S Commercial Heating H-1	S 25kW-200kW Light & Power P-1			
		(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIRE										
2											
3	RATE OF RETURN		6.69%	6.36%	3.44%		6.13%	0.00%	2.38%	-1.98%	
4											
5	REVENUES REQUIRED										
6	DEMAND COMPONENTS	59,046,581	29,120,604	2,392,525	3,637,254		6,787,785	0	724,543	8,597,846	
7	PRODUCTION COSTS										
8	PRODUCTION DEMAND COMPONENT		7,450,183	620,413	878,488		1,977,035	0	198,832	2,126,635	
9	PURCHASED CAPACITY COMPONENT		378,668	32,288	69,142		68,665	0	10,094	254,816	
10	TRANSMISSION DEMAND PSCR COMPONENT		3,291,942	272,210	469,119		861,532	0	108,530	2,069,439	
11	TRANSMISSION COSTS										
12	TRANSMISSION AVAILABLE COMPONENT										
13	TRANSMISSION AVAILABLE COMPONENT										
14	DISTRIBUTION COSTS										
15	DISTRIBUTION SUBSTATIONS COMPONENT		3,344,472	273,510	412,383		842,583	0	87,550	1,218,493	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		10,098,233	823,803	1,267,162		2,102,239	0	226,354	2,168,962	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		2,005,689	163,782	255,066		418,963	0	45,941	454,832	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		2,551,417	206,518	285,895		516,769	0	47,243	304,669	
19	CUSTOMER COMPONENTS	17,918,267	11,221,508	998,681	931,562		1,750,972	0	104,122	547,500	
20	CUSTOMER DISTRIBUTION COSTS										
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0		0	0	0	0	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0		0	0	0	0	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0		0	0	0	0	
24	DISTRIBUTION SERVICE LATERALS COMPONENT		1,412,013	103,261	110,116		192,119	0	6,717	14,469	
25	METERING COMPONENT		2,386,365	277,029	162,003		452,141	0	25,410	123,458	
26	STREET AND AREA LIGHTING COMPONENT		0	0	0		0	0	0	0	
27	OTHER CUSTOMER COSTS										
28	METER READING COMPONENT		1,674,439	138,195	138,413		204,799	0	8,732	16,728	
29	CUST ACCT, SALES, & SERVICE COMPONENT		5,748,690	480,196	521,030		901,912	0	63,263	392,845	
30	CUSTOMER OTHER COMPONENT		0	0	0		0	0	0	0	
31	ENERGY COMPONENTS	14,155,940	5,102,338	451,356	687,810		1,613,518	0	206,674	2,035,211	
32	PRODUCTION ENERGY COMPONENT		5,102,338	451,356	687,810		1,613,518	0	206,674	2,035,211	
33	TOTAL COMPANY	91,120,789	45,444,449	3,842,562	5,256,626		10,152,275	0	1,035,339	11,180,557	
34											
35											
36											
37											
38	Annual kWh Sales @ Meter		189,919,815	16,802,756	25,644,433		60,086,760	0	7,712,051	76,121,492	
39	Annual kW - Billed		0	0	0		0	0	0	324,375	
40	Number of Customers (Average Annual)		39,968	3,316	3,526		4,977	0	230	488	
41											
42	Use per Month per Customer (kWh/Cust/12)		396	422	606		1,006	0	2,793	12,994	
43	NCP per Customer (NCP/Cust)		10.57	10.56	17.73		22.44	0.00	64.04	609.47	
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RETAIL SYSTEM

LINE NO.	COS Without Minimum System			Large Comm & Inc	S	P	Q	T	Q	
	DESCRIPTION	(b)	(s)	CP-U Total	Secondary CP-U Sec	Commerical & Ind Primary CP-U Prim	Transmission CP-U Trans	Real-Time Market Pricing RTMP	> 5,000kW Light & Power WP-3	
				(t)	(u)	(v)	(w)	(x)	(y)	(z)
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIRE									
2										
3	RATE OF RETURN			0.09%	-1.53%	-1.29%	2.06%	0.00%	0.44%	
4										
5	<u>REVENUES REQUIRED</u>									
6	DEMAND COMPONENTS	59,046,581		6,074,257	2,868,942	299,568	2,905,747	0	871,263	
7	PRODUCTION COSTS									
8	PRODUCTION DEMAND COMPONENT			2,178,017	555,394	63,618	1,559,005	0	226,204	
9	PURCHASED CAPACITY COMPONENT			75,161	69,777	5,384	0	0	0	
10	TRANSMISSION DEMAND PSCR COMPONENT			1,471,066	668,585	51,628	750,853	0	376,487	
11	TRANSMISSION COSTS									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	DISTRIBUTION COSTS									
15	DISTRIBUTION SUBSTATIONS COMPONENT			1,042,269	414,172	32,208	595,889	0	268,572	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT			999,929	853,200	146,729	0	0	0	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT			177,924	177,924	0	0	0	0	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT			129,889	129,889	0	0	0	0	
19	CUSTOMER COMPONENTS	17,918,267		632,580	248,216	24,418	359,946	302,480	153,602	
20	CUSTOMER DISTRIBUTION COSTS									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT			0	0	0	0	0	0	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT			0	0	0	0	0	0	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT			0	0	0	0	0	0	
24	DISTRIBUTION SERVICE LATERALS COMPONENT			968	968	0	0	0	0	
25	METERING COMPONENT			41,130	16,775	7,312	17,042	300,186	4,009	
26	STREET AND AREA LIGHTING COMPONENT			0	0	0	0	0	0	
27	OTHER CUSTOMER COSTS									
28	METER READING COMPONENT			1,574	1,185	160	229	997	36	
29	CUST ACCT, SALES, & SERVICE COMPONENT			588,908	229,288	16,946	342,674	1,297	149,557	
30	CUSTOMER OTHER COMPONENT			0	0	0	0	0	0	
31	ENERGY COMPONENTS									
32	PRODUCTION ENERGY COMPONENT	14,155,940		3,144,619	1,309,848	91,844	1,742,927	0	789,540	
33	TOTAL COMPANY	91,120,789		9,851,457	4,427,007	415,830	5,008,620	302,480	1,814,405	
34										
35										
36										
37										
38	Annual kWh Sales @ Meter			121,018,237	48,975,676	3,569,045	68,473,516	0	31,045,571	
39	Annual kW - Billed			265,534	138,654	27,530	99,350	0	68,821	
40	Number of Customers (Average Annual)			45	34	5	6	1	1	
41										
42	Use per Month per Customer (kWh/Cust/12)			225,360	119,745	64,892	937,993	0	2,587,131	
43	NCP per Customer (NCP/Cust)			4,586.87	2,795.32	1,603.94	16,871.87	0.00	52,566.57	
44										
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RETAIL SYSTEM

COS Without Minimum System		S	S	S	S	S	S		
LINE NO.	DESCRIPTION	Street Lighting SL-3	Street Light (Closed) SL-5	Street Lighting SL-6	Street Lighting Total	Integrated OSL Z-3	Iron River OSL Z-4		
	(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag) (ah)
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIRE								
2									
3	RATE OF RETURN		-2.87%	3.41%	38.24%	33.08%	-0.34%	-5.32%	
4									
5	REVENUES REQUIRED								
6	DEMAND COMPONENTS	59,046,581	20,554	7,300	758,382	786,235	49,867	4,400	
7	PRODUCTION COSTS								
8	PRODUCTION DEMAND COMPONENT		5,307	2,005	303,940	311,253	15,575	1,021	
9	PURCHASED CAPACITY COMPONENT		1,172	233	7,589	8,994	1,911	262	
10	TRANSMISSION DEMAND PSCR COMPONENT		4,907	1,294	60,596	66,797	9,696	1,237	
11	TRANSMISSION COSTS								
12	TRANSMISSION AVAILABLE COMPONENT								
13	TRANSMISSION AVAILABLE COMPONENT								
14	DISTRIBUTION COSTS								
15	DISTRIBUTION SUBSTATIONS COMPONENT		2,653	1,109	120,174	123,936	6,545	496	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		4,889	1,870	172,791	179,550	11,714	1,092	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		1,035	377	32,641	34,053	2,421	239	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		591	412	60,649	61,652	2,007	52	
19	CUSTOMER COMPONENTS	17,918,267	38,908	4,450	812,637	855,994	376,623	42,645	
20	CUSTOMER DISTRIBUTION COSTS								
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0	0	0	0	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0	0	0	0	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0	0	0	0	
24	DISTRIBUTION SERVICE LATERALS COMPONENT		1,048	288	19,614	20,950	0	0	
25	METERING COMPONENT		1,798	0	0	1,798	0	0	
26	STREET AND AREA LIGHTING COMPONENT		25,161	3,469	746,111	774,741	316,654	35,920	
27	OTHER CUSTOMER COSTS								
28	METER READING COMPONENT		2,502	0	0	2,502	0	0	
29	CUST ACCT, SALES, & SERVICE COMPONENT		8,399	692	46,912	56,003	59,968	6,725	
30	CUSTOMER OTHER COMPONENT		0	0	0	0	0	0	
31	ENERGY COMPONENTS	14,155,940	8,524	915	89,403	98,843	23,134	2,898	
32	PRODUCTION ENERGY COMPONENT		8,524	915	89,403	98,843	23,134	2,898	
33	TOTAL COMPANY	91,120,789	67,986	12,665	1,660,422	1,741,073	449,624	49,942	
34									
35									
36									
37									
38	Annual kWh Sales @ Meter		318,981	34,140	3,272,956	3,626,076	864,478	108,577	
39	Annual kW - Billed		0	0	0	0	0	0	
40	Number of Customers (Average Annual)		75	11	198	283	1,261	162	
41									
42	Use per Month per Customer (kWh/Cust/12)		356	267	1,380	1,068	57	56	
43	NCP per Customer (NCP/Cust)		9.55	16.28	28.66	23.15	1.08	1.15	
44									
45									
46									
47									
48									
49									
50									

LINE NO.	COS Without Minimum System	INTEGRATED	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL		
	DESCRIPTION	RETAIL SYSTEM	RESIDENTIAL	LIGHTING	COMMERICAL SECONDARY	COMMERICAL PRIMARY	TRANSMISSION		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST								
2									
3	RATE OF RETURN		4.04%	6.31%	19.88%	0.58%	-1.29%	0.94%	
4									
5	<u>\$/KWH</u>								
6	DEMAND COMPONENTS	\$0.1108	0.1108	0.1513	0.1828	0.0984	0.0839	0.0380	
7	PRODUCTION COSTS								
8	PRODUCTION DEMAND COMPONENT		0.0300	0.0385	0.0713	0.0252	0.0178	0.0179	
9	PURCHASED CAPACITY COMPONENT		0.0017	0.0021	0.0024	0.0021	0.0015	0.0000	
10	TRANSMISSION DEMAND PSCR COMPONENT		0.0169	0.0174	0.0169	0.0192	0.0145	0.0113	
11	TRANSMISSION COSTS								
12	TRANSMISSION AVAILABLE COMPONENT								
13	TRANSMISSION AVAILABLE COMPONENT								
14	DISTRIBUTION COSTS								
15	DISTRIBUTION SUBSTATIONS COMPONENT		0.0143	0.0173	0.0285	0.0133	0.0090	0.0087	
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		0.0335	0.0525	0.0418	0.0277	0.0411	0.0000	
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		0.0067	0.0104	0.0080	0.0057	0.0000	0.0000	
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		0.0077	0.0131	0.0139	0.0052	0.0000	0.0000	
19	CUSTOMER COMPONENTS	\$0.0336	0.0336	0.0566	0.2773	0.0137	0.0068	0.0082	
20	CUSTOMER DISTRIBUTION COSTS								
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
24	DISTRIBUTION SERVICE LATERALS COMPONENT		0.0035	0.0070	0.0046	0.0011	0.0000	0.0000	
25	METERING COMPONENT		0.0071	0.0122	0.0004	0.0032	0.0020	0.0032	
26	STREET AND AREA LIGHTING COMPONENT		0.0021	0.0000	0.2451	0.0000	0.0000	0.0000	
27	OTHER CUSTOMER COSTS								
28	METER READING COMPONENT		0.0041	0.0084	0.0005	0.0012	0.0000	0.0000	
29	CUST ACCT, SALES, & SERVICE COMPONENT		0.0168	0.0290	0.0267	0.0082	0.0047	0.0050	
30	CUSTOMER OTHER COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
31	ENERGY COMPONENTS	\$0.0266	0.0266	0.0269	0.0272	0.0268	0.0257	0.0254	
32	PRODUCTION ENERGY COMPONENT		0.0266	0.0269	0.0272	0.0268	0.0257	0.0254	
33	TOTAL COMPANY	\$0.1710	0.1710	0.2347	0.4872	0.1389	0.1165	0.0716	
34									
35									
36									
37	<u>\$/MONTH/CUSTOMER</u>								
38	CUSTOMER COMPONENTS	\$27.52	\$27.52	\$23.41	\$62.29	\$38.56	\$443.97	\$8,412.66	
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
42	DISTRIBUTION SERVICE LATERALS COMPONENT		\$2.86	\$2.89	\$1.02	\$3.12	\$0.00	\$0.00	
43	METERING COMPONENT		\$5.80	\$5.03	\$0.09	\$8.99	\$132.95	\$3,311.72	
44	STREET AND AREA LIGHTING COMPONENT		\$1.73	\$0.00	\$55.06	\$0.00	\$0.00	\$0.00	
45	METER READING COMPONENT		\$						

RETAIL SYSTEM

COS Without Minimum System		S	S	S	S	S	S	S	S	
LINE NO.		Integrated Retail Residential	Iron River Residential	Res. Heating		General Service	General Service	Commercial Heating	25kW-200kW Light & Power	
	DESCRIPTION	A-1	A-2	AH-1		C-1	C-2	H-1	P-1	
	(a)	(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST									
2										
3	RATE OF RETURN		6.69%	6.36%	3.44%		6.13%	0.00%	2.38%	-1.98%
4										
5	<u>\$/KWH</u>									
6	DEMAND COMPONENTS	\$0.1108	0.1533	0.1424	0.1418		0.1130	0.0000	0.0939	0.1129
7	PRODUCTION COSTS									
8	PRODUCTION DEMAND COMPONENT		0.0392	0.0369	0.0343		0.0329	0.0000	0.0258	0.0279
9	PURCHASED CAPACITY COMPONENT		0.0020	0.0019	0.0027		0.0011	0.0000	0.0013	0.0033
10	TRANSMISSION DEMAND PSCR COMPONENT		0.0173	0.0162	0.0183		0.0143	0.0000	0.0141	0.0272
11	TRANSMISSION COSTS									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	DISTRIBUTION COSTS									
15	DISTRIBUTION SUBSTATIONS COMPONENT		0.0176	0.0163	0.0161		0.0140	0.0000	0.0114	0.0160
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		0.0532	0.0490	0.0494		0.0350	0.0000	0.0294	0.0285
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		0.0106	0.0097	0.0099		0.0070	0.0000	0.0060	0.0060
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		0.0134	0.0123	0.0111		0.0086	0.0000	0.0061	0.0040
19	CUSTOMER COMPONENTS	\$0.0336	0.0591	0.0594	0.0363		0.0291	0.0000	0.0135	0.0072
20	CUSTOMER DISTRIBUTION COSTS									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
24	DISTRIBUTION SERVICE LATERALS COMPONENT		0.0074	0.0061	0.0043		0.0032	0.0000	0.0009	0.0002
25	METERING COMPONENT		0.0126	0.0165	0.0063		0.0075	0.0000	0.0033	0.0016
26	STREET AND AREA LIGHTING COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
27	OTHER CUSTOMER COSTS									
28	METER READING COMPONENT		0.0088	0.0082	0.0054		0.0034	0.0000	0.0011	0.0002
29	CUST ACCT, SALES, & SERVICE COMPONENT		0.0303	0.0286	0.0203		0.0150	0.0000	0.0082	0.0052
30	CUSTOMER OTHER COMPONENT		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
31	ENERGY COMPONENTS	\$0.0266	0.0269	0.0269	0.0268		0.0269	0.0000	0.0268	0.0267
32	PRODUCTION ENERGY COMPONENT		0.0269	0.0269	0.0268		0.0269	0.0000	0.0268	0.0267
33	TOTAL COMPANY	\$0.1710	0.2393	0.2287	0.2050		0.1690	0.0000	0.1342	0.1469
34										
35										
36										
37	<u>\$/MONTH/CUSTOMER</u>									
38	CUSTOMER COMPONENTS	\$27.52	\$23.40	\$25.10	\$22.02		\$29.32	\$0.00	\$37.71	\$93.46
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00
42	DISTRIBUTION SERVICE LATERALS COMPONENT		\$2.94	\$2.59	\$2.60		\$3.22	\$0.00	\$2.43	\$2.47
43	METERING COMPONENT		\$4.98	\$6.96	\$3.83		\$7.57	\$0.00	\$9.20	\$21.08
44	STREET AND AREA LIGHTING COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00
45	METER READING COMPONENT		\$3.49	\$3.47	\$3.27		\$3.43	\$0.00	\$3.16	\$2.86
46	CUST ACCT, SALES, & SERVICE COMPONENT		\$11.99	\$12.07	\$12.32		\$15.10	\$0.00	\$22.91	\$67.06
47	CUSTOMER OTHER COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00
48										
49										
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RETAIL SYSTEM

LINE NO.	COS Without Minimum System			Large Comm & Inc		Commerical & Ind		Transmission		Real-Time		Q	
	DESCRIPTION	(b)	(s)	CP-U	Secondary	Primary	CP-U Trans	Market Pricing	RTMP	> 5,000kW			
				Total	CP-U Sec	CP-U Prim			Light & Power				
	(a)			(t)	(u)	(v)	(w)	(x)		(y)	(z)		
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST												
2													
3	RATE OF RETURN			0.09%	-1.53%	-1.29%	2.06%	0.00%		0.44%			
4													
5	<u>\$/KWH</u>												
6	DEMAND COMPONENTS	\$0.1108		0.0502	0.0586	0.0839	0.0424	0.0000		0.0281			
7	PRODUCTION COSTS												
8	PRODUCTION DEMAND COMPONENT			0.0180	0.0113	0.0178	0.0228	0.0000		0.0073			
9	PURCHASED CAPACITY COMPONENT			0.0006	0.0014	0.0015	0.0000	0.0000		0.0000			
10	TRANSMISSION DEMAND PSCR COMPONENT			0.0122	0.0137	0.0145	0.0110	0.0000		0.0121			
11	TRANSMISSION COSTS												
12	TRANSMISSION AVAILABLE COMPONENT												
13	TRANSMISSION AVAILABLE COMPONENT												
14	DISTRIBUTION COSTS												
15	DISTRIBUTION SUBSTATIONS COMPONENT			0.0086	0.0085	0.0090	0.0087	0.0000		0.0087			
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT			0.0083	0.0174	0.0411	0.0000	0.0000		0.0000			
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT			0.0015	0.0036	0.0000	0.0000	0.0000		0.0000			
18	DISTRIBUTION DEM LINE TRANSF COMPONENT			0.0011	0.0027	0.0000	0.0000	0.0000		0.0000			
19	CUSTOMER COMPONENTS	\$0.0336		0.0052	0.0051	0.0068	0.0053	0.0000		0.0049			
20	CUSTOMER DISTRIBUTION COSTS												
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			
23	DISTRIBUTION CUST LINE TRANSF COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			
24	DISTRIBUTION SERVICE LATERALS COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			
25	METERING COMPONENT			0.0003	0.0003	0.0020	0.0002	0.0000		0.0001			
26	STREET AND AREA LIGHTING COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			
27	OTHER CUSTOMER COSTS												
28	METER READING COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			
29	CUST ACCT, SALES, & SERVICE COMPONENT			0.0049	0.0047	0.0047	0.0050	0.0000		0.0048			
30	CUSTOMER OTHER COMPONENT			0.0000	0.0000	0.0000	0.0000	0.0000		0.0000			
31	ENERGY COMPONENTS	\$0.0266		0.0260	0.0267	0.0257	0.0255	0.0000		0.0254			
32	PRODUCTION ENERGY COMPONENT			0.0260	0.0267	0.0257	0.0255	0.0000		0.0254			
33	TOTAL COMPANY	\$0.1710		0.0814	0.0904	0.1165	0.0731	0.0000		0.0584			
34													
35													
36													
37	<u>\$/MONTH/CUSTOMER</u>												
38	CUSTOMER COMPONENTS	\$27.52		\$1,177.99	\$606.89	\$443.97	\$4,930.77	\$25,206.67		\$12,800.15			
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00			
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00			
41	DISTRIBUTION CUST LINE TRANSF COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00			
42	DISTRIBUTION SERVICE LATERALS COMPONENT			\$1.80	\$2.37	\$0.00	\$0.00	\$0.00		\$0.00			
43	METERING COMPONENT			\$76.59	\$41.02	\$132.95	\$233.46	\$25,015.46		\$334.08			
44	STREET AND AREA LIGHTING COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00			
45	METER READING COMPONENT			\$2.93	\$2.90	\$2.90	\$3.14	\$83.09		\$3.02			
46	CUST ACCT, SALES, & SERVICE COMPONENT			\$1,096.66	\$560.61	\$308.11	\$4,694.17	\$108.12		\$12,463.05			
47	CUSTOMER OTHER COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00			
48													
49													
50													

RETAIL SYSTEM

LINE NO.	COS Without Minimum System	S		S		S		S		S	
		Street Lighting SL-3	Street Light (Closed) SL-5	Street Lighting SL-6	Street Lighting Total	Integrated OSL Z-3	Iron River OSL Z-4				
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
1	PRESENT RATE OF RETURN SUMMARY SCHEDULE - UNIT COST										
2											
3	RATE OF RETURN		-2.87%	3.41%	38.24%	33.08%	-0.34%	-5.32%			
4											
5	<u>\$/KWH</u>										
6	DEMAND COMPONENTS	\$0.1108	0.0644	0.2138	0.2317	0.2168	0.0577	0.0405			
7	PRODUCTION COSTS										
8	PRODUCTION DEMAND COMPONENT		0.0166	0.0587	0.0929	0.0858	0.0180	0.0094			
9	PURCHASED CAPACITY COMPONENT		0.0037	0.0068	0.0023	0.0025	0.0022	0.0024			
10	TRANSMISSION DEMAND PSCR COMPONENT		0.0154	0.0379	0.0185	0.0184	0.0112	0.0114			
11	TRANSMISSION COSTS										
12	TRANSMISSION AVAILABLE COMPONENT										
13	TRANSMISSION AVAILABLE COMPONENT										
14	DISTRIBUTION COSTS										
15	DISTRIBUTION SUBSTATIONS COMPONENT		0.0083	0.0325	0.0367	0.0342	0.0076	0.0046			
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		0.0153	0.0548	0.0528	0.0495	0.0136	0.0101			
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		0.0032	0.0111	0.0100	0.0094	0.0028	0.0022			
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		0.0019	0.0121	0.0185	0.0170	0.0023	0.0005			
19	CUSTOMER COMPONENTS	\$0.0336	0.1220	0.1303	0.2483	0.2361	0.4357	0.3928			
20	CUSTOMER DISTRIBUTION COSTS										
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
24	DISTRIBUTION SERVICE LATERALS COMPONENT		0.0033	0.0084	0.0060	0.0058	0.0000	0.0000			
25	METERING COMPONENT		0.0056	0.0000	0.0000	0.0005	0.0000	0.0000			
26	STREET AND AREA LIGHTING COMPONENT		0.0789	0.1016	0.2280	0.2137	0.3663	0.3308			
27	OTHER CUSTOMER COSTS										
28	METER READING COMPONENT		0.0078	0.0000	0.0000	0.0007	0.0000	0.0000			
29	CUST ACCT, SALES, & SERVICE COMPONENT		0.0263	0.0203	0.0143	0.0154	0.0694	0.0619			
30	CUSTOMER OTHER COMPONENT		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
31	ENERGY COMPONENTS	\$0.0266	0.0267	0.0268	0.0273	0.0273	0.0268	0.0267			
32	PRODUCTION ENERGY COMPONENT		0.0267	0.0268	0.0273	0.0273	0.0268	0.0267			
33	TOTAL COMPANY	\$0.1710	0.2131	0.3710	0.5073	0.4802	0.5201	0.4600			
34											
35											
36											
37	<u>\$/MONTH/CUSTOMER</u>										
38	CUSTOMER COMPONENTS	\$27.52	\$43.42	\$34.76	\$342.60	\$252.06	\$24.88	\$21.95			
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
42	DISTRIBUTION SERVICE LATERALS COMPONENT		\$1.17	\$2.25	\$8.27	\$6.17	\$0.00	\$0.00			
43	METERING COMPONENT		\$2.01	\$0.00	\$0.00	\$0.53	\$0.00	\$0.00			
44	STREET AND AREA LIGHTING COMPONENT		\$28.08	\$27.10	\$314.55	\$228.13	\$20.92	\$18.49			
45	METER READING COMPONENT		\$2.79	\$0.00	\$0.00	\$0.74	\$0.00	\$0.00			
46	CUST ACCT, SALES, & SERVICE COMPONENT		\$9.37	\$5.41	\$19.78	\$16.49	\$3.96	\$3.46			
47	CUSTOMER OTHER COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
48											
49											
50											

[illegible]

RETAIL SYSTEM

[illegible]

RETAIL SYSTEM

LINE NO.	COS Without Minimum System	S		S		S		S			
		Street Lighting	Street Light (Closed)	Street Lighting	Street Lighting	Integrated	Iron River				
		SL-3	SL-5	SL-6	Total	OSL Z-3	OSL Z-4				
	DESCRIPTION	(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
1	CLAIMED RATE OF RETURN SUMMARY SCHEDULE - REVENUE REQUIREI										
2											
3	RATE OF RETURN		7.57%	7.57%	7.57%	7.57%	7.57%	7.57%	7.57%		
4											
5	REVENUES REQUIRED										
6	DEMAND COMPONENTS	71,438,211	38,507	8,966	317,771	365,244	77,532	10,522			
7	PRODUCTION COSTS										
8	PRODUCTION DEMAND COMPONENT		12,969	2,644	111,704	127,317	27,873	3,685			
9	PURCHASED CAPACITY COMPONENT		1,172	233	7,589	8,994	1,911	262			
10	TRANSMISSION DEMAND PSCR COMPONENT		5,590	1,359	44,410	51,359	10,686	1,459			
11	TRANSMISSION COSTS										
12	TRANSMISSION AVAILABLE COMPONENT										
13	TRANSMISSION AVAILABLE COMPONENT										
14	DISTRIBUTION COSTS										
15	DISTRIBUTION SUBSTATIONS COMPONENT		5,812	1,415	46,155	53,382	11,134	1,517			
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		8,912	2,279	74,181	85,372	17,818	2,475			
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		1,766	452	14,704	16,922	3,531	491			
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		2,286	585	19,028	21,899	4,579	635			
19	CUSTOMER COMPONENTS	18,758,867	56,903	5,129	418,529	480,561	486,480	67,685			
20	CUSTOMER DISTRIBUTION COSTS										
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		0	0	0	0	0	0			
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		0	0	0	0	0	0			
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		0	0	0	0	0	0			
24	DISTRIBUTION SERVICE LATERALS COMPONENT		2,669	381	7,067	10,117	0	0			
25	METERING COMPONENT		3,136	0	0	3,136	0	0			
26	STREET AND AREA LIGHTING COMPONENT		37,289	3,991	382,615	423,895	414,741	58,499			
27	OTHER CUSTOMER COSTS										
28	METER READING COMPONENT		3,160	0	0	3,160	0	0			
29	CUST ACCT, SALES, & SERVICE COMPONENT		10,649	757	28,848	40,253	71,739	9,186			
30	CUSTOMER OTHER COMPONENT		0	0	0	0	0	0			
31	ENERGY COMPONENTS	14,185,680	8,572	917	87,953	97,442	23,232	2,918			
32	PRODUCTION ENERGY COMPONENT		8,572	917	87,953	97,442	23,232	2,918			
33	TOTAL COMPANY	104,382,758	103,982	15,012	824,253	943,247	587,243	81,125			
34											
35											
36											
37											
38	Annual kWh Sales @ Meter		318,981	34,140	3,272,956	3,626,076	864,478	108,577			
39	Annual kW - Billed		0	0	0	0	0	0			
40	Number of Customers (Average Annual)		75	11	198	283	1,261	162			
41											
42											
43											
44											
45											
46											
47											
48											
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LINE NO.	COS Without Minimum System	INTEGRATED	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL			
	DESCRIPTION	RETAIL SYSTEM	RESIDENTIAL	LIGHTING	COMMERICAL SECONDARY	COMMERICAL PRIMARY	TRANSMISSION			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS									
2										
3	RATE OF RETURN		7.57%	7.57%	7.57%	7.57%	7.57%	7.57%		
4										
5	<u>\$/KWH</u>									
6	DEMAND COMPONENTS	\$0.1340	\$0.1340	\$0.1606	\$0.0986	\$0.1456	\$0.1368	\$0.0511		
7	PRODUCTION COSTS									
8	PRODUCTION DEMAND COMPONENT		\$0.0390	\$0.0415	\$0.0345	\$0.0428	\$0.0356	\$0.0262		
9	PURCHASED CAPACITY COMPONENT		\$0.0017	\$0.0021	\$0.0024	\$0.0021	\$0.0015	\$0.0000		
10	TRANSMISSION DEMAND PSCR COMPONENT		\$0.0178	\$0.0176	\$0.0138	\$0.0211	\$0.0161	\$0.0122		
11	TRANSMISSION COSTS									
12	TRANSMISSION AVAILABLE COMPONENT									
13	TRANSMISSION AVAILABLE COMPONENT									
14	DISTRIBUTION COSTS									
15	DISTRIBUTION SUBSTATIONS COMPONENT		\$0.0187	\$0.0186	\$0.0144	\$0.0220	\$0.0168	\$0.0127		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		\$0.0392	\$0.0555	\$0.0230	\$0.0396	\$0.0667	\$0.0000		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		\$0.0077	\$0.0110	\$0.0046	\$0.0078	\$0.0000	\$0.0000		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		\$0.0100	\$0.0144	\$0.0059	\$0.0102	\$0.0000	\$0.0000		
19	CUSTOMER COMPONENTS	\$0.0352	\$0.0352	\$0.0586	\$0.2250	\$0.0156	\$0.0090	\$0.0109		
20	CUSTOMER DISTRIBUTION COSTS									
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
24	DISTRIBUTION SERVICE LATERALS COMPONENT		\$0.0038	\$0.0075	\$0.0022	\$0.0013	\$0.0000	\$0.0000		
25	METERING COMPONENT		\$0.0079	\$0.0127	\$0.0007	\$0.0038	\$0.0032	\$0.0052		
26	STREET AND AREA LIGHTING COMPONENT		\$0.0017	\$0.0000	\$0.1951	\$0.0000	\$0.0000	\$0.0000		
27	OTHER CUSTOMER COSTS									
28	METER READING COMPONENT		\$0.0042	\$0.0086	\$0.0007	\$0.0013	\$0.0001	\$0.0000		
29	CUST ACCT, SALES, & SERVICE COMPONENT		\$0.0176	\$0.0297	\$0.0263	\$0.0091	\$0.0058	\$0.0056		
30	CUSTOMER OTHER COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
31	ENERGY COMPONENTS	\$0.0266	\$0.0266	\$0.0269	\$0.0269	\$0.0269	\$0.0259	\$0.0255		
32	PRODUCTION ENERGY COMPONENT		\$0.0266	\$0.0269	\$0.0269	\$0.0269	\$0.0259	\$0.0255		
33	TOTAL COMPANY	\$0.1959	\$0.1959	\$0.2461	\$0.3504	\$0.1880	\$0.1717	\$0.0875		
34										
35										
36										
37	<u>\$/MONTH/CUSTOMER</u>									
38	CUSTOMER COMPONENTS	\$28.81	\$28.81	\$24.23	\$50.54	\$43.69	\$586.48	\$11,137.90		
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
42	DISTRIBUTION SERVICE LATERALS COMPONENT		\$3.09	\$3.11	\$0.49	\$3.71	\$0.00	\$0.00		
43	METERING COMPONENT		\$6.50	\$5.27	\$0.15	\$10.79	\$208.63	\$5,330.73		
44	STREET AND AREA LIGHTING COMPONENT		\$1.38	\$0.00	\$43.82	\$0.00	\$0.00	\$0.00		
45	METER READING COMPONENT		\$3.44	\$3.55	\$0.15	\$3.53	\$3.53	\$19.71		
46	CUST ACCT, SALES, & SERVICE COMPONENT		\$14.40	\$12.30	\$5.92	\$25.66	\$374.32	\$5,787.46		
47	CUSTOMER OTHER COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00				

RETAIL SYSTEM

LINE NO.	COS Without Minimum System	S		S		S		S		S		S			
		Integrated Retail Residential		Iron River Residential		Res. Heating		General Service		General Service		Commercial Heating		25kW-200kW Light & Power	
		A-1	A-2	AH-1	C-1	C-2	H-1	P-1							
DESCRIPTION		(b)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)					
1	CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS														
2															
3	RATE OF RETURN		7.57%	7.57%	7.57%		7.57%	7.57%	7.57%	7.57%					
4															
5	<u>\$/KWH</u>														
6	DEMAND COMPONENTS	\$0.1340	\$0.1597	\$0.1506	\$0.1740		\$0.1210	\$0.0000	\$0.1234	\$0.1989					
7	PRODUCTION COSTS														
8	PRODUCTION DEMAND COMPONENT		\$0.0413	\$0.0396	\$0.0444		\$0.0358	\$0.0000	\$0.0365	\$0.0623					
9	PURCHASED CAPACITY COMPONENT		\$0.0020	\$0.0019	\$0.0027		\$0.0011	\$0.0000	\$0.0013	\$0.0033					
10	TRANSMISSION DEMAND PSCR COMPONENT		\$0.0175	\$0.0164	\$0.0192		\$0.0146	\$0.0000	\$0.0150	\$0.0306					
11	TRANSMISSION COSTS														
12	TRANSMISSION AVAILABLE COMPONENT														
13	TRANSMISSION AVAILABLE COMPONENT														
14	DISTRIBUTION COSTS														
15	DISTRIBUTION SUBSTATIONS COMPONENT		\$0.0184	\$0.0173	\$0.0204		\$0.0152	\$0.0000	\$0.0156	\$0.0319					
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		\$0.0553	\$0.0517	\$0.0599		\$0.0373	\$0.0000	\$0.0379	\$0.0486					
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		\$0.0109	\$0.0102	\$0.0119		\$0.0074	\$0.0000	\$0.0075	\$0.0096					
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		\$0.0143	\$0.0134	\$0.0156		\$0.0096	\$0.0000	\$0.0097	\$0.0125					
19	CUSTOMER COMPONENTS	\$0.0352	\$0.0606	\$0.0616	\$0.0412		\$0.0304	\$0.0000	\$0.0159	\$0.0097					
20	CUSTOMER DISTRIBUTION COSTS														
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000					
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000					
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000					
24	DISTRIBUTION SERVICE LATERALS COMPONENT		\$0.0079	\$0.0066	\$0.0056		\$0.0035	\$0.0000	\$0.0013	\$0.0004					
25	METERING COMPONENT		\$0.0130	\$0.0173	\$0.0076		\$0.0080	\$0.0000	\$0.0042	\$0.0027					
26	STREET AND AREA LIGHTING COMPONENT		\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000					
27	OTHER CUSTOMER COSTS														
28	METER READING COMPONENT		\$0.0090	\$0.0084	\$0.0059		\$0.0035	\$0.0000	\$0.0013	\$0.0003					
29	CUST ACCT, SALES, & SERVICE COMPONENT		\$0.0308	\$0.0293	\$0.0221		\$0.0154	\$0.0000	\$0.0092	\$0.0064					
30	CUSTOMER OTHER COMPONENT		\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000					
31	ENERGY COMPONENTS	\$0.0266	\$0.0269	\$0.0269	\$0.0269		\$0.0269	\$0.0000	\$0.0269	\$0.0269					
32	PRODUCTION ENERGY COMPONENT		\$0.0269	\$0.0269	\$0.0269		\$0.0269	\$0.0000	\$0.0269	\$0.0269					
33	TOTAL COMPANY	\$0.1959	\$0.2472	\$0.2392	\$0.2421		\$0.1783	\$0.0000	\$0.1661	\$0.2355					
34															
35															
36															
37	<u>\$/MONTH/CUSTOMER</u>														
38	CUSTOMER COMPONENTS	\$28.81	\$24.01	\$26.03	\$24.97		\$30.63	\$0.00	\$44.28	\$126.61					
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00					
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00					
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00					
42	DISTRIBUTION SERVICE LATERALS COMPONENT		\$3.11	\$2.80	\$3.41		\$3.52	\$0.00	\$3.50	\$5.57					
43	METERING COMPONENT		\$5.16	\$7.31	\$4.59		\$8.04	\$0.00	\$11.68	\$34.60					
44	STREET AND AREA LIGHTING COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00					
45	METER READING COMPONENT		\$3.55	\$3.56	\$3.56		\$3.53	\$0.00	\$3.53	\$3.53					
46	CUST ACCT, SALES, & SERVICE COMPONENT		\$12.19	\$12.36	\$13.42		\$15.54	\$0.00	\$25.57	\$82.90					
47	CUSTOMER OTHER COMPONENT		\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00					
48															
49															
50															

RETAIL SYSTEM

LINE NO.	COS Without Minimum System			Large Comm & Inc		Commerical & Ind		Real-Time		> 5,000kW	
	DESCRIPTION	(b)	(s)	CP-U	Secondary	Primary	Transmission	Market Pricing	Light & Power		
				Total	CP-U Sec	CP-U Prim	CP-U Trans	RTMP	WP-3		
	(a)			(t)	(u)	(v)	(w)	(x)	(y)	(z)	
1	CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS										
2											
3	RATE OF RETURN			7.57%	7.57%	7.57%	7.57%	7.57%	7.57%		
4											
5	<u>\$/KWH</u>										
6	DEMAND COMPONENTS	\$0.1340		\$0.0753	\$0.0965	\$0.1368	\$0.0569	\$0.0000	\$0.0382		
7	PRODUCTION COSTS										
8	PRODUCTION DEMAND COMPONENT			\$0.0287	\$0.0221	\$0.0356	\$0.0330	\$0.0000	\$0.0112		
9	PURCHASED CAPACITY COMPONENT			\$0.0006	\$0.0014	\$0.0015	\$0.0000	\$0.0000	\$0.0000		
10	TRANSMISSION DEMAND PSCR COMPONENT			\$0.0133	\$0.0153	\$0.0161	\$0.0117	\$0.0000	\$0.0132		
11	TRANSMISSION COSTS										
12	TRANSMISSION AVAILABLE COMPONENT										
13	TRANSMISSION AVAILABLE COMPONENT										
14	DISTRIBUTION COSTS										
15	DISTRIBUTION SUBSTATIONS COMPONENT			\$0.0139	\$0.0160	\$0.0168	\$0.0122	\$0.0000	\$0.0138		
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT			\$0.0136	\$0.0286	\$0.0667	\$0.0000	\$0.0000	\$0.0000		
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT			\$0.0023	\$0.0057	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
18	DISTRIBUTION DEM LINE TRANSF COMPONENT			\$0.0030	\$0.0074	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
19	CUSTOMER COMPONENTS	\$0.0352		\$0.0062	\$0.0063	\$0.0090	\$0.0059	\$0.0000	\$0.0058		
20	CUSTOMER DISTRIBUTION COSTS										
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT			\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT			\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
23	DISTRIBUTION CUST LINE TRANSF COMPONENT			\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
24	DISTRIBUTION SERVICE LATERALS COMPONENT			\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
25	METERING COMPONENT			\$0.0005	\$0.0005	\$0.0032	\$0.0003	\$0.0000	\$0.0002		
26	STREET AND AREA LIGHTING COMPONENT			\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
27	OTHER CUSTOMER COSTS										
28	METER READING COMPONENT			\$0.0000	\$0.0000	\$0.0001	\$0.0000	\$0.0000	\$0.0000		
29	CUST ACCT, SALES, & SERVICE COMPONENT			\$0.0057	\$0.0057	\$0.0058	\$0.0056	\$0.0000	\$0.0056		
30	CUSTOMER OTHER COMPONENT			\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
31	ENERGY COMPONENTS	\$0.0266		\$0.0261	\$0.0269	\$0.0259	\$0.0255	\$0.0000	\$0.0255		
32	PRODUCTION ENERGY COMPONENT			\$0.0261	\$0.0269	\$0.0259	\$0.0255	\$0.0000	\$0.0255		
33	TOTAL COMPANY	\$0.1959		\$0.1075	\$0.1297	\$0.1717	\$0.0884	\$0.0000	\$0.0696		
34											
35											
36											
37	<u>\$/MONTH/CUSTOMER</u>										
38	CUSTOMER COMPONENTS	\$28.81		\$1,395.71	\$758.21	\$586.48	\$5,577.16	\$41,093.87	\$15,009.73		
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
41	DISTRIBUTION CUST LINE TRANSF COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
42	DISTRIBUTION SERVICE LATERALS COMPONENT			\$3.80	\$5.00	\$0.00	\$0.00	\$0.00	\$0.00		
43	METERING COMPONENT			\$111.93	\$65.12	\$208.63	\$301.35	\$40,784.64	\$472.20		
44	STREET AND AREA LIGHTING COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
45	METER READING COMPONENT			\$3.54	\$3.54	\$3.53	\$3.53	\$134.32	\$3.53		
46	CUST ACCT, SALES, & SERVICE COMPONENT			\$1,276.44	\$684.56	\$374.32	\$5,272.28	\$174.91	\$14,534.01		
47	CUSTOMER OTHER COMPONENT			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
48											
49											
50											

RETAIL SYSTEM

LINE NO.	COS Without Minimum System	S		S		S		S		S	
		Street Lighting SL-3	Street Light (Closed) SL-5	Street Lighting SL-6	Street Lighting Total	Integrated OSL Z-3	Iron River OSL Z-4				
		(a)	(b)	(aa)	(ab)	(ac)	(ad)	(ae)	(af)	(ag)	(ah)
1	CLAIMED RATE OF RETURN SUMMARY SCHEDULE - UNIT COSTS										
2											
3	RATE OF RETURN		7.57%	7.57%	7.57%	7.57%	7.57%	7.57%			
4											
5	<u>\$/KWH</u>										
6	DEMAND COMPONENTS	\$0.1340	\$0.1207	\$0.2626	\$0.0971	\$0.1007	\$0.0897	\$0.0969			
7	PRODUCTION COSTS										
8	PRODUCTION DEMAND COMPONENT		\$0.0407	\$0.0774	\$0.0341	\$0.0351	\$0.0322	\$0.0339			
9	PURCHASED CAPACITY COMPONENT		\$0.0037	\$0.0068	\$0.0023	\$0.0025	\$0.0022	\$0.0024			
10	TRANSMISSION DEMAND PSCR COMPONENT		\$0.0175	\$0.0398	\$0.0136	\$0.0142	\$0.0124	\$0.0134			
11	TRANSMISSION COSTS										
12	TRANSMISSION AVAILABLE COMPONENT										
13	TRANSMISSION AVAILABLE COMPONENT										
14	DISTRIBUTION COSTS										
15	DISTRIBUTION SUBSTATIONS COMPONENT		\$0.0182	\$0.0414	\$0.0141	\$0.0147	\$0.0129	\$0.0140			
16	DISTRIBUTION DEM PRIMARY LINES COMPONENT		\$0.0279	\$0.0668	\$0.0227	\$0.0235	\$0.0206	\$0.0228			
17	DISTRIBUTION DEM SECONDARY LINES COMPONENT		\$0.0055	\$0.0132	\$0.0045	\$0.0047	\$0.0041	\$0.0045			
18	DISTRIBUTION DEM LINE TRANSF COMPONENT		\$0.0072	\$0.0171	\$0.0058	\$0.0060	\$0.0053	\$0.0058			
19	CUSTOMER COMPONENTS	\$0.0352	\$0.1784	\$0.1502	\$0.1279	\$0.1325	\$0.5627	\$0.6234			
20	CUSTOMER DISTRIBUTION COSTS										
21	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000			
22	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000			
23	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000			
24	DISTRIBUTION SERVICE LATERALS COMPONENT		\$0.0084	\$0.0112	\$0.0022	\$0.0028	\$0.0000	\$0.0000			
25	METERING COMPONENT		\$0.0098	\$0.0000	\$0.0000	\$0.0009	\$0.0000	\$0.0000			
26	STREET AND AREA LIGHTING COMPONENT		\$0.1169	\$0.1169	\$0.1169	\$0.1169	\$0.4798	\$0.5388			
27	OTHER CUSTOMER COSTS										
28	METER READING COMPONENT		\$0.0099	\$0.0000	\$0.0000	\$0.0009	\$0.0000	\$0.0000			
29	CUST ACCT, SALES, & SERVICE COMPONENT		\$0.0334	\$0.0222	\$0.0088	\$0.0111	\$0.0830	\$0.0846			
30	CUSTOMER OTHER COMPONENT		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000			
31	ENERGY COMPONENTS	\$0.0266	\$0.0269	\$0.0269	\$0.0269	\$0.0269	\$0.0269	\$0.0269			
32	PRODUCTION ENERGY COMPONENT		\$0.0269	\$0.0269	\$0.0269	\$0.0269	\$0.0269	\$0.0269			
33	TOTAL COMPANY	\$0.1959	\$0.3260	\$0.4397	\$0.2518	\$0.2601	\$0.6793	\$0.7472			
34											
35											
36											
37	<u>\$/MONTH/CUSTOMER</u>										
38	CUSTOMER COMPONENTS	\$28.81	\$63.51	\$40.07	\$176.45	\$141.51	\$32.14	\$34.84			
39	DISTRIBUTION CUST PRIMARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
40	DISTRIBUTION CUST SECONDARY LINES COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
41	DISTRIBUTION CUST LINE TRANSF COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
42	DISTRIBUTION SERVICE LATERALS COMPONENT		\$2.98	\$2.98	\$2.98	\$2.98	\$0.00	\$0.00			
43	METERING COMPONENT		\$3.50	\$0.00	\$0.00	\$0.92	\$0.00	\$0.00			
44	STREET AND AREA LIGHTING COMPONENT		\$41.62	\$31.18	\$161.30	\$124.82	\$27.40	\$30.11			
45	METER READING COMPONENT		\$3.53	\$0.00	\$0.00	\$0.93	\$0.00	\$0.00			
46	CUST ACCT, SALES, & SERVICE COMPONENT		\$11.88	\$5.91	\$12.16	\$11.85	\$4.74	\$4.73			
47	CUSTOMER OTHER COMPONENT		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
48											
49											
50											

Schedule A2

Michigan Public Service Commission
Upper Peninsula Power Company
Financial Summary

Case No.: U-20276
Exhibit No.: A-17 (NEK-9)
Schedule:
Page:
Witness: Nicholas E. Kates

	(a)	(b)	(d)	(c)	(d)	(e)	(f)	(g)
Line		Projected CAGR*	Change	Projected	Calendar Year			
No.	Description	2014 - 2019	2019 vs. 2014	2019	2017	2016	2015	2014
1	Operating Revenue	-2.6%	(17,633,463)	103,661,998	105,302,888	108,640,595	120,128,340	121,295,461
2	Operating Expense	-1.5%	(8,559,066)	91,080,044	88,083,295	91,129,784	107,481,791	99,639,110
3	Pre-Tax Operating Income		(9,074,397)	12,581,954	17,219,593	17,510,811	12,646,549	21,656,351
4	Income Taxes		-	927,804	4,229,957	4,678,675	2,882,182	6,951,060
5	Net Operating Income	-3.8%	(3,051,141)	11,654,150	12,989,636	12,832,136	9,764,367	14,705,291
6	Tax Impact of Pro-Forma Interest on NOI		-	-	-	-	-	-
7	AFUDC		-	(567,733)	-	71,773	112,343	-
8	Interest Charges		-	5,153,718	5,532,838	5,392,034	5,290,905	3,966,703
9	Preferred Stock Dividends			-				
10	Net Income Available for Common and JDITC		(3,051,141)	5,932,699	7,456,798	7,511,875	4,585,805	10,738,588
11	Return Assignable to JDITC		-	-	-	-	-	-
12	Net Income Available for Common			5,932,699	7,456,798	7,511,875	4,585,805	10,738,588
13	Average Common Equity			154,382,586	124,254,333	121,117,557	126,683,252	133,891,947
14	Earned Rate of Return on Common Equity			3.84%	6.00%	6.20%	3.62%	8.02%
15	Authorized Return on Equity			10.50%	10.00%	10.00%	10.15%	10.15%

* CAGR = compound annual growth rate

Summary of Projected 2019 Forecast Adjustments			
A		B	C
Category		Forecast Adjustment No.	Description
			Adjustment Value
1	Expense Adjustments		
2	FERC 593	1	Line Clearance Expense (926,707)
3	FERC 544	2	Power Supply Wage Increase 7,701
4	FERC 582	3	Distribution Wage Increase 37,438
5	FERC 903	4	Customer Accts Wage Increase 11,212
6	FERC 903	5	Credit Card Fee Waiver to pay bill 129,012
7	FERC 904	6	Bad Debt Expense / Uncollectibles Expense (1,022,763)
8	FERC 908	7	Energy Waste Reduction Expense & LIEAF (84,847)
9	FERC 908	8	Cusomter Exp Wage Increase 8,120
10	FERC 907	9	Customer Service Customer Assistance Expense 233,451
11	FERC 909	10	Customer Service Engagement Expense (90,650)
12	FERC 926	11	Pension & OPEB Expense (454,495)
13	FERC 926	12	Other Benefits Expense 343,225
14	FERC 403 404	13	D&A: Software Amoritization Expense (U-18467) (1,416,405)
15	FERC 403 404	14	D&A: Dist, Gen, Corp Depreciation Expense (U-18467) (392,390)
16	Calculation C	15	TCJA Taxes - Calculation C (938,469)
17	Sub-total Expense Adjustments		(4,556,567)
18			
19	Balance Sheet Adjustments		
20	Accumulated Depriation Reserve	16	U-18467 1,808,795
21	Sub-total Balance Sheet		

FERC 926 Summary					
	a	b	c	d	e
				2019	
Line		2017 Actuals	2017 Inflation-Adjusted *	Projected Test Year**	2019 Forecast Adjustment***
1	Average no. of employees	178	185		
2	Pension & OPEB				
3	Pension Expense	1,171,647	1,234,807	883,068	(351,739)
4	Post Retirement Medical	(89,775)	(94,615)	(242,004)	(147,389)
5	Pension Restoration	33,676	35,491	35,491	-
6	Supple Emp Ret Plan-SERP	11,150	11,751	11,751	-
7	Post Retirement Life	72,417	76,321	120,955	44,634
8	Total Pension & OPEB	1,199,114	1,263,755	809,261	(454,495)
9					
10	Other Benefits Expense				
11	Employee Costs & Benefits	272,796	287,501	356,146	68,645
12	Company Cash Match 401k	489,432	515,816	515,816	-
13	Frozen Sick Leave	(5,242)	(5,524)	(5,524)	-
14	Dental Benefits-Active Empl	79,240	83,511	138,427	54,916
15	Medical Benefits-Active Empl	1,404,429	1,480,138	1,699,802	219,664
16	Empl Ben-Tuition Reimbursement	9,486	9,997	9,997	-
17	Company Prov Life Insurance	58,680	61,843	61,843	-
18	Defined Contribution Plan Exp	313,570	330,474	330,474	-
19	LT Disability Benefit	49,196	51,848	51,848	-
20	ST Disabil FASB 112	27,727	29,221	29,221	-
21	Total Other Benefits Expense	2,699,313	2,844,826	3,188,051	343,225
22					
23	Total FERC 926	3,898,427	4,108,582	3,997,312	(111,270)

* 2017 inflation adjusted means 2017 actuals were escalated at 2.66% for both 2018 & 2019.

** 2019 Projected Test Year includes inflation-adjustments or other projected changes

*** 2019 Forecast Adjustment is the delta between column (c) and (d).

2019 AFUDC Calculation									
AFUDC Calculation							Debt Rate	Equity Rate	
Debt Ratio		Equity Ratio					1.77%	10.00%	
45%		55%		Annual Effective Rate			0.80%	5.50%	
				Monthly Effective Rate			0.07%	0.46%	
FERC							4191	4320	
Month Number	Beginning CWIP Balance	Current Month Charges	1/2 Month Convention	AFUDC	Basis	Move to PIS	Ending CWIP Basis	AFUDC Debt	AFUDC Equity
201801	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201802	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201803	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201804	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201805	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201806	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201807	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201808	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201809	\$ -		\$ -	\$ -			\$ -	\$ -	\$ -
201810	\$ -	\$ 820,323	\$ 410,162	\$ 410,162			\$ 820,323	\$ 272	\$ 1,880
201811	\$ 820,323	\$ 581,103	\$ 290,552	\$ 1,110,875			\$ 1,401,426	\$ 737	\$ 5,092
201812	\$ 1,401,426	\$ 7,301,564	\$ 3,650,782	\$ 5,052,208			\$ 8,702,990	\$ 3,353	\$ 23,156
201901	\$ 8,702,990	\$ 1,807,470	\$ 903,735	\$ 9,606,725	\$ (7,233,994)		\$ 3,276,466	\$ 6,376	\$ 44,031
201902	\$ 3,276,466	\$ 914,470	\$ 457,235	\$ 3,733,701	\$ -		\$ 4,190,936	\$ 2,478	\$ 17,113
201903	\$ 4,190,936	\$ 914,470	\$ 457,235	\$ 4,648,171	\$ -		\$ 5,105,406	\$ 3,085	\$ 21,304
201904	\$ 5,105,406	\$ 834,888	\$ 417,444	\$ 5,522,850	\$ (2,638,163)		\$ 3,302,131	\$ 3,666	\$ 25,313
201905	\$ 3,302,131	\$ 615,988	\$ 307,994	\$ 3,610,125	\$ (588,222)		\$ 3,329,897	\$ 2,396	\$ 16,546
201906	\$ 3,329,897	\$ 615,988	\$ 307,994	\$ 3,637,891	\$ (588,222)		\$ 3,357,663	\$ 2,415	\$ 16,674
201907	\$ 3,357,663	\$ 615,988	\$ 307,994	\$ 3,665,657	\$ (588,222)		\$ 3,385,429	\$ 2,433	\$ 16,801
201908	\$ 3,385,429	\$ 518,390	\$ 259,195	\$ 3,644,624	\$ (606,892)		\$ 3,296,927	\$ 2,419	\$ 16,705
201909	\$ 3,296,927	\$ 95,818	\$ 47,909	\$ 3,344,836	\$ (606,892)		\$ 2,785,853	\$ 2,220	\$ 15,330
201910	\$ 2,785,853	\$ -	\$ -	\$ 2,785,853	\$ (509,294)		\$ 2,276,559	\$ 1,849	\$ 12,768
201911	\$ 2,276,559	\$ -	\$ -	\$ 2,276,559	\$ (151,725)		\$ 2,124,834	\$ 1,511	\$ 10,434
201912	\$ 2,124,834		\$ -	\$ 2,124,834	\$ (2,124,834)		\$ (0)	\$ 1,410	\$ 9,739
		\$ 15,636,460			\$ (15,636,460)		\$ 32,259	\$ 222,758	

Consensus Forecasts Of U.S. Interest Rates And Key Assumptions¹

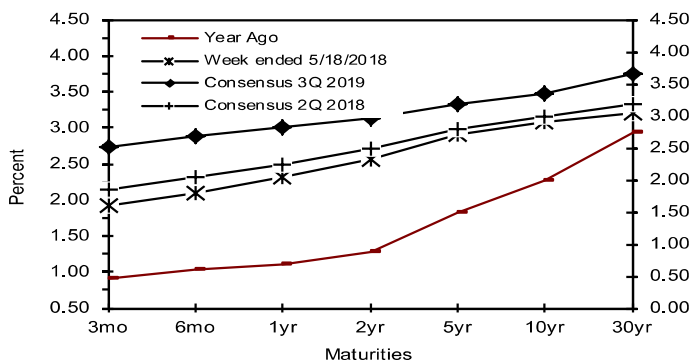
Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	-----Average For Week Ending-----				----Average For Month----				2Q		3Q		4Q	
	May 18	May 11	May 4	Apr. 27	Apr.	Mar.	Feb.	1Q 2018	2018	2018	2018	2019	2019	2019
Federal Funds Rate	1.70	1.70	1.70	1.70	1.69	1.49	1.42	1.44	1.7	2.0	2.2	2.4	2.6	2.8
Prime Rate	4.75	4.75	4.75	4.75	4.75	4.75	4.50	4.58	4.8	5.0	5.2	5.4	5.6	5.8
LIBOR, 3-mo.	2.33	2.35	2.36	2.36	2.35	2.16	1.84	1.91	2.3	2.4	2.6	2.8	3.0	3.1
Commercial Paper, 1-mo.	1.81	1.79	1.85	1.82	1.82	1.76	1.52	1.59	1.8	2.1	2.3	2.5	2.7	2.9
Treasury bill, 3-mo.	1.92	1.89	1.85	1.85	1.79	1.72	1.56	1.57	1.9	2.0	2.2	2.4	2.6	2.7
Treasury bill, 6-mo.	2.09	2.05	2.03	2.03	1.98	1.91	1.76	1.76	2.0	2.2	2.4	2.6	2.7	2.9
Treasury bill, 1 yr.	2.31	2.27	2.24	2.25	2.15	2.06	1.94	1.93	2.2	2.4	2.6	2.7	2.9	3.0
Treasury note, 2 yr.	2.57	2.52	2.50	2.49	2.38	2.27	2.16	2.15	2.5	2.6	2.8	2.9	3.0	3.1
Treasury note, 5 yr.	2.91	2.82	2.79	2.82	2.70	2.63	2.59	2.53	2.8	2.9	3.0	3.1	3.2	3.3
Treasury note, 10 yr.	3.07	2.97	2.96	2.99	2.86	2.85	2.84	2.75	3.0	3.1	3.2	3.3	3.4	3.5
Treasury note, 30 yr.	3.20	3.13	3.12	3.17	3.07	3.10	3.11	3.02	3.2	3.3	3.4	3.5	3.7	3.8
Corporate Aaa bond	4.16	4.11	4.10	4.11	3.99	3.98	3.91	3.86	4.1	4.3	4.4	4.6	4.7	4.8
Corporate Baa bond	4.83	4.78	4.75	4.73	4.61	4.59	4.47	4.43	4.8	5.0	5.2	5.3	5.5	5.6
State & Local bonds	3.64	3.63	3.67	3.69	3.64	3.61	3.57	3.53	3.8	3.9	4.0	4.2	4.3	4.4
Home mortgage rate	4.66	4.61	4.55	4.55	4.47	4.44	4.33	4.27	4.6	4.7	4.8	4.9	5.1	5.1

Key Assumptions	History								Consensus Forecasts-Quarterly					
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
	2016	2016	2016	2017	2017	2017	2017	2018	2018	2018	2018	2019	2019	2019
Major Currency Index	89.6	90.3	93.7	94.4	93.0	88.3	88.9	86.1	87.3	87.6	87.3	87.0	87.0	87.1
Real GDP	2.2	2.8	1.8	1.2	3.1	3.2	2.9	2.3	3.2	3.0	2.8	2.4	2.4	2.2
GDP Price Index	2.4	1.4	2.0	2.0	1.0	2.1	2.3	2.0	2.1	2.2	2.1	2.2	2.2	2.2
Consumer Price Index	2.7	1.8	2.7	3.0	0.1	2.1	3.3	3.5	2.2	2.5	2.1	2.2	2.2	2.3

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; LIBOR quotes from Intercontinental Exchange. All interest rate data is sourced from Haver Analytics. Historical data for Fed's Major Currency Index is from FRSR H.10. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS).

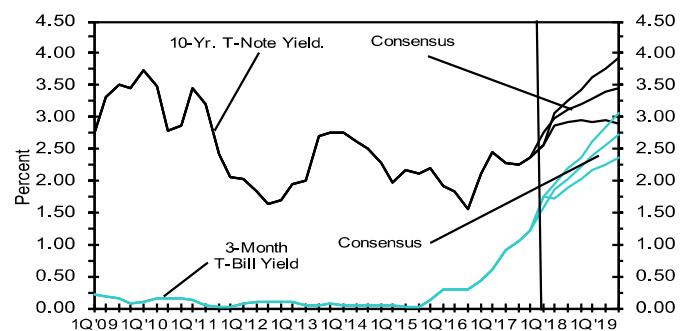
U.S. Treasury Yield Curve

Week ended May 18, 2018 and Year Ago vs.
2Q 2018 and 3Q 2019 Consensus Forecasts



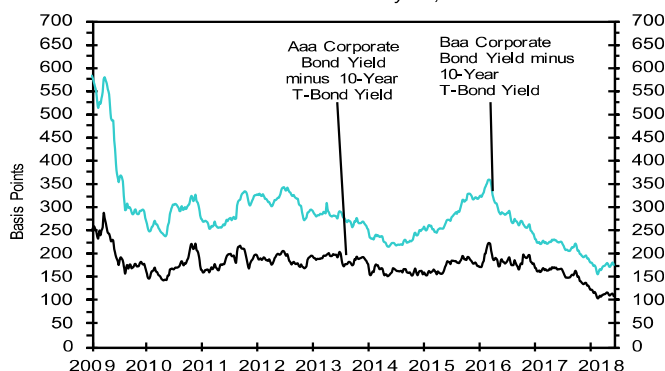
U.S. 3-Mo. T-Bills & 10-Yr. T-Note Yield

(Quarterly Average) Forecast



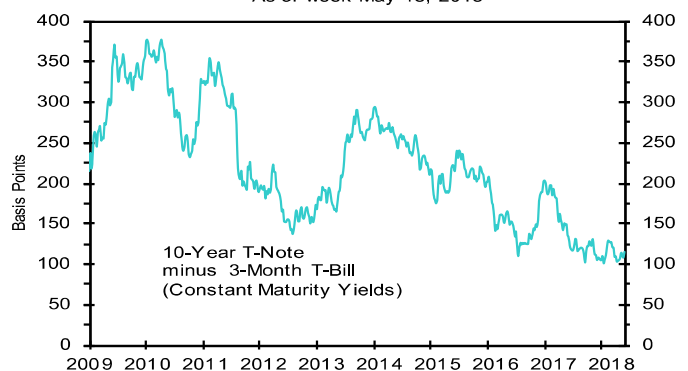
Corporate Bond Spreads

As of week ended May 18, 2018



U.S. Treasury Yield Curve

As of week May 18, 2018



Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2020 through 2024 and averages for the five-year periods 2020-2024 and 2025-2029. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year					Five-Year Averages	
		2020	2021	2022	2023	2024	2020-2024	2025-2029
Interest Rates								
1. Federal Funds Rate	CONSENSUS	3.0	3.0	3.0	3.0	3.0	3.0	3.0
	Top 10 Average	3.5	3.6	3.6	3.5	3.5	3.5	3.5
	Bottom 10 Average	2.6	2.5	2.4	2.4	2.6	2.5	2.6
2. Prime Rate	CONSENSUS	6.1	6.0	6.0	6.0	6.1	6.0	6.0
	Top 10 Average	6.5	6.6	6.6	6.5	6.5	6.6	6.5
	Bottom 10 Average	5.6	5.5	5.4	5.5	5.6	5.5	5.6
3. LIBOR, 3-Mo.	CONSENSUS	3.3	3.3	3.3	3.3	3.4	3.3	3.3
	Top 10 Average	3.7	3.9	4.0	3.9	3.9	3.9	3.8
	Bottom 10 Average	2.9	2.8	2.7	2.7	2.9	2.8	2.9
4. Commercial Paper, 1-Mo.	CONSENSUS	3.1	3.2	3.1	3.1	3.2	3.1	3.2
	Top 10 Average	3.5	3.7	3.7	3.7	3.7	3.6	3.6
	Bottom 10 Average	2.7	2.6	2.6	2.6	2.7	2.6	2.7
5. Treasury Bill Yield, 3-Mo.	CONSENSUS	3.0	3.0	2.9	2.9	3.0	3.0	3.0
	Top 10 Average	3.5	3.6	3.6	3.5	3.6	3.5	3.5
	Bottom 10 Average	2.5	2.4	2.4	2.4	2.5	2.4	2.5
6. Treasury Bill Yield, 6-Mo.	CONSENSUS	3.1	3.1	3.1	3.1	3.2	3.1	3.2
	Top 10 Average	3.6	3.7	3.7	3.7	3.7	3.7	3.7
	Bottom 10 Average	2.7	2.6	2.5	2.5	2.7	2.6	2.7
7. Treasury Bill Yield, 1-Yr.	CONSENSUS	3.2	3.3	3.2	3.2	3.3	3.2	3.3
	Top 10 Average	3.7	3.8	3.8	3.8	3.8	3.8	3.9
	Bottom 10 Average	2.8	2.7	2.6	2.7	2.8	2.7	2.8
8. Treasury Note Yield, 2-Yr.	CONSENSUS	3.4	3.4	3.4	3.4	3.4	3.4	3.5
	Top 10 Average	3.9	4.0	4.0	3.8	4.0	3.9	4.1
	Bottom 10 Average	2.9	2.9	2.8	2.8	2.9	2.8	2.9
10. Treasury Note Yield, 5-Yr.	CONSENSUS	3.6	3.6	3.6	3.6	3.7	3.6	3.8
	Top 10 Average	4.0	4.1	4.1	4.1	4.2	4.1	4.4
	Bottom 10 Average	3.2	3.2	3.0	3.1	3.2	3.1	3.2
11. Treasury Note Yield, 10-Yr.	CONSENSUS	3.8	3.8	3.8	3.8	3.8	3.8	3.9
	Top 10 Average	4.3	4.3	4.4	4.3	4.4	4.3	4.5
	Bottom 10 Average	3.3	3.3	3.2	3.2	3.3	3.2	3.4
12. Treasury Bond Yield, 30-Yr.	CONSENSUS	4.1	4.2	4.2	4.2	4.2	4.2	4.4
	Top 10 Average	4.7	4.7	4.7	4.8	4.8	4.7	5.0
	Bottom 10 Average	3.6	3.6	3.6	3.6	3.7	3.6	3.7
13. Corporate Aaa Bond Yield	CONSENSUS	5.2	5.2	5.2	5.3	5.4	5.3	5.4
	Top 10 Average	5.7	5.8	5.9	6.0	6.0	5.9	6.0
	Bottom 10 Average	4.7	4.7	4.6	4.6	4.7	4.6	4.7
13. Corporate Baa Bond Yield	CONSENSUS	6.0	6.0	6.0	6.1	6.2	6.1	6.3
	Top 10 Average	6.6	6.8	6.9	7.0	7.0	6.9	7.0
	Bottom 10 Average	5.3	5.3	5.3	5.3	5.4	5.3	5.4
14. State & Local Bonds Yield	CONSENSUS	4.6	4.5	4.5	4.5	4.6	4.5	4.6
	Top 10 Average	5.1	5.1	5.1	5.1	5.1	5.1	5.2
	Bottom 10 Average	4.0	3.9	3.9	4.0	4.1	4.0	4.1
15. Home Mortgage Rate	CONSENSUS	5.4	5.4	5.4	5.4	5.5	5.4	5.6
	Top 10 Average	5.8	5.9	6.0	6.0	6.0	6.0	6.1
	Bottom 10 Average	4.9	4.9	4.8	4.8	4.9	4.9	5.0
A. FRB - Major Currency Index	CONSENSUS	89.6	89.4	89.6	90.0	90.1	89.7	90.4
	Top 10 Average	94.3	94.6	94.5	94.5	94.5	94.5	94.8
	Bottom 10 Average	84.6	84.0	84.3	85.4	85.6	84.8	85.9
		Year-Over-Year, % Change					Five-Year Averages	
		2020	2021	2022	2023	2024	2020-2024	2025-2029
B. Real GDP	CONSENSUS	1.9	1.9	2.0	2.1	2.1	2.0	2.1
	Top 10 Average	2.4	2.4	2.4	2.4	2.5	2.4	2.4
	Bottom 10 Average	1.5	1.3	1.5	1.8	1.8	1.6	1.8
C. GDP Chained Price Index	CONSENSUS	2.2	2.2	2.1	2.1	2.1	2.1	2.1
	Top 10 Average	2.4	2.4	2.3	2.2	2.3	2.3	2.2
	Bottom 10 Average	2.0	2.0	2.0	1.9	2.0	2.0	2.0
D. Consumer Price Index	CONSENSUS	2.3	2.3	2.3	2.2	2.2	2.3	2.2
	Top 10 Average	2.7	2.6	2.5	2.4	2.5	2.5	2.4
	Bottom 10 Average	1.9	2.0	2.1	2.0	2.0	2.0	2.1

Michigan Public Service Commission
 Upper Peninsula Power Company
 CPI-All Urban Consumers (Current Series)
 12-Month Percent Change

Case No.: U-20276
 Exhibit No.: A-22 (NEK-14)
 Schedule:
 Page: 1 of 1
 Witness: Nicholas E. Kates

CPI-All Urban Consumers (Current Series)
12-Month Percent Change

Series Id: CUUR0000SA0
Not Seasonally Adjusted
Series Title: All items in U.S. city average, all urban consumers, not
Area: U.S. city average
Item: All items
Base Period: 1982-84=100
Years: 2008 to 2018

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	HALF1	HALF2
2008	4.3	4.0	4.0	3.9	4.2	5.0	5.6	5.4	4.9	3.7	1.1	0.1	4.2	3.4
2009	0.0	0.2	-0.4	-0.7	-1.3	-1.4	-2.1	-1.5	-1.3	-0.2	1.8	2.7	-0.6	-0.1
2010	2.6	2.1	2.3	2.2	2.0	1.1	1.2	1.1	1.1	1.2	1.1	1.5	2.1	1.2
2011	1.6	2.1	2.7	3.2	3.6	3.6	3.6	3.8	3.9	3.5	3.4	3.0	2.8	3.5
2012	2.9	2.9	2.7	2.3	1.7	1.7	1.4	1.7	2.0	2.2	1.8	1.7	2.3	1.8
2013	1.6	2.0	1.5	1.1	1.4	1.8	2.0	1.5	1.2	1.0	1.2	1.5	1.5	1.4
2014	1.6	1.1	1.5	2.0	2.1	2.1	2.0	1.7	1.7	1.7	1.3	0.8	1.7	1.5
2015	-0.1	0.0	-0.1	-0.2	0.0	0.1	0.2	0.2	0.0	0.2	0.5	0.7	-0.1	0.3
2016	1.4	1.0	0.9	1.1	1.0	1.0	0.8	1.1	1.5	1.6	1.7	2.1	1.1	1.5
2017	2.5	2.7	2.4	2.2	1.9	1.6	1.7	1.9	2.2	2.0	2.2	2.1	2.2	2.0
2018	2.1	2.2	2.4	2.5	2.8	2.9	2.9						2.5	
Average Q2-2018	2.7													

Line	Year: 2019		Projected (Unadjusted) Paid Cash Compensation						
	Category	Total Gas or Electric or Steam FTE*	Base Wages or Salaries	Overtime	Incentive or Bonus		Other Compensation (Explain)	Other Compensation (Explain)	Total
					Short-Term	Long-Term	Moving	Double-Time	
3	Officers	4	\$927,337.73	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$927,337.73
4	Exempt	64	\$6,066,797.27	\$1,451.81	\$1,495.36	\$1,540.22	\$1,586.43	\$1,634.02	\$6,074,505.11
5	Nonexempt	10	\$317,605.37	\$17,466.40	\$17,990.39	\$18,530.10	\$19,086.01	\$19,658.59	\$410,336.86
6	Union	116	\$7,675,127.38	\$558,127.94	\$574,871.78	\$592,117.94	\$609,881.47	\$628,177.92	\$10,638,304.43
7	Sub Total	194	\$14,986,867.75	\$577,046.15	\$594,357.53	\$612,188.26	\$630,553.91	\$649,470.52	\$18,050,484.13
8	Contracted Services	1	\$69,100.13	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$69,100.13
9	Total	195	\$15,055,967.88	\$577,046.15	\$594,357.53	\$612,188.26	\$630,553.91	\$649,470.52	\$18,119,584.25
10	*Please Exclude Full-Time Equivalent (FTE) Created by Overtime								

13	Union Total Wage	\$7,675,127
14	Union Wage Adjustment	3.50%
15	Inflation adj. (already in 2019 costs)	2.66%
16	Incremental wage adjustment	0.84%
17	<u>Incremental Union Wage Adjustment</u>	<u>\$64,471</u>

19	FERC Allocation of Union Wage Adjustment	2019	Weight	\$
20	Power Supply FERC 544	2,836,441	11.9%	\$ 7,701
21	Distribution FERC 582	13,789,773	58.1%	\$ 37,438
22	Customer Accts FERC 903	4,129,976	17.4%	\$ 11,212
23	Cusomter Exp FERC 908	2,990,905	12.6%	\$ 8,120
24	<u>Total Allocation</u>			<u>\$ 64,471</u>

26	Administrative Total Wage	\$7,311,740
27	Assumed Administrative Wage Adjustment	3.50%
28	Inflation adj. (already in 2019 costs)	2.66%
29	Incremental wage adjustment	0.84%
30	<u>Incremental Administrative Wage Adjustment</u>	<u>\$61,419</u>

32	FERC Allocation of Union Wage Adjustment	2019	Weight	\$
33	A&G (Non-union) FERC 920		100%	\$61,419

35 Total Salary & Wage Adjustment (Line 17 + Line 30) \$125,890

36

Michigan Public Service Commission
Upper Peninsula Power Company
Uncollectibles (Bad Debt) Expense | FERC 904
2013 through 2017

Case No.: U-20276
Exhibit No.: A-24 (NEK-16)
Schedule:
Page: 1 of 1
Witness: Nicholas E. Kates

Uncollectibles (Bad Debt) Expense FERC 904							
	2013	2014	2015	2016	2017	3 year average Net Uncollectible (historical)	2019 Forecast Adjustment from 2017
Line 1 GDP Implicit Price Deflator	0.9426	0.9595	0.9699	0.9823	1.0000		
2 FERC 904 (nominal)	570,423	724,824	596,129	701,064	2,198,285	1,165,159	
3 FERC 904 (real)	605,146	755,387	614,602	713,680	2,198,285	1,175,522	(1,022,763)