

EO-2002-384

Aquila Networks

November 12, 2003

Residential: Go to two residential rates, based on MO 860 & MO870, with the exception of TOU. Aim to have customer charge and the final block the same, with the early blocks creating the revenue difference between divisions.

L&P	\$	MPS	\$	Comments
General 110 MO910	33K	NSH MO860	147K	
Cust	5.59	Cust	6.64	
S	.064	S 0-600	.0693	
		S -1000	.0713	
		S -up	.0749	
W 0-650	.057	W 0-600	.0693	
W -up	.042	W -up	.0474	
Space Heat 120 MO920	14K	Space Heat MO870	40K	
Cust	5.59	Cust	6.64	
S	.064	S 0-600	.0693	
		S -1000	.0713	
		S -up	.0749	
W 0-1000	.042	W 0-600	.0693	
W -up	.030	W -1000	.0374	
		W -up	.0310	
Water Heat 135 MO913	7.1K			
Cust	5.59			
S	.064			
W 0-650	.053			
W -up	.035			
Separate Meter, Space / Water Heating 621 MO922, Frozen	103			
Service Charge	2.95			
S	.065			
W	.035			
Other Residential 150 MO915	1.5K			
Cust	6.11			
S	.093			
W	.068			
TOU MO	0	TOD MO600	0	
Add to base res bill				
Metering	15.00	Cust	11.76	
S On Peak	.027	S On Peak	.1265	
		S Shoulder	.0703	
S Off Peak	-.014	S Off Peak	.0422	
W On Peak	.003	W On Peak	.0812	
W Off Peak	-.002	W Off Peak	.0324	

S = Jun – Sep

W = Oct – May

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Small General Service: Use a blocked hours of use rate, except for non-demand and TOU rates. Aim to have customer charges, demand charges, and the final blocks the same, with the initial blocks creating the revenue difference between divisions. The base / seasonal hours use structure is too complex.

L&P	\$	MPS	\$	Comments
Limited Demand 201 MO930 (& Space Heat 221 MO932) 40 kW max or < 300 kWh/mon	<u>3.5K</u>	No kW MO710 30 kW max or < 5400 kWh/month	<u>13K</u>	Mimic residential blocking for non-demand rate.
Cust	11.25	Cust	11.22	
S	.086	S	.0831	
W	.062	W Base	.0689	
		W Seas.	.0267	
				Temporary Service Add a non-demand temporary service rate for construction.
General 211 MO931	<u>1.4K</u>	Demand MO711 Secondary, 100 kW max	<u>12K</u>	
		Cust	11.22	
Facilities kW to 10	23.46	S Base kW	3.22	
Facilities kW –up	1.71	S Seas. kW	3.22	
		W Base kW	2.39	
		W Seas. kW	0.00	
S 150 kWh/kW	.072	S Base 0-180 hu	.0652	
S –up kWh/kW	.053	S Base –360 hu	.0478	
		S Base –up hu	.0380	
		S Seas. 0-180 hu	.0652	
		S Seas. –360 hu	.0478	
		S Seas. –up hu	.0380	
W 150 kWh/kW	.049	W Base 0-180 hu	.0557	
W –up kWh/kW	.038	W Base –360 hu	.0469	
		W Base –up hu	.0380	
		W Seas. 0-180 hu	.0267	
		W Seas. –360 hu	.0267	
		W Seas. –up hu	.0267	
General – Space Heat 222 MO933	<u>599</u>			
Facilities kW to 3	11.25			
Facilities kW –up	1.53			
S 150 kWh/kW	.072			
S –up kWh/kW	.053			
W 150 kWh/kW	.049			
W –up kWh/kW	.029			
		Demand MO716 Primary, 100 kW max	<u>6</u>	
		Cust	11.22	
		S Base kW	2.23	
		S Seas. kW	2.23	
		W Base kW	1.35	
		W Seas. kW	0.00	
		S Base 0-180 hu	.0636	
		S Base –360 hu	.0467	
		S Base –up hu	.0371	

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		S Seas. 0-180 hu	.0636	
		S Seas. -360 hu	.0467	
		S Seas. -up hu	.0371	
		W Base 0-180 hu	.0543	
		W Base -360 hu	.0457	
		W Base -up hu	.0371	
		W Seas. 0-180 hu	.0260	
		W Seas. -360 hu	.0260	
		W Seas. -up hu	.0260	
TOU MO	0	TOD MO610	0	Offer a single, restructured, TOU rate.
Add to base bill		1 phase, no kW		
Metering	15.00	Cust	15.80	
S On Peak	.022	S On Peak	.1323	
		S Shoulder	.0735	
S Off Peak	-.015	S Off Peak	.0441	
W On Peak	.002	W On Peak	.0858	
W Off Peak	-.002	W Off Peak	.0343	
		TOD MO620	0	Offer a single, restructured, TOU rate.
		1 phase, kW		
		Cust	15.80	
		S Peak kW	6.76	
		W Peak kW	0.00	
		S On Peak	.0809	
		S Shoulder	.0449	
		S Off Peak	.0270	
		W On Peak	.0674	
		W Off Peak	.0270	
Separate Meter, Space / Water Heating 641 MO941	110			
frozen, any non-res rate				
Service Charge	5.78			
S	.086			
W	.035			

hu = hours of use

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Large General Service: Use a blocked hours of use rate, except for TOU rates. Aim to have customer charges, demand charges, and the final blocks the same, with the early blocks creating the revenue difference between divisions. The base / seasonal hours use structure is discontinuous between SGS and LPS.

L&P	\$	MPS	\$	Comments
LGS 311 MO940 Secondary	<u>1.1K</u>	LGS MO720 Secondary, 100 to 500 kW	<u>1.0K</u>	
		Cust	43.70	
Facilities kW to 40	75.86	S Base kW	3.23	
Facilities kW –up	1.02	S Seas. kW	3.23	
S kW	2.60			
W kW <= S kW	1.23	W Base kW	2.24	
W kW > S kW	0.20	W Seas. kW	0.00	
S 200 kWh/kW	.049	S Base 0-180 hu	.0609	
S –up kWh/kW	.033	S Base –360 hu	.0445	
		S Base –up hu	.0355	
		S Seas. 0-180 hu	.0609	
		S Seas. –360 hu	.0445	
		S Seas. –up hu	.0355	
W 200 kWh/kW	.034	W Base 0-180 hu	.0445	
W –up kWh/kW	.029	W Base –360 hu	.0374	
		W Base –up hu	.0355	
		W Seas. 0-180 hu	.0267	
		W Seas. –360 hu	.0267	
		W Seas. –up hu	.0267	
LGS 311 MO940 Primary	<u>?</u>	LGS MO725 Primary, 100 to 500 kW	<u>22</u>	
Facilities kW to 40	53.46	Cust	43.70	
Facilities kW –up	0.46	S Base kW	2.24	
S kW	2.60	S Seas. kW	2.24	
W kW <= S kW	1.23	W Base kW	1.35	
W kW > S kW	0.20	W Seas. kW	0.00	
S 200 kWh/kW	.049	S Base 0-180 hu	.0593	
S –up kWh/kW	.033	S Base –360 hu	.0435	
		S Base –up hu	.0346	
		S Seas. 0-180 hu	.0593	
		S Seas. –360 hu	.0435	
		S Seas. –up hu	.0346	
W 200 kWh/kW	.034	W Base 0-180 hu	.0435	
W –up kWh/kW	.029	W Base –360 hu	.0366	
		W Base –up hu	.0346	
		W Seas. 0-180 hu	.0260	
		W Seas. –360 hu	.0260	
		W Seas. –up hu	.0260	
LGS MO Metered at ____, then reduce kW and kWh by				
Primary	1.5%			
Substation	2.5%			
Transmission	3.0%			
TOU MO Add to base bill	<u>0</u>	TOD MO630 3 phase, Secondary	<u>0</u>	Offer a single, restructured, TOU rate.
Metering	15.00	Cust	52.89	

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		S Peak kW	6.76	
		W Peak kW	0.00	
S On Peak	.020	S On Peak	.0809	
		S Shoulder	.0449	
S Off Peak	-.012	S Off Peak	.0270	
W On Peak	.002	W On Peak	.0674	
W Off Peak	-.002	W Off Peak	.0270	
		TOD MO640 3 phase, Primary	<u>0</u>	Offer a single, restructured, TOU rate.
		Cust	52.89	
		S Peak kW	4.61	
		W Peak kW	0.00	
		S On Peak	.0788	
		S Shoulder	.0438	
		S Off Peak	.0263	
		W On Peak	.0657	
		W Off Peak	.0263	

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Large Power Service: Use modified L&P structure.

L&P	\$	MPS	\$	Comments
LPS 411 MO944 Secondary, 500 kW and up	<u>56</u>	LPS MO730 Secondary, 500 kW and up	<u>98</u>	
		Cust	118.34	
Facilities kW to 500	640.86	S Base kW	6.48	
Facilities kW –up	1.00	S Seas. kW	6.48	
S kW	7.34			
W kW <= S kW	3.13	W Base kW	4.74	
W kW > S kW	0.20	W Seas. kW	0.00	
S On Peak	.034	S Base 0-180 hu	.0517	
S Off Peak	.024	S Base –360 hu	.0340	
		S Base –up hu	.0272	
		S Seas. 0-180 hu	.0517	
		S Seas. –360 hu	.0340	
		S Seas. –up hu	.0272	
W On Peak	.028	W Base 0-180 hu	.0343	
W Off Peak	.021	W Base –360 hu	.0308	
		W Base –up hu	.0272	
		W Seas. 0-180 hu	.0267	
		W Seas. –360 hu	.0267	
		W Seas. –up hu	.0267	
LPS 411 MO944 Primary, 500 kW and up	<u>?</u>	LPS MO735 Primary, 500 kW and up	<u>31</u>	
		Cust	118.34	
Facilities kW to 500	360.86	S Base kW	5.40	
Facilities kW –up	0.44	S Seas. kW	5.40	
S kW	7.34	W Base kW	3.46	
W kW <= S kW	3.13	W Seas. kW	0.00	
W kW > S kW	0.20	S Base 0-180 hu	.0505	
S On Peak	.034	S Base –360 hu	.0330	
S Off Peak	.024	S Base –up hu	.0266	
		S Seas. 0-180 hu	.0505	
		S Seas. –360 hu	.0330	
		S Seas. –up hu	.0266	
		W Base 0-180 hu	.0335	
W On Peak	.028	W Base –360 hu	.0300	
W Off Peak	.021	W Base –up hu	.0266	
		W Seas. 0-180 hu	.0260	
		W Seas. –360 hu	.0260	
		W Seas. –up hu	.0260	
		Reactive	0.27	
		Modine MO919	<u>1</u>	
		KWh 0-1000	.0618	
		KWh –3000	.0551	
		KWh –10,000	.0486	
		KWh –50,000	.0424	
		KWh >50,000	.0389	
LPS MO Metered at _____, then reduce by				
Primary	1.5%			

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Substation	2.5%			
Transmission	3.0%			
		TES MO650	1	
		Secondary, frozen		
		Cust	127.52	
		S Peak kW	6.48	
		W Peak kW	4.74	
		S On Peak	.0515	
		S Shoulder	.0289	
		S Off Peak	.0260	
		W On Peak	.0289	
		W Off Peak	.0260	
		TES MO660	0	
		Primary, frozen		
		Cust	127.52	
		S Peak kW	5.40	
		W Peak kW	3.46	
		S On Peak	.0515	
		S Shoulder	.0289	
		S Off Peak	.0260	
		W On Peak	.0289	
		W Off Peak	.0260	

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Economic Development Rider: Simplify the MPS structure.

L&P	\$	MPS	\$	Comments
500 kW min., 10 MW max.	<u>5</u>	200 kW min., Load Factor @	<u>25</u>	
Year 1, >50% LF	30%	Year 1, 50-54%	25%	
Year 2	25%	Year 2	20%	
Year 3	20%	Year 3	15%	
Year 4	15%	Year 4	10%	
Year 5	10%	Year 5	5%	
		Year 1, 55-59%	27.5%	
		Year 2	22.5%	
		Year 3	17.5%	
		Year 4	12.5%	
		Year 5	7.5%	
		Year 1, >60%	30%	
		Year 2	25%	
		Year 3	20%	
		Year 4	15%	
		Year 5	10%	
		Year 1, >50%, w/o 5 yr excl. contract	15%	
		Year 2	15%	
		Year 3	10%	

Curtailment Rider: Revise MPS if it can be as effective as L&P's.

L&P	\$	MPS	\$	Comments
200 kW min., credit 12 months / year	<u>?</u>	250 kW min., credit 4 months / year	<u>0</u>	
Credit / kW	1.98	Credit / kW	4.69	
Penalty / kW	24.00	1 st Penalty / kW	14.06	
		Add. Pen. / kW	18.74	
		Res. Marg. Pen. / kW	3.92	
3 yr annual bonus / kW	3.22			
5 yr annual bonus / kW	6.43			

Supplementary Rates:

L&P	\$	MPS	\$	Comments
VLR		RTP, SCR, VLR	<u>9 RTP</u>	Modify RTP to account for contrary behavior. Consider eliminating RTP.
Municipal Underground Cost Recovery Rider		Municipal Underground Cost Recovery Rider		Modify for alternate recovery, for other mandated expenses.
Reserve Distribution Capacity Rider		Reserve Distribution Capacity Rider		Do we want this? See AmerenUE Tariff.

Schools & Churches: Group the L&P with MO930. See if restructured TOU will address any unique load shape that truly exists in the class.

L&P	\$	MPS	\$	Comments
C&S 261 MO934	<u>312</u>	S&C MO740 Secondary, frozen	<u>1.0K</u>	
Cust	11.25	Cust	11.44	
S	.086	S	.0734	
W	.062	W Base	.0609	
		W Seas.	.0313	

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		S&C MO745	1	
		Primary, frozen		
		Cust	11.44	
		S	.0715	
		W Base	.0594	
		W Seas.	.0305	

Other: See if restructured TOU will address any unique load shape that truly exists in these rates.

L&P	\$	MPS	\$	Comments
		Muni Water Pumping & Special Street Lighting MO800	198	
		Frozen		
		kWh first 150	8.84	
		KWh > 150	.0587	
		Muni Park & Rec MO810	220	
		1 Phase, frozen		
		kWh (\$7.09 min.)	.0746	
		Muni Park & Rec MO811	91	
		3 Phase, frozen		
		kWh (\$23.66 min.)	.0746	

Lights:

L&P	\$	MPS	\$	Comments
Private Area, Street, Signal		Private Area, Street		Provide options where we own / maintain the light, and energy only for all other lights.

Standby, Supplementary, or Isolated Generating Plant:

L&P	\$	MPS	\$	Comments
Standby or Supplementary 770	0	Special Isolated Generating Plant	0	
Reserved Capacity / kW (40 kW min.)	6.15	Capacity Charge / kW (\$5,377.07 min.)	5.40	
		KWh	.0383	
		Reactive	0.27	

Qualifying Facility / Cogeneration: Simplify rate option.

L&P	\$	MPS	\$	Comments
Qualifying Facility 775	0	Cogeneration MO700	0	
		Cust	4.50	
S On Peak	.0308	KWh	.0238	
S Off Peak	.0113			
Wi On Peak	.0199			
Wi Off Peak	.0101			
Sh On Peak	.0222			
Sh Off Peak	.0127			
Net Metering due by 8/28/03		Net Metering due by 8/28/03		
Avoided Cost		Avoided Cost		
Retail Rate for Charges		Retail Rate for Charges		

Wi = Nov – Feb Sh = Oct, Mar – May