

# Electric Rate Structure Modification

Based on Cost of Service Study

- Overview
- Recommendation to Council

# **ELECTRIC RATE ANALYSIS**

- **Rate structure needs to support managing demands on infrastructure**
- **Indepth data driven review of cost of service**
  - **Complete hour by hour data base created: Meter data 8760**
  - **Expanded modeling of cost allocators and revenue requirements**
  - **Focused review of long term model for mapping to forecast in rate study**
  - **Rates adapted to be efficient for each user types needs**
- **Minimum cross allocation of cost**

# **Rate Structure Requirements**

- **Simple and acceptable**
- **Yield total revenue requirements**
- **Revenue stability**
- **Rate stability**
- **Fairness**
- **Encourage efficient use**

# Suggested Modifications

- **Cost of Service Study creates structure with reduced energy charges with corrected base/fixed costs recovery – Average cost goes up 2 % if no change in energy use**
- **Residential Seasonal Rate to manage summer peak demands – Small modification**
  - **Provides discounted energy in off – peak months**
  - **Creates better control for residential users over the electrical costs**
- **Modified Rate 160 requirements: Creates flexibility for off peak operations to optimize work processes**
- **Additional Rate 165 for demand above 5 MW**

# Hot vs Really Hot

Home Electricity usage on a 103 degree day  
vs an 83 degree day:

- Total daily electricity usage:
  - **22 % higher**
- Electricity usage during late afternoon
  - **40 % higher**
- Wholesale prices of electricity during late afternoon:
  - **100 % higher**

**Rate 110 - Residential****Current Rate**

Total kWh	Current Rate	PCAC	Electric Customer Charge	Total Before Taxes
650	\$0.1034	0.0099	\$ 5.75	\$79.40

**Proposed Summer Rate**

Total kWh	Proposed Rate	PCAC	Electric Customer Charge	Total Before Taxes	Difference (Current and Proposed)
650	\$ 0.1100	0.0099	\$ 6.50	\$ 84.44	\$ 5.04

6%

**Proposed Non-Summer Rate**

Total kWh	Proposed Rate	PCAC	Electric Customer Charge	Total Before Taxes	Difference (Current and Proposed)
650	\$ 0.0975	0.0099	\$ 6.50	\$ 76.31	\$ (3.09)

-4%

**Rate 120 - Residential Heating Service - October through May****Current Rate**

Total kWh	Current Rate - First 600 kWh (2011)	Current Rate - Over 600 kWh (2011)	PCAC	Electric Customer Charge	Total Before Taxes
685	\$0.1034	\$0.0644	0.0099	\$ 5.75	\$80.05

**Proposed Rate**

Total kWh	Proposed Rate - First 600 kWh	Proposed Rate - Over 600 kWh	PCAC	Electric Customer Charge	Total Before Taxes	Difference
685	\$ 0.0975	\$ 0.0761	0.0099	\$ 6.50	\$ 78.25	\$ (1.80)

-2%



Rate 150 - Large General Service										
<b>Current Rate</b>										
Total kWh	Total kW	Current Rate - First 200 kWh/kW	Current Rate - Over 200 kWh/kW	PCAC	Current Demand Charge	Current Customer Charge	Total Before Taxes			
314632	863	\$0.0593	\$0.0482	0.0099	\$ 10.40	\$ -	\$ 29,171.18			
<b>Proposed Rate</b>										
Total kWh	Total kW	Proposed Rate - First 200 kWh/kW	Proposed Rate - Over 200 kWh/kW	PCAC	Proposed Demand Charge	Proposed Customer Charge	Total Before Taxes	Difference		
314632	863	\$ 0.0542	\$ 0.0431	0.0099	\$ 12.50	\$ 150.00	\$ 29,528.86	\$ 357.68		
									1%	

Rate 160 - Large General Service Time-of-Day										
<b>Current Rate</b>										
Total On-Peak kWh	Total Off-Peak kWh	Total kW	Current Rate - On-Peak	Current Rate - Off-Peak	PCAC	Current Demand Charge	Customer Charge	Total Before Taxes		
76220	120467	450	\$0.0754	\$0.0429	0.0099	\$ 7.80	\$ 65.00	\$ 16,437.22		
<b>Proposed Rate</b>										
Total On-Peak kWh	Total Off-Peak kWh	Total kW	Proposed Rate - On-Peak	Proposed Rate - Off-Peak	PCAC	Proposed Demand Charge	Proposed Customer Charge	Total Before Taxes	Difference	
76220	120467	450	\$ 0.0715	\$ 0.0390	0.0099	\$ 11.40	\$ 250.00	\$ 17,475.14	\$ 1,037.92	6%

**Rate 163 - Data Centers Time-of-Day**

**Current Rate**

Total On-Peak kWh	Total Off-Peak kWh	Total kW	Current Rate - On-Peak	Current Rate - Off-Peak	PCAC	Current Demand Charge	Customer Charge	Total Before Taxes	
468600	745200	2000	\$0.0750	\$0.0428	0.0099	\$ 7.75	\$ 50.00	\$ 94,606.18	

**Proposed Rate**

Total On-Peak kWh	Total Off-Peak kWh	Total kW	Proposed Rate - On-Peak	Proposed Rate - Off-Peak	PCAC	Proposed Demand Charge	Proposed Customer Charge	Total Before Taxes	Difference	
468600	745200	2000	\$ 0.0703	\$ 0.0381	0.0099	\$ 11.00	\$ 250.00	\$ 95,601.32	\$ 995.14	1%

**Rate 165 - > 5 MW Demand Time of Day**

**Current Rate**

Total On-Peak kWh	Total Off-Peak kWh	Total kW	Current Rate - On-Peak	Current Rate - Off-Peak	PCAC	Current Demand Charge	Customer Charge	Total Before Taxes	
2311400	3803650	7500	\$0.0750	\$0.0428	0.0099	\$ 7.75	\$ 50.00	\$ 454,865.22	

**Proposed Rate**

Total On-Peak kWh	Total Off-Peak kWh	Total kW	Proposed Rate - On-Peak	Proposed Rate - Off-Peak	PCAC	Proposed Demand Charge	Proposed Customer Charge	Total Before Taxes	Difference	
2311400	3803650	7500	\$ 0.0602	\$ 0.0280	0.0099	\$ 16.34	\$ 220.75	\$ 428,958.23	\$ (25,906.99)	-6%