

Long Term Rate Strategy

Utility Financial Solutions, LLC
Mark Beauchamp, CPA, CMA, MBA
President, Utility Financial Solutions



Industry Challenges and Opportunities

- Residential Electric Consumption
- DG, Battery Storage
- Electric Vehicles
 - 30% market penetration by 2030?

Utility Rates

- Stuck in 100 year old rate structures and methodologies
- Residential and small general service rates
 - Customer charges and kWh rates
- Accuracy is limited - Band Aids
 - Inverted Block Rate Structures
 - All Electric Homes
 - High Load Factor Rates
 - Minimum Bills

Ideal Cost-Based Rate Structure

Cost Based Rate Design	Customer Rates	Billing Unit
Production Demand Coincident with System Peak	\$12.72	KW
Distribution Based on Customers Maximum Demand	2.19	KW
Energy Charge - On Peak	0.0462	kWh
Energy Charge - Off Peak	0.0423	kWh
Customer Charge	21.44	Month
PILOT	XX%	Percent of Revenues

Industry Rate Trends

Demand Charges –
AMI required

Time of Use Rates –
AMI required

Cost Based
Customer charges

Grid access fees

Inverted block rate
structure
differentials are
being minimized

Customer Charges
based on size of
service

Low Income
assistance programs

Movement away
from net metering
for customer
installed renewables

Five Steps in Rate Strategy Development

1. Understanding fixed and variable cost components (Marginal Costs)
2. Working with Governing body develop rate making objectives and gaps between current rates and objectives
3. Technology required to achieve objectives
Metering, Billing Systems, Database Management System
4. Education of Governing Body, Utility Staff and Customers
5. Development of a long term transition plan – How long to achieve the objectives

PGE Rate Transition Plan

https://www.pge.com/en_US/residential/rate-plans/how-rates-work/rate-changes/residential-rate-changes/residential-rate-changes.page

2015	2016	2017	2018	2019-2020
Tier Price Adjustment Minimum Bill Increase	New Time-of-Use Rate Options FERA Monthly Fixed Discount Tiers Consolidated from 4 to 3 Tier Price Adjustment Minimum Bill Methodology Change	Tiers Consolidated from 3 to 2 High Usage Surcharge Tier Price Adjustment	Tier Price Adjustment	Transition Most Residential Customers to Time-of-Use Rates

- FERA Family Electric Rate Assistance – Qualified low income program



Development of a long term rate strategy is critical for a utilities financial stability and to achieve community objectives

Benefits of Time of Use Analysis

- 2017; 294 utilities offered residential time of use rates
 - 6.5 million customers enrolled
- Better price signals for renewable generation
- Promotion of electric vehicles and electrification of buildings
- More accurate recovery of costs
- Energy Conservation efforts
- Provides incentive for customers control electric costs and install devices to shift usage

Residential Demand Charges

- **Georgia Power** has optional Residential Demand charge at \$6.53/kW
- **APS** Residential Demand Charge of \$0.70/kW
- **Tucson Electric Power** Optional Residential Demand Charge \$8.85 - \$12.85
- **We Energy** Demand Charge \$3.80/kW for solar
- **Alabama Power** Optional Demand Charge of \$1.50
- **Polk County Public Power District** – Mandatory residential demand charges since 2014
- **Cornhusker Public Power District, Elkhorn PPD, North Central PPD, Burt County PPD** – Mandatory residential demand charges