

# Rate Design: Customer, Energy And Demand Charges

Regulatory Affairs & Pricing

March 19, 2003

# Standard Ratemaking Steps

- Revenue requirement
- Allocated cost of service
- Rate design

# Background – Rate Design

- What is rate design?
  - Determines how costs are to be collected from individual customers (retail and wholesale)
  - Factors considered: Cost type, desired price signal, customer acceptability and reasonableness

# Customer, Energy and Demand Rates

Description	Customer (per meter)	Energy (per kWh)	Demand (per kW)	Fuel Cost Recovery *	Average Rate **
<b>Chugach Retail</b>					
Residential	\$6.25	\$0.08034	---	\$0.01613	\$0.10975
Small General Services	\$12.50	\$0.07829	---	\$0.01613	\$0.10910
Large General Service ***	\$31.43	\$0.03155	\$12.10	\$0.01613	\$0.08311
<b>Chugach Wholesale</b>					
HEA	\$150.00	\$0.01173	\$10.39	\$0.01455	\$0.04955
MEA	\$150.00	\$0.01058	\$14.99	\$0.01582	\$0.05664
SES	\$150.00	\$0.00459	\$7.61	\$1,562,348	\$0.04553

\* Fuel surcharge rates effective Q1, 2003. Fuel costs for Seward shown from January through December 2002.

\*\* Average rates from January through December, 2002.

\*\* Weighted average of all Large General Service rate classes.

# Tariff Components

## ■ Standard Chugach Tariff Components

### – Customer charge

- » Per meter

- » Provides recovery of meter reading and other customer-related costs

### – Energy charge

- » Per kWh, based on total energy consumed during month

- » Provides recovery of costs that vary with output, including fuel and other O&M that varies with kWh sales

- » Base fuel rate recovery

# Tariff Components (continued)

- Standard Chugach Tariff Components
  - Demand charge
    - » Per kW, based on highest 15-minute demand recorded in month
    - » Recovery of fixed costs, including depreciation and interest expense, and O&M related to meeting system demand requirements
  - Fuel surcharge
    - » Per kWh, based on total energy consumed during month
    - » Recovers fuel and purchased power expenses above amounts collected in base energy rate

# Tariff Components (continued)

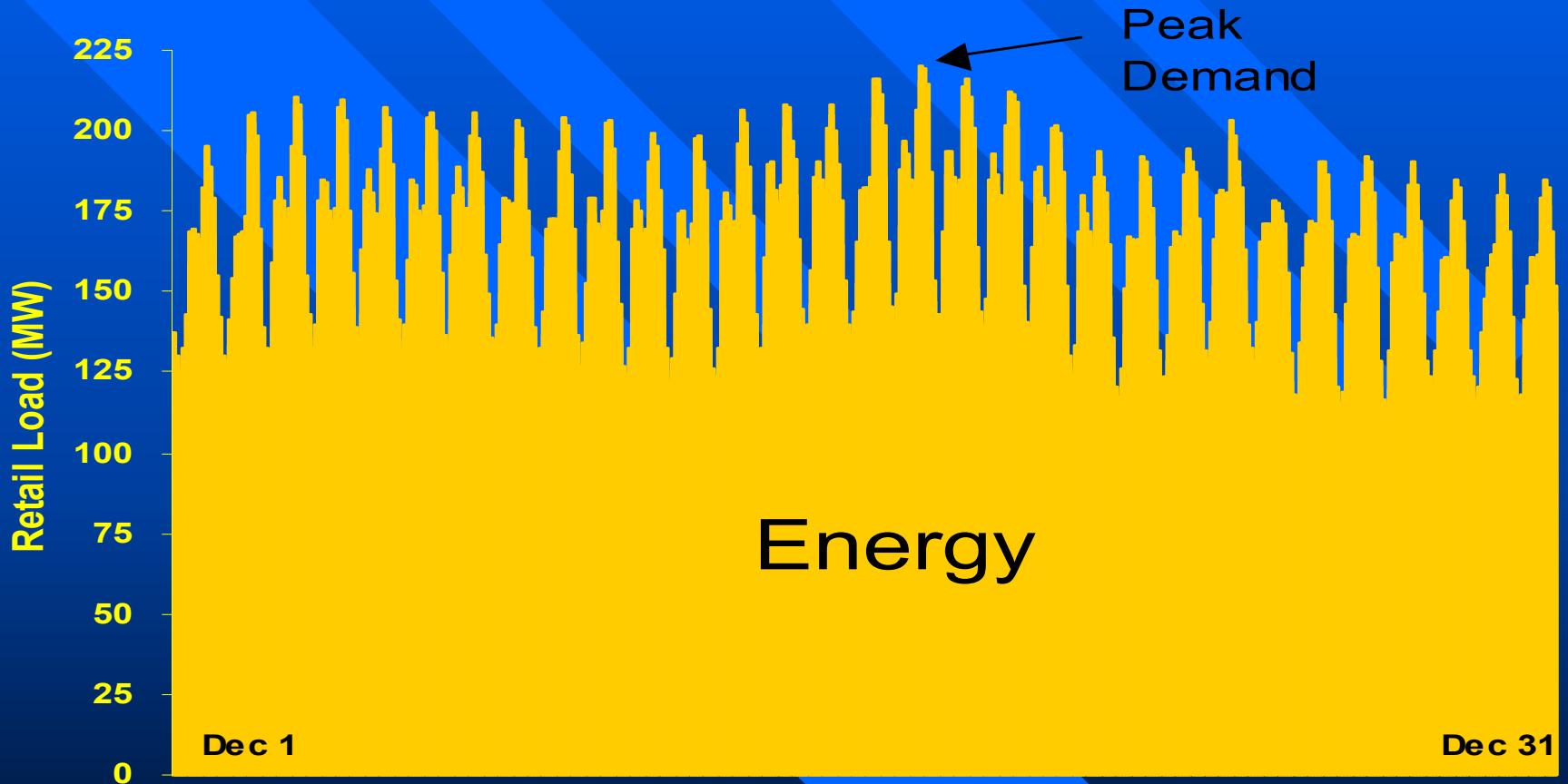
- Average cost by tariff class
  - Actual bill calculation
  - Total revenues generated by customer class and tariff component
  - Resultant average cost

# Tariff Components (continued)

## ■ Fixed vs. Variable Costs

- At one extreme, could collect almost all revenues based on contribution to system peak (kW)
- Collect remaining revenues on variable cost to produce another kWh
- Some of the “fixed costs” were incurred to meet the “non-peak energy needs” of customers

# Energy & Demand



- Energy rates: Collected to serve entire yellow shaded area.
- Demand Rates: Collected to meet peak demand requirements.

# Differences Among Customer Classes

- Wholesale customers
  - Bulk power service only (generation and transmission)
  - Level and form of tariff components reflect required service

# Differences Among Customer Classes

- Wholesale customers
  - Matanuska: All requirements contract
  - Homer: Take or pay contract (73,000 kW)
    - Limited responsibility to meet HEA load
      - Limited demand responsibility (30 percent reserve capacity allocator)
    - No Bradley Lake

# Differences Among Customer Classes (continued)

- Wholesale customers
  - Seward: Interruptible contract
    - Reduced demand charge, reflecting interruptibility
    - Monthly allocation of actual fuel and purchased power costs

# Differences Among Customer Classes (continued)

- Retail customers
  - Firm, all requirements contracts
  - Pay same bulk power costs as MEA
  - Add distribution-level costs
    - » All pay both energy and demand costs

# Differences Among Customer Classes (continued)

## ■ Retail customers

- Not all classes have separate demand charge in tariff
- Reflects ability of customer response to price signals / economic cost considerations

## ■ Comparable rates to HEA and MEA

- Add distribution rates to the Chugach bulk power tariff



Questions?