

# Rate Structures to Encourage Energy Efficiency



Presentation to Review Panel  
June 4, 2013

# Today's Presentation

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- Wrap-Up Residential Rate discussion
- Efficiency: Industry Best Practices Discussion
  - Supplemental report
- Efficient characteristics of current City Light rates
- Future City Light Rate Structure Options

# Residential Rate Policy Wrap Up

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- Long-term goals: Equity & Efficiency
- Target policies:
  - ✓ BSC @ 100% of marginal customer cost
  - ✓ Maintain inverted (increasing) block structure
  - ✓ 2-block rate with 300 kWh in 1st block
  - ✓ 2nd block based on marginal cost of energy
- SCL New Alternative
  - 2015-2016: BSC @ 75%, 2nd block @ 115% MC (see Excel spreadsheet)

# Energy Efficiency

## Industry “Best” Practices

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- No consensus: depends on utility, goals and customer expectations
- Optimal rates reflect marginal costs
- Encourage energy conservation
  - Inclining charges for variable costs
  - Time-differentiated charges (seasonal, Time-of-Use (TOU))
  - Net Metering
- Reduce peak use
  - Increasing demand charges to recover distribution costs
  - Time of use rates becoming more widespread
- Revenue and rate stability
  - Fixed charges to recover fixed costs (customer, facility charges)
  - Power cost adjustments for volatility/risks
  - Revenue decoupling

*For details, see attached report*

# Efficiency Characteristics of Current SCL Rates

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- Marginal costs of service used to allocate revenue requirement to rate classes
  - Marginal cost-based rate components:
    - Minimum and base service charges
    - Demand charges
    - Transformer ownership discount
- Residential two-block structure
- Time-of-use (TOU) rates for Large/High Demand
- BPA and RSA automatic rate adjustment mechanisms

# Emerging Issues That May Impact Future SCL Rates

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- Emerging technology
  - AMI will allow more complex metering and billing options
  - Distributed generation/energy resources
    - Government incentives for some technologies
    - Zero-use customers still require distribution and balancing services
  - Electric cars
- Increased conservation and demand-side management
  - Non-participants absorb higher utility costs
- Pressures to upgrade distribution
- SCL needs to start making rate structure changes now, gradually

# Balancing Efficiency and Equity in Light of Emerging Issues

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- Rates are zero-sum: increasing fixed charges will decrease variable charges
  - Cost of energy (variable charge)
  - Cost of distribution and customer service (fixed charge)
  
- Moving toward revenue stability and equity:
  - BSC for all customers at 100% MC to cover fixed costs
    - Customer costs
    - Distribution service
  - Increase demand charges
    - Invariable demand charges for larger customers based on installed capacity (kVA).

# SCL's Base Service and Demand Charges are Low

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- City Light's BSC and Demand Charges are much lower than those of other utilities.

300 kW customer	<b>Seattle</b>	<b>Tacoma</b>	<b>SnoPUD</b>	<b>Puget</b>	<b>Portland</b>	<b>SMUD</b>
Base Service Charge	\$0.00	\$46.00	\$9.90	\$51.67	\$30.00	\$22.00
Demand Charge	\$2.13	\$6.98	\$4.05	\$7.51	\$4.71	\$6.80

*Assumes 300 kW three phase, secondary voltage, radial service customer – equivalent to SCL City Medium General Service.*

# City Light Future Rate Structures

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## Rate Recommendation 2015-16

- Residential Rates:
  - Increase BSC to 75% MC
  - Inverted 2-block rate, 2<sup>nd</sup> block toward MC
- Commercial/Industrial Rates:
  - Establish BSC at 75% MC
  - TOU charges for Medium customers in downtown network
  - Demand charges recover larger portion of distribution
    - Installed kVA-based rates for large customers

## Rate Recommendation 2017-2018

- TOU energy rates an option for all with AMI
- Residential Rates:
  - Increase BSC to 100% MC
  - Continue setting 2<sup>nd</sup> block rate closer to MC
- Commercial/Industrial Rates:
  - Increase BSC to 100% MC
  - Increase kVA demand charge to recover more fixed distribution cost