



 **Seattle City Light**

Strategic Plan Update

Utility Select Committee

June 23, 2014

www.seattle.gov/light/strategic-plan

WHAT WILL WE COVER TODAY?

- **Importance of a strategic plan**
- **Mayor's rate design proposal**
- **Why adjust rate design now?**
- **What rate design process did we follow?**
- **Issues raised**

IMPORTANCE OF A STRATEGIC PLAN

- **A Strategic Plan is the foundation for organizational performance and our service to customers.**
- **It integrates the Utility's strategy with the biennial budget and rates.**
- **It ensures discipline in adhering to the adopted rate path.**

PERFORMANCE 2003-2013: EXAMPLE METRICS

	2003	2013
FINANCIAL		
Debt Service Coverage	1.56	1.85
Debt-to-Capitalization Ratio	84%	62%
S&P Bond Rating	A-	AA
Net Income (\$M)	-\$8	\$110
Rate Stabilization Account	No	Yes
POWER SUPPLY		
Energy Conserved (aMW)	7.0	14.7
Boundary License	Expired 2011	Renewed-42 years
BPA Contract Renewal	2001-2010	2011-2028
Climate Neutrality	No	Yes
CUSTOMER SERVICE		
JD Power-Customer Satisfaction		
Residential	#18	#3
Business	n/a	#1
Rates Lowest of 25 Largest Cities	#5	#1
New Service Connection (days)	100	40
Asset Management	None	WAMS
Avg # Outages/Customer	1.6	0.9
Avg Duration of Outages (minutes)	77.8	68.7

Mayor's Rate Proposal for 2015-2016

Rates and bill calculator are available at:

[http://www.seattle.gov/light/stratplan/docs/SCL Bill Calculator.xlsx](http://www.seattle.gov/light/stratplan/docs/SCL_Bill_Calculator.xlsx)

CITY LIGHT RATE-MAKING PRINCIPLES SINCE 1970s

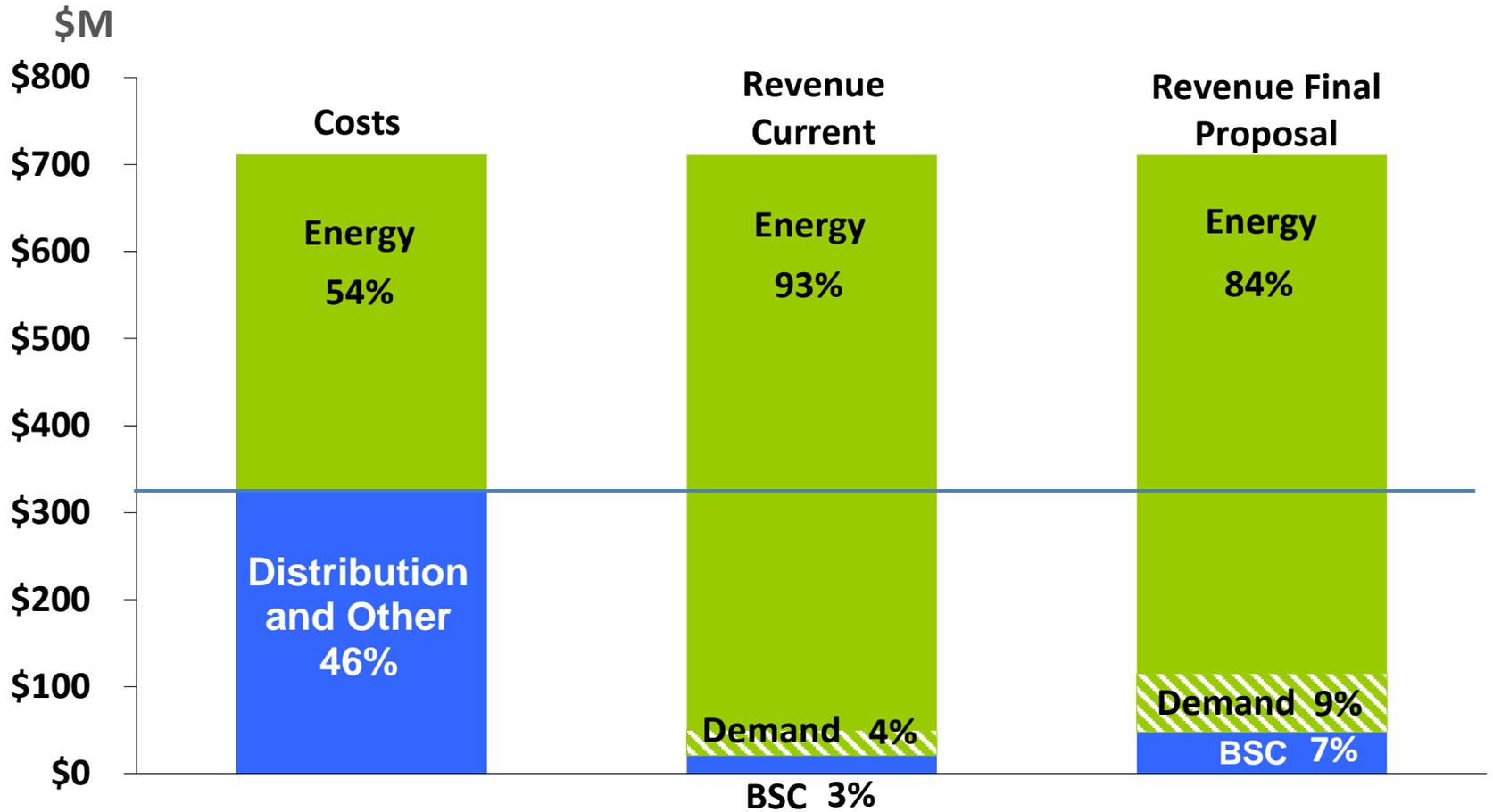
- **Equity** – customers should pay for the costs they impose on the system
- **Efficiency** – charges should incentivize customers to make good economic choices
- **Stability** – rates should not change too rapidly over time
- **Revenue recovery** – rates should recover City Light's costs

RATE DESIGN FINAL PROPOSAL HIGHLIGHTS

- 1. Increase fixed cost recovery while maintaining a price signal for energy that continues to drive conservation.**
 - **Base service charges**
 - **Demand/infrastructure charges**

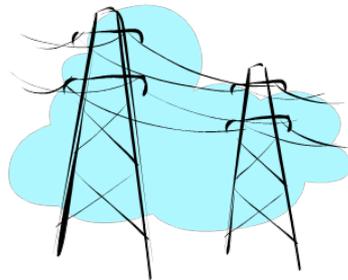
- 2. Maintain Utility Discount Program (UDP) subsidy at 60%.**

FIXED AND VARIABLE COMPONENTS: FINAL PROPOSAL



COSTS REFLECTED IN RATE SCHEDULES - DEFINITIONS

- **Energy costs (variable) – cost to produce (or buy wholesale) each kWh of commodity electricity.**



- **Distribution infrastructure costs (fixed) – cost to own and maintain the poles, wires, substations and equipment needed to deliver power to customers (cost is proportional to kW of peak demand used by customers)**
- **Customer service costs (fixed) – cost for labor and systems needed to serve a customer regardless of energy used: reading meters, processing customer bills, answering customer phone calls, and opening and closing accounts.**

RESIDENTIAL RATES (CITY)

<i>Residential - City</i>	BSC (per meter/ month)	First Block	End Block	First Block Monthly kWh (Summer/Winter)
2014 Rate	\$4.82	\$0.0506	\$0.1149	300/480
2015 Proposed Rate	\$6.53	\$0.0264	\$0.1220	300
2016 Proposed Rate	\$6.67	\$0.0279	\$0.1290	300

Increases fixed cost recovery while enhancing the energy price signal.

SMALL GENERAL SERVICE RATES (CITY)

<i>Small - City</i>	Base Service Charge (per meter/month)	Energy
2014 Rate	\$0	\$0.0764
2015 Proposed Rate	\$30.60	\$0.0667
2016 Proposed Rate	\$31.80	\$0.0703

Introduces a fixed cost charge and maintains a significant price signal.

MEDIUM GENERAL SERVICE RATES (CITY)

<i>Medium - City</i>	BSC (per meter/ month)	Demand (\$/kW)	Energy (\$/kWh)
2014 Rate	\$0	\$2.18	\$0.0606
2015 Proposed Rate	\$18.90	\$4.20	\$0.0577
2016 Proposed Rate	\$19.50	\$4.36	\$0.0610

Adds a base service charge and increases the demand charge while ensuring a strong energy price signal.

LARGE GENERAL SERVICE RATES (CITY)

<i>Large- City</i>	BSC (per meter/ month)	Peak Demand (\$/kW)	Peak Energy (\$/kWh)	Off-Peak Energy (\$/kWh)
2014 Rate	\$0	\$1.52	\$0.0690	\$0.0463
2015 Proposed Rate	\$618	\$4.21	\$0.0642	\$0.0428
2016 Proposed Rate	\$632	\$4.33	\$0.0682	\$0.0455

Adds a base service charge and increases the demand charge while ensuring a strong energy price signal.

Rate Design

Why change now?

CHANGES IN CITY LIGHT'S OPERATING ENVIRONMENT

- **Adequate energy (kWh) supply**
- **2/3 of capital investment is in local infrastructure – transmission, distribution & substations (\$200 M per year)**
- **Customers are using less kWh but requiring similar amount of wires, transformers, etc. to meet peak load**
 - **Costs should be reflected in higher demand (kW) charges**
 - **Or an infrastructure charge where demand is not metered**

Rate Design

What process did we follow?

IMPORTANT MILESTONES IN TWO-YEAR REVIEW PANEL-LED PROCESS



2012 (9 meetings) –

- Rate Policy Work Plan developed (*April*)
- Council adopts Resolution 31351 on rate design to guide Review Panel (*May*)

2013 (12 meetings) –

- Phase 1 Rate Design Outreach (*September*)
- Rate design concepts developed (*November*)
- Phase 2 Rate Design Outreach (*December*)

2014 (6 meetings) –

- Rate design outreach results reviewed and analyzed (*February*)
- Rate Design Proposal presented (*March*)
- Strategic Plan Update & Rate Design Recommendations finalized (*April*)

TOPICS & ISSUES COVERED

Rate Design Basics

- Guide to rate making
- Cost of service allocation
- Marginal costs in rate setting

Industry Changes

- Making Cost-Effective Energy Efficiency Fit Utility Business Model
- Competitive Procurement of Electricity Resources
- Best practices & industry trends

Promoting Energy Efficiency

- Decoupling
- Use of block rates
- Rate structures to encourage energy efficiency
- Price elasticity of demand for energy
- Demand charges

Equity & Social Justice

- Low Income rate impacts
- Best practices for customer outreach in rate process

FEEDBACK FROM PUBLIC OUTREACH

Maintain the
Utility Discount
Program at 60%

Rate
predictability is
very important
to us

Support increasing
fixed cost
recovery & base
service charges

Support
demand
charge
increase, but
consider pace

Retain incentives
for conservation

REVIEW PANEL RECOMMENDATIONS



- **The Panel (*except one member*) supports the 2015-2016 rate design proposal.**
- Key adjustments made by City Light to secure support of Panel members:
 - (1) Residential energy block prices
 - (2) Demand charges increased less
 - (3) Increase in UDP enrollment
- More discussion for long-term
 - Residential representative would postpone changes

Rate Design

Issues Raised:

Dampening of Price Signal for Energy Efficiency

Equity

PRICE SIGNAL: EXAMPLE PROJECT 1 – LARGE NETWORK



Commercial High Rise - LED Retrofit

- 111,996 kWh/year
- \$34,218 Total Incremental Cost
- \$20,943 SCL Incentive
- \$13,275 Customer Cost

Calculations

$(111,996/8760)/0.541 = 23.6$ kW estimated monthly demand savings

2015 Proposed Rates: \$0.0649/kWh
 \$11.09/kW-month →

\$7,269 Energy Savings
 \$3,144 Demand Savings
\$10,412 Annual Savings **1.3 year payback**

2015 Rates w/ Current Design: \$0.0812/kWh
 \$5.92/kW-month →

\$9,094 Energy Savings
 \$1,678 Demand Savings
\$10,772 Annual Savings **1.2 year payback**

PRICE SIGNAL: EXAMPLE PROJECT 2 – LARGE NETWORK



Hotel - HVAC Variable Speed Drive

- 598,541 kWh
- \$494,081 Total Incremental Cost
- \$151,775 SCL Incentive
- \$342,306 Customer Cost

Calculations

$(598,541/8760)/0.506 = 134.9$ kW estimated monthly demand savings

2015 Proposed Rates: \$0.0649/kWh
\$11.09/kW-month



\$38,845 Energy Savings
\$17,956 Demand Savings
\$56,802 Annual Savings

6.0 year payback

2015 Rates w/ Current Design: \$0.0812/kWh
\$5.92/kW-month



\$48,602 Energy Savings
\$9,585 Demand Savings
\$58,187 Annual Savings

5.9 year payback

PRICE SIGNAL: EXAMPLE RESIDENTIAL SOLAR

3.5 kW System

3,650 kWh production annually

Initial Cost: \$16,900

Federal Tax Credits (30%) - 5,070

Cost to Customer \$11,830

Annual Credits:

State Production Incentive \$1,970 (80% of payback)

2015 Value of Self-Generated Energy (20% of payback)

Proposed Design: \$445 Current Design: \$443



With current production incentives, this solar installation will pay for itself in 4.9 years under both the proposed and current rate design.

EQUITY (PAYMENT OF TRUE COST OF SERVICE): COST SHIFT

with Solar & Conservation
667 kWh

Apartment
500 kWh
Monthly Bill

~~\$37~~ \$44

UDP SF Home
800 kWh
Monthly Bill

~~\$27~~ \$32

SF Home
1,000 kWh
Monthly Bill

~~\$98~~ \$116

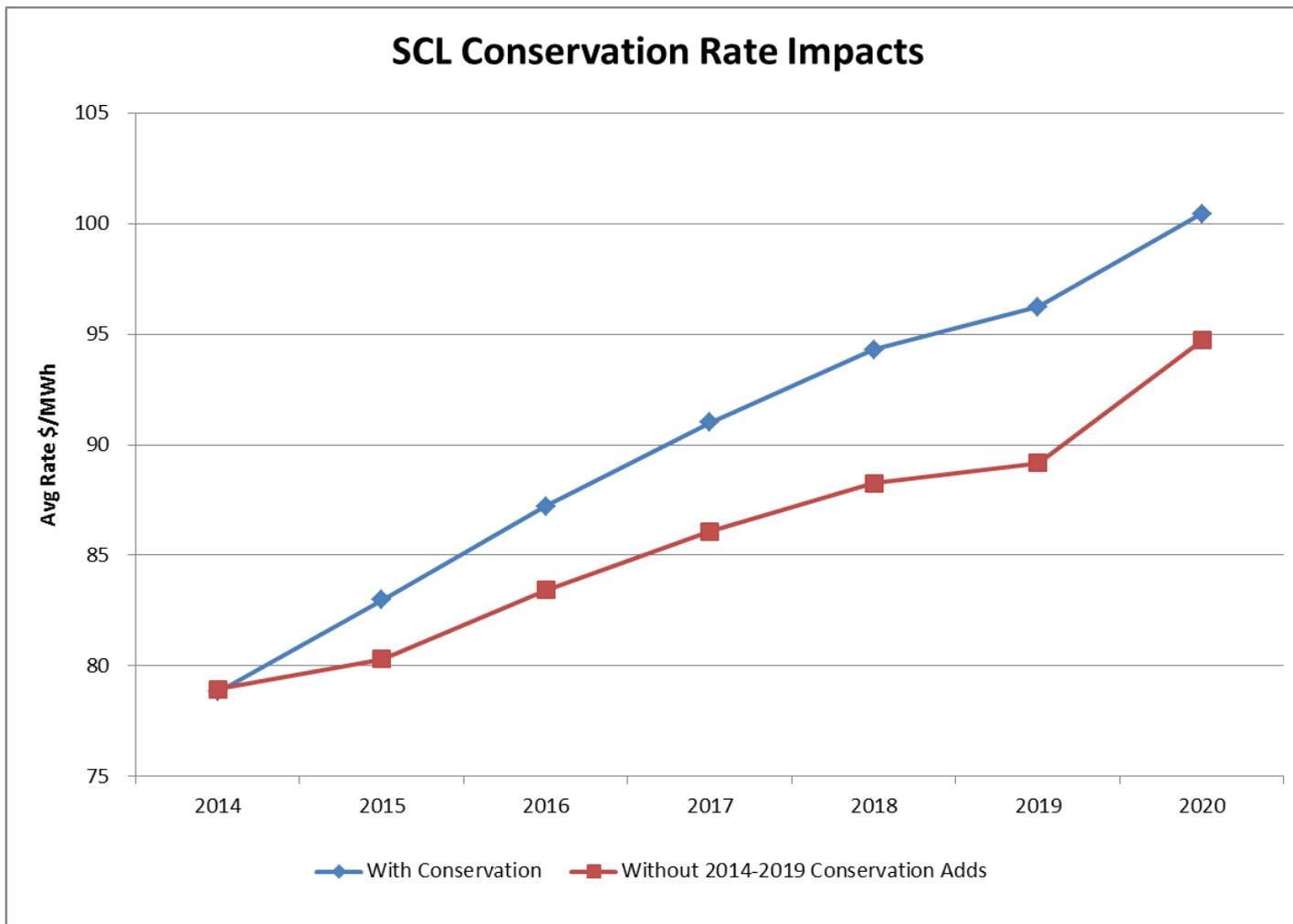
SF Home
1,000 kWh
Monthly Bill

~~\$98~~ \$68

System consumption is reduced + (fixed) costs don't change = rate increase.



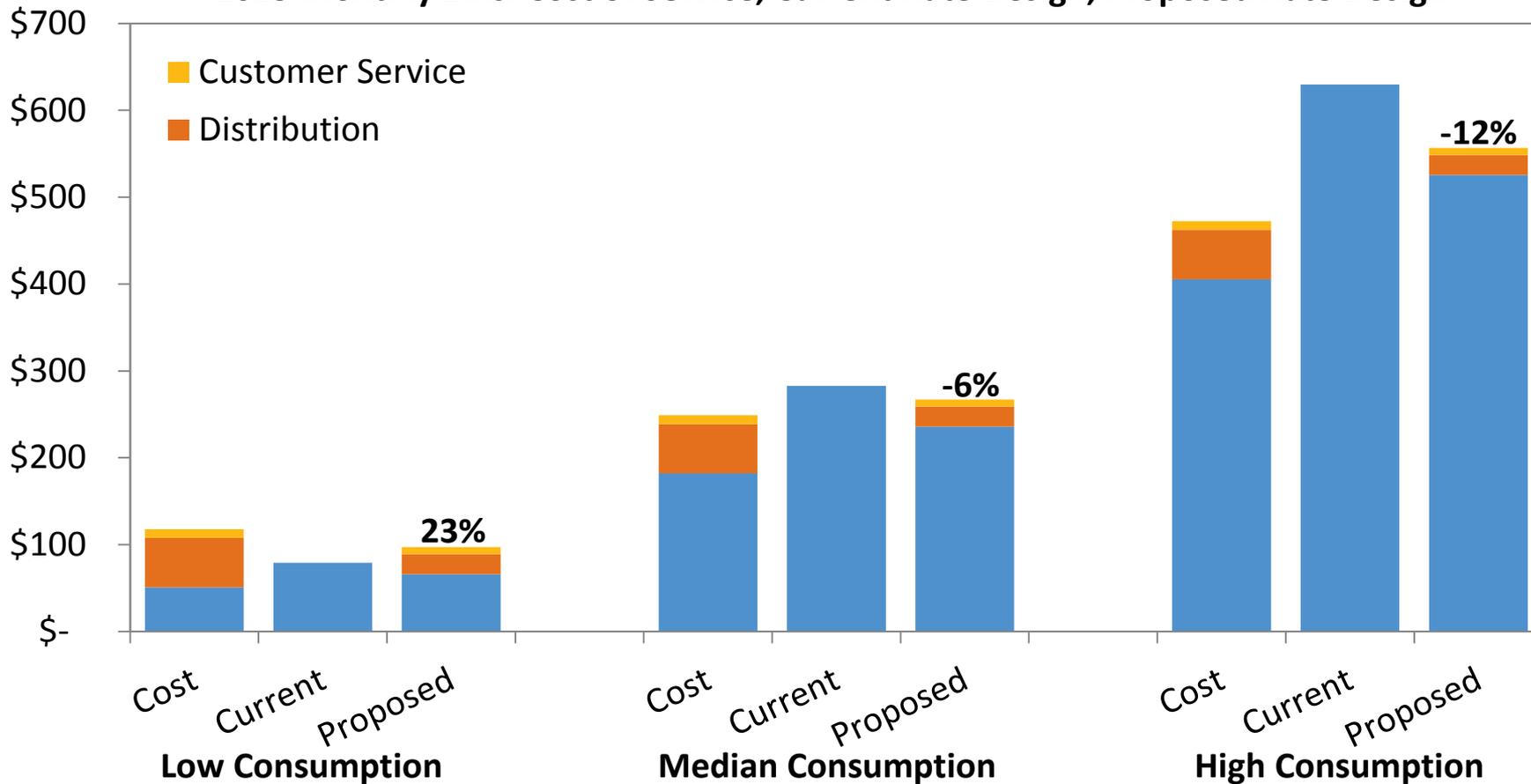
EQUITY: ENERGY EFFICIENCY SAVINGS = RATE PRESSURE



EQUITY: SMALL GENERAL SERVICE EXAMPLE

Small General Service Customers

2015 Monthly Bills: Cost of Service, Current Rate Design, Proposed Rate Design



CONCLUSION

City Light recommends Council approval of the Mayor's Strategic Plan recommendation, including the rate design principles.

- Process included more than 2 years of Review Panel deliberation and extensive community outreach.
- It's time to begin to address the rate design issues related to capital investment and fixed costs.

The future:

- A longer-term strategy for rate design is needed, and City Light commits to participating in that discussion with all stakeholders.
- In view of almost flat load growth and the choices our customers have today to achieve greater energy independence, City Light—like other utilities—will have to assess its role in providing energy services to them.