



ENERGY EFFICIENCY

Review Panel Briefing

November 2016

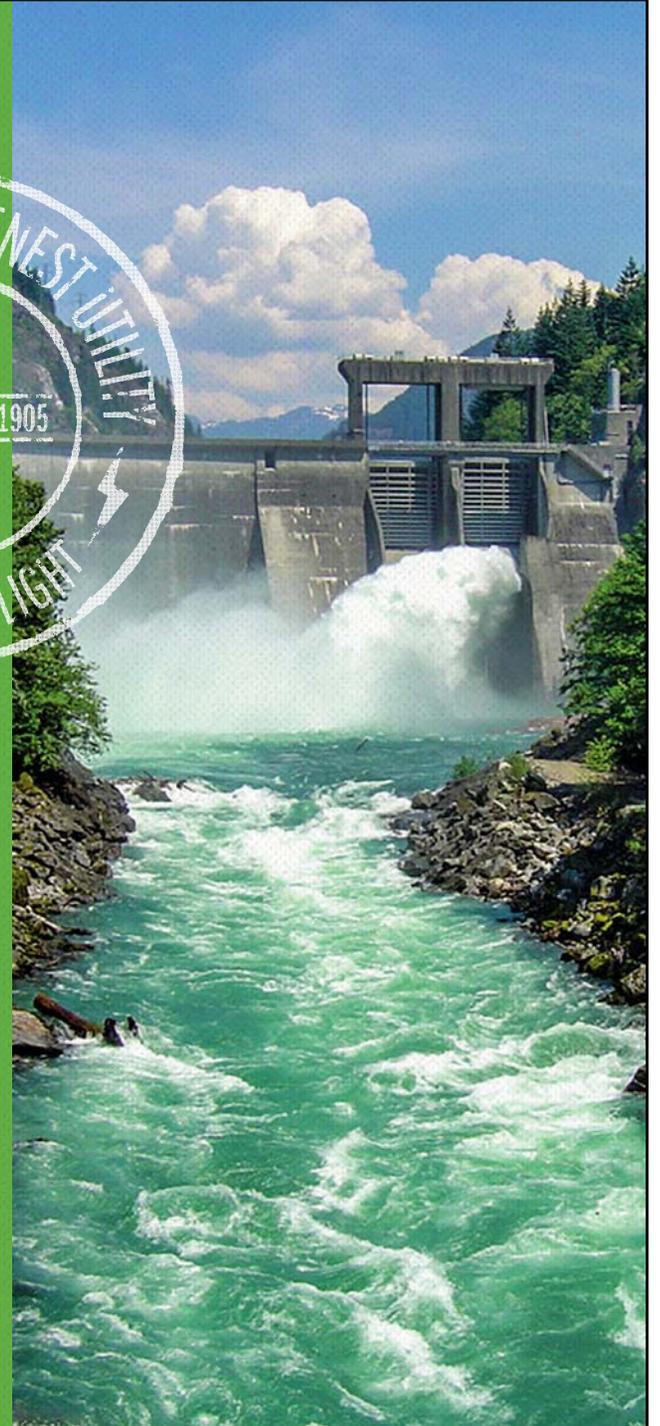


OUTLINE

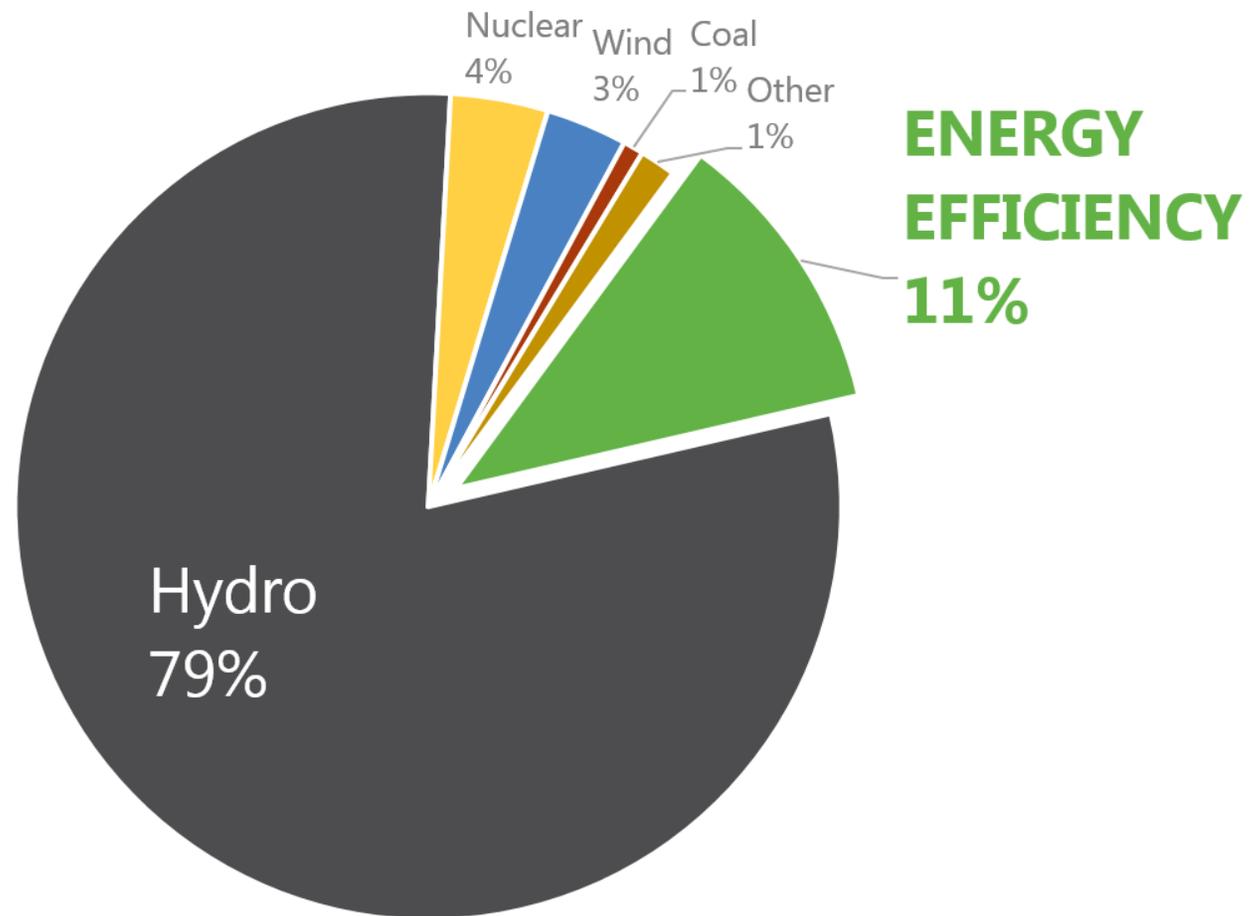
- **EE Value and Cost** *Resource portfolio perspective*
- **Current Programs** *Description of current offerings*
- **Innovation** *Notable projects and initiatives*
- **Benchmarking** *Comparison to peer organizations*
- **Future of EE** *Focus areas for the Division going forward*



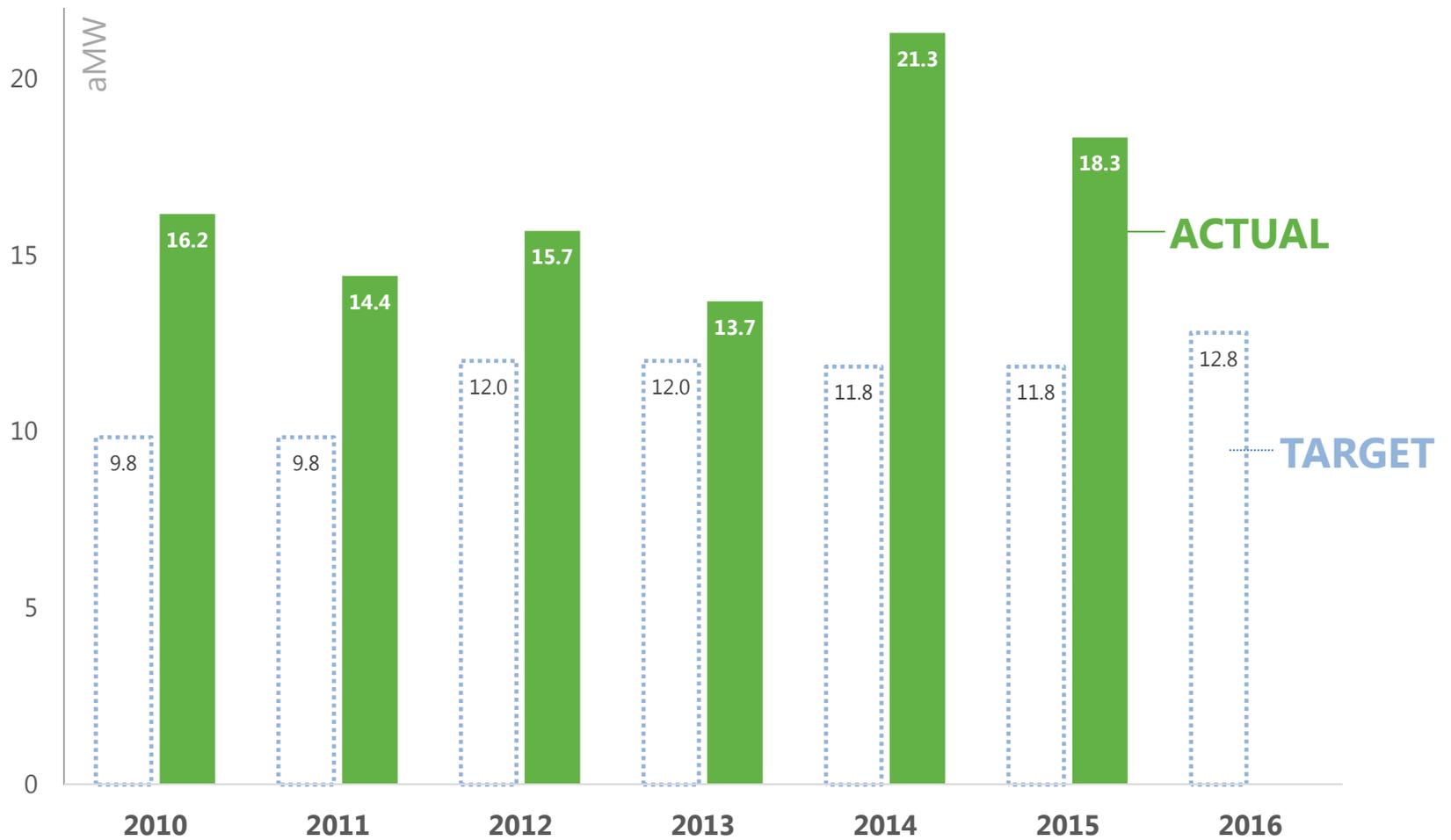
EE VALUE AND COST



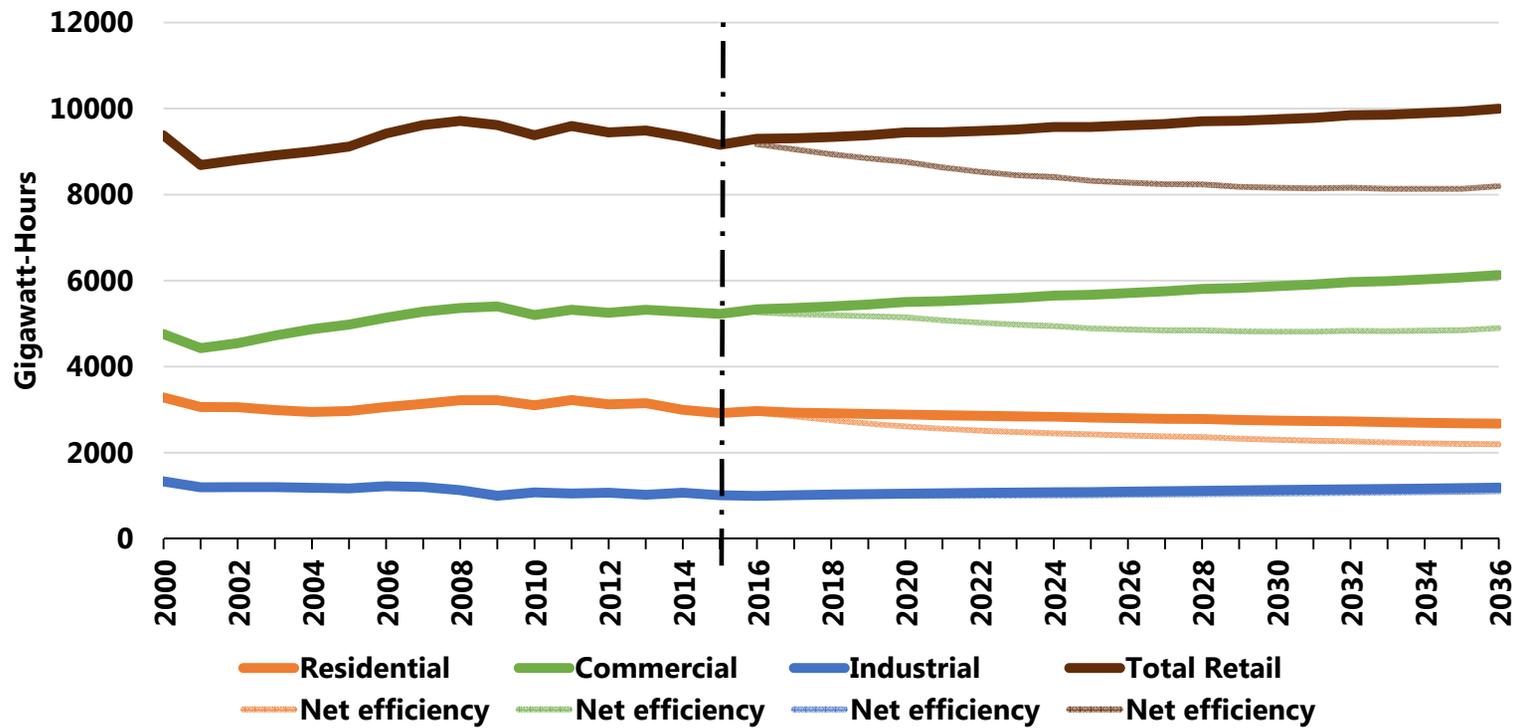
CURRENT RESOURCES



ANNUAL TARGETS



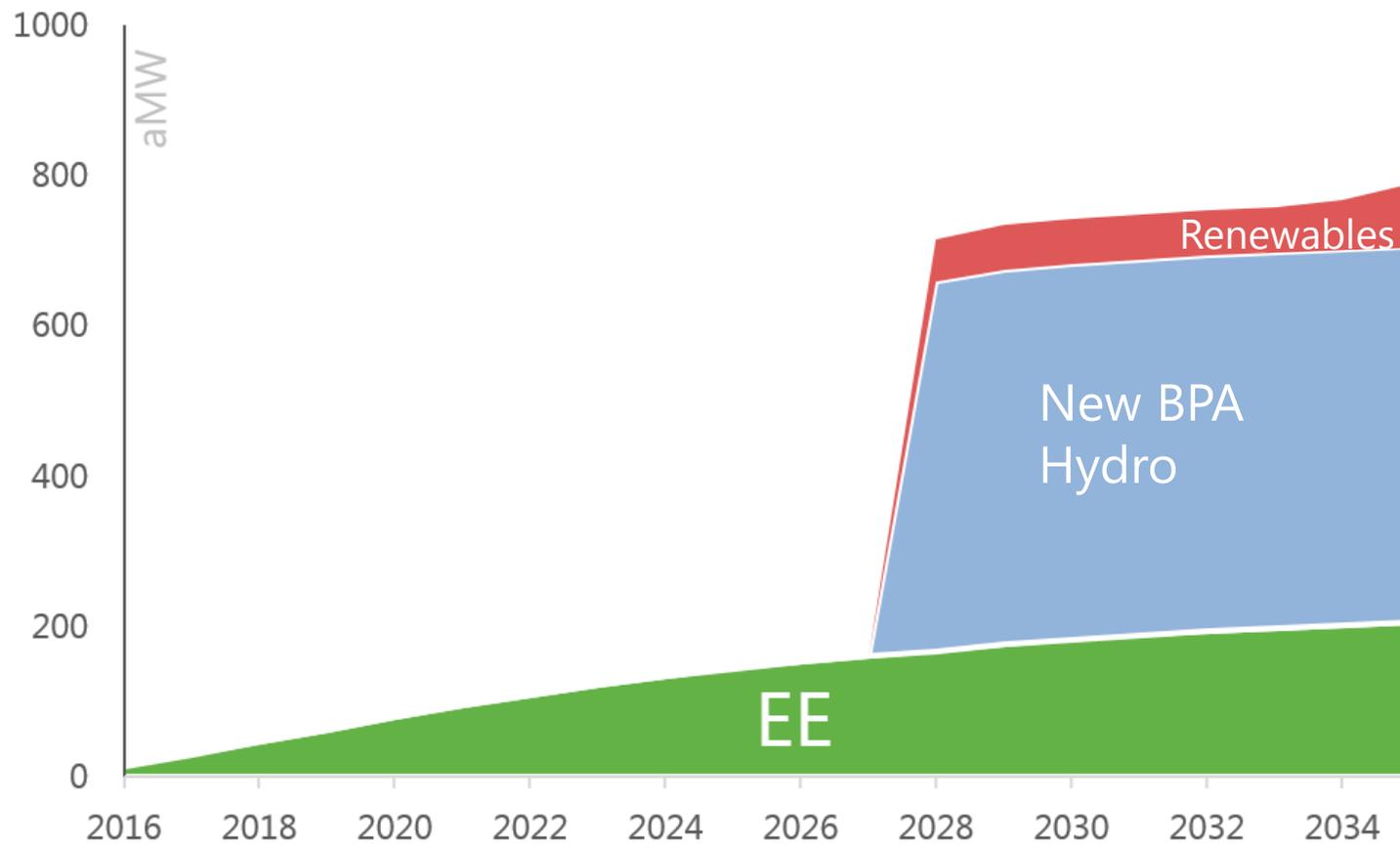
LOAD HISTORY & FORECAST BY CUSTOMER CLASS



Forecasted 20-year Average Growth Rates (net new utility energy efficiency)

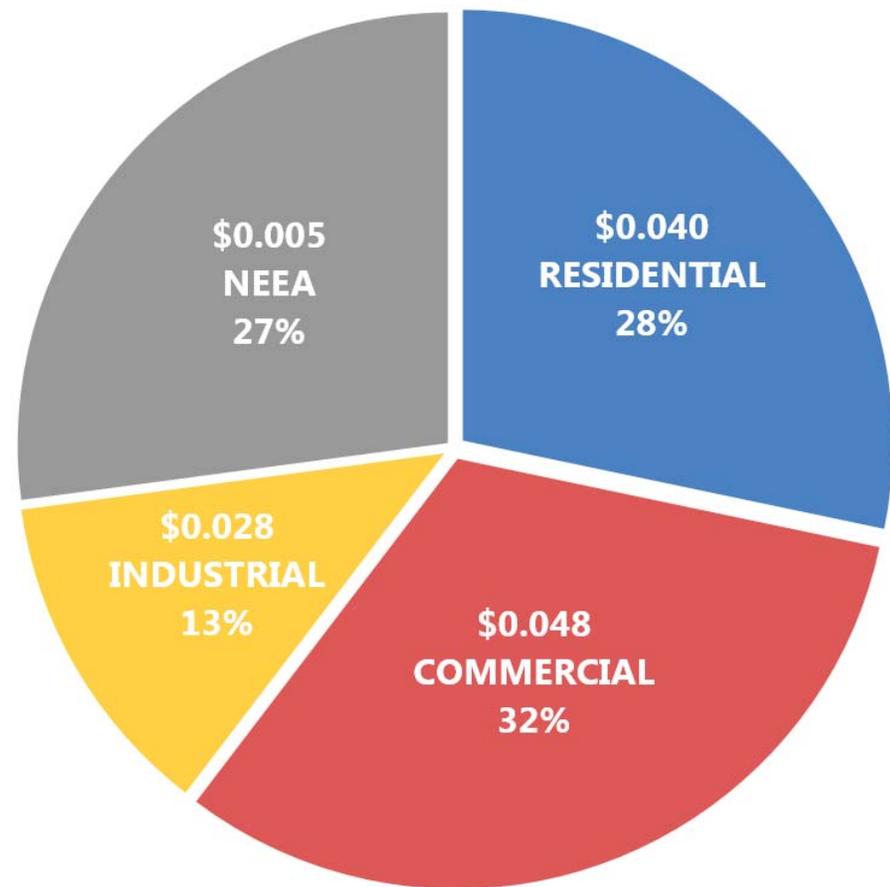
Total Retail: 0.36% (-0.6%) Commercial: 0.7% (-0.4%)
Residential: -0.5% (-1.4%) Industrial: 0.9% (0.6%)

NEW RESOURCES



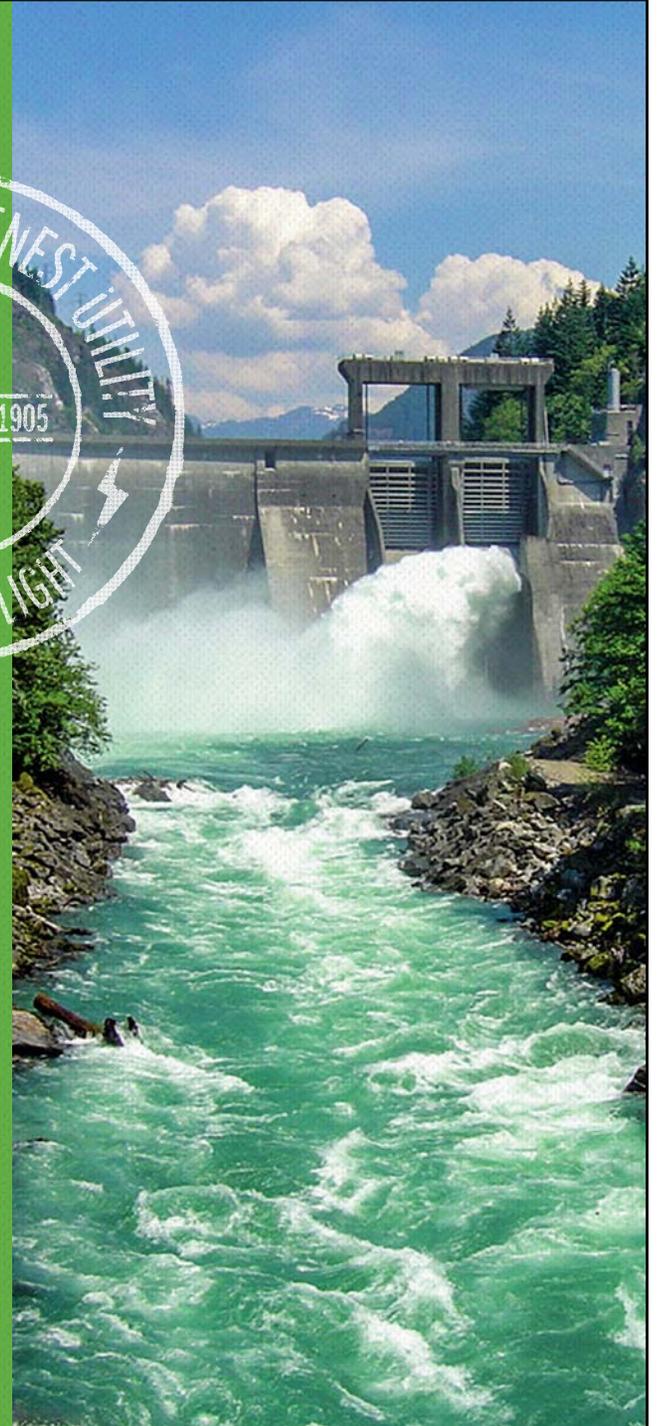
COST OF ACQUISITION

- Total cost for energy efficiency acquired in 2015 was ~\$0.03/kWh levelized





CURRENT PROGRAMS



RESIDENTIAL PROGRAMS

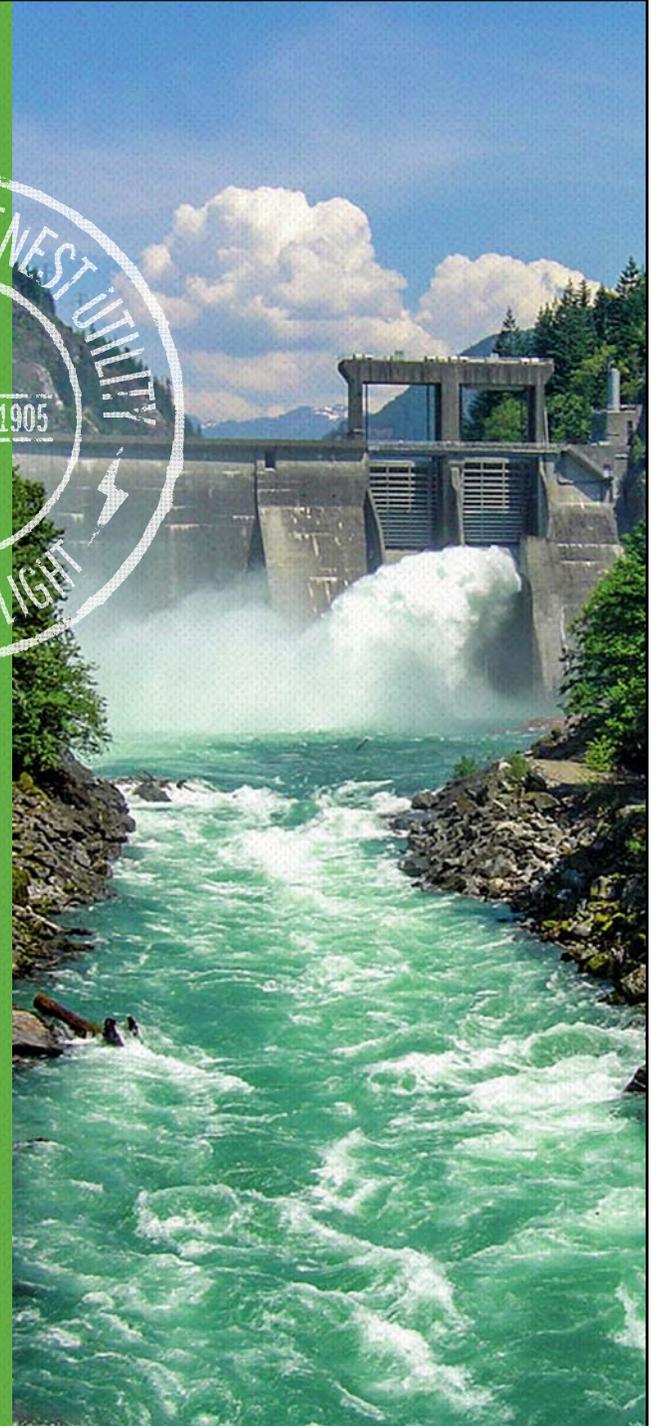
- HVAC/Weatherization Rebates
- Appliance Rebates
- Retail Lighting→  \$0.02/kWh
14% of total savings
- Direct Install
- Behavioral Program→  \$0.02/kWh
9% of total savings
- Income Qualified

COMMERCIAL PROGRAMS

- Commercial Retrofit →  \$0.045/kWh
21% of total savings
- Small Business
- Commercial New Construction
- Multifamily
- Industrial →  \$0.03/kWh
12% of total savings



INNOVATION



PAY-FOR-PERFORMANCE PROGRAM (P4P)



- Incentives for commercial buildings based on actual verified energy savings
- Contrast with traditional one-time rebates for a equipment
- Can encourage deeper and more sustained projects

P4P BUILDINGS

One Union Square



37 story high
rise tower

Lake Union Building



7 story low rise
office building

1111 Third Ave



34 story high
rise tower

Bullitt Center



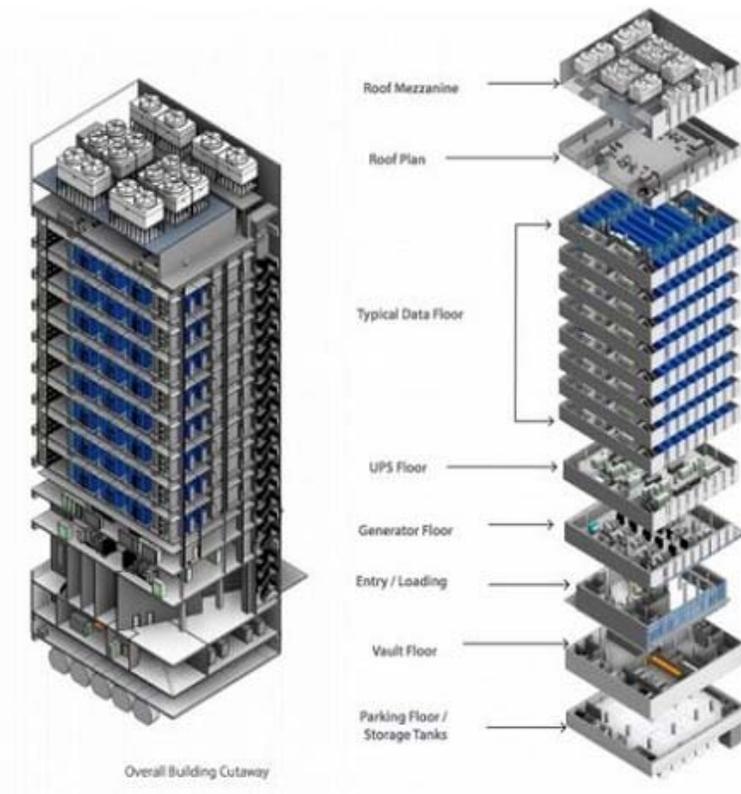
New
construction
mixed-use
building

LED PUSH IN RESIDENTIAL

- Since 2015, City Light programs have focused on LEDs:
 - Operation LED - mailed a free LED to 113,202 residential customers
 - Powerful Neighborhoods - installed 116,816 LEDs in MF homes.
 - Retail - offered an instant discount on 1,603,746 LEDs



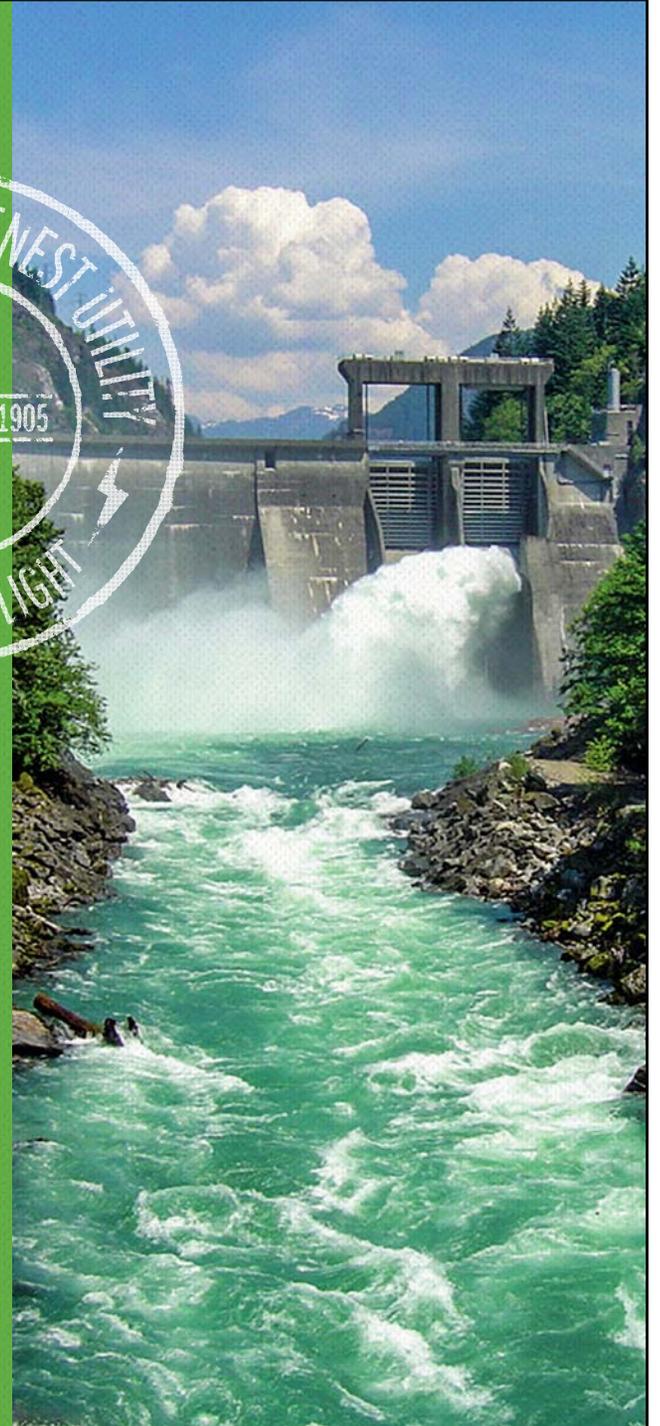
WASTE HEAT RECOVERY



- Heat from 34-story Westin Building used to warm 4 million square feet of Amazon's four block campus
- 80 million kilowatt-hours savings over 20 years
- First large high-rise project using this amount of waste heat



BENCHMARKING



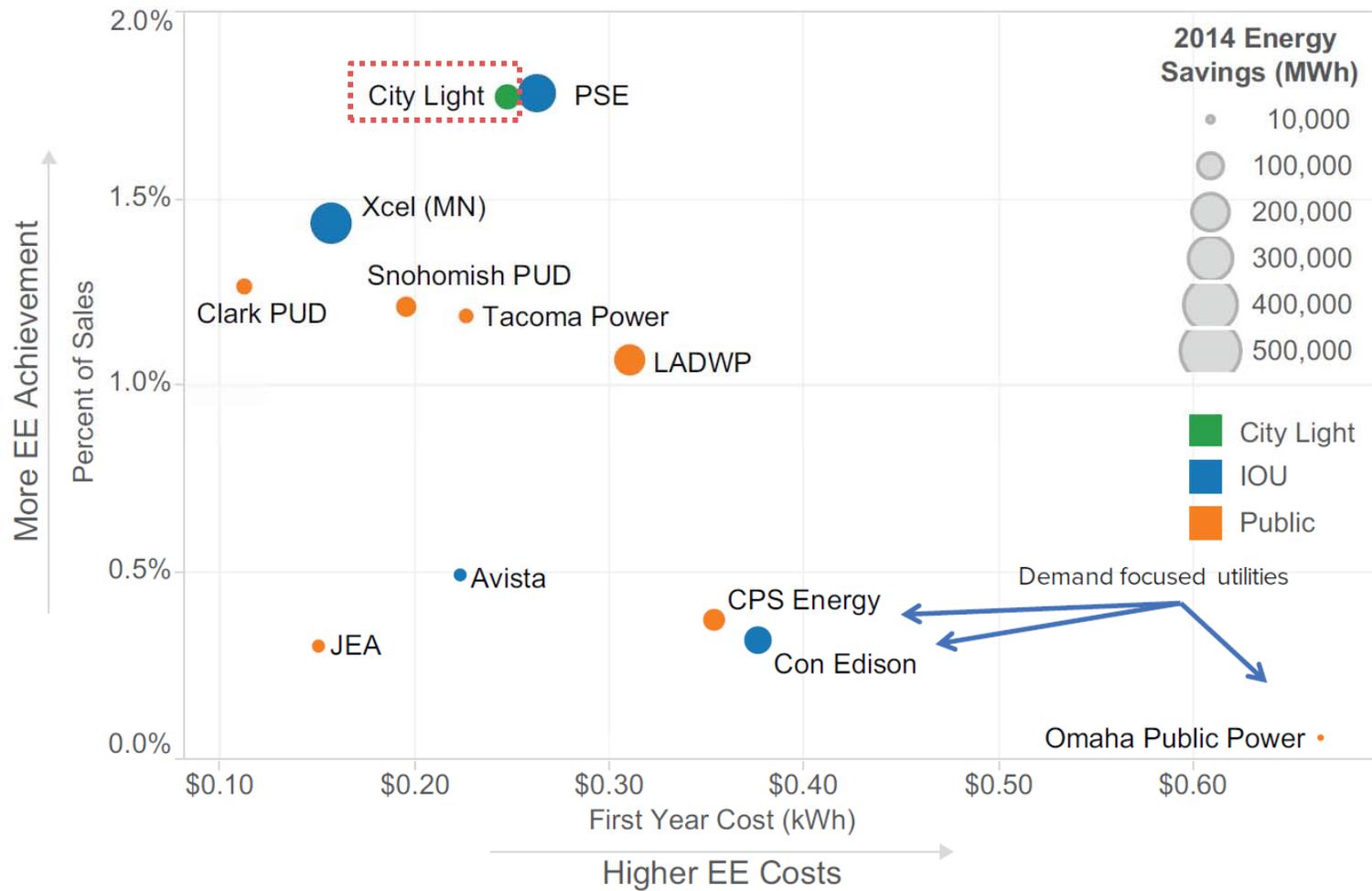
BENCHMARKING STUDY

- In 2015, City Light conducted a benchmarking study of the EE programs (vendor was EMI)
- Recruited 12 other utilities peer utilities
- Conducted in-depth interviews with division leadership at each utility.
- Received quantitative energy efficiency and renewables data.

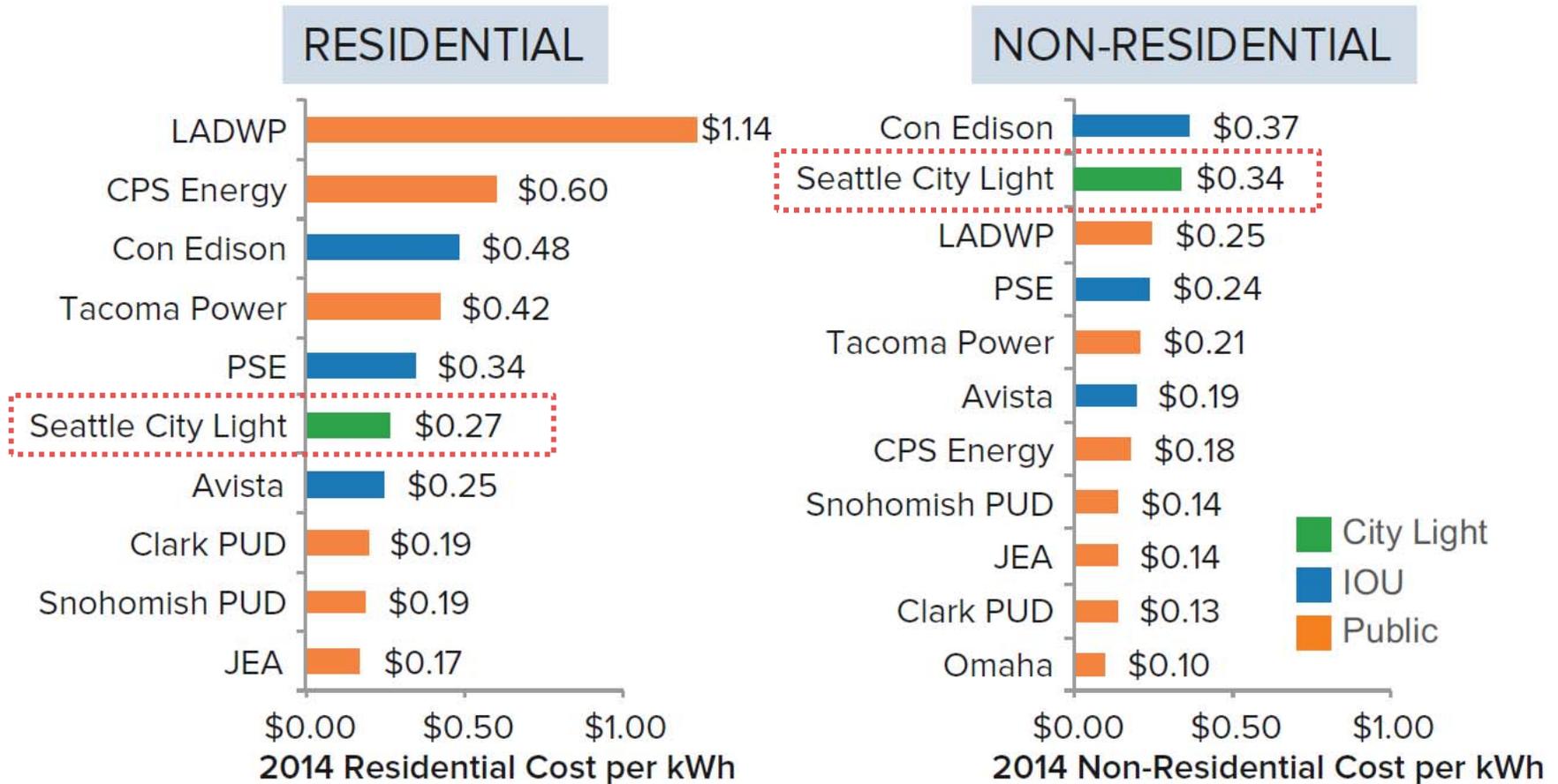
KEY FINDINGS

- **High Performer**
 - **Energy Savings** – Cost/kWh and EE savings as a percent of sales
 - **Investment** – City Light invests more in energy efficiency relative to most peer utilities, in terms of both FTEs and budget.
 - **Social Equity Initiatives** – City Light was one of only two utilities with internal social equity initiatives.
- **Low Performer**
 - **Commercial Costs** – Commercial programs are higher cost than most other utilities
 - **Sophistication of Data Tools** – Nearly all utilities in the study had more sophisticated business analytics and program data management tools than City Light

OVERALL ENERGY EFFICIENCY KPI'S

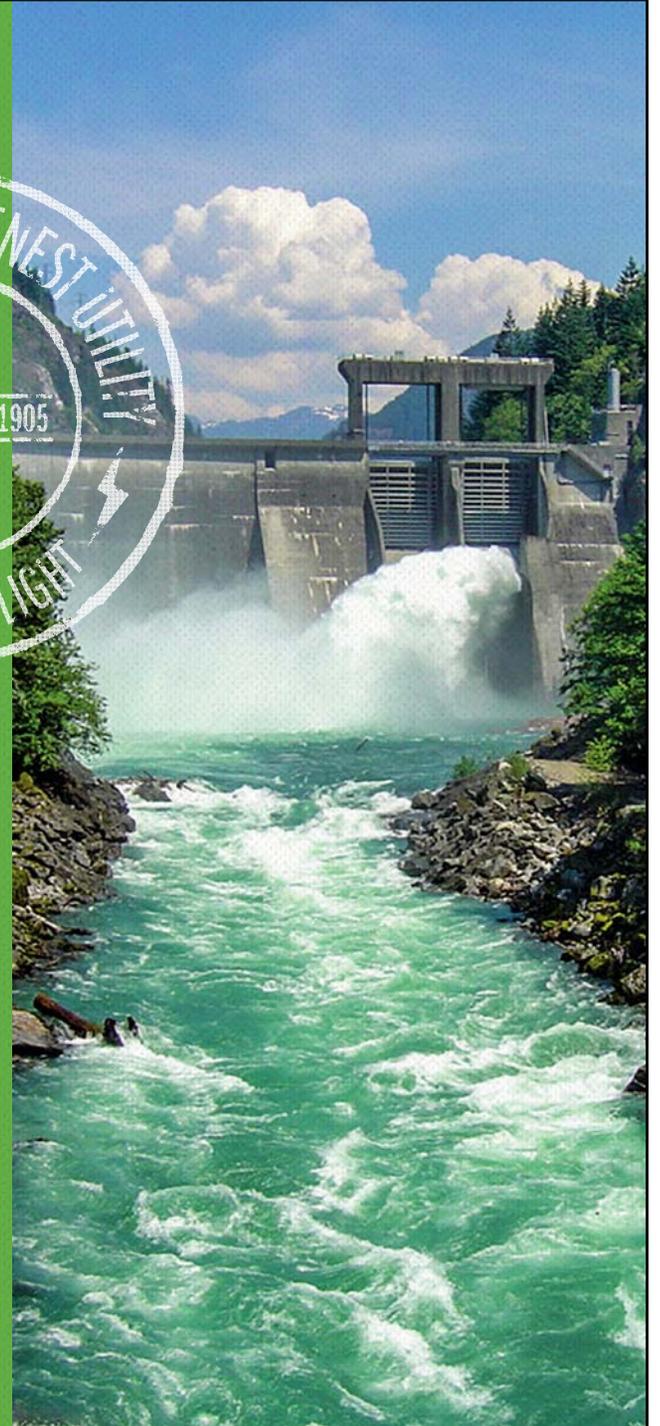


\$/KWH BY SECTOR





EE FUTURE



IMPROVING OUR OPERATIONS

- Division-wide focus on process improvement and lifecycle approach to program design
 - More streamlined participation for our commercial incentive programs
- Organized to align around functional area and matrix managed environment
 - New name and structure (CRD→CES)
 - Dedicated program design team

TECHNOLOGY AND MARKETS

- Source of energy savings is changing
 - Less discrete appliances and electronics
 - Much more whole building measures, which require an integrated program approach
- Looking to expand low income programs
 - Potentially with larger direct install component
- Better understand savings occurring outside programs
 - Especially in fast moving markets like lighting



OUR VISION

To set the standard—to deliver the best customer service experience of any utility in the nation.

OUR MISSION

Seattle City Light is dedicated to exceeding our customers' expectations in producing and delivering environmentally responsible, safe, low-cost and reliable power.

OUR VALUES

Excellence, Accountability, Trust and Stewardship.

