

Seattle City Light

5-Year Conservation Plan and Regional Collaboration

Conservation Resources Director
Bob Balzar



Presentation Outline:

- **Conservation Goals**
- **Scope of Efforts**
- **Key Programs and Strategies**
- **Challenges**
- **Unaddressed Opportunities**
- **SCL and NEEA**

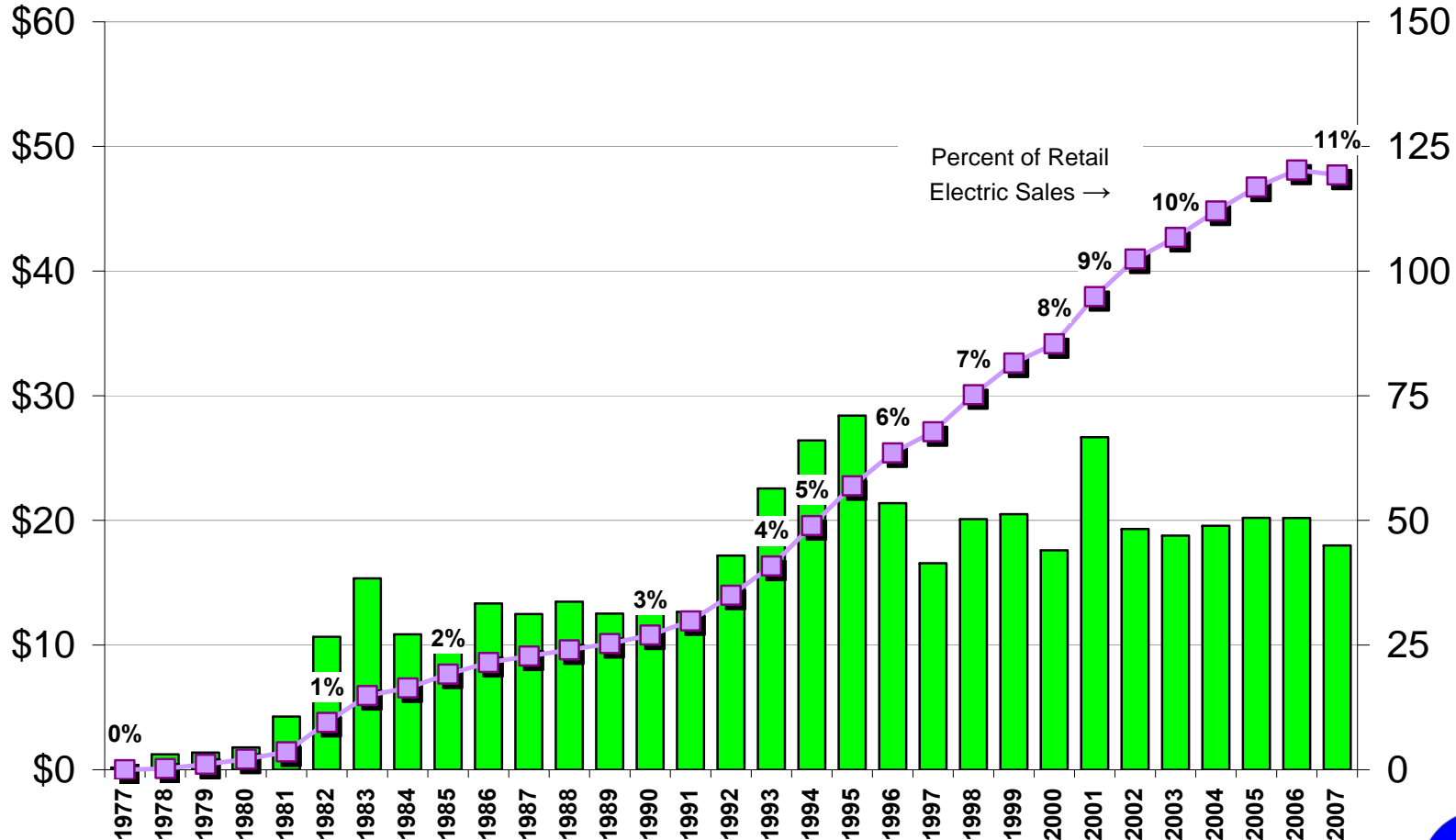


Energy Savings since 1977

Annual Expenditures and Load Reduction

Annual Total Conservation
Expenditures
(Millions, actual dollars)

Average Load Reduction in
Year (aMW)



Conservation Goals: 5-Year Plan

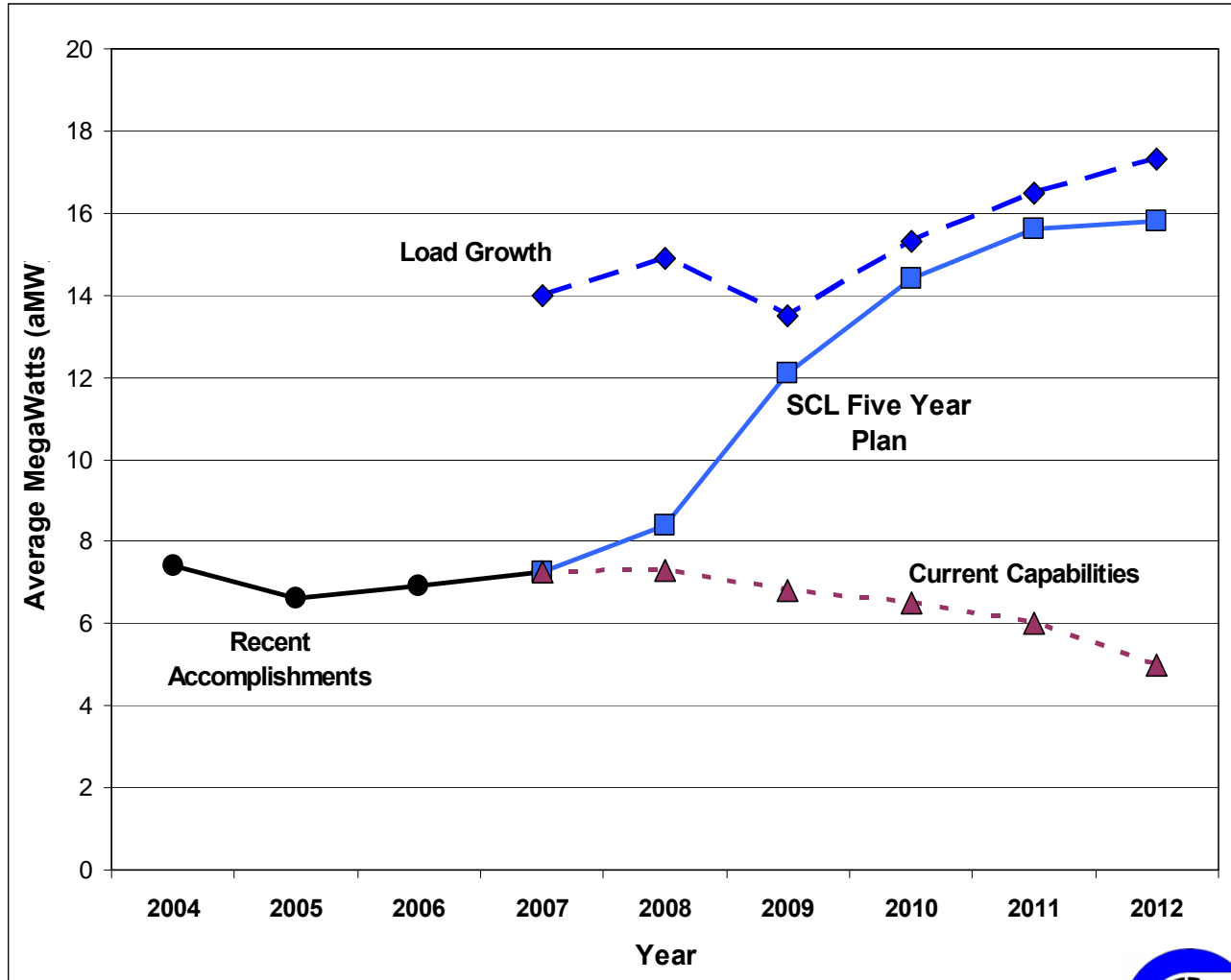
Meeting load growth through conservation

Rebuild the infrastructure

Expand existing conservation programs

Develop new conservation programs

Incorporate renewable energy and demand response

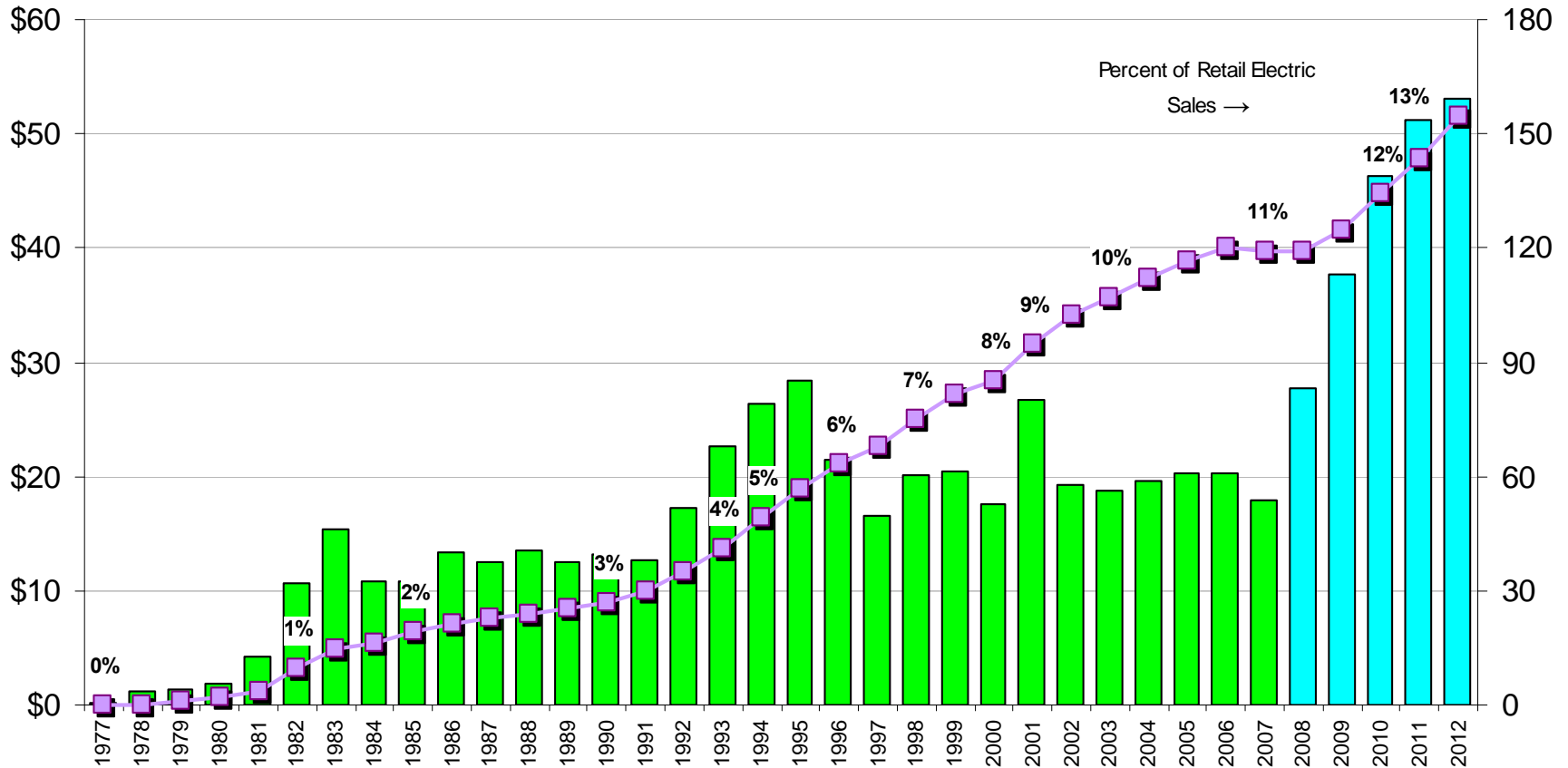


Conservation Goals: 5-Year Savings

Annual Expenditures and Load Reduction

Annual Total Conservation
Expenditures
(Millions, actual dollars)

Average Load Reduction in
Year (aMW)



Scope of Efforts:

Savings and Utility Costs

The National Leadership Path Estimated 5-Year Energy Savings and Budget

Year	aMW	MWhs	\$ Million ⁽¹⁾
2007	7.25	63,510	\$20.19
2008	8.4	73,804	\$25.03
2009	12.2	180,521	\$41.94
2010	14.5	307,070	\$46.13
2011	15.1	439,561	\$50.17
2012	15.3	573,807	\$51.33
2008-2012 TOTAL	65.5	573,807	\$214.60



Conservation Goals: 2008-2012

Portfolio Economic Analysis: Results

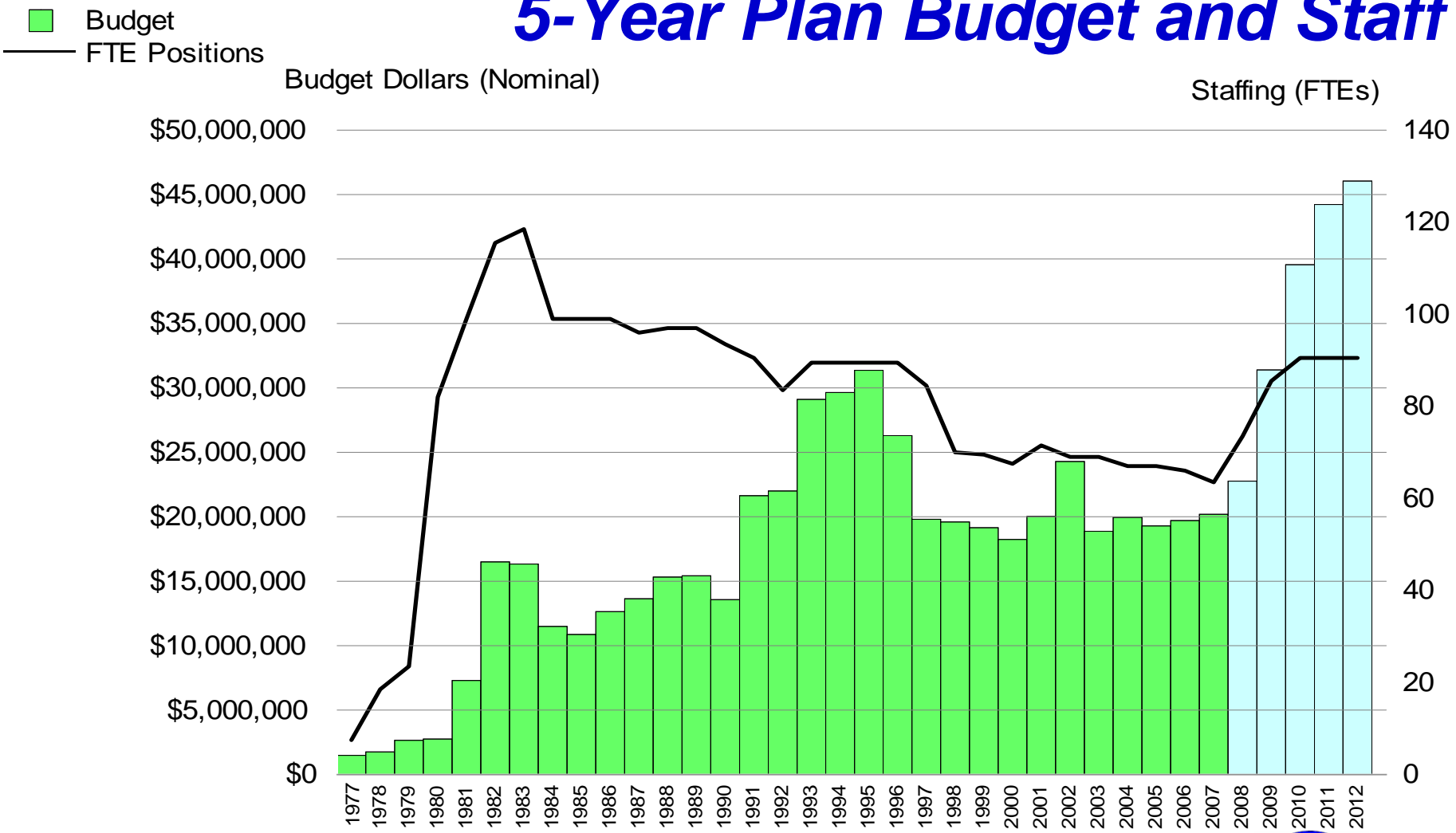
All savings delivered for less than \$35/Mwhr

Utility Program Perspective	Dollars in Millions
Avoided Power (Benefit to Utility)	\$472.2
Program Costs (Costs to Utility)	(\$198.1)
Net Benefit to Utility	\$274.1
Utility Benefit/Cost Ratio	2.38
Participating Customer Perspective	
Customer Bill Savings (Benefit to Customer)	\$309.9
Customer Conservation Cost (Cost to Customer)	(\$140.6)
Net Benefits to Customer	\$169.3
Customer Benefit/Cost Ratio	2.20
Service Territory Perspective (Total Resource Cost)	
Avoided Power (Benefit to Service Territory)	\$472.2
Total Costs (Utility + Customer Conservation)	(\$351.5)
Net Benefit to Service Territory	\$120.7
Service Territory Benefit/Cost Ratio	1.34



Scope of Efforts:

5-Year Plan Budget and Staff



Scope of Efforts:

New FTE Positions

Sector/Function	New Positions					FTEs	
	2008		2009	2010	2011	Total Added	Total in 2012
Commercial Programs	17.0		5.0	1.0	0.0	6.0	23.0
Industrial Programs	7.0		0.0	0.0	0.0	0.0	7.0
Residential Programs	9.0		1.0	0.0	0.0	1.0	10.0
Mixed Use Programs	0.0		1.0	0.0	0.0	1.0	1.0
Renewable Programs	1.0		3.0	0.0	0.0	3.0	4.0
Other Programs	6.0		2.0	1.0	0.0	3.0	9.0
Infrastructure: Management	8.0		1.0	0.0	0.0	1.0	9.0
Infrastructure: Support	10.0		0.0	0.0	0.0	0.0	10.0
Infrastructure: Planning & Evaluation	3.0		7.0	3.0	0.0	10.0	13.0
Infrastructure: Marketing	2.0		2.0	0.0	0.0	2.0	4.0
Infrastructure: M&V	0.0		1.0	0.0	0.0	1.0	1.0
Total FTEs Added	x		23.0	5.0	0.0	28.0	x
<i>Total FTEs</i>	<i>63.0</i>		<i>86.0</i>	<i>91.0</i>	<i>91.0</i>	<i>x</i>	<i>91.0</i>



Summary of Efforts: Commercial & Industrial Programs

5-Year Budget and Expected Savings by Sector/Function

Number	Sector/Function	5-Yr Total	% Of 5 Yr Total Budget	First Year MWh Saved	% of First Year Savings
100's	Commercial Programs	\$84,721,493	46.0%	350,400	58.8%
200's	Industrial Programs	\$15,325,820	8.3%	58,692	9.9%
300-400's	Residential & Mixed Use Programs	\$34,346,310	18.7%	186,588	31.3%
500's	Renewable Programs	\$5,832,830	3.2%	TBD	TBD
600's	Other Programs	\$12,618,129	6.8%	N/A	N/A
700's	Infrastructure	\$31,431,468	17.0%	N/A	N/A
	Total	\$184,276,060	100.0%	595,680	100%



Commercial & Industrial Sectors

Program Offerings

Highlights:

- 54% of budget, 69% of energy savings
- Targeting entire range of customer types, sizes (new focus on medium)
- Key end uses: lighting, HVAC (cooling and heating), industrial processes
- Retrofit and new construction
- Program mix includes SCL-delivered, contracted and trade ally-focused



Summary of Efforts: *Residential & Mixed Use Programs*

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Residential & Mixed Use Sectors

Program Offerings

Highlights:

- 18% of budget, 31% of energy savings
- Expanded range of offerings
- Lighting most significant end use
- Single and multifamily
- Retrofit and new construction
- Program mix includes SCL-delivered and contracted programs



Summary of Efforts: *Renewable Energy & “Other” Programs*

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Renewable and “Other” Program Offerings

- No Energy Savings or Production Attributed to These in Cost-Effectiveness Analysis for Portfolio During Planning Period
- Customer-Side Renewables
 - Green Up and Green Power
 - Washington State Renewable Production Incentives
 - On-Site Renewable and Cogen (comm'l/industrial)
 - Small Scale Renewable (residential)
 - Home Power with Financing (tbd)
- Other “Programs”
 - *Lighting Design Lab*
 - Green Building Team support
 - Energy Code support
 - *Northwest Energy Efficiency Alliance*
 - SCL Infrastructure Efficiency Improvements



Challenges to achieving goals:

New and existing challenges

- Impacts of current economic downturn
- Being able to find qualified and talented workforce
- Being able to reach “traditional hard to reach” customers
 - Small multifamily units with very low power bills
 - Immigrant and cultural communities
- Low rates for Seattle City Light



Unaddressed opportunities and obstacles: Technology & Behavior

- **Next Generation of Weatherization Efforts**
 - Many homes were “weatherized” in 70’s/80’s
 - However, does new technology justify an additional touch?
- **Savings Opportunities with**
 - Big Box Retailers
 - In Home Monitors
 - Change in Behavior efforts



How does NEEA fit into City Light portfolio?

Yes - Certainly in the budget for the 5 Year Plan

LDL - Increases from \$600 k in 2008 to \$1M in 2009 and 2010
Increase staff by 2 in 2009
New user friendly location with parking on 4th Ave S

NEEA - Direct funding increasing to budget authority to \$830k (placeholder) in 2010 with appropriate development of NEEA.
2010-2014 Business Plan and associated benefits
SCL sees NEEA as one of our RD&D solutions provider (this will be dependent on both NEEA Business Plan and NEET process)





Questions?

