



Seattle City Light Draft Strategic Plan

Department of Finance, Office of
Policy Management, Mayor's
Office - Part 1

Briefing - May 2008



Seattle City Light

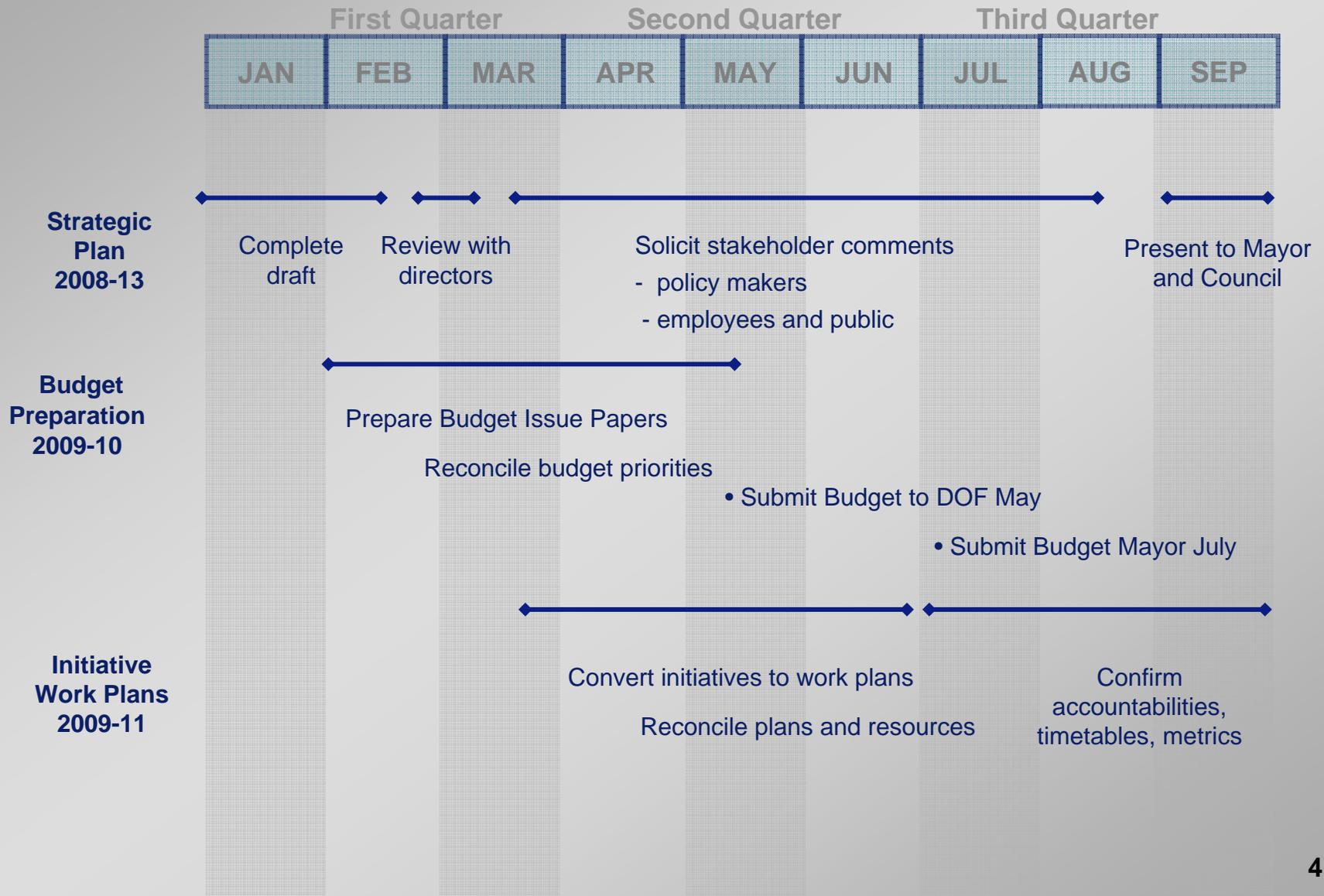
Strategic Plan

- ◆ **The process and time table**
- ◆ **The strategic landscape**
- ◆ **The plan**

Developing the Strategy



Strategic Plan Implementation Timeline



The Seattle City Light Vision

**To set the standard
and deliver the best
customer service
experience of any
utility in the nation**

The Strategic Landscape

Electric Power Industry

Regulation and Governance



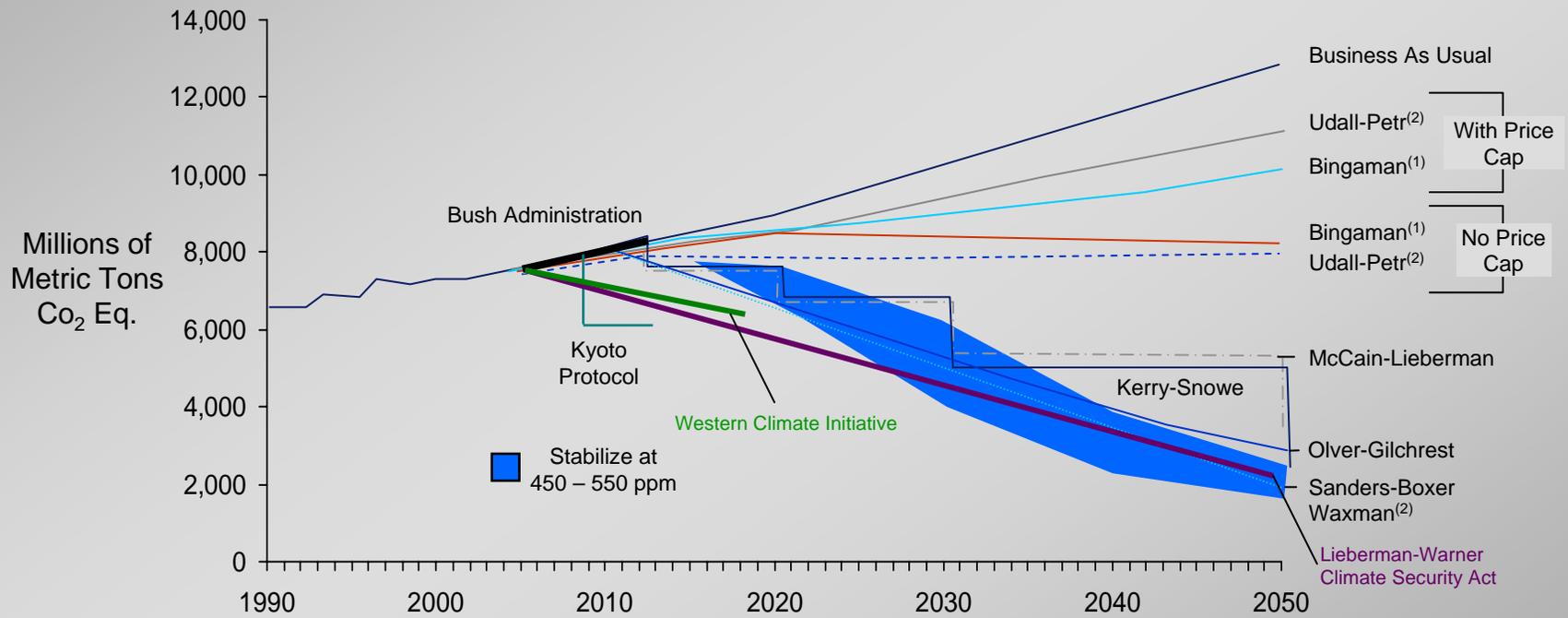
Utility Condition

Electric Power Industry

- ◆ **Changes in generation outlook**
- ◆ **The utility of the future**
- ◆ **Industry pressures and implications**

Climate Change Regulation?

Comparison of Climate Change Proposals (1990 – 2050)



(1) Discussion draft

(2) Submitted in 109 Congress

Source: ©2007, World Resources Institute

Greenhouse Gas Initiative Provisions

Lieberman – Warner

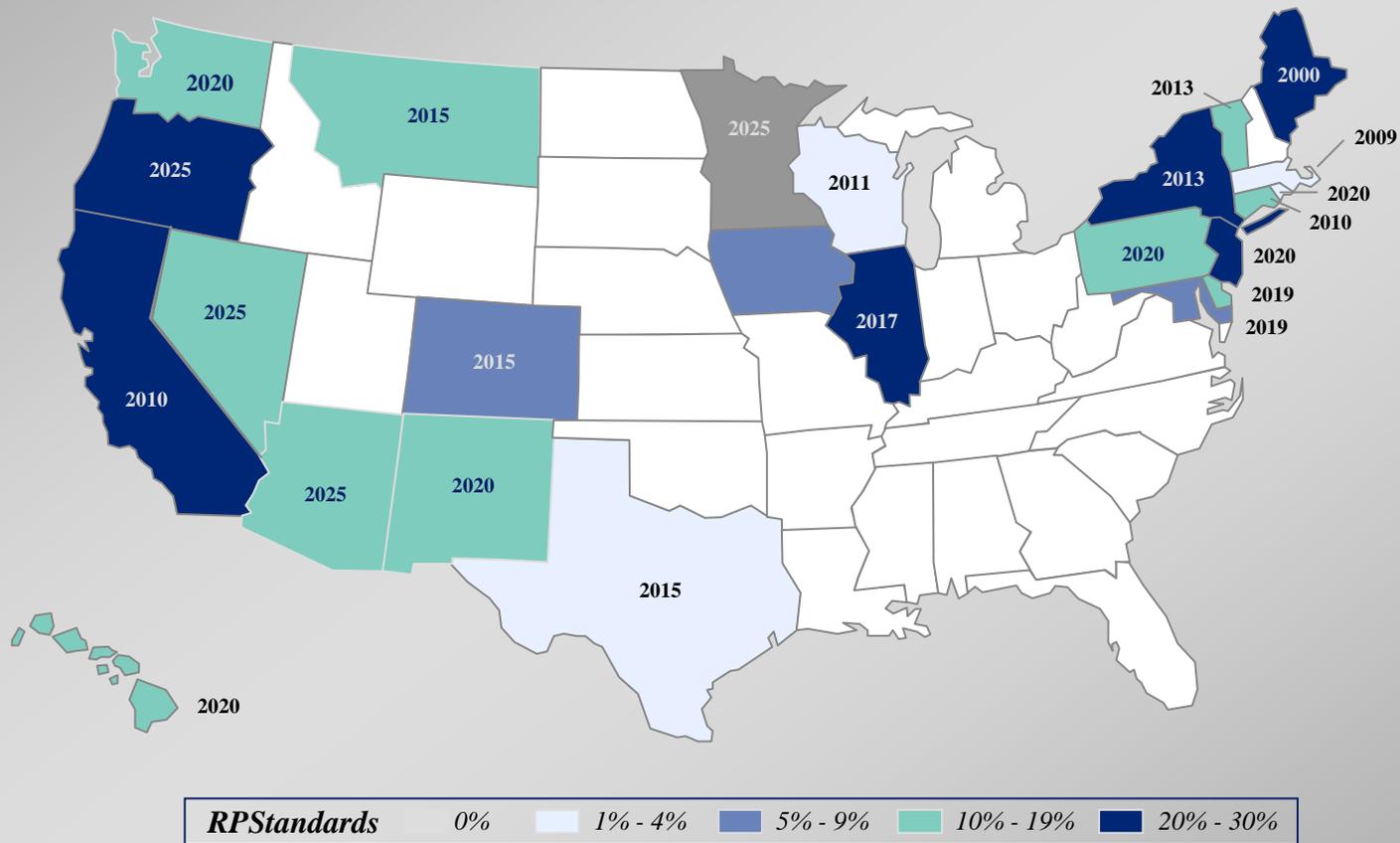
Climate Security Act

- Sets a declining limit on emissions of greenhouse gases covering 86% of US emissions
- Requires reductions below 2005 levels from covered sources of 4% by 2012, 19% by 2020, and 71% by 2050
- Establishes an emission trading program similar to the European Union

Western Climate Initiative

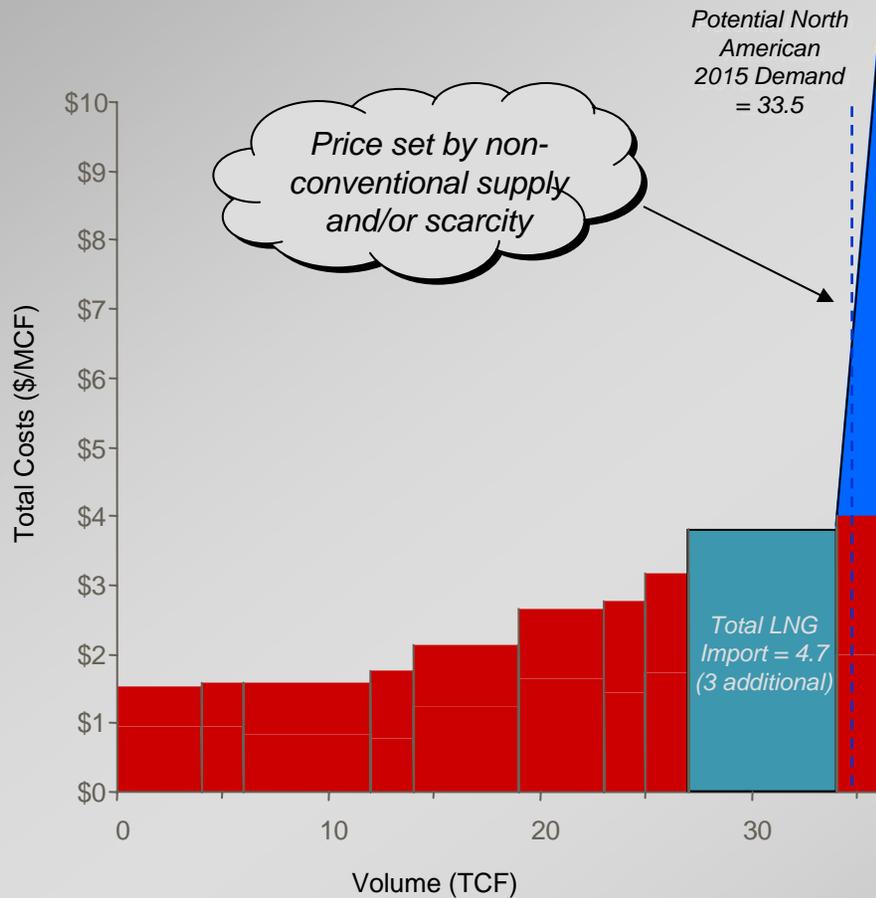
- WCI comprised of seven Western states (*WA/OR/CA/NM/AZ/UT/MT*) and two Canadian provinces.
- Establishes Regional GHG Reduction Goals: *Reduce emissions 15% below 2005 levels by 2020.*
- Develop framework for region-wide emissions cap and carbon trading program by August,

State Renewable Portfolio Standards

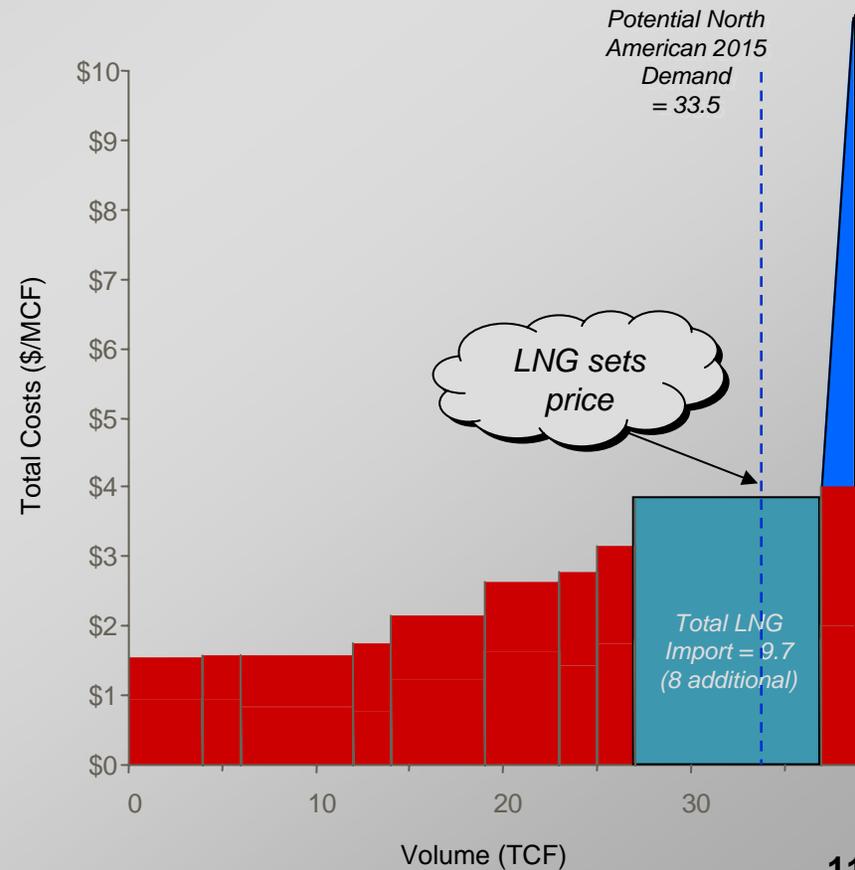


A Global Natural Gas Market

Low LNG Import Case



High LNG Import Case

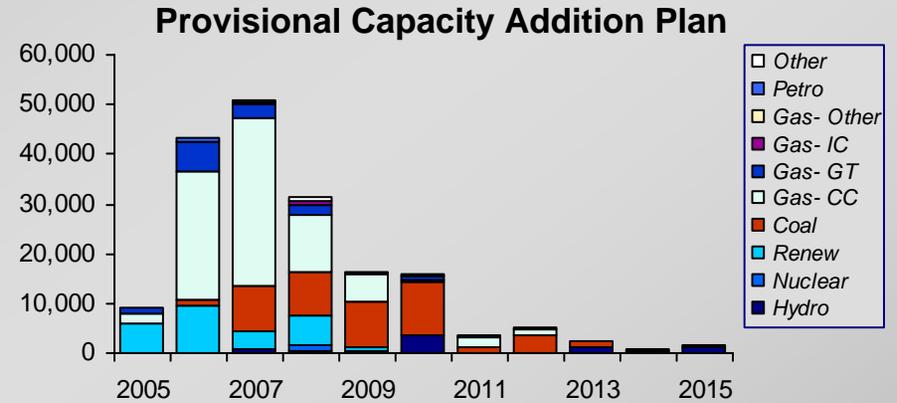
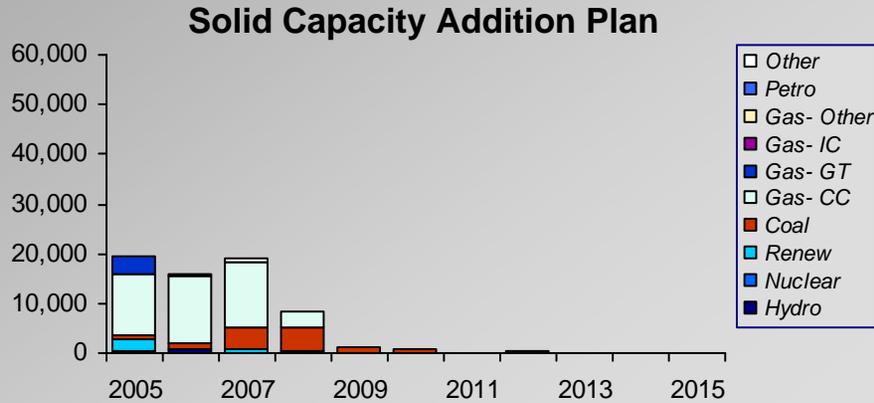


(1) Capital costs include 15% return for investments

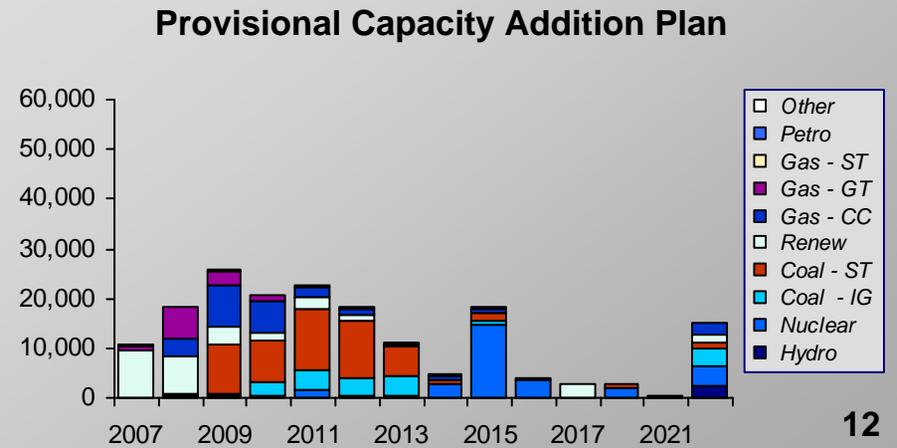
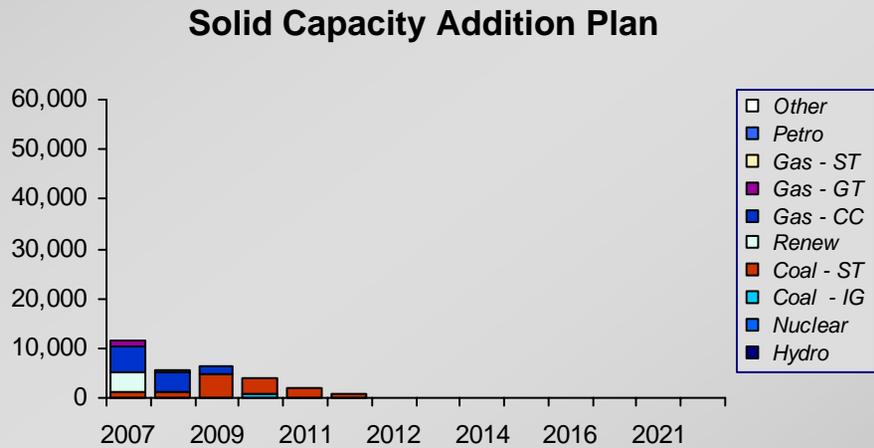
Source: EIA, NPC, LNG Shipping Solutions, Lit Searches, Booz Allen analysis

Rational Response to Uncertainty - - Postpone

New Build circa Spring 2005



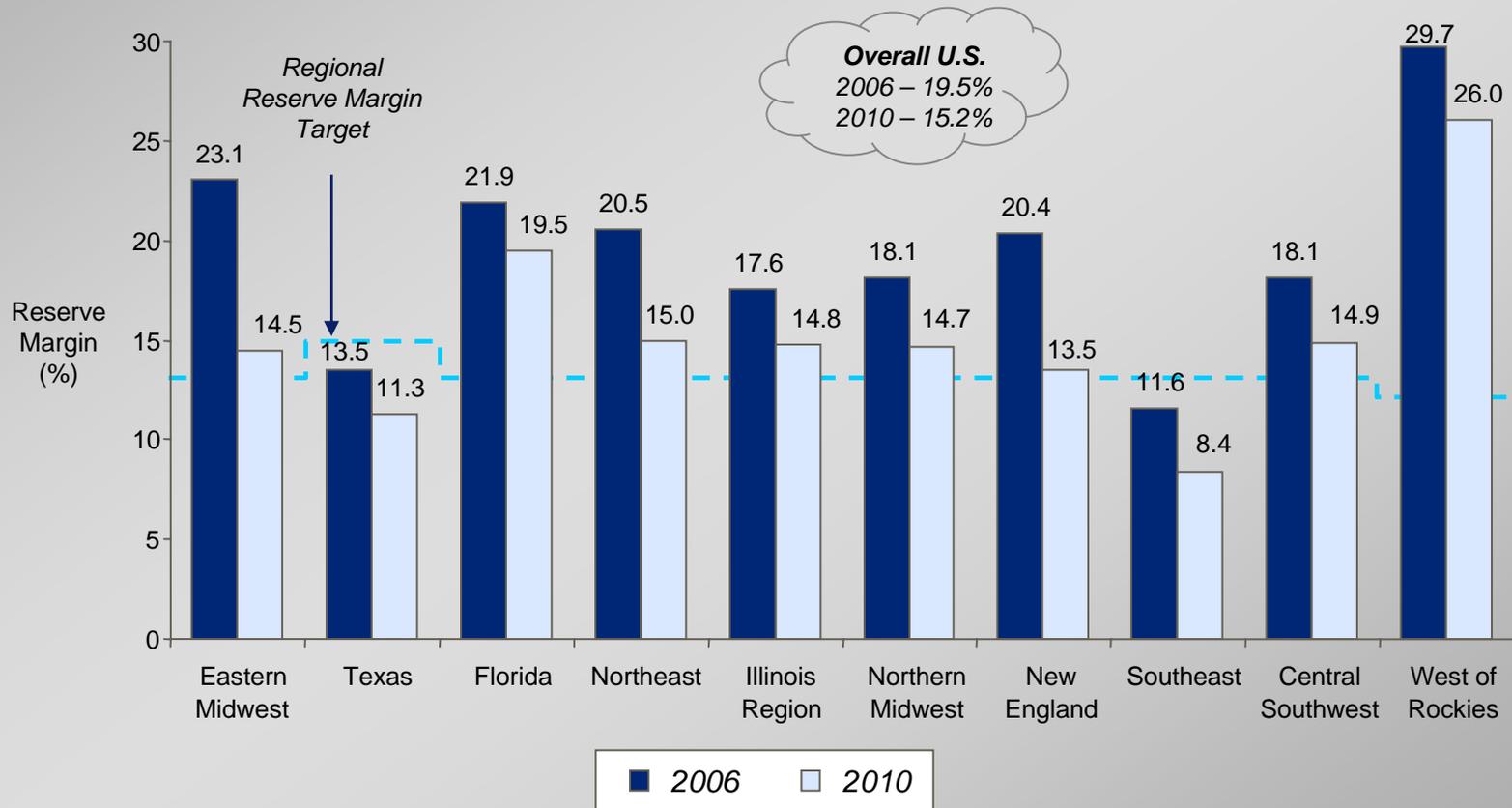
New Build circa Winter 2007



Source: Booz Allen analysis

Tightening Reserve Margins

U.S. Generation Market
(Summary of Reserve Margins by NERC Region)



Generation Changes - Putting It All Together

- ◆ **Expected carbon regulation**
- ◆ **Plus gas price uncertainty**
- ◆ **Are inhibiting base-load investment**
- ◆ **With consequent shrinking reserve margins and rising power prices**
- ◆ **Implications:**
 - **Land rush for renewables and low carbon alternatives**
 - **Much higher value for existing renewables**
 - **Equipment shortages**
 - **Higher cost of commodities to respond (steel, cement)**

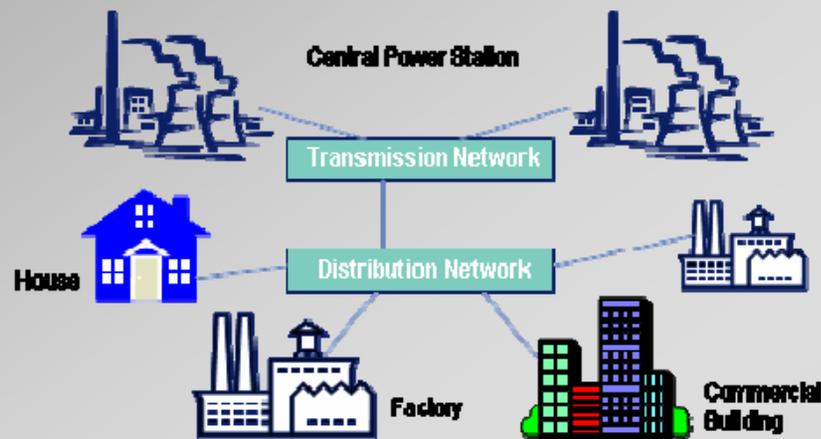
Industry Future

All of which will likely lead to a reconfiguration of the power delivery model ...

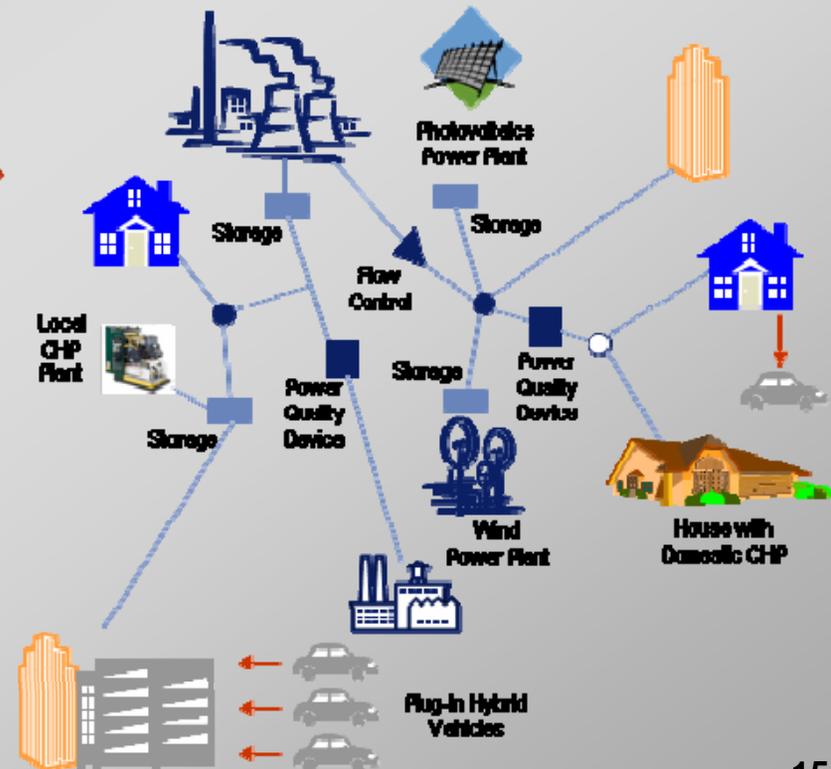
... Built on smart grid technology and greatly expanded data management capabilities

Today

Future



Distributed / On-Site Generation with Fully Integrated Network Management



Electric Power Industry - Summary

Industry Pressures

- ◆ “New” energy resources
 - Renewables
 - Clean Coal
 - Safe Nuclear
- ◆ Upgrades
 - Transmission & Delivery Renovation
 - Sophisticated Distribution Management Systems
 - Automated Metering
- ◆ Sustainability
 - Conservation
 - Efficiency
 - Demand Management

Implications

- ◆ Large Investments
 - Rate increases
- ◆ Trained/Available Workforce
 - Need for technical skills
- ◆ Demand for “green” portfolios
- ◆ Pressure on existing hydro allocation
 - BPA and elsewhere
- ◆ More complex customer relationships

Regulation and Governance

- ◆ **Federal regulation**
- ◆ **State regulation**
- ◆ **Local Governance support**

Federal Regulation

Federal Requirements

- ◆ **FERC/NERC/WECC reliability standards**
- ◆ **Infrastructure protection standards**
- ◆ **Open access – FERC Order 890**
- ◆ **Allocation of federally owned (hydro) power**
- ◆ **Re-licensing existing hydro**

Implications

- ◆ **Capital investments**
- ◆ **Cyber-security investments**
- ◆ **Utility-wide compliance implementation**
- ◆ **Contract renewal negotiations and long-term power acquisition**
- ◆ **Potentially large mitigation costs**

State Regulation

State Requirements: I-937

- ◆ Cost effective conservation requirements
- ◆ Existing hydro excluded from I-937
- ◆ Renewables requirements escalate from 3% to 15% of load, independent of need
- ◆ Oregon and California also have RPS laws
- ◆ Restrictions on outside renewable power imports
- ◆ \$50/Mwh fine for failing to hit targets

Implications

- ◆ Increase in the cost of power as a result of non-hydro purchases
- ◆ Scarcity and regional competition for new-renewable resources
- ◆ Difficulty of siting, building and transmitting new renewable resources
- ◆ Accelerating conservation efforts assists in meeting both I-937 conservation and renewables requirements

Local Governance Support

- ◆ **A highly competent staff is essential to meeting the challenges facing City Light**
- ◆ **There is increasing competition for a shrinking talent pool**
- ◆ **City Light needs flexibility in human resource policies and administrative processes to compete in utility labor market and meet the industry and regulatory challenges**

Utility Condition

- ◆ **Local economy and implications**
- ◆ **The utility today**
- ◆ **Workforce challenges**
- ◆ **Special Customer priorities**
- ◆ **Need for improvements in Information Technology**

Local Economy and Implications

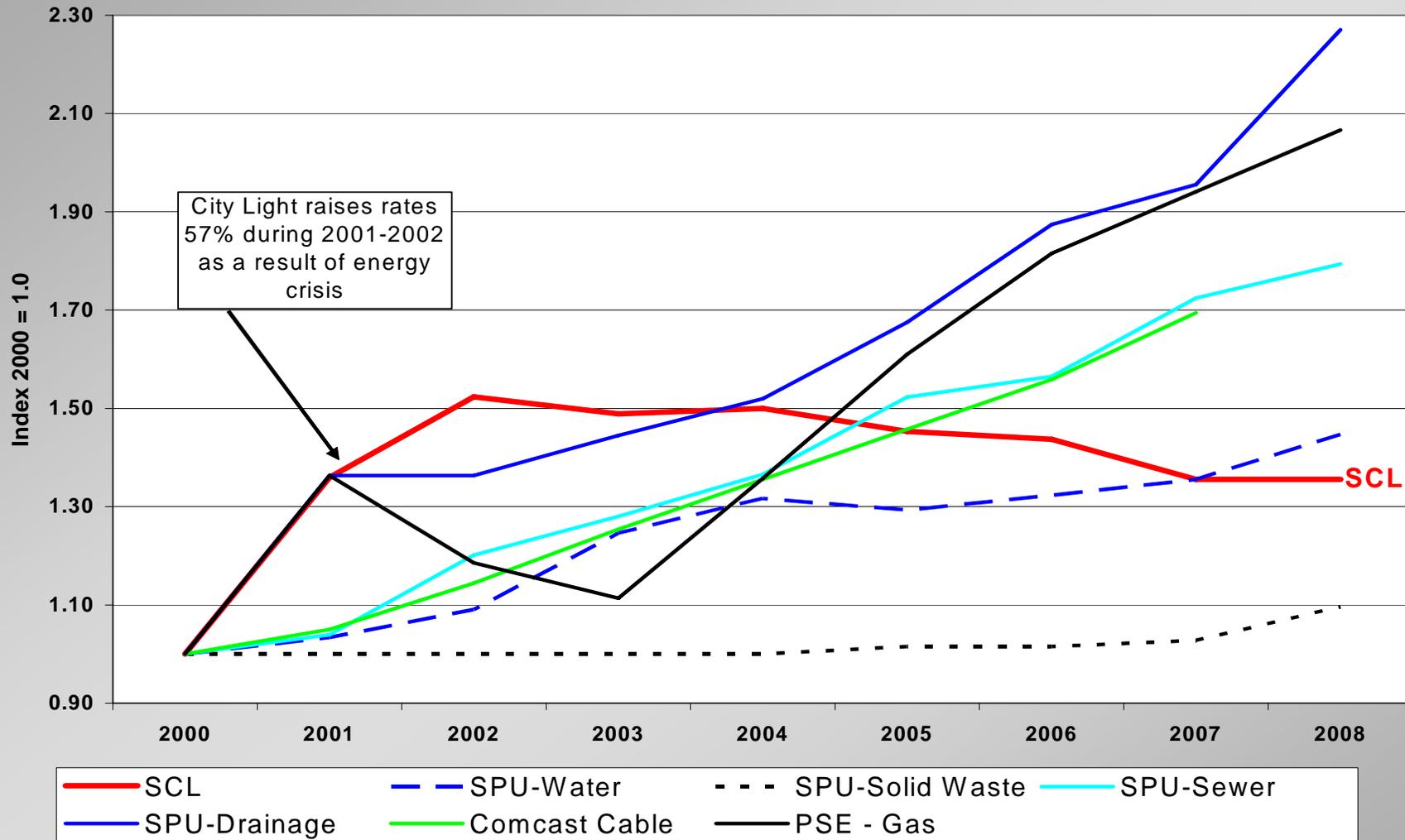
City of Seattle Growth

- ◆ **Increasing density**
- ◆ **North of downtown development**
- ◆ **Hi-tech and industrial customer growth**
- ◆ **Plug-in hybrids/shore power**

Implications

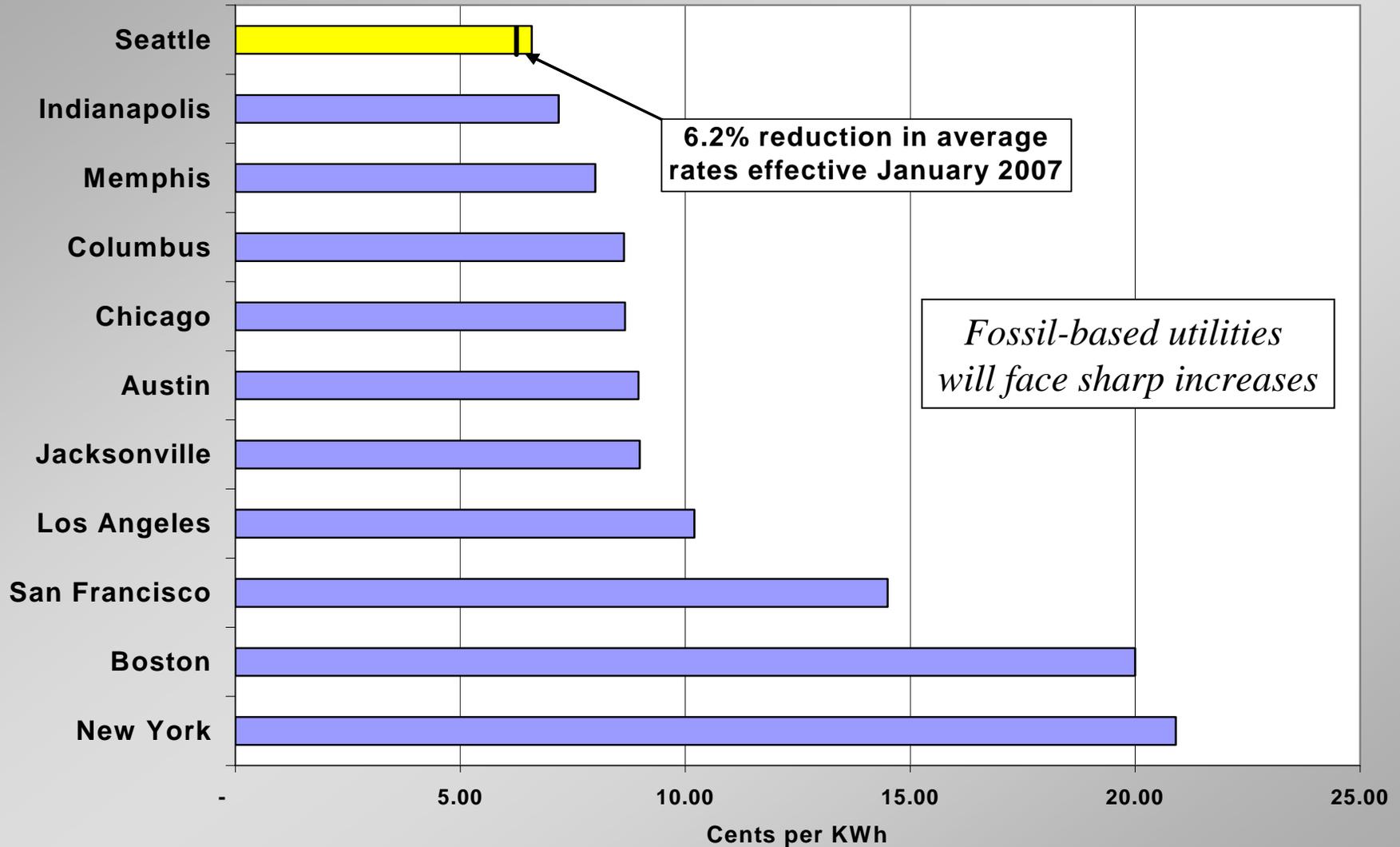
- ◆ **Increased load density**
- ◆ **Demand for undergrounding**
- ◆ **Special reliability requirements**
- ◆ **Possible integration of distributed generation onto grid**

Index of Seattle Household Utility Costs



Since 2000 City Light rates have increased less than most Seattle utilities

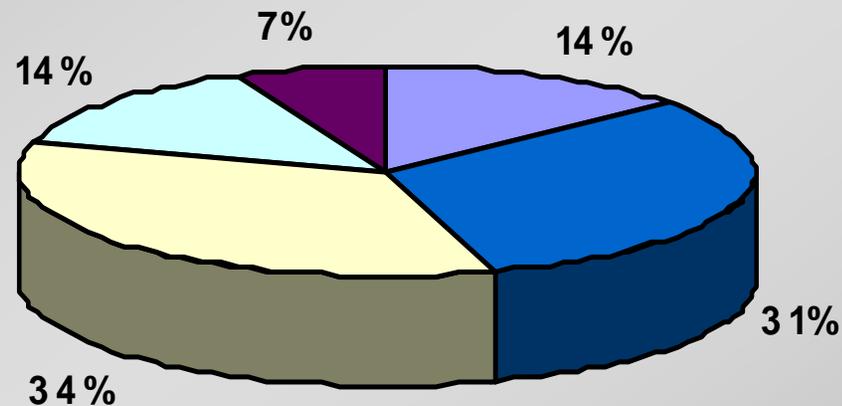
National Comparison of 2006 Average Residential Rates per kWh by City



City Light residential rates are among the lowest in US – also true for commercial rates

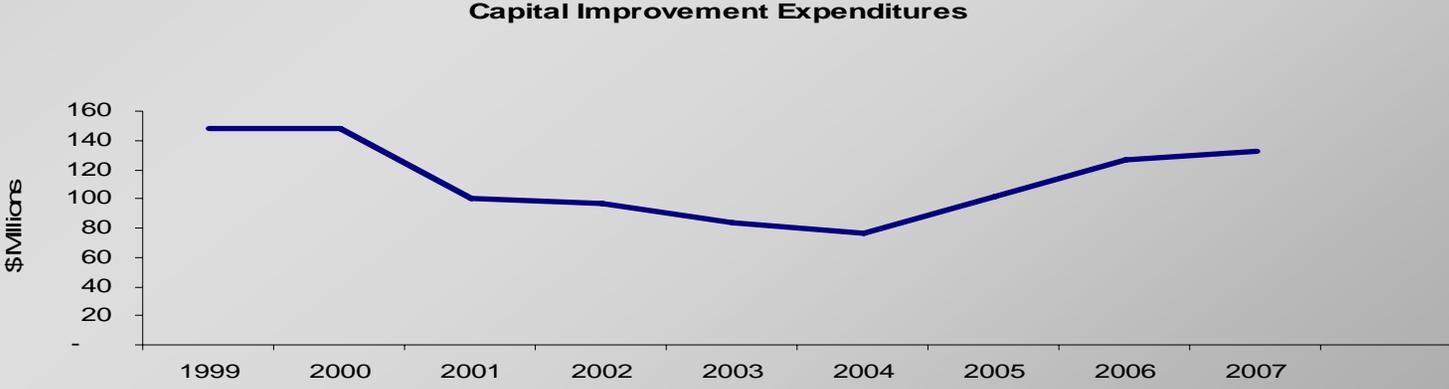
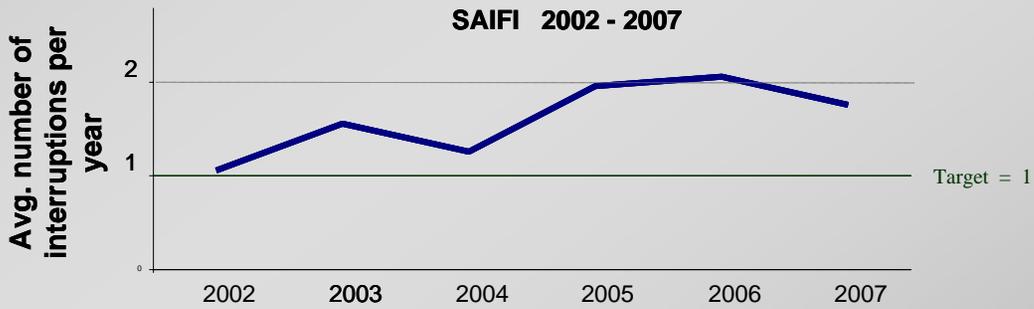
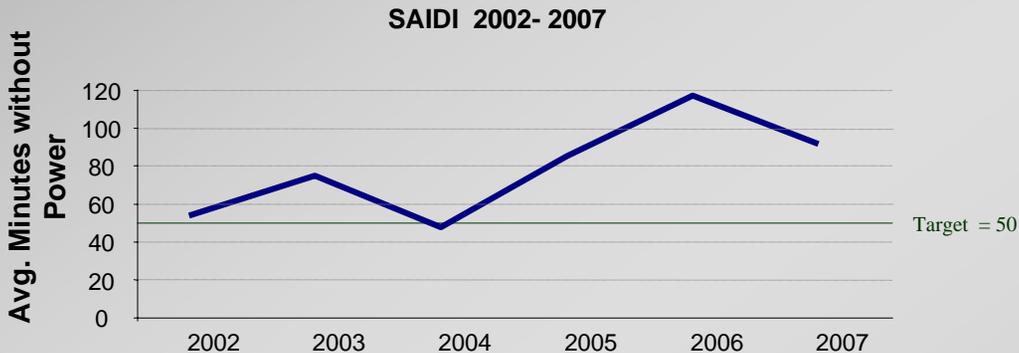
City Light Labor Comprises 14% of the Budget

2008 Budget by Category



- Payroll
- O&M and Capital other than payroll
- Purchased Power
- Debt Service
- Taxes

Early Indications of Improved Reliability



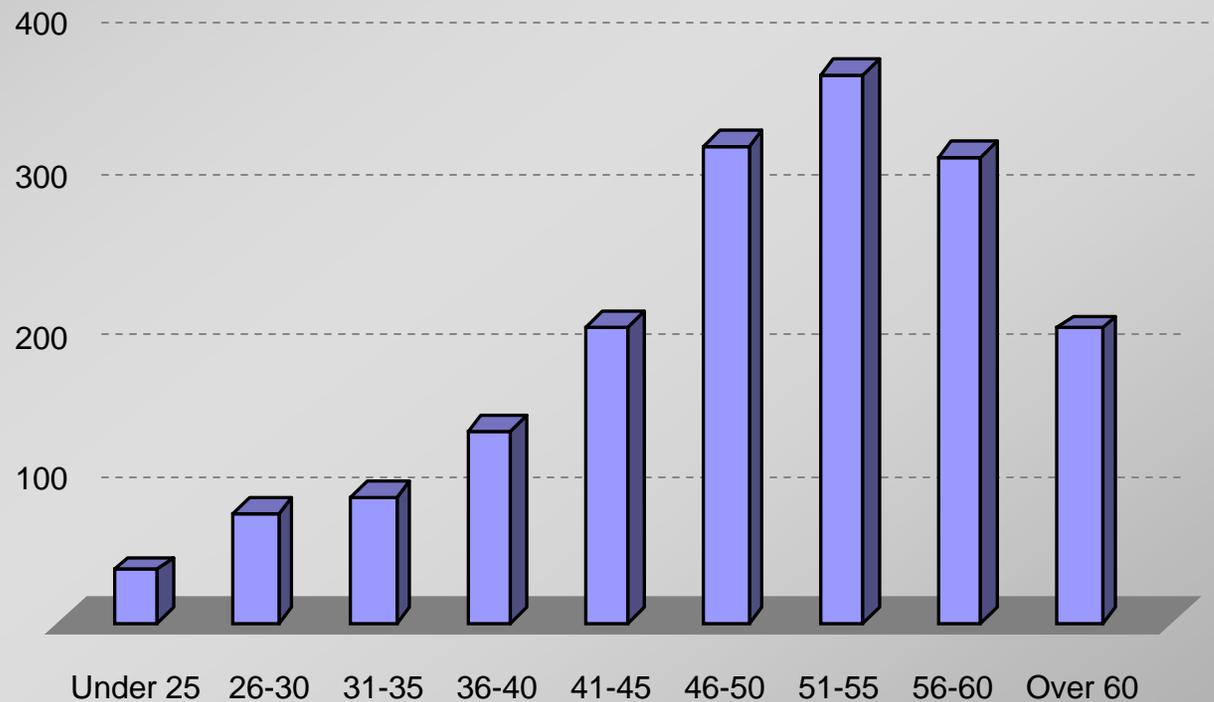
A Looming Shortage of Skills

▶ The average age of utility workers in the U.S. is 44. (The average age of City Light employees is 49.)

▶ By 2010, 40 to 60 percent of today's experienced utility workers will retire

▶ The economy overall is experiencing a shortage of technical and skilled trades

Age Distribution of Seattle City Light Employees



1688	36	72	84	126	195	313	361	307	193
100%	2.1%	4.3%	5.0%	7.5%	11.6%	18.5%	21.4%	18.2%	11.4%

Special Customer Priorities

Expectations

- ◆ Reliability
- ◆ Safety
- ◆ Low cost
- ◆ Environmentally responsible
 - Addition of new renewables
 - Conservation
- ◆ Cooperation with neighborhoods

Challenges Ahead

- ◆ Work force availability
- ◆ Competitive wages
- ◆ Competition for renewables
- ◆ Ability to conserve more
- ◆ Constructive and workable engagement process with policy makers

Need for Improvements in Information Technology

Current Situation

- ◆ Aging energy delivery infrastructure and increased complexity of future requirements demands smart devices
- ◆ We have 400 separate information systems today which:
 - Are not well integrated
 - Require batch processing in some cases (i.e. not real time)
 - Don't take advantage of modern technology to serve customers
- ◆ Smart devices for customer energy conservation

Implications

- ◆ Enable real-time information across the utility
- ◆ Consolidate and Modernize IT solutions
- ◆ Anticipate and integrate smart grid devices
- ◆ Promote enterprise- wide IT security

The Nutshell Version

Electric Power Industry

- ▶ **Generation risk.**
- ▶ **Renewables investments.**
- ▶ **Demand-side solutions needed.**
- ▶ **Cost increases ahead.**
- ▶ **A limited talent pool.**



**SCL's
Challenges
&
Opportunities**

Regulation and Governance

- ▶ **Increasing federal oversight**
- ▶ **Hydro limits.**
- ▶ **RPS mandates.**
- ▶ **Many oversight processes not necessarily tailored to electric utility realities.**

Utility Condition

- ▶ **Sound finances and operations.**
- ▶ **Upcoming investment needs.**
- ▶ **Human resource challenges.**
- ▶ **Special Customer priorities.**
- ▶ **Need for improvements in Information Technology.**



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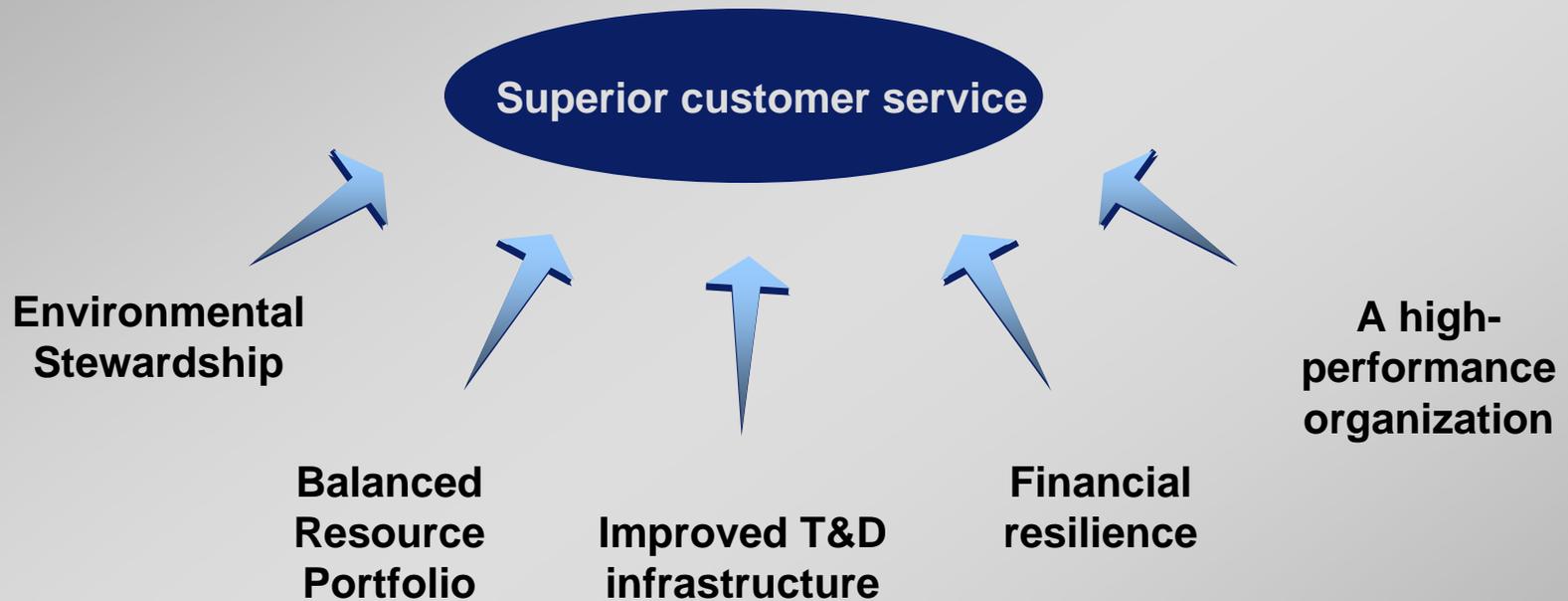
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- ▶ **Need for improvements in Information Technology.**

Strategic Priorities



Environmental Stewardship

Priority

To protect and enhance the environment through our choices in power supply, our conservation efforts, our daily operations, and effective environmental programs.

Objectives

- ▶ **Meet or exceed the requirements of all applicable environmental laws, regulations, and policies.** We see compliance as a minimum level of good environmental performance and intend to manage our operations to meet all our environmental responsibilities and reduce environmental risk.
- ▶ **Promote the efficient use of materials and resources in all phases of a facility's life.** In designing, building, managing, and maintaining our facilities we aim to conserve resources, including water and electricity, and to minimize our impact on the environment.
- ▶ **Prevent pollution.** We will continuously reduce the quantity and toxicity of materials used and waste generated from our facilities and operations, through conservation, reuse, recycling, and technological improvements.
- ▶ **Protect natural resources.** We will manage our business activities to avoid, minimize, or mitigate our impacts on the ecosystems we affect, and to provide resource enhancements when opportunities arise.
- ▶ **Be an environmental leader.** We will continue to meet our goal as a utility which produces zero “net” greenhouse gases. We will also expand our extensive efforts to promote energy conservation. We will incorporate environmental costs, risks, and impacts when making decisions.

Environmental Stewardship

Priority	Objectives	Initiatives
Environmental Stewardship	<ul style="list-style-type: none">◆Environmentally responsible in operations◆Natural resource protection◆Community Leadership	<ul style="list-style-type: none">◆Compliance Program◆PCB Program◆Recycling◆Pollution Prevention◆Environmental Leadership◆Salmon protection◆Enhanced Natural Resource Protection

Balanced Resource Portfolio

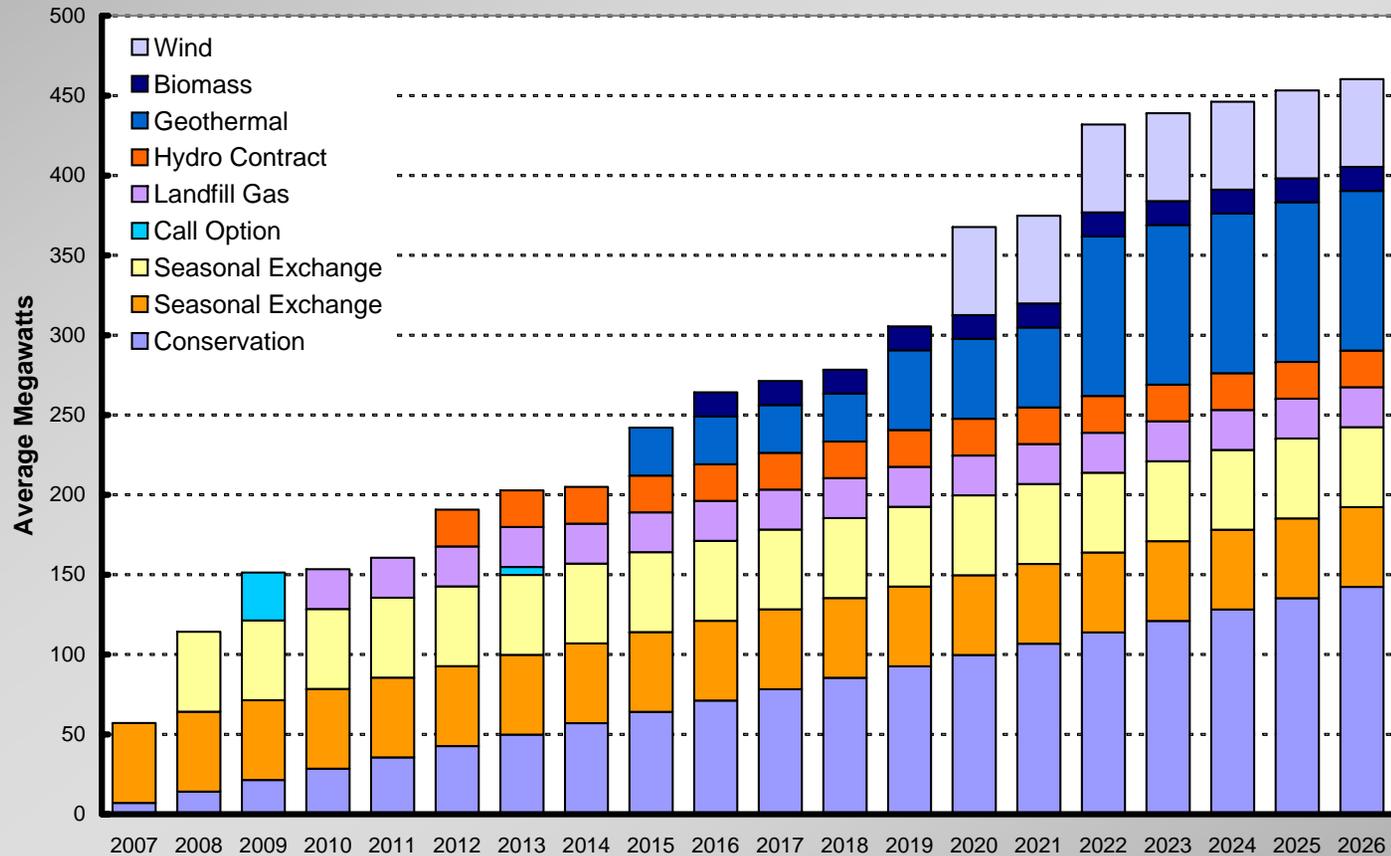
Priority

To develop a cost-efficient portfolio of power resources that fills the needs of our customers with maximum efficiency while meeting all public-policy requirements.

Objectives

- ▶ **Build a portfolio of power resources** that provides the least-cost mix of long-term supply adequacy, satisfaction of City and State renewables mandates, and demand-side management measures.
- ▶ **Build or acquire the capabilities needed to maximize the benefits of the portfolio of resources**, consistent with predefined risk policies, procedures, and limits, by employing industry-competitive tools and resources to obtain the highest possible value for City Light's customers.

2006 IRP Preferred Portfolio (Best Performing I-937 Compliant)



2-Year Action Plan Summary - 2006 IRP

- ◆ Study the costs and benefits of accelerating conservation
- ◆ Work to ensure reliable transmission capacity for City Light
- ◆ Pursue City Council approval for seasonal capacity contracts
- ◆ Pursue summer for winter exchanges as needed
- ◆ Pursue landfill gas opportunities in 2007-2008
- ◆ Investigate geothermal resources, distributed generation, and new renewable technologies
- ◆ Further investigate the impacts of climate change
- ◆ Investigate renewable energy credits for I-937 compliance
- ◆ Study cost-effectiveness of hydro efficiency projects
- ◆ Investigate costs and benefits of a hydro contract
- ◆ Begin 2008 IRP in 2007

Balanced Resource Portfolio

Priority	Objectives	Initiatives
Balanced Resource Portfolio	◆Optimal Power Supply Portfolio ◆Portfolio Management Capabilities	◆Resource acquisition program ◆BPA agreement ◆Conservation Program ◆Boundary Re-licensing ◆Power Management ◆REC trading

Energy Delivery Infrastructure

Priority

To strengthen and improve our energy delivery infrastructure so that it serves as a reliable platform for the increasingly complex customer interactions that will be expected of us, and so that it enables fully the City's economic and social development.

Objectives

- ▶ **Provide high levels of system reliability and resilience.** We need to protect our physical utility system as much as possible from man-made and natural risk. We also need to provide sufficient system flexibility to absorb and compensate for adverse events when they occur. This kind of resilience can only be achieved through targeted infrastructure investment and adequate, long-term preventive maintenance
- ▶ **Provide a consistent, responsive, and superior customer service experience.** We must be in a position to anticipate customer needs, define customer service standards, align services and processes to meet those needs, and continually monitor and improve our performance.
- ▶ **Position ourselves to serve evolving customer needs** for more information, for two-way access to the grid, for access to renewable generation, and for support in conservation efforts. We will need to develop an information network that alerts us instantly to system problems, enables remote and immediate response to those problems, provides comprehensive real-time information on system use, and permits comprehensive real-time communication with our customers.
- ▶ **Anticipate city development patterns and corresponding infrastructure requirements.** We need to ensure that we are supporting economic development through timely investment and proactive environmental planning

Energy Delivery Infrastructure

Priority	Objectives	Initiatives
Improved Energy Delivery Infrastructure	<ul style="list-style-type: none">◆Reliability and resilience◆Superior Customer Service◆Anticipate evolving customer needs◆Anticipated evolving economic development	<ul style="list-style-type: none">◆Asset management program◆Security and emergency preparedness◆Smart-grid planning◆Customer installation improvement◆Infrastructure investment plan◆Transmission strategy

Financial Resilience

Priority

To ensure that the utility is financially resilient to protect our customers against the inevitable risks that arise from our hydro dependence and from our many links to the broader power market.

Objectives

- ▶ **Ensure access to capital by assuring capital markets of our ability to service debt.** By achieving this objective, we will have the capacity to borrow funds in the event of emergencies and tight capital markets, and also reduce the cost of debt.
- ▶ **Attain rates that are stable and affordable for the long term.** By meeting this objective, we will provide a low but also predictable rate structure to our customers. By utilizing long term capital planning, prudent budgeting, better assessments of water flow, and sound risk management, we will avoid the rates ups and downs experienced over the past five years.
- ▶ **Provide comprehensive risk management.** Meeting this objective will ensure that all high-potential risks, including those other than energy risks are managed systematically for the utility.

Financial Resilience

Priority	Objectives	Initiatives
Financial Resilience	<ul style="list-style-type: none">◆Capital Access◆Rate predictability◆Enterprise Risk Management	<ul style="list-style-type: none">◆Enhancement of rate-setting guidelines◆Programmatic Budgeting◆Strategic capital planning◆Enterprise Risk Management system

High-performance team

Priority

To build on City Light's existing strengths in ways that transform the utility into a high-performance organization - - acting as an effective, well-supported team delivering superior customer service.

Objectives

- ▶ **Create a results driven business culture** that encourages responsiveness to customers, timeliness of decisions, agility in meeting challenges, openness to new ideas and methods, and a willingness to accept individual accountability.
- ▶ **Align the purposes and activities of all employees** through open and consistent two-way communication, *transparent planning, appropriate delegation of authority, and clarity of priorities and values.*
- ▶ **Position City Light as a competitive employer** that offers pay and benefits comparable to those offered at other public and private utilities.
- ▶ **Marshal the people, skills, and tools needed to provide consistent and superior performance.**
- ▶ **Nourish a strong safety environment** that promotes high levels of safety awareness and rigorous insistence on safe processes.

High-performance team

Priority	Objectives	Initiatives
High Performance Organization	<ul style="list-style-type: none">◆ Business culture◆ Internal alignment◆ Competitive positioning◆ People, skills, and tools,◆ Safety environment	<ul style="list-style-type: none">◆ Recruitment and hiring strategy◆ Retention, development and succession strategy◆ Compensation calibration◆ Performance management◆ Governance practices◆ Information Technology modernization

Vision → National Leader in Customer Service

Priorities →	Objectives →	Initiatives
Environmental Stewardship	<ul style="list-style-type: none"> ◆ Environmentally responsible in operations ◆ Natural resource protection ◆ Community Leadership 	<ul style="list-style-type: none"> ◆ Compliance Program ◆ PCB Program ◆ Recycling ◆ Pollution Prevention ◆ Environmental Leadership ◆ Salmon protection ◆ Enhanced Natural Resource Protection
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Improved Energy Delivery Infrastructure	<ul style="list-style-type: none"> ◆ Reliability and resilience ◆ Superior Customer Service ◆ Anticipate evolving customer needs ◆ Anticipated evolving economic development 	<ul style="list-style-type: none"> ◆ Asset management program ◆ Security and emergency preparedness ◆ Smart-grid planning ◆ Customer installation improvement ◆ Infrastructure investment plan ◆ Transmission strategy
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Strategic Plan Implementation Timeline

