Public Input Process and Demand Forecast

2014 IRP Stakeholders
June 13, 2013
Agenda

- Introductions
- What is an “IRP Update?”
- Schedule and Topics
- Public Input Process
- Demand Forecast
Integrated Resource Plan (IRP)

- An Integrated Resource Plan:
  - Identifies how much, when, and what kind of energy resources are needed
  - Treats conservation as equal to power generation
  - Includes public involvement
  - Is updated often (biennially)
  - Is required by state law

- City Light Measures Resource Plans By:
  - Cost, Risk, Reliability, and Environmental Performance
What is an IRP “Update?”

- “Updates” (Progress Reports) Completed by Utilities that Expect No Major Changes in Their Next IRP
  - The 2012 IRP had no other resource acquisitions than conservation before 2020
- An IRP is a Large Undertaking
  - Collecting many large data sets
  - Studies of hourly demand and supply
  - Evaluations of many external factors and conditions
  - Modeling the market values of resources
  - Stochastic modeling of resource adequacy
- An “Update” has Few Defined Requirements
Chapter 19.280.030

(1) Utilities with more than twenty-five thousand customers that are not full requirements customers shall develop or update an integrated resource plan by September 1, 2008. At a minimum, progress reports reflecting changing conditions and the progress of the integrated resource plan must be produced every two years thereafter. An updated integrated resource plan must be developed at least every four years subsequent to the 2008 integrated resource plan.

The Update Can be More Than a Progress Report

Assess the 2012 IRP and review key assumptions
2014 IRP Stakeholders Schedule

- June 13, 2013
  - IRP Process and Demand Outlook
- September 12, 2013
  - Power Resources
- January 16, 2014
  - Assessing Future Resource Needs
- April 10, 2014
  - The Environment and Scenarios

All meetings on …?
Is the public input process inadequate, about right, or overdone?
Many Public Objectives for SCL’s Resource Planning

- More Public Oversight
- More Wind Power
- Reduce Utility Debt
- More Solar Power
- Sustainability
- Create Business Opportunities
- Preserve Low Cost Power
- Create Green Jobs
- Fight Climate Change
- Conservation First
- Enhance Power Quality
- Ensure High Power Reliability
- Stabilize Rates
- Demand-Response Programs
- National Environmental Leadership
- Political & Policy Impacts
- Limit Carbon Tax Exposure
- Distributed Generation Incentives
- Ensure High Power Reliability
- More Public Oversight
- More Wind Power
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- Limit Carbon Tax Exposure
- Distributed Generation Incentives
Seattle City Light’s 2012 IRP
Input Process

1. Process, Assumptions
   - IRP Policy Group
   - IRP Stakeholders

2. Resource Needs, Rd. 1 Portfolios
   - IRP Policy Group
   - IRP Stakeholders

3. Rd. 1 Results, Rd. 2 Portfolios
   - IRP Policy Group
   - IRP Stakeholders

4. Rd. 2 Results, Top Portfolios
   - IRP Policy Group
   - IRP Stakeholders

5. Preferred Portfolio, Action Plan
   - IRP Policy Group
   - IRP Stakeholders
   - Review Panel

Stakeholders:
- City Council
- E&E Committee

Steps:
- 3 Public Meetings
- City Council E&E Committee
Electricity Demand Forecast

- Seattle area electricity demand growth has been slowing – is this the “new normal?”
- Replacing aging utility infrastructure is increasing utility costs and affecting rates – how will customers react?
- What are the implications of continued low demand growth?
A Faster Recovery Was Expected: US Economy Facing Strong Headwinds

- Sovereign Debt Crisis
- Asian Slowdown
- Higher Oil Prices
- Sequestration
- Payroll Tax Increase
- Aging Workforce
- Monetary Policy Uncertainty
Real GDP Outlook Below Average: Lower than 2012
Aging Workforce Slows Long-Run Economic Growth Potential

“In the 21st Century, real GDP growth in the United States is likely to be permanently slower than it was in earlier eras because of a slowdown in labor force growth initially due to the retirement of the post-World War II baby boom generation, and later due to a decline in the growth of the working age population.” – 2013 White House Budget

Source: US Administration on Aging, US Census
Electricity Demand Growth Declining

Slower Economic Growth, Manufacturing Going Offshore, Tighter Building Codes, Lighting Efficiencies, Appliance Efficiencies, Heating & Cooling Efficiencies, Motor Efficiencies, and Real Rate Increases are Slowing Electricity Demand Growth
Seattle Employment Growth Likely to Have Peaked in 2012
Price Elasticity of Demand is Low, But Still Important

<table>
<thead>
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<th>EPRI Estimates of U.S. Price Elasticity</th>
<th>City Light Estimates of Price Elasticity</th>
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<tr>
<td>Residential</td>
<td>-0.09</td>
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<td>Commercial</td>
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<td>Industrial</td>
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*Forecast has 2.55% Average Annual Change in Seattle Consumer Price Index: 2013-2018

**A higher than usual proportion of SCL industrial load is in metals and building materials, which are more sensitive to electricity prices and economic cycles.
2012 SCL Customer Demand was 0.8% Higher Than in 2000
Customer Demand: History & Draft Forecast (GWh)
Comparison With Past Demand Forecasts

Demand Forecast Comparisons

Average Megawatts

2010 Forecast
2011 Forecast
2012 Forecast
2013 Draft Forecast

(Close up view)
Questions or Comments?

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