



2014 IRP UPDATE AND PROGRESS REPORT

ENERGY COMMITTEE
SEATTLE CITY COUNCIL
JULY 9, 2014

Resource Planning, Forecasting, & Analysis

RCW 19.280 REQUIREMENTS

- Two Options for the 2014 Requirement
 - File an IRP
 - Detailed scope and analytical requirements as in the past
 - File an IRP “Progress Report”
 - Requires Council approval
 - Updates IRP and progress on the 2012 IRP Action Plan
 - This option selected with Energy Committee support



PROGRESS ON THE 2012 IRP ACTION PLAN

IRP Action Plan Progress		
Objective	Progress	
Pursue accelerated conservation of 14 aMW each year for 2012 and 2013	Exceeded the objective with 2012 energy savings of 15.68 aMW; 15.77 aMW in 2013. These savings include the transmission & distribution-related benefits.	
Continue to acquire 7.3 aMW of RECs in both 2012 and 2013 to meet I-937 requirements	Exceeded the 2012 and 2013 targets for RECs. City Light will be in compliance with I-937 on a forecast basis through 2024.	
Work to ensure sufficient transmission transfer capability	City Light has sufficient transmission and is working with transmission providers to obtain long-term, firm transmission for new, renewable resources to meet I-937	
Reshape seasonal energy with market transactions as needed	In both 2013 and 2014, City Light sold energy in surplus months and purchased a like quantity of energy in potentially short months.	
Engage BPA to limit the cost drivers in the FY 2013-14 rate case	Engaged with the BPA on issues to limit the rate at which our BPA power and transmission rates are increasing.	

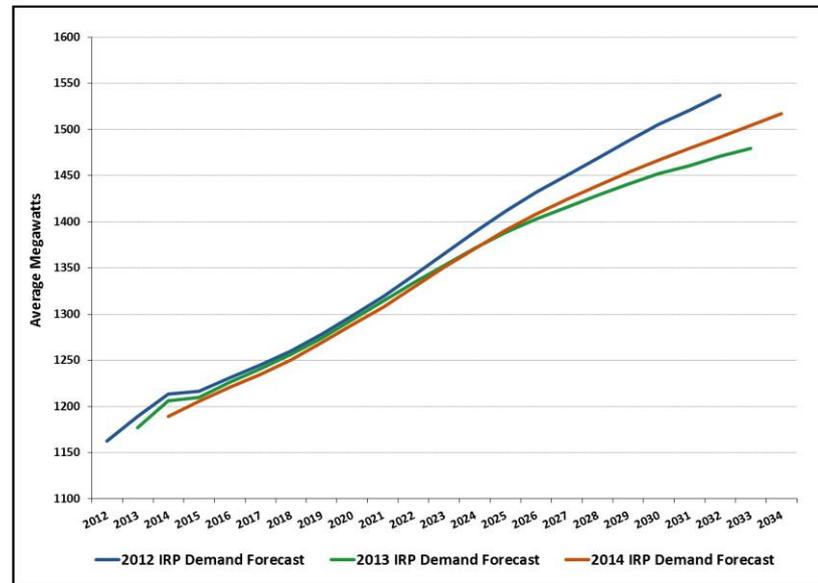
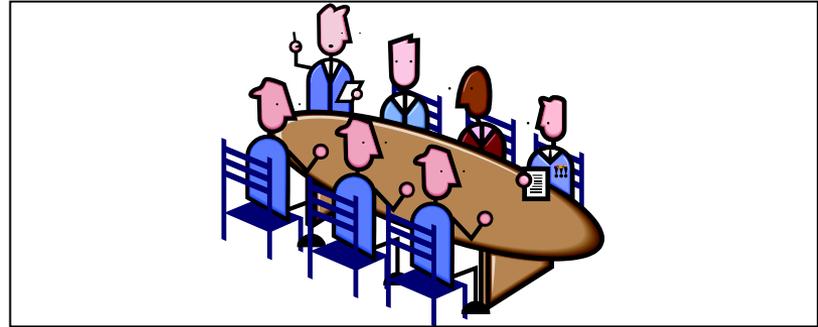
PROGRESS ON THE 2012 IRP ACTION PLAN (CONTINUED)

IRP Action Plan Progress		
Objective	Progress	
Complete a conservation resource potential assessment in 2013	Completed the Conservation Potential Assessment on schedule in 2013, finding 22.6 aMW of achievable conservation potential in the 2014-2015 biennium	
Investigate the development status, costs, and commercial availability of resources	Participating in the 7 th Plan Generation Resource Advisory Committee of the Northwest Power & Conservation Council and collecting new resource information from the EIA and information vendors	
Continue to refine forecasts, modeling, and assumptions	Developed long-term outage and turbine rewind plans in 20-year IRP modeling. Updated the system load forecast in 2013 and 2014	
Continue to evaluate climate change impacts to hydro operations and fish populations	Working with the University of Washington and the National Park Service to inventory glaciers and study changes in glacial runoff caused by climate change	

2014 IRP STAKEHOLDERS

MEETING 1: IRP PROCESS AND DEMAND

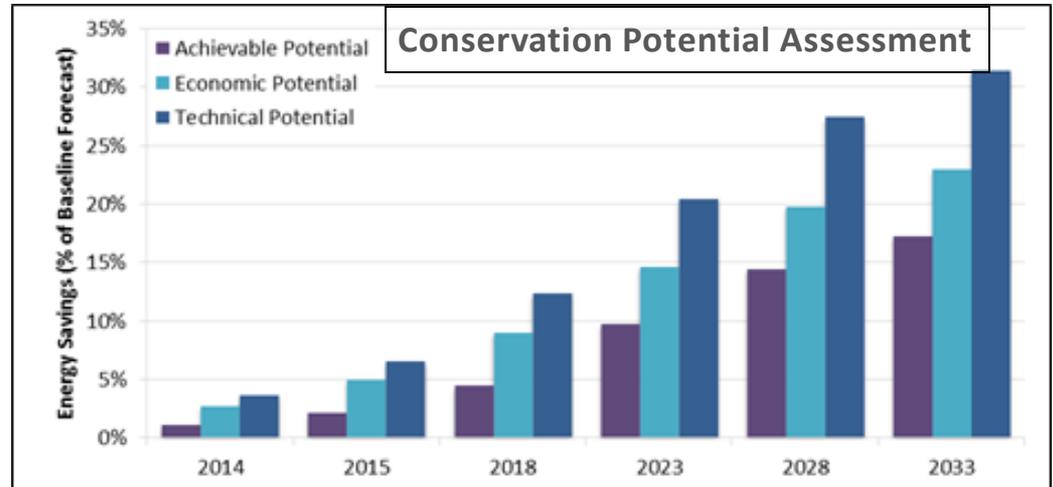
- IRP Process
 - Public meeting challenges
- Slowing Load Growth
 - Slower economic outlook than 2012
 - Energy efficiency



MEETING 2: RESOURCES

- Meeting Two

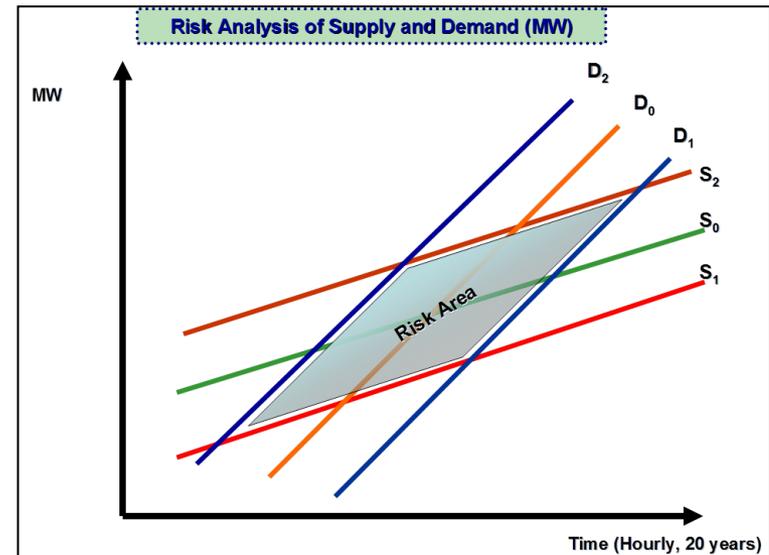
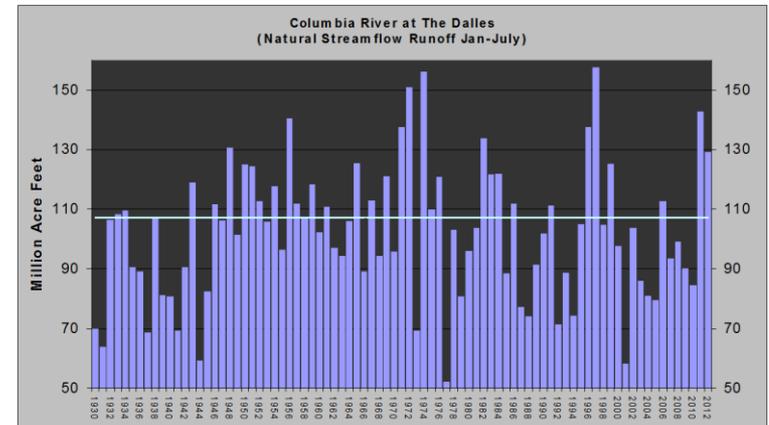
- About 44 aMW more conservation potential identified than in 2012
- Lower avoided cost of conservation than in 2012
- Less surplus regional capacity resources than 2012
- More uncertainty in the outlook for long-term regional power markets than in 2012



NW Coal Plant	Capacity	Retirement
Boardman	550 MW	2020
Centralia	670 MW	2020
Centralia	670 MW	2025

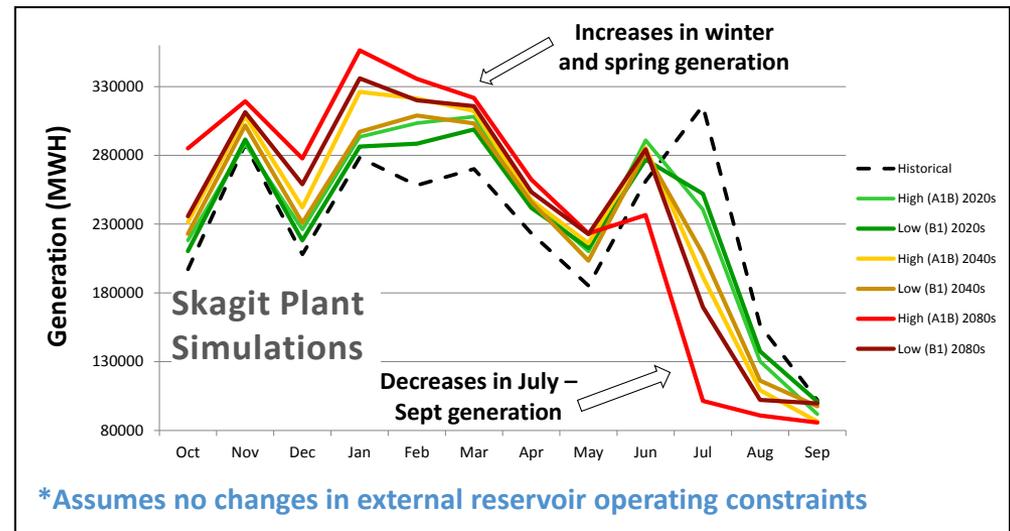
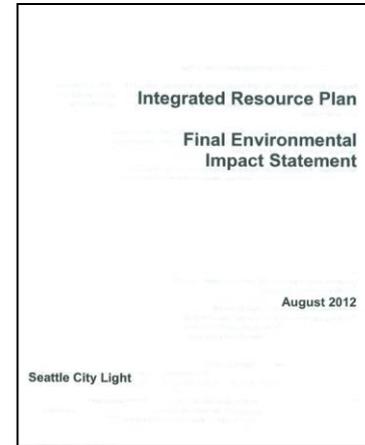
MEETING 3: FUTURE RESOURCE NEED

- A risk measure for insufficient resources
 - (10% LOLP) captures varying hydro, temperature, and gas prices
 - Leads to lower resource costs than planning to the lowest water year
 - SCL depends upon the short-term market in adverse conditions



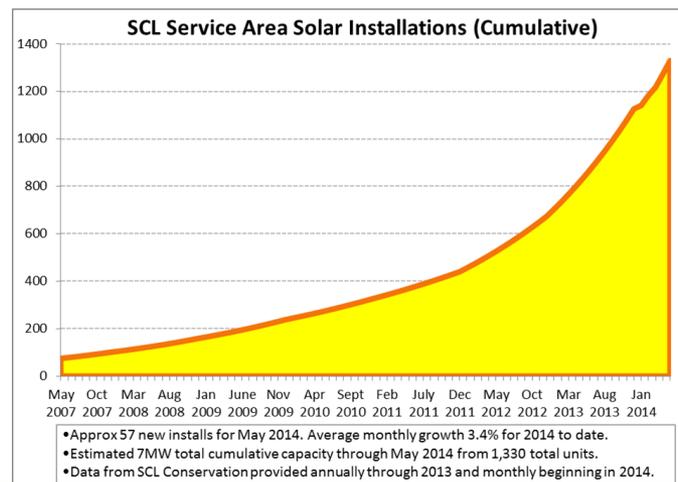
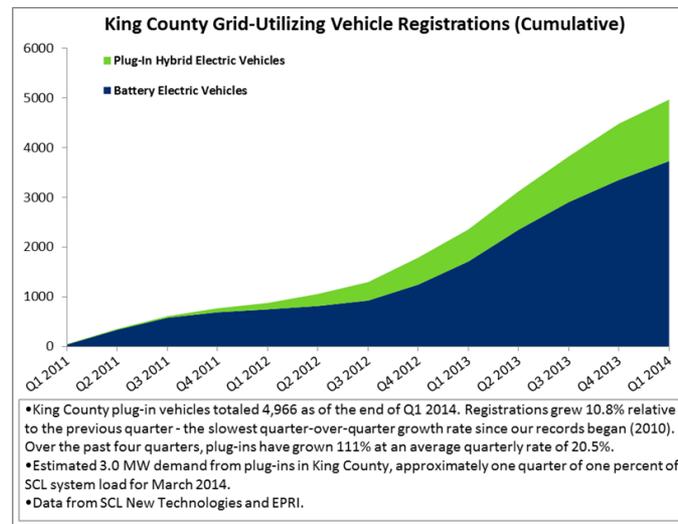
MEETING 4: ENVIRONMENT

- EIS
 - Analysis of the potential environmental impacts of the IRP
- Climate Change
 - Modeling completed for potential impacts of climate change on hydro generation
 - Research on Skagit basin glaciers now underway



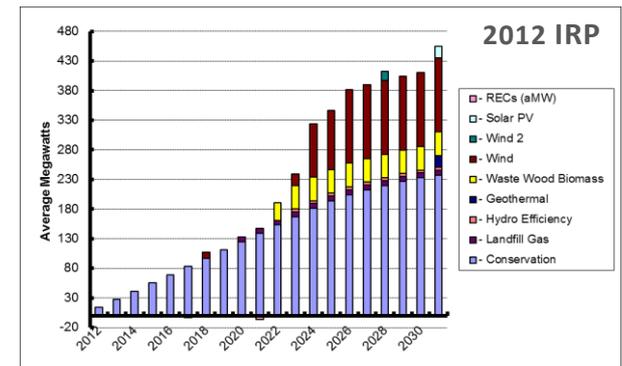
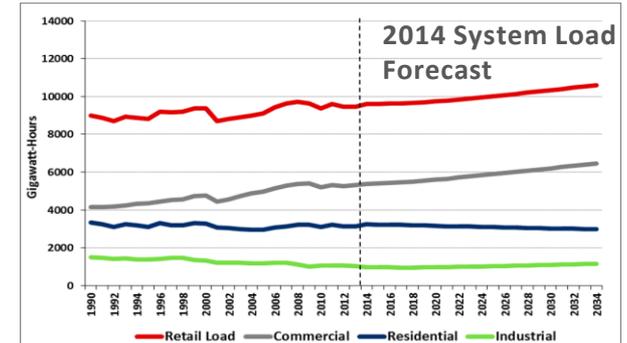
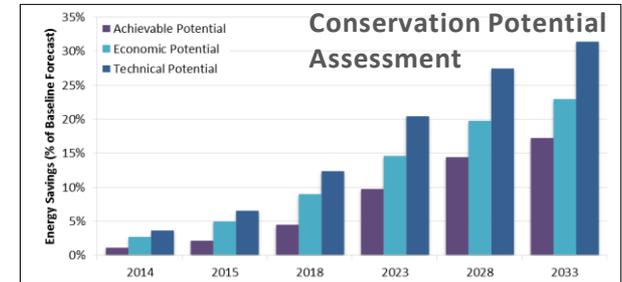
MEETING 5: KEY TRENDS & STAKEHOLDER RECOMMENDATIONS

- Electric vehicle registrations are growing rapidly from a small base, accounting for about 0.25% of SCL demand
- Solar PV installations in Seattle are growing rapidly from a small base, supply about 0.10% of SCL load



MAIN CONCLUSIONS OF THE IRP UPDATE

- Cost-effective, achievable conservation potential to increase by 44 average megawatts over 20 years
- The forecast rate of growth in demand has slowed, to about half the national average
- The onset of new energy resource need is likely to be delayed by at least 2 years from the 2012 IRP



STAKEHOLDER'S KEY RECOMMENDATIONS FOR THE 2016 IRP

- Continue to research the impacts of climate change upon City Light's hydroelectric resources
- Evaluate the impacts of EPA regulation of carbon dioxide and the potential closing of more coal-fired generation plants in the West
- Assess opportunities to achieve higher value from utility conservation efforts through targeting them to specific locations or customers
- Evaluate the impacts of electric vehicles, smart grid in 2017, and photovoltaic installations

OTHER STAKEHOLDER RECOMMENDATIONS

- Look for opportunities to present to community groups as part of other City meetings
- Ensure the IRP is aligned with Seattle's Climate Action Plan
- Work to better understand the declining growth in electricity demand
- Evaluate the cost and risk tradeoff in the 2012 resource adequacy standard
- Investigate the potential impacts of LNG exports from British Columbia
- Monitor the regional power market for signs of shortage or excessive costs

QUESTIONS OR COMMENTS?

IRP Website Address:

<http://www.seattle.gov/light/news/issues/irp/>

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