



Seattle City Light

2014 IRP UPDATE AND PROGRESS REPORT CONCLUSIONS/RECOMMENDATIONS

2014 IRP STAKEHOLDERS

JUNE 19, 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 progress on the 2012 IRP Action Plan
 - This option selected with Energy Committee support



PROGRESS REPORT ON 2012 IRP ACTION PLAN

Summary of IRP Action Plan Progress

Objective	2012	2013	Progress
Pursue accelerated conservation in the amounts targeted in the renewables: base conservation portfolio.	14 aMW by end of 4th Quarter	14 aMW more by end of 4 th Quarter	City Light secured over 14 aMW of energy savings from completed projects in both calendar years 2012 and 2013. Consistent with the energy savings reported in SCL's 2013 Annual Report, the energy savings achieved in 2012 was 15.68 aMW; in 2013 was 15.77 aMW. These savings include the transmission & distribution-related benefit that reflects busbar savings.
Continue to acquire RECs, per the resource acquisition strategy, in order to meet I-937 requirements	Acquire an annual average of 7.3 aMW	Acquire an annual average of 7.3 aMW	Pursuant to City Light's resource acquisition strategy RECs were acquired at a rate greater than 7.3 aMW per year and exceeded the 2012 and 2013 targets well in advance. City Light is in compliance with I-937 on a forecast basis through the 2020 target year and beyond.
Work to ensure sufficient transmission transfer capability for City Light to support serving peak customer demand	Ongoing	Ongoing	City Light's current transmission transfer capability is sufficient to meet current peak customer demand. City Light is working with relevant transmission providers to obtain long-term, firm transmission for new, renewable resources to meet I-937
Serve retail load with market purchases, short-term exchanges, and transactions to reshape seasonal energy as needed	Ongoing	Ongoing	In 2013 and 2014, City Light sold energy in the surplus month of March and purchased a like quantity of energy in the potentially short month of April. Additionally, in 2013 surplus energy was sold in July and energy was purchased for the low water months of August and September.
Engage BPA to limit the cost drivers in the FY 2013-14 rate case	Ongoing	Ongoing	City Light has continued to engage with the BPA on a wide range of issues to limit the rate at which our BPA power and transmission rates have been increasing. The utility continues to have some success in limiting rate increases.

PROGRESS REPORT ON 2012 IRP ACTION PLAN (CONTINUED)

Summary of IRP Action Plan Progress			
Objective	2012	2013	Progress
Complete a new conservation resource potential assessment for use in integrated resource planning and I-937 compliance	Complete project design and contracting	Complete study and report results for use in 2014 IRP, I-937	City Light completed a Conservation Potential Assessment to set the 2014-2015 targets for the Energy Independence Act and for use in the 2014 IRP Update. This work was wrapped up in late 2013, finding 22.6 aMW of achievable conservation potential in the 2014-2015 biennium.
Investigate the development status, costs, and commercial availability of resources	Ongoing	Ongoing	City Light is participating in the 7 th plan generation resource advisory committee of the Northwest Power & Conservation Council and collects information from the Energy Information Administration and third-party vendors on new resource developments and their costs.
Continue to refine forecasts, modeling, and assumptions	Ongoing	Ongoing	Developed and initiated long-term outage plans in modeling, helping define variations in resource needs for 20 years. Updated the system load forecast in 2013 and 2014. Work continues on refining assumptions, as demonstrated by completing a 2014 IRP Update in addition to the Progress Report requirement.
Continue participation in and evaluation of climate change research for impacts to hydro operations and fish populations	Ongoing	Ongoing	City Light continues to review recent research on climate change. Work with the National Park Service to inventory glaciers and study changes in glacial footprints caused by climate change continues. The utility is also working with the University of Washington and the National Park Service to estimate present and forecast future glacial runoff from North Cascades glaciers feeding the Skagit River.



SUMMARY OF STAKEHOLDER MEETINGS

- Meeting One
 - IRP public input process challenges
 - Slower load growth than forecasted in 2012 delays onset of new resource need
- Meeting Two
 - More I-937 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

SUMMARY OF STAKEHOLDER MEETINGS

- Meeting Three
 - A stochastic measure of risk of insufficient resources (10% LOLP) captures effects of varying hydro, weather, and gas price conditions
 - This method leads to lower resource costs than the critical hydro planning method many PNW utilities use
 - Measure holds the potential for SCL to depend upon the short-term market for some supply on rare occasions to keep resource costs lower

SUMMARY OF STAKEHOLDER MEETINGS

- Meeting Four
 - Extensive City Light analysis of the potential environmental impacts of the IRP was done in the Environmental Impact Statement
 - Modeling completed for potential impacts of climate change on hydro generation
 - Research on Skagit basin glaciers now underway

KEY CONCLUSIONS OF THE IRP UPDATE

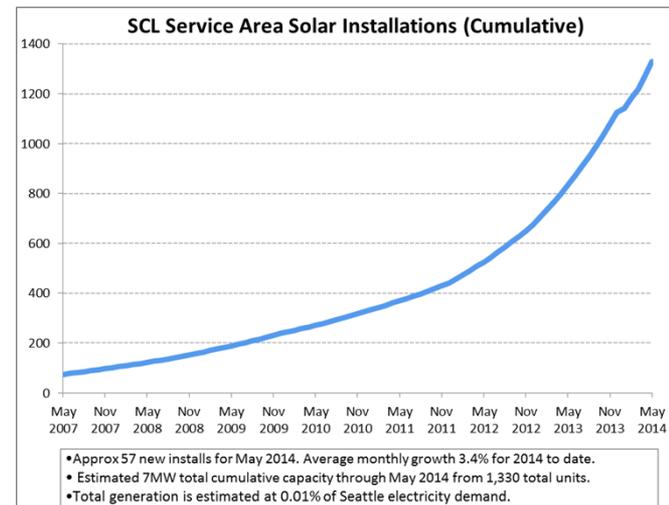
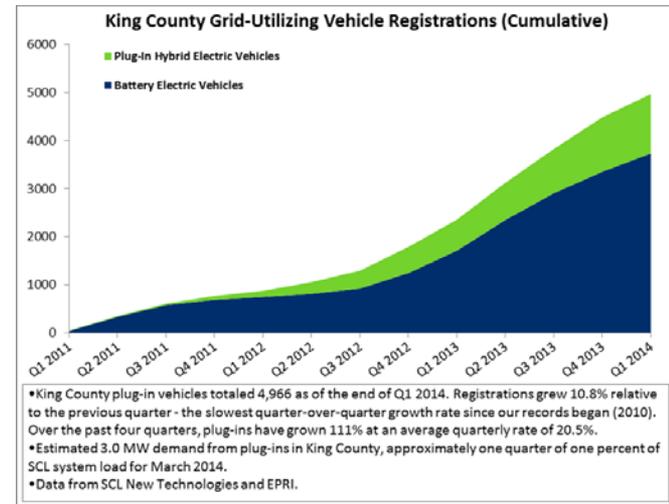
- The onset of new energy resource need is likely to be delayed by at least 2 years
- Cost-effective, achievable conservation potential increased by 44 average megawatts over the next 20 years
- The forecast rate of growth in demand has slowed through the rest of the decade

OTHER IRP UPDATE CONCLUSIONS

- City Light's long-term energy resource strategy continues to be appropriate
- Lower natural gas and power prices increased the financial risks of holding surplus, higher cost resources
- Hydro efficiency will supply up to 40 MW of new generation capacity by 2017
- City Light has enough renewable energy credits (RECs), to meet I-937 to 2022 under current forecasts
- Conservation avoided costs fell
- Falling natural gas costs have made the 2012 IRP portfolios with natural gas generation more cost-effective

WATCHING KEY TRENDS

- Seattle electric vehicle registrations, hybrid and electric battery, are growing rapidly from a small base. Today they account for less than one quarter of one percent of Seattle's total demand
- Solar PV installations in Seattle are also growing rapidly. Today they meet about one-tenth of one percent of Seattle's total demand



SELECTED STAKEHOLDER COMMENTS

1. Look for opportunities to present to community groups as part of other City meetings
2. Ensure the IRP is aligned with the Seattle's Climate Action Plan
3. Investigate opportunities for targeted conservation to capture higher value
4. Work to better understand the declining growth in electricity demand and its long-term implications for future resource needs
5. Evaluate the cost and risk tradeoff of the 2012 resource adequacy standard versus a more stringent standard

SELECTED STAKEHOLDER COMMENTS

6. Investigate the potential impacts of LNG exports from British Columbia on regional gas and power markets
7. Dependence upon regional power markets for resource adequacy requires carefully monitoring for signs of shortages or excessive costs

QUESTIONS OR COMMENTS?

IRP Website Address:

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

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