

Appendix 4

LOAD FORECAST FOR INTEGRATED RESOURCE PLAN

A long-range forecast of system load is produced annually at City Light. This forecast is used throughout the utility for a variety of planning purposes, such as the operating plan, the transmission and distribution capacity plan, and the revenue forecast. It is also distributed to many external entities with planning functions, such as the Bonneville Power Administration, the Western Electricity Coordinating Council, the Pacific Northwest Utilities Conference Committee, and the City of Seattle Department of Finance. A forecast of load is needed for calculating the amount of renewable resources necessary for compliance with Washington state Initiative 937 (I-937) and for producing the Integrated Resource Plan (IRP) required by Washington law (RCW 19.280).

The forecast of system load is based on the forecasts of selected economic and demographic variables for the service area. The main drivers of load growth are service area employment and the number of households. Both load drivers are expected to continue to grow in the long run, though there will be occasional periods of economic slowdown. Overall, the Seattle area economy is strong, supported by major industries – aerospace, software, and electronic commerce.

The forecast of system load that is used for other planning functions within the utility must be adjusted for use in the IRP analysis. This is necessary so that the conservation resource

can be evaluated in the same way as generating resources. The IRP forecast of load must, therefore, reflect load growth that would occur if there were no more programmatic conservation in the future. Consequently, the IRP load forecast is higher than the load forecast used for other planning purposes. Figure 1 shows the load forecast produced in April 2011 and the IRP load forecast, with the difference being the amount of programmatic conservation that City Light expects to acquire.

As a practical matter, a long-term forecast of load must be settled on and locked in early in the IRP process. The load forecast is required for the Aurora long-term study. All of the portfolio analysis is done after the Aurora model long-term study is completed. The long-term study establishes a baseline of regional resources, load, and transmission for the planning period.

Because the IRP schedule and stakeholder review cannot allow for repeated adjustments to the Aurora long-term study and subsequent analyses, the 2012 IRP uses a long-range load forecast produced in April 2011. The April forecast was based on national (IHS Global Insight) and regional (Puget Sound Regional Forecaster) forecasts of economic data available at that time, and it reflects an expected gradual recovery from the Great Recession of 2008/2009. The load forecast shows continued growth in the commercial sector, stability in the industrial sector, and a slight decline in residential load, as urban density, a higher percentage of the population residing in multi-family housing, and energy-efficient appliances, lighting, and building designs further constrain future residential load growth.

Figure 1: IRP Load Forecast
Assumes no new programmatic conservation

