

JULY 30, 2024

TO

Council Member Tanya Woo, Chairperson, Sustainability, City Light, Arts & Culture Committee

FROM

Dawn Lindell, General Manager/CEO

SUBJECT

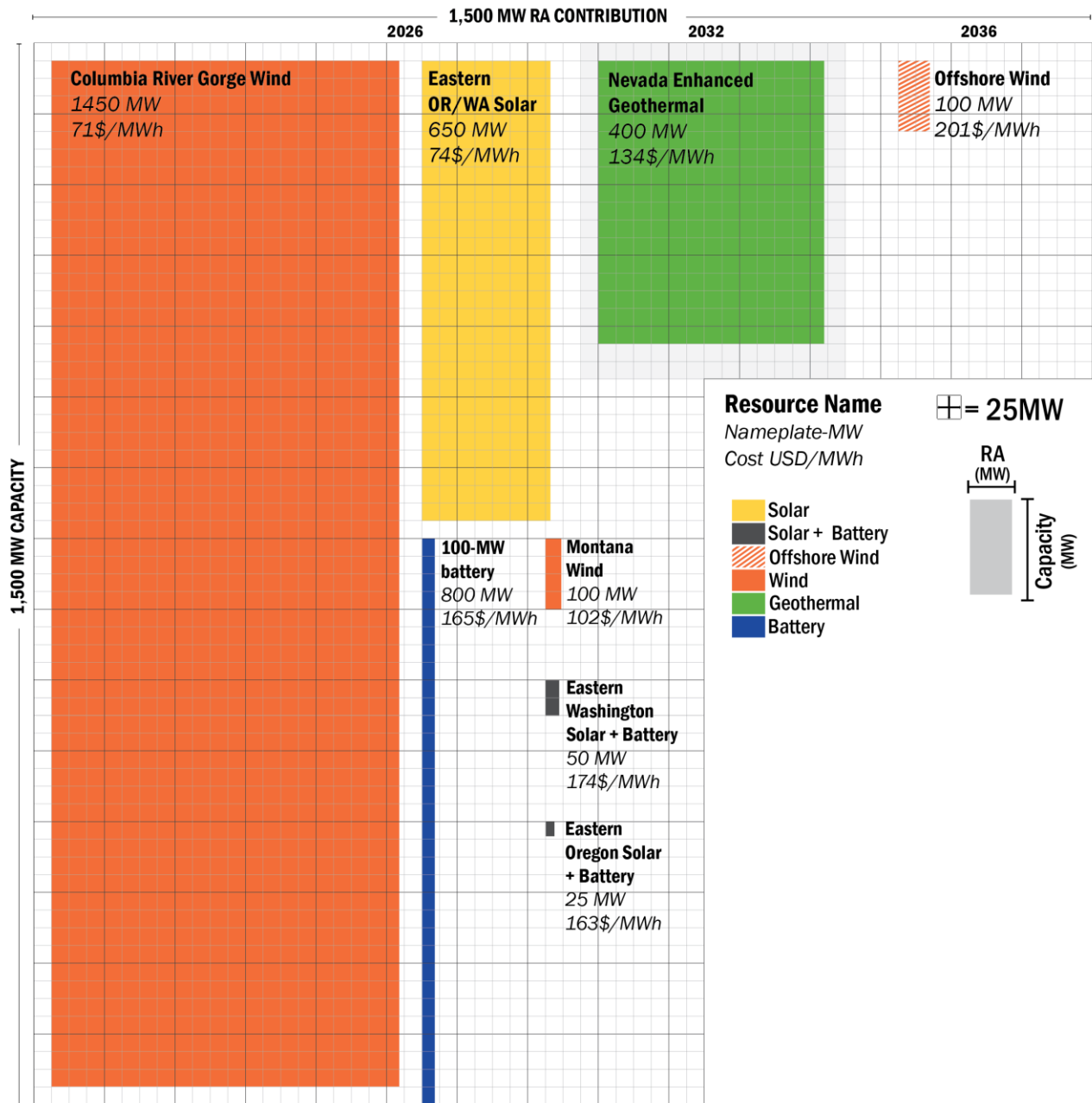
Response to 2024 Integrated Resource Plan Progress Report Questions.

Thank you for the opportunity to address your follow-up questions related to Seattle City Light's 2024 Integrated Resource Plan Progress Report currently at the Sustainability, City Light, Arts & Culture Committee for review and approval.

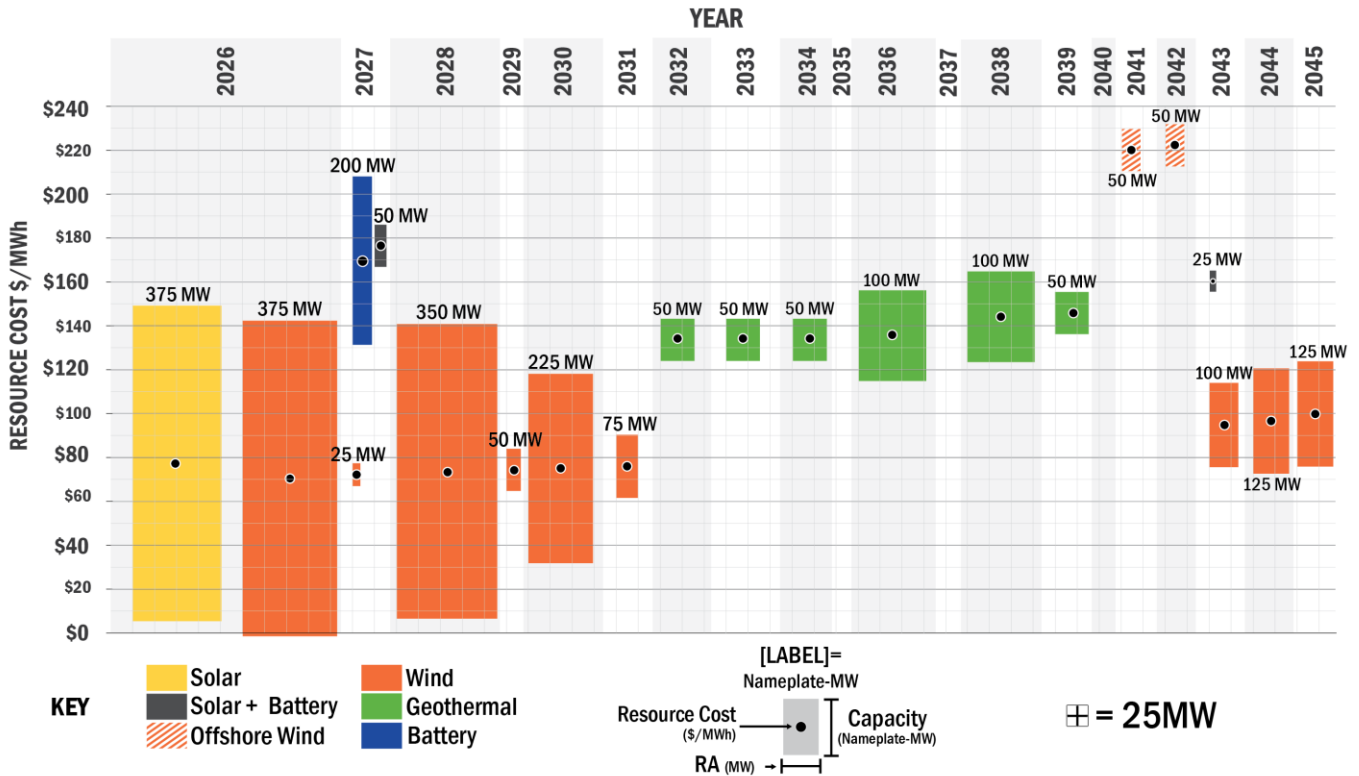
The 2024 Integrated Resource Plan (IRP) Progress Report is an update to the 2022 Integrated Resource Plan that addresses changes in customers' power needs, existing power supply, and assumptions on new energy resource technologies and costs over a 22-year period 2024-2045. The analysis in the 2024 IRP Progress Report indicates an increased need to acquire energy resources to serve growth in customers' power needs.

QUESTIONS & SEATTLE CITY LIGHT'S RESPONSES**1. Could we please have a detailed breakdown of the projected costs for each proposed resource acquisition, and how they compare to alternative options?**

The resource options considered in the 2024 Integrated Resource Plan (IRP) Progress Report are discussed on pages 20 to 21 of the report and shown in Figure 22 (included here for reference). All pricing is in current nominal dollars per MWh for the resource delivered to City Light.



The resource additions selected are discussed on page 22 of the report and shown in Figure 13 (included here for reference).



Because the 2024 IRP is a progress report, alternative load scenarios and conservation products were not evaluated. In the 2026 IRP, which is a full IRP and not a progress report, City Light expects to compare alternative options across several metrics to identify a preferred portfolio of wholesale resource additions that meets City Light’s objectives.

2. What are contingencies in place to address potential delays or cost overruns in the proposed resource acquisitions?

The IRP is not an acquisition plan or an appropriation of funds. Acquisitions, budgets, and rate paths are separate, but related, utility functions, which will require separate approvals by City Council.

As part of comprehensive resource planning, the IRP is updated every two years to address changes in circumstances. The regular analysis, research, and simulation of City Light’s portfolio through a comprehensive resource plan is itself a strategy for mitigating against potential delays or cost overruns in resource acquisitions. The IRP delivers a playbook for meeting anticipated customer energy needs over the next 20 years based on a set of assumptions, conditions, and objectives.

Actual costs will likely differ from the assumptions, as they will depend on the economic conditions at the time of acquisition, project specifics, and negotiation. We'll run a competitive solicitation to identify projects to meet the need identified in the IRP.

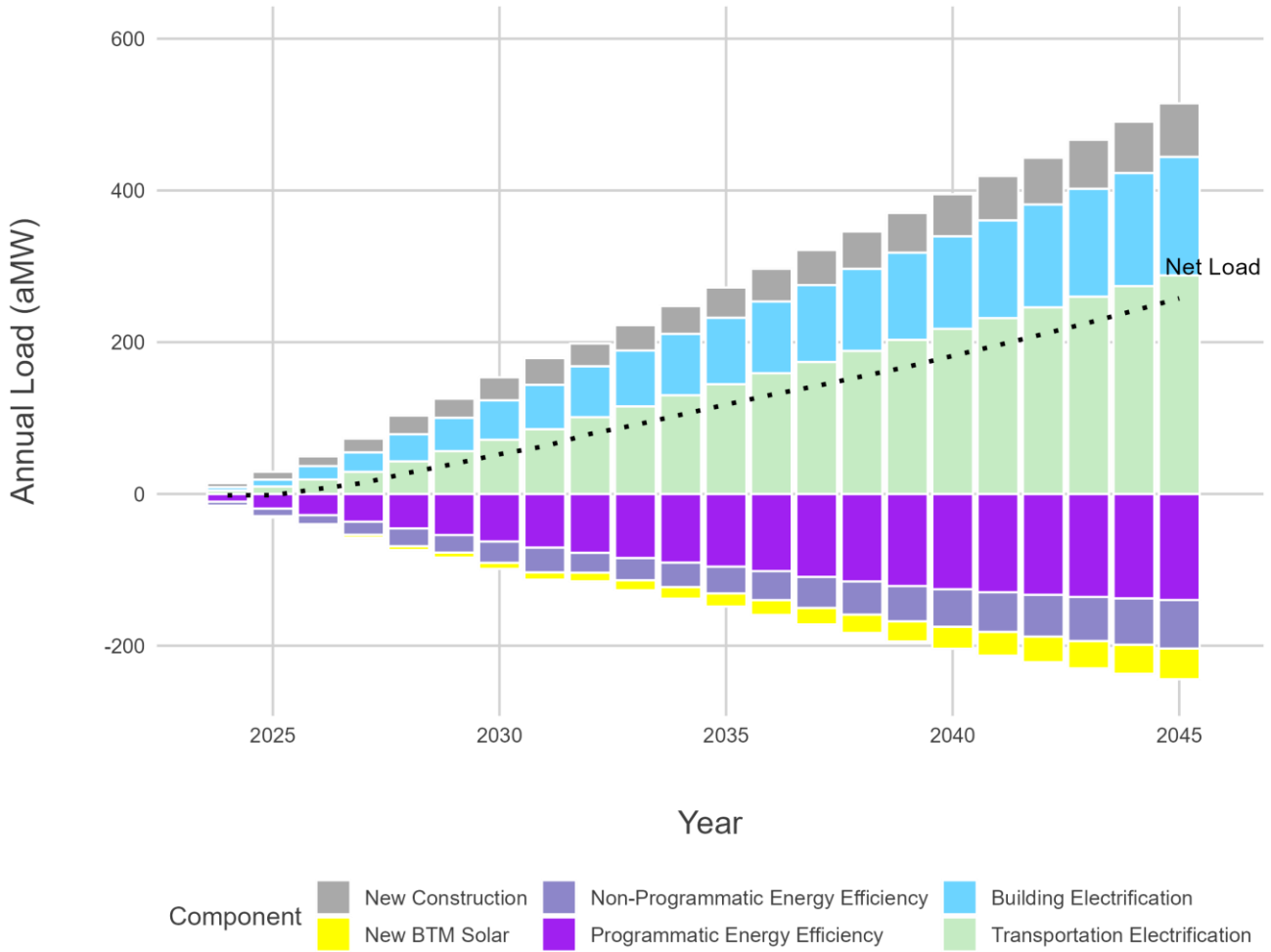
3. Could you explain the methodology used to forecast future electricity demand and how it accounts for various economic scenarios? Walk us through the considerations.

In line with industry best practices, City Light uses an "end use" forecast model to predict future electricity demand. The end use model breaks down energy consumption into sectors (e.g., residential), segments (e.g., multifamily buildings), and end uses (e.g., heating/cooling equipment). We can then use projections of economic/population growth combined with engineering assumptions to see how electricity demand is likely to change in the future.

Our estimates for economic growth are based on the City's Office of Economic Research and Forecasting (OERF) projections. Our projections for the residential sector are largely informed by population growth. For the commercial sector, we look at total employment and bring in additional real estate metrics to create econometric forecasts of square footage growth. In recent years, we have adjusted commercial growth based on expectations for ongoing recovery from COVID. Future economic conditions are highly uncertain. However, scenario modeling of different economic growth trajectories shows that population growth has a lesser impact on electricity demand than it has had in the past because (1) housing units are becoming more energy efficient over time, and (2) much of the new population growth is expected to be absorbed by multifamily units which tend to use less energy on average than single family homes.

While economic conditions are important to consider, we expect load impacts from economic conditions to be far outweighed by impacts from electrification in both existing buildings and in the transportation sector (i.e., vehicle charging). To this end, City Light has partnered with the Electric Power Research Institute (EPRI) to conduct an "electrification assessment" aimed at understanding the magnitude of electrification in these sectors and how these trajectories may be impacted by various legislative mandates and changing consumer preferences. This assessment has provided City Light with the data needed to make informed estimates of how much the load will increase in the coming years. The key drivers of the new load are summarized in the figure below. Note that these values represent the new load in average MW (cumulative) over the forecast period out to 2045, and that the net impact is shown by the black dotted line. Transportation electrification is the largest single driver of new load, followed by building electrification (e.g., heat pumps replacing natural gas furnaces, etc.). Both categories are far larger than the "New Construction" category, which appears in gray. Also note that some categories on this graph reduce load -- these include energy efficiency and behind-the-meter customer solar installations.

Timing and Magnitude of Projected New Loads (2023 Corporate Forecast)



4. Could you provide details on how the utility plans to finance the proposed resource acquisitions and their impact on the utility's overall financial health?

The IRP is not an acquisition plan or an appropriation of funds. Acquisitions, budgets, and rate paths are separate, but related, utility functions, which will require separate approvals by the City Council. The 2025-2030 Strategic Plan Update includes a 6-year proposed rate path associated with increased power supply costs to meet the power needs of City Light's customers at current prices.

5. The IRP progress report shows a significant jump in the need for power (due to electrification, climate change/hydro production changes, etc. as explained by SCL), where and how does this jump in need for power show up in the rate path and in which years? Help us connect the dots between the annual rate increases and what this IRP is showing us.

Electrification of transportation and buildings is the primary driver for load growth in City Light’s forecast as noted in the response to Question 3 of this memo. The 2025-2030 Strategic Plan rate path incorporates many new renewable resources to reliably meet growing retail demand. Below are the new resource acquisition and amounts and total cost assumed in the 2025-2030 Strategic Plan.

	2025	2026	2027	2028	2029	2030
New Resources, average annual Megawatts (aMW)	11	80	136	233	233	233
New Resources, \$ Millions	\$8	\$49	\$99	\$147	\$147	\$164

Unfortunately, the analysis for the 2024 IRP Progress Report was not completed in time to inform the 2025-2030 Strategic Plan Rate Path. The final results of the 2024 IRP indicate that the amount of new renewable resources required to reliably service load will likely be greater in the outyears (2027-2030) than identified in the Strategic Plan. The exact amounts and impact will be better known as City Light updates its resource acquisition plan over the coming year. The largest load growth and associated new resource needs indicated by the IRP are outside the 6-year Strategic Plan Horizon.

City Light is striving to align the schedule for the Integrated Resource Plan and the Strategic Plan so future plans rely on the same analysis.