



Department of Energy

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POWER SERVICES

In reply refer to: Power Forecasting and Planning (PSRF)

Bonneville Power is pleased to release the 2020 Resource Program. It builds off of the 2018 Resource Program accomplishments, such as the development of a frozen energy efficiency load forecast and a more robust resource selection methodology using modern resource optimization techniques, to include sensitivity analysis and a new section on transmission planning. The latter is an important step in moving toward coordinated planning at Bonneville, which will better consider the interplay – and potentially mutually beneficial coordination – between transmission and power resource planning to make cost saving decisions on the behalf of Bonneville’s ratepayers and the region. This year’s section on transmission was designed to have a light touch, due to timing considerations, but for the next Resource Program in 2022 it is anticipated there will be improved transmission analytics tied to the power assessment.

Some of the key findings of the 2020 Resource Program include:

1. The second half of April is when Bonneville, per the Needs Assessment metrics, sees its largest heavy load hour energy needs, where large deficits are observed under low water conditions. These are in addition to the long-standing winter deficits carried over from the 2018 results.
2. Bonneville has surplus capacity in the winter and the summer. This is a change from the 2018 Resource Program, which identified a growing deficit in the summer 18-hour capacity metric.
3. The expected market price at the Mid-Columbia trading hub declined from an average of \$36.50/MWh in the 2018 Resource Program to \$23.60/MWh in the 2020 Resource Program.
4. Similar to previous Resource Program findings, the least-cost mix of resources that will meet Bonneville’s expected energy needs consists of conservation and energy purchased from the market.
5. Demand response is not a part of the least-cost portfolio selected to meet Bonneville’s needs at this time, which differs from recommendations in the 2018 Resource Program. This new finding reflects the lack of a capacity need and a cost calculation correction.

With the onset of COVID-19, a lot has changed in the world. Under the current pandemic, utilities continue to grapple with as yet unknown impacts to the economy as a whole, and the power industry in particular. Macroeconomic effects are likely to persist well into the future, and those impacts on the demand, supply, and cost of power are only starting to unfold. At the time of the analysis performed for the 2020 Resource Program, the pandemic was not foreseen,

and therefore it is important to caveat these results and recommendations in light of recent changes.

In particular, Bonneville's near-term outlook on gas and electricity market prices has changed substantially due to recent market developments. Bonneville's current expectations for higher market prices would likely lead to different Resource Program results, yielding higher amounts of conservation in the optimized resource portfolios.

However, changes to the regional load forecast are also expected as a result of the pandemic, and loads are generally expected to be lower than assumed in this analysis. This would have the effect of reducing energy needs found in the 2020 Resource Program, and lowering the recommended amounts of conservation.

The combined effects are yet unknown. Nonetheless, Bonneville believes the results from the 2020 Resource Program represent good estimates of its near term needs and suggest a plan for meeting those needs for the next two years.

Further questions can be directed to Communications (Communications@bpa.gov), James Vanden Bos (Jhvandenbos@bpa.gov) and/or Ravi Aggarwal (Rkaggarwal@bpa.gov).

Sincerely,

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