

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Develop an	)	
Electricity Integrated Resource Planning Framework	)	Rulemaking 16-02-007
and to Coordinate and Refine Long-Term	)	(Filed February 11, 2016)
Procurement Planning Requirements	)	

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**COMMENTS OF THE PUBLIC GENERATING POOL  
ON WORKSHOP ON LSE PLANS FOR 2017-18 IRP CYCLE**

Pursuant to the August 7, 2018 California Public Utilities Commission Workshop on Load Serving Entity Plans for 2017-18 Integrated Resource Plan Cycle (“IRP Workshop”), the Public Generating Pool (“PGP”), submits the following comments in response to the inclusion of Pacific Northwest hydro-electric resources in the Community Choice Aggregator (CAA) Integrated Resource Plans (IRPs). PGP is a not-for-profit corporation composed of ten consumer-owned electric utilities, nine in Washington and one in Oregon, that work together on issues of common interest. All ten members own or purchase around 6,000 MW of non-federal generating resources, over 4,565 MW of which is renewable hydro generation and 96% of which is carbon free. Three of the PGP member utilities operate their own Balancing Authority Areas (BAA), while the remaining member utilities reside in the Bonneville Power Administration (BPA) BAA.

**I. Comments on Individual LSE Plans**

PGP has no comments on individual LSE IRPs.

**II. Comments on Common Themes or Issues Across Multiple LSE Plans**

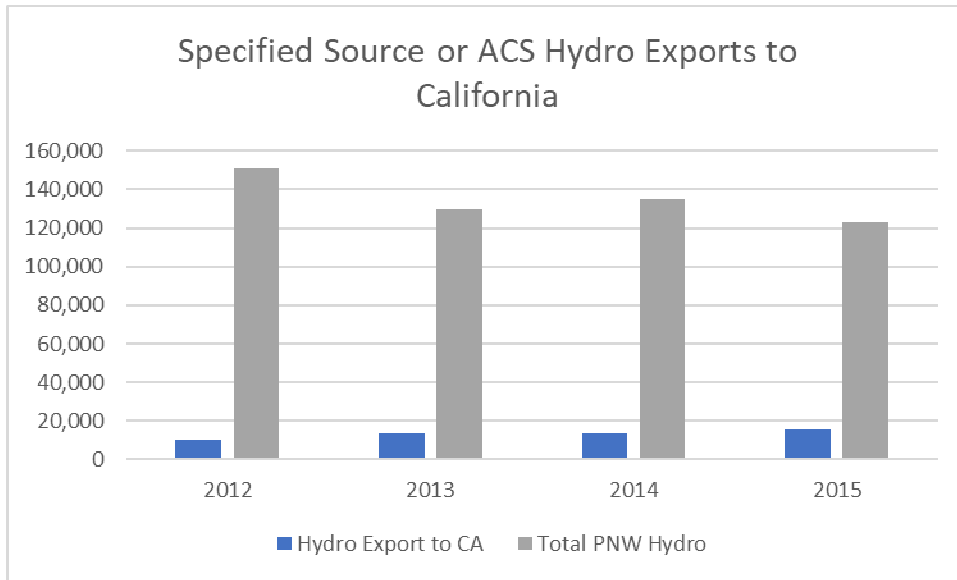
In light of concerns expressed in the Commission’s August 7, 2018 IRP workshop, PGP’s comments below address the benefits Pacific Northwest hydro has provided and can continue to provide to California as California LSEs plan to meet their 2030 GHG emissions reductions targets.

**A. NORTHWEST HYDRO IS PRIMARILY KEPT WITHIN THE REGION**

There is approximately 46,000 MW of existing carbon-free hydroelectric generating capability in the Pacific Northwest and Canada. As shown in the figure below, the majority of Pacific Northwest hydro is reserved to serve regional load.

<b>Utility</b>	<b>Hydro Capacity (MW)</b>
Bonneville Power Administration	~22,450
BC Hydro	~11,850
Consumer-Owned Utilities	~6,200
Investor-Owned Utilities	~5,500
<b>TOTAL</b>	<b>46,000</b>

*Source: PNUCC Northwest Regional Load Forecast and BC Hydro Fact Sheet<sup>1</sup>*



Source: EIA, CEC and Air Resources Board Data

Approximately 50% of the hydro generation in the Pacific Northwest is federally owned and operated. There are Federal statutes, such as the Northwest Power Act, that obligate the federal hydro power to be used first to serve Northwest municipalities, public utility districts, cooperatives and then other regional entities prior to selling power out of the region. More than half of the remaining U.S. based hydro generation is owned by consumer-owned utilities that are managed by local governing bodies. For consumer-owned utilities, some local utility boards require the utility's resources to be used to serve their load.

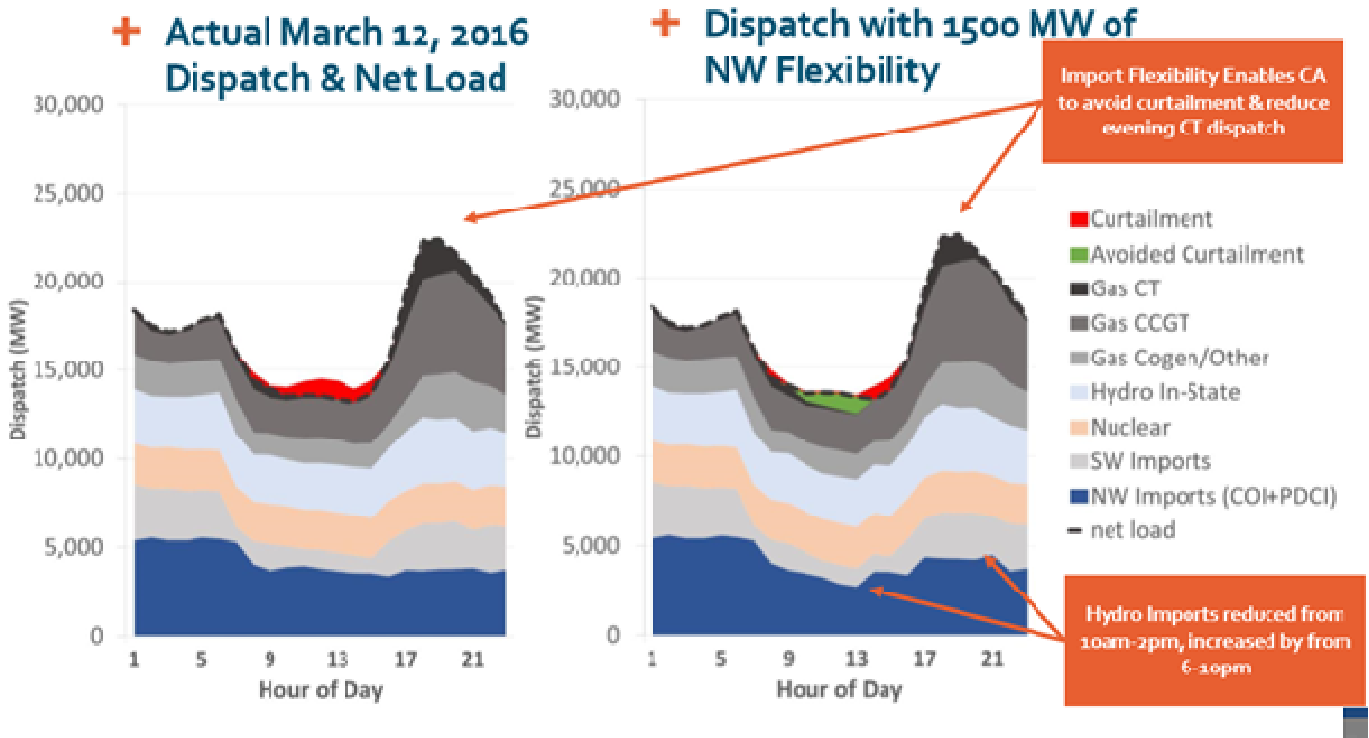
Further, Oregon and Washington are posed to enact legislation that impose policies for greater GHG emissions reductions that will continue to incent zero-carbon resources to be dedicated to meet regional load. Specifically, the Oregon State Legislature is considering an economy-wide cap-and-trade program that would be linkable to California's cap-and-trade program and the State of Washington has a voter initiative on the November ballot for an economy-wide carbon tax. The policies will create additional incentive for utilities to use their carbon-free resources to serve their own load.

## **B. SURPLUS NORTHWEST HYDRO PROVIDES ECONOMIC AND ENVIRONMENTAL BENEFITS TO CALIFORNIA**

Daily, seasonal and annual Pacific Northwest hydro surplus has been sold to utilities in California for decades. The very purpose behind construction of the Pacific Northwest-Pacific Southwest Intertie was to provide the benefits of coordinated markets to the two regions. California utilities shared in the investments in this transmission transfer capability to optimize the economical exchange of electricity resources taking advantage of the diversity of resources and seasonal load timing in both regions.

Surplus Northwest hydro imports provide cost and environmental benefits to the state of California. E3 conducted an analysis for Chelan County PUD that showed that Northwest hydro imports to California in 2015, recognized by the Air Resources Board as specified source or asset controlling supplier, reduced carbon emissions in California by 6 million metric tons and reduced California's electricity GHG emissions by about 7%<sup>ii</sup>.

Pacific Northwest hydro resources also have flexibility that could be used to integrate renewables. Large Pacific Northwest hydro resources are able to provide carbon-free, battery storage-like services to California by accepting excess solar generation from California during the mid-day hours and then providing energy to California during the morning and critical evening ramp hours. As shown in the figure below, 1500 MW of flexibility offered by NW hydro resources can reduce curtailment of renewables and displace thermal resources that are currently serving California load during the morning and evening ramp hours, thereby providing incremental GHG-emissions reductions.



The E3 analysis shows that flexible dispatch of just 1500 MW of Northwest hydro can help the state of California avoid over 1800 combustion start/year, reduce local NOx emissions, and provide greater GHG emissions reductions than those provided by the EIM in 2016<sup>iii</sup>.

Key Savings Impacts	1500 MW in 2016	1500 MW, 2016 + 10 GW solar	3000 MW, 2016 + 10 GW solar
Cost Savings (\$millions/year)	\$37	\$70	\$94
GHG Savings (Metric tons CO2/year)	240,000	530,000	730,000
NOx Savings (tons/day)	0.28	0.35	0.40
Avoided CA solar curtailment (MWh/year)	100,000	900,000	1,400,000

**C. TREATMENT OF OUT-OF-STATE HYDRO AS ANYTHING OTHER THAN ZERO- OR LOW-CARBON INCREASES COSTS, EMISSIONS, AND RENEWABLE CURTAILMENTS IN CALIFORNIA**

Recommendations by other parties in this proceeding to treat out-of-state hydro as an unspecified resource and attribute out-of-state hydro with carbon emissions equivalent to a natural gas plant is unwarranted and only increases costs of delivered electricity to California retail customers. Labeling out-of-state hydro as unspecified power would reduce the sale of low-cost, carbon-free flexible resources available to California, thereby increasing costs, emissions and renewable curtailment.

### **III. Request for Evidentiary Hearings**

PGP is not requesting an evidentiary hearing.

### **IV. Conclusion**

PGP appreciates the Commission's consideration of these comments in their review of the California Load Serving Entity Integrated Resource Plans and looks forward to further engagement with the Commission on these issues.

Dated: September 12, 2018

Respectfully submitted,

/s/ Laura C. Trolese

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<sup>i</sup> [PNUCC 2017 Loads and Resource Study](#), Table 10 Northwest Utility Generating Resources and [BC Hydro Quick Facts](#)

<sup>ii</sup> Northwest Hydro and California, Summer 2017 [Presentation](#).

<sup>iii</sup> CAISO has estimated that the EIM has reduced GHG emissions by 140,486 metric tons in 2016. [https://www.caiso.com/Documents/ISO-EIMBenefitsReportQ1\\_2017.pdf](https://www.caiso.com/Documents/ISO-EIMBenefitsReportQ1_2017.pdf)