Energy+Environmental Economics

BPA Lower Snake River Dams Replacement
Draft Results

BPA Executive Briefing

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About This Study

+ **BPA contracted with E3 to provide independent analysis about the value of the lower snake river dams to the Northwest energy system, including the cost and resource needs for replacement**

  - This study takes a regional view of electricity supplies and uses E3's RESOLVE model to optimize the portfolio of resources serving loads in the "Core NW" region
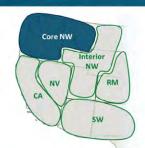
+ **Key tasks:**

  1. **Regional capacity needs + role of hydropower**

     – Summarize CA/OR/WA policies, capacity needs, and the role of hydropower

     Focus of today's presentation

  2. **RESOLVE capacity expansion analysis**

     – Scenario analysis to calculate the NPV replacement cost of breaching the LSR dams + replacement resource needs

  3. **Qualitative benefits**

     – Summarize additional electric system benefits from the LSR dams beyond those captured in RESOLVE

  4. **Project report**

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Lower Snake River Dams

+ **The lower snake river dams:**

- Are ~10% of the Northwest regional hydropower capacity
- Provide relatively low-cost and flexible carbon free power

Plant	Nameplate Capacity (MW)*	50-year Forecasted Costs** (real 2022 $/MWh)
Lower Granite	930	$22.69
Little Goose	930	$15.71
Lower Monumental	930	$12.58
Ice Harbor	693	$15.84

Total = 3,483 $16.74/Mwh

* Nameplate capacities from BPA White book

** Costs provided by BPA based on the CRSO EIS, including sustaining capex, O&M, and fish + wildlife related costs.

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