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March 6, 2018

## MEMORANDUM

- TO: Power Committee
- FROM: G Charles, J Fazio, S Hirotsu, D Hua, J Ollis and M Starrett
- SUBJECT: DOE's Request for Information on Expanding Hydropower and Pumped Storage's Contribution to Grid Resiliency and Reliability

## **BACKGROUND:**

- Presenter: Daniel Hua
- Summary: In response to a congressional directive, DOE issued an RFI in February 2018 on a techno-economic analysis of pumped storage at two sites with high levels of intermittent renewable energy generation. The RFI also includes other topics ranging from evaluating hydropower and pumped storage's contribution to grid resiliency and reliability, to opportunities, market incentivization and barriers to development of hydropower and pumped storage.

Representatives from DOE and Pacific Northwest National Laboratory requested Council staff to submit response to the RFI. Staff will present a summary of the DOE RFI to the Power Committee, and a proposed timeline for staff to draft a response, for review by the power committee and the full council, and for staff to submit a final version to DOE by the deadline on April 6, 2018.

Relevance: Various topics covered in DOE's RFI complement with the Council's power plan on evaluating hydropower and pumped storage's contribution to power system reliability and adequacy.

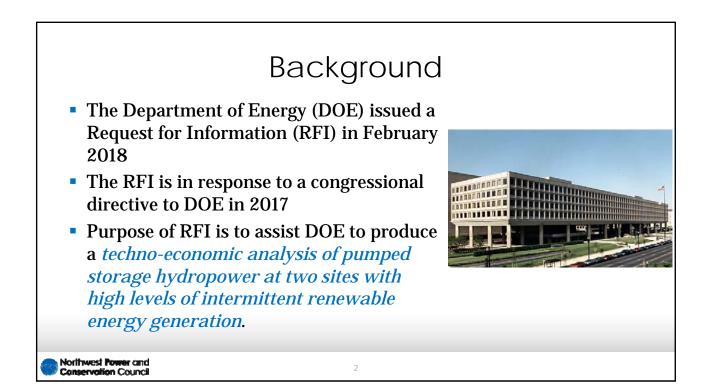
Background: For more details of and to download DOE's RFI see <a href="https://www.energy.gov/eere/water/articles/request-information-hydropower-and-grid">https://www.energy.gov/eere/water/articles/request-information-hydropower-and-grid</a>

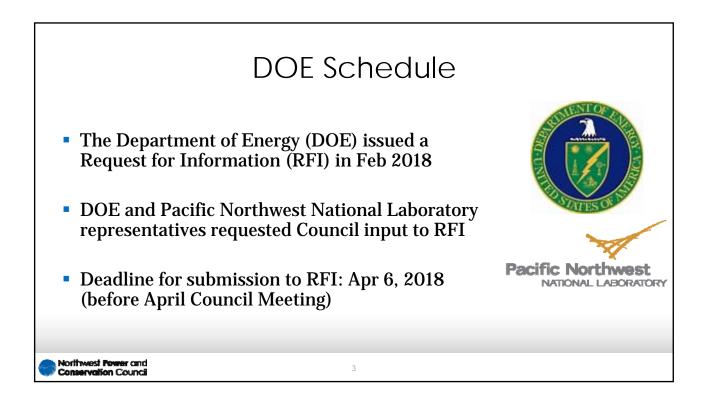
## DOE's Request for Information on Expanding Hydropower and Pumped Storage's Contribution to Grid Resiliency and Reliability

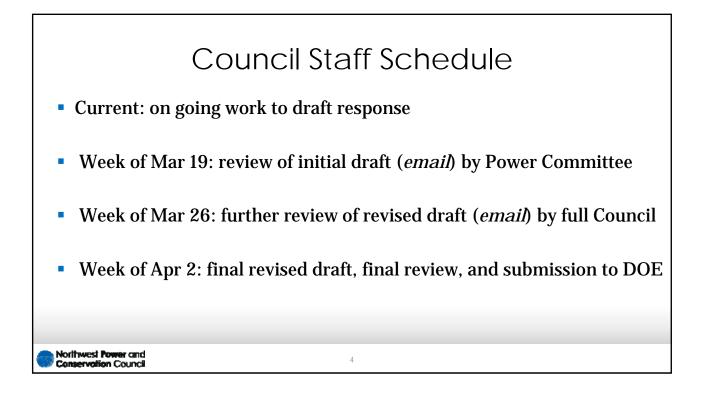
Power Committee March 13, 2018

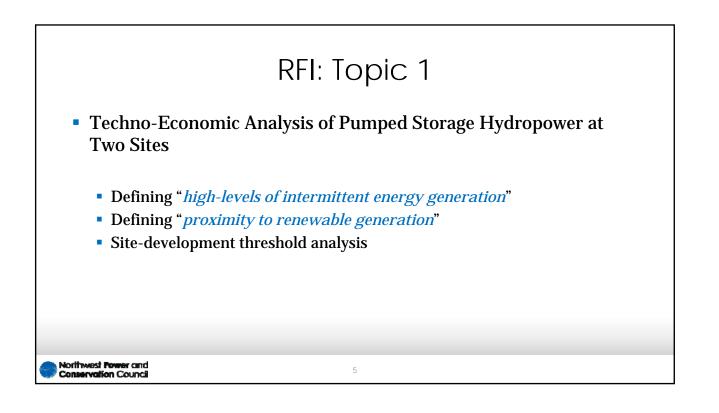
G. Charles, J Fazio, S Hirotsu, D. Hua, J Ollis and M Starrett

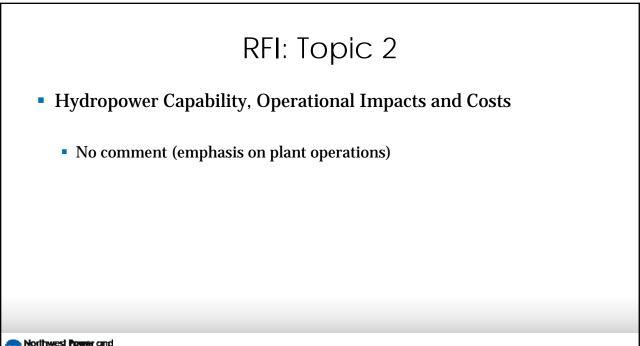
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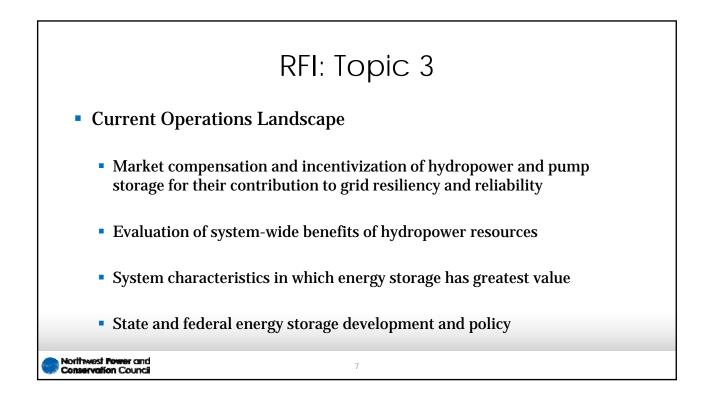


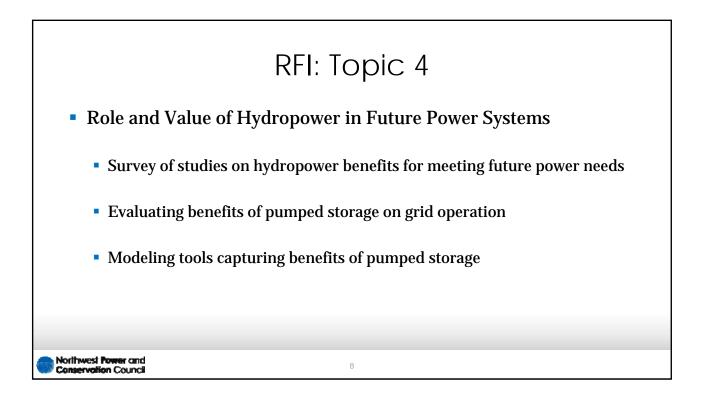












RFI: Topic 5
<ul> <li>Additional Research Needs</li> </ul>
<ul> <li>Integrating future hydropower modeling tools with existing power system models</li> </ul>
<ul> <li>Financing development of pumped storage hydropower</li> </ul>
<ul> <li>International modeling expertise</li> </ul>
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