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May 9, 2017

MEMORANDUM

TO: Council members

FROM: Shirley Lindstrom, Idaho State Staff

SUBJECT: Update on Idaho Power Solar Projects

BACKGROUND:

Presenter: Michael Darrington from Idaho Power

Summary: Idaho Power will be discussing current utility-scale solar photovoltaic (PV) development and how Idaho Power is planning on integrating the energy into its system.

Relevance: With solar costs decreasing significantly over the last several years, the Seventh Power Plan found that the cost of solar PV is now competitive with other new resource alternatives. The Plan encouraged utilities to analyze and consider solar PV when pursuing renewable portfolio standard compliance.

Workplan: A.4.3. Generation Resources – Track emerging technologies and development trends related to generating resources and utility-scale storage.

More Info: See attached newsletter

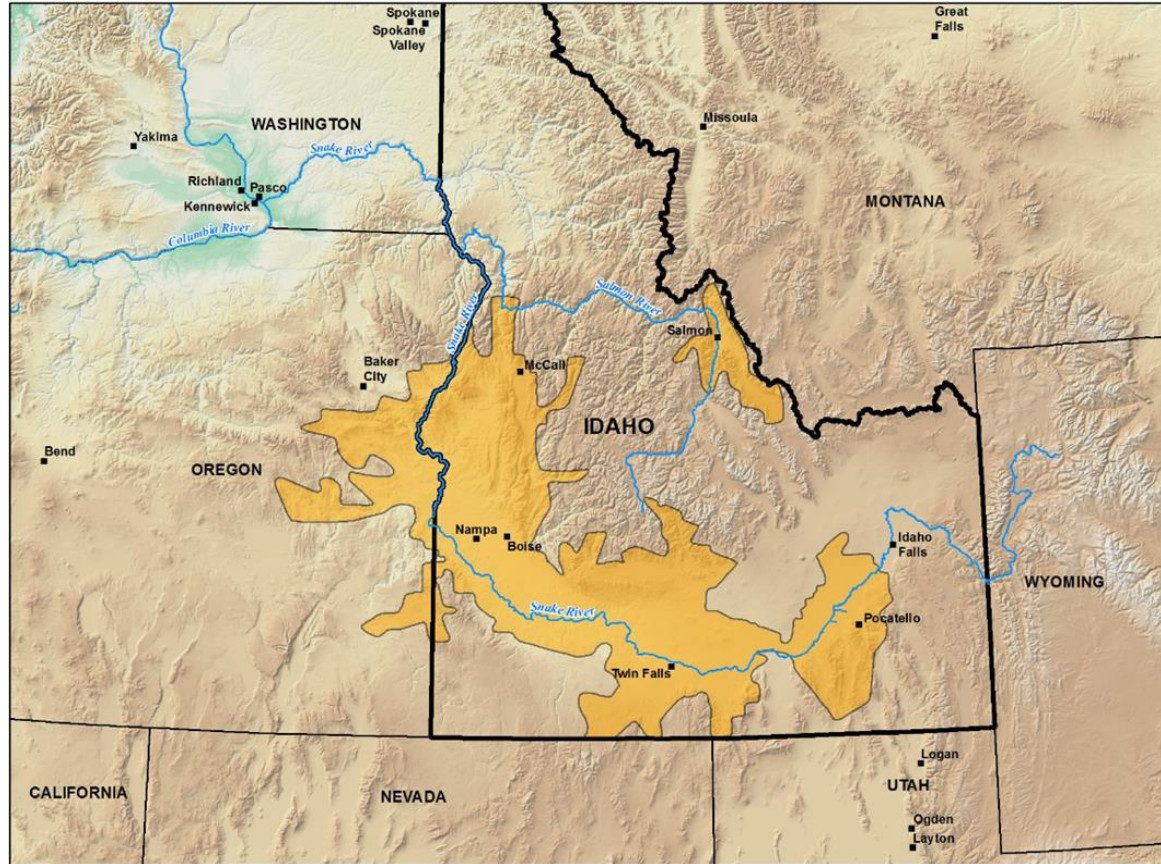


Northwest Power and Conservation Council Meeting

May 16, 2017

Michael Darrington
Energy Contracts Leader

Idaho Power Company Service Area



Idaho Power Company Integrated Resource Plan (IRP)

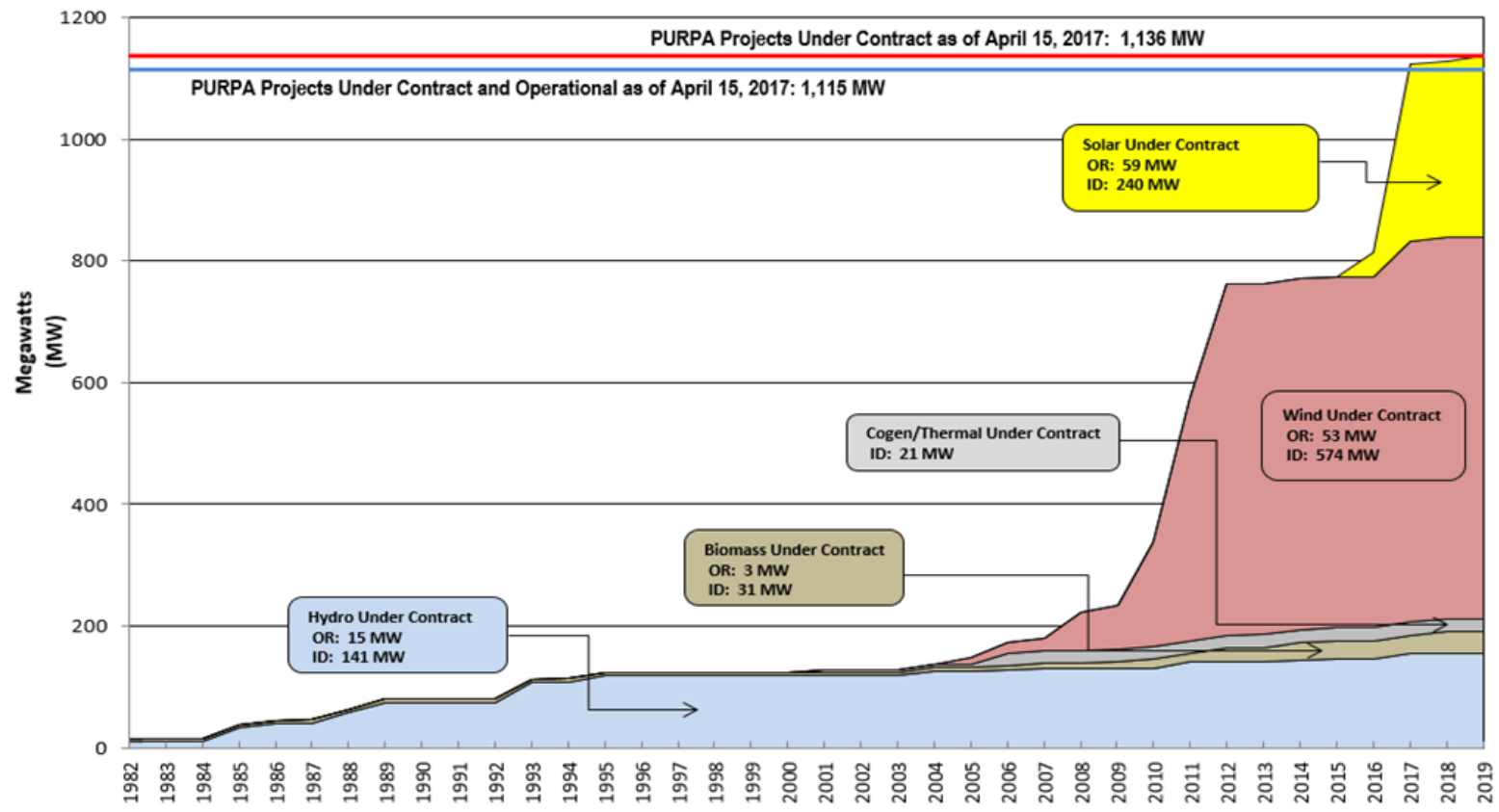
- IRP is prepared every two years and submitted for acknowledgment
 - IRP process utilizes public and stakeholder input
 - Least cost/Low risk planning process
 - Identifies loads and demands on Idaho Power system
 - Identifies resource portfolios to meet customer needs
- Process to acquire generation resources:
 - IRP planning process
 - RFPs issued based on identified need
 - CPCN (Certificate of Public Need and Necessity) required to build utility resources
 - Market Purchases
 - PURPA Generation

Idaho Power Company

First Capacity Deficit

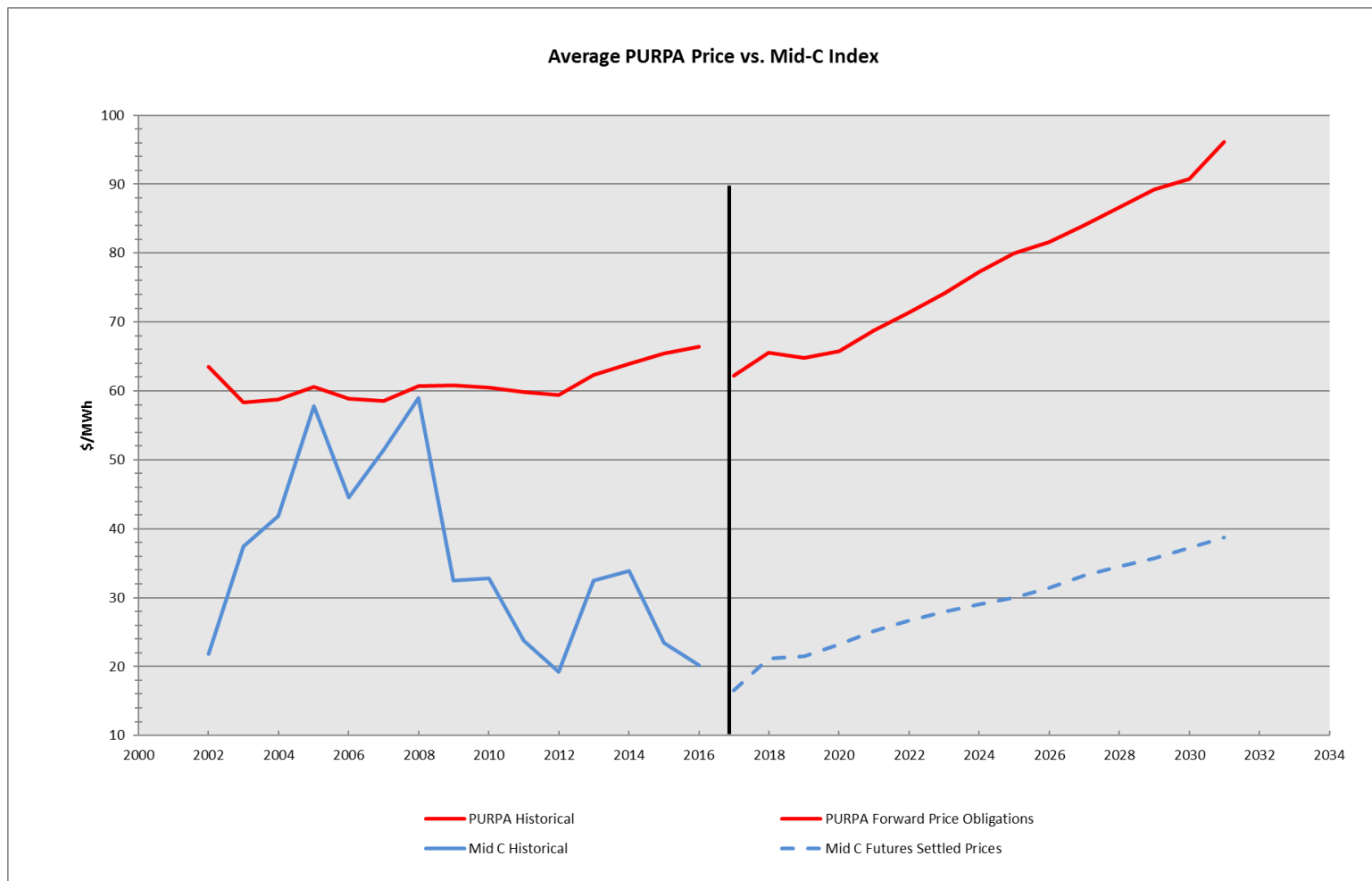
- Idaho Power is Generation Surplus until at least 2025
- July 2025 – First identified Capacity Deficit from 2015 IRP
- The Company's 2017 IRP is currently under development

Idaho Power Company PURPA Under Contract



Idaho Power Company

Historical and Future PURPA Cost compared to Mid-C Market



Idaho Power Company

Non-Utility Renewable Generation

- PURPA Under Contract and Online
 - Wind 627 MW
 - Hydro 148 MW
 - Biomass, Cogen, Thermal 50 MW
 - Solar 290 MW
 - Total 1,115 MW

- PURPA Under Contract but not yet Online
 - Hydro 7 MW
 - Biomass, Cogen, Thermal 5 MW
 - Solar 9 MW
 - Total 21 MW

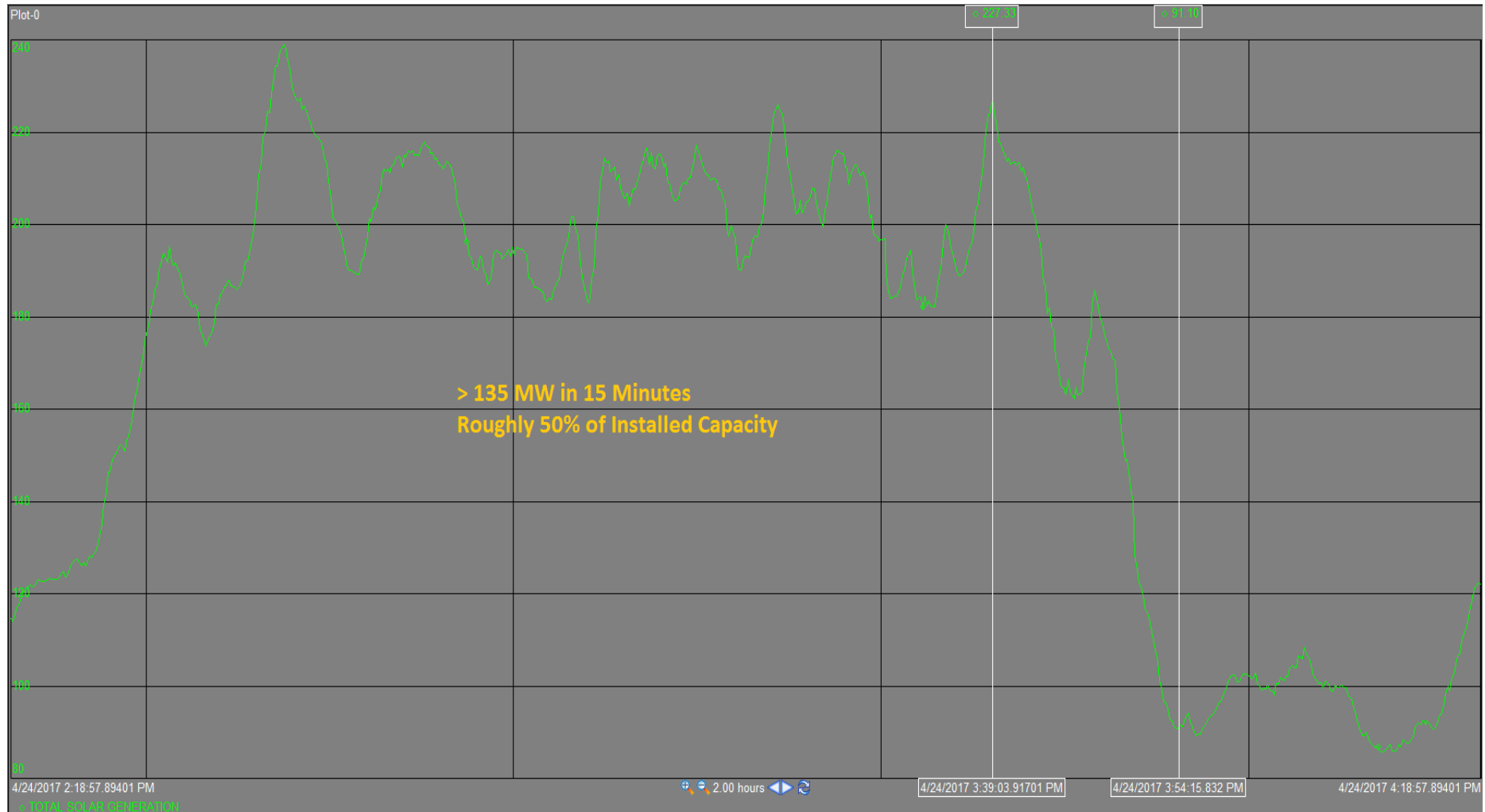
- Non-PURPA Under Contract and Online
 - Wind 101 MW
 - Geothermal 35 MW
 - Total 136 MW

Solar Projects in Idaho Power's Service Area

- 14 Projects - 290 MW Online
- Sized from 4.5 MW to 80 MW
- Located throughout Service Area from American Falls, ID to Vale, OR
- Single Axis Tracking Systems



Solar is an Intermittent Resource



Idaho Power must Operate a Reliable and Balanced System



Shoshone Falls
2017

Shoshone Falls
2016



Idaho Power Company

Questions and Comments

Contact Information

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Energy Contracts Leader

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