AGENDA

› Introductions and Resource Adequacy Project Overview
› Resource Adequacy Program and Preliminary Design Overview
› Purpose and Role of the Stakeholder Advisory Committee, Feedback and Future Meeting Topics and Schedule
OVERVIEW OF THE NWPP AND THE RESOURCE ADEQUACY PROGRAM DEVELOPMENT PROJECT

PRESENTER: FRANK AFRANJII (PRESIDENT NWPP)
What is the Northwest Power Pool?

- The Northwest Power Pool (NWPP) Corporation assures Member organizations achieve maximum benefits of coordinated operations.
- Core values: customer-driven, relationship-based, independent and operating with great integrity.
The NWPP Membership is a voluntary organization and is made up of the following members:

**Members include:**

The Northwest Power Pool was established in 1941 and since that time has been coordinating resources to maximize efficient electricity production.

The NWPP today coordinates a number of different programs essential to the reliable operation of the NW power grid including:

- Reserve sharing program
- Pacific Northwest Coordination Agreement
- Western Frequency Response Sharing Group
Background/Identified Needs

The NWPP report: Exploring a Resource Adequacy Program in the Northwest, 2019 includes two primary conclusions:

1. The region may begin to experience shortages as soon as next year.
2. By the mid-2020s, the region may face a capacity deficit of thousands of megawatts. Deficits of that magnitude may result in both extraordinary price volatility and unacceptable loss-of-load.

As a result of this analysis, the NWPP and its member utilities are moving forward to design an RA program for NWPP member utilities.
Program Participants

› A total of 18 NWPP members have committed to fund the next phase of the program’s development

Funding members include:

How will the RA program function?

› Resource Adequacy looks out 1 - 4 years to ensure adequate resource capability is available to meet customer demand

› In a large portion of the NWPP footprint, utilities manage Resource Adequacy individually and with different methods. An RA Program would allow utilities to forecast and manage Resource Adequacy in a coordinated manner

› The RA Program will respect local autonomy over investment decisions and operations and will continue to respect the rights and characteristics of individual utilities, transmission service providers, BAs and other entities

› The RA Program will be voluntary to join, but once a utility joins, it will be contractually committed to the requirements of the RA Program
RESOURCE ADEQUACY PROGRAM AND PRELIMINARY DESIGN OVERVIEW

PRESENTER: GREGG CARRINGTON (CHELAN PUD)
Phase 1: Information Gathering (concluded Oct. 2019)

Phase 2A: Preliminary Design Phase (Early 2020)

Phase 2B: Detailed Design (Late 2020)

Phase 3: Work to Implement Program (2021)
Proposal for RA Program entity type and organizational structure and governance

Technical design elements options identified, analyzed, and proposed

Stakeholder engagement: create stakeholder advisory committee and hold public webinars

Phase 2A is completed when: NWPP funding members sign on to preliminary program design proposal and agree to fund Phase 2B: Detailed Design
1. Ensure that Balancing Authorities (BAs) and Load Serving Entities (LSEs) can continue to operate safely, efficiently, and reliably

2. Ensure that the recommended RA Program and its components delivers investment savings through diversity benefits

3. Ensure RA Program respects local autonomy over investment decisions and operations and continues to respect the rights and characteristics of individual utilities, transmission service providers, BAs and other entities through program design
4. Make recommendations that are acceptable within the current and evolving regulations and requirements of each applicable federal, state, and local jurisdiction

5. Ensure that the participation, evaluation and qualification of resources is technology neutral

6. Ensure that all products and services transacted to meet the requirements of the RA Program are well defined, voluntarily transacted through existing competitive market frameworks and accurately tracked
7. Ensure that the proposed RA Program can be extended to other regions in the West

8. Ensure that entities that voluntarily choose to participate in the RA Program equitably pay and receive benefits for services provided by the program

9. Ensure the RA Program provides efficient long-term investment signals as well as a process for exit and entry of resources
A program design element work group was formed from the Steering Committee (SC) members to identify key program design elements.

The working group reviewed and compared RA requirements in other North American RA markets and capacity programs.

Key RA program design elements were identified, defined and evaluated around the unique elements specific to the NWPP region.
The initial focus was to compare and contrast these identified design elements, referencing the CAISO and SPP RA programs. The SC group held several face-to-face meetings to further understand and investigate into these design elements that will be incorporated into our detailed modelling design (Phase 2B) and final NWPP RA program.
### Evaluating the RA Framework

<table>
<thead>
<tr>
<th>Program Participation</th>
<th>Program Design</th>
<th>Program Administration</th>
<th>Structural Framework</th>
<th>Regulatory Framework</th>
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<tbody>
<tr>
<td>NWPP footprint</td>
<td>Standardized regional RA metrics</td>
<td>Centralized entity administering and executing the RA program</td>
<td>Understanding the legal framework and governance structure</td>
<td>Ensuring regulation meets state and federal jurisdiction</td>
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<td>BA/LSEs, IPPs, IOUs, PUDs</td>
<td>Forward showing period</td>
<td>Validates annual showings and deficiencies</td>
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<td>Regulators and stakeholders gain insight into the region’s RA position</td>
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<td>Voluntary entry and program commitment</td>
<td>Rules and bylaws</td>
<td>Enforces the program</td>
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<td>Compliance obligation</td>
<td>Operating program to unlock diversity benefits/investment savings</td>
<td>Includes an independent evaluator process</td>
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Legal and Regulatory Structure

- Develop RA program bylaws and governance
- Select a program administrator and independent program evaluator
- Identify RA participants for compliance requirements
- Establish a cost allocation approach among participating entities


Forward Showing Program

- Require transparent capacity reserve procurement levels
- Agree to an adequacy objective which identifies when capacity is insufficient to meet optimum planning reserve metrics
- Determine which generating assets are eligible to provide resource adequacy and how much capacity they can contribute for purchase
- Develop rules around capacity imports and exports
- Establish compliance rules and penalties to:
  - Ensure RA is available when needed
  - Account for planned and unplanned outages.
Operational Program

- Determine when, why and how an entity may access pooled capacity resources
- Determine when, why and how an entity will be obligated to provide resources to other entities
- Evaluate the ability of internal and external resources to deliver supply
- Establish compliance protocols relating to capacity showings and obligations
Next Steps in Phase 2A, Preliminary Program Design

Meet with RA Industry Experts
Structural and Legal Review
Review and update initial modelling efforts
Incorporate Advisory Committee feedback
Finalizing Key RA Design Elements & Operational Benefits

Prep for Key Decisions for next phase - funding, RFPs (Program Administrator, Detailed Design model, Independent Program Evaluator)
Questions?
Stakeholder Advisory Committee and Public Engagement

Presenters: Sarah Edmonds (Portland General Electric) Susan Ackerman (EWEB)
Purpose/Role of Stakeholder Advisory Committee

- Stakeholder engagement is essential to the success of this effort.
- Advisory committee is made up of approximately 20 representatives of various industry sectors.
- Stakeholder committee is advisory to the NWPP RA program steering committee, members will bring expertise/unique perspectives of their organizations to provide feedback to steering committee on program design.
- Stakeholder advisory committee may socialize/communicate with their sectors regarding program design.
Committees exist within the NWPP

EXECUTIVE COMMITTEE
Set mission/vision; approve policy decisions

EXECUTIVE ADVISORY COMMITTEE
Sounding board / program champions

FRANK AFRANJI

STEERING COMMITTEE
Execute the mission/vision; recommend policy

Stakeholder Advisory Committee
Public Webinars
The first advisory committee meeting was held on Jan. 27. Agenda, materials will be posted on: www.nwpp.org/adequacy

Key feedback from the committee includes:

› How are you setting up the program so other entities may participate at a later stage?
› Deliverability of capacity is a key issue that must get resolved for an RA program to be successful
› The jurisdiction of this program is a key issue that will need to be explored (state versus federal jurisdiction).
› How should penalties be assessed and should these be tied to whether the region has a capacity risk?
Future Advisory Committee Meeting Topics

› Steering Committee straw proposal on program design elements

› Specialized work groups: topics, timing, scope of work
2020 ADVISORY COMMITTEE MEETING AND PUBLIC WEBINAR SCHEDULE

› 5 meetings in 2020: January, April, June, September, December

› Public webinars will follow 1-2 weeks after each advisory committee meeting
Thank you