

NORTHWEST POWER POOL RESOURCE ADEQUACY PROGRAM

PUBLIC WEBINAR

February 7, 2020 1:00 - 2:30 pm

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 AFRANJI (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

WHAT IS THE NORTHWEST POWER POOL?

- › The NWPP Membership is a voluntary organization and is made up of the following members:

Members include:

- › Alberta Electric System Operator, Avangrid, Avista, BANC, BC Hydro, BPA, Calpine, Chelan PUD, Columbia Grid, Cowlitz PUD, Douglas County PUD, Energy Keepers, Inc. EWEB, Fortis BC, Grant PUD, Grid Force, Idaho Power, NaturEner, NorthWestern Energy, NV Energy, PacifiCorp, Pend Orielle PUD, Perennial Power, PGE, Powerex, Xcel Energy, Puget Sound Energy, Seattle City Light, Snohomish County PUD, Tacoma Power, Turlock Irrigation District, US Army Corps of Engineers, US Department of the Interior Bureau of Reclamation, Western Area Power Administration.

WHY THE NORTHWEST POWER POOL?

- › 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:

- › Avista, B.C. Hydro/Powerex, BPA, Chelan PUD, Douglas PUD, EWEB, Grant PUD, Idaho Power, Northwestern Energy, NV Energy, PacifiCorp, Portland General Electric, Puget Sound Energy, SMUD/Banc, Seattle City Light, Snohomish PUD, Tacoma Power, Turlock Irrigation District

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)

RESOURCE ADEQUACY PROGRAM DESIGN PROJECT

OVERVIEW OF PROJECT

TIMELINE

**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)**

PRELIMINARY
DESIGN:
PHASE 2A

- » 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

STEERING COMMITTEE CHARTER - PROGRAM DESIGN OBJECTIVES

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

STEERING COMMITTEE CHARTER - PROGRAM DESIGN OBJECTIVES

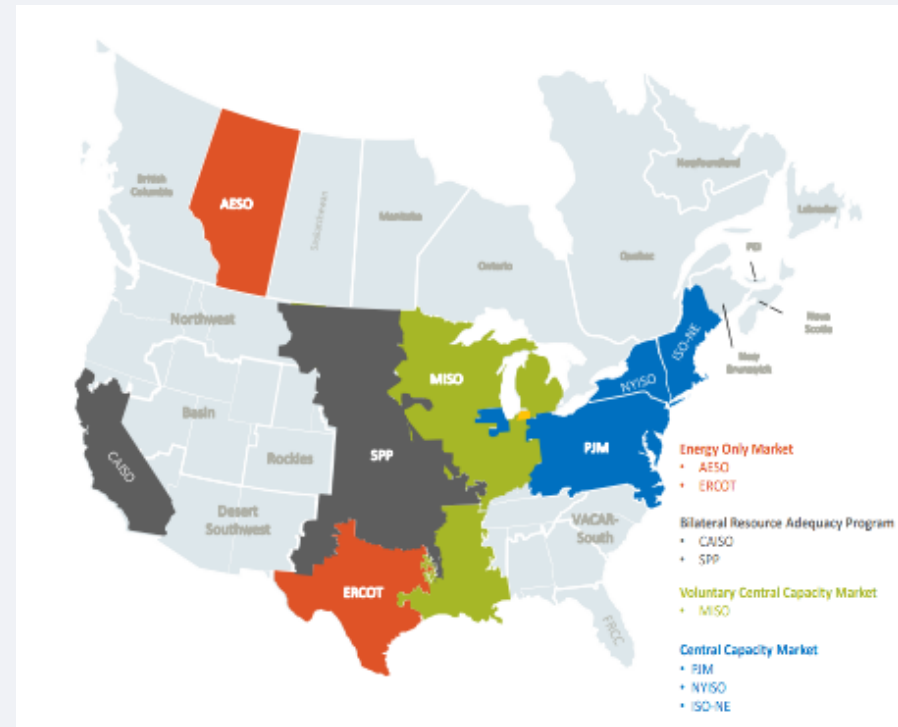
4. Make recommendations that are acceptable within the current and evolving regulations and requirements of each applicable federal, state, and local jurisdiction
5. Ensure that the participation, evaluation and qualification of resources is technology neutral
6. Ensure that all products and services transacted to meet the requirements of the RA Program are well defined, voluntarily transacted through existing competitive market frameworks and accurately tracked

STEERING COMMITTEE CHARTER - PROGRAM DESIGN OBJECTIVES

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

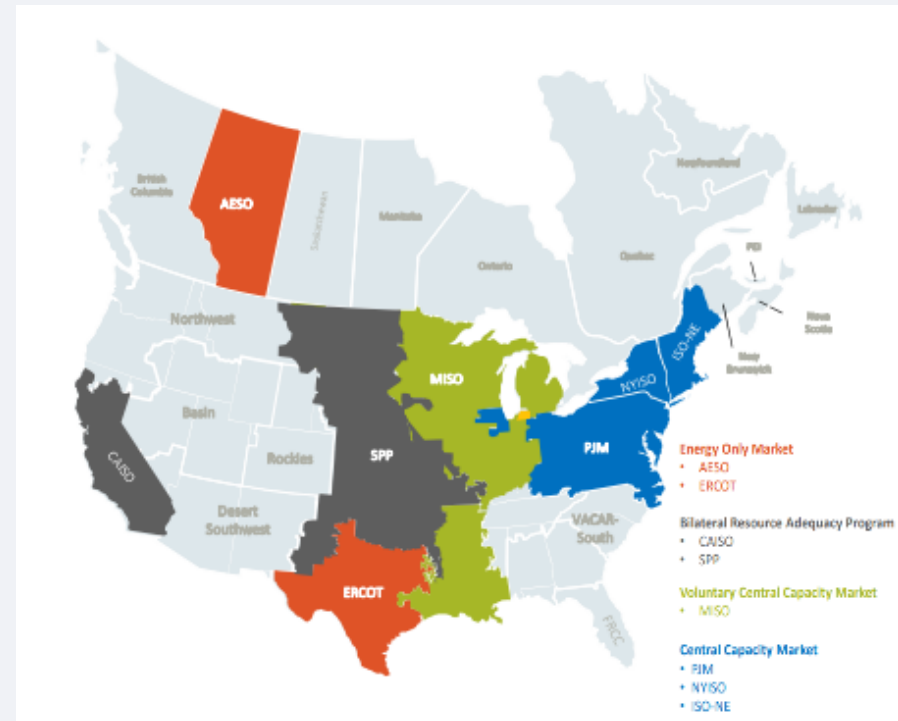
STEERING COMMITTEE EFFORT – PROGRAM DESIGN ELEMENTS

- › 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



STEERING COMMITTEE EFFORT – PROGRAM DESIGN ELEMENTS

- › 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

Program Participation	Program Design	Program Administration	Structural Framework	Regulatory Framework
<ul style="list-style-type: none"> › NWPP footprint › BA/LSEs, IPPs, IOUs, PUDs › Voluntary entry and program commitment › Compliance obligation 	<ul style="list-style-type: none"> › Standardized regional RA metrics › Forward showing period › Rules and bylaws › Operating program to unlock diversity benefits/ investment savings 	<ul style="list-style-type: none"> › Centralized entity administrating and executing the RA program › Validates annual showings and deficiencies › Enforces the program › Includes an independent evaluator process 	<ul style="list-style-type: none"> › Understanding the legal framework and governance structure 	<ul style="list-style-type: none"> › Ensuring regulation meets state and federal jurisdiction › Regulators and stakeholders gain insight into the region's RA position

PROGRAM DESIGN ELEMENTS

➤ 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

PROGRAM
DESIGN
ELEMENTS

PROGRAM DESIGN ELEMENTS

➤ 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.

PROGRAM DESIGN ELEMENTS

PROGRAM DESIGN ELEMENTS

➤ 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

PROGRAM
DESIGN
ELEMENTS

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



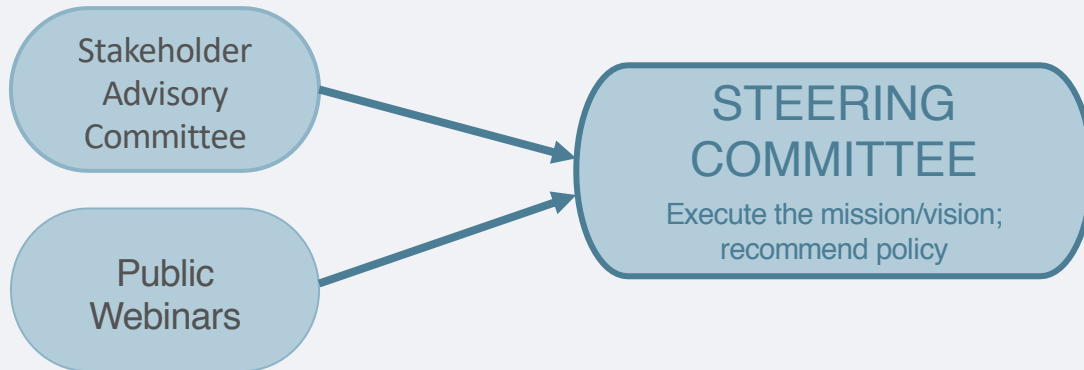
EXECUTIVE COMMITTEE

Set mission/vision; approve policy decisions

EXECUTIVE ADVISORY COMMITTEE

Sounding board / program champions

FRANK AFRANJI



FEEDBACK FROM ADVISORY COMMITTEE JAN. 27 MEETING

- › 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