

# NWPP RESOURCE ADEQUACY PROGRAM PUBLIC WEBINAR

***APRIL 24, 2020 1:00-2:30 P.M.  
FRANK AFRANJI, NWPP PRESIDENT***



# AGENDA

- Tour of the NWPP RA Webpage and Status Update on RA effort
- Organizing an RA Program: Forward Showing Program and Operational Program
- Structural/governance considerations
- Forward showing program proposal



northwest power pool



All

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www.nwpp.org

## Northwest Power Pool

The **Northwest Power Pool** Corporation is doing its part to serve both the Membership and the electric industry in general throughout the COVID-19 pandemic. Like WECC and many of our members, we are following the latest recommendations from the Centers for Disease Control and Prevention.

### Resources

RESOURCES. RAP. 2020.01.27  
Stakeholder Advisory ...

July 8, 2019, 4:46 p.m. ...

July 8, 2019, 4:46 p.m. by David  
Pennington. Last modified Jan.

### Resource Adequacy Symposium

OCT02. Sheraton Portland Airport  
Hotel. Resource Adequacy ...

[More results from nwpp.org »](#)

### NEWS

NEWS. March 30, 2020, 3:04 p.m..  
Resource Adequacy Update ...

### Events

Training Events; Transmission  
Planning Committee ...

### Programs

[POLICY MODAL]. x. PROGRAMS.  
PURPOSE | MEMBERS ...

www.nwcouncil.org › reports › columbia-river-history

## Northwest Power and Conservation ... - Northwest Power Pool

The **Power Pool** is a voluntary organization that includes electric generating utilities in the Pacific Northwest, British Columbia, and Alberta – the largest high-



## Northwest Power Pool

Website

Directions

Save

Training centre in Portland, Oregon · 1.8 mi

**Address:** 7505 NE Ambassador Pl # R, Portland, OR 97220

**Hours:** **Open 24 hours**

Hours or services may differ

**Phone:** (503) 445-1074

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We help keep the lights on by assuring Northwest Power Pool member organizations achieve maximum benefits of coordinated operations. Our work is customer-driven, relationship-based, and independent.

## RESOURCE ADEQUACY UPDATES

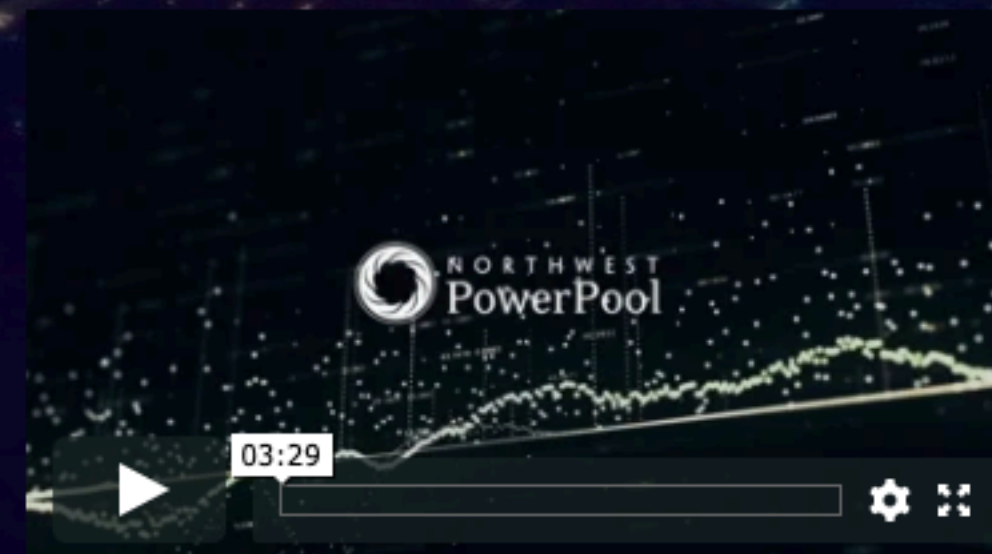
The NWPP Membership is actively working to address regional resource adequacy. Keep up to date, and join the conversation.  
[www.nwpp.org/adequacy](http://www.nwpp.org/adequacy)

FEATURED NEWS | March 30, 2020, 3:04 p.m.

### Resource Adequacy Update, March 2020

In this bimonthly video update for March 2020, we're reviewing the four pillars of an RA program framework, announcing several upcoming webinar events, and introducing some important questio...

LEARN MORE





## RESOURCE ADEQUACY PROGRAM

Given the recent trend in decommissioning coal plants and increasing renewable integration, the Resource Adequacy group is working to coordinate activities related to a comprehensive review of resource adequacy in the NWPP region, and the development and implementation of a Resource Adequacy Program (RAP).

RECENT NEWS | [VIEW ALL](#)

March 30, 2020, 3:04 p.m.



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Feb. 27, 2020, midnight

## NORTHWEST POWER POOL RESOURCE ADEQUACY PROGRAM

*PUBLIC WEBINAR*

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

Recording from February 7 Resource  
Adequacy Program Public Webinar

Feb. 27, 2020, midnight

Jan. 22, 2020, 1:20 p.m.

Jan. 8, 2020, 12:45 p.m.

A Region in Transition: It's Time for a  
Northwest Resource Adequacy  
Program ([www.westernenergy.org](http://www.westernenergy.org))

Dec. 17, 2019, 6:45 p.m.



Will there be enough electricity after

## Resource Adequacy Update, March 2020

March 30, 2020, 3:04 p.m. by David Pennington

Last modified March 30, 2020, 4:56 p.m.



In this bimonthly video update for March 2020, we're reviewing the four pillars of an RA program framework, announcing several upcoming webinar events, and



## Stakeholder Advisory Committee Members

### UPCOMING EVENTS | VIEW ALL (1)

APR24  
2020

📍 Conference Call

RAP Public Webinar

🕒 1300 to 1430

### LATEST RESOURCES | VIEW ALL (8)

📘 RAP

2020.02.07 Public Webinar  
Materials

↓ DOWNLOAD

📘 RAP

2020.01.27 Stakeholder  
Advisory Committee Meeting  
Materials

↓ DOWNLOAD

📘 RAP

Resource Adequacy Program  
Stakeholder Engagement  
Opportunities

What is the RA Program, and where are  
we in its development?

↓ DOWNLOAD

APR24  
2020

📍 Conference Call

## RAP Public Webinar

🕒 1300 to 1430

100/100 seats available

REGISTER

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EVENT SUMMARY

CALL INFO

## LOCATION

Conference Call

## DESCRIPTION

During this April 24 webinar, we'll be sharing initial concepts on the program design of the forward showing program, in which program participants demonstrate sufficient resources in advance of operation. We'll also introduce some of the structural and governance considerations the Steering Committee has been evaluating, with the help of specialized legal experts.



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📘 RAP

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we in its development?

↓ DOWNLOAD

# STATUS UPDATE

- Four two-day Steering Committee work sessions; CAISO/SPP attended February work session
- Draft proposal on forward showing program; working through other design elements
- Started RA modeling for the region with the help of E3
- Evaluating regulatory pathways with legal assistance
- Conducted two advisory committee meetings
- Considering staging/sequencing of program functionality and scope and interim solutions

# STATUS UPDATE-PROGRAM DEVELOPER

- NWPP members engaged in the RA effort have identified a need to hire an organization (or individuals) with proven expertise in design and implementation of multi-state RA programs to assist with areas of technical and operational complexity.
- This role, referred to as the **Program Developer**, would be tasked with taking designs from conceptual to detailed, including:
  - *Organizational structure and governance details*
  - *Developing cost estimates for the final design and implementation phase*
  - *Assisting with regulatory outreach and stakeholder engagement*
- Importantly, once the RA program is fully designed, the NWPP members would then seek a **Program Administrator** to run the program.
- **The Developer** role is separate from the **Administrator** role, and selection of an entity as Program Developer is not indicative of which entity will be selected as Program Administrator.



# APRIL 8<sup>TH</sup> STAKEHOLDER ADVISORY COMMITTEE FEEDBACK

- The second advisory committee meeting was held on April 8<sup>th</sup>. Agenda, materials will be posted on: [www.nwpp.org/adequacy](http://www.nwpp.org/adequacy)
- **Key feedback from the committee includes:**
  - › *Strong desire from members for documentation of preliminary decisions and more information about alternatives considered*
  - › *Interest in learning more about modeling results*
  - › *There is an interest in getting into the finer details on transmission availability and how this will be assessed*
  - › *Interest in hearing how the steering committee plans to address point of compliance*

# 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:  
Begin Work to  
Implement  
Program (2021)**

# ORGANIZING AN RA PROGRAM

*MARK HOLMAN, POWEREX*





# ORGANIZING AN RA PROGRAM: TWO TIME HORIZONS

## **Two Time Horizons:**

- Forward Showing
  - › *Regional metrics (LOLE standard: 1 event in 10 years)*
  - › *Entities prove they meet regional metrics months in advance of a season*
  - › *Ensures reliability benefits*
- Operational
  - › *Access to pooled regional resources*
  - › *Enables lowering/right-sizing of regional metrics to account for regional diversity*
  - › *Function usually provided by an ISO/RTO*
  - › *Unlocks investment savings through diversity benefits*

# COMMON CHARACTERISTICS OF A FORWARD SHOWING PROGRAM

- Obligation/cost is allocated to responsible entities
- Forward procurement “showing” of defined level of capacity
  - › *Quantity set to expected peak load forecast +defined planning reserve margin*
  - › *Load forecast determined/validated by independent program administrator*
  - › *Defined consequences for entities that fail to “show” required capacity*

# COMMON CHARACTERISTICS OF A FORWARD SHOWING PROGRAM

- Generators may provide/sell a pre-defined quantity of resource adequacy capacity:
  - › *Transactions through existing bilateral market framework*
  - › *Receive compensation in exchange for energy must-offer obligation to “footprint”*
  - › *Available quantity of RA capacity for each resource determined/validated by program administrator*
  - › *Defined consequences for resources that fail to “deliver” energy in operational timeframe*



# COMMON CHARACTERISTICS OF A FORWARD SHOWING PROGRAM

- Reliability of service is generally ensured through:
  - › *Establishing robust procurement quantity and lead time*
  - › *Quantifying capacity of resources*
  - › *Rules that establish qualification of imports (credit), identification of firm export commitments (debit)*
  - › *Curtailment/limitation on short-term discretionary exports, if/when needed*

# LOADS AND RESOURCES

## DEMAND SIDE

*Calculate: "PURE" CAPACITY NEEDED BASED ON:*

- **P50 LOAD FORECAST +**
- **Contingency Reserves +**
- **PRM needed to meet The RA metric (1 in 10 LOLE)**



"PURE" CAPACITY NEEDED

## SUPPLY SIDE

*Calculate: "PURE" CAPACITY AVAILABLE BASED ON:*

› **Total Supply, de-rated and qualified as follows:**

*Wind - ELCC*

*Solar - ELCC*

*Thermals - UCAP*

*Run of River Hydro - ELCC*

*Storage Hydro - UCAP + NWPP developed hydro methodology*



"PURE" SUPPLY AVAILABLE

# STRUCTURAL AND GOVERNANCE CONSIDERATIONS

*SARAH EDMONDS, PGE*





# PROCESS: RESEARCHING AND SURVEYING

- The NWPP RA effort includes a work group that has been researching and surveying several topics related to program structure and governance
- Still in early stages; today's presentation includes preliminary information about regulatory landscape
- Advisory committee and public input and feedback is critical

# CONSIDERATIONS AROUND POTENTIAL FERC AND STATE JURISDICTION

- Jurisdiction will depend on **scope**, **functions**, and **timing** of functions of program
- Federal Power Act, "FPA": *"an agreement affecting the rates, terms, and conditions of sales of electric energy for resale in interstate commerce and/or transmission of electric energy in interstate commerce"*

# THE ROLE OF STATES IN A REGIONAL RA PROGRAM

- States have exclusive jurisdiction over the facilities used for the generation of electric energy
- States traditionally have comprehensively regulated electric generation resource planning and adequacy
- The interplay between FERC regulation and the states' longstanding regulation of RA is thus an example of the "cooperative federalism" where both play a role



# IMPORTANT CONSIDERATIONS

- The NWPP RA program is unique: currently all RA programs operate under RTOs/ISOs and must meet FERC's independence requirements
- What are the requirements for the Program Administrator (PA)? Will the PA be subject to FERC requirements?
- Where should the RA program point of compliance be? At the load-serving entity level?
- Timing of potential FERC jurisdiction: may depend on how program components are staged/rolled-out
- How to protect the jurisdictional status of non-jurisdictional entities?

# PRELIMINARY CONCLUSIONS

- A program without binding commitments or financial penalties may not be FERC-jurisdictional; but this would likely result in program with information sharing only
- FERC likely will have jurisdiction over certain components of the program
- Under a FERC jurisdictional program, the program administrator and governance structure will likely need to meet FERC's independence criteria

# FORWARD SHOWING PROGRAM PROPOSAL

***GREGG CARRINGTON, CHELAN PUD***

***CATHY KIM, PORTLAND GENERAL ELECTRIC***



# PROCESS:

## *RESEARCHING AND SURVEYING*

- › Steering Committee identified common program elements by canvassing other RA programs, like SPP and CAISO
- › Preliminary proposal developed for:
  - › *Seasons / Timeline*
  - › *Program Administrator*
  - › *Capacity Contributions*

**\*initial proposal, nothing has been decided.**



# TWO BINDING SEASONS

**Winter** (BINDING): Nov-March

**Summer** (BINDING): June-Sept

*Spring (advisory): April -May*

*Fall (advisory): October*

- *Administrator will provide 3-5 years of advisory data/metrics for planning purposes*
- **Compliance showing** *deadline 7 months in advance of binding seasons*
- **Cure period** *for 2 months following compliance showing date*

# THERMAL CAPACITY CONTRIBUTION

## Use UCAP Methodology

- › Improves upon ICAP methodology (discounting for ambient temperature) by accounting for resource-specific outage metrics
- › Enables more realistic reflection of unit reliability (vs socializing outage averages across the region)
- › SPP and CAISO are both considering shifting from ICAP to UCAP

# HYDRO CAPACITY CONTRIBUTION

\*Methodology is in development – no other region has tackled this issue.

- › Run of river – ELCC
- › Storage
  - › *Using a time-period approach (historical look-back over 10 years)*
  - › *Assess generation output during historical high load periods*
  - › *Account for available storage during historical high load periods (assess what generation could have been available)*

# VER CAPACITY CONTRIBUTIONS

- › Use ELCC calculations

*Considering sub-regional basis to account for varying fuel characteristics*

*ELCC calculations have modeling/technical considerations; being considered/informed by current modeling efforts*

- › CAISO and SPP approaches to VER capacity contributions are evolving



# QUESTIONS AND NEXT STEPS

- Questions??
- Send follow-up questions to [inquiries@nwpp.org](mailto:inquiries@nwpp.org)
- Next public webinar will be in June following stakeholder advisory committee meeting