

Jeffery C. Allen
Chair
Idaho

Idaho

Doug Grob
Montana

Mike Milburn
Montana



**Northwest Power and
Conservation Council**

KC Golden
Vice Chair
Washington

Washington

Ginny Burdick
Oregon

Louie Pitt, Jr.
Oregon

Council Meeting Summary January 10-11, 2023 at Portland, OR and via Webinar

This is a summary of the Council's January public meeting and the actions the Council decided upon. The meeting agenda, presentation materials; recording of each agenda item during the meeting; and subsequent documentation of any decisions by the Council are posted at <https://www.nwcouncil.org/calendar/council-meeting-2023-01-10/>.

January 10, 2022

Council Chair Guy Norman brought the meeting to order at 4:01 p.m. Council Members Jeffery Allen, Ginny Burdick, KC Golden, Mike Milburn, Louie Pitt Jr., Jim Yost, were in attendance in Portland, Oregon. Council Member Doug Grob was in attendance via webinar. The next Council meeting is scheduled for February 14-15, 2023, via webinar.

Council Meeting Agenda Items

1. Remarks from CEO of CAISO, Elliot Mainzer, on September 2022 Heat Wave

Council Director of Power Planning Jennifer Light introduced Elliot Mainzer, president and CEO of the California Independent System Operator (CAISO), who provided a retrospective on the September 2022 extreme heat wave event in California. Mainzer emphasized the event took the California power grid to its limits due to its duration and intensity. Between September 1-10, 28 California cities broke or tied records for maximum temperatures, and 2,864 daily records were tied or broken across the West.

CAISO hit an all-time record for demand on September 6, 2022, at 52,061 megawatts.

Mainzer provided a timeline of events, which included California declaring stage one and two alerts and EEA3 arming. When solar power production dropped, the battery fleet and hydropower were able to keep the lights on without rotating outages. Mainzer explained that California relied on a volunteer conservation response program called Flex Alert when the Department of Emergency Services sent out a wireless emergency alert to 27 million residents of California.

Mainzer highlighted that loads dropped off within 20 minutes of the emergency alert by about 1,500 megawatts. Mainzer underscored that the entire 4-hour lithium-ion battery fleet was used to complement the net-peak issue. The Western Energy Imbalance Market (WEIM) was a key tool to cycle energy between utility systems across the West efficiently and supported reliability during the stressed grid conditions. The WEIM demonstrated the value of wide-area coordination across the Western U.S. and highlighted potential additional reliability and cost-saving benefits of an extended day-ahead market.

Mainzer outlined some things that went well during the event, including improved communication and coordination between departments and the public; effective pre-emptive maintenance and outage coordination; and excellent overall fleet performance, among others. Mainzer praised California for adding 8,000 megawatts of new capacity in the last two years and highlighted opportunities for improvement, including strengthening resource adequacy and improving load flexibility capacities. Mainzer proposed aligning storage market design with grid needs and establishing strategic reserve resources for extreme events to be better prepared in the future.

Member Allen asked what California is doing about building new transmission. Mainzer explained that California has embraced working with the California Energy Commission, the California Public Utilities Commission, and others to understand resource preferences, combined with adequate reliability modeling, to propose transmission plans that reflect the interests of local stakeholders.

Member Milburn asked how California is charging solar batteries at night. Mainzer indicated that solar facilities charge batteries during the day, which discharge power back into the system in the evening. Member Burdick asked about the lessons learned on the role of energy efficiency. Mainzer indicated that California has the country's lowest per capita electricity consumption due to decades of investment in energy efficiency. Member Golden inquired about the market significance of the strategic reserves. Mainzer said the strategic reserve is primarily drawn from small, distributed

backup generation that will only be available for dispatch during emergencies. Member Yost asked about the governor's response to reducing load and the importance of keeping an adequate system without the need to use an emergency alert. Mainzer indicated that California's governor has the same message. Member Grob mentioned that reliability and adequacy are paramount and questions California's ambitious policy goals. Mainzer said that reliability, adequacy, and affordability are the philosophy that guides CAISO and mentioned that we need to work together to accomplish these goals. Presentation materials are at: https://www.nwcouncil.org/fs/18146/2023_01_1.pdf.

Motion for Council to Meet in a Closed Executive Session

Vice Chair Grob moved that the Council meet in executive session on January 11, 2023, at 9:00 a.m. to discuss the Council's civil litigation.

Member Yost seconded.

No discussion.

Voice vote – all in favor, none opposed.

Motion was approved.

January 11, 2022

Reports from Committees Chairs and Executive Director

Fish and Wildlife Committee

Member Allen, fish and wildlife committee chair, reported on the fish and wildlife committee meeting held on January 11, 2023.

1. Washington Governor's Salmon Recovery Office Update on the 2022 State of Salmon in Watersheds Report

Eli Asher, policy specialist in the Washington Governor's Salmon Recovery Office, presented a biennial update on the State of the Salmon in Watersheds report. The presentation included a statewide overview of the abundance of ESA-listed salmon and steelhead populations in Washington State; a list of projects funded by the Washington Salmon Recovery Funding Board; and a high-level explanation of all-H salmon recovery in the state. Chair Allen indicated that the program is very ambitious in its efforts and has great funding sources.

For the report and the presentation materials, see https://www.nwcouncil.org/fs/18141/2023_01_f1.pdf.

2. Columbia Basin Fish and Wildlife Library: Resources for the Council's Fish and Wildlife Program

The fish and wildlife committee heard a presentation from Tami Wilkerson, librarian at the Columbia Basin Fish and Wildlife Library. Wilkerson provided information on the numerous resources available to the region at the library. Along with a discussion of new tools and innovations, the presentation offered information on library resources related to the Council's Fish and Wildlife Program and how to access them.

For the report and the presentation materials, see https://www.nwcouncil.org/fs/18143/2023_01_f2.pdf.

3. Fish and Wildlife Program Strategy Performance Indicators: Review of Data Compilation and Launching of SPI Program Tracker

Council staff Leslie Bach and Kris Homel, with Neil Ward and Binh Quan from QW Consulting, provided an update on implementing the Strategy Performance Indicator (SPI) work identified in Part 1 of the Fish and Wildlife Program 2020 Addendum. The update included a summary of the steps taken to create the SPIs. The speakers discussed the procedure to launch of the SPI Program Tracker and gave a live demonstration of the tool. Chair Allen mentioned that this is going to be a great resource for the region and the Council.

For the report and the presentation materials, see https://www.nwcouncil.org/fs/18142/2023_01_f3.pdf.

Power Committee

Member Grob and Member Golden, power committee members, reported on the power committee meeting held on January 11, 2023.

1. Final Adequacy Report

The power committee heard from staff on the findings of the 2027 resource adequacy study. According to analysis, the regional power supply will not be sufficient if only existing resources and reserve levels are used, and no new resources are implemented. However, if resources and reserves identified in the resource strategy of

the 2021 Power Plan are added to the supply, adequacy is anticipated to be maintained. Staff requested that the committee recommend the Council to approve the public release of the 2027 Resource Adequacy Assessment.

For the report and the presentation materials, see https://www.nwcouncil.org/fs/18142/2023_01_f3.pdf.

Public Affairs Committee

There was no public affairs committee update.

Executive Director Report

There was no executive director report.

Council Meeting Agenda Items

2. ISAB Review of the Upper Columbia United Tribes' Phase 2 Implementation Plan: Testing Feasibility of Reintroduced Salmon in the Upper Columbia River Basin

Independent Science Manager Erik Merrill introduced Stan Gregory, Independent Scientific Advisory Board (ISAB) chair, and John Epifanio, ISAB vice chair, to present the findings and results of the ISAB Review of the Upper Columbia United Tribes' (UCUT) Phase 2 Implementation Plan: Testing Feasibility of Reintroduced Salmon in the Upper Columbia River Basin.

Gregory presented background information on the plan, noting their request for the ISAB to review the plan's scientific foundation. The phased approach is consistent with the 2014 and 2020 Addendum of the Columbia River Basin Fish and Wildlife Program. The plan focuses on the blocked area above Chief Joseph and Grand Coulee dams.

Gregory said the initial assessments of the phase 1 ISAB review completed in November 2019 included donor stock selection, disease risk, predation risk, habitat, life cycle model, passage alternatives, and costs.

ISAB members toured the blocked area and gathered information on the tribes' perspective and vision for the re-introduction plan. The ISAB report provides advice on methods and management approaches. The innovative plan includes field studies, modeling, and facilities designs. The UCUT has developed an adaptive management process with a decisionmaking guide for coordination and rapid response. Gregory

indicated that the ISAB agrees with the plan's progressive stepwise approach from lower to upper regions.

Epifanio briefly summarized the themes covered in the plan, which prioritizes protentional donor stock. Epifanio said that performance criteria for juvenile and adult passage are based on acceptable assumptions, according to the ISAB. Epifanio stressed the need to weigh the advantages and drawbacks of various passage designs and applauded the cooperation between the UCUT and its partners. According to Epifanio, there are several reliability issues and indicated that regular reports on study results must be given to inform adaptive management and establish a long-term record of the results.

Member Pitt praised the UCUT for their dedication and hard work on the plan. Chair Norman was pleased that the ISAB participated in the tours and emphasized the value of culture. He questioned the ISAB on the hopeful presumptions. Gregory noted that while having a sound decision-making process, the plan employs methods yet to be well tested. Gregory concluded by mentioning that the Council and state agencies can play a significant part in the plan's success.

Presentation materials are at: https://www.nwcouncil.org/fs/18145/2023_01_2.pdf.

3. Oregon Department of Energy Biennial Energy Report

Leann Bleakney, Council Oregon Office energy policy analyst, introduced Alan Zelenka, Oregon Department of Energy assistant director and Adam Schultz, electricity markets and policy group lead, to present the 2022 biennial energy report. Schultz provided a brief overview of the Oregon Department of Energy, which guides the state's energy decisions to ensure that its energy infrastructure is reliable and affordable. Its goals are to promote equitable transitions to clean energy; protect the environment and public health; and balance energy effects and requirements.

Zelenka said the report is developed through a data-driven approach that considers equity issues, stakeholder feedback, and public involvement. Zelenka mentioned that two thirds of energy is lost and emphasized the enormous potential for energy efficiency.

Zelenka highlighted that energy efficiency remains the second largest energy resource in the Pacific Northwest after hydropower, but said that in 2020, the state failed to meet its energy efficiency targets. In 2020, Oregon spent \$12 billion on energy across all energy sources, with transportation the most significant expense. Zelenka stated that

Oregon's greenhouse gas emissions have decreased since 2007, attributed partly to energy efficiency efforts, and added that the state's direct fuel use had undergone significant changes, with natural gas now the primary fuel source.

Schultz gave an overview of Oregon's energy landscape. The agricultural sector offers several options for electrification, including adopting electric tractors and an innovative electric "tractor share" program.

Schultz highlighted the importance of traditional and innovative technologies for producing and managing energy systems. Advances in energy efficiency technology can help manage regional demand and reliability; reduce the energy burden for many Oregonians; and contribute to state and local climate goals.

Schultz presented the feasibility of achieving economy-wide deep decarbonization and 100 percent clean energy in Oregon. Many studies find the cost-effectiveness of achieving decarbonization policies by reducing or eliminating natural gas use and gradually making the gas cleaner. Schultz emphasized the importance of electrifying road vehicles and the need for careful consideration and engagement with industry, communities, drivers, and governments to create a more equitable transportation system.

Zelenska highlighted that energy efficiency is facing new challenges and increased competition from low-cost renewable resources. Traditional cost-effectiveness tests fail to capture the wide range of its benefits. Programs and strategies for buildings should use robust data and have specific targets to ensure efficiency; buildings account for 35 percent of Oregon's greenhouse gas emissions. Oregon benefits by developing an energy strategy that brings together policy, regulation, financial investment, and technical assistance to support the transition to a clean energy economy.

Member Burdick thanked the presenters and asked their thoughts about what future electrification would do to Oregon's wasted energy. Zelenska reiterated that Oregon is shifting to more highly efficient technology to dramatically reduce waste.

Member Golden asked how the department ensures the system is adequate to accommodate electrification. Schultz indicated that achieving the climate objective and measuring efficiency will require more flexibility due to the changing energy environment.

Member Pitt expressed concern about the expensive economics of emerging technology. Zelenska added that the department takes equity concerns seriously and works diligently to plan intentionally.

Presentation materials are at: https://www.nwcouncil.org/fs/18147/2023_01_3.pdf.

4. Final Adequacy Report

John Ollis, manager of planning and analysis, John Fazio, senior power system analyst, and Dor Hirsh Bar Gai, power system analyst, briefed the Council on the results of the resource adequacy assessment for 2027.

Ollis outlined that the assessment to evaluate the bulk power system adequacy of the resource strategy and measure customer risk. The evaluation considers more measures so the Council can more accurately identify the risks of regional power supply shortages.

Fazio explained why the industry is moving away from the loss of load probability (LOLP) metric. Although it has been a successful measure in the past, it is not an accurate metric because of the complex changes in the system. Per the current standard, the power supply is deemed adequate if the annual LOLP is 5 percent or less. It measures the probability of future shortfall events of any size and duration. However, it does not consider the measurement of shortfall event size, duration, or frequency and the timing (seasonality) of shortfall events.

Fazio highlighted the capacity shortfall duration curve and mentioned that the objective of the new standard is to avoid frequent emergency measures; minimize long shortfall events; reduce significant capacity shortfalls; and decrease big energy shortfalls. The proposed metrics, LOLEV, aims to avoid the excessive use of emergency measures.

Ollis revisited the 2021 Plan strategy and discussed the methodology of cost-effective reserves. When evaluating the resource strategy, they are testing whether the plan's strategy is adequate. The plan explored risks such as market conditions, stressful events, and high levels of electrification.

Ollis reviewed several scenarios, including an assessment where persistent global instability results in higher fuel costs and delayed deployment of renewables; early coal retirement without replacement; and the market risk if there was no Western Electric Coordinating Council. The system is adequate with the plan's resource strategy, but more needs to be done in high-demand scenarios.

Hirsh Bar Gai presented the most effective strategies for eliminating summer shortfalls; mitigating winter shortfalls; limiting remaining shortfalls to ramp hours; and protecting against long-duration shortfalls. Hirsh Bar Gai reviewed the maximum capacity shortfall by month-hour with and without the resource strategy. The current market reliance limit offers effective risk mitigation for regional adequacy, as it minimizes the impact of out-of-region market supply uncertainties such as drought, gas supply issues, and wildfire.

However, the results suggest that regional adequacy levels may become borderline or unacceptable under specific future scenarios. Future WECC buildouts may pose dynamic market risks, such as changes in supply and demand due to renewable resource acquisition; inconsistent renewable generation patterns; and potential increased imports and exports.

Member Grob asked about the cost of shortfalls in the winter ramp hours. Staff responded that more work is needed to quantify the costs. The strategy is efficient at limiting shortfalls to those hours, but there are times of "tightness" in the market.

Member Milburn expressed concern about the increased risk of electrification on the power system and replacing reliable energy sources with less reliable ones. Ollis emphasized the importance of monitoring reserves, understanding the markets, and knowing what other regions are doing.

Member Yost supported the assessment's release and metric review and emphasized its flexibility in responding to uncertainty. He advised Council staff to be vigilant about market developments and integrating renewable energy builds during the power plan's mid-term evaluation.

Council unanimously approved the release of the 2027 Resource Adequacy Assessment publicly after an editorial review by staff and agreed that staff should continue to develop the multi-metric approach as a more robust approach for assessing adequacy.

Presentation materials are at: https://www.nwcouncil.org/fs/18139/2023_01_4.pdf.

5. Council Business

Approval of December 2022 Council Meeting Minutes

Vice Chair Grob moved that the Council approve for signature by the vice chair the minutes of the December 14, 2022 Council Meeting, held via webinar, as presented by staff.

Member Yost seconded.

No discussion.

Voice vote – all in favor, none opposed.

Motion was approved.

The approved minutes of the December 2022 Council meeting and other materials from that meeting are at https://www.nwcouncil.org/fs/18140/2023_01_5minutes.pdf.

ISRP Appointment of Dr. Ellen Wohl

Vice Chair Grob moved that the Council appoint Dr. Ellen Wohl to the Independent Science Review Panel for first term of February 1, 2023 to September 30, 2026, as presented by staff.

Member Allen seconded.

No discussion.

Voice vote – all in favor, none opposed.

Motion was approved.

Approval of Letter Regarding Double-crested Cormorants

Vice Chair Grob moved that the Council approve a letter to the Oregon and Washington Department of Transportation highlighting concerns regarding the double-crested cormorant colony on the Astoria-Megler Bridge, as presented by staff.

Member Allen seconded.

No discussion.

Voice vote – all in favor, none opposed.

Motion was approved.

Election of Officers

Election of Council Chair

Council Chair Norman moved that the Council nominate Member Allen as the 2023 chair for the Council.

Member Milburn seconded.

Discussion – No other nominations for chair. Member Norman spoke highly of Member Allen’s experience and leadership. Member Golden appreciated Member Allen’s expertise and highlighted his engagement with the external community.

Voice vote – all in favor, none opposed.

Motion was approved.

Election of Council Vice Chair

Member Burdick moved that the Council nominate Member Golden as the 2023 vice chair for the Council.

Member Yost seconded.

Discussion – No other nominations for Vice-Chair. Member Burdick expressed that Member Golden has vast knowledge that will benefit the Council. Chair Norman mentioned that Member Golden has incredible wealth of knowledge and passion.

Voice vote – all in favor, none opposed.

Motion was approved.

Council Retirements

Chair Allen and other members took time to recognize and celebrate Chair Norman and Member Yost's time with the Council. Member Grob expressed his gratitude for working with both members. Member Golden mentioned feeling inspired by both retiring members. Member Pitt thanked the retiring members for their service. Member Burdick expressed gratitude for the leadership Chair Norman and Member Yost.

Public Comments

No public comments.

Chair Allen adjourned the meeting at 1:54 p.m.