

Northwest Power and Conservation Council

Minutes of October 12-14 2020 Council Meeting

Monday, October 12, 2020

Council Chair Richard Devlin brought the meeting to order at 1:30 p.m. Council Members Jeffery Allen, Jennifer Anders, Bo Downen, Ted Ferrioli, Guy Norman, Patrick Oshie and Jim Yost joined by phone. The meeting was held as a webinar. The next Council Meeting is scheduled for November 17 and 18, 2020.

1. Council decision on adoption into Fish and Wildlife Program of findings on recommendations and responses to comments for Part I of the 2020 Program Addendum

John Shurts, general counsel, said this is a decision point on a document that contains findings on program amendment recommendations and responses to comments relevant to Part 1 of the 2020 Addendum to the 2014 Fish and Wildlife Program. Section 4h7 of the Power Act requires the Council to approve in writing findings explaining why the Council rejected any program amendment recommendations that came in from the state and federal agencies and Indian tribes and from others. And because of how we handle program amendment recommendations, and rarely adopt any exactly as they come in, we usually explain how we handled all recommendations. Also, the basic principles of administrative law require the Council to show that it considered all comments received in the rulemaking process and respond in some way. These findings on recommendations and responses to comments are combined in one document that was sent to Council Members in late September. The Council is considering and making a decision today only on the findings and responses relevant to Part I of the Addendum – the portion of this document up through page 47. The Council already approved the findings and responses relevant to Part II in March – the rest of the document.

If approved today, the next step will be to combine Part 1 and Part 2 of the 2020 Addendum into one document, and then make conforming amendments to the findings/response document to reflect the correct page numbers. The final document will need to be published on the Council website. Next, a notice will be sent to the Federal Register, which starts a clock of 60 days for anyone to file a petition in the Ninth Circuit.

Member Devlin asked for comments from Member Norman and Fish and Wildlife Division Director Patty O'Toole.

Member Norman said the findings capture the comments they received from interested parties, as well as the explanation of how those comments are covered. He supports approving the findings.

Member Devlin noted that the Council is about 30 months into the process.

O'Toole echoed Member Norman's comments and thanked John Shurts, senior counsel Andrea Goodwin, and the Fish and Wildlife Division staff.

Member Devlin asked for comments from the Members.

Member Anders said it is an anticlimactic moment, but it's part of the work we do. She thanked Fish and Wildlife Division staff and Shurts in particular for working diligently and keeping our matters in order.

Member Ferrioli said he's impressed by the focus, dedication and accountability of the staff.

Motion re Findings on Recommendations/Response to Comments for Part I of 2020 Addendum

Vice-Chair Downen moved that the Council approve as part of the Fish and Wildlife Program the findings on recommendations and response to comments for Part I of the 2020 Addendum to the 2014 Fish and Wildlife Program, as presented by staff.

Member Norman second.

Bill Edmonds, executive director, conducted a roll call vote:

Member Downen: yes

Member Allen: yes

Member Oshie: yes

Member Ferrioli: yes

Member Norman: yes

Member Yost: yes

Member Anders: yes

Member Devlin: yes

Motion passes.

2. Update on sea lion permit status and operations

Mark Fritsch introduced Kessina Lee, regional director for Washington Department of Fish and Wildlife. Lee introduced Sheanna Steingass, Oregon Department of Fish and Wildlife; Joe DuPont, Idaho Department of Fish and Game; and Doug Hatch, Columbia River Inter-Tribal Fish Commission.

In June 2019, Idaho Department of Fish and Game (IDFG), Washington Department of Fish and Wildlife (WDFW), Oregon Department of Fish and Wildlife (ODFW), Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, and Yakama Nation requested authorization under Section 120(f) of the Marine Mammal Protection Act for more flexibility in effectively managing predation by California sea lions and Steller sea lions.

Hatch described the process they went through starting with the passage of the amendment to the Marine Mammal Protection Act, allowing for area-based management. He discussed the application process to remove sea lions. In August, the National Marine Fishing Service (NMFS) issued a finding allowing removal. Today, three CRITFC member tribes have been delegated the authority to remove mammals. They hope to be implementing removal very soon.

DuPont is the new point of contact for sea lion removal for IDFG. Prior to 1995, lethal removal was not allowed. The Ballard lock situation brought about the change, he said. Sea lions were preying on winter steelhead and their numbers spiraled downward. Despite the amendment allowing lethal removal of sea lions, it proved to be too late as the winter steelhead population in Puget Sound is basically extinct.

DuPont described the prior process of trapping, branding and observing sea lions before they could be removed. He described it as a cumbersome, time-consuming process. They never moved more than 40 sea lions. In 2018, the act was amended to allow sea lion removal to protect listed fish, lamprey, sturgeon and smelt. In addition, the tribe could remove the animals. Now instead of identifying individual sea lions, they are managed by area. If a sea lion is observed downstream of McNary Dam to the I-205 Bridge, or in any tributaries supporting spawning, that animal could be removed. No branding, observation or hazing are needed. Now they can remove Steller sea lions — 176 over a five-year period. This is a big deal because they're observed all year in the Columbia. Below Bonneville Dam, they are outnumbering California sea lions. A total of 540 California sea lions can be removed over a five-year period. The program will be reviewed in three years.

Steingass discussed the removal plan and field work logistics. What will be done at Bonneville Dam was done at Willamette Falls. It's extremely effective. A NMFS report coming in a couple of weeks shows reduced predation. With the new directive, they hope to

target Steller sea lions starting next week and operating through November. These are extremely large animals, weighing up to 2,500 pounds. The peak season is January through February. Then in the spring they will focus on California sea lion removal.

Steingass discussed a new trap array at Bonneville Dam, which features three tunnels between the traps to manage the animals for transport. She described how it works. The source population for a lot of animals is at Bonneville Dam. They have a remote camera system to monitor the traps.

Kessina discussed starting with the smaller animals, which can be more aggressive. The equipment at Bonneville are more geared for California sea lions, and she talked about the logistical problems dealing with the much-larger Steller sea lions. With COVID and the economic downturn, they have done well with the funding they have, but they have less than what is needed. They need a barge and transport cages for Steller sea lions.

Hatch said addressing this complex and controversial issue has been a model of cooperation, coordination and adaptive management. He credited participants (the National Marine Fishing Service, U.S. Army Corps of Engineers, Bonneville Power Administration, Northwest Power and Conservation Council, the states and the tribes) and multiple funding sources. He said the region is unified in responding to this issue, more so than any other issue in his 30 years of working in the Basin.

Member Allen referred to the program's three-year check-in and asked if we have the necessary tools and resources to verify the results we're hoping to achieve.

Steingass replied that the Army Corps of Engineers have done monitoring at Bonneville Dam and ODFW at Willamette Falls. We know how many animals, for how long and how many calories they require, she said. They even collect scat. An exciting finding at Willamette Falls is that estimates of predation are down from 25% to 0.4% on winter steelhead — just from one year of management. They hope to convene a regional meeting in December to review models and methodologies, and they hope this can be applied to the Coast. We have phenomenal tools and scientists working on this, she said.

Member Allen asked if Dr. Michelle Wargo Rub has adequate funding to continue her work. Kessina replied she hasn't heard the latest on Dr. Rub's funding status and noted that her work is very complimentary to their own.

Hatch agreed. It would be great if Dr. Rub could extend her work reviewing the spring run to include the fall run and get a better sense of the Steller sea lion impacts in the summer and fall.

DuPont mentioned that Dr. Rub's work shows that early runs to Idaho have mortality rates of 40-45%.

Member Norman expressed appreciation to the panel. He knows what it takes to put together a task force and an implementation plan for such a complicated effort. He asked about the status of the Steller barge. Kessina said they were not able to get the funding to get it fabricated because they waited too long to pull the trigger. Now all the funds are frozen. It's still a need. They had planned to start with smaller animals in any event. By next season the barge will be needed to handle the large Stellers.

Member Devlin said he thought BPA was going to cover the cost of the barge. Mark Fritsch said the Council has a standing recommendation for that barge of \$52,000.

Crystal Ball, BPA's fish and wildlife program executive manager, joined the call and said the funding is available. BPA completed the necessary environmental compliance work and they can program that funding for the barge ASAP.

Member Norman recognizes that Bonneville Dam and Willamette Falls are key areas. But the area has expanded. Has there been discussion on adaptive management and the versatility to move operations if necessary?

Kessina said they have discussed it. She said they believe the source population is largely at Bonneville and Willamette falls. They recognize there may be hot spots, and may need to handle animals in tributaries. They're in early discussions on how that would work. They're not closed to using nonlethal methods.

Hatch said they are restricted in terms of removing animals by trapping or darting. Firearms are prohibited. Every year, they have numerous issues between fishermen and sea lions. They're hoping to have some darting techniques and removal possibilities to respond during the ceremonial period next spring.

Member Allen said Council Members should look for a draft letter of support for funding Dr. Rub's work.

3. RTF 2021 Budget and Work Plan Approval

Jennifer Light, Regional Technical Forum (RTF) manager, sought Council approval for the 2021 RTF work plan and budget. The RTF is supported primarily by separate Bonneville and regional utility funding. She said the RFT operates on a calendar year and its funders have agreed to manage it on a five-year budget. The intent is to spend all funds over five years.

Light listed the RTF activities in its charter:

- Develop and maintain measure library with savings, lifetime costs and estimated value to power system.
- Establish a process for updating list of resources and an appeals process for demonstration of different values.
- Develop set of protocols by which savings and system value should be estimated.
- Assist the Council in assessing measures, technology development trends, and effect of trends on future performance and availability of resources.
- Track regional progress toward meeting Council targets annually.
- Conduct technical analysis of potential for technologies that provide both energy efficiency and demand response.

Light said that an analysis of natural gas energy efficiency savings from dual fuel and natural gas technologies was added this year.

Light then listed the RTF values:

- Leverages the work across the region to reduce the individual burden on any one utility.
- Brings together thirty, unbiased, technical experts to analyze the data and provide recommendations.
- Uses a public process to bring transparency, as well as additional ideas and expertise, to the analysis.
- Removes some of the friction between utilities and regulators when estimating and claiming savings.

She reviewed the work plan development timeline and then discussed the agreed-upon funding levels. The 2021 budget started with \$1,845,000. The budget is sufficient for:

- Six full-time contract analysts
- Additional contract support
- One RTF manager

She said carryover funds are added to accelerate work from out years and/or expand the scope per stakeholder needs.

The proposed 2021 Work plan and Budget represents the second year of the five-year agreement. The proposed budget for 2021 is \$2 million. The increase of \$200,000 is mostly carryover funds from 2020 to 2021.

Light read through a list of comments received from Bonneville. Comments included a recommendation to increase allocation to research coordination to support more

engagement in RBSA work; and to reallocate funds from meetings to other areas in anticipation of virtual meetings continuing into next year.

Light said that measure development is 55% of the work plan. About 20 measures will sunset next year and she estimates that nine new measures are in the queue. There are five new electric, two dual fuel and two natural gas measures.

In 2021, the RTF will apply \$15,000 of rollover funds from 2020 to support the analysis of residential behavior program saving estimation; and another \$15,000 to support variable speed drives analysis.

Light discussed regional coordination and said some work in this area probably will come out of the 2021 Power Plan. The main updates from 2020 in regional coordination are to align funding with 2020 spending and to address BPA comments: specifically to increase regional coordination for residential building stock assessment support and increase market analysis support.

She said the RTF plans to use carryover funds to support two specific projects:

- \$25,000 for review of 2019 commercial building stock assessment data for RTF needs.
- \$100,000 to accelerate work with end-use load research data.

Other work plan categories include tool management, and management and administration.

Member Oshie remarked that while the RTF's work is not unique it is recognized by other regions. It's made up of a dedicated community of individuals with tremendous expertise. He commended Light for her work and said the budget is reasonable given the benefits derived from it. The budget has been thoroughly vetted by the Policy Advisory Committee and utilities.

Member Devlin asked about the RTF consultant group: Is it ongoing or are they solicited each time? He said he doesn't see them at meetings.

Light said she doesn't necessarily solicit them every year. The team is six analysts. They've been invited to meetings, but they're more steeped in the technical aspects of the work. We have a very strong team of the right folks, she said.

Motion re Regional Technical Forum 2021 Work Plan and Budget

Vice-Chair Downen moved that the Council approve the 2021 Regional Technical Forum Work Plan and Budget in an amount of \$2,000,000, as presented by staff and recommended by the Regional Technical Forum Policy Advisory Committee.

Member Oshie second.
Motion passes.

Member Devlin noted committee meeting start times on Tuesday. There will be no Public Affairs Committee meeting.

Chair Devlin recessed the Council meeting at 2:53 p.m.

Wednesday, October 14

Chair Devlin brought the Council meeting to order at 8:45 a.m.

Reports from Fish and Wildlife, Power, and Public Affairs Committee chairs:

Fish and Wildlife Committee

Council Member Guy Norman, Fish and Wildlife Committee chair, reported that the committee heard from Dan Rawding, Washington Department of Fish and Wildlife's Columbia River salmon recovery coordinator, on the survival of Upper Columbia River spring Chinook. A study looked at the 2009-13 brood years and survival through the hydrosystem, downstream juvenile passage, upstream adult passage and ocean survival. It included adult return smolt rates. The spring Chinook run, which is listed as endangered, is not meeting the Council's 2–6% smolt-to-adult return rates. Over the last decade or two, they have been averaging 1%. This is a continuing study to ascertain what's needed to move the survival rates higher to a level where they can recover.

Power Committee

Council Member Pat Oshie, Power Committee chair, reported on the timeline for the 2021 Power Plan. They have experienced continued difficulties with the wholesale price forecast and WECC-wide buildout. When that's complete, the Committee will have a better idea on how long it will be delayed. Currently it looks like the delay is four to six weeks.

John Ollis, planning and analysis manager, reported on a model run that looked at a WECC-wide buildout of resources to ensure system adequacy, the resources to cover reserves, meet peak loads, and satisfy the clean energy goals of the region. The estimate was 35 GW of natural gas, 112 GW of wind and 28 GW of solar with battery support, which would require a total regional investment of \$500 billion. The question was raised if that was reasonable given the region's fossil fuel limitations. Last week, a new model was presented with less reliance on natural gas, but the new price is \$750 billion. They will share

the new modeling with the System Adequacy Advisory Committee (SAAC) next week. They're getting closer to a reasonable buildout and will know by the Council's November meeting. Other models need to be addressed before a draft plan can be produced. The Committee looked at stakeholder comments addressing the Council's conservation program framework. There were presentations representing public power, state agencies and regional energy organizations. The views were not uniform, but all recognized regional benefits of conservation programs.

Member Devlin said he's been hearing a lot about WECC's numbers, but people should not be surprised by them. It includes 14 western states, including California, British Columbia and Alberta, and portions of Baja Mexico. We're just a small part of it.

Member Oshie said planning forecasts that 9 GW of natural gas will be built in Alberta and northern Mexico, west of the Cascades and Rocky Mountain Region. The majority will be outside country, so there is a lot of diversity in the region. The most needy regions are California and the Southwest. The Northwest represents a smaller slice and has the benefits of the Columbia River hydrosystem. We'll have more refined numbers specific to BPA's region.

Public Affairs Committee

Council Member Jeffery Allen, Public Affairs Committee chair, had no report.

4. Resource Adequacy Primer

John Fazio, senior power systems analyst, began his presentation with a definition of reliability and adequacy. He said adequacy is a component of reliability. A power system is reliable if it is both adequate and secure. He discussed the tradeoffs between adequacy and cost. There's an optimum mix of the two.

There are three areas of assessment: generation, transmission and distribution. Most studies assess only generation.

There are two methods of assessing adequacy:

1. Deterministic – simple accounting, e.g., load/resource balance.
2. Probabilistic – incorporate likelihood of future unknowns.

Fazio said the industry is moving toward standards based on probabilistic methods. There is no industrywide standard, but the most common is 1-day-in-10-year loss of load expectation (LOLE). NERC is discouraging its use as a standard, he said.

Fazio provided more detail on the different methods. Deterministic compares expected resource availability versus expected demand. It leads to the planning reserve margin, which is the amount of surplus capacity needed to cover uncertainties. This is usually based on peak-hour demand. It's a building block approach with surplus to cover generator outages + extreme temperatures + balancing and contingency reserves. But it has limitations, he said.

Probabilistic has two approaches:

1. Analytical is what most of the world uses. You compare the monthly distribution of hourly loads to the hourly availability of all resources.
2. Simulation is what the Northwest uses. It uses a Monte-Carlo method, which means the resource needs are simulated many times, each time using a different scenario of future uncertainties.

While the Council uses loss of load probability (LOLP). NERC prefers:

- Expected Unserved Energy (EUE) – MW-hours of unserved load/year
- Loss of load hours (LOLH) – Shortfall hours/year
- Loss of load events (LOLEV) – Shortfall events/year

Fazio recounted a history of adequacy assessments from 1933 to 2018. There used to be a very wide LOLE range: 1-in-8 to 1-in-88 years. By the 1950s, it moved to LOLE where the range narrowed: 1-in-5 to 1-in-15 years. Currently, the generally accepted LOLE is 1-in-10 years.

Fazio said the 1-day-in-10-year LOLE means no more than one day in 10 years with a shortfall. Unfortunately it's not a true shortfall-event frequency measure, and there is no indication of duration or magnitude. NERC discourages its use, so it's not likely to be included in future reports.

He discussed the NERC Adequacy Report and Technical Reference Report. He and Dan Hua, power system analyst, were part of the team that put together the technical guideline.

Member Norman asked about the simulation model. Monte Carlo uses historical information. How is the model used to project for extreme temperature or water events that we haven't seen? Fazio said that through this year, historical data has been used, but going forward, we're using climate-change based forecasted river flows and loads based on downloaded global circulation model results from the IPCC5 report. It's a transition we are making.

Fazio said between 1952 and 1998, the region used load/resource balance as a measure of adequacy. Since 1999, it's been LOLP. Going forward, the Council may want to use LOLEV along with EUE and LOLH. The Council is waiting for the redeveloped GENESYS model,

which has a much more granular simulation, to be completely vetted before reviewing its adequacy standard.

Fazio said the Council uses GENESYS to run thousands of simulations for an operating year with different manifestations of future uncertainties. These include natural river flows, temperature-sensitive loads, generator forced outages, and wind and solar generation

The Council's current adequacy standard, the LOLP, means the Council deems the power supply to be adequate if the likelihood of having one or more shortfalls in a future year is less than or equal to 5 percent.

He went through the resources modeled in GENESYS (firm hydro, thermal, nonfirm and markets). Standby resources are modeled in a post processor program but emergency actions that could be taken to keep the lights on are not modeled.

He demonstrated how the likelihood of a supply shortfall is modeled. Utilities don't plan for 100% adequacy because it's too expensive. You can't plan for every possible contingency. The cost would lead to a customer revolt.

Member Anders said when she hears "curtailment," she thinks the lights go out. Fazio explained that curtailment in the model is when resources aren't sufficient to meet load, but it does not imply that a blackout would occur because utilities have a number of emergency actions they can take that we cannot model. So, the proper interpretation of a 5% LOLP is that there's a 5% likelihood of needing to take emergency actions. The likelihood of a real blackout is much lower, but we cannot estimate it because we cannot model all the emergency actions that utilities have at their disposal. The model does, however, count failure to maintain the NW Power Pool required 6% contingency reserve as a curtailment.

Member Devlin asked Fazio to explain why a 5% probability doesn't mean 5% certainty. Fazio said a 5% LOLP means that in a future year, there's a 5% percent chance that one or more shortfalls will occur. It implies that the region will have a year with shortfalls only once in every 20 years, meaning that on average the region will have to take emergency actions only once in every 20 year.

Norman asked if there is an assessment of the difference between a 100 MW shortfall and 1,000 MW and the probability of an actual blackout? Fazio replied, no, we don't try to assess the likelihood of an actual blackout because we don't model emergency actions. There are creative, innovative things utilities can do. We essentially want to plan the power supply so that use of emergency actions are infrequent. And, he said the reason the Council will soon revisit its adequacy standard is because the LOLP does not account for the magnitude or duration of potential shortfalls.

Fazio said the most intuitive approach to setting an adequacy standard is to identify an unwanted event, and then assess your tolerance for that event. One could set the unwanted event to be extremely high electricity prices – such as avoiding a situation where the price jumps to \$1,000 per MWh. Or we could set the unwanted event to situation when fish operations must be curtailed to ensure electricity service.

Looking at the current state of the power supply, the Council performs an adequacy assessment five years out. Last year, the assessment showed a LOLP of 12.5% by 2024. If we make no changes, Fazio said, then the likelihood of having to take emergency actions is greater than our tolerance for them (5%). But we're not sitting on our hands. We are developing a power plan to address needs not just through 2024, but beyond.

Fazio showed what happens when climate change-based forecasts are used. Under a climate change scenario, the data shifts resource needs to the summer. The Resource Adequacy Advisory Committee (RAAC) is developing a preliminary assessment for the 2025 operating year. He said NERC Adequacy Metrics are more robust and give us more information about magnitude, duration and frequency of potential shortfalls.

Member Devlin observed that when the Pacific Northwest is in a winter peak, California doesn't need as much power. As we need more in the summer, we're starting to mimic our neighbors. That will impact markets and what will be built.

Fazio said the adequacy assessment assumes that we get nothing from California during the summer, but with climate change forecasted data, we will compete with them more and more as time moves forward. These are assumptions RAAC will address in its next meeting. The market is a big factor in this. Fazio indicated that dependence on the market highlights a tradeoff between average system cost and the likelihood of having a very high-cost year. You can invest more in the power supply, which increases average cost and limits relying on outside sources. To make average cost lower, you can depend more on the market. But that increases the possibility of having a high-cost year.

Fazio discussed adequacy in the Council's Power Plan, specifically the Regional Portfolio Model (RPM), which develops resource strategies for hundreds of load growth paths over 20 years. Fazio said resources are acquired if they are economic or if they are needed for adequacy, i.e., if the Adequacy Reserve Margin (ARM) is not met. Resulting resource buildouts are tested to ensure that the LOLP is close to 5%.

Fazio discussed the NW Power Pool's Resource Adequacy Program. He said the Council's and the NWPP's work on resource adequacy is strongly related, but the Council's adequacy standard focuses on long-term resource acquisition strategies to ensure an adequate future power supply. NWPP's resource adequacy program focuses on short-term management of existing resources to facilitate sharing of resources through markets.

5. NW Power Pool Resource Adequacy Planning Effort

Fazio introduced Gregg Carrington, NW Power Pool (NWPP) chief operating officer. A little more than a year ago, NWPP started a resource adequacy program (RAP). Carrington said NWPP has 36 member companies and 19 are participating in the RAP effort. Calpine is the most recent to join the steering committee. The steering committee includes load-serving entities, IPPs and balancing authorities.

They have completed a conceptual design, which is available on their website, and they hired the Southwest Power Pool to be a developer. They'll hire an administrator in the future. E3 (a consulting firm) has completed an evaluation, which looked at the type of data that would have to be submitted to participate in the RAP.

Carrington said the NWPP has implemented a capacity sharing mechanism. He said when someone's load reaches the 99th percentile, they can go to a bulletin board and request additional capacity. He said during California's August event, one Northwest entity did reach their P99 load, requested help and there were three or four members with spare capacity to share.

Carrington reviewed the RAP timeline. After completing the preliminary design phase last summer, they're working on detailed design through early 2021. Implementation is slated to begin mid-2021 through 2024.

He discussed the distinction between Council's resource adequacy program and the NWPP's. He defined terminology: energy, capacity, flexibility and contingency. The RAP is a capacity program addressing needs that are generally a few hours in duration.

Carrington said entities need to submit detailed proof that they have energy to meet their loads and margin to sell capacity, which is the forward showing program aspect. There are a huge number of legal and regulatory considerations to be considered.

He described the program as neighbors helping neighbors. We're resource agnostic — we don't care if its gas or wind, he said. It's up to each entity to provide capacity needed for the program.

He briefly described different aspects of the forward showing program: market structure, participation, point of compliance, administration. compliance periods, forward showing period and planning reserve margin.

The overall objective of the program is to lower everyone's planning reserve margins, he said. Seattle is going to peak at a different time than Portland and Idaho. By sharing the diversity of the resources in the region, we can lower the overall planning reserve margins as opposed to people having to do it themselves.

Member Oshie asked about the relationship between what the RAP will do and the reliability coordinator (RC) for the region. Carrington replied the RC looks at bulk system at a higher level, so that one entity doesn't take down the rest. We're only looking at the NW footprint, setting up a regional sharing system on a voluntary basis.

Member Oshie said, so there is no authority to direct sharing other than what is in the contract? It won't be an operator, it will be outside of that? Carrington said that each entity is responsible for coming to the table with their planning reserve margin. The program administrator will make the determination of when and how to release the resources those entities have. The intent is only to release resources when they're needed. They don't anticipate this being used more than a dozen times a year.

Member Oshie asked if an action between utilities could be overridden by the RC. Carrington said it could to the extent the RC believes it would impact the bulk electric system. We're asking member companies to provide capacity for the program, but to bring their contingency reserves as well. It's yet to be determined. How will it be integrated with EIM is another issue we're working on.

Devlin said asked Carrington to define NWPP's territory. He replied it includes the Northwest and some entities in Northern California and Colorado. It also includes some in British Columbia and Alberta, but they aren't participating in the RAP. When you're providing capacity, you have to consider transmission constraints, he said.

Member Downen asked about a choice customer in Montana that uses Northwestern's transmission system. If Northwestern became a member of the RAP, but that customer did not, how would RAP be impacted by the relationship between the choice customer and Northwestern?

Transmission customers won't be affected that much, Carrington said. If Northwestern joined RAP, the program administrator would look at their power purchase and transmission agreements.

Carrington talked about Resource Capacity Accreditation – we want to be sure resources will do what they say they'll do. They're looking at how to qualify variable resources, batteries, run of river hydro, storage hydro, thermal, and other resource capacity crediting. If demand response is controlled by the entity, that will be considered a capacity resource.

But energy efficiency and passive demand response would be reflected in their load during critical hours. The program is set up to be dynamic and change as conditions change.

Carrington mentioned they're discussing the penalty for noncompliance, the framework for accessing pooled capacity transmission and deliverability, and delivery failures.

Carrington summarized the E3 evaluation for the program and its findings.

Member Devlin remarked that these would still be bilateral agreements. Would the parties be able to put conditions on those agreements such as offramps? Carrington replied it will be up to the purchasing utility to come up with the contracts. The entity participating is responsible for complying.

Member Oshie asked, the NWPP has no role in dispute resolution? What is its role? Currently, the NWPP is providing the structure for program development, meeting and budgeting. To manage other functions, an independent board will be hired. That will be the governing body to determine compliance with the program. Other parameters are up to the agreement between the buyer and the seller.

6. Presentation on the Columbia Basin Partnership and its Phase II Report

Patty O'Toole, Fish and Wildlife Division director, introduced the panel: Michael Tehan, NOAA; Mike Edmondson, Office of Species Conservation Idaho; Zach Penney, Columbia River Inter-Tribal Fish Commission; and Rob Masonis, Trout Unlimited. She said their goals were brought into the 2020 Addendum.

Tehan said the task force will present their report, *A Vision For Salmon and Steelhead, Goals and Pathways for Restoring Thriving Salmon and Steelhead to the Columbia River Basin*, to NOAA Fisheries' Marine Fisheries Advisory Committee (MAFAC) on Oct. 20. He talked about the unique aspects of the partnership and the quantitative goals they set for 27 salmon and steelhead stocks.

Edmondson talked about natural production goals. He said the partnership recognizes that abundance isn't the only measure. Achieving delisting requires a number of different metrics.

These numbers represent natural origin fish returning to the spawning grounds. Historically, 9.45 million fish did. The low goal is 0.44 million. The high goal is 8 million adults, incorporating all spawners. Another goal is to achieve 76% natural stocks to 24% hatchery, which he said is the reverse of where we are now.

Edmondson said the partnership explored the factors (or threats) affecting salmon and steelhead survival. Analyses showed that no single strategy (e.g., reducing predation, increasing habitat, reducing harvest) will achieve the goals on its own.

Zach Penney talked about the scenarios and strategies for phase two. The quantitative goals developed were a challenge to create but a great accomplishment. Looking at all the different factors, there's not one thing that will fix everything. The scenarios and strategies provide some guidance. He said they worked to incorporate different social, cultural, economic, and ecological viewpoints.

Penney said historical and legal context is critical and necessary. He read:

- Treaty and trust responsibilities are non-negotiable.
- Beyond the right to take, right to access, and right to a fair share, there has always been an inherent understanding by the tribes that there would actually be fish.
- Settlers and regional authorities were fully aware of how salmon were being impacted by the decisions being made, converting the wealth derived from salmon to wealth in other forms.
- The tribal nations are not willing to accept the normalization of the status quo and do not concede their long-term goals.
- The many sectors of the Columbia Basin economy that enjoy the benefits of the developed Columbia River must be willing to return a portion of those benefits for the purpose of restoring the very salmon that were sacrificed on their behalf.
- The full extent of the quantitative goals can only be realized when salmon can access the entirety of their historical range, which includes all currently blocked areas.

Rob Masonis talked about relationships. The partnership brought together solution-oriented people who worked together. He said the ESA reflects a low abundance level. People in the Basin want abundant salmon and steelhead in the region. He emphasized that we must attend to the well-being of salmon and steelhead communities. It's a fish and human problem. Both have to be addressed to make progress.

He suggested having a forum where stakeholders can sit with the sovereigns and have a collaborative process to achieve Columbia Partnership goals. There is a lot of critical work ahead. Goals are only valuable with an action plan to achieve them. He recommended sequencing biological strategies to the greatest effect.

Member Ferrioli said the work of MAFAC is remarkable and the stories of collaboration are impressive. He wished the task force well in quantifying goals into work plans. He said the Council has struggled with concept of historic returns. How did MAFAC establish the historic return number?

Tehan said it is an elusive number. It reflects our independent reconstruction based on estimates based on our independent goal levels, using methods similar to what the Council projected in its previous efforts. It's in the appendices of our report.

Member Ferrioli said staff really struggled with what the target is. Members of the Fish and Wildlife Committee aren't happy with the returns. But MAFAC flipping characteristics of native and hatchery stocks is a challenge. We'd have to accomplish a five-fold increase in returns. What's the timetable for achieving the MAFAC goals?

Edmondson said it's a concept of now to as soon as you can get there. Up to 25 years. For Snake River stocks, they envision 100 years.

Penney said this is where cultural becomes extremely important. Not all the actions discussed by the task force we agreed upon.

Masonis said he's optimistic we can get to larger goals sooner. It depends on the actions and the sequencing. Are there sacrifices we can make in the shorter term? It would be a mistake to think it would take a century. That's what this next phase of work will be figuring out.

Member Ferrioli also feels a sense of urgency. ESA is just a minimum requirement he said. If we're talking about modifications, the task is enormous, and the Council needs to be concerned about costs.

Member Norman said on timing, you might expect differences between stocks. To put a broad timeframe is more complex than that. He said the process has achieved remarkable results. A number of us used to gauge success as everyone showing up at the next meeting. Just having everyone wanting to engage was a plus. The participants have learned to like each other. It's quite remarkable that we've landed on these quantitative and qualitative goals. The key is the path forward. A focus is continuing the momentum of advancing the goals and moving beyond the federal regulatory process associated with the ESA. Another is to take the salmon and human needs into account concurrently, which we've learned is a key to success. I'm optimistic about the collaborative momentum that's been established.

Member Anders said it's an honor to be a part of the effort. It was sad when we got to our last meeting. Understanding how well this group worked together was an impetus for the states to enter into this agreement. There was a request by various stakeholders, including the courts and energy interests, to continue this momentum. We look forward to working with all of you.

Member Allen said Idaho is a unique animal in that Yost represented Idaho.

Member Yost said Idaho wasn't supportive of this process when it started. But we're surprised we were able to make the achievements accomplished over the last two to three years. There's a lot of good work there. There's an opportunity in this collaborative effort to bring together some of the regional fora that exists. He hopes going forward that it's more inclusive and he thinks it will work a lot better in the next decade than it did in the past. Some changes may take a long time, others may be sooner than some expect. It depends on stock and habitat. If there's a regional effort, there will be more fish to kill than there is today.

Member Devlin asked if there was recognition that to achieve goals, it will require more resources than what's currently devoted? The largest contribution comes from BPA and those dollars are limited. The organizations represented would have to increase their financial contributions.

Tehan replied there was extensive discussion that current resources would not be adequate. There are some thought pieces in the report that salmon recovery needs a much bigger base than what is solely laid on the power community. There are some options for exploring Congressional authorization for a structure and funding source.

Penney said people also protective of the funding they have. There are efforts such as Northern pike and passage. A lot of projects are happening that aren't done yet.

7. Council Business

Minutes of September 2020 Council Meeting

Vice-Chair Downen moved that the Council approve for the signature of the Vice-Chair the minutes of the September 16, 2020, Council Meeting held in Portland, Oregon via webinar, as presented by staff.

Member Anders second.
Motion passes.

QW Consulting, LLC Contract

Mark Fritsch, project implementation manager, said the work is to continue enhancing resource tools and story maps on the website.

Vice-Chair Downen moved that the Council authorize staff to contract with QW Consulting, LLC for Fiscal Year 2021 in an amount not to exceed \$48,260 to assist staff in enhancing

and maintaining the Council's Fish and Wildlife Program online resource tools and maps, as presented by staff.

Member Ferrioli second.

Motion passes.

8. Council decision on Resident Fish and Sturgeon Project Review Recommendations

Mark Fritsch summarized the resident fish and sturgeon projects recommended for funding. There are 44 projects that were reviewed by the Independent Science Review Panel: 30 met science review criteria, 10 were conditional, two are pending and two weren't applicable for review.

Fritsch said the next group of projects will be in 2021 for the Anadromous Habitat and Hatchery review.

The resident fish and sturgeon projects address nonanadromous fish portions of the basin, including those areas known as the "blocked areas." Nine of the projects address sturgeon – three projects are in the anadromous zone.

Fritsch outlined the following as part of a visual tour of the projects (via powerpoint slides) as examples of the work in particular areas:

Fritsch said collaborative efforts are represented by white sturgeon mitigation and restoration in the lower river.

Co-management is represented by Lake Roosevelt resident fish efforts – numerous managers working together, hatcheries and volunteer efforts. It's very cost effective.

Regional context and needs are represented by work at Pend Oreille. They are dealing with hydropower issues, similar to the lower river issues, with their work associated with Box Canyon and Albany Falls dams. They are creating great fisheries, doing habitat work, trout ponds and protecting native fishes.

Focused priorities are represented by work at Coeur d'Alene.

A comprehensive program is represented by Kootenai River with artificial production of burbot and sturgeon and extensive habitat work. It includes large community outreach. Hungry Horse/Flathead is another example.

Specific needs are represented by work in the Middle and Upper Snake – this work deals with the urgent needs of different managers, trout ponds for harvest, water developments, education components, monitoring and habitat work, and preserving native species.

Leslie Bach, senior program manager, talked about programmatic issues.

- Best management practices and jurisdictional issues for native and non-native fish management. The ISRP addressed tactical issues and encouraged communication and coordination where there might be conflicting efforts. We're encouraging them to review and incorporate ISRP recommendations where they can.
- Project prioritization, objectives and adaptive management – prioritizing between protection efforts and preservation efforts. Some recommendations are to help them refine their proposals, and work on improving the connection between objectives and the scope of the work.
- Climate change – the ISRP felt strongly about including it in project design and planning. Council recognizes that can be challenging with the level of funding.
- Communication and project tracking help.

Fritsch discussed the project-specific recommendations, including those projects in which the staff recommended a boost in funding based on needs identified by the project sponsors:

- White Sturgeon Mitigation and Restoration in the Lower Columbia and Snake Rivers – \$1,323,010. It's a collaboration between the ODFW and WDFW. It's a costly item that costs half as much the second year. It's a priority in our program. The other two sturgeon projects in the Columbia are hatchery-focused. This will help establish and maintain a baseline.
- Lake Roosevelt Hatcheries Program – \$1,220,973. It is made up of five projects: The needs are primarily to address adequate annual funds for annual O&M
 - Spokane Tribal Hatchery for automated marking trailer at \$600,000. They secured half the funds; this is for the remainder.
 - Sherman Creek Hatchery O&M – \$66,027.
 - Ford Hatchery O&M – \$59,545.
 - Net Pens replacement – \$495,401.
- Lake Roosevelt Sturgeon Recovery to renovate an aging landing craft – \$100,000.

- Coeur d'Alene Trout Ponds to expand the project to transport anadromous fish for educational and cultural purposes – \$190,626.
- Northern Pike Suppression and Monitoring – \$518,595. This was approved in 2017. To date, it hasn't been funded in its entirety.

Member Allen praised the work by the project sponsors and BPA. He's very impressed with work that has been accomplished. Some funding increases have been addressed by BPA. There's evidence we need better communication and tracking. It might be time to bring some new life into our cost savings group or get some transparency into what's left in there. In our letter, we should offer to work on prioritizing these if there's a gap in funding. I'll vote for recommendations.

Fritsch said this provides a golden opportunity to speak to the need for continued dialogue. We need to get on the same page with BPA. Some work yet needs to be done with BPA and Council staff.

Member Norman said he appreciates Member Allen's representation of the need to tee-up communications and cost savings. These are important projects that have the linkage to priorities. The Fish and Wildlife Committee voted to move this forward.

Member Downen agreed with Members Norman and Allen. He said we could reconstitute the cost savings group. Member Anders did great work with that. Do we prioritize projects by subbasin or are they packaged at once? Or is Northern Pike ahead of the others for where the first dollars need to be spent?

Fritsch replied they're not in any certain order.

Patty O'Toole said the Council makes a funding recommendation, then BPA makes a decision on those recommendations. There's some potential for BPA to support some of the things on this list. There has been some underspending. It will be great to hear what can be done. We typically haven't done prioritization on projects given different states and interests. We could think about that going forward if the Council wants us to. She said she's hearing an interest in supporting some of these costs using cost savings funds. In the 2020 Addendum there's a measure to find cost savings in the existing budget. There was interest in public involvement in that process and we can include that in recommendations to BPA.

Jeff Allen the desire is to communicate something beyond project recommendations. Hoping we can find an effective medium to communicate with Bonneville.

Motion re Resident Fish/Sturgeon Project Review Recommendations

Vice-Chair Downen moved that the Council recommend to the Bonneville Power Administration the Resident Fish and Sturgeon Project Review Recommendations, as presented by staff and recommended by the Fish and Wildlife Committee with the changes offered by Ms. O'Toole.

Ferrioli second
Motion passes.

Public Comment

Scott Levy, Bluefish.org, said that the removal of the dams will reduce rates, bring salmon back to the forests and help mitigate climate change. He mentioned subsidized wheat shipping. He said there will be a new web series on this. He also remarked on John Fazio's presentation and whether there will be blackouts if the Snake River Dams are removed.

Member Devlin said they have set the dates for the 2021 Council meetings. While the dates are firm, the locations are still up in the air.

Member Ferrioli praised Kendra Coles, administrative assistant, and Chad Madron, project analyst, for the seamless migration of the meetings to the new webinar format.

Chair Devlin adjourned the meeting at 2:11 p.m.