



Board of Directors May 4, 2018 Meeting Minutes

The PNUCC Board of Directors met on May 4, 2018 at the Portland Airport Embassy Suites. The list of attendees is attached.

*The next PNUCC Board meeting will be on **June 8, 2018** at the **Portland Airport Sheraton Hotel**.*

Corporate Business

Chair **Roger Gray**, Northwest Requirements Utilities, opened by welcoming everyone. Following introductions, Gray acknowledged the PNUCC Antitrust Compliance Statement.

Gray entertained a motion to approve the April 6, 2018 meeting minutes. The minutes were unanimously approved.

Shauna McReynolds thanked everyone for their prompt response to the July 13th Board meeting inquiry. With the majority of the Board and General Managers available, PNUCC will proceed with a special session at 8:30 a.m. on July 13, 2018, for Board and member utility General Managers only, to provide an opportunity for everyone to come to the table for a robust conversation on a realm of topics, including markets and other top-of-mind industry issues.

PNUCC Member News

- **Chad Bartram**, Benton PUD, announced that the ribbon cutting ceremony for the first of a number of electric vehicle charging stations will be held on May 15, 2018. He added, the collaborative partnership (EVITA – comprised of Benton PUD, Benton REA, Energy Northwest, Franklin PUD, City of Richland, City of Ellensburg Energy Services and TRIDEC) was the recipient of a \$405,000 state grant and the funds from the public private partnership will be used to close the loop from west to east.
- Emerald PUD's **Scott Coe** reminded members about the Oregon Clean Fuels Program that provides incentives to utilities that invest in transportation electrification. He was pleased to say that Emerald was the first to dash for the cash and test the process. They have successfully installed ten level-two charging stations.

- **Debra Smith**, Central Lincoln PUD, proudly proclaimed that May 5th marked the 75th Anniversary of Central Lincoln PUD flipping the switch to provide power in their service territory.
- With Priest Rapids in the news, Grant PUD's **Kevin Nordt** shared that their decision to implement emergency protocols was due in large part to failures of dams in other areas, the situation at Priest Rapids did not require it. The emergency action plan set out a path of high caution in dealing with the situation. They have completed their testing and are proceeding with repairs. Nordt said they expect to begin slowly raising water levels toward the end of June, again proceeding with caution and care to ensure safety is their highest priority.
- **Franco Albi**, Portland General Electric invited members to send their resource planners to the Resource Planners Forum at Portland General Electric, Two World Trade Center building at 25 SW Salmon Street in Portland on June 13-14, 2018. This forum is being sponsored by the Western Interstate Energy Board. Additional information can be found on the WIEB website at <https://westernenergyboard.org/>.
- Turbines are shut down as the process to relicense the Carmen-Smith hydroelectric project moves forward according to **Frank Lawson**, Eugene Water & Electric Board.
- **Roger Kline**, Northern Wasco County PUD, updated members on the growth and economic development that continues in The Dalles as a result of a \$1.8 billion investment – adding that this represents half of what is currently planned in the area by Google.
- **Todd Simmons**, Tillamook PUD reported that the technical question has been answered on the Tillamook to Oceanside transmission line with unanimous approval from the Planning Commission. The PUD will proceed with permitting the transmission line needed for system reliability for the industry and community of Oceanside.

Renewed interest results in PNUCC Market Structure Principles

With markets top-of-mind for many members, McReynolds presented the Market Structure Principles that were the result of considerable discussion by the Board. She indicated the Principles included a few minor edits that were the product of a review by the full membership.

Prior to asking the Board to give their approval, she asked if there were any big concepts missing from the document. Discussion occurred and upon reaching consensus, the document was edited real-time with two additional changes for clarification.

The 2018 Market Structure Principles, as edited, were accepted by the Board. Several Board members commented on the benefit of having a one-page document for use in increasing the level of communication around market language, which can be a very complex topic, both internally and externally. Others chimed in that the conversation and discussion, along with the one-page set of principles, was useful in keeping the information top-of-mind and recently came in handy answering questions at a conference.

McReynolds indicated the conversation would continue on this complex topic. The PNUCC Market Structure Principles are posted on the PNUCC website and can also be found [here](#).

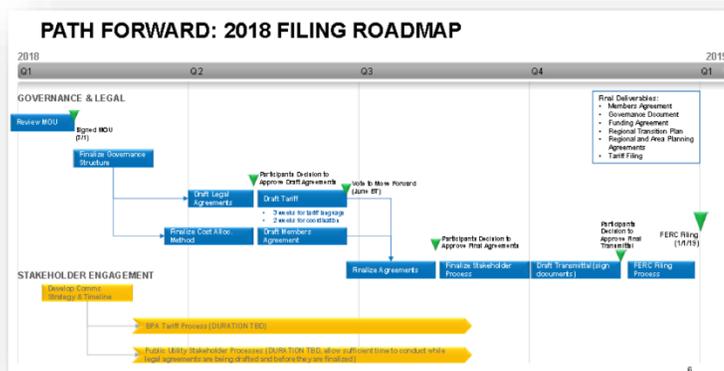
Northwest Regional Transmission Planning Organization

Recognizing the industry was undergoing a major transformation, 15 members of ColumbiaGrid (CG) and the Northern Tier Transmission Group (NTTG) met and moved from a conceptual idea to an actual plan that identifies the benefits and value in working together with a single Regional Planning Organization (RPO) –along with areas that can be improved. **Frank Afranji**, Portland General Electric, and **Jessica Singh**, North Highland Consulting, joined the Board to provide an update on the progress.

KEY ACCOMPLISHMENTS AND MILESTONES

The first phase focused on design, financial analysis and business case development. The results identified benefits that collaboration for regional planning and expansion of the planning footprint to cover the entire Northwest would have. In addition to cost savings (and dues reduction), they found that leveraging resources by combining best practices and efficiencies with economies of scale through one planning organization also ensure what’s best for the Northwest and would keep control of planning in the Northwest.

In September of 2017, participants unanimously agreed to move forward, form an RPO and develop a roadmap with key milestones and deliverables. And as of the first part of May, most of the participants have signed a non-binding Memorandum of Understanding (MOU) with agreement on a governance structure for the RPO. Afranji confirmed that two did not sign and they stepped out because they didn’t have staff resources to devote to the development of the documents.



PATH FORWARD WITH CRITICAL STEPS AND DELIVERABLES

Currently, legal documents that include funding agreements and governance charters are being drafted. And Singh said governance was a critical piece as they talked through a brand new organizational structure. There will be recognition of the distinct differences between FERC jurisdictional utilities and non-FERC utilities in the formation documents.

Combining administrative services will result in cost savings, she continued, and a data request has been made to ColumbiaGrid to understand the cost and process required for participants to withdraw and ultimately dissolve. **Suzanne Cooper**, Bonneville, offered that Bonneville estimates it could see its costs reduced approximately 60% through the formation of a single regional planning organization.

Over the next several months, significant elements of the finalized deliverables will include: Member Agreement, Governance Document, Funding Agreement, Regional Transition Plan, Regional and Area Planning Agreements, and Tariff Filing. Members expressed concern about current staff. Singh said the participants have been working with staff at both organizations – and the intent is to do the right thing. Afranji added, “There is a lot of knowledge embedded in folks, and there is no intent to walk away from it.”

Considerable discussion occurred. The idea that there will be a one-stop, coordinated and centralized place to ask questions was appealing to many. Afranji reiterated that all levels of voltage will now be coordinated in one place, but more important is that control will remain focused in the Northwest.

Afranji said that stakeholder engagement is a critical component to finalizing the organization and governance structure, and a robust process will occur over the next few months as documents are ready. Singh added, state commissions have agreed to serve in an advisory capacity, not voting, to ensure they have an opportunity for input without having two bites at the apple.

A communications team has been formed with a diverse mix of subject matter experts to move the stakeholder process forward. When asked how others – such as full requirements customers who do not have transmission – can engage, Afranji said Bonneville will be there and will likely have their own processes, but the RPO will have broader stakeholder engagement too and anyone can participate. “Historically transmission has been 230kv and above, but life has changed and now we need to look at everything down to 34kv.” Afranji continued, “No matter how you look at it we are all Bonneville customers and their savings are our savings as a region.”

Members inquired about cost allocation for expansion of the transmission system that extends across multiple balancing authorities. Singh said methodology and cost allocation are being discussed now with recognition that the outcome will likely be on a project by project basis. The RPO will have Order 1000 FERC jurisdictional requirements that will have to be met for some, while others who are non-jurisdictional will be able to opt in.

Gregg Carrington, Chelan PUD, expressed his appreciation both personally and professionally from a number of participants to Afranji for spearheading this effort to get it to the point of MOU’s being signed. He added

this will also result in Northwest solidarity, and “Chelan supports the formation of this RPO and knows in the future there will be a lot of cost savings.”

Clearly pleased by the commitment of executives to move forward with clear direction and a roadmap in place, Afranji said he had no doubt the effort to keep this on a fast track will continue as each piece of the roadmap is completed toward approval and formation of a new regional planning organization in 2019.

Gray reiterated “it is important to get this right”. McReynolds thanked Singh and Afranji for their role in facilitating the effort and extended appreciation on behalf of the membership for taking time to share the Roadmap and answer all of the questions.

Energy NewsData and Ruralite Services, Inc. Join Forces

Kathi VanderZanden, Ruralite Services, and **Mark Ohrenschall**, NewsData Editor-in-Chief, joined PNUCC to announce the sale of Energy NewsData News and Information Services to Ruralite Services. The acquisition furthers RSI’s portfolio of communications and presence in providing sound journalism in the energy industry, VanderZanden said. Both Ohrenschall and VanderZanden emphasized that subscribers of NewsData will continue to see the same independent, high value coverage of industry news they have come to know and expect.

Ohrenschall was pleased that the entire staff would be joining Ruralite Services and expressed his excitement with the partnership. He added, it will be business as usual – with publications coming out on their regular schedule.

Having started the same month and year that ClearingUp began publication, McReynolds extended her best wishes for continued success!

NEEA Residential Building Stock Assessment

With the second comprehensive regional Residential Building Stock Assessment II (RBSA) complete, NEEA’s **Susan Hermet**, and **Steve Cofer**, a principal with Cadmus, were excited to share the results from RBSA II. The only study of its kind in the nation provides data and results that can be used by utility staff to manage, measure, model and plan program strategies within their respective service area –allowing planners to update their models with actual field data.

The sampling for this study looked at seven regions and took into account regional differences, such as climate, building practices and fuel choices. It took place over three years with a sample size of 1,100 single family homes and similar to the previous RBSA done in 2012, collected about 2,000 different data points including principal characteristics of homes, occupants – size and income levels, and end-use equipment. Details on field technics, specific types of equipment and sampling can be found in the report at <https://neea.org/img/documents/Single-Family-Web-Version-2018.04.27.pdf>.

No surprise, the most significant change was in lighting with LED's entering the market since the first report and most homes have at least one CFL. They found similar trends in manufactured homes and multi-family homes as well—also included in the study. Hermenet said “Folks are thinking about it, but the jury is out on what people do.” Adding they get to a large display on a big wall and there isn't a lot of information to help them make choices.

This survey looked at connectivity in many areas – which wasn't available to the same degree six years ago. And throughout the report the findings were consistent, the majority of homes with connectivity are ones with reported household income above \$100,000 and head of household has a bachelor degree or higher.

Primary heating source remained much the same as in the first RBSA, however the use of heating stoves and fireplaces as the primary heating system went down while the use of mini-split heat pumps went up. Mechanical cooling increased as well. RBSA II found a shift to natural gas, primarily in new homes. A notable change was found in technology – with Wi-Fi and smart thermostats—in all types of homes. And again, income levels and education played a role where connectivity was found.



A change in data collection since the last study found the field team using infrared thermography to determine insulation levels. The result was greater accuracy in identifying insulated and uninsulated walls and ceilings. The results from RBSA II point to room for improvement. She emphasized this overall shift of lower R-values throughout the region is likely due to the change in methodology.

As Hermenet went through each of the findings, members were struck by the level of detail in the survey. As they asked questions and looked at trends in appliances, electronics, water heaters and other areas of the survey, Hermenet reminded them there is an opportunity to improve decisions made at the local level.

She continued, actual field information to identify program opportunities it is very different than sales data. The value of this survey is in the database and supporting materials and by digging into specific utility information in greater detail it will better inform decisions makers. She offered assistance, if needed, in accessing the data.

State of the System Messaging

PNUCC staff speaks to a range of audiences throughout the year on a variety of topics. Most often, staff turns to the *Northwest Regional Forecast* as the foundation for what to convey about the industry. **Shauna McReynolds** and **Tomás Morrissey** walked through elements of what is included in presentations regarding the state of the Northwest power system and explored other messaging opportunities, getting the Board's reaction along the way.

As McReynolds introduced the topic, she noted that it had recently been pointed out that the just published *Forecast* says little about the improved, yet still need for peak capacity in the winter, and was asked if other utilities are concerned. The question spurred the idea of discussing that question and others with the Board to sharpen the message as the State of the System is reviewed in the region.

McReynolds started with the basics, focusing on the load forecasting puzzle. As a barometer for the region, the report shows the summer peak load as the fastest growing, with the winter peak and annual energy slightly less than summer on a regional basis. She highlighted the anecdotes that led to bullish versus bearish assumptions about loads. The Board concurred that load growth projections vary significantly, by utility and by region.

IS THERE A PEAK CAPACITY NEED?

Next Morrissey asked “How are people thinking about capacity?” And while the *Forecast* did not focus on the need for power, the Board agreed that a string of good water years may be masking planned coal plant closures and growing intermittent resources – raising cautious concern and a false sense of security.

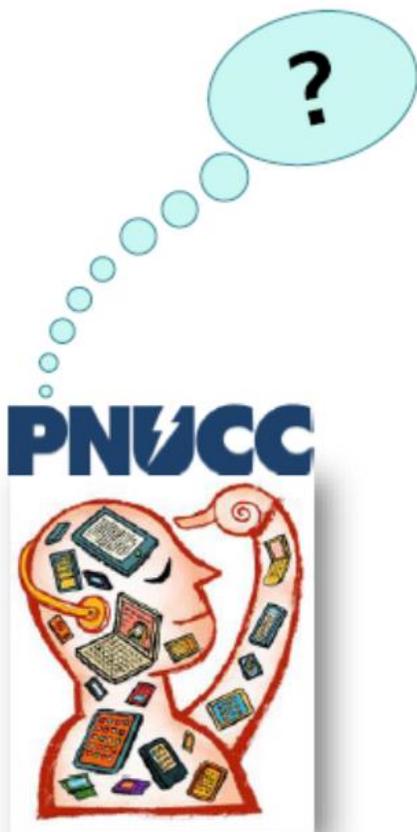
These are the knowns, but what about the unknown risks one member asked – how are we planning for them? Several voiced concern about the kinds of unforeseen risks that have or could occur in the West similar to low

water in 1999 or more recently with wildfires or natural gas no longer available as is the case with the announced closure of Aliso Canyon. This caused some resource planners in the room to ask if “we are playing a game of chicken”.

Others recognized the precarious balance that occurs with low market prices and everyone leaning on the market instead of building. While some expressed concerns about transmission stability, dams coming out or the next arctic blast that hangs on for weeks. Gray offered, statistically California dodged a bullet last year – but could it happen in the Northwest?

There was recognition that the Northwest is different from other markets because of hydro’s capability to quickly ramp up but has that led us to do nothing to encourage development of new resources?

A lengthy discussion occurred on market expectations and the underlying assumption that if there are MW in the region, they will show up. What happens if they don’t? All agreed, it is the job of everyone in the room to figure it out. Increased visibility and valuing the flexibility of hydropower are important. Without it “we are marching toward a cliff” one member said.



FLEXIBILITY – ARE WE CONCERNED OR AWARE?

Morrissey pointed to the large change in power flows due to the major solar development in West since 2011, going from almost zero to over 16,000 MW today. While EIM has provided some relief, he asked if there is a regional need or is it a utility by utility issue; are gas delivery constraints contributing to the concern; and what are the limits for exports/imports – is it a question? Someone thought, concerned or panicked might be a better question.

The Board acknowledged it is hard to measure flexibility in the Northwest – we see the affects, we know what happens, but we don't know where the ceiling is. "Does the region need planning standards?", Nordt asked. Considerable discussion occurred on the need to work toward planning standards. That led to a discussion on risk management – and absent clear standards, we never quite know. Looking at risk – what is the region willing to pay for certainty? Others offered, we have an idea about the value of certainty/flexibility but more importantly "to what extent is everyone relying on the same market for adequacy?"

Picking up on the value of flexibility and the methodology to capture the value, there was general consensus that the region has a valuable resource – hydropower – but lacks a mechanism to discover appropriate price signals for the attributes it offers. And we returned to where we started the meeting ... back to a conversation about markets.

Executive Director's Report

McReynolds provided an update on the Columbia River Treaty negotiations, noting a Treaty update was also given at a forum in Spokane on April 25th. She reminded members that Jill Smail is the current lead negotiator for the Department of State on the Columbia River Treaty. Smail spent time meeting with tribal leaders and stakeholders for briefings. And in a very short time she has built on previous work that was done, and McReynolds shared confidence that Smail and her team have a good mastery of the issues.

Smail and her team have approval on the formal engagement strategy and they are now in a position to begin negotiating with the team from Canada. To close the loop, Smail met with tribal leaders and other stakeholders to lay out the process and report on the make-up of the negotiating team. The team will be small and consist of representatives from each of the four federal agencies – Bonneville Power Administration, US Army Corp of Engineers, US Department of Interior and the National Oceanic Atmospheric Administration. There is an expectation that negotiations will begin this summer and PNUCC will provide updates as they are available.

She pointed members to the Executive Director's Report for additional information on upcoming committee meetings. Additional information on meetings can also be found posted on the PNUCC website at PNUCC.org.

With that, the meeting was adjourned.

Attendees May 4, 2018
PNUCC Board Meeting

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| Roger Gray | NW Requirements Utilities | Susan Ackerman | Eugene Water & Electric Board |
| Shauna McReynolds | PNUCC | Jason Williams | Flathead Electric Co-Op |
| Frank Lawson | Eugene Water & Electric Board | Melinda James-Saffron | Grays Harbor PUD |
| Debra Smith | Central Lincoln PUD | Barbara Miller | US Army Corp of Engineers |
| Paul Wetherbee | Puget Sound Energy | Eric Hiaasen | Clatskanie PUD |
| Chad Bartram | Benton PUD | Gary Huhta | Cowlitz PUD |
| Tom DeBoer | Snohomish PUD | Mark Ohrenschall | Energy NewsData |
| Mariah Kennedy | Puget Sound Energy | Tuuli Hakala | Chelan PUD |
| Chris Robinson | Tacoma Power | Grgg Carrington | Chelan PUD |
| Bear Prairie | Idaho Falls Power | Ty Hillebrand | Central Lincoln PUD |
| Valarie Koss | PNUCC | Ed Jenkins | Tillamook PUD |
| Tomás Morrissey | PNUCC | Kevin Parrish | Emerald PUD |
| Scott Kinney | Avista | Kevin Sullivan | Western Energy Institute |
| Franco Albi | Portland General Electric | Todd Simmons | Tillamook PUD |
| Jason Thackston | Avista | Jason Heuser | Eugene Water & Electric Board |
| Beth looney | PNGC Power | Sid Logan | Snohomish PUD |
| Scott Coe | Emerald PUD | Ken Phillips | Tillamook PUD |
| Cindy Wright | Seattle City Light | Doug Olson | Tillamook PUD |
| Kevin Nordt | Grant County PUD | Dave Wimpy | Tillamook PUD |
| Suzanne Cooper | Bonneville Power | Megan Capper | Eugene Water & Electric Board |
| Frank Afranji | Portland General Electric | Roger Kline | Northern Wasco County PUD |
| Jessica Singh | North Highland Consulting | Jim Litchfield | Litchfield Consulting |
| Susan Hermenet | NEEA | Bo Downen | Public Power Council |
| Steve Cofer | Cadmus | Kathi VanderZanden | Ruralite Services |
| Doug Grob | Flathead Electric Co-Op | Rick Dunn | Benton PUD |
| Clay Norris | Tacoma Power | Tim Nies | Franklin PUD |
| Ron Davis | Emerald PUD | Mike Stanfill | US Army Corp of Engineers |