

Meeting Minutes 02.25.2026 ETAC

Meeting Date: 02/25/2026 9:30 AM – 12:30 PM

Location: *Helena Capital One-Board Rm (235) and Teams

<https://teams.microsoft.com/meet/26118261241788?p=tNUwOzg8WX1ZirjEab>

Participants

Olson, Megan (Meeting Organizer)

Shafer, Jon (NWE)

Carmody, John (NWE)

Stajcar, Matthew (NWE)

Barnheiser, Quintin (NWE)

Brian Dekiep (NWPCC)

'Chuck Magraw'(NRDC)

Haylee Gobert (MT PSC)

Jamie Stamatson (MCC)

Mike Dalton (MT PSC)

Kelli Schermerhorn (SPP)

Minutes

1) Call to Order

9:40 – Meeting started by Jon Shafer.

- Introductions.
- Purpose of this meeting: Public meeting overview, portfolio results summary, public comment themes, stakeholder working group themes, round table discussions.

2) Discussion Topics

9:42 – Presentation used in public meetings overview

- What is the jump in load in the second to third bar [in slide 9]?
 - WRAP is forward showing with a jump in upcoming future. They do not do 20-yr forward showing so NorthWestern is trying to normalize 20 years out.
- How do WRAP projections affect NorthWestern load growth?
 - WRAP uses 1.1% growth in their forecast for 3 years, then NorthWestern falls back on our load growth. Long term regression for NorthWestern is based off number of customers, temperature component, and energy projection for the rest of the 20 years.
- What is the rationale for LDES?

- The model picks a bunch of LDES when there is no build limit because market is fixed. The goal is to try to reach capacity and energy needs, which is not possible with LDES. Another point is that LDES are not commercially proven, so risk is involved when the model picks this type of resource. A bigger study would need to be done for decline ELCC curves. Reliability will decline with more LDES on the system for this resource.
- For hybrid, did NorthWestern characterize them differently?
 - An ELCC analysis was conducted to define reliability. Hybrid wind and battery were modeled together, not separately. Currently hybrids are not studied under WRAP technology. NorthWestern hybrids candidate resources assume that the generation source can only charge the battery.
- Environmental concerns on LDES being built more.
- There is a revenue to build, how did NorthWestern analyze the potential revenue before the overbuild restraint was implemented?
 - Building before need is not NorthWestern standard practice. Without it, market arbitrage is the driving force in model.
- NPC was modeled for energy value, NorthWestern requested further study by WRAP to analyze the capacity value of transmission that the NPC will provide to the region.
- The model makes sure load + PRM is met, then when there is surplus and energy prices are high, the energy is sold to offset costs to customers.
- How can we more intensely charge batteries?
 - Maybe check how Texas is managing batteries.
 - Wind+battery is harder to predict, while solar+battery is easier to predict.
- 250 MW limit on battery.
 - Delining ELCC will be modeled locally. After 5th, 6th, 7th unit, the accreditation would be so low, that it would then have to pick a different resource.

10:35 – Break

10:40 – Portfolio Results Summary

10:50 – Public Comment Themes

- Maybe implementing a curve for a least-cost, least-risk plan.
 - It is a multiple factor plan.
- Compared to last IRP, pumped hydro was very favorable. This IRP seems to have dropped off. Why is this?
 - NorthWestern considered pumped hydro as energy storage that charges and discharges within the same day, i.e., having an intraday charge/discharge cycle, rather than having a charge that is held for multiple days or weeks,

such as LDES. Because pumped hydro has the intraday cycle, then it would also be subject to the standalone BESS limit that includes 8-hour and 4-hour lithium-ion BESS. However, pumped hydro and 8-hour BESS are both more expensive than 4-hour BESS so 4-hour BESS will always be selected by the model up to the charging limit. Therefore, pumped hydro and 8-hour BESS candidate resources were not considered in ARS; only 4-hour BESS were considered for short duration standalone BESS. Climate, Environmental, and Public-Health Impacts

- Having CO2 costs (or social cost of carbon) in a scenario could alleviate concerns around modeling.
- If it is hard to model, it is important to be clear NorthWestern is not and why NorthWestern is not.
 - NorthWestern tried to address this in Chapter 8 of the 2026 MT IRP, however if it is not clear, please provide input so NorthWestern can address this correctly.
- Even though it is hard to quantify, and subject to uncertainty, these are real costs. Not including these costs, but including other costs or benefits, will create the impression that the IRP and modeling is putting the finger on the scale and arbitrary. Encouragement to be very transparent on this and discuss the pros and cons of including/excluding these costs. Noting that failure to include these costs is problematic in this respect. Transparency is key, and the public are reacting to the lack of transparency around this matter.
- Regulatory risk is difficult to model due to MATS and regulation around CO2. Litigation risks building fossil fuels. Again, it is difficult to model but could potentially be worth mentioning these risks.
- Would it be difficult to implement a sensitivity by trying to add a social cost of carbon?
 - Nailing down a signal price that would be used. If NorthWestern picks a number, it might get criticism. NorthWestern would like to use a trusted outside source to use numbers. From a modeling perspective, reliance on the market would be increased due to current resources being used less.
 - Due to NorthWestern being a winter peaking state, it becomes a concern trying to fulfill that reliability need.
- Was there a model that shows the true cost of replacing all gas and coal with renewables? This would show true reliability and expense that it would take to replace all this capacity.

11:30 - Stakeholder Working Group Comment Themes

- Interconnection Costs
 - Is there a way to approach a non-linear design for the costs?
 - How did NorthWestern calculate interconnection costs?
 - Last 2 years of interconnection reports from Oasis for large interconnection requests. Took the median or average cost per MW to find the interconnection costs used in NorthWestern modeling inputs.
- Opinions on site selection in IRPs?
 - Done in the RFP process.
 - MISO tried to do something like this in their long-range transmission planning.
 - Rather than averaging all resources in interconnection queue. Maybe look at winter resources and average these, then do the same for wind/solar resources.
- Reliability concerns around Colstrip during peak winter months. Were these looked at in this IRP?
 - WRAP participation: for fuel source resources, reliability is calculated based on fuel and forced outages. For “fuel-less” resources, ELCCs are used.
 - WRAP uses metric of top 10% of load in the region, not necessarily MT specific.

12:00 – Round Table Discussion

- Around AMI, data quality and alignment are very important to nail down.
- Remaining ETAC Input:
 - Update on IRP waivers: Legal staff are working together to put a recommendation to the PSC; mid-March should see a decision on these.

12:15 – Meeting Adjourned