# Meeting Minutes 06.09.2025 SWG

**Meeting Date:** 06/09/2025 9:00 AM – 4:45 PM
**Location:** Butte General Office Building: 11 E Park Street, Butte MT 59701
**Participants**
Olson, Megan (Meeting Organizer, NWE)
Carmody, John (NWE)
Shafer, Jon (NWE)
Stajcar, Matthew (NWE)
Barnheiser, Quintin (NWE)
Seitz, Brandt (NWE)
Fitzmaurice, Nicholas (MEIC) via Proxy Hedges, Ann (MEIC)
Keogh, Ross (Managing Shareholder, Missoula)
Glenn, Evora (City of Missoula)
Morris, Robert (Montana Technological University)
Matson, Gary (Matson's Laboratory)
Goldman, Derek (NWEC)
Sellers, Makenna (MREA)
Mayo, Sheryl (Quantica)

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**Minutes**

1) Welcome
    a) Meeting started at 9:00AM by Jon Shafer
    b) Purpose of this meeting: To bring together a range of insights and priorities to help shape a balanced, forward-looking plan that serves NWE customers, communities, and grid on the 2026 Integrated Resource Plan
2) Discussion Points
    **a) Topic 1: Stake Holder Working Group**

    Key Discussion Points:

    (1) Stated the objectives of the working group.
        (a) Suggestions/Discussions from group
            (i) Discussed the size of the working group and why limitations were set up.
            (ii) Discussed House Bill 55.
            (iii) Discussed the frequency of meetings.
            (iv) Discussed values and concerns most important to the SWG considering the future of MT energy system:
                1. Common themes:
                    a. Balancing energy, sustainability, affordability
                    b. Economically sound
                    c. Climate change

d. Customer interaction
e. DSM
f. Efficiency
g. Reliability
h. Innovative & dynamic.
i. Housing
j. Pollution reduction

**b) Topic 2: 2023 IRP Feedback from Stakeholders**

Key Discussion Points:

(1) Major Themes from 2023 MT IRP Comments
  (a) Suggestions/Discussions from group
    (i) Major themes from comments are output based.

**c) Topic 3: Integrated Least-Cost Resource Planning and Acquisition**

Key Discussion Points:

(1) IRP-Adequacy supply portfolio – Capacity, Energy, RECs
  (a) Suggestions/Discussions from group
    (i) Shift on demand: Solve and provide energy for all on system.
      1. Does NWE need to include potential for data centers? And at what point does NWE fundamentally change our system, inflection to slow large load costs into model.
      2. Concern on customers subsidizing their loads.

**d) Topic 4: Modeling Scenario**

(1) Overviewed the proposed scenarios and sensitivities for the IRP.
  (a) Suggestions/Discussions from group
    (i) Where does environment appear into the planning process?
      1. Should NWE have another input on environment?
    (ii) Is the transmission system going to change, or contemplated while planning IRP, how is it factored in?
    (iii) Not only emissions impact, but also climate results effected by emissions could influence the costs to customers.
      1. What are the inputs to look at this?
        a. Every energy conversion damages the environment: Emissions, materials that go into every generation source, impact on land, etc.
      2. Not to look on carbon footprint in MT but where the materials are sourced.
      3. Model carbon intensity per generator type.
    (iv) Discussed thinking about impacts on carbon: tracking LMPs, how does NWE start tracking, capturing, and understanding how region is affecting environment.
      1. If looking at regional LMP pricing, if it is less than marginal cost, you can look at emissions inadvertently?
    (v) Discussed affordability, reliability, and sustainability and put sustainability above the others, and incorporate it into the other two.
(2) Reviewed Resource Planning Modeling Steps:

(a) Suggestions/Discussions from group
    (i) Capacity Expansion Model (Automatic Resource Selection):
        1. New resource mix to meet planning targets.
    (ii) Production Cost Model
        1. Generation, emissions, costs, market purchases and sales
    (iii) Reliability analysis of future portfolios:
        1. Number of loss of load hours and total undeserved energy.
            a. WRAP produces PRM with reliability.
                i. Who writes WRAP rules?
                ii. WPP
                iii. FERC
    (iv) Discussion on PRM: Utilizing transparency on modeling and planning on WRAP numbers and specifically PRMs.
        1. Discussion on PRM potentially being too high.
        2. NWE does capacity updates under the 2024 IRP docket.
        3. WRAP does accreditations of generators, gives back studies, and PRM.
        4. LOLE 1 day in 10 years, based on load and resource makeup, accreditation and PRM will change.
        5. Does day ahead markets change PRM values?
            a. To be resource adequate, NWE needs the right number of resources, or contract with an entity that has the resources.
            b. Market resolves day to day variance.
    (v) Discussion on Sustainability:
        1. What is the right mix moving forward?
        2. How to balance sustainability, reliability, and affordability in portfolio
        3. What is more sustainable in the long-term horizon?
        4. Proposed no new carbon goals and net zero goal.
        5. What does NWE need to sustain itself, and is this included in affordability?
            a. NWE does produce revenue requirements and rate of return.
        6. Sustainability is ambiguous, so the challenge is reducing it to one statement, or goal.
    (vi) Discussion on Data Centers:
        1. What is NWE standpoint?
        2. There is a whole bunch of projected loads due to this, and concerns on not going through IRP process.
        3. Suggestion on it being worth thinking through on how much this market could withstand.
        4. Data centers either:
            a. Go behind the meter.
            b. Recognize monopoly and sign contracts.
            c. Go with different entity.

5. If data centers run behind the meter, do they need to get approval from NWE?
    a. Usually data centers want backup power, even behind the meter, by contracting with utility.
    b. Need policy and regulations with utility around data centers behind the meter.

**e) Topic 5: Scenarios and Sensitivities**

i) Overview the proposed scenarios and sensitivities for the IRP.

(1) Suggestions/Discussions from group

(a) There is a long time between 2029 to 2042.

(b) Can NWE turn off units in phases for Colstrip?

(c) Implications of having an oversupply with the full acquisition of Colstrip in the IRP

(d) Suggestion on looking into 2021 Vibrant Clean Energy Report

**(e)** Look into what Avista and Puget are doing with dropping off from Colstrip.

**f) Topic 6: Candidate Resources**

(1) Overviewed the Candidate Resources

(a) Suggestions/Discussions from group

(i) NWE has solar + battery and wind + battery, but why not wind + solar + battery as a candidate resource?

(ii) Concerns on holding SMR costs at the highest transparency.

(iii) Adding geothermal for candidate resources

1. How does geothermal compare to nuclear?

(iv) Maybe add market reliance into modeling?

**g) Topic 7: Load Forecasting – Todd Guldseth**

(1) Introduction on Load Forecasting and methodology used to project.

(a) Customer forecast

(b) Normal weather forecast - degree days

(c) Total Degree Days (HDD+CDD)

(i) HDD = 65 degrees - daily average temperature

(ii) CDD = daily average temperature - 65 degrees

(iii) 10-year average

(d) Demand Side Management Forecast

(i) NWE's DSM group provides the details of their DSM acquisition plan to use in the long-term load forecast.

(ii) The 2025 IRP will incorporate the 2025 DSM plan of 3.225 aMW/year (65 aMW 2025-2044) in energy and peak forecasts.

(e) Net metering

(i) NWE's Residential NEM forecast is developed by combining the current rate of solar-pv installations with the growth assumptions of the 2018 Navigant NEM study and forecast.

(ii) NWE's Commercial NEM forecast is developed by assuming the current rate of solar-pv installations until there is a change in the trend.

(f) Customer forecast methodology
    (i) Residential and GS1 secondary customer forecasts are based on regression models using NWE service territory population as the explanatory variable.
    (ii) All other customer classes held at a recent actual or adjusted for known changes.
(g) What is mechanism to fix adding data centers and the capacity prices increasing dramatically. Whether that is contractually, tariffs, etc.
(h) Need to better open a partner with capacity and energy supply.
(i) Why is the served from generating portfolio over 60% carbon free? Need reasoning.
(j) Add a specific GW, 500 MW,250 MW scenario.

**h) Topic 8: Demand Side Management (DSM) – Danie Williams and Whitney Jurenic**

(1) Introduction on Current DSM strategies
    (a) DSM Circle of Life:
        (i) Starting point: End use in Load profile
            1. Study customer base and how they use electricity and natural gas.
            2. How they use these for urban, rural, low income, non-low income. What does this customer base look like?
            3. Commercial: Small business to large scale, do not include choice customers
        (ii) Next Step: Electricity efficiency/demand response potential assessment
        (iii) Next Step: Take information from energy efficiency, measure of life, incremental cost of efficiency, what is the total cost, what is the savings compared to base case, what is the overall energy consumption of each. Then compared it to avoided cost.
        (iv) If the total resource cost basis is greater than 0.9, NWE starts an analysis on a way to offer that incentive to customers.
        (v) Get to total resource cost value.
    (b) How to incentivize customers for demand response?
        (i) One potential, Stage Gating:
            1. Rate making
            2. Behavioral
            3. Direct load control

**i) Topic 9: Western Resource Adequacy Plan (WRAP) – Joe Stimatz**

i) Resource adequacy: The ability to serve load across a broad range of conditions, subject to a long-run reliability standard.
    (1) A key requirement of an RA program is a Planning Reserve Margin (PRM) expressed as a percentage above peak load that is required to be held on a forward-looking basis.
    (2) Value Proposition:
        (a) Can improve reliability and reduce costs by planning cooperatively rather than individually for resource adequacy.
        (b) Diversity of load and generation means a lower planning reserve margin, and thus lower capacity costs.
        (c) Participants agree to aid each other in times of higher-than-expected load, higher than expected outages, or lower than expected generation.

(3) Other Benefits:
(a) Common methodology for accrediting resources
(b) Common load forecasting approach
(c) Common planning reserve margin / month of planning year
(d) No double counting of resources
(e) Commitment to aid others in the program during most difficult periods
(4) Establishing to plan for worst day in peak days
(5) Firm PPAs: Problem, do not specify specific generating unit.

ii) WRAP Basics:
(1) WRAP seasons:
(a) Summer: Jun 1 - Sept 15
(b) Winter: Nov 1 - Mar 15
(2) Forward Showing:
(a) Make a showing 7 months in advance of the start of the season.
(b) Ex: Assuming an entity's peak forecast is 1,200 for the Summer Season and the PRM is 15%, on October 31 of the prior year, it would need to show control of resources totaling 1,380 MW of accredited capacity.
(3) Operations Program:

iii) WRAP Timeline:
(1) All participants are in non-binding phase.
(2) First binding season will be Summer 2027.
(a) Forward showing due October 31, 2026.

**j) Topic 10: Electric Transmission Overview**

i) Transmission and Resource Adequacy
(1) Market + Generation into Transmission Capacity leads to Load.
(2) Transmissional constraints
(3) How can NWE look at this?
(a) WRAP is evolving, you would see resource adequacy decrease, as more comfortability exists in the long term.
(b) When diversity between wind and solar is shown, will capacity variance $ change?

ii) Things to think about:
(1) If NWE joins market, changes transmission outlook quite a bit.
(a) Uses energy based on a flow basis, not a contract basis.

iii) Northern Plains Connector:
(1) Connect Colstrip to SPP and Miso Markets.
(2) Can get it to Colstrip, but how does NWE get it across Montana?
(3) Now that NWE have LMP, compare that to what would you receive on the other side, and does it justify constructing line.

**k) Topic 11: 2026 IRP Workplan Review**

i) Handout and Review Draft of 2026 IRP Workplan

ii) Meeting dates:
(1) More meetings? (Month or month and a half)
(2) Electronically?
(3) Most value to NWE by utilizing this SWG as public.

3) Adjournment
a) Meeting adjourned at 4:45 PM by Jon Shafer.