NorthWestern Energy's 2026 Montana Integrated Resource Plan (DRAFT for Public Comments)

Final plan to be filed with the Montana Public Service Commission in April 2026

Public Meetings on DRAFT IRP

Setting the Context for This IRP

Diverse Perspectives are Expected

- Affordability
- Reliability
- Risks
- Climate and Clean energy
- Local vs. Regional Solutions

All perspectives are valid

What is an Integrated Resource Plan?

The Integrated Resource Plan *Does Not*:

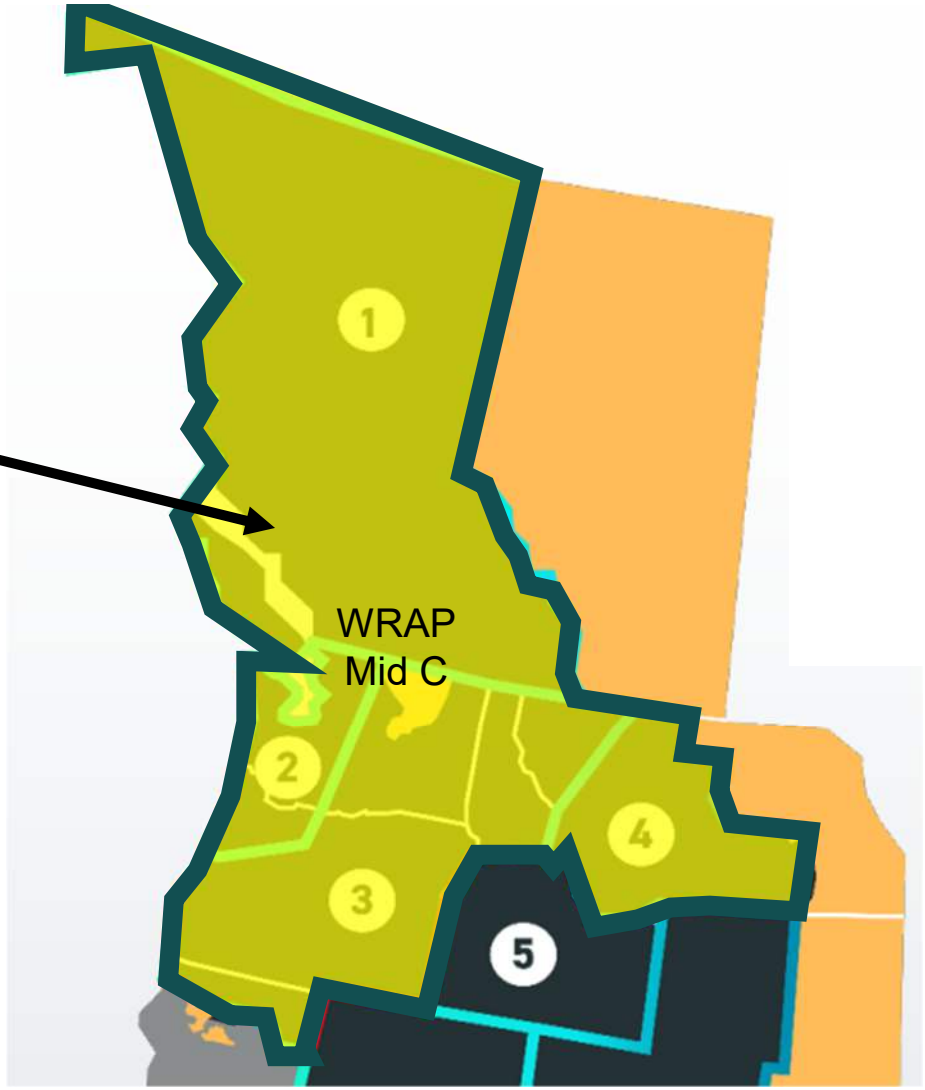
- Set electric rates
- Lock in a single path
- Select a specific technology for construction
- Approve or build specific projects

The Montana IRP is *a modeling exercise at least every 3 years that:*

- Uses a regional reliability program (ie. regional sharing)
- Solves for the lowest-cost of capacity across scenarios and constraints
- Meets regional reliability and balances affordability and sustainability
- Works with Electric Technical Advisory Committee, Stakeholders, and has a process for public input.

WRAP Reliability

Enough
Resources
To Meet
~1 Shortfall in 10 Years
In the Mid C subregion



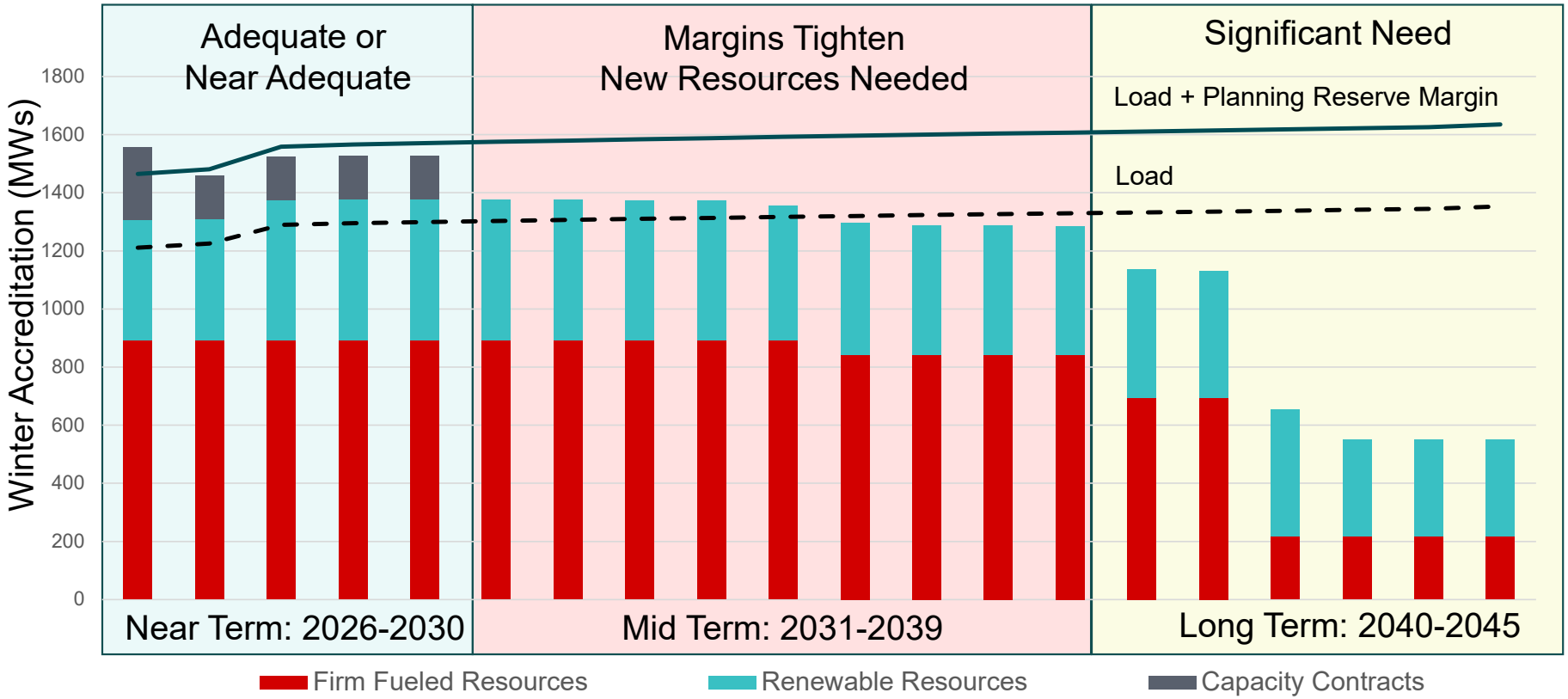
Regional WRAP Capacity Accreditation:

- Regional performance during extreme events
  - Ie. top hours of max regional load
- Summer and winter defined separately
- Montana is solving for winter-time need.

Keeping the lights on during the coldest winter days

Today's Portfolio Meets Near-Term Winter Reliability

Based on current resources and WRAP 2025 accreditation assumptions



Recent additions drive near term resource adequacy

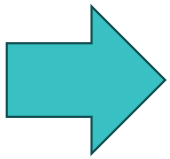
Driven by Yellowstone County Generation Station (YCGS) and additional shares of Colstrip

How Capacity Cost Tradeoffs Are Evaluated in Model (Conceptual)

Customer Costs For Resource
Revenue Requirement (Installed cost, fixed O&M, taxes, financing, etc.)

Customer Benefits of Resource
Net Revenue Benefits (Energy Sales Variable Costs)

Reliable Capacity Contribution of Resource
Resource Accreditation (Avg. WRAP)



Net Cost
per
Reliable Capacity

All resources are evaluated the same way.

What Futures Were Tested?

- **Futures Tested Include (Ie. Scenarios):**
  - Base Case:
    - Generation fleet operates through book life
    - Contracted capacity ends per contract terms
    - Commodity Sensitivities are tested
      - 50% and 150% Power or Gas Price
  - Colstrip:
    - Colstrip retirements 2029, 2032, 2035
    - Colstrip bag house requirement in 2032
    - No Avista Share (222MW share)
    - With Puget's Share (370 MW share)
  - Data Center Growth:
    - Data Center Growth w/ 370MW additional Colstrip Capacity (150MW, 650MW, 1160MW).
  - Emission Scenarios:
    - No additional fossil fuel builds
    - Allowing fossil fuel resources to be selected (ie. removing no fossil fuels after 2035 constraint)
  - Other:
    - Northern Plains Connector – Energy Value
    - Increased DSM and Net Metering Value

- **Modeling Constraints:**
  - No fossil fuels after 2035
    - Part of NorthWestern's net zero by 2050 goal, if technology is available.
  - Storage Limits:
    - 4 Hour storage limited to 250 MW. No additional winter peak.
    - Long duration storage limited to 150 MW.
  - Overbuild Penalty:
    - Adds penalty to model so that capacity is built when needed, and not early for the market only benefits.

What We Learned Across Many Reliable Futures

High Level Results:

- No single resource meets reliability needs alone
- Energy storage appears all portfolios (short duration followed by long duration).
- Firm, dispatchable resources remain critical for winter reliability
- Transmission can increase access to low-cost energy (currently assessing WRAP reliability for NPC).
- Across some lower-cost futures, moderate load growth improved utilization of existing assets and lower levelized portfolio cost per MWh delivered. High growth requires new generation and transmission.

Tradeoffs Observed in Draft IRP

Lower Cost Futures Tend to Have:

- Greater reliance on existing assets
- Higher power prices, reducing overall portfolio costs.
- Higher emissions

Lower Emission Futures Tend to Have:

- Early replacements of existing assets
- Higher portfolio costs

Questions We Often Hear and How the IRP Addresses Them

Are resource's winter performance (ie. accreditation) accurate?	WRAP provides regional accreditation for currently operating resources
Does this favor gas or nuclear?	Model solving for lowest-cost resource to meet capacity need
Why is 4-hour storage limited in model to 250 MW?	Over 250 MW of grid charged storage may cause a new winter peak
Why doesn't transmission count towards reliability as a resource?	NorthWestern requested WRAP to provide updated reliability metrics with the Northern Plains Connector
Why are candidate resource costs high?	Cost estimates are based on real-world data from projects that are already built, under construction today, or bid into recent RFPs. Data provided by 3rd party vendor.
Why doesn't the IRP model future capacity contracts?	Pacific Northwest is short on capacity as early as 2028. We are unsure of costs and ability to extend or acquire capacity contracts for IRP modeling.

Last Items

Key Findings

- We are resource adequate in winter of 2026-2027.
- Across modeled futures, earlier Colstrip retirement generally increased customer costs.
- Northern Plains Connector (NPC) provides energy benefits to customers.
- Large customer growth can lower average energy costs but still requires new generation and transmission investments.

Additional Information in IRP

- NorthWestern's Action Plan
- Regional Capacity Needs
- Accreditations of Existing and Potential Resources.
- 2024 Emissions by Individual Resource
- Estimated Resource Costs
- Power and Natural Gas Price Estimates
- Projected Emissions of all Modeled Portfolios

Where to find more information & how to comment:

Public Comments

- Accepted until
  - ***Thursday March 12, 2026***
- Online Form (via website)
  - Limited to 1250 characters
- Email: IRP@northwestern.com
- Public Comments:
  - Attend Public Meeting
  - 3 min per comment

Website

- Watch IRP Video(s)
- Learn more about an IRP
- Download Draft IRP
  - Executive Summary
  - 300 pages+ of technical information including cost assumptions, portfolio emissions, modeling details etc.
- Access all ETAC documents
- Access all Stakeholder documents

www.northwesternenergy.com/irp