

Rocky Mountain Region Update

Mid-West Annual Meeting

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Agenda

- SPP Update
- Power Marketing Changes
- Real Time Operations Changes





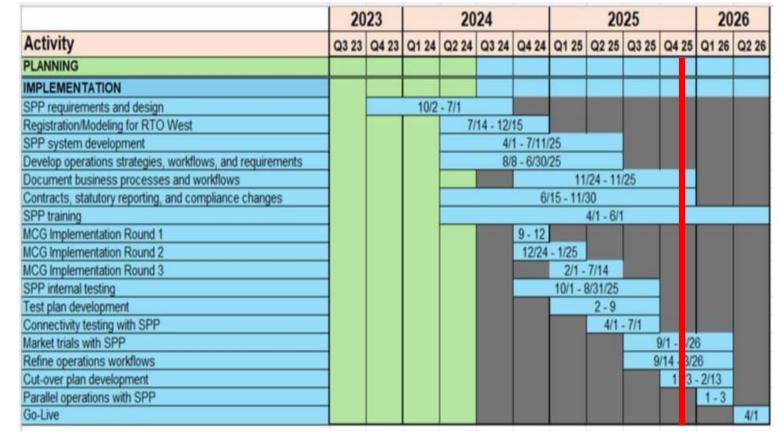
SPP Implementation Update

FERC approved amended
 SPP Tariff and Membership

Agreement,

March 20, 2025

- Connectivity Testing,
 June 2025
- Market Trials,
 September 2025
- TCR Market, January 1, 2026
- **Go-live**, April 1, 2026





SPP – What will be changing?

- Firm Electric Service
- Transmission Service
- Billing/Settlements
- Power Marketing Contracts
- Rates





SPP ChangesFirm Electric Service

WAPA does not anticipate much changing from the Firm Electric Service (FES) customer perspective.

- Customers will continue to schedule their FES allocations in MCG portal
- No change to FES allocations
- Continue to be billed monthly for FES allocations

WAPA will continue to provide transmission for deliveries of FES allocations to the edge of LAP & CRSP systems

Customer responsible for transmission beyond the LAP/CRSP systems

LAP will continue to provide reserves for FES allocations



SPP ChangesTransmission Service

- LAP will no longer be a Transmission Service Provider (TSP), but will continue to be a Transmission Owner/Operator
- If customer has a transmission agreement with WAPA, you should have been working with SPP to transfer this service.
- Customers will need to take transmission service from SPP for any load above LAP allocation





SPP ChangesPower Marketing Contracts

FES Contracts will not be changing

 Scheduling, Accounting, and Billing (SABP) procedures may be updated at some point in the near future

LAP Transmission Service contracts will terminate and transition to SPP (SWPP as the TSP) after April 1

All WACM Balancing Authority (BA) Services Agreements will terminate, SWPW will be the BA providing services through the market.

 Although BA services is terminated, WAPA-RMR is planning to create a document to preserve the interconnection details of assets and loads on our LAP system

NWPP Sub-Entity agreement will terminate





SPP Changes

Rates

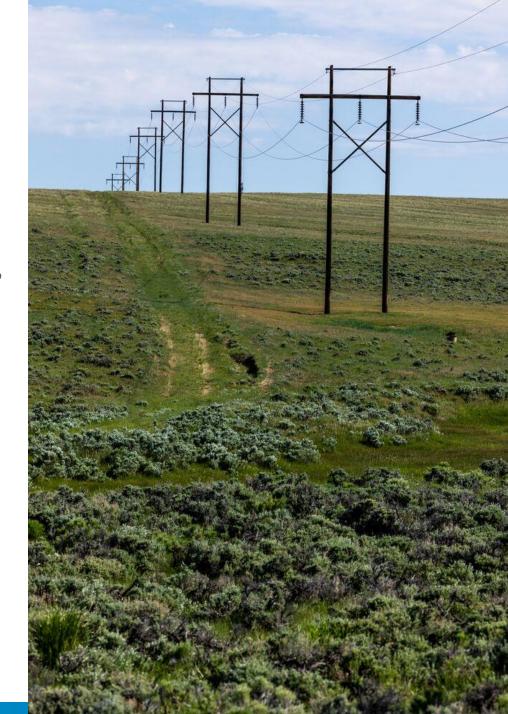
- WAPA will continue to recover all its costs to operate through the FES Rate
- WAPA will submit its Annual Transmission
 Revenue Requirement (ATRR) to SPP, which will in turn recover LAP's transmission costs
- WAPA has developed its Transmission and Ancillary Services formula rates for cost recovery under SPP's Tariff, which were approved by FERC on 09-24-2025





SPP ChangesBilling

- Customers will be billed for FES allocations by WAPA monthly, as normal
- WAPA will no longer bill for NITS, PTP Transmission, or BA services
- WAPA will become a customer billed by SPP for transmission, load, and ancillary services, and other market charges or credits through the SPP market and transmission settlements
- WAPA's costs/credits assessed by SPP will be recovered from our customers via the FES rate, unless there is a direct pass through to customers (i.e. over scheduled allocation)





Questions?





Rocky Mountain Region

Robert Peter Miller

Vice President of Operations (Acting) – RMR Real Time Operations Loveland, Colorado Control Center





What's NOT changing

in the WAPA Loveland Control Center

Our Priorities

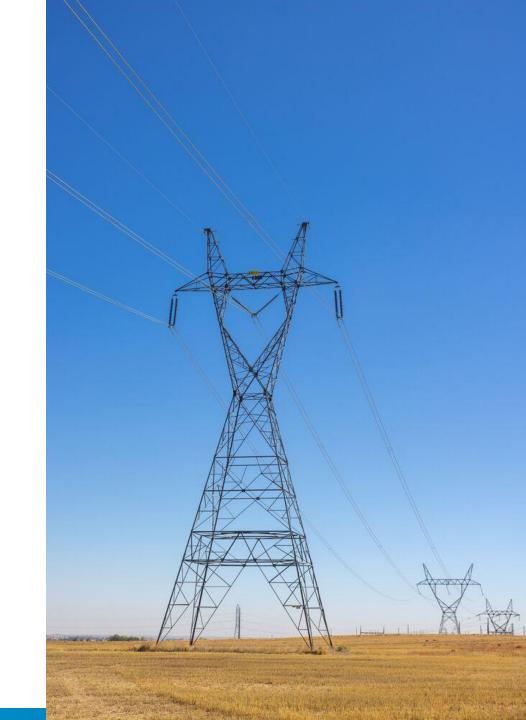
- Physical safety of employees and the public.
- Integrity and reliability of the Federal power system.
- Protection of equipment.
- Service to the customer.





What has Influenced Changes in the WAPA Loveland Control Center

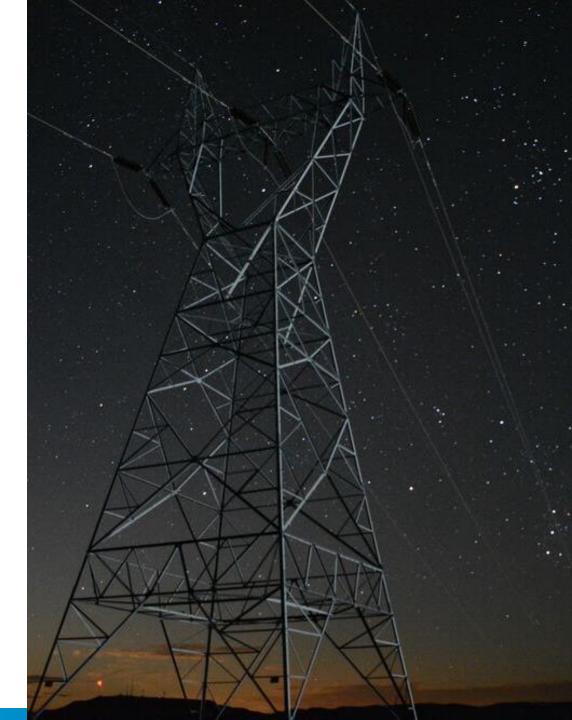
- Why "O" Why Wyoming.
- Challenges in today's environment
- Full time Employee cost savings.
- Loss of Balancing Authority Function.
- Creation of a new operational desk in the control center.
- NERC Registrations.





Wyoming Event November 13, 2025

- In my experience as a System operator, this type of event has the potential to change industry policies or standards.
- On 11/13/25 at 1243 local time, an entity external to WAPA suffered the loss of multiple transmission lines.
 - This Event tripped nearly 3,900 MWs of wind generation as well as several other transmission lines, entire substations, additional generation and customer load.





Wyoming Event November 13, 2025

This event tripped various loads in WAPA's WACM Balancing Authority Area.

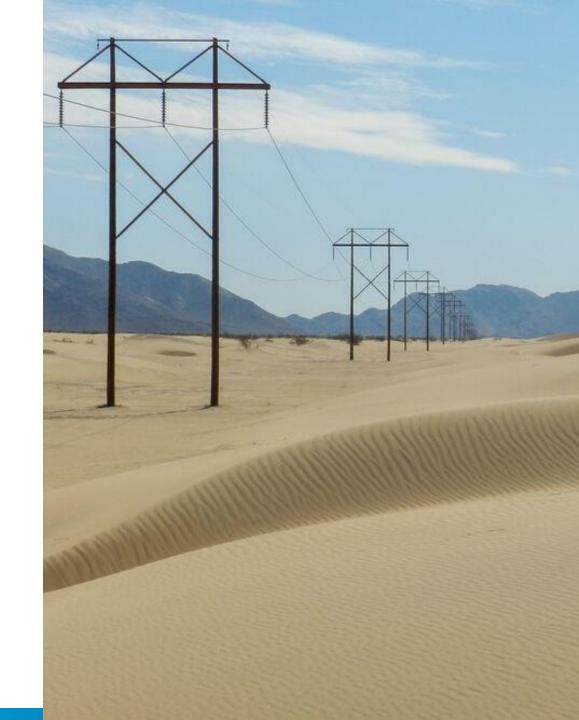
- This event triggered cascading outages on the BES through multiple TOP systems and widespread blackouts in central Wyoming, eastern Wyoming, northeastern Wyoming and southwest South Dakota.
- Total number of customers impacted is still not known at this time, however estimated to be well over 100,000.
- As the system was collapsing, we saw voltages levels we had never seen or experienced in our system before, for example the 230kv system momentarily peaked at 277kv.





Wyoming Event November 13, 2025

- Western Electricity Coordaining Council (WECC)
- Southwest Power Pool (SPP)
 - Both entities have requested data from WAPA in order to perform a detailed analysis.





Challenges in today's environment

As a federal employee, changes in Administrations come around about every four years.

- This year has been particularly challenging.
- Differed resignations program and early retirement programs.
- Remaining employees doing multiple Jobs
- New performance criteria.
- New software program deployment.
- New Energy Management System (EMS) across WAPA.





Full Time Employee (FTE) Cost SavingsLoveland Control Center

- Reduction in full time employees.
 - For the operations department initially, we have reduced FTE
 - Cost Savings currently at 1.75 million.
- Currently in the Loveland control center we have three Operational desks that manage the WACM BA and transmission system. (TSO-BAL-INT)
- We have one Real time engineering (RTE) desk that constantly assess the status of the WACM BA, the WALC BA and transmission systems.
- Post RTO go live;
 - Two Operational desks (RTO –TSO)



RTE desk remains unchanged.

Loss of Balancing Authority Function

- Also, called Automatic Generation Control (AGC)
- Balancing Authority Area stretches from Montana down to Northern Arizona and is called the Western Area Colorado Missouri (WACM) BA
- WACM has 3 Direct Current (DC) Ties connecting the Western Power Grid to the Eastern Power Grid
- Electrically connected to 9 other Balancing Authorities
- Inside the WACM BA there are 12 Transmission Sub-Systems
- Works in conjunction with the Bureau of Reclamation (BOR) and WAPA's Montrose Marketing Office to keep reservoirs within environmental and recreational limits while providing electricity to customers





RTO Desk

WACM BA operators will transition our Interchange and Balancing positions to one position.

RTO Desk-Reliability related Task: (RRT)

- DC Tie operation
- Boundary Tie management delegated back to WAPA from SPP as SPP has not maintenance or field crews,
- GOP responsibilities such as SPP CROW entries delegated back to WAPA from the U.S. Bureau of Reclamation.
- Phase Shifter operations.





RTO Desk

- Operators currently are in their third phase of regional transmission organization (RTO) training with SPP.
 WAPA plans on keeping both desks functioning (BAL & INT) for 3-6 months while qualifying on their new RRTs. This will consist of refamiliarization training on already qualified tasks and tasks they have not performed previously.
- Training for the new desk, which we call the "RTO desk" will start in 2026. Currently, there are no tasks that have not been performed previously by one of our desks. Procedures are being updated reflecting these changes.





- Coordinate generation changes with Bureau of Reclamation Generator Operators and EMMO as requested by the RC, BA, or TOP.
- Document forced generation outages in CROW, as they occur.
- Respond to an ICCP or Data-Link failures.





Operate Sidney DC Tie.

- Place the DC Tie in service.
- Change the direction of flow on the DC Tie.
- Remove the DC Tie from service.
- Test DC Tie operation when requested by TOP.
- Respond to an off-schedule condition.
- Respond to DC Tie alarm.
- Operate DC Tie to schedule.





Operate Sidney DC Tie.

- Monitor schedule changes (intra-hourly, hourly).
- Schedules provided via ICCP from SPP BA.
- Ensure DC Tie is responding to changes.
- Respond to the loss of the DC Tie or component.
- Communicate with Transmission Operator to determine equipment status.
- Coordinate with SPP BA for schedule curtailments and outage posting.
- Make appropriate notifications.
- Log all pertinent information.





Adjust phase shifting transformers (PSTs) as directed.

- Access the SCADA screen for PST control.
- Compare scheduled flow to actual flow.
- Notify affected entities of intended PST tap changes.
- Move PST to tap position per Operating Instruction from the RC.
- Evaluate the impact of PST tap change on constrained path flows.
- If requested by TOP, adjust tap setting to allow closure of are transmission line.
- Log all pertinent information.





NERC Registrations

- WAPA-RMR will no longer be the BA,
 PCPA, or TSP for the footprint.
- SPP BAA West will assume most of the footprint, with a minor portion being transferred to new Black Hills BAA.
- WAPA-RMR will remain the TOP.





Summary

- We will continue to operate the WAPA electrical system with safely and reliably.
- Continue to serve our customers in an effective manner in a spirit of cooperation and collaboration.
- Be as flexible as we can given a new operating environment In 2026.
- RTO Go live is not the end it is the beginning.





Questions?



