



Western  
Area Power  
Administration

# Mountain West Transmission Group

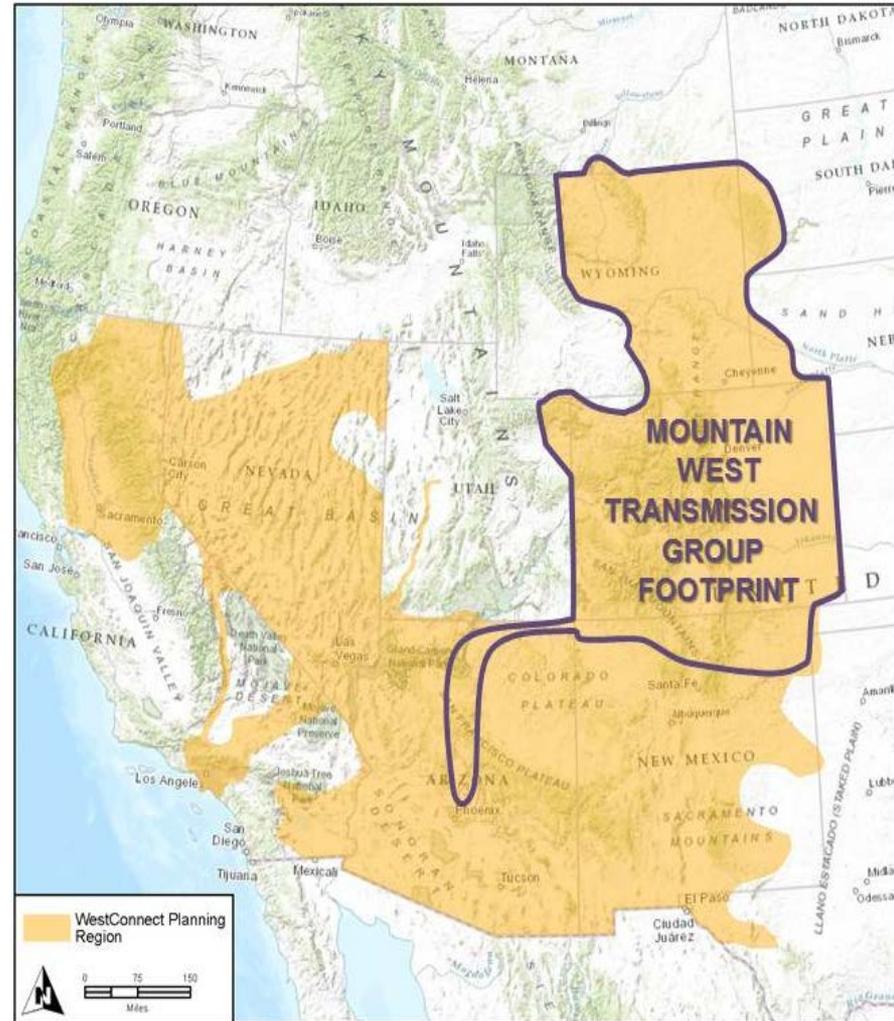
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Balancing Authority of Northern California  
Folsom, CA

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# MWTG

- Goal – Create a single multi-company transmission tariff and explore “Day 2” RTO market alternatives
- MWTG TSPs include: two IOUs, two municipals; two REA G&Ts; two Federal PMA projects
- MWTG members are a sub-set of the WestConnect planning region and are members of the Colorado Coordinated Planning Group (CCPG)
- Includes seven parties with nine transmission tariffs





# Participating Transmission Owners\*

- Basin Electric Power Cooperative (BEPC)
- Black Hills Corporation (BHC) including its three affiliates
  - Black Hills Power, Inc. (BHP)
  - Black Hills Colorado Electric Utility Company (BHCE)
  - Cheyenne Light Fuel & Power Company (Cheyenne)
- Colorado Springs Utilities (CSU)
- Platte River Power Authority (PRPA)
- Public Service Company of Colorado (PSCo)
- Tri-State Generation and Transmission Association, Inc. (Tri-State)
- WAPA
  - Loveland Area Projects (LAP)
  - Colorado River Storage Project (CRSP)



\* *Others may join after initial implementation of joint tariff and/or market.*

# MWTG 2013 Statistics

Transmission Owner	Gross Transmission Plant (\$)	Net Transmission Plant (\$)	Annual Transmission Revenue Requirement (\$)	Miles of Transmission
Basin Electric Power Cooperative Westside	52,126,841	19,108,267	4,535,874	209
Cheyenne Light Fuel & Power	41,027,108	35,981,808	6,848,030	45
Black Hills Colorado Electric Utility	333,880,142	146,938,581	12,452,172	581
City of Colorado Springs Utilities	140,898,577	67,284,691	21,957,844	232
Common Use System (BEPC & BHC)	243,548,935	185,304,004	29,846,727	983
Platte River Power Authority	348,969,285	266,337,678	38,277,136	370
Western CRSP	651,271,471	391,945,017	58,386,041	2,325
Western LAP	550,045,450	286,761,337	61,866,058	2,508
Tri-State Generation and Transmission Association	766,276,122	431,085,996	96,781,507	4,660
Public Service Company of Colorado	1,616,197,083	1,265,799,495	208,498,664	3,782
<b>Total</b>	<b>\$ 4,744,241,013</b>	<b>\$ 3,096,546,874</b>	<b>\$539,450,053</b>	<b>15,694</b>





# MWTG - Significant Work to Date

- Strong cooperative effort - group has held over 50 meetings
- Significant success with rate design and cost shift mitigation, despite multiple failed attempts at regional tariffs in the past
- Developed and signed an MOU summarizing work to date
- Developed a Request for Information for RTO response
- Currently conducting a Market Study to evaluate resource side benefits of having a joint tariff or joining an RTO
- Ongoing outreach in various forums





# MWTG Benefits – Joint Tariff Option

- De-pancaking of transmission charges
- All load is network load of MWTG
- Single determination of ATC/AFC
- Transition away from contract path to flow-based
- Improved transmission planning and interconnection processes
- Will comply with Order No. 1000
- Avoid duplication of facility investments
- One point of contact for system interconnections
- Additional siting opportunities for new resources
- May assist in addressing future regulatory challenges





# MWTG Benefits – RTO Option

- As the rules and regulations associated with operating the system have evolved over time, it has become increasingly complex to optimize the efficiency of the system while concurrently managing reliability.
- An RTO:
  - ❑ Manages the operation of the transmission systems and generation resources of multiple electricity providers to optimize the utilization of the assets.
  - ❑ Maintains a wide-area view and real-time situational awareness of the entire footprint to monitor and manage the reliability of the system.
  - ❑ Serves as the centralized operator for a Day-2 Market for auction-based electricity products including varying combinations of energy, capacity, and ancillary services. The markets include day-ahead unit commitment, reliability unit commitment, and real-time dispatch.
  - ❑ Provides market monitoring oversight.
  - ❑ Facilitates transmission planning across multiple transmission systems and states.
  - ❑ Performs ongoing assessments to ensure generation and transmission resource adequacy in alignment with reliability, economic, and public policy requirements.



# MWTG Analyses

- Transmission Cost Study\*
- Request for Information from RTOs\*
- Market Study\*
- Additional evaluations:
  - Staffing
  - IT (Meters, Settlements, EMS, etc.)
  - Ancillary Services
  - NERC Compliance
  - Pancaked Losses
  - Planning Reserve Margin
  - Marketing Plan
  - Reliability Coordinator
  - Governance



*\*Discussed in following slides.*



# MWTG Transmission Cost Study

- Network customers pay the zonal rate in which their load sinks
  - Owners in zone retain revenue for zonal network load
- 8 zones
  - Each transmission owner is a zone, except Tri-State
  - Tri-State facilities are split between Western LAP and PSCo zones
  - Cheyenne facilities are not recovered under the Tariff
- Single Regional Through and Out Rate (RTOR) applied to PTP
  - $RTOR = \text{Total MWTG ATRR} \div \text{Total MWTG load}$
  - Revenues allocated based off of ATRR and MW-Mile split, after mitigation
- Cost shifts mitigated through 7 year agreement
- MWTG Agreement for two special arrangements for WAPA
  - Federal Service Exemption (FERC approved for UGP in SPP)
  - Provision for CRSP P2Ps





# Request for Information from RTOs

- Issued to SPP, CAISO, MISO and PJM in May
- Obtain information and cost estimates from qualified entities
- Requested that entities provide information on a wide range of services from joint transmission tariff administration to RTO operator
  - TSP services
  - Ancillary services, losses, and other provisions
  - Interconnection processes
  - Planning concepts
  - Market operator
- RFI is one of multiple sources of information to assist the group in consideration of path forward





# MWTG Market Study

- Group is conducting a two-phase production cost study
- Executed study agreement, NDA, and completed Phase I
- Study Current Year 2016 (Phase I)
  - Status quo with nine tariffs
  - Remove pancaked transmission charges to simulate a joint tariff
  - Add Day-2 market structure
- Future Year 2024 (Phase II)
  - Multiple scenarios, evaluation underway





# MWTG Outreach (Started and Ongoing)

- WAPA outreach to its preference customers
- Each party's outreach to its constituents
- Other stakeholder organizations
- State Regulatory Authorities
- FERC



# MWTG Decision Timeline (Estimated)

Now through Fall:	Analysis
December 2016:	MWTG Steering Committee consensus on on which option to pursue
Jan-Feb 2017:	Proposal to executives/boards within each of the seven organizations
Mar-May 2017:	Stakeholder and regulator meetings, comment period
Jun-Jul 2017:	Each organization will make a decision on the direction their organization will pursue
Aug 2017 - Early 2018:	State and federal regulatory processes
2018/2019:	Implementation



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