



Western  
Area Power  
Administration

# Mountain West Transmission Group Update

Date: 11/29/2016 – Phoenix, AZ



# MWTG – CRSP UPDATE

- **DISCLAIMER:** Information provided here is CRSP specific and does not necessarily reflect the views of other MWTG participants



# OVERVIEW

- Purpose of Customer Meetings
- MWTG Overview
  - MWTG Goals
  - Significant Work to Date
  - Progression
- Analysis
  - CRSP Specific Analysis
- CRSP Specific Update
  - Overview
  - CRSP Specific Provisions
- CRSP Anticipated Cost/Benefits
- Next Steps
- Public Process/FRN
- Timeline



# Purpose of Customer Meetings

- Provide CRSP Customers with an update on CRSP MWTG activities
- Continue dialogue with Customers
- Share additional information
- Increase awareness and impact of possible participation



# MWTG

- Discussions began in 2013 with Transmission Owners seeking to increase efficient use of transmission system
  - Began as Joint Transmission Tariff Initiative
  - Reduction of pancaked transmission rates
  - Production Cost benefits
- MWTG participants:
  - two IOUs, two municipals; two REA G&Ts; two WAPA projects
  - MWTG members are a sub-set of the WestConnect planning region and are members of the Colorado Coordinated Planning Group (CCPG)



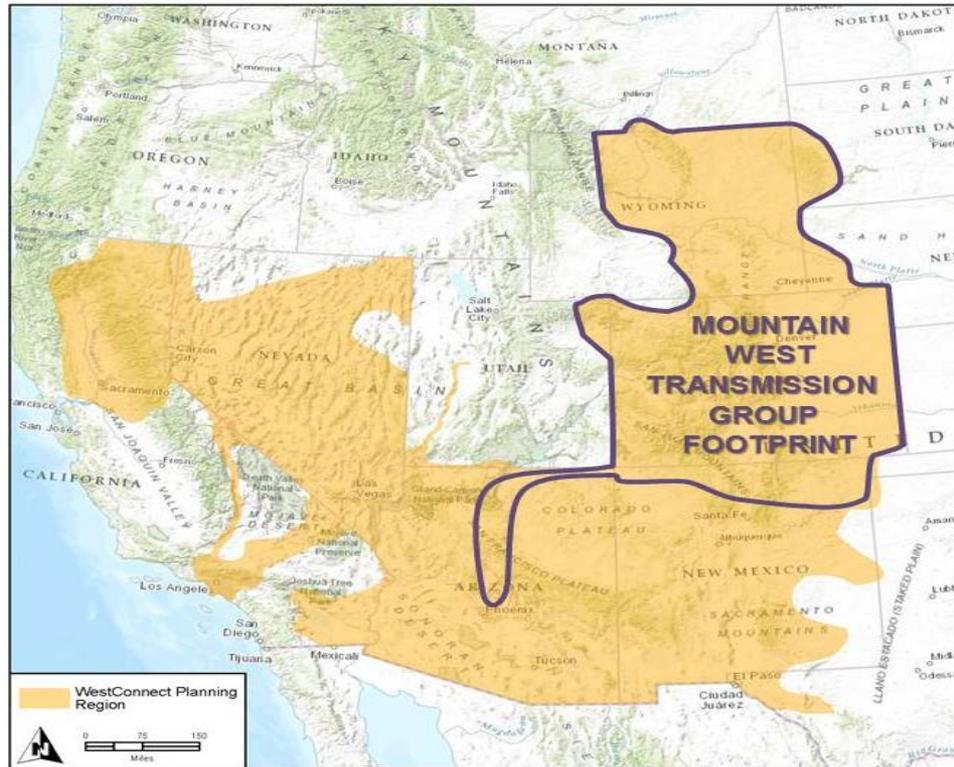
# Participating Transmission Owners\*

- Basin Electric Power Cooperative (BEPC)
- Black Hills Corporation (BHC) including its three affiliates
  - Black Hills Power, Inc. (BHP), Black Hills Colorado
  - Electric Utility Company, LP (BHCE) and 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 - Footprint



# MWTG – Goals

- Overall Goal – Create a single multi-company transmission tariff and explore “Day 2” RTO market alternatives
- CRSP Goal – Protect the FES deliveries
  - Determine benefits associated with joint tariff and Day 2 markets
  - Continue to foster relationships with utilities in the West
  - Maintain the ability to negotiate specific terms within an expanding market



# MWTG - Significant Work to Date

- Created initial rate design and cost shift mitigation structure
- Developed a Request for Information for RTO response
  - Sent to CAISO, MISO, SPP, and PJM
- Market Study to evaluate resource-side benefits of having a joint tariff or joining an RTO
  - Brattle Group
  - Two Phases: Adjusted Production Cost (APC) models for 2016 and 2024 (APC = Production Cost + Purchases – Sales)
- Ongoing outreach in various forums



# MWTG - Progression

- Initially focused on joint transmission tariff
  - Optimize transmission system and de-pancake transmission rates
  - Flow based determination of ATC/AFC (Available Transfer Capacity/Available Flow Capacity)
  - Improved transmission planning and interconnection processes
- Focus shifted from Joint Tariff to fully integrated Day 2 Market
  - Optimize the transmission system and de-pancake transmission rates
  - Utilize network service
  - Optimize generation resources within the footprint
  - Realize benefits from one Balancing Authority
  - Reliability benefits
  - Regional transmission planning benefits



# MWTG Analyses

- Transmission Cost Study/Rate Design
- 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



# MWTG Transmission Cost Study

- 8 zones
  - Each transmission owner is a zone, except Tri-State
  - Tri-State facilities are split between Western LAP and PSCo zones
- Network customers pay the zonal rate in which their load sinks
  - Owners in zone retain revenue for zonal network load
- Single Regional Through and Out Rate (RTOR) applied to PTP
  - $RTOR = \text{Total MWTG ATRR} / \text{Total MWTG load}$
  - Revenues allocated based off of ATRR and MW-Mile split, after mitigation
- Cost shifts mitigated through 7 year agreement
- MWTG Agreement for special arrangements for WAPA
  - Federal Service Exemption (FERC approved for UGP in SPP)



# 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 adjusted production cost study
  - Brattle Group conducting study
- Executed study agreement 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 Analyses – CRSP

## Transmission Cost Study Results

- Initial study used FY13 data
  - CRSP preserved the current PTP reservations
    - 4,395 MW used as ATRR denominator
    - CRSP did not utilize network service
- Currently updating study using FY15 Data
  - Shifted from PTP to Network Service for FES deliveries
  - Reduction in denominator for ATRR from 4,395 MW to approx. 2,197 MW
  - Studying OATT Transmission Rate change
  - Studying eligibility for cost shift mitigation



# MWTG Analyses – CRSP RFI Analysis

- Analyzed all RFI responses
- Considerations included:
  - FSE Implementation
  - CRSP Provisions
  - Governance/Processes and State Rights
  - Cost/Admin Fees
  - Expansion Potential
  - Market Benefits



# MWTG Analyses – CRSP RFI Analysis Results

- Group has set CAISO aside from consideration
- Continue to analyze responses and discuss with the group
- Goal is to gain consensus on one RFI respondent



# MWTG Market Study – CRSP Results

- Adjusted Production Cost Study
  - Only Day Ahead modeled
  - Conservative estimate of benefits
- Study Current Year 2016 (Phase I)
  - Completed in the summer
  - Showed small benefit to CRSP
- Future Year 2024 (Phase II)
  - Completion anticipated early December
  - Showed small benefit to CRSP



# MWTG Analyses – CRSP Other considerations

- Continue to analyze items listed below:
  - Staffing
  - IT (Meters, Software, EMS, etc.)
  - Ancillary Services
  - NERC Compliance
  - Pancaked Losses
  - Planning Reserve Margin
  - Marketing Plan
  - Reliability Coordinator
  - Governance
- Look at impacts of not participating



# Current Overview - CRSP

- Modeled adjusted production cost benefits may be small
- Actual net benefits will include other factors, such as:
  - Real Time Markets
  - BA Costs
- CRSP is unique
  - Most of load is not within the CRSP zone
- CRSP Specific Provisions needed



# CRSP Specific Provisions

- Similar Federal Service Exemption (FSE) as UGP
  - Federal Generation to FES load exempt from
    - Regional Cost Allocation
    - Marginal Losses
    - Congestion Charges
- Working to determine what additional provisions may be necessary for CRSP



# CRSP Specific Provisions

- Need additional provisions for CRSP:
  - FES load external to footprint
  - Grandfathered Agreements (GFA)
    - Working to determine how they will be handled
    - Minimize the impact to CRSP
    - Exchange Agreements
      - May ask for CRSP specific provisions
  - Treat certain bilateral purchases as WAPA-CRSP resource



# CRSP Specific Provisions— CRSP Zone for FES Load External to Footprint

- CRSP is unique: much of load is external to zone and current market footprint
  - CRSP FES load external to the footprint would be served by network service as if it were in the CRSP zone
  - Would pay CRSP zonal Rate
  - Avoid being charged RTOR rate



# CRSP Specific Provisions– CRSP Purchases

- Reduction in operational flexibility due to Grand Canyon Protection Act has resulted in need to purchase to meet FES deliveries
  - Purchases made in advance of Day Ahead and Real Time Market and which only utilize CRSP transmission system treated as if Western Resource
  - FSE would apply to these bilateral purchases



# Anticipated Benefits – CRSP

- Adjusted Production Cost Benefit anticipated
- Benefit from reduction in Regulation requirement
- Staffing benefits
- Likely some Real Time benefits – generation optimization
- Reduction in amount of transmission reservations needed for FES deliveries
- May receive additional Revenue from ROTR distribution
- DC-Tie Optimization Benefits
- One loss rate for MWTG footprint



# Anticipated Costs - CRSP

- Market Administration Costs
- Transmission may be subject to Market Charges
  - Marginal Losses
  - Congestion Charges
  - Zonal Cost Allocation
- OATT Transmission Rate will increase
- Metering/IT
- Wheeling (non FES transmission) out of footprint
- Training Costs



# Possible Costs – CRSP Not Participating

- Market expansion likely will occur
  - Loss of negotiating position if we wait
  - Loss of bilateral trading partners
- Increase in cost of firming purchases
- Change of BA
- Loss of operational flexibility
- Loss of any potential benefit from market participation
- Need to maintain point to point reservations



# NEXT STEPS

- MWTG to come to a consensus as a group about which RTOs it will negotiate with further
- CRSP needs to continue to analyze the impacts of participation to CRSP (and also non-participation)
- Continue to engage Customers



# FRN - Public Process

- Anticipate FRN being published sometime during beginning of year
- Anticipate it will outline the RTO we intend to begin discussing market participation with
- Will outline consideration factors
- Provide opportunity for public comment



# MWTG Decision Timeline (Estimated)

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



# Contacts

Parker Wicks

Contracts and Energy  
Services Manager

[pwicks@wapa.gov](mailto:pwicks@wapa.gov)

801-524-5265

Steve Johnson

Energy Management and  
Marketing Office Manager

[johnsons@wapa.gov](mailto:johnsons@wapa.gov)

970-252-3000

