

<b>DOCKETED</b>	
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<b>Description:</b>	2.C Carrie Simpson, SPP
<b>Filer:</b>	Raquel Kravitz
<b>Organization:</b>	Southwest Power Pool (SPP)
<b>Submitter Role:</b>	Public
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# WESTERN SERVICES UPDATE

CARRIE L. SIMPSON

WESTERN ELECTRICITY SYSTEM INTEGRATION  
WORKSHOP – DECEMBER 2, 2022



# SPP WESTERN SERVICES

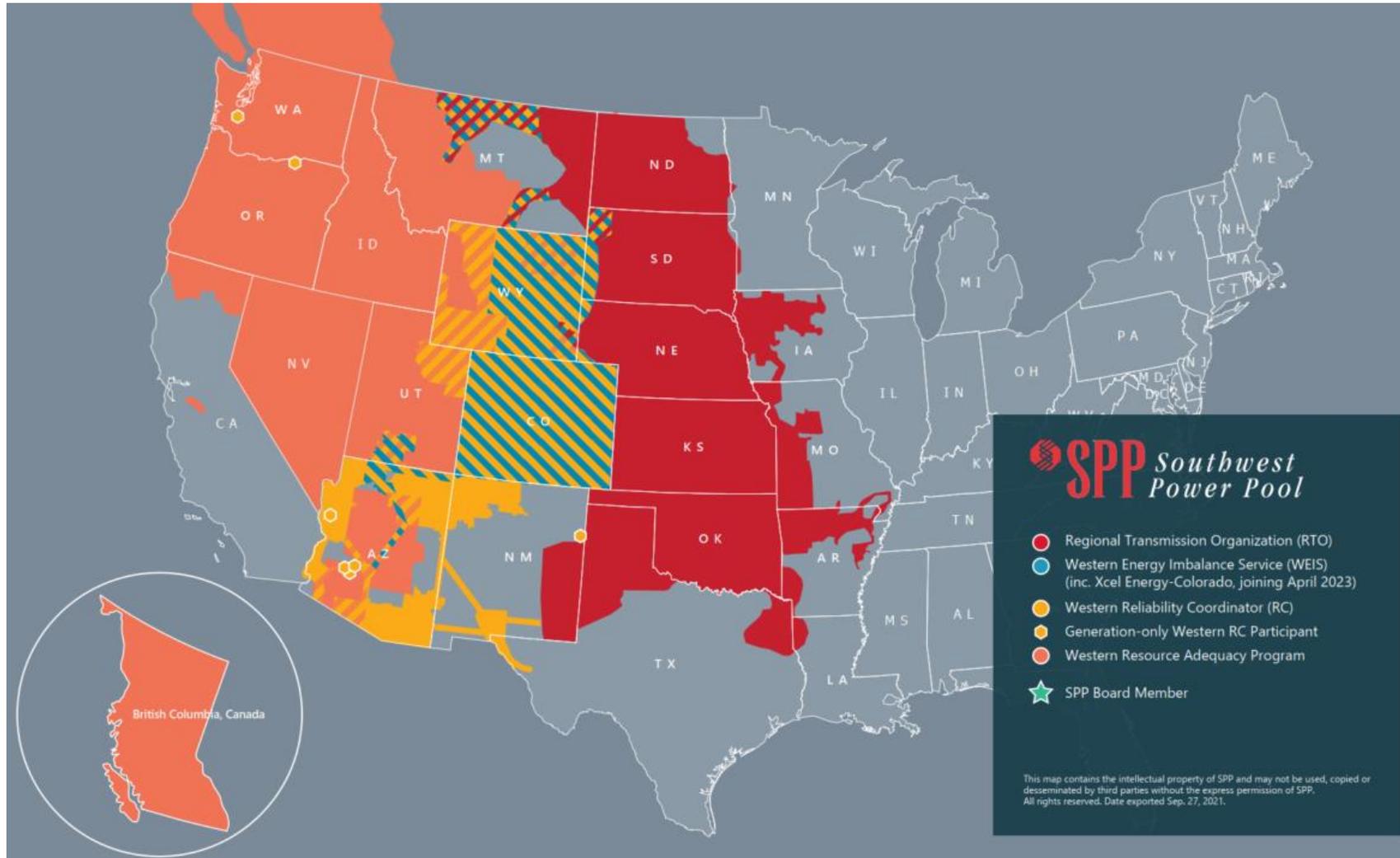
- Existing
  - Western Reliability Coordination
  - Western Energy Imbalance Services
  - Western Resource Adequacy Program Operator Services
- Proposed
  - SPP RTO West
  - Markets+
- Vision for the Future



# SPP'S EXISTING SERVICES

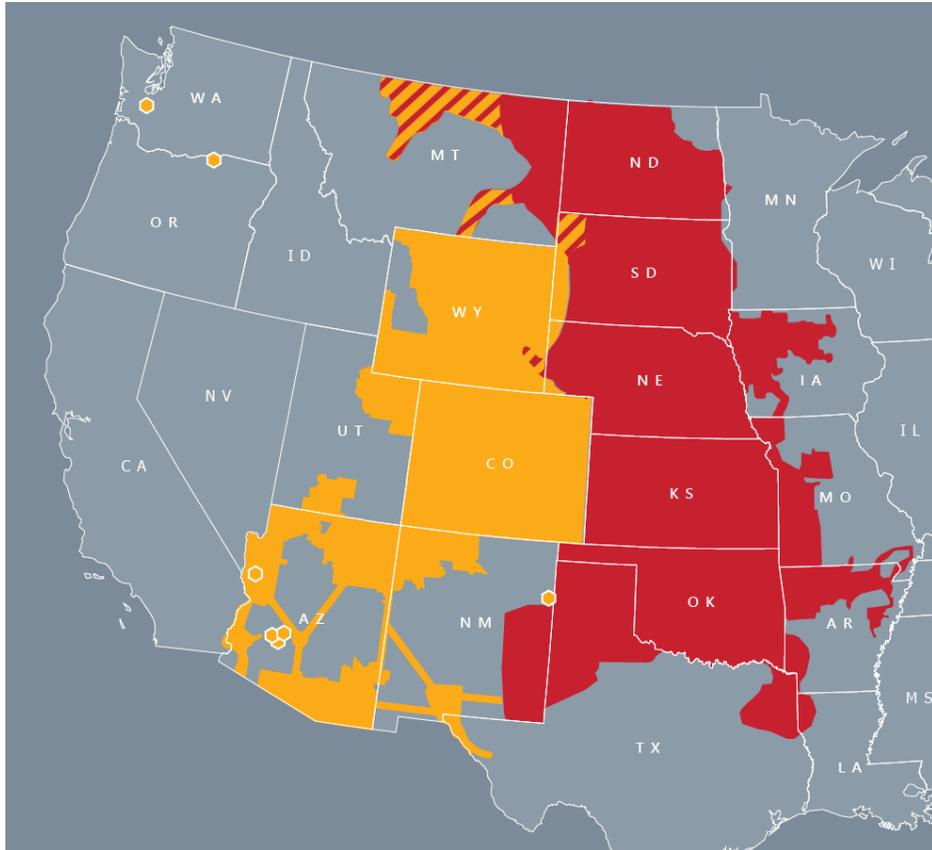
OVERVIEW

# SPP SERVICES AS OF APRIL 2023



# WESTERN RELIABILITY COORDINATION SERVICES

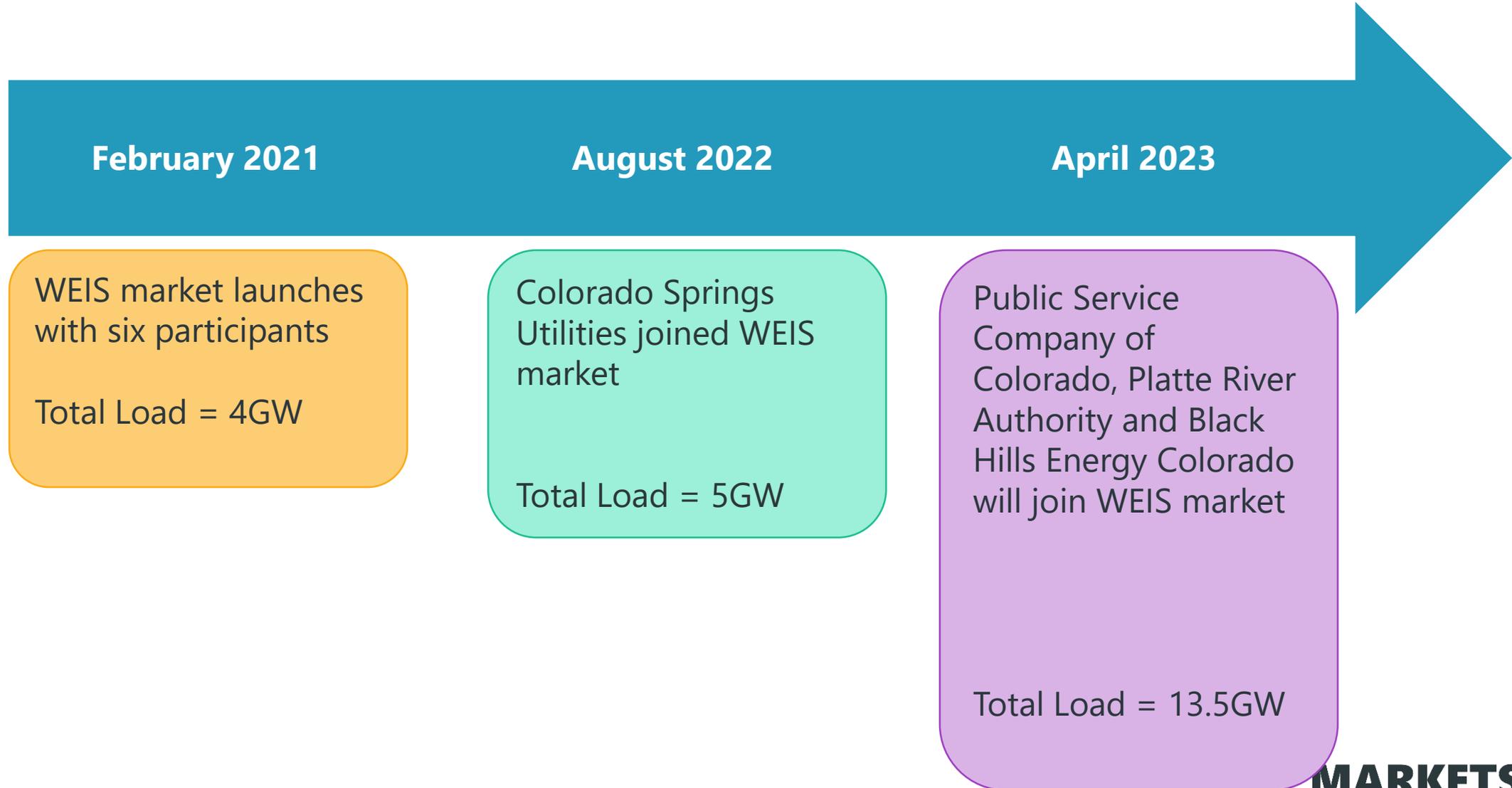
SPP-provided RC services launched December 2019



## CUSTOMERS

- Arizona Electric Power Cooperative, Inc.
- Black Hills Energy's three electric utilities: Black Hills Power, Inc., Cheyenne Light, Fuel and Power Company, and Black Hills Colorado Electric, Inc.
- City of Farmington, NM
- Colorado Springs Utilities
- El Paso Electric Company
- Intermountain Rural Electric Association
- Platte River Power Authority
- Public Service Company of Colorado (Xcel Energy)
- Tri-State Generation and Transmission Association
- Tucson Electric Power
- Western Area Power Administration (WAPA) Desert Southwest Region, WAPA Rocky Mountain Region, and WAPA Upper Great Plains – West

# WESTERN ENERGY IMBALANCE MARKET (WEIS)

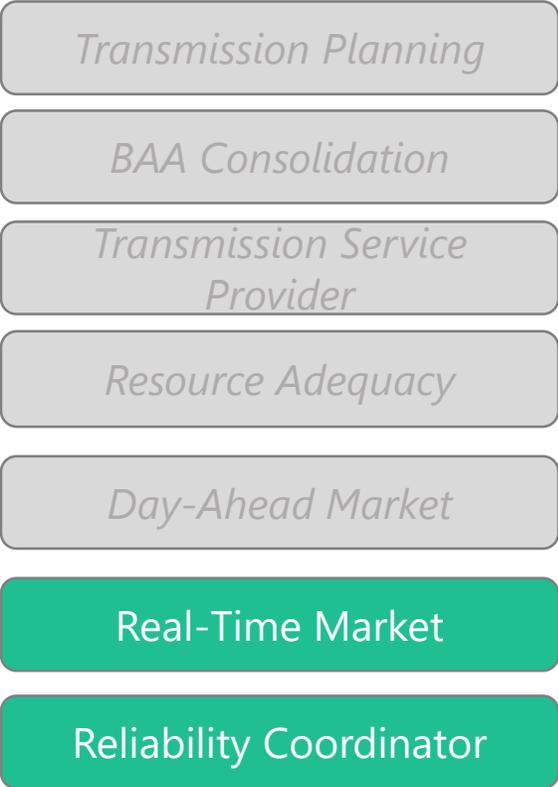


# WESTERN MARKET SERVICES OPTIONS

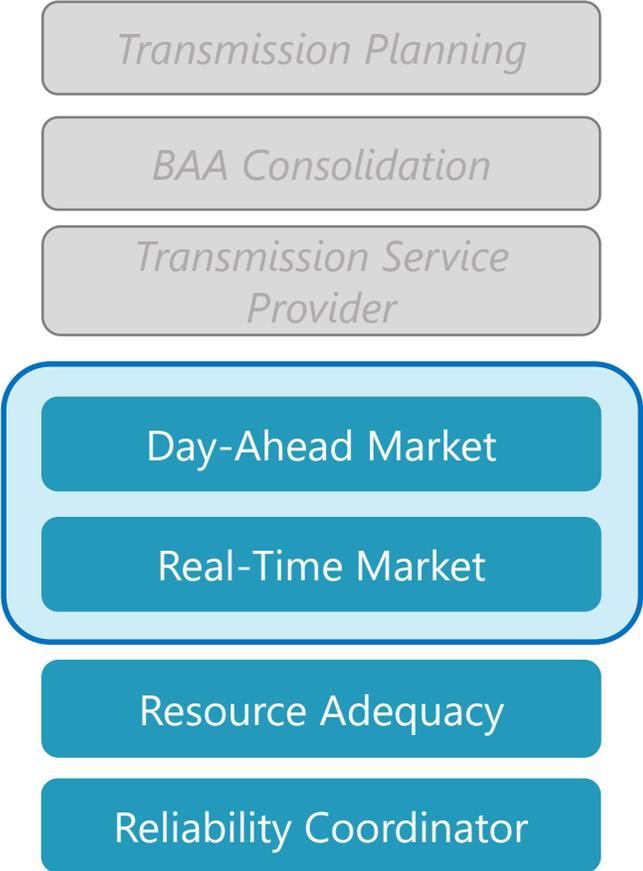
OVERVIEW

# SPP SERVICES INITIATIVES

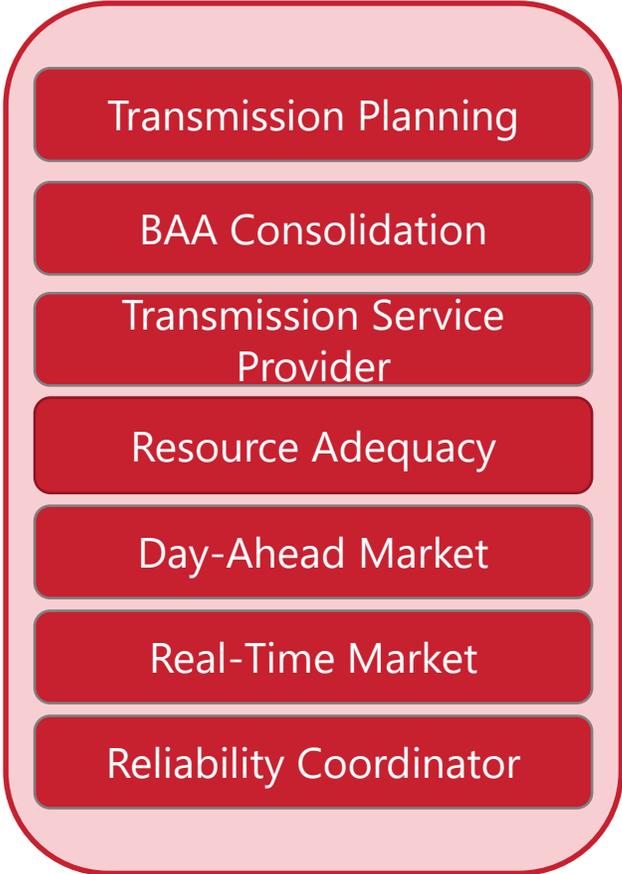
## WEIS Market



## Markets+



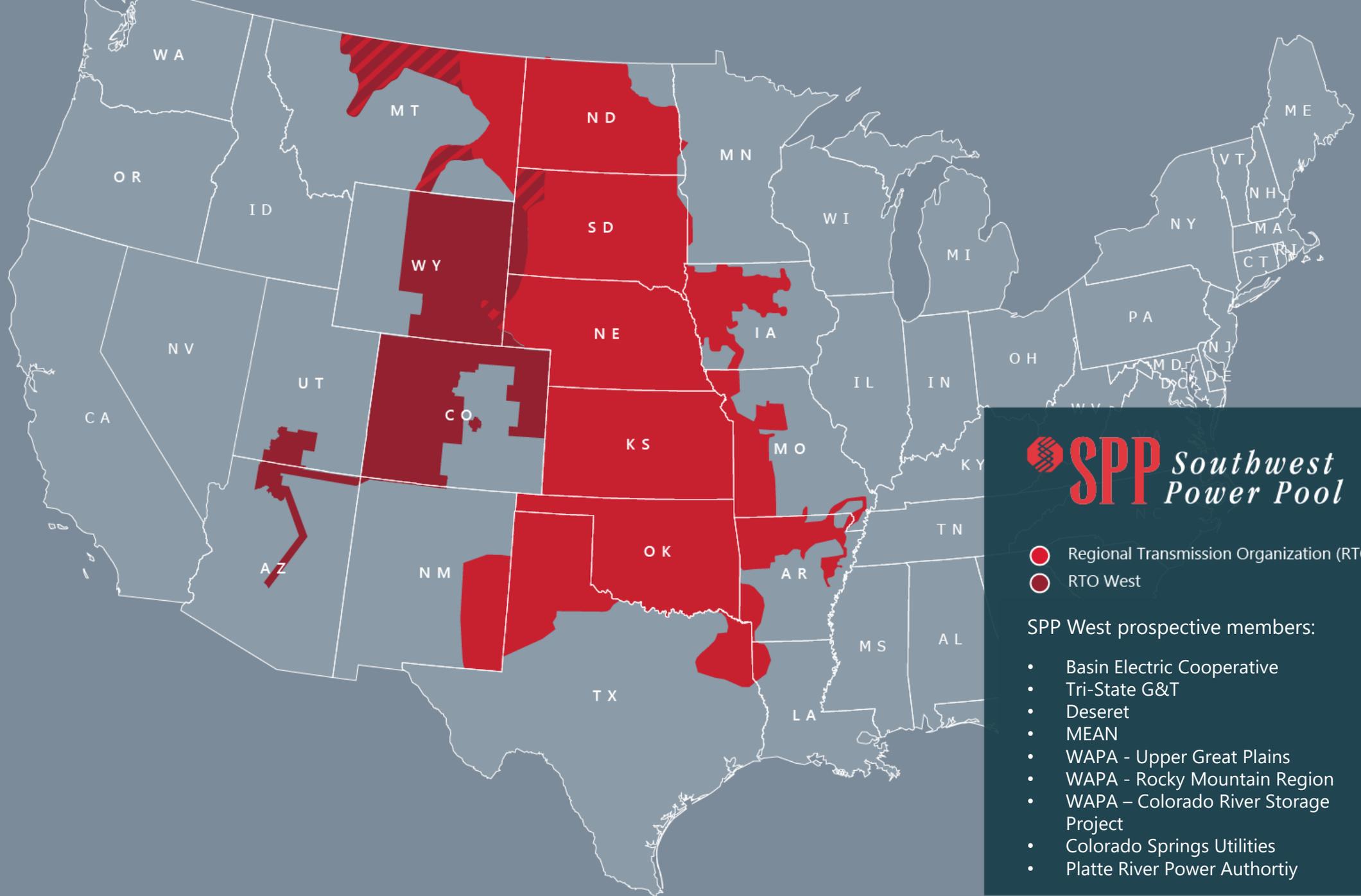
## Full RTO



# RTO EXPANSION INTO THE WEST

- In November 2020 received letters of commitment to investigate RTO membership and expansion in the Western Interconnection
- Six entities with facilities in the Western Interconnection
  - Platte River Power Authority joined the six entities in Summer 2022
- Goal to place Western facilities under RTO with minimal changes
- SPP Board approved initial Terms & Conditions in July 2021
- SPP Board approved DC tie Terms and Conditions in July 2022
- Decision for financial commitment by March 1, 2023, with implementation in 2025.

<https://spp.org/western-services/rto-west/>



 **SPP** *Southwest Power Pool*

-  Regional Transmission Organization (RTO)
-  RTO West

SPP West prospective members:

- Basin Electric Cooperative
- Tri-State G&T
- Deseret
- MEAN
- WAPA - Upper Great Plains
- WAPA - Rocky Mountain Region
- WAPA - Colorado River Storage Project
- Colorado Springs Utilities
- Platte River Power Authority

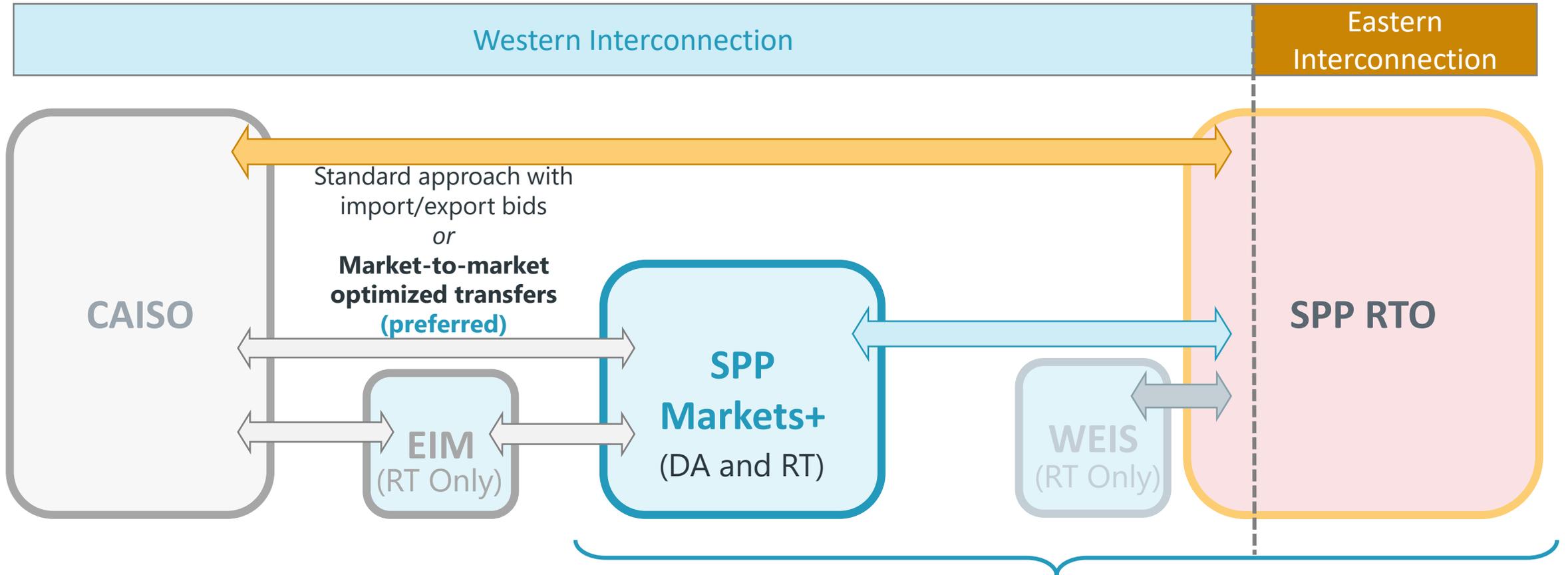
# SPP MARKETS+ DEVELOPMENT

- November 30: Final Service Offering Posted
- Q1 2023: Commitment to Phase 1
  - Financially Binding to Scope Implementation
  - Launch most elements of Markets+ governance
- **Phase 1: 21 month process**
  - Develop Market Protocols and Tariff Language
- **Phase 2: Implementation phase**
  - Funded implementation with launch estimated in 2026

# SPP'S MARKETS VISION

- WEIS continues for period of time
  - Imbalance market a great introduction to markets
- RTO expansion to West
  - Provides long-term solution to market needs
  - Consolidated BA, Regional Planning, Unit Commitment
- **Markets+ Development**
  - Possible long-term solution to achieve greater benefits through a day-ahead market and increased optimization of systems
  - SPP staff is exploring opportunities to minimize cost impacts for entities who choose to transition from Markets+ to RTO membership

# WESTERN MARKETS ROADMAP



**Ideally a single co-optimized unit commitment and dispatch under a robust governance framework with an independent board**

# QUESTIONS

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# **APPENDIX**

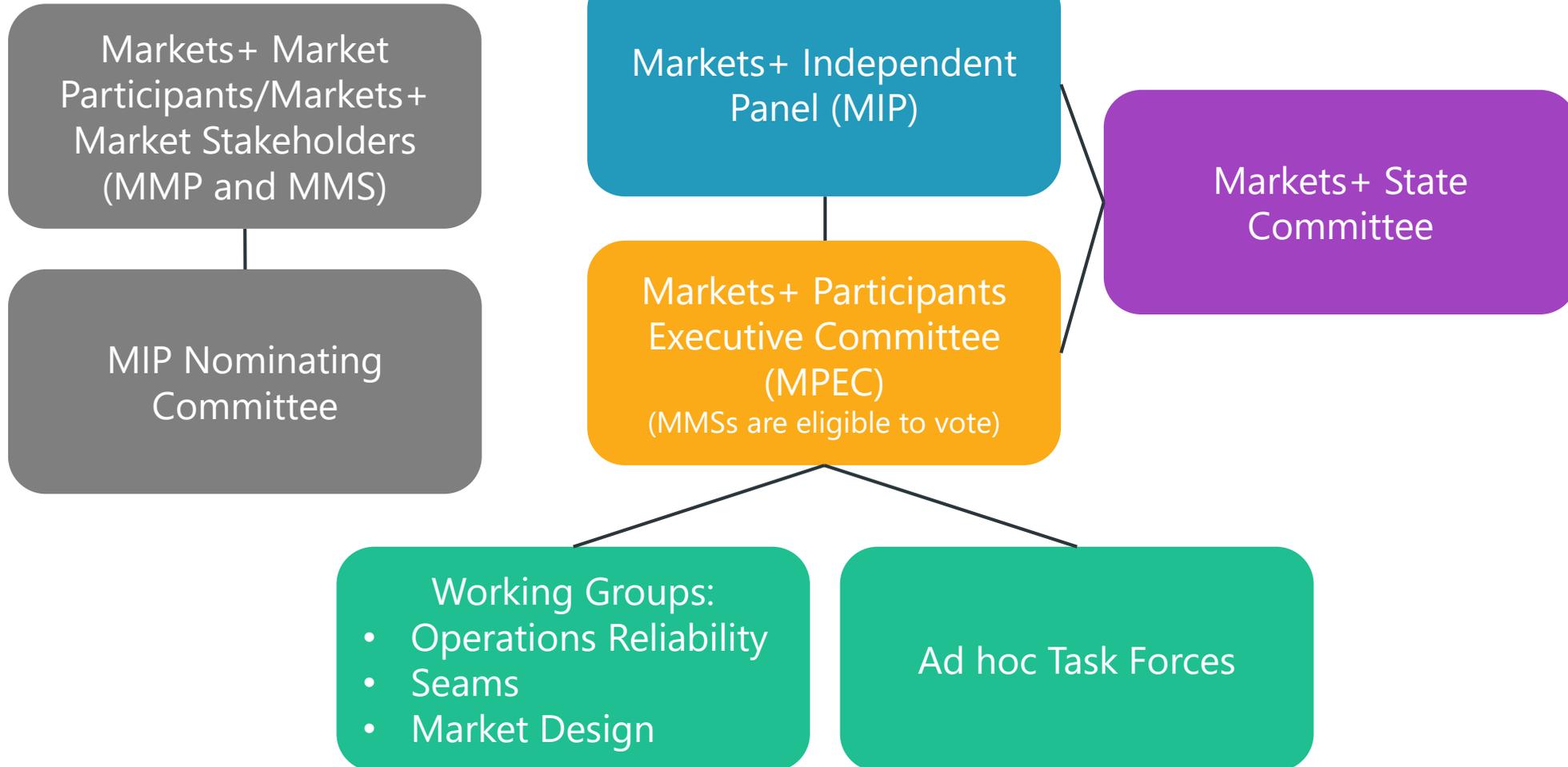
ADDITIONAL DETAILS ON SERVICES

# MARKETS + GOVERNANCE: BALANCING INTERESTS

- Developed through consensus view from stakeholders across the Western Interconnection
- Considers:
  - 
  - What FERC will approve
  - SPP best practices
  - Minimize impacts to SPP, Inc.



# Markets+ Governance Proposal



# DESIGN ISSUES EXPLORED: **MARKETS+**

Governance

Market monitoring  
and oversight

Efficient “peer-to-  
peer” seams  
management with  
external markets

Transmission  
availability (and  
protection from  
cost shifts)

Congestion rent  
allocation

Market products  
(energy, capacity,  
flexible reserves)

Accurate price  
formation

GHG treatment

# MARKET DESIGN AND TRANSMISSION

- Market Design
  - ✓ Market Timelines
  - ✓ Participation Models
  - ✓ Market Products
  - ✓ Physical Sufficiency
  - ✓ Unit Commitment and Dispatch
  - ✓ Price Formation
  - ✓ GHG /Carb
  - ✓ Congestion Hedge
  - ✓ Congestion Management
  - ✓ Mitigation
- Transmission Availability
  - ✓ Flow based vs. Path based Operation
  - ✓ Market Transmission Service Charge
    - ✓ Recovery
    - ✓ Allocation
  - ✓ Support of Intra Market and Intra BA schedules
  - ✓ TSPs retain their functions, OATT rights must be respected

# MARKETS+ PHASES – INCREMENTAL APPROACH

## Phase 1: Funded Investigation

Supportive entities that want to design Markets+ market operations and draft governing documents (FERC submittal)

Commit a non-refundable amount

## Phase 2: Implementation

Upon FERC approval, SPP acquires/modifies necessary software, hardware and related processes

Participating entities fully commit to fund efforts

Entities integrated into the system

# MARKETS+ AND RTO WEST

- RTO Expansion to West
  - Seven parties are expected to make a decision for RTO West participation by March 2023.
- Compatibility with Markets+ and RTO West
  - SPP staff is exploring opportunities to minimize cost impacts for entities who choose to transition from Markets+ to RTO membership