

# Stakeholder Meeting

*Exploring Western Organized Market Configurations: A Western States' Study of Coordinated Market Options to Advance State Energy Policies (or the "State-Led Market Options Study")*

San Diego, California – Westin Gaslamp

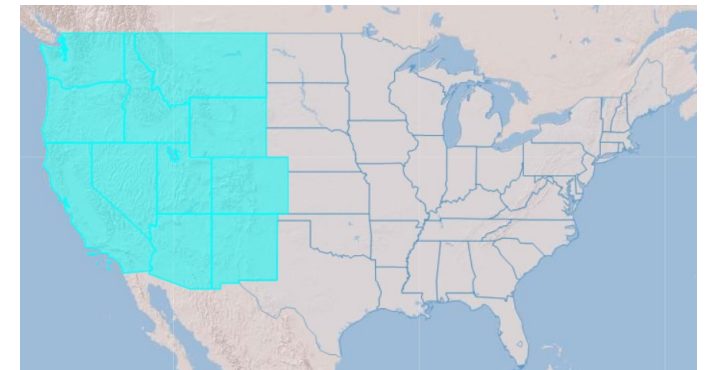
October 9, 2019

1:30 – 3:00 pm

# State-led Market Study made possible through DOE grant

- The last several years have featured numerous discussions and initiatives related to the formation of coordinated wholesale trading markets in the West
- The Utah Governor’s Office of Energy Development, in partnership with State Energy Offices of Idaho, Colorado, and Montana, applied for and received a grant from the US DOE to facilitate a 2-year state-led assessment of organized market options
- The project is called *Exploring Western Organized Market Configurations: A Western States’ Study of Coordinated Market Options to Advance State Energy Policies*
  - ❖ or “State-Led Market Study”
- The project provides Western States with a neutral forum, and neutral analysis, to independently and jointly evaluate the options and impacts associated with new or more centralized wholesale energy markets and potential footprints
- Today is the first quarterly stakeholder meeting for the project
  - ❖ Planning for in-person meetings held concurrent with WIRAB/CREPC, and webinar meetings held in quarters in which those bodies do not meet

State representatives from 11 Western States are participating in project



# Agenda

- 1. Introductions - *All***
- 2. Opening Remarks and Overview of Stakeholder Engagement – *Dr. Laura Nelson***
- 3. Project Overview and Progress to Date – *Energy Strategies***
  - a) Project background, structure and formation of project “Lead Team”
  - b) Deliverables and project timeline
  - c) “Modeling and Analysis Request” document
    - Core questions and areas of focus
    - Study footprints, scenarios, and sensitivities
    - Market and Regulatory Review
- 4. Stakeholder Comments – *All***
- 5. Next steps and future meetings**

# Overview of Stakeholder Engagement

Dr. Laura Nelson, *Utah Governor's Office of Energy Development*

# Stakeholder Engagement Plan: Today and Going Forward

## • Objective for today's meeting

- ❖ Provide stakeholders with an overview of the State-Led Market Options study, its purpose, and progress to date
- ❖ Take verbal feedback on the study approach
- ❖ Invite the opportunity to provide written comments on the study approach presented today
  - Written comments can be submitted to [bntucker@utah.gov](mailto:bntucker@utah.gov) through October 23<sup>rd</sup>
  - Note that we will review comments, but will not respond specifically to each comment received
  - At the end of this presentation, we suggest areas of particular interest where stakeholders can provide valuable input
- ❖ Other ground rules for today's meeting

## • Engagement plan going forward

- ❖ Quarterly stakeholder meetings with opportunity for written or verbal comments/input
- ❖ In-person (2x per year) and webinar/call-in options

# Stakeholder Communication Plan

- To receive updates and future meeting announcements, navigate to this link to add your name to the project's stakeholder distribution list: <http://bit.ly/2nBP6Gt>
- When possible, we will distribute meeting materials in advance via this distribution list
- Written comments from today's meeting can be submitted to [bntucker@utah.gov](mailto:bntucker@utah.gov) through October 23<sup>rd</sup>

# Project Overview and Progress to Date

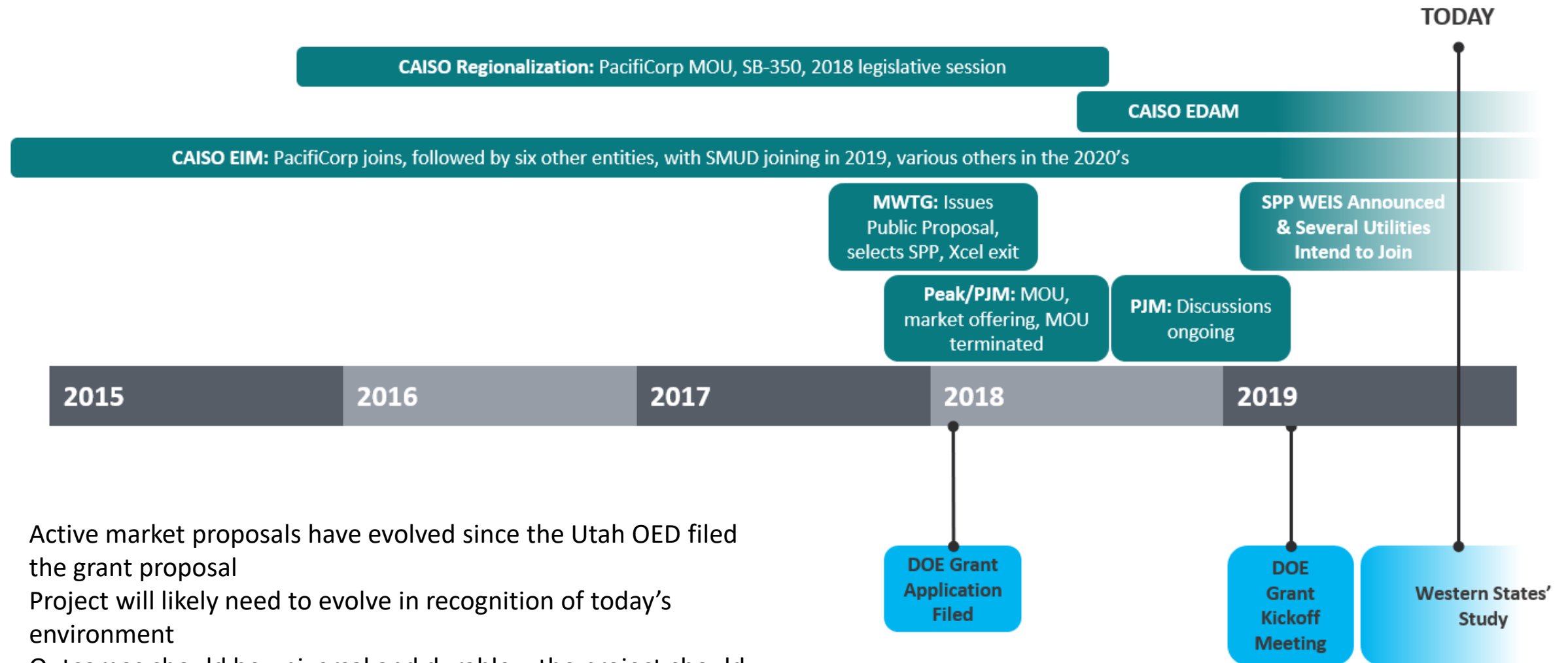
*Energy Strategies*

# Overview of the State-Led Market Study

- **The project is expected to include significant production cost modeling to evaluate relative operational benefits of alternative market constructs across various footprints**
- **It will also include a market and regulatory review, culminating in a “Market Factor Scorecard” for States to use in evaluating future market proposals in areas which may include energy market offerings, ancillary services, seams issues, transmission planning, transmission cost allocation, public policy considerations, and stakeholder processes**
- **The outcome of this project is a Roadmap that will lay out challenges and provide tools to States to use in evaluating various coordinated market options**



# DOE Grant Application in Context of Regionalization Efforts and Timing



- Active market proposals have evolved since the Utah OED filed the grant proposal
- Project will likely need to evolve in recognition of today's environment
- Outcomes should be universal and durable – the project should create value regardless of how market proposals evolve

# Key Players

- **Lead Team**

- ❖ Made up of two representatives from the Lead State (Utah), and Key Partner States (Colorado, Idaho, and Montana), and two representatives from each Western State that chooses to participate
- ❖ Serves as the central body around which broad stakeholder gatherings will occur on a quarterly basis

- **Lead Team Support**

- ❖ Comprised of additional Utah Office of Energy Development team members and the Selected Contractor (Energy Strategies)
- ❖ Responsible for coordinating and supporting the Lead Team

- **Stakeholders**

- ❖ Significant regional stakeholder engagement is envisioned to provide input and guidance to project activities
- ❖ While the primary focus is state-to-state collaboration, broader stakeholder involvement is important and quarterly meetings are open to interested stakeholders/public

# Lead Team

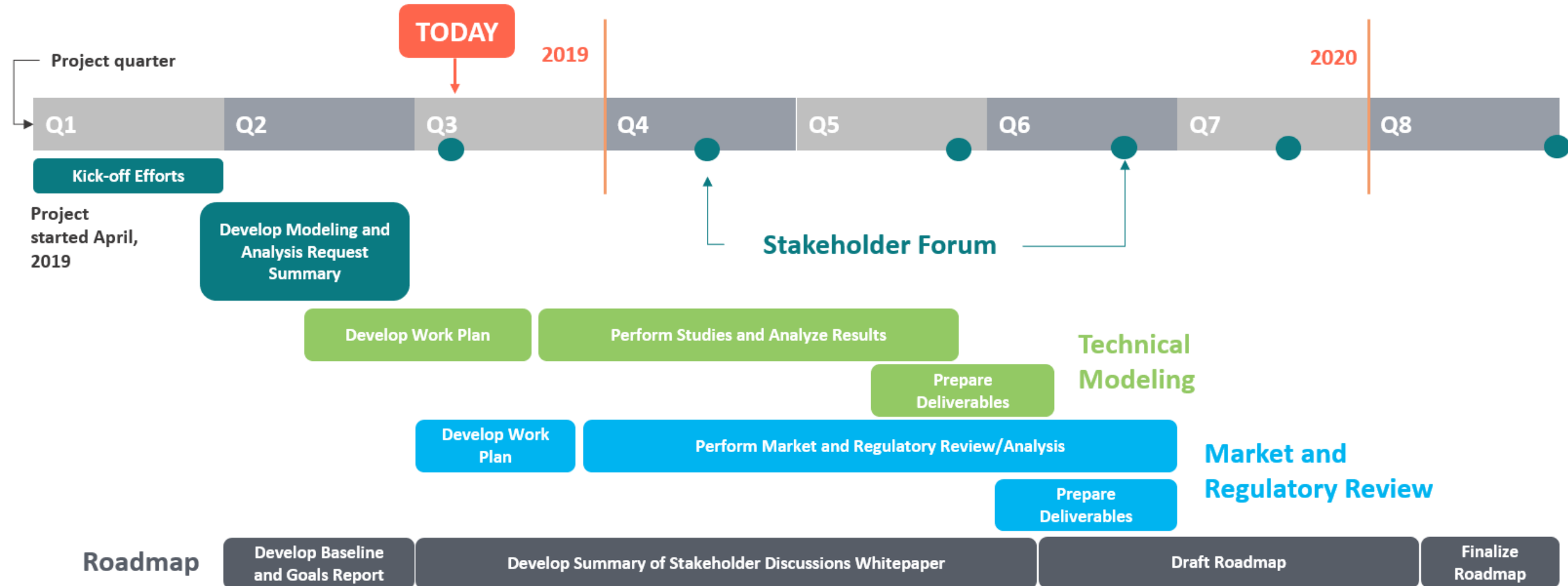
- **Representatives on Lead Team represent interest of their respective states but take all stakeholder input into consideration**
- **Work coordinated primarily through monthly calls**
- **Group seeks decisions by consensus**
  - ❖ Formal votes are an option, if necessary

Lead Team	Name	Organization
AZ Lead	Steve Olea	Arizona Corporation Commission
	Bob Burns	Arizona Corporation Commission
CA Lead	Grace Anderson	California Energy Commission
	Yulia Schmidt	California Public Utilities Commission
CO Lead	Erin O'Neill	Colorado Public Utilities Commission
	Keith Hay	Colorado State Energy Office
ID Lead	John Chatburn	Idaho Governor's Office of Energy and Mineral Resources
MT Lead	Jeff Blend	Montana Energy Office, Montana Department of Environmental Quality
	Laura Rennick	Montana Energy Office, Montana Department of Environmental Quality

Lead Team	Name	Organization
NM Lead	Mark Gaiser	New Mexico Energy, Minerals and Natural Resources Department
	Jeremy Lewis	New Mexico Energy, Minerals and Natural Resources Department
NV Lead	Ann Pongracz	Nevada Public Utilities Commission
	David Bobzien	Nevada State Energy Office
OR Lead	Kristen Sheeran	Oregon Energy and Climate Change Policy Advisory to Governor Kate Brown
	Letha Tawney	Oregon Public Utilities Commission
UT Lead	Laura Nelson	Utah Governor's Office of Energy Development
	Chris Parker	Utah Department of Public Utilities
WA Lead	Steve Johnson	Washington Utilities and Transportation Commission
	Glenn Blackmon	Washington State Energy Office at the Department of Commerce
WY Lead	Kara Fornstrom	Wyoming Public Service Commission

# Summary of project timeline

- Two year timeline (eight quarters), but project may take less time to complete
- Stakeholder Forum continues for project duration
- Key deliverables from each work area; body of work feeds into Roadmap



# Modeling and Analysis Request Document

*Energy Strategies*

# Modeling and Analysis Request Summary

- **The Modeling and Analysis Request and Guidance Summary document:**
  - ❖ Is a whitepaper that *forms the basis of modeling and regulatory/market analysis* conducted as part of the Technical Modeling and Market/Regulatory Review activities
  - ❖ *Highlights key technical questions posed by the Lead Team that the project will seek to address*
  - ❖ Will be used by Energy Strategies to develop Technical Work Plans
    - Following their development, the Work Plans will be reviewed and approved by the Lead Team
    - The Request and Guidance Summary document does not discuss detailed assumptions
  - ❖ Identifies the questions and areas of market development that are not well understood by state agencies and regulators, by identifying them as areas for exploration
- **Request document status**
  - ❖ Approved by the Lead Team in mid-September, pending Stakeholder input and with the exception of “parking lot” issues
  - ❖ As a next step, Energy Strategies will utilize the *Request* document to draft technical work plans detailing “how” the work will be executed

# Market Constructs

## EIM/Real-Time Market

- ✓ Centrally optimized real-time dispatch – *Day-ahead unit commitment not optimized across market participants*
- ✓ Individual transmission tariffs
- ✓ Limited transmission dedicated to market
- ✓ Balancing Authority Area (BAA) boundaries and associated reliability obligations retained
- ✓ Transmission providers retain operational control of transmission

## Day-Ahead Market

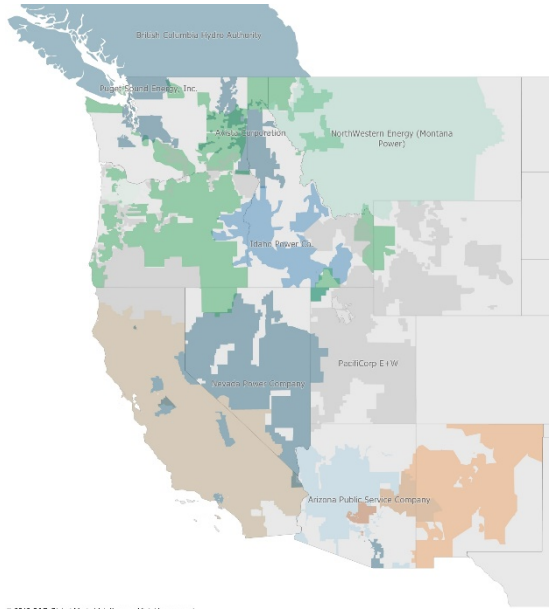
- ✓ Centrally optimized real-time and day-ahead energy market
- ✓ Individual transmission tariffs
- ✓ Limited transmission dedicated to market (other transactions must explicitly pay for transmission)
- ✓ BAA boundaries and associated reliability obligations retained
- ✓ Transmission providers retain operational control of transmission

## RTO

- ✓ Centrally optimized real-time and day-ahead energy market
- ✓ Joint transmission tariff for participants in a given footprint
- ✓ Transmission used up to reliability limit
- ✓ BAA boundaries and reliability obligations consolidated
- ✓ Joint transmission planning and cost allocation
- ✓ Transmission providers transfer of operational control of transmission

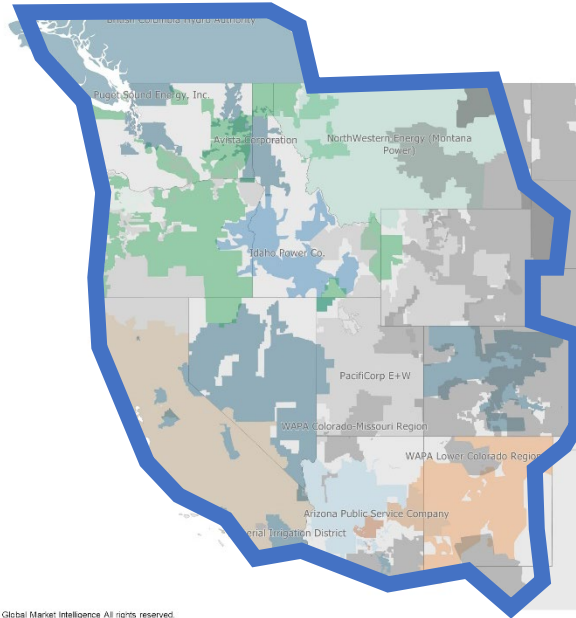
# Market Footprints

**Status Quo**



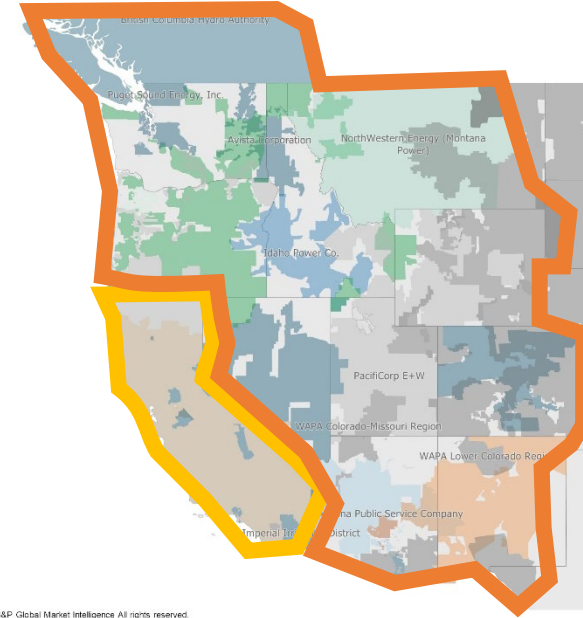
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**One Market**



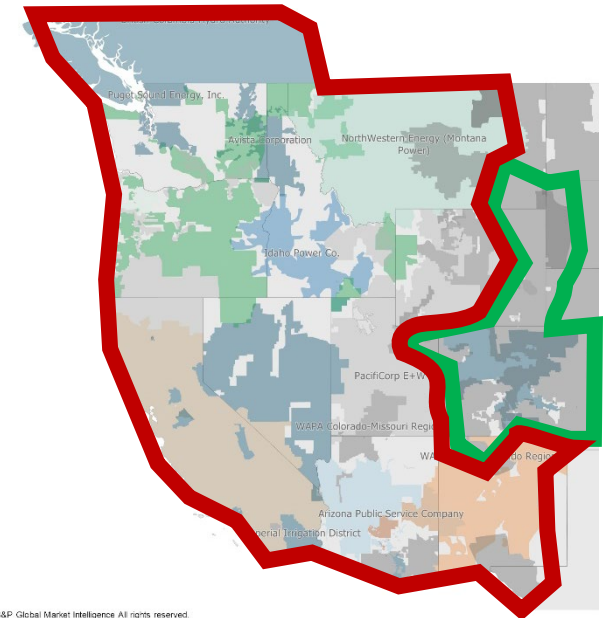
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**Two Market A**



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**Two Market B**



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EIM entities that have announced intent to sign EIM Implementation Agreement\*

Studied in 2020 and 2030 timeframe

Only studied in 2030 timeframe

Studied in 2020 and 2030 timeframe

\*Announcement must be made before the end of 2019 to be included in the Status Quo footprint



# Core Questions

- **Foundational:** The only market that we are “assuming” into the Status Quo future is planned expansion of the Western EIM footprint (announced entities). These 2020 and 2030 Status Quo cases will be our primary point of comparison for the other Core Studies.

1. In the near-term, what are the relative benefits of expanding EIM markets through either one West-wide footprint versus a two-market footprint system?

- ❖ 2020: EIM Status Quo vs. EIM One Market
- ❖ 2020: EIM Status Quo vs. EIM Two Market B

2. What is the 2020-2030 trajectory of benefits, if any, for a One Market RTO?

- ❖ 2020 RTO One Market vs. 2030 RTO One Market

3. In the long-term, if the footprint of the Status Quo EIM does not grow, what incremental benefits are provided by adding services to include Day-ahead?

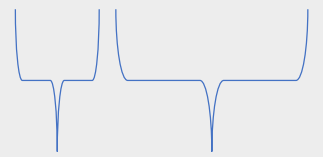
- ❖ 2030: EIM Status Quo vs. Day-ahead Status Quo

4. In the long-term, what are the relative benefits of expanding the Status Quo EIM to a larger West-wide footprint while also expanding market services to either day-ahead or Full RTO?

- ❖ 2030: EIM Status Quo vs. Day-ahead One Market
- ❖ 2030: EIM Status Quo vs. RTO One Market

How to read this terminology:

“EIM One Market”



Market service

Footprint

# Core Questions (continued)

5. In the long-term, assuming a day-ahead market forms (but not an RTO), how do the benefits of Two Market footprints compare against the One Market footprint?
    - ❖ 2030: Day Ahead One Market vs. Day Ahead Two Market B
  6. In the long-term, how do the benefits of Day-Ahead services compare with an RTO in a One Market footprint?
    - ❖ 2030: Day Ahead One Market vs. RTO One Market
  7. In the long-term, how are the benefits of an RTO impacted by market footprints?
    - ❖ 2030: RTO One Market vs. RTO Two Market A
    - ❖ 2030: RTO One Market vs. RTO Two Market B
- 

## Sensitivities

1. In the long-term, how do benefits change if more transmission is built?
  - ❖ 2030: EIM Status Quo vs. EIM Status Quo w/ Transmission
  - ❖ 2030: RTO One Market vs. RTO One Market w/ Transmission
  - ❖ 2030: RTO Two Market B vs. RTO Two Market B w/ Transmission
2. In the long-term, how sensitive are RTO scenarios to a Federal or West-wide carbon pricing regime?
  1. 2030: RTO One Market vs. RTO One Market w/ Carbon Price
  2. 2030: RTO Two Market A vs. RTO Two Market A w/ Carbon Price
  3. 2030: RTO Two Market B vs. RTO Two Market B w/ Carbon Price

# Study Reporting Framework

- **Study will not quantify a number of market benefits:**
  - Other market efficiencies: transparency, independence, transmission planning savings
  - Policy-driven resource procurement savings
  - Reliability benefits
  - Transmission cost allocation
- **Study hopes to capture Market start-up/administrative costs, at a high-level to add context**

*All calculated as changes between market scenarios, but only as applicable...*

	Benefit Metrics				System Operations Study Results		
Reporting Footprint	Gross Production Costs	Adjusted Production Cost	Transmission revenues	Capacity savings	Generation and curtailment	Transmission flows and congestion	GHG emissions <sup>3</sup>
WECC-wide	Yes	No	No	Yes	Yes	Yes (WECC Paths)	Yes
State-level	No	Yes <sup>1</sup>	Yes <sup>1,2</sup>	Yes <sup>1</sup>	Yes	No	Yes
Balancing Area	No	Yes	Yes <sup>2</sup>	Yes	No	Yes	No

(1) State-level calculated on BA load ratio basis

(2) May exclude public power lost revenues, depending on data availability

(3) Specifics around feasibility of consumption based reporting to be addressed in Workplan

# Market and Regulatory Review

- **Designed to help states evaluate qualitative aspects of different organized market configurations and will culminate with the Market Factor Scorecard**
- **Will help address the following issues:**
  - What are the high-level differences in regulatory approval processes needed for each market construct at the state and federal levels?
  - How will the different market structures impact state authority over different pieces of utility regulation, such as resource adequacy and transmission planning/transmission cost recovery?
  - Given a certain set of policy priorities for a state, the market and analysis section should provide insights on the pros and cons to different types of market structures for a subset of the following services:
    - ❖ Ancillary services – some market structures will provide co-optimization of ancillary services, while others are less likely to do so
    - ❖ Resource adequacy – the different market structures will provide different levels of coordination/collaboration on Resource Adequacy and capacity sufficiency
    - ❖ Seams coordination – the results of the technical modeling will help demonstrate the expected costs of seams, under specific organized market configurations, in the West
    - ❖ Transmission planning and cost allocation – the different market structures will provide different levels of joint transmission planning and cost allocation
    - ❖ Public policy considerations – market configurations may help to enable achievement of public policy requirements
    - ❖ Stakeholder processes – different market constructs, and different market operators, are likely to have different stakeholder processes

# Preview of modeling assumptions to be tackled in initial Work Scope – *list not complete*

- **Datasets**

- ❖ Existing resources
- ❖ New resources

- **Transmission modeling**

- ❖ Topology
- ❖ Transmission wheeling rates
- ❖ EIM transfer assumptions
- ❖ EDAM-like market transfer assumptions
- ❖ Incremental transmission for scenarios

- **Operating reserve requirements**

- ❖ Adjusted by footprint

- **GHG policy modeling**

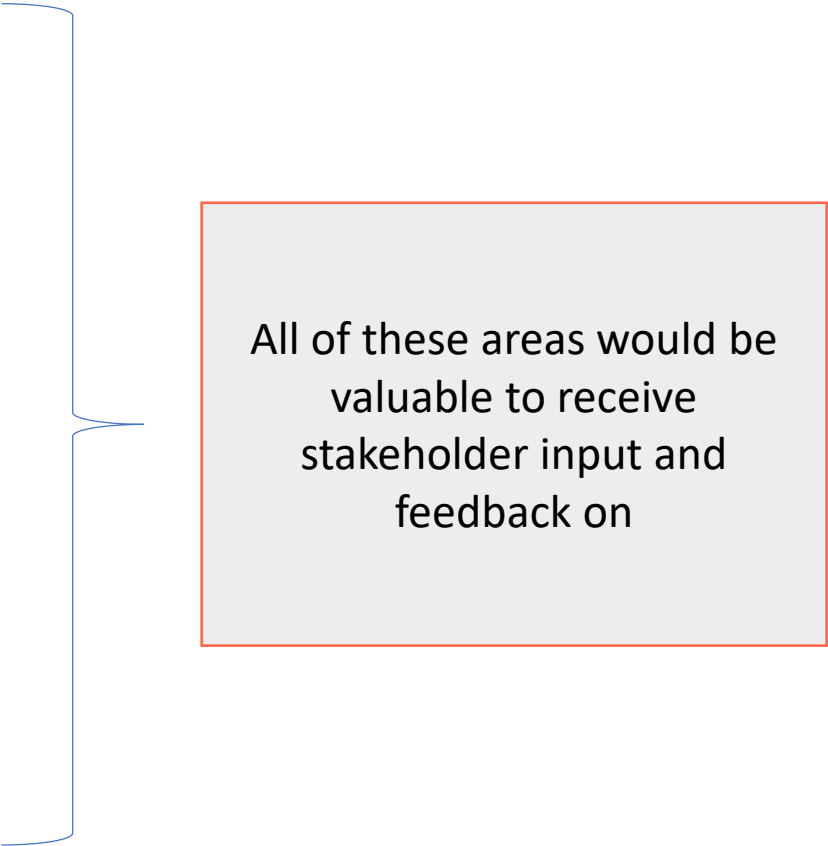
- **Projected fuel prices**

- **Export limit modeling**

- ❖ Ex: CAISO

- **Precise cases to be run to answer core questions**

- **Specifics of sensitivity cases**



All of these areas would be valuable to receive stakeholder input and feedback on

Comments from Stakeholders

Next Steps and Future Meetings

# Request for Written Stakeholder Comments & Next Meetings

- **We invite the opportunity to provide written comments on the study approach presented today**
- **Specifically, comments are requested on the following topics:**
  - ❖ Core questions & sensitivities
  - ❖ Various modeling assumption sources and datasets
- **Process for submitting comments:**
  - ❖ Written comments can be submitted to [bntucker@utah.gov](mailto:bntucker@utah.gov) through October 23<sup>rd</sup>
  - ❖ Note that we will review comments, but will not respond specifically to each comment received
- **Upcoming meetings**
  - ❖ The next Stakeholder Meeting will take place in January 2020
    - This meeting will be a webinar only
  - ❖ In April 2020, the Q2 2020 stakeholder meeting will take place in conjunction with CREPC/WIRAB and will be in-person with a call-in/webinar option