

# WESTERN STATES TRANSMISSION INITIATIVE

## Webinar 3: Transmission Cost Allocation



# What is the Western States Transmission Initiative?

Collaboration between Gridworks and CREPC

Focus on transmission planning and cost allocation

- Is the current approach to transmission planning and cost allocation sufficient in the West?
- What changes might be helpful?
- What is the appropriate role for state regulators and energy officials?

Interviews with state officials, utilities, NGOs, tribes, and others throughout the West

Three background webinars

- July 20: *Transmission planning*
- July 27: *Is more transmission necessary for the West? What are the barriers to development?*
- August 16: *Transmission cost allocation*

Transmission planning and cost allocation recommendations to be developed with Working Group of CREPC members

Discussion of recommendations with all of CREPC at fall meeting in Seattle

# WESTERN STATES TRANSMISSION INITIATIVE

## **A Brief Overview of Transmission Cost Allocation**

By Rich Glick

August 16, 2023



**GRIDWORKS**

# How Is Transmission Paid For?

- Utility projects
  - State oversight for vertically integrated utilities
  - FERC oversight of other projects
- Jointly developed projects: utilities agree to a cost-sharing approach
- Merchant transmission: subscription model
- Regionally planned transmission
  - FERC Order No. 1000 cost allocation methodologies
  - State agreement for alternatives
- Network upgrades for interconnections: participant funding
- Cost allocation is increasingly controversial when there are multiple beneficiaries

# FERC Order No. 1000

- Case law requires costs to be allocated commensurate with benefits
- Regionally planned projects
  - Each region has an approved cost allocation methodology
  - Neighboring regions must have a methodology for interregional projects
- FERC defers to regions to define benefits
- State agreements can be used as an alternative to Order No. 1000 cost allocation methodology
- Non-jurisdictional utilities must volunteer to pay for regional projects

# Issues for Consideration

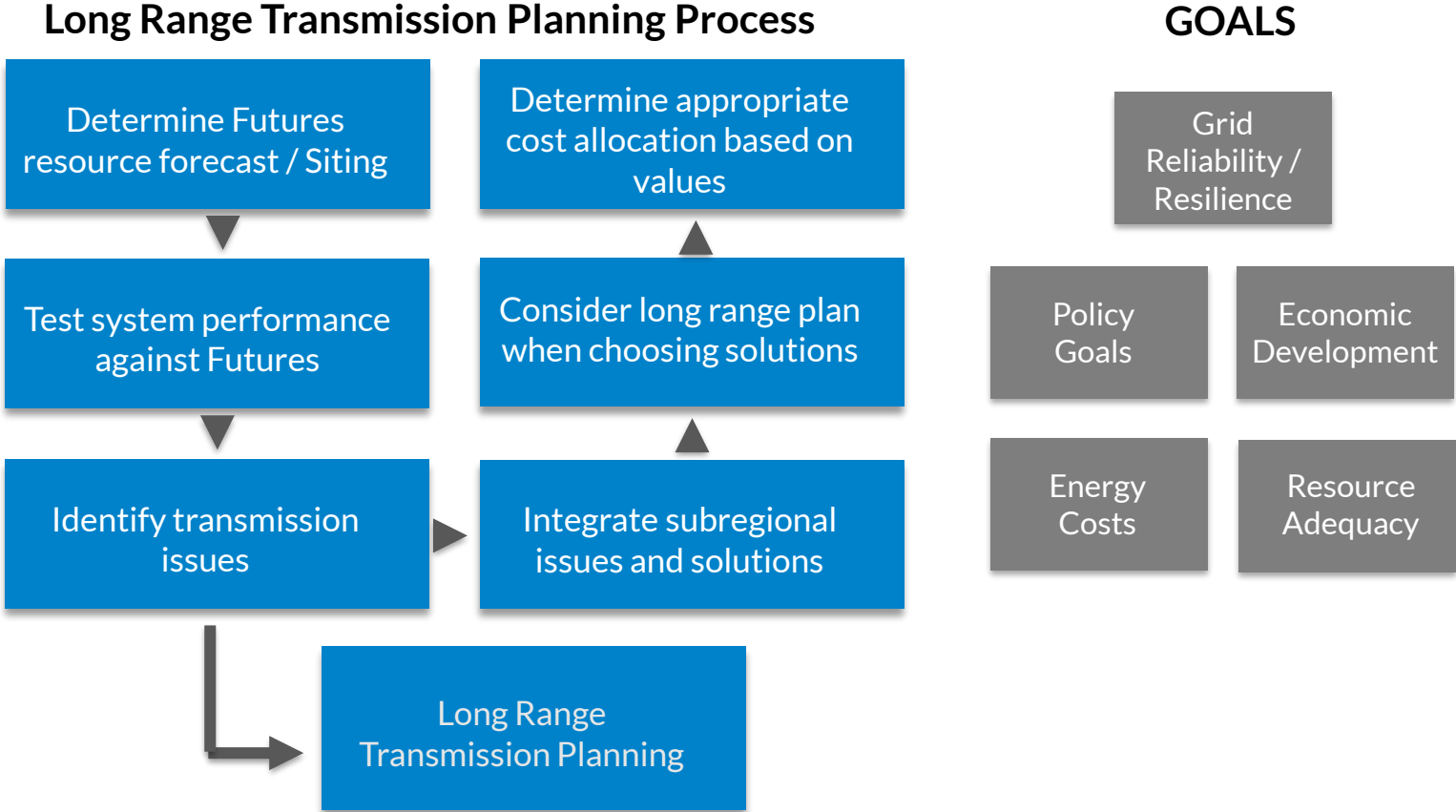
- Growing need for multi-state/multi-utility projects
- Can you build regionally planned projects in the West when non-jurisdictional utilities are exempt from cost allocation?
- FERC Transmission Planning and Cost Allocation NOPR
  - States have first bite at developing ex ante and ex post cost allocation approaches for their regions
  - Suggests broad list of benefits to examine
- Consideration of full range of benefits likely would spread the costs to more customers but could dampen support for big projects



# Long-Range Transmission Planning and Cost Allocation Practices

Western States Transmission Initiative  
Transmission Cost Allocation Webinar  
Jeremiah Doner. MISO  
August 16, 2023

# Following a standard, multi-step process helps MISO better understand and prepare for future transmission needs and values

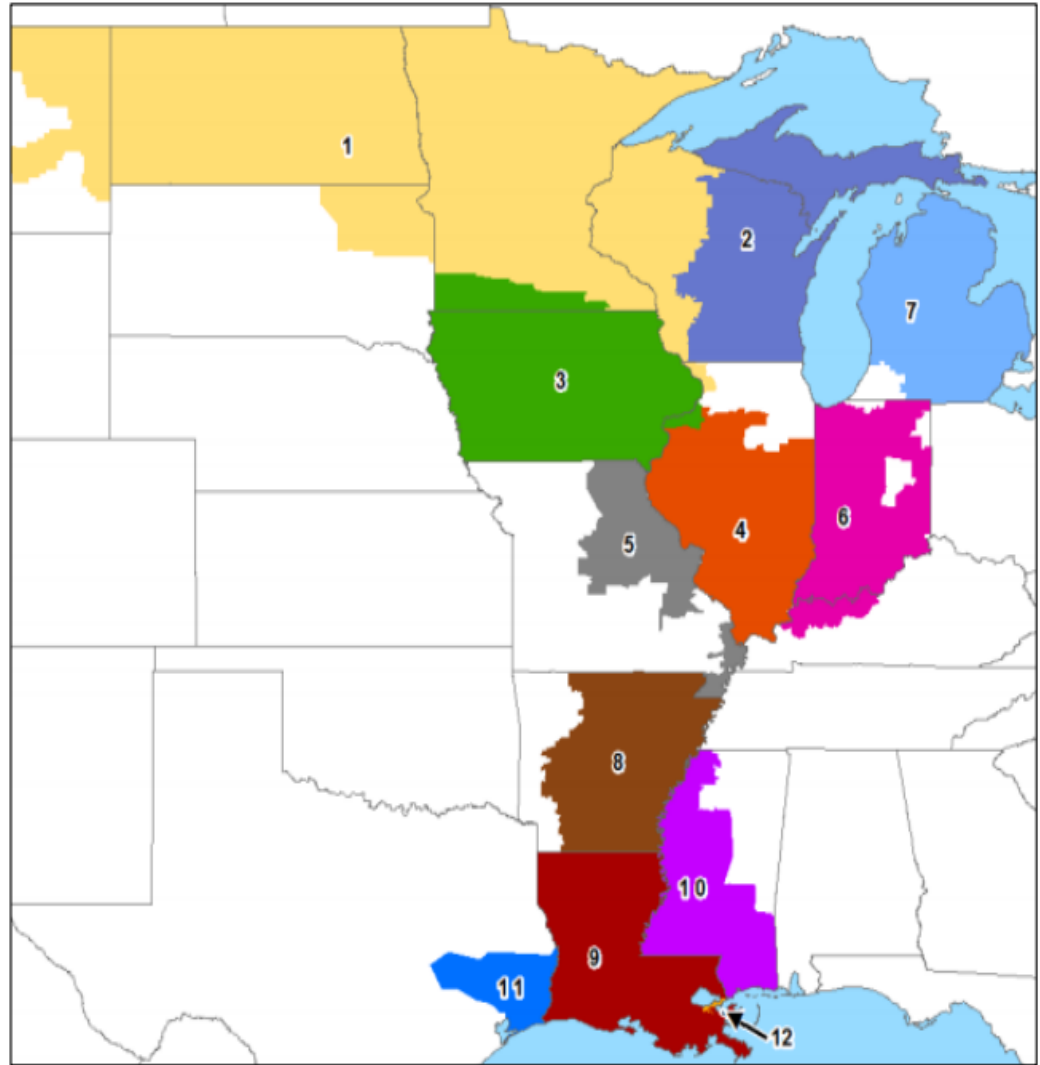






# MISO uses zonal constructs to allocate costs

- Types of zones
  - Transmission pricing zones
  - Cost Allocation Zones (shown in map)
  - Sub-Regional (Midwest and South)
- Type of zone used depends on the need assessed and/or benefits received



# L RTP Projects must meet one of three MVP criteria defined in the MISO Tariff

## Criterion 1

*A Multi-Value Project must be developed through the transmission expansion planning process for the purpose of enabling the Transmission System to reliably and economically deliver energy in support of documented energy policy mandates or laws that have been enacted or adopted through state or federal legislation or regulatory requirement that directly or indirectly govern the minimum or maximum amount of energy that can be generated by specific types of generation. The MVP must be shown to enable the transmission system to deliver such energy in a manner that is more reliable and/or more economic than it otherwise would be without the transmission upgrade Criterion 1*

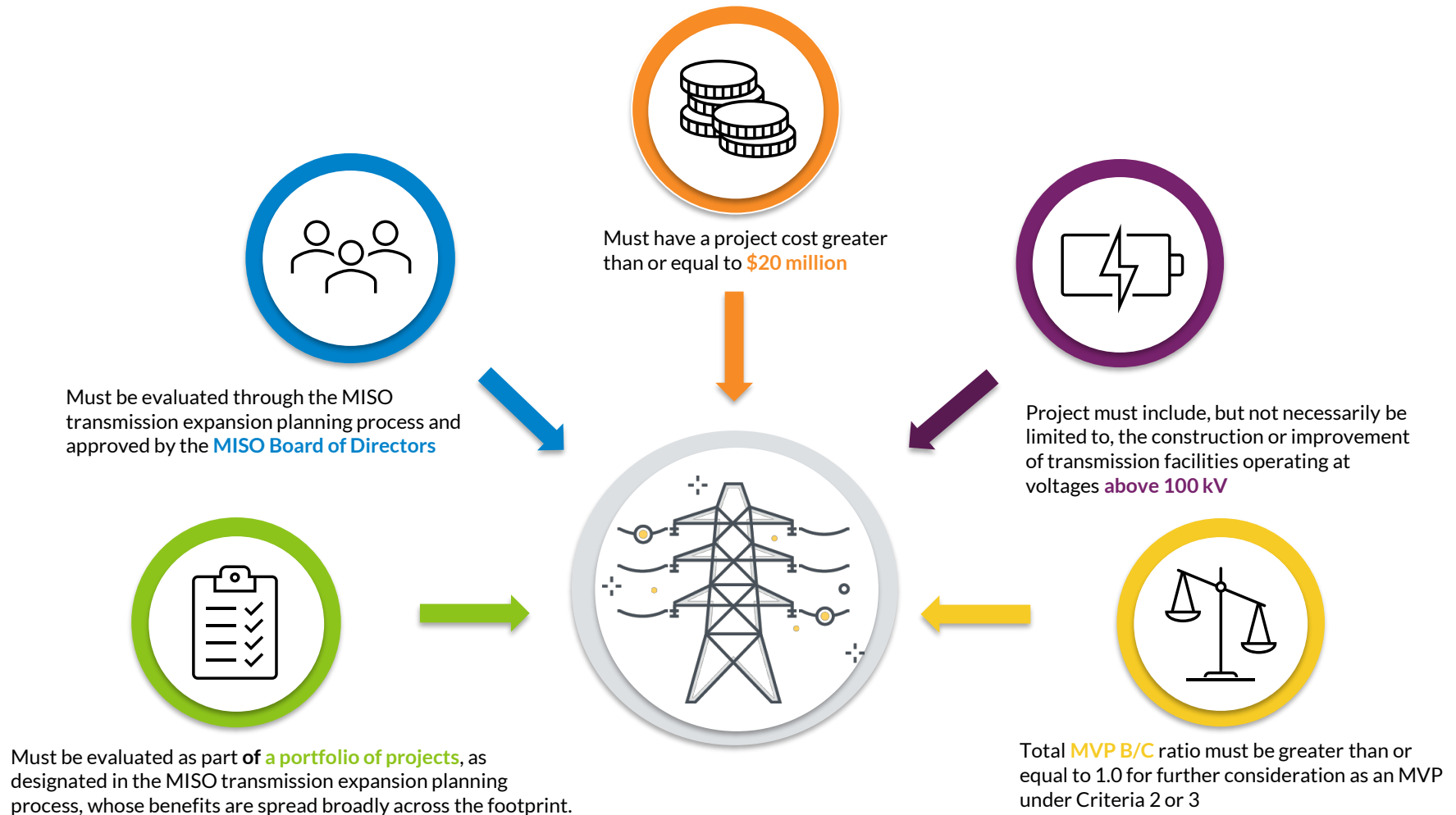
## Criterion 2

*Criterion 2. A Multi-Value Project must provide multiple types of economic value across multiple pricing zones with a Total MVP Benefit-to-Cost ratio of 1.0 or higher where the Total MVP Benefit -to-Cost ratio is described in Section II.C.7 of this Attachment FF. The reduction of production costs and the associated reduction of LMPs resulting from a transmission congestion relief project are not additive and are considered a single type of economic value*

## Criterion 3

*Criterion 3. A Multi-Value Project must address at least one Transmission Issue associated with a projected violation of a NERC or Regional Entity standard and at least one economic-based Transmission Issue that provides economic value across multiple pricing zones. The project must generate total financially quantifiable benefits, including quantifiable reliability benefits, in excess of the total project costs based on the definition of financial benefits and Project Costs provided in Section II.C.7 of Attachment FF.*

# Additional requirements are provided in the Tariff to further distinguish regional MVPs from other project categories



# MVP costs are distributed to a large geographical area, with each end customer paying based on their monthly usage



MVP costs are recovered through Schedule 26-A



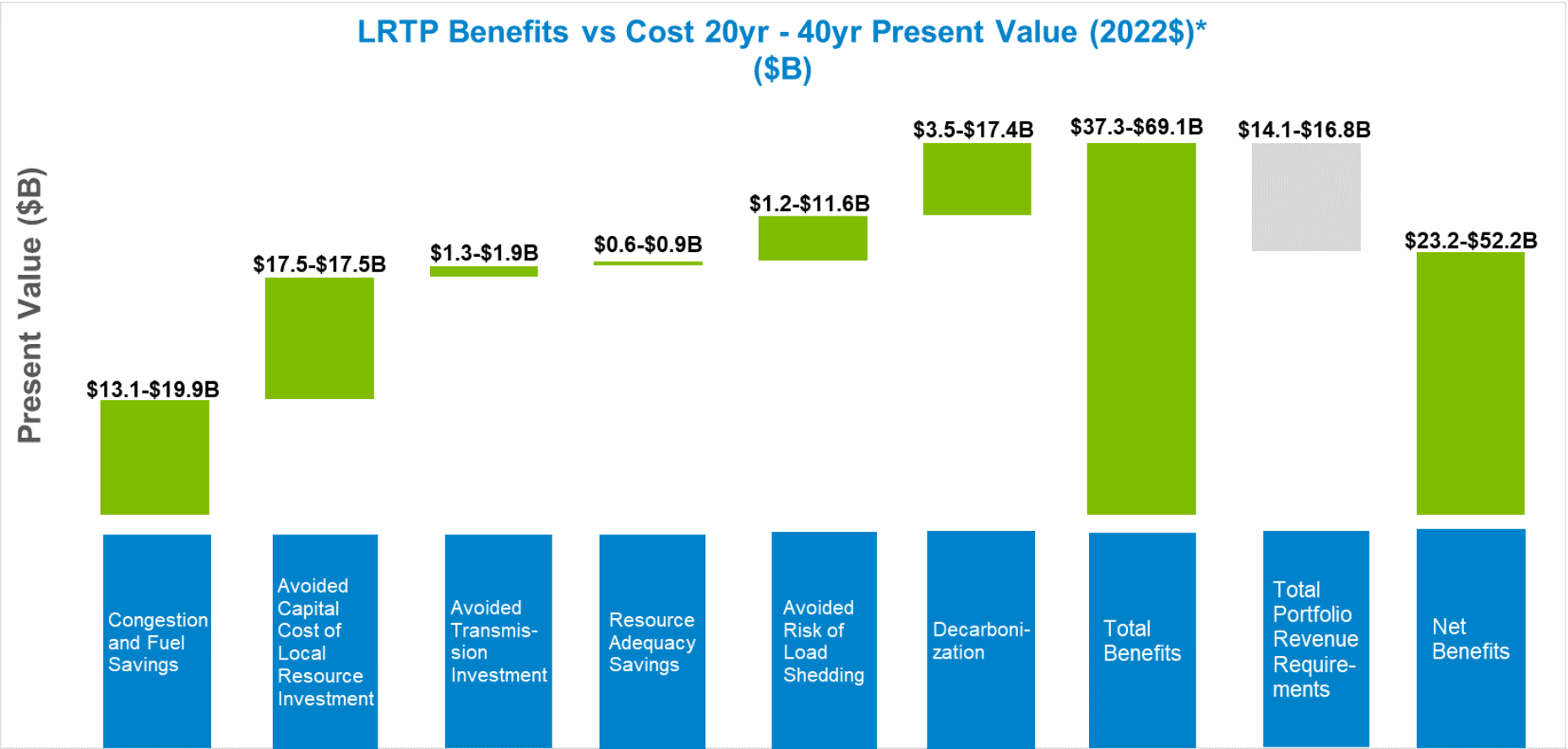
MVP Usage Rate is calculated

$$\text{MUR}^* = \frac{\text{Monthly MVP Revenue Requirement}}{\text{Monthly Net Actual Energy Withdrawals}}$$



MUR is charged based on system usage

# Multiple quantifiable benefits are established for determining the MVP business case and B/C ratio\*

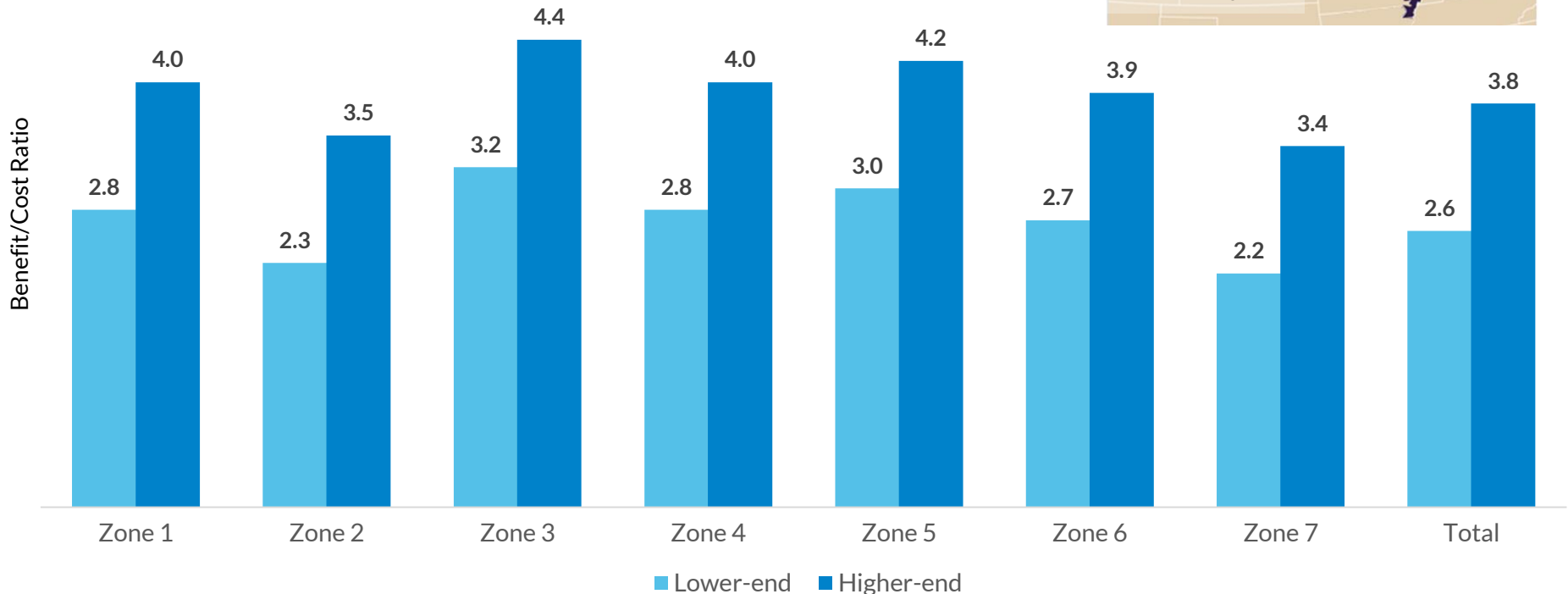


\*6.9% discount rate

\* Values are for MISO's L RTP Tranche 1 Portfolio

# Benefits provided by the MVP portfolio are distributed across the subregion in a manner commensurate with the costs\*

**Range of Benefit/Cost Ratio by Cost Allocation Zone**  
(20-year present value, 6.9% Discount Rate)



\* Values are for MISO's LRTP Tranche 1 Portfolio

# Thank you!



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# How to Reach Agreement Amongst Regulators

LAUREN AZAR, AZAR LAW LLC

GRIDWORKS - WESTERN STATES TRANSMISSION INITIATIVE

TRANSMISSION COST ALLOCATION WEBINAR

AUGUST 16, 2023

# Type of Infrastructure Discussed Today

Q: What is the scope of the improvements we're discussing today?

A: The backbone regional/interregional extra-high voltage grid defined as

- ▶ Extra-high-voltage lines (230 kV and above), and
- ▶ Asset lives of 60-80 years (using 60 here), and
- ▶ Crossing planning regions (interregional) or
- ▶ Crossing several states within a single planning region

# Key Elements Gleaned From Developing the MISO MVP Tariff

1. Regulators engaged – not just staff
2. Agree on facts
3. Recognize both shared and conflicting goals
4. Understand the tools and their limitations
5. Think long term
6. Relative confidence in the planning ...  
don't let the perfect be the enemy of the good

# Why Is Agreement So Elusive?

DEBATES OVER HOW TO  
MEASURE THE PANOPLY OF  
BENEFITS FROM THE  
REGIONAL BACKBONE GRID

# FERC's Mandate on Who Pays

- ▶ FERC: The costs assigned must be roughly commensurate with the benefits received over the long term. FERC Order 1000.
- ▶ It is easier to calculate estimated costs than estimated benefits over 60 years.
- ▶ So the dispute in cost allocation discussions usually focuses on the benefits.
- ▶ Note benefits are used in, at least two ways:
  1. Qualify a project based on a certain benefit-to-cost ratio;
  2. Distributing the costs of the project to beneficiaries.

# Limitations of Current Tools

## 1. Changing Power Flows over Asset Life:

The power flowing over the new lines are changing minute-by-minute and could change significantly over their 60 years of operation,

- ▶ which means the benefits provided by those lines could change significantly over 60 years of operation

## 2. Inadequate Tools to Measure Savings: Benefits can be

- ▶ Monetizable benefits = Savings:

- ▶ Quantifiable savings – there is a narrow set of metrics that can quantify SOME BUT NOT ALL of the savings provided by the new lines.
- ▶ Disputes over how the savings are calculated

- ▶ Unmonetizable benefits – Leads to disputes. These benefits can be

- ▶ quantifiable (e.g. increased competition) or
- ▶ unquantifiable (e.g. increased reliability, increased resilience, flexibility)
- ▶ FERC: “The inability of a model to economically quantify the reliability benefit of any particular transmission line does not mean that there is no value to reliability. Studies show that customers value dependable electricity and that outages cause real economic losses.” MVP Order, 133 FERC ¶ 61,221 at P 202

# Implications of the Limitations

▶ **Summary of Limitations:**

1. Current tools can only measure a narrow set of the savings provided by the new lines.
2. There are many real benefits from the new lines that cannot be monetized.
3. All benefits change over 60 years including the narrow quantifiable savings.

- ▶ **Experts Mostly Agree:** Because of the limitations in our current tools, all the savings received by customers for building the backbone regional grid, cannot be granularly estimated over the next 60 years. See 137 FERC ¶ 61,074 at P 131.

# How to Reach Agreement Amongst Regulators

1. REGULATORS ENGAGED – NOT JUST STAFF
2. AGREE ON FACTS
3. RECOGNIZE BOTH SHARED AND CONFLICTING GOALS
4. UNDERSTAND THE TOOLS AND THEIR LIMITATIONS
5. THINK LONG TERM
6. RELATIVE CONFIDENCE IN THE PLANNING ... IT NEED NOT BE PERFECT



# How to Get Regulators to Agree – Develop your own list

Collectively recognizing a list of **foundational facts**, such as:

- ▶ Inaction is costing ratepayers A LOT of money.
- ▶ The generation portfolio is changing rapidly in type, volume and location.
- ▶ Given extreme weather and the increasing rate of adoption of weather-fueled generation, geographic diversity of new generation and storage is imperative.
- ▶ A regional backbone grid, given this rapidly changing industry and increasing extreme weather, is an imperative.
- ▶ The limitations of our current tools limits the options for cost allocation that can meet FERC's "roughly commensurate over the long term" standard.
- ▶ Regional backbone lines take years to design and build so time is of the essence.
- ▶ Given the changing benefits over time for regional backbone lines, the benefits (both monetized and non-monetized) received by my state will change over time. But all of the states working together will result in broad-based shared benefits over time.
- ▶ Etc.

# At MISO, What We've Investigated

Given the Limitations, Three Options that Were and Are Continuing to Be Investigated in MISO:

1. A granular cost distribution that changes over time. Examples the injection/withdrawal methodology developed and rejected in MISO in 2011;
2. A broad distribution justified by the limitation in current tools and by the changing benefits over time (much like some state ratemaking where the rates are based on averaging over time). Examples: MISO's MVP Usage Rate and SPP's Highway Byway Tariff; or
3. A combination of 1 and 2.

THE END

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