FERC Order 1920/1920-A

Consult with relevant state entities and other stakeholders to obtain input and support regarding the evaluation process, selection criteria, and voluntary funding method

Purpose & Key Takeaways

Purpose

- Provide an overview of MISO's Seven Step process for evaluation and selection criteria developed through a collaborative planning framework with stakeholders
- Provide an overview of MISO's Voluntary Funding Method, which applies when a recommended solution fails to meet the 1.0 benefit-to-cost ratio and is offered to Relevant State Entities (RSEs) and Interconnecting Customers (ICs) for voluntary funding consideration
- Seeks input and support from stakeholders on the evaluation, selection and Voluntary Funding processes in alignment with Order 1920 compliance

Key Takeaways

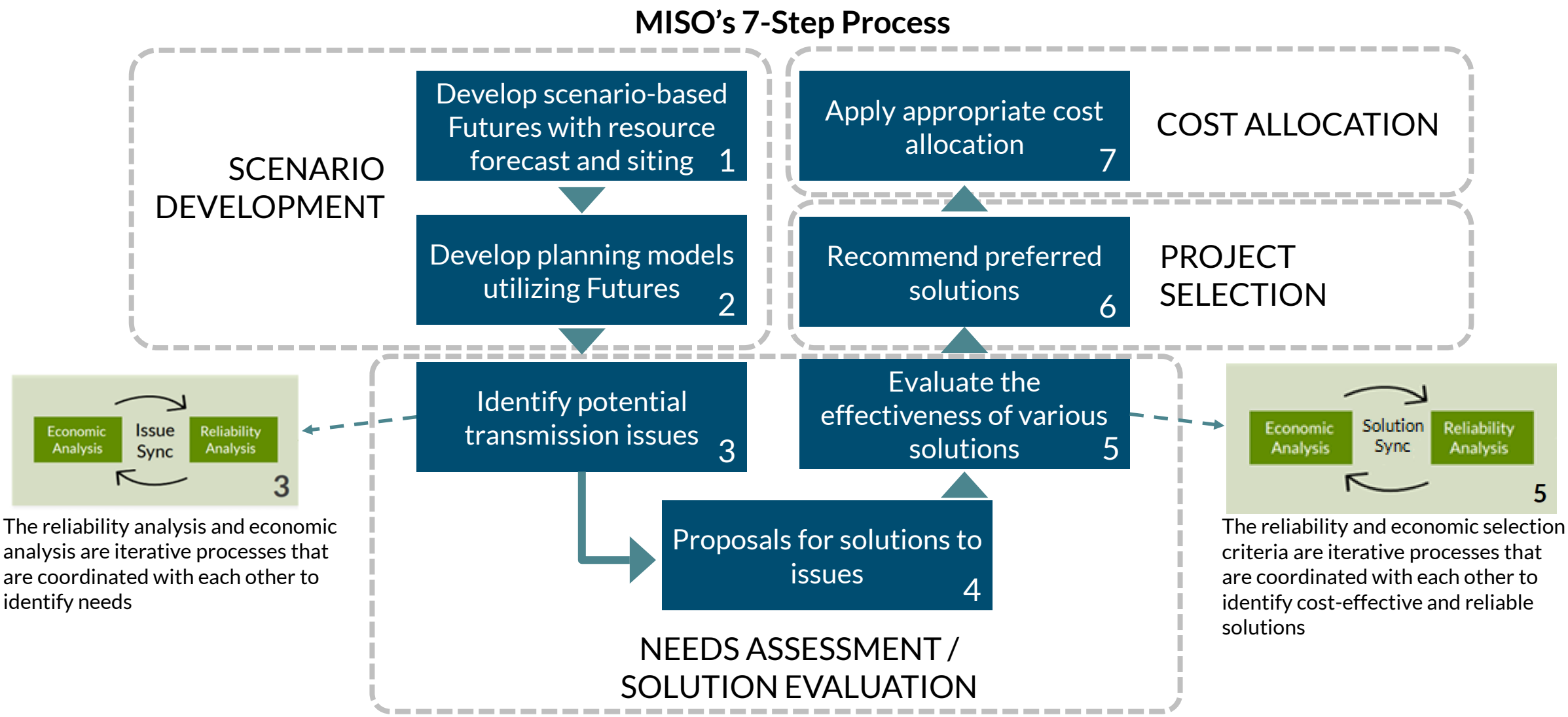
- Under FERC Order 1920, transmission providers must demonstrate that they have worked in good faith with state entities on how projects are evaluated and selected, and that they comply with the rule's requirements.
- MISO's Seven Step Process is a proven planning method that's been in place long before FERC Order 1920. It supports transparency, stakeholder engagement, and long-term grid reliability. MISO will continue using this approach to meet the Order's requirements.
- MISO proposes a process allowing RSEs and ICs to voluntarily fund Long-Term Regional Transmission solutions that don't meet the selection criteria, as required by FERC Order 1920.

FERC Order 1920 requires transmission providers to demonstrate on compliance that they made good faith efforts to consult with and seek support from Relevant State Entities regarding the evaluation process, including selection criteria, and they must demonstrate that they meet the final rule requirements

1920/1920-A Requirements

- "to require transmission providers in each transmission planning region to consult with and seek support from Relevant State Entities regarding the evaluation process, including selection criteria, that transmission providers propose to use to identify and evaluate Long-Term Regional Transmission Facilities for selection. Specifically, we require transmission providers to demonstrate on compliance that they made good faith efforts to consult with and seek support from Relevant State Entities in their transmission planning region's footprint when developing the evaluation process and selection criteria that they propose to include in their OATTs" (1920, ¶ 994)
- we adopt the NOPR proposal to require transmission providers in each transmission planning region to propose, after consultation with Relevant State Entities and other stakeholders, evaluation processes, including selection criteria, that they believe will ensure that more efficient or cost effective Long-Term Regional Transmission Facilities are selected to address the transmission planning region's Long-Term Transmission Needs. (1920, ¶ 924)
- "In their compliance filings, transmission providers must propose the evaluation process and selection criteria that they will use in Long-Term Regional Transmission Planning, and they must demonstrate that they meet the final rule requirements". (1920, ¶ 915)

MISO's seven-step process is a well-established and thoroughly documented planning framework that aligns closely with the objectives of FERC Order 1920



The reliability analysis and economic analysis are iterative processes that are coordinated with each other to identify needs

The reliability and economic selection criteria are iterative processes that are coordinated with each other to identify cost-effective and reliable solutions

MISO Futures development process is very robust and includes multiple Futures scenarios and sensitivities, as well as multiple opportunities for stakeholder and state involvement, and is in a good position regarding Order 1920, with minor areas we are reviewing outside of this process

1920/1920-A Requirements

- Transmission providers must develop at least three Long-Term Scenarios, and one sensitivity analysis applied to each Long-Term Scenario when conducting Long-Term Regional Transmission Planning (1920, ¶ 344).
- Must include one sensitivity for each scenario, high-impact, low-frequency events may include extreme weather events or events associated with potential cyber-attacks, significant forecast error, fuel price volatility, or other uncertainties assuming greater-than-expected electricity demand and greater-than-expected generation or transmission outages (1920, ¶ 593 – 594)

Current MISO Process

DEVELOP FUTURES & MODELS

Steps 1&2:
MISO will develop at least **three Long-Term Scenarios for long-term regional transmission planning; one sensitivity analysis** applied to each Long-Term Scenario and appropriate models when conducting Long-Term Regional Transmission Planning as per Order 1920 requirements.

Needs Assessment

Order 1920 requires Transmission Providers to establish a process and criteria for assessing long-term regional transmission needs and selecting facilities or recommended solutions that maximize benefits without over-building. MISO's Reliability and Economic assessment is a well-established and thoroughly documented planning framework, that aligns closely with the objectives of FERC Order 1920.

1920/1920-A Requirements

- For the identification of Transmission needs …."we clarify and emphasize that the identification of Long-Term Transmission Needs should rely on economic and reliability drivers (1920A, ¶ 223)
- Identify Long-Term Transmission Needs and one or more Facilities (or a portfolio) that address the needs (1920, ¶ 955)
- Must make transparent the methods for analysis of each scenario and the sensitivity for determining needs, identifying facilities to resolve the needs and the benefits for purpose of selection (1920, ¶ 956),

Current MISO Process

Step 3:

Reliability and Economic assessment is performed on **ALL** future scenarios selected for use in transmission planning to identify needs; needs will also include reliability and/or economic issues identified in sensitivities:

- Economic analysis is based on an hourly (8760) chronological security constrained unit commitment and economic dispatch - allowing identification of transmission needs and congestion relief needed, generation curtailment, widespread price separation, and load Locational Marginal Price.
- Reliability analysis evaluates whether transmission system performance remains reliable and meets operational standards under both normal operating conditions and in the presence of one or more contingencies. It includes testing high regional power transfer scenarios that arise when geographic diversity is leveraged to manage dispatch volatility and uncertainty.
- The reliability and economic analysis are iterative processes that are coordinated with each other to identify needs that inform the solution e

LRTP Tranche 2 Reliability Study Whitepaper

MISO Economic Planning Whitepaper

Needs Assessment / Effectiveness of Solution

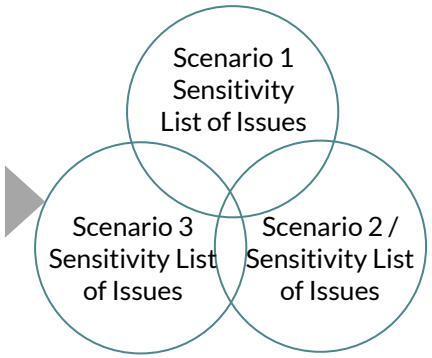
Evaluate Effectiveness of Various Solutions to Identified Transmission Needs

Are the potential lines the most effective, efficient and economical solutions to identified issues?

Identify potential transmission issues 3

Reliability Analysis

Economic Analysis



Proposals for solutions to issues 4

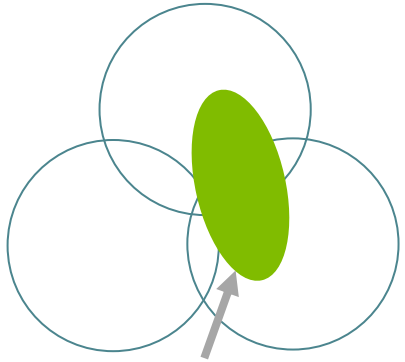
Potential transmission solutions are screened for initial consideration based on

- MISO and Stakeholders input on solution ideas and alternatives
- Resolution of reliability and economic issues
- Includes testing applicability of GETS and additional requirements for facilities identification (see next slide)

Evaluate effectiveness of various solutions 5

- Consideration of additional requirements for facilities identification such as feasibility of construction and implementation, planning with broader system level strategies, operational performance, cost-effectiveness
- Robustness Testing and solution optimization

Recommended Solutions 6



Resolved issues/Optimized solution for all Scenarios and Sensitivities

- Goal maximize benefits without over-building
- May not resolve all common issues
- May resolve more issues in one Scenario/Sensitivity

What value do the potential solutions provide?

Additional requirements for facilities identification

Transmission providers must evaluate Alternative Transmission Technologies for each potential transmission facility:

Describing the potential use of alternative technologies within OATT (1920, ¶ 599, 1205)

- Dynamic Line Ratings (updates thermal ratings of lines based on real-time temp/wind conditions)
- Advanced Power Flow Controls (reroutes power flow by adjusting impedance on lines with power electronics)
- Transmission Switching (adjusts power flow to avoid congestion using software and advanced scheduling)
- Advanced conductors (increases thermal ratings to allow more power to flow)

Transmission Providers must also consider local planning and "right sizing" for transmission facilities that may be replaced over the next 10 years

- Transmission Owners will submit a list of transmission facilities that meet these requirements (1677-1678) as a part of the planning process
- Transmission providers are required to:
  - ❑ Submit a voltage threshold
  - ❑ Propose a submission timeline
  - ❑ Evaluate and post "right-size" candidates
- Transmission Facilities identified for right-sizing are subject to a Right Of First Refusal

Consider transmission network upgrades related to withdrawn generator interconnection projects

- Evaluate for selection regional transmission facilities that address certain identified interconnection-related transmission needs associated with certain interconnection-related network upgrades originally identified through the generator interconnection process (1920, ¶ 1106)

Selection

Order 1920 requires Transmission Providers to establish a process and criteria for assessing long-term regional transmission needs and selecting facilities or recommended solutions that maximize benefits without over-building; while MISO already has a proven and robust project evaluation process, it recognizes opportunities to further improve related to transparency / posting requirements and benefits calculations and is outside of this process

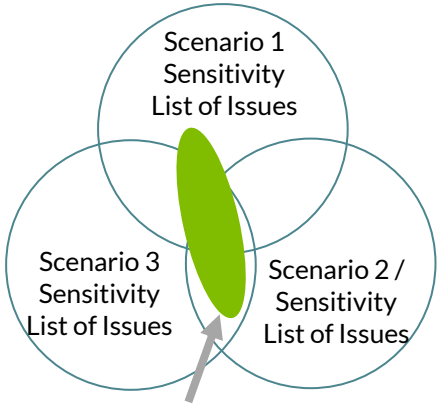
1920/1920-A Requirements

- Selection must include estimate of costs and benefits whether or not a project is selected "(1920, ¶ 956)
- Must make transparent the methods for analysis of each scenario and the sensitivity for determining needs, identifying facilities to resolve the needs and the benefits for purpose of selection (1920, ¶ 956), and per 1920A post on OASIS a breakdown of how those estimated costs will be allocated by zone and a quantification of those estimated benefits by zone (1920A, ¶ 450).
- Include selection criteria "that seek to maximize benefits accounting for costs over time without over-building transmission facilities (1920, ¶ 964, 958)
- Apply sensitivity to "determine benefits of and/or need for transmission facilities during multiple concurrent and sustained generation and or transmission outages due to an extreme weather event across a wide area"(1920, ¶ 593)
- We further clarify that transmission providers may not disregard benefits even where those benefits are only measured in certain transmission system conditions, such as may be the case with Benefit 6, Mitigation of Extreme Weather Events and Unexpected System Conditions, and therefore are captured only under certain Long-Term Scenarios or sensitivities thereto. (1920, ¶ 965)
- Transmission providers might also adopt a weighted-benefits approach under which they would select a Long-Term Regional Transmission Facility based on its probability-weighted average benefits, where probabilities have been assigned to each Long-Term Scenario or sensitivity thereof that is studied. (1920, ¶ 967)

Current/Proposed MISO Process

Step 6: A portfolio-based approach to regional planning recognizes the synergies of multiple facility reinforcements on the interconnected transmission system.

- Project groups that effectively address regional needs (without requiring resolution of every issue) are assembled into recommended solutions
- Evaluate at least 7 benefits on all scenarios selected for transmission planning over 20-year period
- The total value of all benefits, including the needs identified in selecting facilities and the seven metrics required by Order 1920, is assessed to support the selection of recommended solutions



Resolved issues/Optimized solution for all Scenarios and Sensitivities

- Goal maximize benefits without over-building
- May not resolve all common issues
- May resolve more issues in one Scenario/Sensitivity

Order 1920 requires Transmission Providers to adopt benefit categories for facility evaluation, define measurement methods, and ensure cost allocation is fair and aligned with benefits; while MISO already applies the required minimum, it sees potential for future improvements and is outside of this process

1920/1920-A Requirements

- Transmission provider must revise OATTs to include one or more ex ante regional cost allocation methods (¶1291)
- If Transmission provider submits an agreed to State Agreement Process, Tariff provisions must describe key info on how process will result in a cost allocation being filed, including (¶1403, ¶1416)
- Require transmission providers in each transmission planning region to include in their OATTs a process to provide Relevant State Entities and interconnection customers with the opportunity to voluntarily fund the cost of, or a portion of the cost of, a Long-Term Regional Transmission Facility that otherwise would not meet the transmission providers' selection criteria. (¶1012)

Current/Proposed MISO Process

Step 7

- Current MVP project type complies with ex-ante regional cost allocation requirement
- Ongoing Relevant State Entities engagement via "engagement period" on ex-ante cost allocation and optional State Agreement Process
    - Scheduled to end March 2026
- Voluntary funding opportunity for a potential MVP recommended solutions that does not reach selection criteria needs to be added to the tariff. (see next slide)

FERC Order 1920 requires addition of a process whereby Relevant State Entities (RSEs) and Interconnection Customers (ICs) can agree to voluntarily fund a portion of a potential Multi-Value Project (MVP) solution that does not meet selection criteria

MISO proposes that identified potential MVP solutions with a benefit-cost (BC) ratio below 1.0 will be made available to RSEs and ICs for voluntary funding. To maintain consistency with the MVP project type, only the option to agree to fund the entire MVP portfolio will be eligible for voluntary funding. If the BC ratio is less than 1.0:

- The voluntary funding share required from RSEs/ICs is calculated as (1 – BC ratio).
- The remaining share, equal to the BC ratio, will be allocated using:
  - The proposed ex-ante cost allocation (i.e., MVP), or
  - An alternative cost allocation method developed through a State Agreement Process, if RSEs opt to initiate one during the Order No. 1920 engagement period, and if such alternative cost allocation method is accepted by the Commission
- RSEs/ICs will have 60 days from the publication of a potential MVP solutions with a BC ratio below 1.0 to reach agreement on voluntary funding. Any finalized agreement will be documented through a stand-alone FERC-filed agreement between the participating RSEs and ICs.

Stakeholder Feedback Request

MISO seeks input and support from Relevant State Entities and other stakeholders by Dec. 19th on:

1. MISO's Seven Step Process for evaluation and selection that will continue to be applied in support of Order 1920 compliance
2. MISO's proposed process allowing RSEs and ICs to voluntarily fund a Long-Term Regional Transmission solutions that do not meet the selection criteria

- **Note:** After the June 2026 regional compliance deadline, MISO and stakeholders will have two years to complete detailed Regional Process Documentation discussions (e.g., BPM updates). Before providing feedback, stakeholders are encouraged to review MISO's existing process documentation, transparency and collaboration commitments that is highlighted in its structured engagement processes and broad participation in the appendix.
- Feedback requests and responses are managed through the Feedback Tool on the MISO website: https://www.misoenergy.org/engage/stakeholder-feedback/

Questions?

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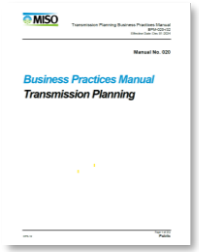
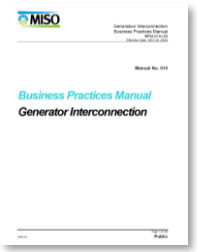
MISO's commitment to transparency and stakeholder collaboration—evident in its structured engagement processes, broad participation, and focus on meeting the nation's electrical infrastructure needs as outlined in the Reliability Imperative—will be fully leveraged to ensure compliance with Order 1920.

[Attachment FF – Transmission Expansion Planning Protocol]



[BPM 20 – Transmission Planning]

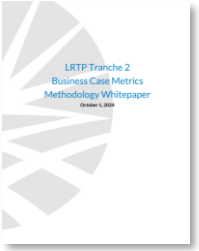


[BPM 15 – Generation Interconnection]

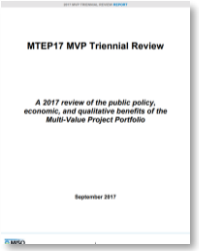
[MISO Futures]

[MISO Economic Planning Whitepaper]

[LRTP Tranche 2 Reliability Study Whitepaper]



[LTRP Tranche 2 Business Case Metrics Methodology Whitepaper]



[Multi-Value Projects]

[MTEP21]
LRTP Tranche 1

[MTEP24]
LRTP Tranche 2.1

This list is not exhaustive and includes various other public documents.