



MISO's New Criteria for Market Efficiency Projects

A Lot of Effort but No Game Changer

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On April 30, The Midcontinent Independent System Operator's ("MISO") filed proposed revisions to its tariff in an effort to substantially expand the number of Market Efficiency Projects ("MEP") that would be available for competitive bidding. These revisions were the result of more than four years of stakeholder discussions between MISO and a group of participating MISO Transmission Owners ("TOs").¹ The compromise reached by this group focused on broadening the benefits included in the economic evaluation of MEPs, lowering the MEP project voltage threshold, and more precisely assigning the costs of MEPs. But despite this lengthy, well intentioned effort, these changes are unlikely to bring the desired, dramatic change envisioned for the transmission market.

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In early 2015, the MISO Regional Expansion Criteria and Benefits Working Group ("RECBWG") set out to enhance the process of identifying and defining the cost allocation of transmission projects in its annual planning process. One of the primary drivers for this initiative was to address the dearth of MISO projects that qualified for, and were subject to, the competitive bidding process. Since the Federal Energy Regulatory Commission ("FERC") issued its Order 1000 in 2011, directing Regional Transmission Owners ("RTOs") to

¹ The participating MISO Transmission Owners are Ameren Illinois, Ameren Missouri, Ameren Transmission Company, Arkansas Electric Cooperative Corporation, Big River Electric Corporation, Central Minnesota Municipal Power Agency, City Water, Light & Power (Springfield, IL), Cleco Power, Cooperative Energy, East Texas Cooperative, Entergy Arkansas, Entergy Louisiana, Entergy Mississippi, Entergy New Orleans, Entergy Texas, Great River Energy, Hoosier Energy Rural Electric Cooperative, Indianapolis Power & Light Company, Lafayette Utilities System, MidAmerican Energy Company, Minnesota Power, Montana-Dakota Utilities, Northern States Power Company, Northwestern Wisconsin Electric Company, Otter Tail Power Company, Prairie Power Inc. Southern Illinois Power Cooperative, Southern Indiana Gas & Electric Company and Southern Minnesota Municipal Power Agency.

institute competitive bidding for cost-shared projects, there have been only three projects in MISO that have qualified for competitive bidding.² The first category MISO selected for competitive bidding was Multi-Value Projects (“MVPs”), which include projects approved as part of a portfolio of projects that provide benefits broadly across the MISO footprint. MVPs are designed to meet documented energy policy mandates and have a total capital cost of at least \$20 million. The second project category MISO selected was MEPs. Under the existing tariff, MEPs had to have a voltage level of least 345 kV with a total capital cost of at least \$5 million and have a benefit-to-cost ratio of 1.25.³ The general consensus among RECBWG participants was that getting the MVP category approved by FERC in the past was a significant accomplishment and therefore, this part of the MISO tariff should not be disturbed. That left the MEP category as the focus for tariff changes.

MISO initially filed a proposal to modify the MEP tariff in February 2019, but the proposal was rejected by FERC. After consultation with stakeholders, MISO made a few changes and resubmitted the proposal in January 2020⁴ whereby it was rejected again by FERC. The January 2020 proposal included the following:

- 1) Expand the MEP economic benefit analysis to add Avoided Reliability Project Savings⁵ and MISO–Southwest Power Pool (“SPP”) Settlement Agreement cost impacts⁶ to the existing Adjusted Production Cost Savings, referred to as “benefit metrics.”
- 2) Assign MEP costs to specific pricing zones in accordance with these benefit metrics.
- 3) Drop the MEP voltage threshold from 345 kV to 230 kV while keeping the total capital cost requirement of at least \$5 million.
- 4) Provide a competitive bid exemption for MEPs of immediate reliability need.

² One of the three projects that qualified for competitive bidding was the Huntley-Wilmarth Transmission Project located in Minnesota. Because the state of Minnesota has the right of first refusal for incumbent transmission owners to develop and own transmission projects in their service territories, this project was awarded to Northern States Power without competitive bidding.

³ The project benefits included the Adjusted Production Cost savings.

⁴ A substantive change in the January 2020 filing was the removal of a requirement that Local Economic Projects have a benefit-to-cost ratio of 1.25.

⁵ The Avoided Reliability Project Savings metric determines whether a Market Efficiency Project would eliminate the need for a separate Baseline Reliability Project or a reliability “Other Project.”

⁶ The MISO-SPP Settlement Agreement Cost metric assesses changes in payments by MISO for the use of the neighboring SPP system that could occur from the implementation of a Market Efficiency Project.

- 5) Create a Local Economic Project (“LEP”) category for MEPs below 230 kV and at least 100 kV, which meet a certain benefit-to-cost ratio (“B/C ratio”). These project costs were to be 100% assigned to the pricing zone in which the project was located.

FERC rejected the two filings because the cost allocation proposal for the LEP category was not shown to be just and reasonable. In specific, FERC found that allocating costs 100% to the pricing zone in which the project was located was inconsistent with the cost causation principle. FERC believed that MISO should allocate costs to the zones that benefit from the project. Because MISO was conducting a benefit-to-cost evaluation to approve the project, it should use these identified benefits to assign the costs to zones realizing them. Despite this deficiency, FERC signaled to MISO that the rest of the filing appeared reasonable. MISO and the MISO TOs took this cue and filed a new proposal on April 30, 2020 that simply dropped the LEP category altogether. The details of the new proposal are below:

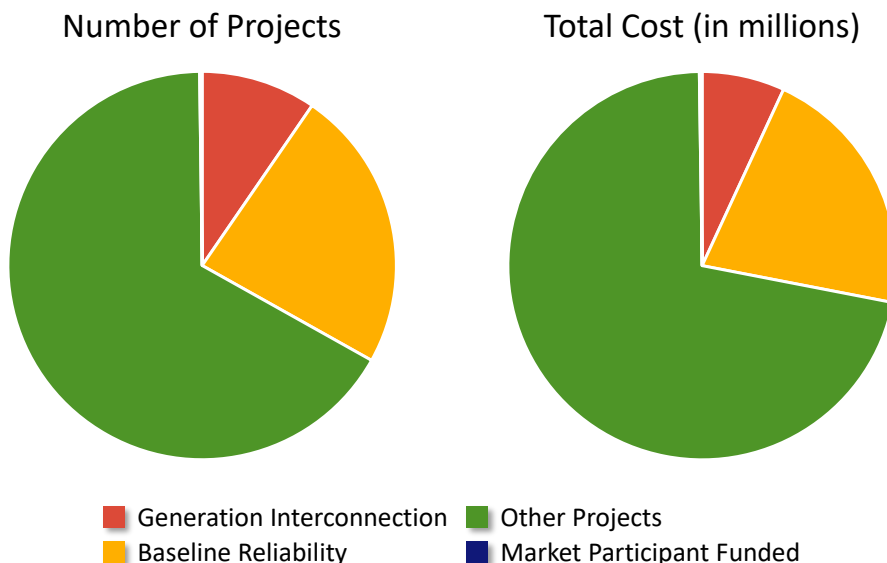
MEP Tariff Components	Existing Tariff	April 30 Tariff Proposal
Benefit Metrics	<ul style="list-style-type: none"> • Avoided Production Cost 	<ul style="list-style-type: none"> • Avoided Production Cost • Avoided Reliability Project Savings • MISO-SPP Settlement Agreement Cost Impacts
Cost Allocation	<ul style="list-style-type: none"> • 20% postage stamp to MISO footprint • 80% to benefitting zones 	<ul style="list-style-type: none"> • 100% to benefitting zones as measured by the benefit metrics
Voltage Threshold	<ul style="list-style-type: none"> • 345kV and above 	<ul style="list-style-type: none"> • 230 kV and above
Project Cost Threshold	<ul style="list-style-type: none"> • \$5 million 	<ul style="list-style-type: none"> • \$5 million
Competitive Bid Exemption	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Project addresses a reliability need with a need-by date within 3 years

It remains to be seen if FERC will be satisfied with MISO’s “drop the LEP” solution and approve the tariff changes. However, even if FERC approves the changes to the MEP tariff, the important question to ask is whether the changes that remain in the tariff, specifically dropping the voltage threshold and broadening the project benefit evaluation, will result in more Market Efficiency Projects qualifying for competitive bidding? To answer this question, MCR reviewed the 2019 MISO Transmission Expansion Plan (“MTEP19”) to determine the number of projects that would have been affected by these new MEP criteria. The MTEP19 included 480 new projects approved by the MISO Board of Directors for construction in its Appendix A.

The breakdown of these projects are as follows:

- 46 Generator Interconnection Projects totaling about \$269 million
- 113 Baseline Reliability Projects (“BRPs”) totaling about \$826 million
- 320 Other Projects (projects designed to address local reliability, age and condition of existing facilities, load growth or other local needs) totaling about \$2.8 billion
- 1 Market Participant Funded Project⁷ totaling about \$9 million

Will dropping the voltage threshold and broadening the project benefit evaluation result in more Market Efficiency Projects qualifying for competitive bidding?



Under the hypothesis that the current criteria for MEPs are simply too stringent for projects to qualify for competitive bidding, the first place to look for an impact would be with the group of Baseline Reliability Projects (BRPs). BRPs currently qualify as MEPs if they are at least 345 kV and \$5 million with a minimum B/C ratio of 1.25. Perhaps some of the BRPs in the MTEP19 would now qualify under the lower 230kV minimum threshold. A second category to examine would be the Other Projects category which makes up 67% of the projects and 72% of the total cost in the plan. Other Projects are not likely to be impacted, however, because in most circumstances, Other Projects are replacements or upgrades to existing facilities or use existing rights-of-way in addressing local reliability issues. Under both the existing tariff and the proposed changes in the tariff, incumbent utilities are permitted to maintain their right of first refusal when dealing with existing facilities and rights-of-way.

Keep in mind that the projects included in the MTEP19 Appendix A will not be recategorized. Rather, MISO has requested that the proposed tariff changes go into effect on July 29, 2020. Therefore, all projects in the 2019 MTEP Appendix A project listing (i.e., the approved list) would not be affected by the new

⁷ Market Participant Funded Projects are Network Upgrades fully funded by a market participant but owned by an incumbent Transmission Owner.

criteria. The exercise below seeks only to identify the types and number of projects that might be recategorized under the tariff changes to understand the potential magnitude of these tariff changes.

Without access to MISO's existing project benefits calculations and the ability to apply the two new benefit metrics calculations, identifying BRPs that could potentially be bumped up to the MEP category relies on the following screen:

- 1) The project voltage is 230 kV. All projects below 230 kV do not meet the new voltage threshold for MEPs. Any BRP at 345 kV already meets the old threshold for MEPs and yet did not qualify; so it is assumed it still would not qualify, simply because the voltage criteria dropped to 230 kV.
- 2) The BRP project costs must be at least \$5 million.
- 3) The BRP must be identified as a new build in Appendix A. Replacing or upgrading existing facilities remain the rights of the existing transmission owner and thus, would not be eligible for competitive bidding.

Out of the 113 BRPs included in MTEP19, only four projects pass this screen. The total capital costs for these four projects is about \$102 million out of the total MTEP19 project costs of approximately \$4.0 billion. This represents only about 2.5% of the total 2019 new project costs in MISO, hardly a seismic change in the competitive landscape.⁸


As mentioned above, it is unlikely that projects in the Other Projects category would qualify as MEPs under the criteria and be competitively bid. However, since Other Projects is the largest project category in the MTEP19, it is worth running these projects through the same screens defined above. Out of the 320 projects in the Other Projects category, only seven projects would qualify under the new criteria. These seven projects have a total project cost of approximately \$140 million, or about 3.5% of the total project costs in the MTEP19. Again, it is very questionable that these projects could be eligible, but even so, this is still a very small number.

Using the most recent MISO transmission plan as a sample, there simply does not appear to be many projects that would be subject to competitive bidding under the revised tariff. It is fair to point out that the new, more lenient criteria could drive future MTEPs to include more MEPs that will be competitively bid. However, existing incumbent Transmission Owners have little incentive to design projects that would qualify under the new MEP

⁸ Again, it is not a certainty that these four BRP projects would have a project benefit-to-cost ratio of at least 1.25 to qualify as MEPs.

criteria because they would lose their right of first refusal. In addition, states within MISO with rights of first refusal laws⁹ for incumbents would further dampen the total number of competitively-bid projects.

Transmission continues to be a very attractive investment for MISO TOs, particularly given the relatively high Return on Equity rates allowed in transmission formula rates, especially in comparison to today's very low market interest rates. As mentioned above, there are \$4.0 billion of newly approved projects in the latest MISO MTEP alone and there are a total of \$12.2 billion of approved projects either proposed or under construction in MISO.¹⁰ There is no sign that incumbent TOs are slowing their transmission investment or showing a new willingness to risk losing these investments via a competitive bidding process. Many incumbents will continue to propose projects that they can build themselves and will make it difficult for independent transmission developers to take a significant share through competitive bidding. Incumbents will also take advantage of the immediate reliability need exemption for projects required for reliability needs within three years. The independent developers, on the other hand, are likely to increase the number of transmission projects they propose to MISO that would qualify under the new criteria. However, the potential to turn these proposals into projects still faces the hurdles of the incumbents' right of first refusal and the risk of proposing a project only to lose it to a competing bidder. While a new portfolio of MVPs would certainly provide opportunities for independent transmission developers to bid on and win projects, it does not seem likely that there will be a slew of new opportunities in the MEP category.

The 230 kV threshold seems to be a compromise voltage level that shows some nominal movement without substantially upsetting the status quo. The reality is that only 8% of the total circuit miles of transmission in MISO are 230 kV. That translates to about 5,750 miles out of a total of 72,000 miles of existing transmission lines in MISO. The limited 230 kV infrastructure in MISO and the tendency of existing transmission owners to protect their right of first refusal makes the compromise voltage threshold unlikely to vastly open the competition for transmission investment in MISO. After four years of stakeholder meetings and three FERC filings, it appears that MISO has not changed the competitive bidding game much at all. 

The limited 230 kV infrastructure in MISO and the tendency of existing TOs to protect their right of first refusal makes the compromise voltage threshold unlikely to vastly open the competition for transmission investment.

⁹ Minnesota, North Dakota, South Dakota, and Indiana (for BRPs). Additionally, Texas established a right of first refusal in 2019 that was challenged by NextEra and initially upheld in 2020.

¹⁰ Per MISO, as of April 30, 2020.

MCR Transmission Strategy Practice Leadership



Jim Pardikes is a Vice President at MCR and leads the Transmission Strategy Practice. He has 35 years of experience consulting to the utility industry. His expertise includes providing expert testimony for Section 205 and incentive filings, including cost of capital for public power, and cooperatives. Jim regularly presents to Boards and senior teams and has written extensively

on the drivers of transmission investments and the case for transmission incentives. Jim can be reached in the office at 847-504-2549, on mobile phone at 847-226-2084, or by email at jpardikes@mcr-group.com.

“Jim has a way of getting to the core concept; he’s able to present it in a way that’s understandable. He has a confidence when he’s presenting, which is quite valuable.” —Transmission Planning Manager, G&T



Ron Kennedy is a Director with MCR. He has over 20 years of experience in consulting to the utility industry. His expertise includes transmission formula rates, Section 205 rate changes, transmission rate incentives, economic evaluation of RTO membership and financial evaluation of transmission projects.

Ron is experienced in presenting to executive teams and Boards of Directors. Ron can be reached at rkennedy@mcr-group.com.

“Ron knows those FERC accounts like the back of his hand.” —Vice President, JAA



Chris Nagle is a Manager with MCR. He has 14 years of experience in transmission, rates and regulatory affairs. His MCR expertise includes conducting reviews of existing formula rates, developing new formula rates/testimony and evaluating economics of transmission projects. His previous experience includes rate development and cost allocation for a multi-

jurisdictional electric utility, including testifying as an expert witness before various PSCs. Chris can be reached at cnagle@mcr-group.com.

“Chris is incredibly responsive and knows what questions to ask.” —GM, municipal

MCR Transmission Strategy Overview

MCR provides strategy support to G&T and T&D cooperatives, joint action agencies, municipals and independent transmission developers in various RTOs/ISOs with a focus on finding value for our clients. Our services fall into four major areas:

Transmission Rate and Cost Analysis

- **Formula rate review for existing transmission owners** MCR conducts reviews of transmission formula rates, (MISO Attachment O and SPP/PJM Attachment H) to substantiate costs and optimize revenue.
- **Development of annual transmission revenue requirements (“ATRR”) for new transmission owners** MCR develops cost data to support full RTO revenue recovery for new transmission owners (“TOs”), which involves, for example, developing MISO’s Attachment O, and Attachment H in SPP and PJM. In addition, MCR develops and reviews client updates to annual formula rates and defends client updates against challenges from neighboring utilities, as appropriate.
- **Review/Challenge to incumbent formula rate costs** MCR reviews neighboring IOU utility transmission costs or RTO cost calculations to ensure transmission charges are appropriate.
- **Staff education workshops on formula rates** MCR conducts workshops to educate client staff on formula rates and the implications of business changes on ATRR.

FERC Filings

- **Section 205 rate filings and testimony** MCR provides expert FERC testimony for Section 205 rate filings, including new ATRR filings related to joining an RTO. Our expertise includes testimony and formula rate template development/changes.
- **Transmission incentive rate filings and testimony** MCR provides analytics, formula rates and testimony for transmission incentives rate applications to FERC. This includes requests for hypothetical capital structure, CWIP, abandoned plant and regulatory asset.
- **Cost of capital expert testimony** MCR provides expert testimony and analytics to support proposed cost of capital for new and existing formula rates for public power and cooperatives, including margin requirement, ROE and capital structure.
- **Intervention and settlement support** MCR provides our clients analytical and intervention response support during intervention, settlement, mediation and hearings.

MCR Transmission Strategy Overview (*continued*)

Strategic Economic Analysis

- **Development of transmission business plans** MCR works with clients to define transmission-related issues, goals and strategies, including providing analytic support.
- **Economic evaluation of new transmission projects** MCR analyzes cash flows of proposed transmission projects. MCR's Transmission Project Evaluation Tool™ highlights how value is created under various cost allocation and recovery scenarios and helps prioritize capital.
- **RTO membership evaluations** MCR conducts economic analysis using MCR's RTO Evaluation Model™ to assess whether to become a transmission owner in an RTO.
- **Analysis of joint zone investment and 7-factor tests** MCR provides analytical support to support assets qualifying under the FERC 7-factor test and in negotiations with incumbents on the appropriate share of eligible transmission investment in a joint pricing zone.
- **Analysis of the potential purchase or sale of assets** MCR conducts strategic and financial analysis related to value created from buying or selling transmission facilities. MCR provides various valuation techniques to assess the market value of transmission assets.

Transmission Cost/Rate Competitiveness

- **Peer cost comparison by FERC account** MCR conducts transmission cost comparisons with peer utilities by FERC account for transmission owners to identify potential areas warranting cost reduction and/or differences in the recording of costs.
- **Rate strategy and transmission revenue forecasting** MCR develops forecasts of ATRR and transmission rates for its clients to assess their rate competitiveness and better understand the levers to manage future rate increases. ATRR forecasts are developed under various transmission investment scenarios. Analyses also include evaluating generator interconnection investment options such as utility-funded and customer-funded investment.
- **Transmission capital investment and metric comparisons** MCR maintains a proprietary database of transmission capital investment, load and comparative cost metrics for TOs and industry segments in various RTOs. This information provides analytical support in cost competitive analyses, MCR expert testimony in FERC filings and in negotiations with incumbents on the appropriate share of transmission investment in a joint pricing zone.

MCR PERFORMANCE SOLUTIONS

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