MTEP17 Hartburg – Sabine Junction Market Efficiency Project

South TSTF
July 20, 2022
Purpose: To review stakeholder comments provided at or following the June 21 STSTF meeting regarding the planning analysis performed for the MTEP17 Hartburg – Sabine Junction Market Efficiency Project (MEP)

Key Takeaways:
1. The Variance Analysis Tariff requirements require MISO to evaluate the economic and reliability impacts of this project prior to MISO determining a Variance Analysis outcome.
2. The Hartburg-Sabine MEP no longer provides any meaningful production cost benefits based on the planning analysis performed and using the latest modeling information.
3. This concludes the reliability and economic planning analysis to inform Phase 2 of Variance Analysis, and the next step is for MISO to determine the appropriate outcome based on the Variance Analysis factors.
The STSTF provided a forum for stakeholders to inquire and provide comments throughout the ad-hoc review of the Hartburg-Sabine Junction MEP

2022

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<tr>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
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<tr>
<td>April 27</td>
<td>STSTF</td>
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<td>PAC</td>
<td>Review</td>
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<td>Plan</td>
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<td>Process</td>
<td>Review</td>
<td>Analysis</td>
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- MISO has concluded its reliability and economic planning analysis
- The deliverability analysis is integrated into MTEP22
- No further analysis is planned
Stakeholder comments have focused on changes in benefits, impacts to existing generation, and the planning process.

- A reduction in benefits was observed from:
  - Increased generation replacement in the area of this project compared to MTEP17
  - Post-MTEP17 approved baseline reliability transmission facilities that reduce congestion observed in MTEP17
- The potential impacts in the deliverability analysis to existing generators will be included in the MTEP22
- Changes to or additional analysis beyond the withdrawal of this project is outside the scope of this review to inform Variance Analysis.
Variance Analysis requires MISO to determine the potential impacts to the Transmission System, and does not require the use of multiple futures

- The requirement to look at multiple futures is specific to initial approval of an MEP – Att. FF Section II.B.1
- During Variance Analysis, MISO assesses a range of factors, including potential economic and reliability impacts to the Transmission System of a. Analysis outcome and asks if the project is still needed – Att. FF sections IX.D.2.1.B and IX.C.4.ii.
- Hartburg – Sabine Junction MEP is already included in MTEP, and the purpose of this analysis is to inform the Variance Analysis process as required by one of the factors
- Although multiple futures are not required MISO did run a screening analysis for Future 2 (F2)
Economic analysis results show no substantive congestion relief or APC benefits

- Congested flowgate analysis with HSJ MEP removed did not identify meaningful increase in local congestion
  - Project inclusion only had minor impact on area constraints (both positive and negative), resulting in minimal relief
- Modeling the HSJ MEP as a solution for MISO South congestion did not result in any substantive 20-Year NPV Adjusted Production Cost (APC) savings
- MISO also performed a benefit screening for HSJ MEP on the F2 PROMOD model which did not produce any additional APC savings

<table>
<thead>
<tr>
<th>MEP</th>
<th>In Service Date</th>
<th>Estimated Project Cost (Nominal $M)</th>
<th>Discount Rate (%)</th>
<th>Future</th>
<th>MISO South 20-Year NPV Benefits ($M)</th>
<th>MISO South 20-Year NPV B/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hartburg-Sabine Junction 500 kV</td>
<td>2027</td>
<td>185.2</td>
<td>6.9</td>
<td>1</td>
<td>8.45</td>
<td>0.05</td>
</tr>
<tr>
<td>Hartburg-Sabine Junction 500 kV</td>
<td>2027</td>
<td>185.2</td>
<td>6.9</td>
<td>2</td>
<td>-3.45</td>
<td>-0.02</td>
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Since the completion of MTEP17 MCPS analysis there have been several system changes in MISO South area that contributed to the reduction of HSJ MEP benefits in the MISO Futures

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<tr>
<th>Change Driver</th>
<th>Name</th>
<th>MTEP 17</th>
<th>MTEP 21</th>
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<tbody>
<tr>
<td>Generator</td>
<td>Sabine</td>
<td>Sabine 3 (400 MW) Retirement; Sabine 5 (480 MW) Retirement</td>
<td>Represented by a 1200 MW IRP w/ ISD Year of 2026</td>
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<tr>
<td>Generator</td>
<td>Montgomery County</td>
<td>Did not have GIA</td>
<td>GIA J472 included 923 MW w/ISD Year of 2020</td>
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<tr>
<td>Generator</td>
<td>Lewis Creek</td>
<td>Lewis Creek 1,2 (500 MW) Scheduled to Retire 2025</td>
<td>Lewis Creek 1,2 pushed back retirement to 2034</td>
</tr>
<tr>
<td>Baseline Reliability Project</td>
<td>Cough-Plaisance 138 KV</td>
<td>COUGH4-PLAISAN4 138 KV (335 MVA)</td>
<td>753 MVA (MTEP 18 Appendix A project 9716 w/ISD Year of 2020)</td>
</tr>
<tr>
<td>Baseline Reliability Project</td>
<td>ESSO-Belmont 230 kV</td>
<td>6ESSO - 6DELMONT 230 kV (339 MVA)</td>
<td>593 MVA (MTEP 18 Appendix A project 9793 w/ISD Year of 2022)</td>
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Schedule Review
Once the CTEC selects an outcome, notifies the Selected Developer, MISO will make a public notification, and then make a filing at FERC.

**Variance Analysis**

### Phase 1
**Initial Inquiry, Response, Confirmation**
- **Triggers**
  - Cost Increases
  - Schedule Delay
  - Inability to Complete
  - Default under Selected Developer Agreement

### Phase 2
**Analysis and Outcome Determination**
- **Outcomes**
  - No Action
  - Mitigation Plan
  - Reassignment
  - Cancellation

### Phase 3
**Notification and Implementation**
- **Results**
  - Outcome Notification
  - Coordinate with Parties Affected by Implementation
  - File to Amend SDA per Mitigation Plan
  - File for Reassignment or Cancellation

**Variance Analysis Timeline**
- **November 15, 2019** – (Phase 2) MISO posted public notice that Variance Analysis has commenced.
- **May - July 2022** – (Phase 2) The planning analysis shared with the South Technical Studies Task Force shows this project no longer provides any meaningful production cost benefits for the project to proceed as planned.
- **August 2022** – (Phase 2) The Competitive Transmission Executive Committee (CTEC) determines the Variance Analysis outcome.
- **August - October 2022** – (Phase 3) MISO implements the selected outcome.

*Variance Analysis timeline subject to change if new information becomes available.*
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