



Improve Access to AME Resources

Reliability Subcommittee

October 28, 2021

RSC-2021-2

Available Maximum Emergency (AME)

Purpose & Key Takeaways



Purpose: Finalize target outcomes and straw proposal

Key Takeaways:

- Resources designated for Resource Adequacy Requirements (RAR) should not be able to use the “emergency commit” status to remove access to committed capacity
- MISO Operators need reliable access to offered AME resources in MaxGen Event Step 1
- Review straw proposal at the Resource Adequacy Subcommittee (RASC) prior to finalizing at RSC and filing in Q1 or Q2 2022

MISO's rules for AME resources should ensure committed capacity can be used effectively to prevent firm load shed

Problem Statement: Many AME resources are not available in the timeframe they are needed to address capacity insufficiency. There is no restriction that capacity committed for RAR cannot use the “emergency commit” status. Last Planning Year the average time resources were designated AME was >20% of the year and average lead time >8 hours.

Target outcome: Access to committed capacity adequate to ensure reliable and efficient market outcomes despite uncertain system conditions.

Options to improve access to emergency-only resources

1. Firm up access to needed resources by establishing rules restricting use of “emergency commit” status when designated to meet RAR
2. Reduce AME lead times and/or enable calling on them in anticipation
3. Encourage economic offers in the DA & RT markets
4. Reorder MISO's Emergency Operating Procedures (EOP)

Propose defining AME status in the tariff and require must offer compliance when designated to meet RAR

- Add AME definition to Module A
 - Available Max Emergency (AME): The commitment and dispatch of Resources with an “emergency commit” status during an Emergency, in accordance with section 39.2.5 of Module C.
- Modify multiple relevant sections of Module C
 - Market Participants can provide Generation Offers that are only available to be committed during an Emergency
 - For example, section 39.2.5.b.xxvi : “An Emergency Commitment Status indicates the Transmission Provider is authorized to commit the Resource only under an Emergency condition for the Hour. **The Emergency Commitment Status will not be available to any Resource that has all or a portion of its capacity designated as a Capacity Resource.**”

Allowing MISO Operators to deploy AME resources in anticipation will improve reliability

- Operators are counting every MW when they are tracking a potential shortfall of needed capacity
- Reliable access to offered emergency-only resources helps ensure reliable and efficient market outcomes despite uncertain system conditions
- When AMEs have lead times >2 hours Operators should be able to call on them in anticipation so they can be used effectively

The straw proposal incorporates most of the IMM recommendations

- ✓ Add tariff rules to selection of the “emergency” commitment status that mirrors Emergency Maximum Limits in Module C
- ✓ Get the ability to call on AME units in advance of an emergency as we did for LMRs in our 2018 RAN phase 1 filing
- Collapse MaxGen Event Step 1a&b to just a step one with a least cost deployment order for AME and emergency ranges in the same step
- ✓ If a capacity resource uses AME and has a lead time > 2 hours that it not get credit for being available during that RA-hour in our new seasonal availability-based RA proposal being discussed at the RASC
 - ✓ Proposed Schedule 53 does not consider offers from resources when not designated for RAR

Next steps

- Review straw proposal at the RASC prior to finalizing at RSC and filing in Q1 or Q2 2022
- The next official feedback request is planned for the RASC but interested stakeholders can reach out via email with additional comments or questions:

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Appendix

The straw proposal incorporates previous stakeholder feedback

Category	Summary of Stakeholder Comments
AME Issue Framing	<p>MISO has adequately framed the resource-related issues but this scope does not capture other levers that should be considered such as MISO's ability to forecast those shortfalls</p> <p><u>Whether a resource cleared the PRA matters and should result in stricter availability rules</u></p>
How should AME units be offered and deployed?	<p>Many stakeholders thought that the rules should be improved to ensure access to resources when needed. Some warned about unintended consequences that could remove access.</p> <p>There were multiple suggestions to <u>call on AMEs in anticipation</u> as done for load Modifying Resources (LMR) in RAN Phase 1</p> <p>A majority of stakeholders agreed with shortening lead times to 6 hours in line with LMRs but others did not and thought we should better understand why lead times are what they are first</p>
Should AME units be required to provide an explanation?	<p>5 stakeholders thought that AMEs should provide explanation (at least at IMM discretion). Another thought it could be reasonable but asked what it would be used for.</p> <p>A couple of stakeholders clearly did not support requiring explanations and warned we might risk losing access to such resources if use of AME status became onerous</p>
How to ensure AME units are effectively used in EOP?	<p>One suggested we <u>keep unrestricted use of AME for non-RAR units</u> and consider a new commit status for units on seasonal outages under new RA construct</p> <p>Another stakeholder encouraged MISO to <u>establish a clear and precise definition in the tariff of when an emergency status can or cannot be used</u></p>

Module C allows completely discretionary use of AME status but recognizes RAR obligations for other resource offer types

- Market Participants can provide Generation Offers that are only available to be committed during an Emergency
 - “An Emergency Commitment Status indicates the Transmission Provider is authorized to commit the Resource only under an Emergency condition for the Hour.”
- Elsewhere, RAR obligations are recognized
 - “Not Participating Commitment Status indicates the Market Participant will not operate a Resource that is otherwise available. The Not Participating Commitment Status will not be available to any Resource that has all or a portion of its capacity designated as a Capacity Resource.”
 - “An Offer shall include an Hourly Emergency Maximum Limit which shall not be used to withhold a portion of the Capacity of a Resource from the Day-Ahead Energy and Operating Reserve Market if such Capacity is designated as a Capacity Resource pursuant to RAR, unless such portion is unavailable due to a forced or planned outage or other physical operating restrictions.

Discuss rule changes for AMEs that complement other efforts to improve resource availability

Changes being made to address capacity sufficiency across our markets and operations

- Lead-time requirements for PRA-cleared resources (e.g. 6-hour LMRs)
- Seasonal capacity auctions in place of current annual auction
- Accreditation based on general availability not just forced outages
- Risk appetite (how should planning inform operations?)
- Reliability commitment timing and thresholds
- Timeframe (any upcoming peak, the next 2/6/12/24 hours?)
- Order of Emergency Operating Procedures (EOP)
- Maintenance Margin & Multi-day Operating Margin forecast
- Qualification and offer rules for AMEs, LMRs, Emergency Demand Response (EDRs) and other emergency-only resources
- Demand Response tools and reporting requirements