



MISO's LMR Reforms IMM Perspective

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IMM Comments on MISO's Demand Response Changes and Reforms

- In the wake of several FERC Office of Enforcement actions directed at demand-side resources, MISO is undertaking extensive reforms.
 - ✓ We continue to review and provide feedback to MISO on these reforms.
 - ✓ In light of MISO's dwindling capacity margin and the ongoing need for reliable Planning Resources, these reforms are necessary and urgent.
 - ✓ DR participating as Planning Resources should be held to comparable standards as generating resources so MISO can reliably count on them.
- We have reviewed MISO's proposed changes for Demand Response and Emergency Resource participation.
 - ✓ This presentation describes 6 concerns with MISO's proposals and provides recommendations to address each

Concern #1: MISO Requirement to respond to only the first Scheduling Instruction each season

- MISO proposes to obligate DRRs and LMR Type I resources to be available for just the first Scheduling Instruction per season.
- This is unreasonable because:
 - ✓ Resources are being compensated to support reliability when it is threatened throughout the season;
 - ✓ DRRs and LMR Type I displace otherwise very reliable generation resources that would have an obligation to be available in all hours;
 - ✓ Accreditation effects for unavailability during Capacity at Risk hours offer insufficient incentives to be available because these effects will be diluted by the accreditation in RA hours.
- We recommend MISO obligate these resources to be available for a minimum of 4 events per peak season and 2 events per shoulder season.



Example: Minimum LMR Obligations

Example: An LMR resource in a winter season with cold weather events that result in LMRs in the LBA being called three times. In all scenarios, the LMR is available for all RA and Capacity At Risk hours prior to first scheduling instruction.

Description	Availability	# Times LMRs Called in LBA	# Scheduling Instructions Available	LMR Response Performance	Accreditation Percentage
Scenario 1: LMR is called for a winter storm late in the season. There is another winter storm that also results in two additional LMR deployments. The LMR makes itself unavailable after the first deployment and remains unavailable for the remainder of the season.	Available: 46 RA & CAR hours Unavailable: 19 RA & CAR hours	3	1	33%	71%
Scenario 2: LMR is called for a winter storm early in the season. There are two additional cold weather events in the season, each with one LMR deployment. The LMR makes itself unavailable after the first deployment and remains unavailable for the remainder of the season.	Available: 13 RA & CAR hours Unavailable: 52 RA & CAR hours	3	1	33%	20%
Scenario 3: There is one cold weather event in the middle of the season that lasts for several days, and LMRs are called three times in one week. The LMR makes itself unavailable after the first deployment then makes itself available again after the cold weather event ends and is available for the remainder of the season.	Available: 13 RA & CAR hours before deployment + 42 RA & CAR hours after deployment Unavailable: 10 RA & CAR hours	3	1	33%	85%

Concern #2: MISO not relying on LMR Type I availability in accreditation in RA Hours

- MISO’s accreditation for LMRs differs for RA hours and Capacity at Risk hours – availability only matters for Capacity at Risk hours.
- This is unreasonable because:
 - ✓ MISO’s Tariff obligates LMRs to update their availability in every hour of the year, not just Capacity at Risk hours;
 - ✓ If resources’ availability to curtail is lower than the registered capability, its is unreasonable to ignore that in accrediting the resource;
- We recommend MISO use the minimum of (i) registered capability, (ii) availability, and (iii) metered output for accreditation in RA hours.

Capacity Rating = 20 MW		RA	RA	RA	RA			Capacity At Risk Hours									
Time	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Registered Capacity Rating	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20		
Metered Output	70	65	60	55	32	18	12	15	45	60	65	70	75	72	68		
Capacity Availability	20	15	10	5	0	0	0	0	5	12	15	20	20	20	20		
Capability	--	20	20	20	20	--	--	0	5	12	15	20	20	--	--		
IMM-Proposed Calculation for Capability	--	15	10	5	0	--	--	0	5	12	15	20	20	--	--		

Calculated DR Example: an industrial facility with typical load between 50-70 MW and 20 MW of registered capacity rating. On this operating day, the resource shuts down for maintenance for a few hours and changes its offers to reflect lower availability.

Concern #3: FSL resources operating below its FSL in RA hours will receive Seasonal Capability

- MISO's accreditation rules will assume Seasonal Capability for all hours when FSL resources are at or below the FSL value.
- This is unreasonable because:
 - ✓ Accreditation should align the expected value of demand response MISO could obtain from the resource during emergencies;
 - ✓ Since FSL resources will only be obligated to cut load down to the FSL, MISO cannot expect any available curtailment in RA hours with consumption below FSL;
 - ✓ This accreditation rule would deliberately inflate the accreditation of FSL resources above their expected availability.
- We recommend MISO:
 - ✓ Assume zero curtailment availability for FSL resources consuming below the FSL level in any RA hour.
 - ✓ It may be reasonable to assume curtailment has occurred in capacity at risk hours that have been announced in advance.

Concern #4: MISO will require disqualified DRRs and LMRs to be replaced with similar asset types.

- MISO's draft tariff redlines (Section 69.A.3.1.h) will require disqualified DRRs and LMRs participating as Planning Resources to be replaced with uncleared ZRCs associated with DRRs or LMRs.
- We think this is unreasonable because:
 - ✓ Generating resources are reliable suppliers of ZRCs;
 - ✓ This requirement places an unnecessary restriction on the types of ZRCs that can be used for replacement;
 - ✓ Replacement ZRCs should include any ZRCs that have not cleared the capacity auction.
- We recommend MISO require that disqualified DRRs and LMRs be replaced with any uncleared ZRCs.

Concern #5: Test performance requirements

- MISO's proposed threshold for a test failure is 50% of their stated capability.
- We believe this is unreasonable because:
 - ✓ Resources registering with an FSL should be able to achieve their FSL under any conditions;
 - ✓ Resources that register based on a known curtailment quantity associated with a process interruption should be able to demonstrate the registered curtailment quantity interrupting the process;
 - ✓ Registered assets supported by back-up generators will have a known curtailment associated with starting the back-up generator.
- We recommend MISO:
 - ✓ Increase the test failure threshold to 100% preferably, or to 75% with an attestation if a testing allowance is deemed necessary; and
 - ✓ Consider including test results <100% as a cap on accreditation rather than disqualification of the resource.

Concern #6: MISO is creating a separate intermittent BTMG category

- MISO proposes to create an Intermittent BTMG category.
- We think this is unreasonable because:
 - ✓ Intermittent BTMGs should simply be reflected in the load forecasts in the PRA;
 - ✓ These resources are not capable of providing any response to MISO during an emergency – their existence overstates the amount of emergency MW available to MISO.
- We recommend MISO eliminate this category of LMR.