



MISO Market Resource Operations

SO-P-NOP-02 Rev: 7

ROLE		ROLE
BAO		SM ☒
IRAC		RC
UDS		G&I ☒
MP ☒		

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7	Biennial Review. Added new section 5.5 Resource Receives an Uninstructed Deviation Enhancement (UDE) Flag. Updates to reflect transition from MCS to OI. Operating Procedure Owner approval on file.	John Marhoefer/ Elise Swinford	07/02/2026	07/02/2026
6	Biennial Review. No changes. Operating Procedure Owner approval on file.	Mike Carrión/ Christine Ecker	06/14/2025	06/14/2025

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1.0 Purpose

- Describes the general guidance and required communications between Market Participants (MPs) and MISO when a Resource is performing any of the following:
- Coming online or offline
- Requesting manual updates to offer parameters
- Experiencing issues with Setpoint Instructions
- Experiencing operational issues
- Undergoing Testing

Provides guidance on updating offers to “reflect actual known physical capabilities” during temporary Resource derates or uncertain operations, as required by Module C of the Tariff.

Defines conditions under which Excessive/Deficient Energy Deployment Charge Exemption (EEE) will be granted automatically by the Market Settlement System or manually by the MISO Generation and Interchange (G&I) Operator.

2.0 Roles and Responsibilities

2.1 Market Participant

- Coordinates with MISO G&I Operator during Normal and Abnormal Resource operations including, but not limited to, Resource startups, shutdowns, testing, derates, trips, start/stop for pumped storage Resources, changes in control mode, Resources with setpoints outside offered limits, and Resources not following setpoints.
- Updating Resource offers and parameters using Real-Time Offer Enhancement (RTOE) as a primary means.
- Updates offer parameters intra-hour in a timely manner through the RTOE.
- Submits new or modified Offers, including Self-Schedules, to supply Energy and Operating Reserve no later than 30 minutes prior to the Operating Hour.
- Enters derates and outages in a timely manner into MISO’s Outage Scheduler: Control Room Operations Window (CROW).

2.2 MISO G&I Operator

- Coordinates with MPs during Normal and Abnormal Resource operations.
- Communicate with appropriate MISO and Member personnel to ensure reliability and efficient market operations.

3.0 General Guidance

3.1 Communications

1. MPs will primarily communicate via electronic means (RTOE, Market Portal) and verbal communications methods will be used as a back-up to keep MISO informed of Resource operating capabilities.

2. Electronic means used by MISO to communicate commitment periods will be transmitted via JavaScript Object Notation (JSON) and by use of the Operator Interface (OI) via the Generation Start/Stop screen as a backup means of communication.
 - A. The JSON message is considered the document of record.
 - B. Attachment 2 — Start/Stop Instruction Codes provides a list of Resource Start and Stop instruction codes.
3. MISO Operators will not discuss financial questions with any participant in the MISO market. MISO will only confirm financial offers and not disclose financial offers.
 - A. Questions of a financial nature should be directed to Client Relations.
 - B. Examples of prohibited questions, which will not be discussed by MISO operators include, but are not limited to:
 - Will this impact my Day Ahead (DA) award?
 - Will I be financially harmed?
 - What is the best way to offer my Resource?
 - Can you tell me what my energy offer is on my Resource? (MISO operators are able to confirm specific information when asked directly, i.e., Does the offer for Resource X show \$x.00 for x MWs? A yes or no response would be allowed in this example.)
4. If a Jointly Owned Unit (JOU) resource is represented by a Scheduling Agent, the Scheduling Agent shall contact MISO for offer updates; otherwise, the individual JOU owners shall contact MISO.
5. Offers should be updated in a timely manner to reflect current or expected operating capabilities, as required by Module C. MPs should initiate Real Time Offer Parameter overrides directly via the RTOE in the Market Portal (primary method) rather than through a phone call (back-up method) to the MISO G&I Operator. RTOE overrides are a means to provide near-term updates of unit parameters until subsequent hourly offer updates submitted via the Market Portal can take effect. To access the RTOE from the MUI 2.0, the MP should navigate to Schedules > Manage Real-Time Offer Overrides as shown in Figure 1: Manage Real-Time Overrides in Market Portal.



Figure 1: Manage Real-Time Overrides in Market Portal

6. Initiating Real Time Offer Parameter overrides directly via the RTOE in the Market Portal as soon as practically possible, but at least within 15 minutes subsequent to a unit derate condition, or the inability to follow setpoint, could allow a Resource to avoid any Excessive/Deficient Energy Deployment Charges as outlined in MISO BPM-002 Energy and Operating Reserve Markets.
7. RTOE overrides are meant to be used as a temporary measure and are designed to be superseded, if submitted by the MP, when Market Portal updates take effect. RTOE overrides, MP or MISO G&I Operator-submitted, take effect in the following UDS case. The MP should update RTOE with correct parameters as soon as practicable, in no case more than 15 minutes subsequent to a unit derate condition or the inability to follow setpoint. MP should update the Market Portal Offer no later than 30 minutes before the end of the second market hour of the override's implementation, to allow the Market Portal Offer to supersede the RTOE override in the most efficient timeframe possible. Future hour updates should also be made as necessary to be reflected in future hour Reliability assessments.
8. If operating conditions are unknown or uncertain, the GOP should use RTOE to set the unit off control or update offers with best estimates of the unit's capabilities while operating conditions are investigated and addressed. RTOE should continue to be used as conditions change or more certain information becomes available.

9. Specific details related to overrides submitted via the Market Portal are discussed in greater detail throughout this procedure; however, the following apply to all overrides submitted through the Market Portal:
 - A. Offer Parameters are organized in nine independent sets. Complete sets must be submitted when requesting an override. See chart in Attachment 1 — Market Portal Parameter Sets for description of these offer sets.
 - B. MP will receive a JSON acknowledgment of a successfully submitted override.
 - C. Overrides submitted via the RTOE will expire after two market hours.
 - D. When MP-submitted RTOE overrides expire, parameters in the Market Portal offers again become active. Also, when the Market Portal is updated, these updates take effect, based on the timing as shown in Figure 2: Example of Timing for Overrides. The MP-submitted RTOE overrides are then superseded by the new Market Portal parameters.

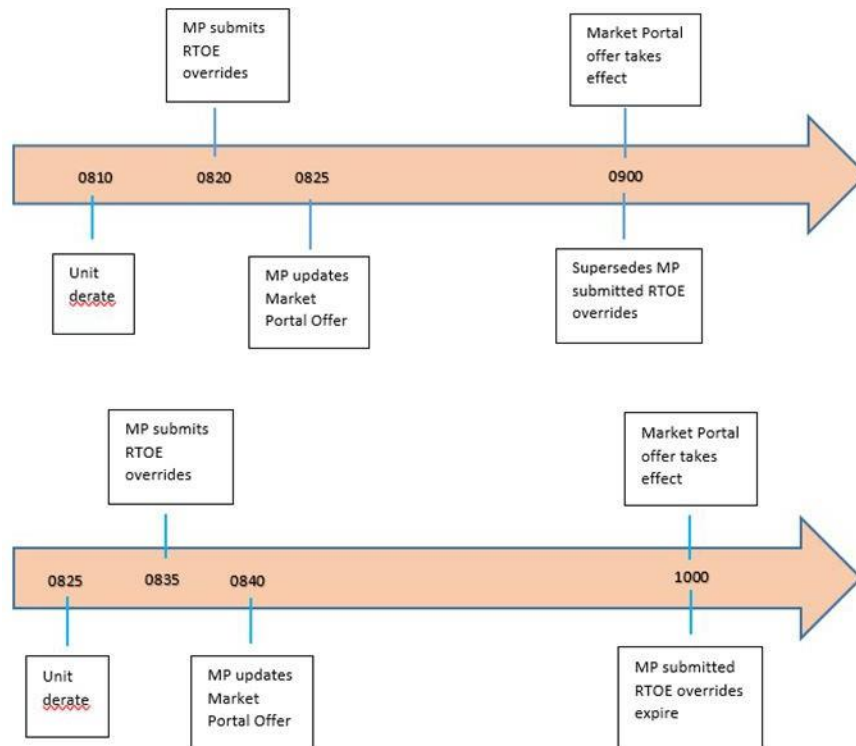


Figure 2: Example of Timing for Overrides

- Market Portal offers submitted prior to clock time (:30) become active at the top of the hour (:00).
 - Market Portal offers submitted between the bottom of the hour (:30) and the next top of the hour (:00) do not become active until the top of the following next hour--potentially up to 1:30 min later.
- E. MPs will receive a JSON message 15 minutes before an override is set to expire.
- F. Any set with a MISO G&I Operator override in place will not be available for MP overrides through the Market Portal. Any changes to parameters in that set will need to be requested through a phone call to the MISO G&I Operator.

3.2 Excessive Deficient Energy Deployment Charges

1. All resources are not evaluated for Excessive Energy (EXE)/ Deficient Energy (DFE) if they are Off Control; therefore, this should eliminate the need for EEEF requests while operating in this status.
2. Dispatchable Intermittent Resources (DIRs) are not evaluated for EXE/ DFE when using MISO forecast, unless dispatched below that forecast value for congestion management.
3. EEE flags (EEEFs) are granted per BPM-002 Energy and Operating Reserves Markets and MISO Energy Market Tariff as requested.

4. The primary means for entering EEEF is for the MP to enter via RTOE, with the back-up means being verbal communication with MISO G&I Operator (e.g., RTOE unavailability).
5. EEEF entered by the MP will be provided for no more than the current and next Market Hours (up to two hour endings), to provide the MP enough time to update the Resource Offer.
6. Resource Market Portal Offers should be updated as soon as possible, per Tariff requirements, at least 30 minutes before a market hour so that updated parameters will be used for market clearing in that hour. In addition, the Offer parameters on the RTOE should be updated no later than 15 minutes following the end of conditions that led to a resource's being placed off control, to enable MISO to place the resource back on control as soon as possible, and to remove the EEE. MPs shall communicate with MISO G&I Operator if certain situations make these guidelines not achievable.
7. For abnormal situations lasting more than two hours, EEEF requests may be coordinated with MISO G&I Operator.
8. EEEFs will be automatically granted in the Market Settlement System for Manual Redispatch (MRD)/CAPs and for normal Resource startups and shutdowns.
9. MISO will only grant EEEF for the startup of the entire Offered Resource, not individual components (i.e., combined cycle aggregates vs. children).
10. EEEFs are manually granted only for Resources that are within an active MISO commitment period, unless a resource is conducting commissioning testing.
11. Attachment 3 — Excessive/Deficient Energy Deployment Charge Exemption flag (EEEF) Conditions provides a list of examples of when and when NOT to grant EEEF.

3.3 Control Mode

1. MP is required to change the Control Mode to match their operating capabilities.
 - 0 = Offline (indicates Resource is NOT available to the market)
 - 1 = Online, NOT capable of regulating (indicates Resource is available for Dispatch Target for Energy and/or Contingency Reserve deployment)
 - 2 = Online, capable of Regulating (indicates Resource is available for Regulating Reserve Deployment, Dispatch Target for Energy, and/or Contingency Reserve deployment)
 - 3 = Off Control (indicates Resource is online but off control - Setpoint Instruction is an echo of the current MW reading)
2. Any time Control Mode is a 3 and Unit Dispatch System (UDS) has included the Resource in its solution, the Setpoint Instruction the MP receives will echo the State Estimator (SE) MW value.

3. MP should ensure the Control Mode is set to 3 any time the Resource is Off Control including during startup and shutdown or for testing and mechanical failure that impacts a Resources ability to follow dispatch.

4.0 Normal Operations

4.1 General Startup

1. Notification is not required to the MISO G&I Operator that the Resource is expected online to meet its DA start time or asking whether a Resource is still good to come online when the MP has already acknowledged the start in OI.
2. If DA commitment is delayed or interrupted, MP shall request MISO G&I Operator to enter start instruction when Resource is
3. Any Resource that has been issued and acknowledged a start instruction is expected to be online, at Economic Minimum, and Dispatchable at its start time.
4. If a Resource is expected to be delayed by more than 15 minutes, MP shall notify MISO G&I Operator 30 minutes prior to start time.
5. Upon breaker closure, the MP will verify that MISO is dispatching the Resource in accordance with its declared Control Mode by performing the following:
 - A. Verify Resource's Control Mode (CTLM) is accurate.
 - B. Verify Resource's UDS Control Mode (UMOD) is not 0.
 - C. Verify receipt of Setpoint.
 - Setpoint/UMOD issues may be due to data update delay with various tools and UDS cases (10 to 15 minutes).
 - D. Contact MISO G&I Operator to resolve Resource setpoint or UMOD discrepancies.
6. Resources coming online for testing is covered in Section 2.2.4 Resource Testing.
7. If a Resource is Dispatchable and does not have a MISO issued start instruction, the MP shall request the MISO G&I Operator to enter a run-by-company (R-COMP) start instruction.
 - A. Resources that are currently performing commissioning testing shall not offer themselves into the market (Day Ahead or Real Time) until they have officially declared themselves commercial.
8. If a Resource will be Dispatchable prior to the original start instruction, MP may request the MISO G&I Operator to issue the Resource a new R-COMP start instruction.

9. If a Resource fails to start or trips during startup and is unable to meet its commitment, the MP shall notify MISO G&I Operator and request an Unavailable by Company (U-Unavail by Co) stop instruction.
10. At scheduled Resource start instruction, the MP will perform the following checks:
 - A. Verify Resource's CTLM is accurate.
 - B. Verify Resource's UMOD is accurate.
 - C. Verify receipt of Setpoint is in alignment with offer parameters.
 - D. Contact MISO G&I Operator to resolve Resource setpoint or UMOD discrepancies.
11. If an MP receives a MISO start instruction and chooses not to start for economic reasons, the MP shall notify MISO no later than 10 minutes prior to the start time and request a Cancel by Company Stop (A-Cancel Co) due to economics.

4.2 General Shutdown

1. If an MP is within a MISO commitment period and chooses to stop for economic reasons, the MP shall notify MISO no later than 10 minutes prior to the requested stop and request an A-Cancel Co stop due to economics.
2. When a Resource is having an issue and needs to ramp offline, the MP shall request a stop time for the start of the ramp.
3. If the stop time will be delayed by more than 15 minutes, MP shall notify the MISO G&I Operator 30 minutes prior to original stop time for the Resource and request an R-COMP start instruction with a new stop time.
4. MP should set the CTLM to 3 at stop time, to indicate the Resource is off control.
5. Once the Resource is offline, the MP will perform the following checks:
 - A. Confirm the Resource is offline.
 - B. Set Resource Control Mode to 0.
 - C. MISO G&I Operator notification is not required.

4.3 Resource Derate

1. Pursuant to the MISO Tariff, the values in Offers shall reflect the actual known physical capabilities and characteristics of the Generating Resource or Demand Response Resource (DRR), Stored Energy Resource (SER), External Asynchronous Resource (EAR) and Electric Storage Resource (ESR) on which the Offer is based.
2. For a planned derate, MP shall perform the following at least 3 hours in advance of the start of the affected hour:
 - A. Ensure the derate is properly designated in the Outage Scheduler when BPM-008 Derate Threshold is reached.
 - B. Enter limits that reflect the derate through the Market Portal.

3. For an unplanned derate, MP shall perform the following:
 - A. Update Real Time Offer Parameters via RTOE with the new declared minimum and maximum values.
 - B. If RTOE is unavailable, make updates as follows:
 - 1) Notify MISO G&I Operator the Resource is being derated and reason for the derate.
 - 2) Declare new Minimum and Maximum values and Request MISO G&I Operator to enter manual overrides.
 - 3) Update Offer limits in the Market Portal when available and Request MISO G&I Operator remove the override.
 - C. Ensure the derate is properly designated in the Outage Scheduler when BPM-008 Derate Threshold is reached.
4. Overrides for Emergency/Economic/Regulation Maximum and Minimum shall primarily be entered by MP via RTOE.
 - A. The initial RTOE entry should be made as soon as practically possible, but at least within 15 minutes subsequent to a unit derate condition, or the inability to follow setpoint. If the plant conditions are unstable or the plant is otherwise unable to follow setpoint and the new limits are not yet known, then the unit should be set to off control with EEE flag, if applicable.
 - B. Once the plant stabilizes and capabilities are better known, the MP should submit an RTOE entry within 15 minutes to update the offer parameters to match plant capabilities, place unit back on control, and remove the EEE flag, if applicable. Enter the derate in the Outage Scheduler.
 - C. Subsequent to the submission of an RTOE override within 15 minutes after the unit derate, or inability to follow setpoint, that necessitated the override, MP should update the Market Portal Offer no later than 30 minutes before the end of the second market hour of the override's implementation, to allow the Market Portal Offer to supersede the RTOE override in the most efficient timeframe possible. Otherwise, if a Market Portal Offer is updated less than 30 minutes before the end of the second market hour of the override's implementation, the override will expire at the end of the second market hour, and the updated Offer parameters will not yet be effective in the third market hour following the start of the override.
 - D. When updated Portal offers take effect, MP shall ensure RTOE override has been terminated.
 - 1) If MISO G&I Operator entered overrides, MP shall request MISO G&I Operator to remove the override.
 - 2) If an MP entered the RTOE override, the portal offer parameters shall take effect at the time based on Figure 2: Example of Timing for Overrides, superseding the RTOE override, or when the RTOE override expires on the 2nd hour ending following submission.

4.4 Resource Testing

1. MP shall request approval from MISO G&I Operator at least 30 minutes prior to the start of the test to allow the MISO Reliability Coordinator (RC) to perform reliability assessment for system impact.

2. MP shall provide the MISO G&I Operator with the following test information:
 - A. Type of testing will be done (RATA, commissioning, emissions, etc.).
 - B. Start time and duration of the test.
 - C. Nature of the test (MW impact and profile).
 - D. Availability to the MISO Market following testing.
3. If test is not approved, coordinate with MISO G&I Operator to reschedule test.
4. If test is approved, proceed with test as agreed upon.
5. MISO G&I Operator approval is required for any deviation from agreed upon testing parameters.
6. MISO may cancel test at any time to ensure system reliability.
7. MP is responsible for updating resource offer parameters to support testing.
8. If post-testing Economic availability has changed, MP shall notify MISO G&I Operator of availability status.
9. Upon test completion, if Resource will be available to the MISO Market, MP shall notify MISO G&I Operator for evaluation.
10. MISO may issue an R-COMP start instruction to available Resources for duration of the testing period and enter an EC commit status override for evaluation of potential MISO commitment.

4.5 Pumped Storage Resource Start/Stop

1. A Pumped Storage Resource may undergo multiple start and stop operations each day. Because Pumped Storage Resources have high ramp rate during startup and shutdown advance notification and coordination is required to assist with managing dispatch.
2. Pumped Storage MP shall notify the MISO G&I Operator a minimum of 10 minutes prior to breaker open or close including the following information:
 - A. Pumped Storage Resource Identification
 - B. Start Time
 - C. Stop Time, if applicable
 - D. Pump or Generation Mode

5.0 Abnormal Operations

5.1 Resource Ramping Offline

1. When a Resource will begin ramping offline due to an equipment failure, the MP shall:
 - A. Notify MISO G&I Operator, as soon as possible, with the following information:
 - 1) Cause of Resource coming offline.
 - 2) When Resource will begin ramping offline.
 - 3) Duration of ramp off.
 - B. Request a U-Unavail by Co stop instruction for the time the Resource begins ramping offline.
 - C. Update Offer availability.
 - D. Update availability in the Outage Scheduler.
 - E. Verify the Control mode is 3 during the ramp, and 0 once it reaches offline.
 - F. Coordinate with MISO G&I Operator to remove future start instructions, if necessary.
2. Combined cycle Resources, in aggregate mode, that are derated from an individual Resource ramping offline, but a portion remains on line is handled as a Resource derate per 2.2.3 Resource Derate.

5.2 Resource Trip

1. When a Resource has tripped offline for any reason, the MP shall:
 - A. Notify the MISO G&I Operator as soon as possible, but no later than two minutes, with the following information:
 - B. Confirmation of the trip.
 - C. Reason why the Resource has tripped offline, if known.
 - D. Estimated time of Return, if known.
 - E. Request stop instruction for the time the Resource tripped offline.
 - F. Update Offer availability.
 - G. Update availability in the Outage Scheduler.
 - H. Verify the Control mode is 0.
 - I. Coordinate with MISO G&I Operator to remove future start instructions, if necessary.
2. Combined cycle Resources, in aggregate mode, that are derated from an individual Resource ramping offline, but a portion remains on line is handled as a Resource derate per Section 2.2.3 Resource Derate.

5.3 Setpoint Outside Resource Limits

1. If the Setpoints received by the MP are outside the Resource's limits, the MP shall:
 - A. Notify the MISO G&I Operator and state the Resource is receiving Setpoints outside the Offered limits.
 - B. Coordinate with MISO G&I Operator to verify Resource output MW, AGC Setpoint, Control Status, and Offered limits being provided to MISO.
 - C. Coordinate with MISO G&I Operator to take actions to alleviate setpoint deviations (including but not limited to internal MISO actions or MP actions including Energy Management System (EMS) overrides, RTOE overrides, Control Mode changes, etc.).

5.4 Resource Not following Setpoint

1. When Resources cannot follow the MISO generated setpoint, the MP shall notify MISO of the limitation, and update the offer parameters in RTOE to reflect current resource capabilities, or set to off control with the EEE flag, if applicable, as soon as possible, at least within 15 minutes subsequent to the inability to follow setpoint.
2. If the unit was placed off control, once the plant stabilizes and capabilities are better known, the MP should submit an RTOE entry within 15 minutes to update the offer parameters to match plant capabilities, put it back on control, and remove the EEE flag, if applicable. MP should update the derate in the Outage Scheduler, if applicable. Update Portal offer as soon as practicable (if possible, at least 30 minutes before the end of the market hour when the RTOE was updated to place the unit back on control) so it will supersede the RTOE override in the most efficient timeframe possible.
3. For DIRs, when the Forecast Max is greater than Actual Output capability of the Resource, the delta will not cause a DIR to be taken Off Control.
 - A. If the delta between Forecast Max and Actual Output stays significantly large, the contact entity should expect a call to provide a more accurate forecast.
 - B. Forecast Max is used in other tools in MISO's processes to show MISO's total available capacity.
 - C. Unless the DIR is being dispatched down for a constraint or is being MRD it is assumed that the Resource will be at Forecast Max.

5.5 Resource Receives an Uninstructed Deviation Enhancement (UDE) Flag

1. Resources will follow their setpoint when receiving a UDE Flag. A UDE Flag will be sent via ICCP with a single reason code, which based on an ascending order listed below.
 - A. Reason Code 1: Resource is using its own forecast, so needs to follow dispatch.
 - B. Reason Code 2: Resource has a significant impact on a constraint and needs to follow dispatch.
 - C. Reason Code 3: Resource is being economically dispatched below ECO MAX, and needs to follow dispatch.
 - D. Reason Code 4: Resource has been issued a CAP and needs to follow dispatch. This is an Operating Instruction.

- E. Reason Code 5: Resource has been issued an MRD and needs to follow dispatch. This is an Operating Instruction.
- F. Reason Code 6: Resource has been issued an Operating Instruction to follow setpoint.

6.0 Reliability and Contingency Reserve Deployment (CRD)

6.1 Reliability Parameter Adjustments

- 1. MISO RC reserves the right to limit a Resource parameters based on reliability assessment of system conditions and corrective actions necessary to alleviate adverse system conditions. Some actions may include, but are not limited to, MRD, CAP, and Ancillary Services dispatch status qualification.
- 2. Upon receipt of an MRD or CAP Operating Instruction, MP shall immediately move Resource to MRD dispatch targets or within the CAP limitation.
- 3. MISO may issue reliability commitments, such as P-Txx, P-VLR, P-SSR, to maintain system reliability.

6.2 Contingency Reserve Deployment (CRD)

- 1. When Resource has cleared spinning Contingency Reserves and a CRD is issued, MP shall follow Contingency Reserve Deployment instruction.
- 2. When Resource has cleared Offline Supplemental Contingency Reserves and a CRD is issued, MP shall ramp up to Contingency Reserve Deployment instruction within 10 minutes.
- 3. Failure to comply with Contingency Reserve Deployment instructions is outlined in BPM-002 Energy and Operating Reserves

7.0 Definitions

- 1. Control Mode - The Resource control status that MISO receives.
- 2. Derate Threshold - Seasonal capability being reduced greater than or equal to 10% and greater than 5MW, or greater than or equal to 50MW.
- 3. Dispatchable Intermittent Resources - A Generation Resource whose Economic Maximum Dispatch is dependent on forecast-driven fuel availability.
- 4. Economic Maximum (ECO MAX) - per MISO Tariff, is the maximum achievable MW levels at which a Resource may be dispatched by the UDS in real time under normal system conditions for an Hour on a particular
- 5. Operating Day.
- 6. Excessive/Deficient Energy Deployment Charge - A charge assessed to any Resource in an Hour with Excessive Energy and/or Deficient Energy in four or more consecutive Dispatch Intervals within the Hour.
- 7. Intermittent Resource - A Resource that is not capable of being committed or decommitted by, or following Setpoint Instructions of, the Transmission Provider in the Real-Time Energy and Operating Reserve Market.

8. Off Control - A Resource is unable to follow energy, spin, and regulating dispatch instructions.
9. Pumped Storage Resource - generator/pump used to store energy during low load periods for the use of generation during high load periods, which may undergo multiple start and stop operations each day.
10. Resource - Either a Generation Resource, a DRR-Type I, a DRR-Type II, DIR, Intermittent Resource, a Stored Energy Resource an External Asynchronous Resource or an Electric Storage Resource.
11. Start Instruction - The beginning of a commitment period, issued by MISO in the Day-Ahead Energy Market or Real-Time Energy Market, that indicates when the Resource should be online, at Economic Minimum, and available to respond to dispatch instructions as defined in MISO BPM-002 Energy and Operating Reserve Markets.
12. Start-Up Notification Time - The amount of notification time required by a Resource prior to the initiation of start-up procedures or the amount of notification time required for a DRR-Type II prior to the initiation of demand reduction procedure.
13. Start-Up Time - The number of hours required to start a Resource or DRR Type – II, synchronize with the MISO Region and ramp up to Hourly Economic Minimum Limit consistent with the Applicable Reliability Standards.
14. Stop instruction - The end of a commitment period, issued by MISO in the Day-Ahead Energy Market or Real-Time Energy Market, that indicates when the Resource is released from following Dispatch Instructions, not when the Resource should be offline.
15. UDS Control Mode - The control status that MISO's UDS sends to the Resource.

8.0 References

8.1 MISO References

1. BPM-001 Market Registration
2. BPM-002 Energy and Operating Reserves Markets
3. BPM-005 Market Settlements
4. BPM-008 Outage Operations
5. MISO Open Access Transmission and Energy Markets Tariff
6. Post Operating Processor Calculation Guide
7. SO-P-NOP-00-459 Automatic Reserve Sharing Procedure

Attachment 1 — Market Portal Parameter Sets

Table 1: Market Portal Parameter Sets

Set	Gen/DRR2/EAR Parameters	SER Parameters	DRR1 Parameters
Run Times	Notification time		Notification time
Operating Limits	EcoMin, EcoMax, Reg Min, Reg Max, Emergency Min, Emergency Max	Reg Min, Reg Max	Target Demand Reduction MW
Offline Response	OfflineRespMax		OfflineRespMax
Ramp Rates	RR Up, RR Down, Reg RR (bi-directional)	Reg RR	RR Up, RR Down
Self Schedules	SelfMWEnergy, SelfMWSpin, SelfMWOnline Supp, SelfMWReg, SelfMWofflineSup		SelfMwEnergy, SelfMWSpin, SelfMWOnlineS upp
Dispatch Status	Energy Dispatch Status, Reg status, Spinning Reserve Status, Online Supp Statu		
Commit Status	Energy Commit Status	Commit Status	Energy Commit Status
Off Control, EEE Flag	OffControlFlag, EEE Flag	Off Control, EEE Flag	Off Control, EEE Flag

Table 1: Market Portal Parameter Sets

Set	Gen/DRR2/EAR Parameters	SER Parameters	DRR1 Parameters
Fast Ramp Resource	Fast Ramp Resource	Fast Ramp Resource Fast Ramp Neutral Zone Upper Limit Fast Ramp Neutral Zone Lower Limit	Fast Ramp Resource

Attachment 2 — Start/Stop Instruction Codes

START REASON	DESCRIPTION
P-Economic	Unit scheduled for econ
P-MISO	Unit Control - MISO
R-Comp	Unit Control - MP
P-Area - Min (NOT USED)	Local Contingency - Unit at Econ Min
P-Area - Max (NOT USED)	Local Contingency - Unit at Econ Max
Reduction-Environ (NOT USED)	Unit limited - Enviromental
Reduction-Ticket (NOT USED)	Unit limited - De-rate
P-Condense (NOT USED)	Unit synchronized - condensing for MISO
P-Spinning (NOT USED)	Unit called to load - ARS Event
P-T-xx	Unit min load - Transmission support
P-Run Thru MISO	Unit - MISO dispatched
R-Run Thru Co	Unit Must Run by MP
P-CRD	Offline Supp Deployment
P-Voltage	Pool Commit
R-CRD - Must Run	Spin Deployment
P-DA Delayed EC	DA Delayed Start-ECO
R-DA Delayed MR	DA Delayed Start-MR
P-SSR	System Support Resource
P-SRPB	Unit Control - SRPB

STOP REASON	DESCRIPTION
U-Unavail by Co	Unit made unavailable by MP
U-FTS	Unit Failed To Start
U-Equip Trip	Equipment tripped
U-Trip	Unit Trip
A-Released	Unit released - economics
A-Cancel Co	Unit MISO sched cancelled by MP
A-Cancel MISO	Unit MISO sched cancelled by MISO

Attachment 3 — Excessive/Deficient Energy Deployment Charge Exemption flag (EEEEF) Conditions

1. Examples of when not to give a EEEF include the following:
 - A. When a Resource does not reach setpoints after each five minute interval and is not having an equipment issue.
 - B. When a Resource is performing an unapproved test.
 - C. If a Resource does not have AGC capability.
 - D. A DIR is not moving towards their forecast based setpoint.
 - E. Routine equipment changes.
2. Examples of when a EEEF can be issued, upon request, include the following:
 - A. Equipment Failure - Any loss of equipment that requires a derate or loss of AGC dispatch.
 - B. Operator Action - Emergency actions taken to protect personnel or equipment.
 - C. Weather - Extremely high wind or other weather-related conditions materially impacting a DIRs ability to provide energy and resulting in a substantial reduction or cessation of wind generation activities.
 - D. Air/Gas Systems - Internal air/gas system issues.
 - E. Boiler Tube Leak - Resource loses it's ability to be dispatched until the point the Resource has to come offline.
 - F. Condenser Tube Leak - Resource loses it's ability to be dispatched until the point the Resource has to come offline.
 - G. Pulverizer - Resource loses it's ability to be dispatched until the Resource restores or replaces the pulverizer.
 - H. Pump - Resource loses it's ability to be dispatched due to boiler feed pump issue.
 - I. EPA Regulation - Resources that have emissions or water discharge temperature problems.
 - J. Fuel Transportation/Supply Issues - Gas or coal supply curtailments or limitations.
 - K. Fuel Quality - Wet coal, dirty coal, etc.
 - L. Transmission System Limitation - Generation cap.
 - M. RC Approved Testing.
 - N. Other - Internal chemistry issues, step-up transformer temperature, or any issue outside of operator control.