

MISO Program Snapshot

- **Load Modifying Resource**
- **Demand Response Resource (DRR) - Energy Market Participation**
- **Demand Response Resource (DRR) - Ancillary Services Market Participation**

Program Parameters	Load Modifying Resource
Location	Ameren Illinois and Michigan (MI limited to only customers taking electric service through an Alternative Energy Supplier)
Minimum Size	100 kW (Grouping is allowed).
Participation	Customer may participate in each Season. The Seasons are Summer (Jun-Aug), Fall (Sep-Nov), Winter (Dec-Feb), and Spring (Mar-May). Customers may elect different curtailment capabilities by Season.
Number & Duration of Events	In Summer and Winter, customers must be able to curtail up to five (5) times per Season, while in Fall and Spring, customers must be able to curtail up to three (3) times per Season. In total, customers participating in all Seasons must be available for up to sixteen (16) events per year. Each event may last up to four (4) hours.
Notification	Customer may elect to receive 2-6 hours notice prior to an LMR event. However, notification times longer than 2 hours require additional documentation to support the extended notice time.
Compensation	Program capacity payment incentives vary year-over-year, and pricing may vary from Season to Season within a given year.
Baseline	LMRs may use either a Firm Service Level (FSL) or Demand Reduction baseline option. FSL is a "drop to" measurement, with performance based upon the difference between the LMR's Seasonal Peak Load Contribution and the FSL. Several consumption-based baseline options exist for measuring Demand Reductions, including the option to develop a custom baseline methodology.
Settlements	Customers are paid annually their portion of the capacity payments.
Compliance	Customers are required to curtail at least their committed load during tests and events.
Consequences of Non-Performance	Penalties for failure to respond or to reach target. Penalty = LMP * Shortfall, plus potential to lose capacity payments for months remaining in the Planning Year. Multiple performance failures may result in being denied participation in future years.
Testing	1-hr test required if no events are called. Option to forego test and supply supporting documentation of curtailment plan and expected load reduction, however, if electing this option, non-performance penalties will be tripled.
Enrollment Deadline	February 1 for a June 1 start.
Metering	Each account must have a hourly interval meter either through their utility or CPower. Generation resources must be directly metered.

Program Parameters	Demand Response Resource (DRR) - Energy Market Participation	Demand Response Resource (DRR) - Ancillary Services Market Participation
Location	Ameren Illinois and Michigan (MI limited to only customers taking electric service through an Alternative Energy Supplier)	Ameren Illinois and Michigan (MI limited to only customers taking electric service through an Alternative Energy Supplier)
Minimum Size	1 MW (Grouping is allowed).	1 MW (Grouping is allowed).
Participation	Bids are submitted daily into the Day-Ahead and/or Real-Time markets on an hourly basis.	Bids are submitted daily into the Day-Ahead and/or Real-Time markets on an hourly basis.
Number & Duration of Events	Must be available to curtail amount offered as available for the maximum number of hours indicated in daily offers.	Must be available to curtail amount offered as available for the maximum number of hours indicated in daily offers.
Notification	Customers participating in the Day-Ahead market will receive hourly schedules based upon awarded offers once the Day-Ahead market clears. Customers may adjust schedules in the Real-Time market.	Customers participating in the Day-Ahead market will receive hourly schedules based upon awarded offers once the Day-Ahead market clears. Customers may adjust schedules in the Real-Time market. Customers must be available within the notification time for the ancillary service product for which bids have been submitted (10 or 30 minutes for reserve products).
Compensation	Paid the Day-Ahead LMP for hours during which offers submitted have cleared (subject to the Net Benefits Threshold test).	Paid based the Day-Ahead market clearing price for the applicable ancillary services product offered x MW offered/awarded, plus energy payments for MWh delivered when dispatched.
Baseline	DRRs (Type 1) use a Demand Reduction (consumption) baseline calculated for each hour when scheduled to provide energy, with optional adjustments for weather sensitivity or other anomalies (maximum of +/-20% Weekday baselines are based upon the average of the metered load from the ten (10), but no less than five (5), most recent eligible weekdays from the past 45 days. Weekend/Holiday baselines are based upon the average of the metered load from the four (4), but no less than two (2), most recent eligible weekend days or holidays from the past 45 days. Customers utilizing generation must have their generator separately metered, and the metered generator output will be subtracted from the Demand Reduction described above.	DRRs (Type 1) use a Demand Reduction (consumption) baseline calculated for each hour when scheduled to provide reserves, with optional adjustments for weather sensitivity or other anomalies (maximum of +/-20% Weekday baselines are based upon the average of the metered load from the ten (10), but no less than five (5), most recent eligible weekdays from the past 45 days. Weekend/Holiday baselines are based upon the average of the metered load from the four (4), but no less than two (2), most recent eligible weekend days or holidays from the past 45 days. Customers utilizing generation must have their generator separately metered, and the metered generator output will be subtracted from the Demand Reduction described above.
Settlements	Customers are paid annually their portion of the net energy market payments for all hours in which the DRR has cleared offers in the energy market.	Customers are paid annually their portion of the net ancillary service and energy payments for all hours in which the DRR has cleared offers in the ancillary services market.
Compliance	Customers are required to curtail at least their committed load (offered daily) during hours in which offers have cleared.	Customers are required to curtail at least their committed load (offered daily) during events.
Consequences of Non-Performance	Penalties are assessed for underperformance when dispatched for energy. Penalties are calculated hourly, with the formula (Scheduled MW - Delivered MW) x Real-Time LMP.	Penalties are assessed for underperformance when dispatched for reserve products. Penalties are calculated hourly, with the formula (Scheduled MW - Delivered MW) x Real Time LMP.
Testing	DRR (Type 1) participating in the energy market must complete a pre-qualification test prior to entering the market, and are subject to annual testing requirements once participating.	DRR (Type 1) participating in the ancillary services market must complete a pre-qualification test demonstrating ability to respond within the notice time applicable to the ancillary services product(s) for which it intends to qualify prior to entering the market, and are subject to annual testing requirements once participating.
Enrollment Deadline	Rolling deadline of 30-days prior to the MISO Commercial Model Update that falls on the first day of the first month of each calendar quarter	Rolling deadline of 30-days prior to the MISO Commercial Model Update that falls on the first day of the first month of each calendar quarter
Metering	DRR (Type 1) must have a 5-min interval meter either through their utility or CPower. Generation resources must be directly metered.	DRR Type 1 must have a 5-min interval meter either through their utility or CPower. Generation resources must be directly metered.