

## **Type 2: RTO/ISO Accredited Demand Response Resources**

1. Type 2 accreditation is an option for the Member where it is in lieu of Member control. Control by any entity other than the RTO/ISO is prohibited.

### **Eligibility Requirements**

1. At the current time only MISO has procedures which allow for the Accreditation of Demand Response Resources. As a result only Demand Response Resources in MISO will be allowed under this option. The qualifying generation must meet all eligibility criteria listed in the written procedure for Behind the Meter Generation (BTMG) Qualification Requirements.
2. The attached "Behind the Meter Generation (BTMG) Registration" application must be reviewed and completed by the Member and accepted by Basin Electric, plus any and all applicable registration forms and information required by the Regional Transmission Organization (RTO) or Independent System Operator (ISO) for the controllable resource must be filled out, submitted to, and accepted by the RTO/ISO.
3. The qualifying resource must be within the RTO/ISO market and meet all of their requirements.
4. The start of term for the qualifying resource must be at the beginning of the RTO/ISO planning period
  - a) For MISO the Planning Period would be June 1<sup>st</sup> through May 31<sup>st</sup>, with a registration deadline by November 1<sup>st</sup> prior to the start of the planning period of interest. MISO will review the registration and send approval within 15 days if approved.
  - b) Interruptible resource accreditation is not yet available in SPP.
5. The benefits of this rate will be made available on an annual basis.
6. The qualifying generation purchased under this rate shall be considered a Basin Electric point of delivery under the all-requirements contract. Therefore, the generation purchased under this rate shall be added to Basin Electric's monthly power deliveries prior to determining Basin Electric billing under Rate Schedule A.

### **Rate**

Payment is subject to Basin Electric accrediting the generation.

If Basin Electric incurs a financial penalty from MISO or host Market Participant, the penalty will be passed through to the Member.

### **Billing/Metering**

The monthly billing shall be computed in accordance with the following procedure:

1. The Member shall be responsible for all metering costs. The qualifying generation power output usage, whether served by the Member or the BTMG, must be determined via 30 minute time registration demand meters. All meters shall be tested and calibrated annually.
2. Each month of the year, prior to completion of the Member's monthly billing, the Member shall provide to Basin Electric the 30-minute generation and load data and total monthly energy usage and production for all loads and generation for which the Interruptible Rate is requested.
3. Failure to provide such data shall result in the Member being billed at Basin Electric's Base Demand and Energy rate except for those situations where the data is not available due to equipment failure. If the metering equipment should malfunction, the Member shall be billed by Basin Electric using the best information available. Basin Electric will be the sole judge of the metering quantities in these situations.

4. Monthly base rate demand billing will be waived on the lesser of 65% of the RTO accredited amount or the qualifying load level at the time of the Class A Member's monthly billing peak.

# Behind The Meter Generation (BTMG) Registration

(Application Deadline: No later than November 1, previous year of upcoming Plan Year.)

## General Information:

Plan Year: June 1, 20[ ] through May 31, 20[ ]

Auction: Annual

BTMG name: [ ] (20 char. Max)

Description: [ ] (250 Char. Max)

Registration asset owner: [ ]

Load Balancing Area: [ ]

## Capability:

Demand Reduction Capability at MISO Peak (Calculated)

[ ] (MW)

If BTMG is greater than 10 MW:

XEFORd:

Calculated: [ ]

Override: [ ]

Transmission Loss Percent (defaults to value from Coincident Peak Forecast): \_\_\_\_\_

GADS Generators: [ ]

## NERC Reporting:

### BTMG Capability Forecasts (First year is calculated)

PY	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1												
2												

### Seasonal levels (MW)

PY	Sum	Win
3		
4		
5		
6		
7		
8		
9		
10		

Availability: 5 events Runtime hours: 4

## Operations:

Locations

City: [ ] County: [ ] State: [ ]

M&V Protocol to be applied to this BMTG:

Metering Generator Output [ ]

### Startup Notifications Time Details:

Hours	Minutes	From (EST)	To (EST)	Days	Description

**Notifications:**

I certify that I have all permits in place to operate this resource

I certify that I hold all rights necessary to operate this resource

Resource operator contact name (24x7) (150 characters max):

Resource operator contact phone (24x7):

Resource operator contact e-mail (24x7):

**Acceptance:**

By registering this resource, Registrant understands that MISO’s approval of the registration applies to the Resource’s ability to participate in MISO’s Resource Adequacy Construct based on information accompanying the registration. An “approval” by MISO does not, however, alter the performance expectations stated in MISO’s tariff nor does it approve or accept any operating restrictions that this Resource may have pursuant to any practice, rule, regulation, tariff or contract. In the event Emergency conditions warrant deployment of this Resource, performance evaluation will be based solely on the expectations and criteria set forth in the terms and conditions in MISO’s tariff. Any conditions, outside those listed in MISO’s tariff, will not be considered in the Resource’s performance evaluation and as such, should be considered as a risk of participation for the Asset Owner.

Please review MISO’s Tariffs and Business Practices Manuals, which are located on the website below, prior to committing the resource to the Resource Adequacy Construct. As always, feel free to email MISO’s Resource Adequacy Team at [radequacy@misoenergy.org](mailto:radequacy@misoenergy.org) with any additional questions.

Registrant accepts the terms and conditions of the MISO Tariff applicable to this resource.

**Contact Information:**

Primary contact name (150 characters max):

Primary contact phone:

Primary contact e-mail:

**Signature:**

**Name:**

**Title:**

**Member Cooperative:**

**Date:**

# BTMG Business Guide for Implementation

## BTMG Qualification Requirements

- BTMG can be available to provide energy with no more than 12 Hours advance notice from MISO or the Local Balancing Area (LBA) and sustain energy production for a minimum of four (4) consecutive Hours for 5 emergency events.
- BTMG is capable of being interrupted and available at least the first (5) times as needed during the Summer season by MISO or the LBA for emergency event purposes during the Planning Year.
- BTMG is equal to or greater than 100 kW (an aggregation of smaller resources that can produce energy may qualify in meeting this requirement if located in the same Local Resource Zone (LRZ)).
- Behind the Meter Generation must demonstrate Generation Verification Test Capacity (GVTC) on an annual basis.
- Submitting generator availability data (including, but not limited to, NERC GADS) into a database through the Market Portal for non-intermittent BTMG greater than or equal to 10 MW based on GVTC. Non-intermittent BTMG less than 10 MW based upon GVTC that begin reporting generator availability data must continue to report such information.
- Internal purchase power agreements (PPAs) will not be qualified by MISO.
- BTMGs that have been retired prior to the Planning Year will not qualify as a Planning Resource.
- If BTMGs used to meet Resource Adequacy Requirements retire or suspend during the Planning Year, they must be replaced effective with their change of status date.
- To the extent Basin Electric is not the Market Participant for the Member in MISO, the Member shall require their respective Market Participant register these BTMG with MISO and their Market Participant is required to enter into a MISO Zonal Resource Credit Transfer Agreement with Basin Electric in the amount of the Credit requested by the Member.
- To the extent that Market Participant does not have enough network load greater than the BTMG to offset, the BTMG will not qualify to be registered as a BTMG.

Maximum BTMG allowed to offset network load for MISO Planning Year 2020-2021					
CPnode	OTP.BEPC	MEC.BEPM.CPZD	ALTW.BEPM.CBLD	NSP.ERERPC	MDU.BEPC
MW	89.3	3.9	10.2	14.8	17.9
CPnode	GRE.NSP.GREC	GRE.GRE	GRE.ALTW	OTP.GRE	GRE.MP.GRE
MW	45.5	38.0	35.7	9.1	21.8

## BTMG Performance

All costs associated with the BTMG failure to perform shall be the responsibility of the Member. The Market Participant (MP) shall pass on costs it incurs because of the Member's BTMG failure to perform.

When a BTMG that either is used in a FRAP or cleared in a PRA fails to perform during an Emergency when given a Scheduling Instruction by MISO or the LBA, the penalties are calculated for each hour in which a BTMG fails to respond in an amount greater than or equal to the target level of generation increase as the sum of: (1) the product of (a) the amount of increased generation not achieved and (b) the LMP at the CPNode associated with the BTMG; and (2) applicable Revenue Sufficiency Guarantee (RSG) Charges. The amount of increased generation not achieved for BTMG is equal to the greater of: (1) the difference between (a) the target level of generation increase and (b) actual increased generation; and (2) zero. The applicable RSG Charges are equal to the product of: (1) the difference between (a) the target level of increased generation and (b) actual increased generation; and (2) the applicable RSG charges.

The revenues from charges resulting from BTMGs that fail to respond in an amount greater than or equal to the Scheduling Instructions shall be allocated, pro rata, to MPs representing LSEs in the LBA area(s) that experienced the Emergency, on a load ratio share basis.

For any situation where a BTMG does not increase generation in response to a Scheduling Instruction or where the resource is claimed to be unavailable as indicated in the MISO Communication System (MSC) as a result of maintenance requirements or for reasons of Force Majeure, MISO shall initiate an investigation into the cause of the BTMG not being available as needed during Emergency and may, if deemed appropriate, disqualify that resource from receiving ACP payments for that Planning Year. The BTMG may be called but not required to respond if the Emergency call is outside the resource's registration limitations (i.e. less than the registered time to respond, the event lasts longer than the registered duration, is made outside the Summer period; or the resource has reached its registered maximum number of deployments).

In the event the same BTMG does not sufficiently respond or is unavailable, except for reasons of Force Majeure or other acceptable reasons defined in the Tariff or in this BPM on a second occasion during a Planning Year (with a separation period of at least 24 hours), the MP that registered the BTMG will be subject to the penalties described herein (if that BTMG fails to increase generation to the level instructed). Such BTMG shall be assessed the same penalty as indicated above for its first performance failure, and the BTMG will no longer be eligible to receive ACP payments for the current Planning Year and for the next Planning Year.

If, in review of the BTMG's measurement and verification data following an Emergency, MISO determines that the MP has committed fraud to receive excess payments or avoid penalties, MISO will have the right to ban the MP or its customers from participation in the wholesale electricity markets, as well as, pursue other legal options at the sole discretion of MISO.

## **When to Perform and Submit a Generation Verification Test Capacity (GVTC)**

- Behind the Meter Generation (BTMG) that qualified as Planning Resources for the current Planning Year shall submit their GVTC no later than October 31st in order to qualify as a Planning Resource for the upcoming Planning Year. GVTC can be completed by completing a real power test or based on operational data. The GVTC must be completed during the test period of September 1st through August 31st prior to the upcoming Planning Year.
- A real power test is required to demonstrate a modification that increases the rated capacity of a unit, and a revised GVTC should be submitted to MISO no later than March 1st prior to the Planning Year. The initial GVTC should be submitted by October 31st prior to the Planning Year.
- A real power test is required when returning from a suspended state and the GVTC must be submitted to MISO. A real power test is required when any unit returns to MISO after an absence (including but not limited to, catastrophic events, or a period during which it was not qualified as a Planning Resource under Module E-1).
- A real power test is required for Planning Resources in an approved "Suspension" status. If a Planning Resource is unable to complete a real power test, the MP responsible for that Planning Resource must include this item, including timing and cost requirements, when requesting a facility specific reference level.
- The GVTC for a new or returning Non-Intermittent Generation resource is due by March 1st prior to the Planning Year. See Appendix J for links to MISO's GVTC Manual and processes.
- Reporting is accomplished through MISO's PowerGADS reporting system as described in Net Capability Verification Test User Manual

## **Appendix J – GVTC Testing Requirements**

- BTMG that intend to qualify as or being used as a Planning Resources are required to perform a real power test or provide past operational data that meets these requirements to determine its GVTC and submits its GVTC data to MISO's PowerGADS.
- If a Planning Resource fails to perform a real power test during the testing period and report the test information to MISO's PowerGADS by the reporting deadline, it will result in the Planning Resource not qualifying as a Planning Resource and will receive zero (0) UCAP MWs for the upcoming Planning Year.

### **J.1 Generation Verification Test Capacity (GVTC)**

- The maximum Energy output (MW) that a Behind the Meter Generation (BTMG) can sustain over the specified period of time, if there are no equipment, operating, or regulatory restrictions, minus any Capacity utilized for the units station service power.

### **J.2 When to Perform and Submit a Generation Verification Test Capacity**

- Behind the Meter Generation that qualified as Planning Resources for the current Planning Year shall submit their GVTC no later than October 31st in order to qualify as a Planning Resource for the upcoming Planning Year. The real power test shall be performed or past operational data must be provided during the test period between September 1st and August 31st prior to the upcoming Planning Year

- A real power test is required to demonstrate a modification that increases the rated capacity of a unit, and then submit the revised GVTC.
- A real power test is required when returning from a suspended state and then submit the GVTC
- A real power test is required when any existing or new unit returns to MISO after an absence (including but not limited to, catastrophic events, or not qualified as a Planning Resource under Module E-1) or being qualified as a Planning Resource for the first time
- A real power test is required for Planning Resources in an approved “Suspension” status. If a Planning Resource is unable to complete a real power test, the MP responsible for that Planning Resource must include this item, including timing and cost requirements, when requesting a facility specific reference level.

### J.3 Adjustment to establish the GVTC

- The GVTC shall be temperature corrected to the average temperature of the date and times of MISO’s coincident Summer peak, measured at or near the generator’s location, for the last 5 years. MISO publishes the date and time of the past 5 annual coincident Summer Peaks. When local weather records are not available at the plant site the values shall be determined from the best data available (i.e. local weather service, local airports, river authority, etc.).

The adjustments required to establish the GVTC of a unit include, as appropriate for each electric generating technology, ambient temperature, humidity, condensing water temperature and availability, fuels, steam heating loads, reservoir level, nuclear fuel management programs and scheduled reservoir discharge.

### J.5.3 Combustion Turbine, Internal Combustion, and Diesel Units

- The gross capability and continuous GVTC will be validated for a period of not less than one (1) hour.

Ambient temperature and humidity conditions to be used for adjusting the measured test output shall be the average for the past five years of the maximum temperature and humidity occurring the day of MISO’s system summer maximum peak. Where inlet cooling is used to reduce turbine inlet air temperature; the temperature at the discharge of the Inlet coolers shall be the basis for ambient temperature adjustment.

Unit shall be operated with regularly available type and quality of fuel.

For a facility that consists of multiple units, auxiliary load for a shared auxiliary power system shall be allocated to the individual units to compute unit net capability.



**Reporting:**

CARD	Must be "90"
Utility	Required
Unit	Required
Year	Required
Period	Must be "S" for Summer
Test Index	Must be a "1"
REVISIONCODE	Must be "0" for initial upload, "R" to Revise, or "D" to Delete
Corrected Net	Leave Blank
Claimed Installed	Leave Blank
Difference	Leave Blank
Unit Type	Optional. If entered should be CT, ST, DS, HD, NU, CC, FB or PS
Test Start Date	Required
Test End Date	Required
Gross MW	Required
Station Service	Required
Process Load Served	Required
Net Test Capability	Required
Reactive Generation MVAR	Optional
Total Power MVA	Leave Blank
Power Factor	Leave Blank
Dry Air Temperature Observed	Required for certain unit types
Dry Air Temperature Rated	Required for certain unit types
Air Temperature Correction	Required
Relative Humidity Observed	Required for certain unit types
Relative Humidity Rated	Required for certain unit types
Relative Humidity Correction	Required
Cooling Water Temperature Observed	Required for certain unit types
Cooling Water Temperature Rated	Required for certain unit types
Cooling Water Temperature Correction	Required
STANDARD	Must be "MISO"