



# Grid Responsive Integration Transmission Service

Non-Firm Large Load (LLWG-2026-5)

Large Load Working Group

October 8, 2026

# Purpose & Key Takeaway



## Purpose

Present MISO's proposed permanent non-firm Transmission Service: Grid Responsive Integration Transmission Service (GRITS)

## Key Takeaways

- FERC's show-cause order calls for MISO to provide permanent firm and non-firm transmission services with specific conditions
- MISO proposes GRITS as a solution to allow a Transmission Customer to choose firm service for less than the total Load on a permanent basis, while the remaining Load may reserve non-firm service for short periods, as needed and as available
- Non-firm Load must be interrupted for price and reliability conditions as needed
- Stakeholder feedback has been incorporated into the proposed solution



# The relevant findings from FERC’s show-cause order identify five criteria

## FERC Show Cause Order

**P 100:** MISO should explain whether the Tariff remains just and reasonable without requiring Eligible Customers taking one of the new transmission services on behalf of Eligible Loads to **pay for regulation and black start services on a gross demand basis**, or propose Tariff revisions that require them to do so.

**P 102:** MISO should explain whether the Tariff remains just and reasonable without the transmission services ... being available to Eligible Customers taking transmission service on behalf of **Eligible Load** ... Specifically, MISO should explain whether the Tariff remains just and reasonable without ... **(2) permanent firm and non-firm contract demand transmission services (transmission service up to a specified MW quantity, i.e., the contract level, on a firm or non-firm basis).**

**P 105:** MISO should explain whether the Tariff remains just and reasonable without the transmission services ... being available to Eligible Customers taking transmission service on behalf of **flexible large loads**, ... Specifically, MISO should explain whether the Tariff remains just and reasonable without ... **(2) permanent firm and non-firm contract demand transmission services (transmission service up to a specified MW quantity, i.e., the contract level, on a firm or non-firm basis).**

1. Regulation & Black Start charged based on gross Load
2. Permanent Firm Transmission Service is an option
3. Permanent Non-Firm Transmission Service is an option
4. Charged on the specific MW quantity reserved
5. Available on behalf of flexible large load and Eligible Load (i.e. co-located load)

# Proposed Module A Definitions

- **Grid Response Integration Transmission Service (GRITS):** A Transmission Service provided under Module B of this Tariff that permits Transmission Customers on behalf of Large Loads to take Transmission Service. This Transmission Service permits the reservation of Capacity and of Energy on either a firm or non firm basis from Network Resources to the Point(s) of Delivery. Grid Responsive Integration Transmission Service is comprised of three components; **GRITS Load Limit**, **GRITS Firm Load**, and **GRITS Non-Firm Load**. A Transmission Customer may not change the GRITS Load Limit or the amount of GRITS Firm Load without a new Service Agreement.
- **GRITS Load Limit:** The maximum amount of Load specified in the Service Agreement by the Transmission Customer taking Grid Responsive Integration Transmission Service on behalf of a Large Load that may be scheduled at a Point(s) of Delivery pursuant to Module B of this Tariff.
- **GRITS Firm Load:** The amount of firm Transmission Service that is reserved and/or scheduled to a specific Point(s) of Delivery pursuant to the Service Agreement for Grid Responsive Integration Transmission Service. A Transmission Customer taking GRITS Firm Load may reserve and/or schedule between 0 MW and the GRITS Load Limit.
- **GRITS Non-Firm Load:** The amount of non-firm Transmission Service that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Section XX of this Tariff. GRITS Non-Firm Load is available only to Transmission Customers Grid Responsive Integration Transmission Service on behalf of Large Load for periods ranging from one (1) Day to one (1) Month. A Transmission Customer taking Grid Responsive Integration Transmission Service may reserve and/or schedule between 0 MW and the difference of GRITS Load Limit and GRITS Firm Load.

# Grid Responsive Integration Transmission Service - GRITS

To avoid confusing aspects of MISO’s Transmission Service with what is being proposed by PJM, the proposed Transmission Service being presented today builds upon Contract Demand Transmission Service and clarifies the GRITS nomenclature. MISO previously discussed a title around contract demand transmission service.

## Eligibility

- Only available to Large Load and all Large Load requirements and processes apply

## Agreement

- GRITS Load Limit MW Amount\*
- GRITS Firm Load MW Amount
- Term
- New agreement required to change MW amounts or term

## Rates

- Regulation and Black Start service rates:  
GRITS Load Limit
- Schedule 8 rates:  
GRITS Firm Load
- Schedule 7 rates:  
GRITS Non-Firm Load
- All Transmission charges based on reserved amount; may be charged when Load is curtailed

## Operate

- Interconnection Reliability Requirements
- GRITS Non-Firm Load reservation request and fulfillment priority
- Curtailment
- Resource Adequacy
- Auction Revenue Rights (ARR)
- Energy Market Supply Side Participation

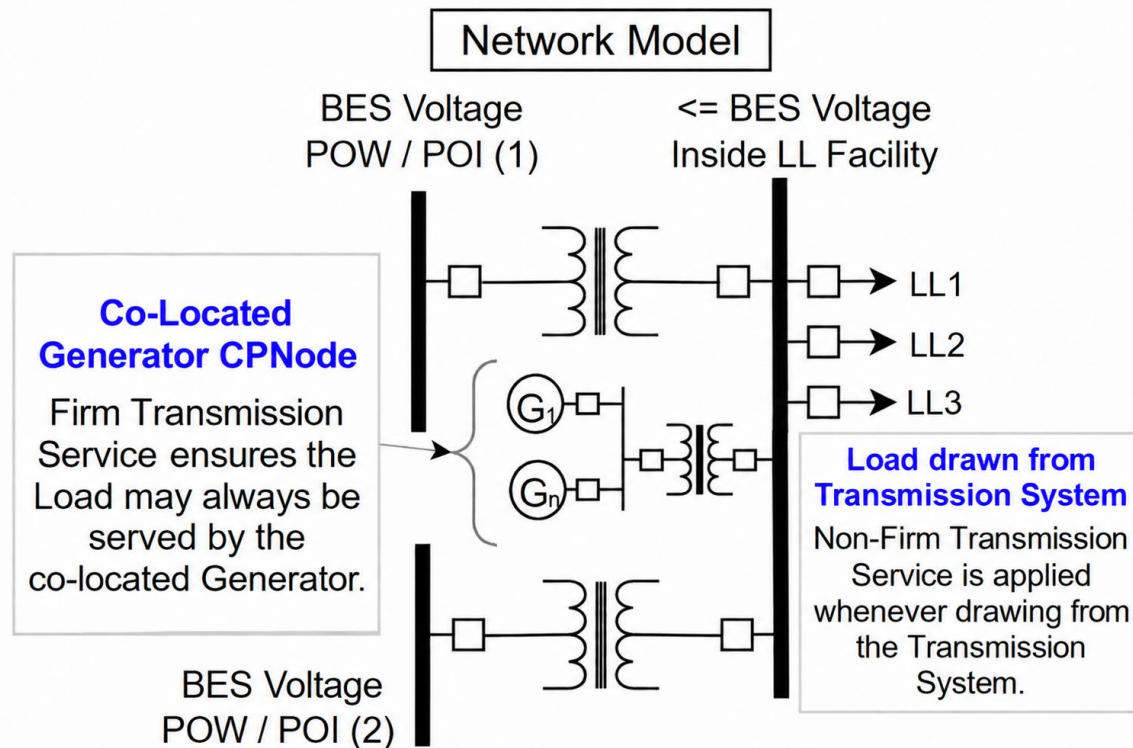
\* Netting with co-located Generation cannot occur since Transmission Service is required for a Large Load to be served by a co-located Generator and co-located generation must be registered as a Generation Resource, which may be a ZG Resource.

# GRITS is only available to Large Load; all Large Load requirements and processes apply

- The type of transmission service does not change the applicable Interconnection Reliability Requirements, Large Load Project Review process, nor cost shifting and transparency activities.
- Those items will be augmented as needed for any situations unique to GRITS like...
  - Only the firm portion of the Load is included in the MTEP Studies on a going forward basis
  - MISO will not require special protection schemes
  - Each Transmission Owner may specify additional control technologies and/or protection systems in addition to the controls currently used by MISO under NERC Reliability Standards<sup>1</sup>

<sup>1</sup> See e.g., Show Cause Order, P102 (“Finally, we note that the Commission has found it just and reasonable that, in order for an Eligible Customer to take interim NITS, firm contract demand transmission service, and non-firm contract demand transmission service, an Eligible Customer must have necessary control technologies and/or protection systems, which may include a special protection scheme, to limit its energy withdrawals to its approved level.”)

To facilitate the combination of firm and non-firm Transmission Service, separate individual EPNodes and CPNodes are required



- A Large Load does not need to be co-located with a Generator to take GRITS
- A Large Load needs a Transmission Service reservation to take power from a co-located Generator
- Large Load cannot withdraw from the Transmission System unless it has submitted a forecast in the ND FRAC case and has a Transmission Service reservation

# Reservation priority follows Point-to-Point rules

Firm service retains highest priority; among non-firm requests, apply the rules below.

## HOW NON-FIRM REQUESTS ARE RANKED

- 1 Longer duration first**  
Longer service periods have priority (up to one month)
- 2 Then service type**  
For equal durations, FLITS precedes GRITS Non-Firm Load and Non-Firm Point-to-Point, which have equal priority
- 3 Then request date**  
For equal durations and service priority, evaluate the earlier request first with later requested evaluated assuming earlier Loads are operating

## REQUEST DURATION

- GRITS Firm Load duration **minimum** is 1 year
- GRITS Non-Firm Load duration **maximum** is one month

## EXAMPLE | HIGHEST TO LOWEST PRIORITY

| Rank | Load | Service                 | Duration | Request Date |
|------|------|-------------------------|----------|--------------|
| 1    | A    | FLITS                   | 1 Month  | Day 1        |
| 2    | E    | GRITS Non-Firm Load     | 1 Month  | Day 3        |
| 3    | F    | FLITS                   | 1 Week   | Day 3        |
| 4    | C    | Non-Firm Point-to-Point | 1 Week   | Day 2        |
| 5    | D    | GRITS Non-Firm Load     | 1 Week   | Day 3        |
| 6    | B    | GRITS Non-Firm Load     | 1 Day    | Day 1        |
|      | G    | Non-Firm Point-to-Point | 1 Day    | Day 1        |

## ACTIVE RESERVATIONS CAN RETAIN PRIORITY

Each new reservation is ranked anew. Active reservations may be extended under a right of first refusal to retain priority. In this example, Loads B, C and D could extend to one month to remain ahead of Load 2.

# MISO is proposing that GRITS Non-Firm Load will be interrupted when LMPs rise above the Net Benefits Price Threshold

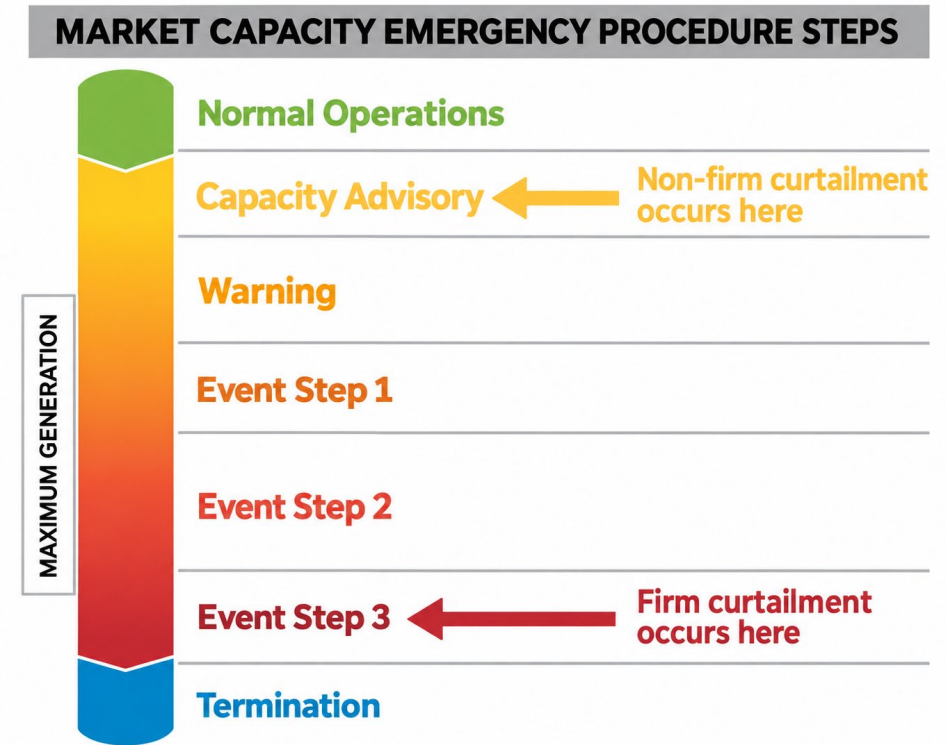
- The Net Benefits Price Threshold (NBPT) is a value expressed in \$/MWh corresponding to the point along the supply curve where the supply curve becomes inelastic
- MISO calculates the NBPT by the 15th of the Month preceding each Month
- The NBPT typically falls between \$35/MWh and \$50/MWh
- Historical Load CPNode information demonstrates these rules permit operation on a non-firm basis ~75% of the time - a GRITS Non-Firm Load may significantly change these values

# Interruption of service for Large Load taking GRITS will occur under certain operational conditions

- GRITS Non-Firm Load **will be curtailed:**
  - When LMP at the CPNode is above the Net Benefits Price Threshold
  - With as much advance notice as possible in specific non-emergency conditions identified in the new Operating Agreement and by studies triggered by changing system conditions
  - In Transmission Emergencies (EOP – 004)
  - In the event of any Capacity Emergencies (EOP – 002)
- Interrupted Large Load may not be moved to another location within MISO without explicit MISO approval
- If GRITS Non-Firm Load fails to interrupt, MISO operators will implement remote disconnect procedures
- Failure to interrupt when directed is subject to unreserved use penalties, additional financial penalties for repeated failure, and may have the Transmission Service terminated
- GRITS Firm Load will be curtailed with other firm Loads
- GRITS Non-Firm Load will be interrupted with Non-Firm Point-to-Point and prior to FLITS and all firm Transmission Services

# GRITS Firm Load will be included in the Coincident Peak Demand forecast

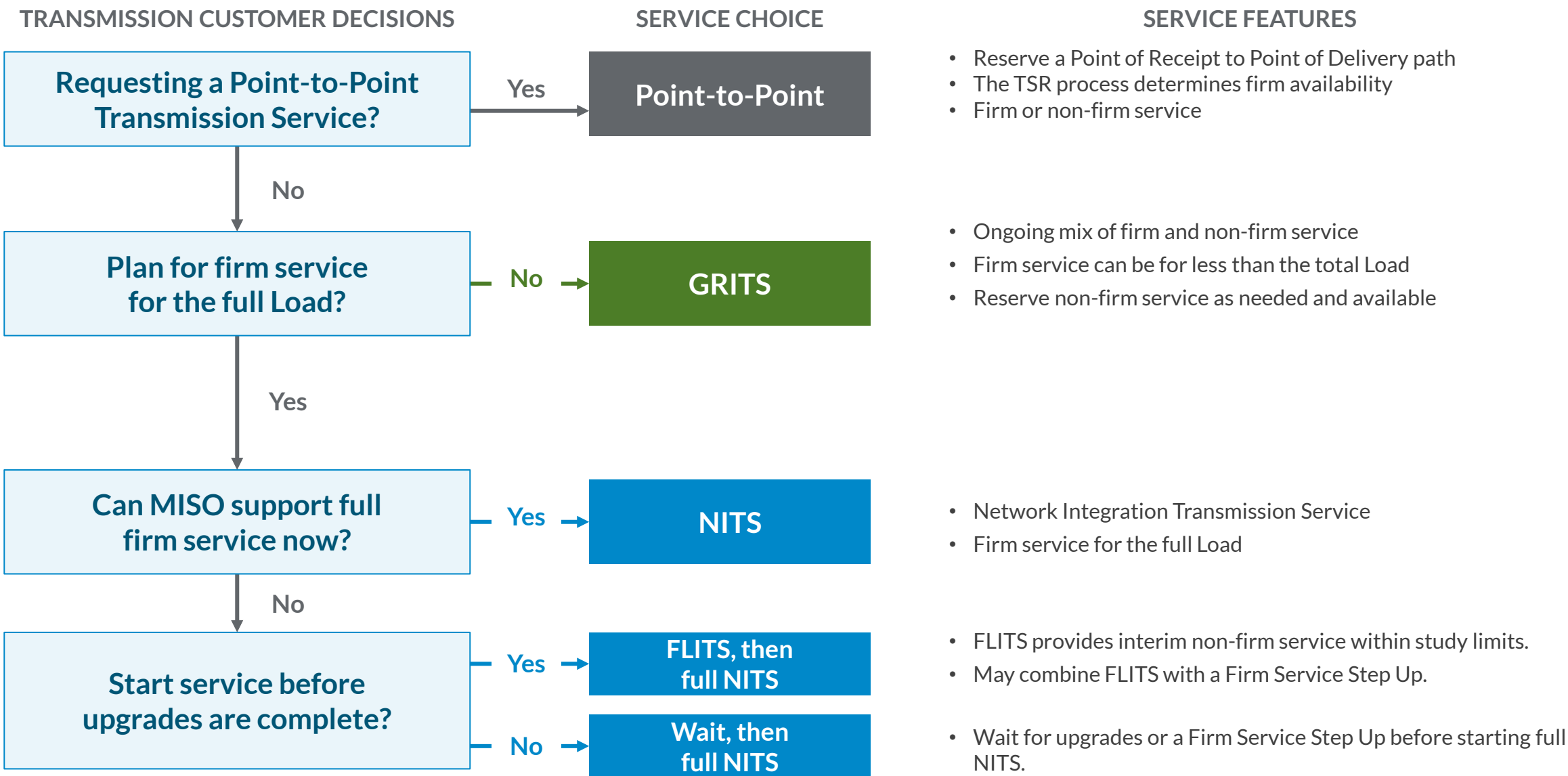
- Only GRITS Firm Load will be included from the obligation to submit the Coincident Peak Demand forecast
  - This means an LSE is only required to procure ZRCs for the GRITS Firm Load portion of the GRITS Load
  - A ZG Resource is only deliverable to the GRITS Firm Load
  - All GRITS Non-Firm Load will be required to curtail anytime a Capacity Advisory declaration is made in the same LBA
- GRITS Firm Load will not be required to curtail until an EEA 3 declaration is made
- GRITS Firm Load may participate as an LMR



# ARR Entitlements and Supply Side Participation

- Standard ARR Entitlement in line with other firm & non-firm services
  - ARR Entitlements will only be granted for GRITS Firm Load
  - ARR Entitlements will not be granted for GRITS Non-Firm Load
- Appropriate changes to Module C will be implemented to ensure GRITS Non-Firm Load is excluded from the calculation used to determine the annual Peak Usage for the ARR market
- GRITS Non-Firm Load is provided on an as-available basis and may not participate as a supply-side resource in any of MISO's markets (i.e. DRR, LMR, EDR)
- The GRITS Firm Load portion may register as a Load Modifying Resource only, it may not register as DRR nor an EDR

# Transmission Service Choices for Large Loads



# Transmission Service Comparison

| Element              | NITS                          | FLITS                                                                                                | GRITS                                                                             |
|----------------------|-------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Purpose              | Firm service for full Load    | Interim service toward full NITS                                                                     | Ongoing firm and non-firm mix                                                     |
| Eligibility          | All eligible Loads            | Large Load only                                                                                      | Large Load only                                                                   |
| Service term         | Permanent                     | Three years; one extension permitted                                                                 | Permanent arrangement; non-firm reservations one day to one month                 |
| Load growth          | Update Exhibit 2              | Update Exhibit 4; applicable study requirements                                                      | New Service Agreement to change Load Limit or firm quantity                       |
| Rate framework       | Schedule 9                    | Schedule 9                                                                                           | Firm and non-firm Point-to-Point rate benchmarks                                  |
| Capacity forecast    | Included                      | Included                                                                                             | Firm included; non-firm excluded                                                  |
| ARR Entitlements     | Eligible under existing rules | Non-firm excluded; underlying firm NITS eligible                                                     | Firm eligible; non-firm excluded                                                  |
| LMR participation    | Existing rules apply          | Permitted under applicable rules                                                                     | Prohibited for non-firm Load                                                      |
| Price interruption   | No proposed NBPT rule         | No proposed NBPT rule                                                                                | Non-firm hourly-average CPNode LMP above NBPT                                     |
| Firm Service Step Up | Available where applicable    | May be combined; optional                                                                            | May not be combined                                                               |
| Curtailment Priority | Curtailed last                | Curtailed prior to NITS/GRITS Firm Load/Firm PTP<br>Curtailed after GRITS Non-Firm Load/Non-Firm PTP | GRITS Firm Load curtailed last<br>GRITS Non-Firm Load curtailed with Non-Firm PTP |

# Stakeholder Feedback Request

- MISO requests feedback on **GRITS Transmission Service** by October 16, 2026:
  - Please provide feedback on any design elements that appear to be missing as it pertains to the Interim NITS option only
- Feedback requests and responses are managed through the Feedback Tool on the MISO website: <https://www.misoenergy.org/engage/stakeholder-feedback/>

## Contact

Large Load Program

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