



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

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Edited slide 19

Large Load Working Group
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Purpose & Key Takeaway

Purpose

To introduce two new transmission services for flexible Large Loads that may be needed to address Commission concerns raised in the Show Cause Order

Key Takeaways

- FLITS – An interim non-firm Transmission Service to augment NITS which also allows Load to come online before all upgrades are completed
- Contract Demand –A new Transmission Service which permits a Load to operate with some amount of non-firm Transmission on a permanent basis; Load taking this service can be firm, non-firm, or a combination of both
- Large Load participating under FLITS and Contract Demand must be included in the Coincident Peak Demand forecast
- MISO has incorporated stakeholder feedback from the August 12th LLWG into the proposed design and will post formal feedback response prior to the LLWG

MISO continues to focus on three objectives to enable members to integrate large loads quickly and reliably while delivering lasting value for the region

Objectives	1	Connect Quickly	2	Transition and Scale with Flexibility & Transparency	3	Ensure Long-Term Reliability
		Get MISO approval within 120 days with all studies completed and GIAs signed		Transition and scale with flexible options consistent with timing of network upgrade buildouts and without cost shifting		Sustain reliable operations with ability to withdraw or inject energy based on conditions and signals
	Needs	Certainty on transmission needs and associated costs: Generation only, load only, generation-load combination		Curtailment capability, resource adequacy coordination, efficient use of existing transmission capacity		Real-time telemetry and coordination, curtailment capability, ride-through, stability control, resilience, security
Solutions		<ul style="list-style-type: none">• Co-located resources• Expedited generation• Fast load studies• Aligned load / generation studies		<ul style="list-style-type: none">• Transparent alignment of costs with large load drivers• Co-located resources• Non-firm service option• Firm service step-up option		<ul style="list-style-type: none">• Clear requirements• Operations system enhancements• Market pricing signals• Demand response and new reserve market products

FERCs show cause order identifies four issues related to Transmission Service

1. Provide an interim non-firm network transmission service for (TCTSOBO) Large Loads while Network Upgrades are being constructed (PP. 104-5)
2. Provide transmission services to (TCTSOBO) Large Loads (including those that are co-located with generation) are willing and able to limit their use of the transmission system under certain conditions (P. 102-04)
3. Ensure users of these transmission services will be charged for their use of regulation and black start services to ensure these loads contribute to cost recovery for services they benefit (P. 100)
4. Ensure just and reasonable rates, terms, and conditions apply to (TCTSOBO) Large Loads co-located with generation (P. 87)

¹Midcontinent Independent System Operator, Inc., 195 FERC ¶ 61,212 at PP 87, 100, 102, and 104-5 (2026)

2. TCTSOBO = Transmission Customers Taking Service On-Behalf Of

Overview of Proposed Changes

Potential framework to address the findings of the show cause order

1

Flexible Large-load Interim Transmission Service

FLITS is an optional Transmission Service that provides non-firm service complementary to NITS until upgrades needed for NITS are completed

2

Contract Demand Transmission Service

Contract Demand provides an additional pathway for a Transmission Customer taking service on behalf of Large Load that addresses the findings in the show cause order

3

Resource Adequacy

All Loads regardless of transmission service type must be included in the Coincident Peak Demand forecast for the Planning Resource Auction

4

Markets & Reliable Operations

All Large Loads must meet Interconnection Reliability Requirements regardless of the type of Transmission Service

A Load's eligibility for ARR nominations and curtailment priority depend on the type of Transmission Service

1.

FLEXIBLE LARGE-LOAD INTERIM TRANSMISSION SERVICE

FLITS is an optional Transmission Service that provides non-firm service complementary to NITS until upgrades needed for NITS are completed

- a) FLITS is an optional Transmission Service which offers flexibility and may augment NITS prior to completion of transmission upgrades
- b) FLITS is only available to a Transmission Customer taking service on behalf of Large Loads which have already been studied in MTEP/EPR/Large Load Study Process and have submitted a Firm Service Step Up request
- c) Periodic studies may identify non-emergency system conditions when Large Load with FLITS service must curtail to maintain reliability

Properties of FLITS Transmission Service

- FLITS is the non-firm compliment to NITS
 - FLITS will have a lower curtailment priority for Transmission related Emergencies relative to NITS
 - FLITS is restricted to Large Loads only and may only be taken for a limited period
- Large Load may take both NITS and FLITS
 - MISO will track the amount of Load under each Transmission Service
- Large Load taking FLITS service may be eligible for ARR entitlements
- The Firm Service Step Up process will be used to transition Load from non-firm to firm
- FLITS may be taken by the Transmission Customer on behalf of Large Load that is the ZG Associated Load of a Zero-Injection Generation Resource

2.

CONTRACT DEMAND TRANSMISSION SERVICE

Contract Demand provides an additional pathway for a Transmission Customer taking service on behalf of Large Load that addresses the findings in the show cause order

- a) Firm and Non-Firm Contract Demand Transmission Services offer additional service options for Transmission Customers taking service on behalf of Large Load that are willing and able to limit their use of the transmission system under certain conditions, while ensuring appropriate Transmission Services are paid
- b) MISO will determine what studies are needed to support a requested amount of Firm Contract Demand Transmission Service and to determine the conditions under which the Load will be curtailed
- c) This service requires appropriate physical equipment to prevent inappropriate injections and withdrawals from the Transmission System
- d) Contract Demand Transmission Service may be useful for large loads that are co-located with generation

Properties of Contract Demand

- Only Large Load may take Contract Demand Transmission Service
- The Contract Demand Service Agreement(s) will require (at a minimum) specification of the amount of firm transmission service and the amount of non-firm transmission service
- The amount of firm and/or non-firm service can be 0MW
- The specified amount of service and cannot be increased without a new Service Agreement
- Large Load with Contract Demand Transmission Service must have equipment installed to prevent inappropriate injections and withdrawals from the Transmission System
- In co-location scenarios Generation must be included in the Contract Demand registration process, and metered separately from the Large Load

Properties of Contract Demand continued

- Charges for Regulation (Schedule 3) and Black Start (Schedule 33) will be based on gross consumed Load even if taking Transmission Service in the amount of 0MW
- MISO will determine what studies are needed to support a requested amount of Firm Contract Demand Transmission Service and to determine the conditions under which the Load will be curtailed
- The Firm Service Step Up is not usable for Large Load taking Contract Demand Transmission Service
- MISO is considering not allowing a Large Load taking Contract Demand service to be eligible for ARR entitlements
- Contract Demand Transmission Service may be taken by the Transmission Customer on behalf of Large Load that is the ZG Associated Load of a Zero-Injection Generation Resource

3.

RESOURCE ADEQUACY PARTICIPATION

All Loads regardless of transmission service type must be included in the Coincident Peak Demand forecast for the Planning Resource Auction

- a) All Loads taking FLITS or Contract Demand Transmission Service must submit a Coincident Peak Demand forecast in the same way as all other Loads
- b) All Large Loads taking FLITS or Contract Demand Transmission Service can participate as a Load Modifying Resource (LMR), which may be useful for loads interested in non-firm participation
- c) MISO will permit Large Loads taking FLITS or Contract Demand Transmission Service to come online mid-Planning Year without being included in the Coincident Peak Demand forecast with certain restrictions

Proposed Coincident Peak Demand forecast obligations

- MISO recognizes that LSEs face uncertainty in the first year a Large Load will commence operations which presents significant financial and reliability risks when weighing a 50/50 forecast requirement
- A Large Load online before March 1st prior to the Planning Year must be included in the LSE's Coincident Peak Demand forecast
- The following options are available for Large Loads expected to come online after March 1st prior to the Planning Year:
 - The Large Load may be included in the forecast; if so, it is treated like all Load but cannot participate as an LMR
 - The Large Load may be excluded from the forecast; if so, it will have a curtailment obligation anytime a Capacity Advisory declaration or higher is made during that Planning Year
- LSEs are obligated to include expected Large Load in the out-year forecasts
- MISO is considering whether Large Load that commences operation prior to March 1 that is not included in the Coincident Peak Demand forecast should be charged Seasonal Daily CONE (Seasonal CONE / #days in the Season) + ACP for each Day of the Season(s)

4.

MARKETS AND RELIABLE OPERATIONS

All Large Loads must meet Interconnection Reliability Requirements regardless of the type of Transmission Service

A Load's eligibility for ARR nominations and curtailment priority depend on the type of Transmission Service

- a) Large Loads taking FLITS or Contract Demand Transmission Service will be subject to the Interconnection Reliability Requirements of the Tariff
- b) Large Loads taking FLITS or Contract Demand Transmission Service must establish two EPNodes/CPNodes; one associated with the firm portion of the Load and the other with the non-firm portion of the Load
- c) FLITS or Contract Demand Transmission Service will not be curtailed for economic reasons or Capacity Emergencies
- d) Large Loads taking FLITS or Contract Demand Transmission Service may not participate as a Demand Response Resource (DRR) nor Emergency Demand Response (EDR)

ARR Entitlements and Supply Side Participation

ARR Entitlements

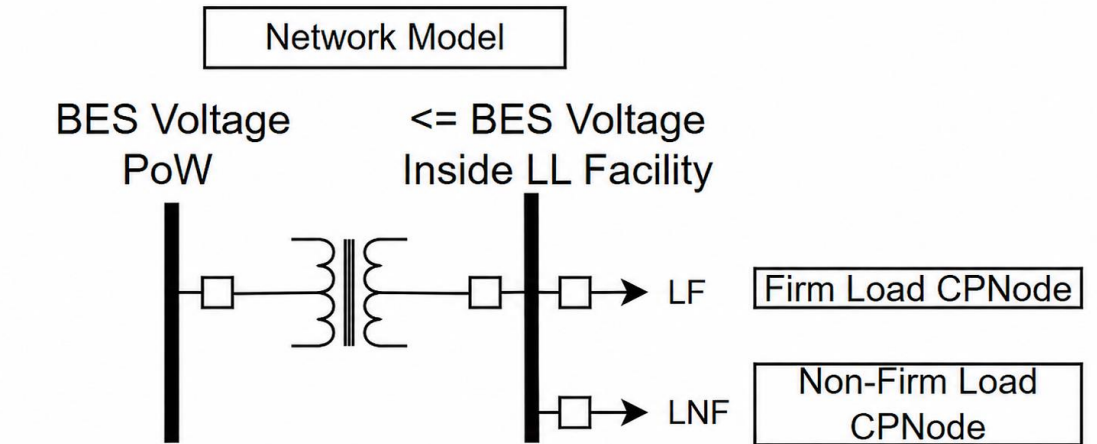
- ARR are used to provide LSEs with long-term rights to hedge congestion costs and in recognition that they have paid for Transmission upgrades and plan to be on the system in the long-run
- Large Loads taking FLITS service have made financial commitments to operate in the long-run and are paying for Transmission upgrades – therefore MISO is considering permitting ARR entitlements for Large Loads taking FLITS service
- MISO is considering preventing all Large Load with Contract Demand from receiving ARR entitlements

Participation as a DRR or EDR will be prohibited for all non-firm portions of Large Loads

- All Large Load with non-firm Transmission Service will be excluded from participation as a supply-side resource (excepting Load Modifying Resources) due to their classification as a reliability-based program
- Large Load with firm Transmission Service (including Contract Demand) are eligible to participate as a DRR or EDR provided the Load CPNode associated with the non-firm portion of the Load has 0 MW of Load

The portion of a Large Load served under FLITS or Contract Demand must create two Load CPNodes

- All Large Load taking FLITS or Contract Demand will be required to provide two Load CPNodes; one for each Non-Firm and Firm portion of the Large Load
- Two EPNodes will need to be created with the single physical meter sending two data points to account for the Firm and Non-Firm portion of the Load
- When MISO issues curtailment instructions related to Transmission Emergencies, the curtailment will come from the Non-Firm portion of the Large Load



Real - Time Telemetry @ Load EPNodes (LF - Load Firm & LNF - Load Non-Firm). A single physical meter could be send on two data points via math

Load Forecast @ CPNodes

Curtailment for Large Load taking FLITS or Contract Demand Transmission Service

- Large Load taking FLITS or Contract Demand Transmission Service (Firm & Non-firm)
 - Will not be curtailed to mitigate economic congestion
 - Will be curtailed at the same priority as all other firm load in capacity emergencies (EOP – 002)
- Large Load taking FLITS or Non-firm Contract Demand Transmission Service
 - May be curtailed in Transmission Emergencies (EOP – 004)
 - May be curtailed in specific conditions which impact reliability as identified in periodic studies
- Curtailment instructions will be issued as far in advance as possible and may not be met by moving Load to another location within MISO without explicit MISO approval
- If a Large Load taking FLITS or Non-firm Contract Demand Transmission Service fails to curtail
 - MISO may direct the Transmission Operator to remotely disconnect the Large Load
 - If an LMR it will be assessed resource adequacy penalties
 - Failure to curtail a second time within a year will result in discontinuation of the service

Stakeholder Feedback Request

- MISO requests feedback on **Flexible Large Load Interim Transmission Service and Contract Demand (LLWG-2026-5)** by Sept 16, 2026, including:
 - Clarifying questions on the updated aspects of the Non-Firm Transmission Service proposal
 - Whether all Large Load with Contract Demand should receive ARR entitlements
 - The approach to addressing Large Loads that are not eligible to participate as an LMR in their first year of operation
- Feedback requests and responses are managed through the Feedback Tool on the MISO website: <https://www.misoenergy.org/engage/stakeholder-feedback/>

Next Steps

- Gather and review feedback on today's presentation
- Update the non-firm Transmission Service proposal incorporating feedback
- Post Tariff redlines in September
- Present a final **first draft** proposal at the LLWG on September 23rd

Contact

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