Large Loads Integration Proposal Information

This document summarizes content related to the Large Loads Integration proposal workstreams from presentation material across the NEPOOL Principal Committees. See the Large Loads Integration Key Project page for material related to the project.

Last Update: November 9, 2026

Content	Summary	More Detailed Information
Show Cause Order Overview	**FERC issued a show cause order related to the integration of large loads and co-located load arrangements. The ISO and the Participating Transmission Owners Administrative Committee (PTO AC) were granted an abeyance and will develop a Section 205 filing to be submitted by November 16, 2026.** On June 18, FERC issued a show cause order instituting a proceeding under Section 206 of the Federal Power Act (FPA) related to the integration of large and co-located loads. Five categories of reform were identified in FERC's order: • **Efficient Study Process:** definition of large load, application process and study procedures, ongoing operational requirements, pro-forma transmission service agreement • **Cost Transparency:** rules for transparency on network upgrade costs; public posting of aggregate large load additions, planned upgrades, cost estimates; pro-forma cost recovery agreement • **Co-Location Rules:** co-located load arrangements, large loads cannot be netted with behind-the-meter generation, study assumptions • **Flexible Load Service:** new transmission services that recognize flexibility of large loads • **Generation Studies:** definition of electrically proximate loads, rules that allow interconnection customers to seek generator interconnection services that reflect dynamics of electrically proximate large loads or co-located loads that have a high peak	**July 2026 TC** • FERC show cause order background • Abeyance request overview • Reform category details **October 14 Joint MC, RC, and TC** • Large Load Process implementation timeline
Key Terms	**New terms and definitions will be added to the Tariff to meet the requirements in the show cause order and to adequately characterize the new Large Load requirements.** **Large Load:** A commercial or industrial customer, located at a single site behind one or more points of interconnection, and that has a gross peak demand of 50 MW or greater, interconnects to the transmission system, either directly or through a system primarily designed to serve the customer, at a voltage level of greater than 60kV. Exemptions will exist for existing loads that meet the Large Load definition and certain critical loads will be excluded from the definition. There will also be certain Large Loads that are exempt or partially exempt based on operational and/or construction status. Existing large loads that meet the Large Load definition will transition to a Large Load if there is a 50 MW or more increase in gross peak demand relative to their exempt demand as of June 18, 2026. **Additional New Defined Terms:** • Behind-the-Meter Generation • Co-Located Load • Electrically Proximate Load • Large Load Co-Located Generator (LLCLG) (previously Co-Located Generator) • Large Load Electrically Proximate Generator (LLEPG) (previously Electrically Proximate Generator) • Large Load Eligible Customer • Large Load Transmission Customer • Non-Firm Large Load Generator Arrangement	**August 2026 Joint RC and TC** • Proposed definition language **September 2026 Joint MC, RC, and TC** • Key large load related definitions • Exemptions and transition • Behind-the-meter generation/netting threshold • Tariff redlines **October 14 Joint MC, RC, and TC** • LLCLG and LLEPG updated definitions • Sufficiently under construction exemption • Exempt demand for existing load • Transition rules for large loads • Tariff redlines • Large Load transition – exempt demand • Large Load transition – new load • Behind-the-meter definition redlines
Bring Your Own New Capacity (BYONC)	**To address resource adequacy concerns, the ISO will put Eligible Customers on notice that large loads must "bring your own new capacity" (BYONC)* and that large loads will be excluded from the Installed Capacity Requirement (ICR).**	**August 2026 Joint RC and TC** • Section 205 filing language **September 2026 Joint MC, RC, and TC**

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	To receive Firm Contract Demand Service (FCDS), the Large Load Eligible Customer shall designate, or cause to be designated, sufficient new capacity resources. Interim Contract Demand Service (ICDS) will be provided for the amount of requested FCDS until the designated capacity resources are designated and achieve commercial operation. ICDS is temporary for up to 7 years or the length of time required to place needed Large Load Network Upgrades in-service, whichever is longer. *Note: Bring Your Own New Capacity (BYONC) is noted as Bring Your Own New Generation (BYONG) in materials posted before September 2026.	• BYONC requirement overview • BYONC exemptions • Installed capacity requirement conforming changes **October 27 Join MC, RC, and TC** • 2027 scope of BYONC work
Transmission Services	**Three types of transmission service will be available for Eligible Customers taking transmission on behalf of Large Loads: Firm Contract Demand Service (FCDS), Interim Contract Demand Service (ICDS), Non-Firm Contract Demand Service (NFCDS). Any combination of these three services must be used to fully serve a Large Load at its Point of Delivery (POD).** Eligible Customers on behalf of Large Loads cannot obtain traditional Regional Network Service (RNS) or Local Network Service (LNS) due to these transmission services not specifying fixed MW contract values. Network Customers also cannot designate part of a load at a discrete POD as Regional Network Load (RNL). **Firm Contract Demand Service (FCDS)** Firm Contract Demand Service is a firm transmission service, where the load covered by the service will have the same priority as all other RNS/LNS loads. The service is provided on a permanent basis for a specific contracted MW value that cannot be exceeded. All network upgrades need to be completed, and BYONC resources must be designated, before the service can be provided. **Interim Contract Demand Service (ICDS)** Interim Contract Demand Service is a temporary, non-firm transmission service provided before network upgrades are complete and/or before BYONC requirements are met. It is offered as a separate transmission service rather than a limited operation mode of Firm Contract Demand Service. **Non-Firm Contract Demand Service (NFCDS)** Non-Firm Contract Demand Service is a permanent, non-firm transmission service. Studies will be conducted to reflect the Large Load's flexibility to adjust to certain system conditions to minimize network upgrades needed for interconnection.	**August 2026 Joint RC and TC** • Transmission services overview • Firm Contract Demand Service • Interim Contract Demand Service • Non-Firm Contract Demand Service **October 14 Joint MC, RC, and TC** • Reductions of Firm/Non-Firm consumption
Dispatchable Asset Related Demands (DARD) Model	**The ISO proposes that Large Loads be registered as Dispatchable Asset Related Demands (DARDs) to allow for the timeline and streamlined implementation of a Non-Firm/Firm Contract Demand Service structure.** A DARD utilizes current ISO dispatch tools, requiring minimal adaptation, resulting in expedited application. DARDs are scheduled and settled at the nodal level, providing situational awareness for System Operations in the Real-Time dispatch and next day planning horizons. DARD Model operational parameters include Maximum Consumption (MaxCons), Minimum Consumption (MinCons), Manual Response Rate (MRR), and Price Pairs.	**October 14 Joint MC, RC, and TC** • DARD model overview • DARD model operations • DARD model examples
Application Process	**Large Load Eligible Customers must submit an ISO application on behalf of a Large Load requesting transmission service; ISO application requirements will include technical data and fees. Certain material modifications require a new application. The Large Load application process will be implemented on June 1, 2027.** Applications from Large Load Eligible Customers will be accepted and studied serially to create an expedited path for Large Load connections. Applications will be accepted on a rolling basis and will be assigned a queue position once deemed complete. The ISO will publicly post the application queue, including gross peak demand, location, application status, type of transmission service requested, and submission date. Studies will be completed in 90 days, unless additional electromagnetic transient (EMT) or Cluster Study analyses are required.	**September 2026 Joint MC, RC, and TC** • Large Load application process • Application requirements • Large Load application fees and deposits • Large Load material modifications • Application queue **October 14 Joint MC, RC, and TC** • Implementation timeline

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	Application Requirements Applications will require several items, such as proponent, site, and project information, including technical data. For a full list of expected application details and technical data requirements, use the September 2026 Joint MC, RC, and TC links in the More Detailed Information column. **Fees and Deposits** Application submissions will require a non-refundable $50k application fee and a $150k study deposit. **Material Modifications** At any time during the Large Load Process, the following changes and modifications would constitute a Large Load Material Modification and would require submission of a new Large Load Transmission Service Application: • Decrease of more than 60% to the Large Load's gross peak demand (MW) • Any increase to the Large Load's gross peak demand (MW) or any increase to the level of Firm Contract Demand Service being requested • Changes to the Non-Firm Large Load Generator Arrangement details impacting the Large Load • Modification to the Point of Delivery that is not agreed upon by the ISO, the Large Load Interconnecting Transmission Customer, and the Large Load Eligible Customer • Extension of the Large Load's operation by more than 3 years cumulative from original operation date or a total of 7 years beyond original Large Load Transmission Service Application date (unless an extension request is requested and granted) During the Large Load System Impact Study, the following would constitute a Large Load Material Modification and require submission of a new Large Load Transmission Service Request: • Any deficiencies in the models associated with the Large Load, Large Load Co-located Generators, or Large Load Electrically Proximate Generators that take more than 10 days to address • Decrease to total transmission service requested	
Large Load Study Process	**The new study process for Large Loads includes seven steps from application submission to execution. This process will support the coordination of multiple Large Load studies and the concurrent study of generation used to support Co-Located and Electrically proximate loads. The Large Load Study process will be implemented on June 1, 2027.** **Large Load Study Timeline** For more detailed descriptions of each step, please see the September 2026 Joint MC, RC, and TC presentation: Step 1: Application receipt and review Step 2: Large Load scoping meeting and Large Load System Impact Study agreement execution Step 3: Large Load System Impact Study report issuance Step 4: Study review meeting Step 5: Additional study (if needed) Step 6: Large Load facilities study (if elected) Step 7: Large Load Transmission Service Agreement and Cost Recovery Agreement negotiation and execution **Coordination of Multiple Large Load Studies** A Large Load study will consider all active, earlier queued Large Loads, regardless of their study status. To complete the Large Load System Impact Study for the Large Load under study, the ISO must first identify any Large Load Network Upgrades needed for relevant earlier queued Large Loads. Upgrades identified for earlier queued Large Loads may be identified as contingent facilities for later queued Large Loads. **Coordination Between Interconnection Cluster Studies and Large Load Studies**	**August Joint 2026 RC and TC** • Study process overview • Interconnection process **September 2026 Joint MC, RC, and TC** • Large Load Study Procedures timeline • Large Load study procedure • Large Load system impact study • Coordination of multiple studies **October 14 Joint MC, RC, and TC** • Supporting agreements • Implementation timeline • Tariff redlines

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	Large Load and Interconnection Cluster Studies may occur concurrently. Large Load Study Cases will include relevant ongoing Cluster Study projects if upgrades are identified and the Cluster Study is expected to finish within 90 days of the Large Load System Impact Study start. Cluster Studies will include Large Loads and associated Large Load Co-Located or Large Load Electrically Proximate Generators if upgrades are identified and the Large Load is expected to receive PPA approval within 90 days of the Cluster Study start. Cost responsibility for similar upgrades depends on whether the Large Load Transmission Service Agreement or Interconnection Agreement is executed first. The initial 90-day study will screen for required Cluster Study coordination; if needed, ISO may use an additional study period of up to 120 days to account for the impact of relevant Interconnection Requests in a Cluster Study on the Large Load System Impact Study. The Cluster Study coordination screen in the Large Load System Impact Study will not result in any impact on the Cluster Study. The following agreements support the Large Load process: Large Load Transmission Service Agreement, Large Load System Impact Study Agreement, Large Load Facilities Study Agreement, Large Load Co-Located Generator and Large Load Electrically Proximate Generator Interconnection Agreements.	
Non-Firm Large Load Re-Dispatch	**The ISO proposes using Dispatchable Asset Related Demand (DARD) model and price-based re-dispatch to address the flexibility of non-firm Large Loads. The ISO will establish a Non-Firm Large Load Re-Dispatch Price of $250/MWh.** The DARD model integrates Large Loads into the market optimization solution, simplifying dispatch timing, quantity, and priority; leverages existing resources for forecasting and telemetry; and is scheduled at the nodal level, providing situational awareness for System Operations in real time dispatch and next day planning. All or a portion of a Large Load served by ICDS and NFCDS will be re-dispatched when the Large Load's applicable Locational Marginal Price (LMP) exceeds the Non-Firm Large Load Re-Dispatch Price. A Large Load's consumption in the energy markets will be scheduled based on its forecasted demand, transmission services, and the Non-Firm Large Load Re-Dispatch Price. The price-based re-dispatch for non-firm service addresses transmission and resource adequacy risk, reduces cost shifting and affordability concerns, aligns with the penalty factor for Replacement Reserves, and allows for timely and streamlined implementation.	October 22, 2026, Price-Based Non-Firm Re-Dispatch Mechanism Concepts Memo **October 27 Join MC, RC, and TC** • Benefits of price-based non-firm large load re-dispatch • Rationale for re-dispatch price • Tariff redlines
Large Load System Impact Study Components	**Each applicant will undergo a Large Load System Impact Study conducted by the ISO to determine the effect of the connection of the proposed Large Load to the system. The Large Load System Impact Study will identify any needed Large Load Network Upgrades and provide a non-binding good faith cost and time to construct estimates.** **Large Load System Impact Study Scope** The Large Load System Impact Study will include both a Needs Assessment equivalent analysis and a Proposed Plan Application (PPA) analysis. The scope of the system impact study will include steady state thermal analysis, steady state voltage analysis, stability analysis, short circuit analysis, EMT screening and detailed EMT analysis (if applicable), and Cluster Study coordination screening and detailed coordination studies (if applicable). **Case Assumptions** The Large Load System Impact Study Case used for Needs Assessment analysis will start with the latest available base case that would be used to perform a Needs Assessment and be modified to reflect all prior queued active Large Load applications and any associated Large Load Co-Located Generators and Large Load Electrically Proximate Generators. Study scenarios will include highest net loads, renewables and energy storage, conventional resources assumed out-of-service, Large Load Co-Located Generators, Large Load Electrically Proximate Generators, new capacity resources, and redispatch of portions of Large Loads.	**September 2026 Joint MC, RC, and TC** • System impact study scope • Case assumptions • Study scenarios • Control technologies for Non-Firm Large Load Generator Arrangements • RAS for Non-Firm Large Load Generator Arrangements • Voltage and Frequency Ride-Through **October 27 Join MC, RC, and TC** • Tariff redlines

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	The Large Load System Impact Study Case used for PPA analysis will start with the latest available base case that was used for a completed Cluster Study (or Cluster Restudy) or the latest available base case that reflects the pre-Cluster base case for an ongoing Cluster Study (or Cluster Restudy). Study scenarios will include a subset of the system conditions evaluated PP5-6, system stresses, Large Load online dispatches, energy consumption of energy storage systems, and redispatch of portions of Large Loads. **Non-firm Large Load Generator Arrangements** For Large Load Co-Located Generators or Large Load Electrically Proximate Generators, control technologies need to be installed to prevent injections into the system, after accounting for the Co-Located Large Loads or Electrically Proximate Large Loads. **Remedial Action Schemes (RAS)** For requested NFCDS, a RAS may be used to address criteria violations that are caused by the tripping of any Large Load Co-Located Generator or Large Load Electrically Proximate Generator if the RAS only trips the portion of the associated Co-Located Large Load or Electrically Proximate Large Load and the tripping of any Co-Located Large Load or Electrically Proximate Large Load if the RAS only trips the associated Large Load Co-Located Generator or Large Load Electrically Proximate Generator. **Voltage and Frequency Ride-Through** Voltage and frequency ride-through requirements are set at the points where the Large Load interfaces with the transmission system. Requirements cover how the Large Load behaves during a voltage or frequency deviation from the continuous operating range and how the Large Load recovers once voltages return to the continuous operating range.	
Large Load Co-Located Generators and Large Load Electrically Proximate Generators Interconnection	**Interconnection of Large Load Co-Located Generators (LLCLGs) and Large Load Electrically Proximate Generators (LLEPGs) will have a specific application and study processes due to their complex nature. The Large Load Co-Located Generators and Large Load Electrically Proximate Generators study process will be implemented on June 1, 2027.** Large Load Co-Located Generators and Large Load Electrically Proximate Generators are associated with Co-Located Large Loads and Electrically Proximate Large Loads via a Non-Firm Large Load Generator Arrangement. Large Load Co-Located Generators and Large Load Electrically Proximate Generators will have access to a new interconnection process that provides 0 MW of Network Resource Interconnection Service (NRIS). Large Load Co-Located Generators and Large Load Electrically Proximate Generators must submit interconnection applications that identify their associated Large Load and describe the Non-Firm Large Load Generator Arrangement. They will be included in their associated Large Load's Large Load System Impact Study. Large Load Co-Located Generators and Large Load Electrically Proximate Generators can be studied separately from the associated Large Load if they related Non-Firm Large Load Generator Arrangement is made after completion of the associated Large Load's Large Load System Impact Study Agreement.	**October 14 Joint MC, RC, and TC** • LLCLG/LLEPG interconnection process • LLCLG/LLEPG interconnection implementation • LLCLG/LLEPG study assumptions • Tariff redlines
Operational Requirements for Large Loads	**A new set of operational requirements for Large Loads has been outlined to address the five orders of reform outlined in the Order. They address the Order's request for more information about forecasts and telemetry, communication equipment maintenance, monitoring equipment, remote disconnect of Large Loads, ramp rates, ride-through requirements, and control technologies and protection systems.** **Communications** Large Loads will be subject to the communication requirements outlined in OP-14. These requirements will include structure of the responsible entity, the Large Load Transmission Customer, as well as Electronic Dispatch and voice communication capabilities associated with the responsible entity.	**September 2026 Joint MC, RC, and TC** • Forecasts, telemetry, communications • Monitoring equipment • Ramp rates • Outage coordination **October 14 Joint MC, RC, and TC** • Forecast data requirements

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	Forecasting Large Load Transmission Customer will be required to submit, or cause to be submitted, daily hourly Large Load future load consumption forecasts each day for the next 168 hours (7 days). Forecast data will be used for various purposes including outage coordination and resource outage planning, next day operation studies, and planning for expected consumption in energy market cases. Deviations from forecasted demand are subject to approval by the ISO. **Monitoring Equipment** Phasor Measurement Unit (PMU) metering will be required for Large Loads, regardless of nearby PMUs. PMU and enhanced monitoring data is necessary due to the fast ramping and other unique operational characteristics related to the operation of Large Load facilities. Metering needs to be as close as possible to the source to avoid interference. **Outage Coordination** Large Load characteristics are more like resources than transmission elements with respect to outage coordination on the grid. Processes and procedures will be updated to incorporate coordination between Large Loads, Local Control Centers, and the ISO to optimize a variety of planning functions including reliability, market, and financial impacts. Outage coordination for Large Loads will be handled similarly to the current process for generating Resources. **Ramp Rates** Large Load Transmission Customers must operate within specific ramp rate requirements. Large Load ramp rate limitations will ensure that the system generation and load are balanced in real-time operations and that system reliability criteria are maintained. Rate limitation requirements are considered for continuous basis, adverse conditions, and the concurrent operation of other Large Load DARDs. **Remote Disconnect** The ISO will require the Large Load Transmission Customer to be able to remotely disconnect the Large Load when required to maintain reliability of the transmission system (e.g., emergency conditions to prevent equipment damage). **System-Wide Load Shed** As a result of system pricing, Non-Firm Contract Demand Service would be reduced before reaching OP-7 load shed. Firm Contract Demand Service is reduced to 0 MW, as conditions require, consistent with ordering load shed on the remaining system load. **Telemetry** Large Loads will be subject to the requirements of Internal, New England Metering and Telemetering for dispatch, market, reliability and settlements purposes per OP-18. Maintenance requirements for telemetry equipment will be performed under the instructions in OP-2.	• Outage coordination process • PMUs and metering • System-wide load shed
Market Design	**Market design updates and redlines related to Large Loads address the Order's considerations on preventing cost shifting, flexible load service, and co-location rules to best prepare for connection of Large Loads to the grid.** **Metering and Asset Registration** A Large Load's gross load must be reported to the ISO as Revenue Quality Metering (RQM). To have its own RQM, the Large Load must be registered as a market asset. Large Loads will be registered as a Dispatchable Asset Related Demands (DARD) so they can be scheduled and settled at the node, be integrated into market optimization, and leverage existing infrastructure for forecasting and telemetry. **Large Load Co-Located and Large Load Electrically Proximate Generators**	**September 2026 Joint MC, RC, and TC** • Metering and asset registration • Price-based re-dispatch • Large load co-located and electrically proximate generators • Behind-the-meter generation/netting threshold • Tariff redlines **October 14 Joint MC, RC, and TC**

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	The ISO will allow Large Loads to use energy supply from a Large Load Co-Located Generator and/or Large Load Electrically Proximate Generator to achieve re-dispatch of a non-firm load. Large Load Co-Located Generators and Large Load Electrically Proximate Generators will be separately metered and settled independently from Large Loads. **Behind-the-Meter Generation/Netting Threshold** There will be a netting threshold of 0 MW for Large Loads to prevent cost shifting. In effect, a Large Load is prohibited from netting load with a Behind-the-Meter Generator.	• Re-dispatch price background and rationale • Re-dispatch price alternatives **October 27 Join MC, RC, and TC** • Tariff redlines
Settlement	**The updates to Settlement processes relating to Market Services and Transmission Reliability Services address the Order's considerations on cost shifting.** **Market Services** Large Loads will be settled based on the Large Load's gross RQM for market services, such as energy, regulation, reserves, and net-commitment period compensation. Large Loads are not eligible to provide reserves until the region establishes auditing and performance standards, and as allowed within jurisdictional considerations. Large Load served by ICDS and NFCDS are excluded from the Installed Capacity Requirement (ICR) and from capacity cost allocation, because they are re-dispatched prior to a Capacity Scarcity Condition. **Transmission and Reliability Services** Large Loads will be settled for the same transmission and reliability services as Regional Network Loads under OATT Schedules 1, 2, 8, 16, and 17, and Section IV self-funding tariff. The Large Load's settlement quantity for these services will be the gross value, such that it is not netted with any other load or supply, including Behind-the-Meter Generation. The PTOs will coordinate Schedules 9 and 21 service charges to align with their proposed Cost Recovery Agreement, which is needed to address the Order's position on cost shifting. Large Load system impact studies allow non-firm Large Load re-dispatch at shoulder and peak load levels to resolve thermal overloads without the need for network upgrades. Storage resources with demand bids ≤ $250/MWh are dispatched down during monthly peaks when LMP exceeds $250/MWh and are therefore charged less for services.	**September 2026 Joint MC, RC, and TC** • Market services • Transmission and reliability services • Tariff redlines • PTO-AC Proposed Large Load Cost Recovery Agreement **October 14 Joint MC, RC, and TC** • Settlement for transmission and reliability services overview • OATT Schedules 1, 2, 8, 16, and 17 redlines
Cost Transparency	**To promote transparency, a Large Loads tracking sheet will be published publicly on the ISO's website.** The ISO will create and post to its website an accessible, searchable, and fillable Large Loads tracking sheet that contains all relevant information. The list will contain the network upgrades identified for each Large Load, categorized by upgrade type, and cost estimates for each identified network upgrade.	**August 2026 Joint RC and TC** • Large load tracking sheet details