

Update on Large Loads in the 2026 Load Forecast



Load Forecast Committee

Victoria Rojo

SUPERVISOR, LOAD FORECASTING
ISO NEW ENGLAND



Introduction

- ISO will incorporate a forecast of large loads into the CELT 2026 load forecast
- The ISO has developed a quarterly survey that is issued to Transmission Owners (TOs) to collect information on prospective large loads
 - Survey responses will help the ISO to proactively characterize and incorporate large loads into the long-term load forecast
 - Needed data sources and information are still being collected and researched
- Prospective large loads in New England remain limited in number and scale
 - Recent data collected from TOs suggests that there are a couple hundred MW of large loads in the formal study phase
- The goal of this presentation is to give an overview of the methodological considerations that will be used to generate a large load forecast for CELT 2026

Overview of Large Loads

- Large loads (also known as “step loads”) may include data centers, crypto mining facilities, industrial agriculture, MDEV/HDEV charging depots, biotechnology labs and more
 - These loads are often highly uncertain in terms of relative timing to build out and their electric demand characteristics
- To date, New England has not witnessed the scale of data center proposals seen in other regions of the country
 - Other than ISO’s existing electrification forecasts, which arguably include some impact of EV/HP growth that may end up becoming future large loads, ISO’s long-term load forecast prior to CELT 2026 has not explicitly considered large loads
 - The CELT 2026 forecast will include a limited forecast of large loads based on information collected from the TOs
- ISO staff has been actively participating in internal discussions, communications with other ISOs, and industry task forces and working groups to support ongoing data and knowledge acquisition

Key Considerations for Forecasting Large Loads

Overview of Data Needs

Project Parameterization

- Information defining the type of load located on site (data center, EV charging depot, etc.)
- Information on more specific use cases (e.g., a data center used solely for cloud computing)
- Interconnection method (retail or wholesale)

Project Realization

- The rate at which projects are placed in service, and to what degree they align with project specifications
- Requires evaluating uncertainty in projects completing construction and proceeding to initial and full energization

Load Realization

- The timing and extent to which electrical demand materializes
- Includes initial energization date and ramp rates, and may need to rely on experiential data around differing business models and use cases
- Certain projects may typically operate at a much lower level than the interconnection request (information from other ISOs/utilities suggests this may be as low as 40-50% or as high as 80-90%)

Collocation with Generation

- The presence of generation or batteries co-located with the load
- Type of generation (e.g., natural gas, PV, batteries, etc.)
- Size of generation and how it is expected to be operated (e.g., regular operation, or emergency back-up)

Operational Characteristics

- Information on how the facility will draw electric power from the grid
- May be heavily influenced by load type, electrical equipment on-site, configuration, and business model
- Ideally the forecast requires hourly profiles reflecting relative sensitivity to weather and calendar

Key Considerations for Forecasting Large Loads

Project Milestones

Project Milestone	Description
Entered into Study Agreement	Customer and Transmission Owner have a fully executed study agreement to conduct system impact studies
Interconnection Study Completed	Work under the study agreement is complete and has been shared with the customer
Entered into Construction Agreement (also known as a Letter of Authorization (LOA)):	This contract with a customer initiates the design, engineering and construction of transmission and distribution facilities identified in the facility study, and involves a financial commitment from the customer
Electric Service Agreement (ESA):	The ESA is the final contract with the customer, establishing the expected level of service and details such as the contract term, ramp rate, minimum billing, and financial security requirements (can be a year to several years in advance of energization)
Energization	The energization (or commercial service) date achieved, which initiates billing under the ESA
Monitoring	As the customer's demand ramps up, adjustments are expected and noted, particularly around facility use case, equipment, and operational characteristics
Withdrawn	Project has been withdrawn



Key Considerations for Forecasting Large Loads

Project Attributes

Category	Description
Facility Location	Point of interconnection, load zone, town, state
Facility Use Case	Information about the type of load, specific use case, electrical equipment on site, existence of co-located generation
Facility Buildout	Nameplate capacity at initial energization and over anticipated timeline to full build out, anticipated change of point of interconnection
Project Status	Milestones achieved and currently in progress, and sub-milestones, such as permits acquired
Operational Characteristics	Ideally this would be hourly demand curves with calendar and weather sensitive relationships. For CELT 2026 ISO, is collecting capacity factors, annual energy, curtailable MW, and information on co-located generation
General	Clarification to any data elements listed above, alongside any additional information or details not captured in any prior data elements. Examples include interplay between other projects, additional details on operational characteristics, etc.

Large Loads in the CELT 2026 Forecast

Preliminary Project Totals

- To be considered for the CELT 2026 forecast, prospective large load projects must meet the following requirements
 - Be larger than 20 MW in total expected nameplate
 - Have entered into a formal study agreement
- Individual proposed project nameplate capacities, making up the total listed in the table on this slide, will be derated based on project maturity and load type
 - I.e., a project that has completed fewer milestones will experience a larger derate than similar projects that have completed more milestones
 - These derates are still being determined, but may be as high as 50%, depending on the load type

Region	Total Nameplate (MW)*	Timeline
ISONE	395	2026-2040

** Nameplate values will be derated, potentially as much as 50% in some cases*



Challenges

- Most prospective large loads, including those in very preliminary stages and not considered for the CELT 2026 forecast, are seeking to connect at the retail level
 - At this time, ISO processes have limited visibility into detailed project information
 - ISO is working with the transmission owners and has developed a quarterly survey to gather project information and gain earlier visibility into prospective projects
- Very limited information on operational characteristics
 - Some entities have access to facility data
 - Data sharing can be sensitive and is not ubiquitous across entities



Next Steps

- ISO is working to acquire datasets and methods to develop hourly profiles for large load projects for CELT 2026
 - Research will continue into future forecast cycles to advance abilities to profile large loads
- Follow-up discussions may be held with TOs to further inquire about specific projects
- Large loads will be included in the final 2026 CELT load forecast
 - The table listed on slide 7 is a **preliminary total** of projects that will be considered
 - The values listed are subject to change as more information becomes available

Questions

