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# Expert Panel on Large Load Tools and Efforts

## NCEP Annual Meeting: Collaborative Responses to Load Growth

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Manager State Government & Regulatory Affairs - NERC

May 5, 2026

# Large Loads Working Group Objective

*Understand the reliability impact(s) of emerging large loads on the BPS*

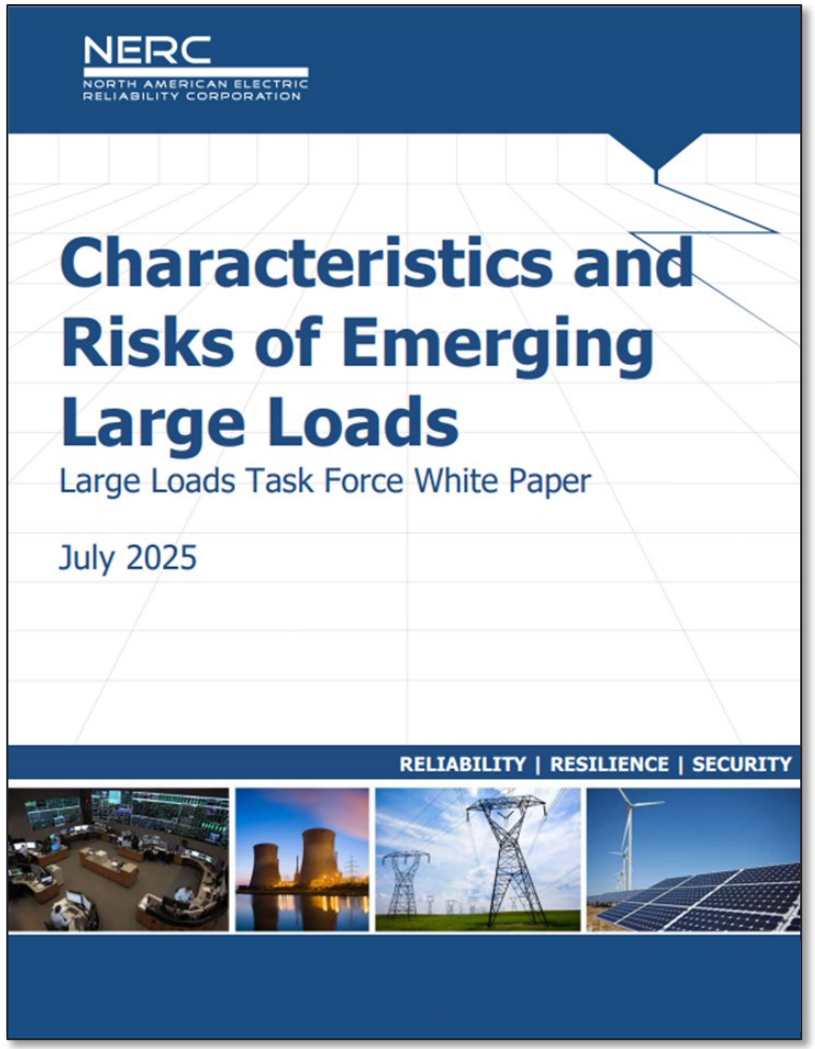
# Timeline of Major Releases

1. Incident concerning Data Center loss – Occurs **July 2024.**
2. Large Load Task Force (LLTF) formed - **October 2024**
3. Incident Review Released – **July 2025**
4. Release of *White Paper: Characteristics and Risks of Emerging Large Loads* – **July 2025**
5. NERC Level 2 Alert Issued – **September 2025**
6. Preliminary Guideline posted – **November 2025**
7. Large Load Technical Conference – **February 2026**
8. Aggregated Level 2 Alert – **March 2026**
9. Release of White Paper gaps – **March 2026**
10. Posting of Draft Registration Criteria, Standards Project 2026-02 SAR – **April 2026**
11. Final Reliability Guideline published – **Planned April 2026**
12. NERC Level 3 Alert Issued – **Planned May 2026**

Large Loads Action Plan Webpage

NERC Alerts Webpage

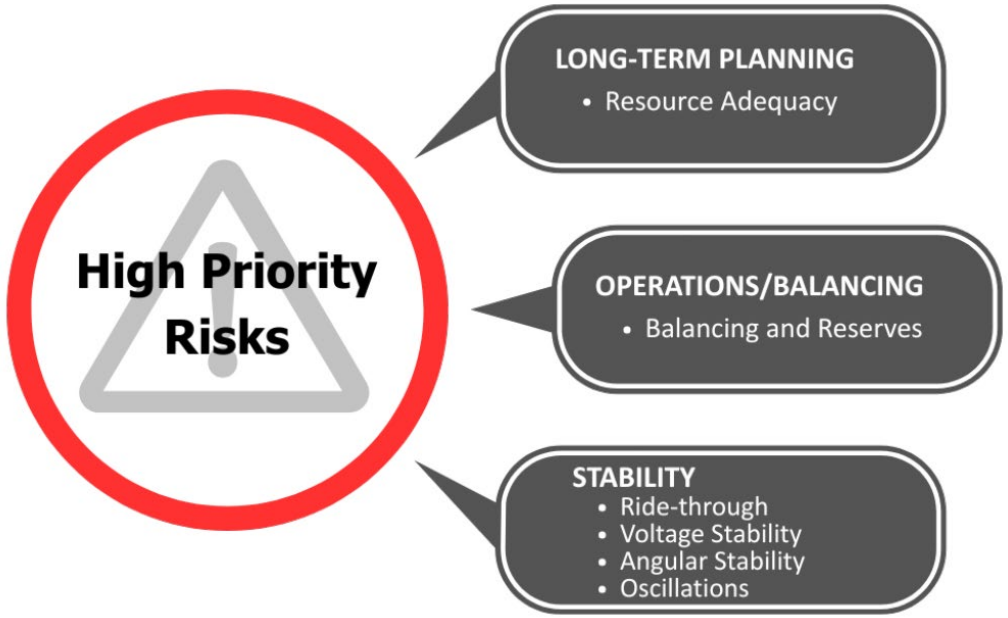
# White Paper – Characteristics and Risks




https://www.nerc.com/globalassets/who-we-are/standing-committees/rstc/3_doc_white-paper-characteristics-and-risks-of-emerging-large-loads.pdf

**Emerging Large Loads exhibit BPS risk**

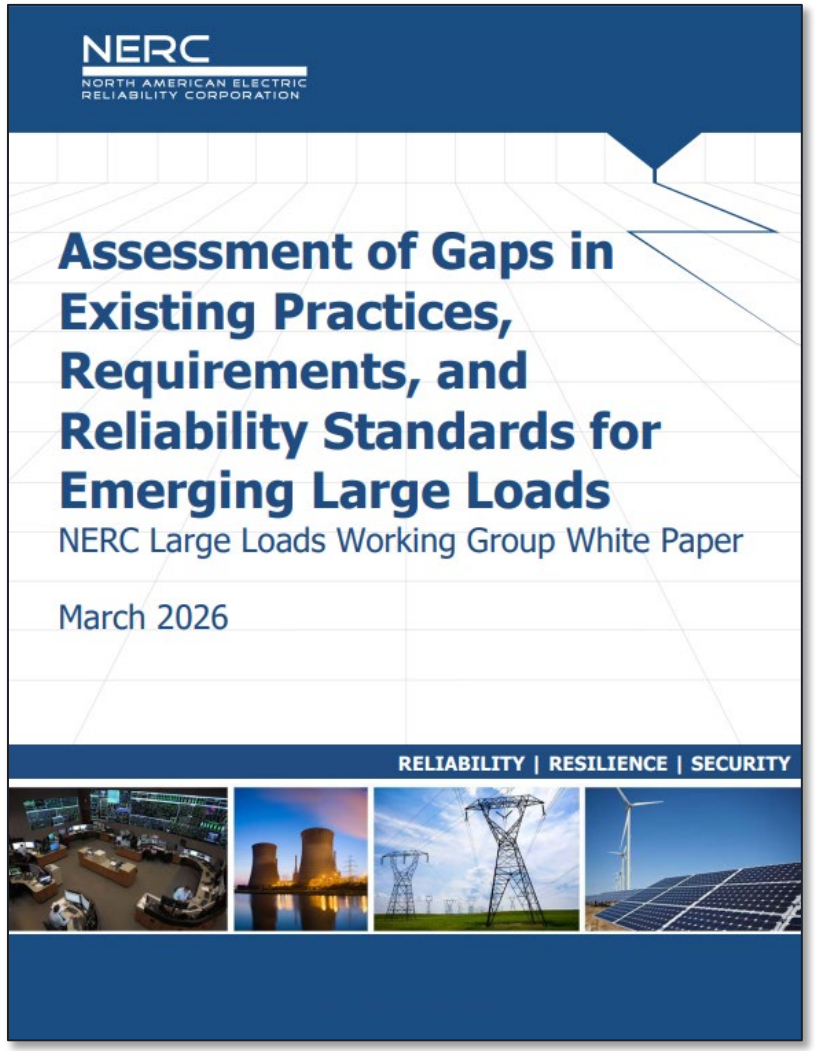
**Certain Loads (Data Centers) are of concern**



# White Paper – Assessment of Gaps

Existing Reliability Standards, and the existing processes and requirements related to BPS planning, operations, security, and other areas are **inadequate** to address the risks posed by emerging large loads.

**Updates are needed** to registration criteria, Reliability Standards, processes/requirements, and other areas.




https://www.nerc.com/globalassets/who-we-are/standing-committees/rstc/3_doc_white-paper-characteristics-and-risks-of-emerging-large-loads.pdf

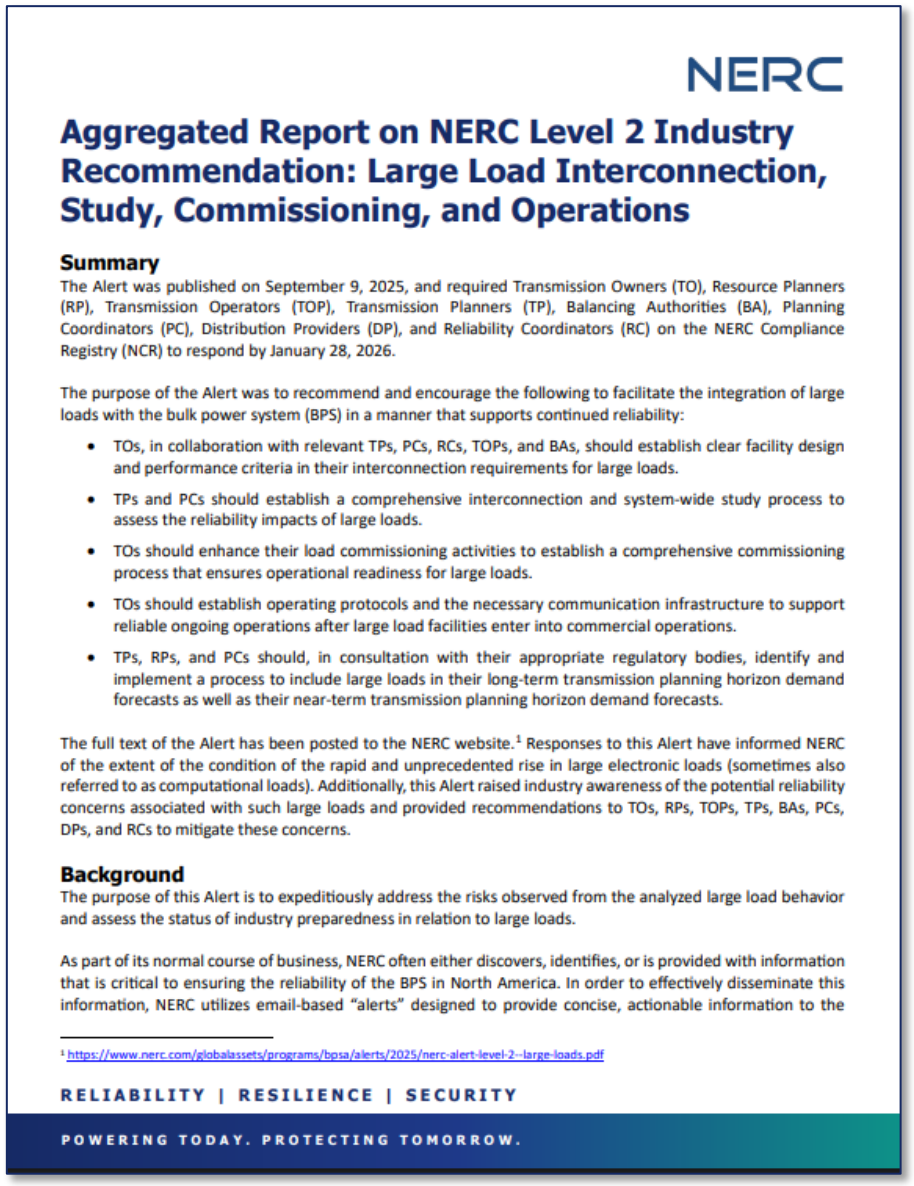
# Recommendations

#9: Federal/state regulators should consider the gaps and coordinate with utilities to assess whether incorporating additional interconnection requirements/studies are appropriate.

#10: State regulators should work with regulated utilities to review how new loads and planned additional generation impact existing planning and risk assessment frameworks.

#11: Policymakers should review interactions between interconnection requirements / existing state regulations / planning processes / regional grid operator requirements.

# Level 2 Alert Findings



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## Aggregated Report on NERC Level 2 Industry Recommendation: Large Load Interconnection, Study, Commissioning, and Operations

### Summary

The Alert was published on September 9, 2025, and required Transmission Owners (TO), Resource Planners (RP), Transmission Operators (TOP), Transmission Planners (TP), Balancing Authorities (BA), Planning Coordinators (PC), Distribution Providers (DP), and Reliability Coordinators (RC) on the NERC Compliance Registry (NCR) to respond by January 28, 2026.

The purpose of the Alert was to recommend and encourage the following to facilitate the integration of large loads with the bulk power system (BPS) in a manner that supports continued reliability:

- TOs, in collaboration with relevant TPs, PCs, RCs, TOPs, and BAs, should establish clear facility design and performance criteria in their interconnection requirements for large loads.
- TPs and PCs should establish a comprehensive interconnection and system-wide study process to assess the reliability impacts of large loads.
- TOs should enhance their load commissioning activities to establish a comprehensive commissioning process that ensures operational readiness for large loads.
- TOs should establish operating protocols and the necessary communication infrastructure to support reliable ongoing operations after large load facilities enter into commercial operations.
- TPs, RPs, and PCs should, in consultation with their appropriate regulatory bodies, identify and implement a process to include large loads in their long-term transmission planning horizon demand forecasts as well as their near-term transmission planning horizon demand forecasts.

The full text of the Alert has been posted to the NERC website.[1] Responses to this Alert have informed NERC of the extent of the condition of the rapid and unprecedented rise in large electronic loads (sometimes also referred to as computational loads). Additionally, this Alert raised industry awareness of the potential reliability concerns associated with such large loads and provided recommendations to TOs, RPs, TOPs, TPs, BAs, PCs, DPs, and RCs to mitigate these concerns.

### Background

The purpose of this Alert is to expeditiously address the risks observed from the analyzed large load behavior and assess the status of industry preparedness in relation to large loads.

As part of its normal course of business, NERC often either discovers, identifies, or is provided with information that is critical to ensuring the reliability of the BPS in North America. In order to effectively disseminate this information, NERC utilizes email-based "alerts" designed to provide concise, actionable information to the

[1] https://www.nerc.com/globalassets/programs/bpsa/alerts/2025/nerc-alert-level-2--large-loads.pdf

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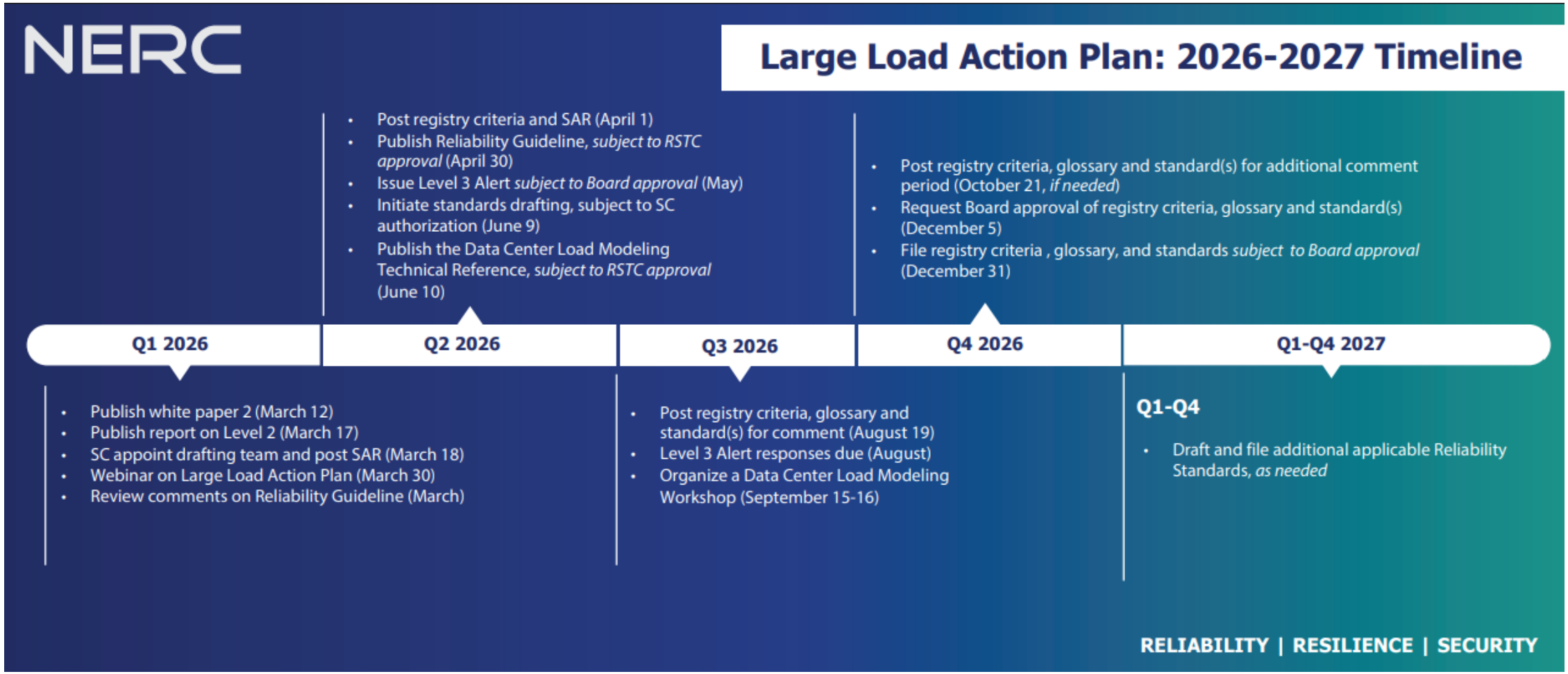
- Many entities at the time of this Alert do not have specific procedures to handle the unique challenges associated with large loads
  - Models
  - Commissioning Practices
  - Operational Readiness
  - Near-term and Long-term planning
- Many entities do not have a process to coordinate with TOs and DPs to establish protection coordination requirements for large loads.
- Many entities report waiting on or coordinating with a separate entity, primarily their ISO or RTO.

https://www.nerc.com/globalassets/programs/bpsa/alerts/2025/aggregated-report-level-2-large-load-interconnection-study-commissioning-and-operations.pdf

# Large Load Action Plan



# Registration Criteria – Computational Load Entity

## Proposed NERC Registry Criteria for Computational Load Entity

1. To be registered as a Computational Load Entity, a registration candidate must meet all the following criteria:
   a. Criteria I. Owners, operators, or users of the BPS.
   b. Criteria II. Computational Load Entity (CLE) – The end-user or the entity that hosts end-users that receives electric power for Computational Load.
   c. Criteria III. Computational Load Entity that:
      a. contributes to an aggregate connected Load capability greater than or equal to 20 MW;
      b. at a single point of interconnection to the Bulk Power System at a voltage greater than or equal to 60 kV; and
      c. hosts 1 MW or greater of Computational Load.

# Registration – Process & State Involvement

1. Registration Criteria – Posted 4/1/2026
   a. New function – Computational Load Entity
   b. 45-day comment period (anyone)
   c. ROPcomments@nerc.net
   d. Due by 5/15/2026
2. Reposting of criteria possible
3. End of year to goal

4. **Stakeholder Subject Matter Expert (SME) Pool**

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# Discussion