WIRAB Monthly Meeting

November 5, 2026

WIRAB
Western Interconnection
Regional Advisory Body

Introductions



WIRAB
Western Interconnection
Regional Advisory Body

Agenda

WIRAB Activities:	Administrative Updates Computational Load Facility Interconnection Requirements Template *(WIRAB Endorsement of Process)*
WECC Activities:	WECC Update WECC's Path Rating Process Update
NERC and FERC Activities:	FERC Reliability Conference; Seams Coordination Report NERC's CLE Standards; Project 2024-02; MSPP Implementation WECC's RAC & RRC Meeting; Information Data Portal
Upcoming WIRAB Meetings	

WIRAB Administrative Updates

Upcoming Leadership Transition

- Preparing for the Chair transition at year-end and identifying the next Vice Chair
- Identifying the 2027 monthly meeting schedule

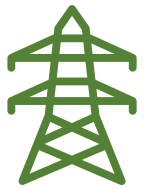
Upcoming Membership and State Staff Updates

- Anticipating some potential membership changes following elections
- Reaching out to identify any changes state staff on distribution list

Upcoming WIRAB Bylaw Revisions

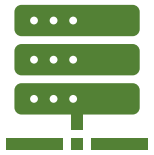
- Updating membership and leadership provisions and clarifying voting procedures
- Sharing draft revisions in November, discussing at December Meeting, targeting a December WIRAB vote, with WIEB Board approval of membership changes in 2027

WIRAB's 2026 Strategic Initiatives



Long-term Planning Data and Models

Initiative 1: Advise WECC to work with states, provinces, and planning entities to improve long-term planning assumptions, data, and models to meet evolving regulatory and reliability needs.



Large-load Performance Requirements

Initiative 2: Advise WECC, NERC, and stakeholders to develop common interconnection and performance requirements for large loads—especially data centers—to ensure reliable and secure integration into the Bulk Power System.



Resource Adequacy with Electrification and Large Loads

Initiative 3: Advise WECC to study the impacts of rapid electrification and large load growth on reliability, including regional and seasonal resource adequacy trends.



Energy Storage Reliability Standards

Initiative 4: Advise WECC and the ERO to assess whether reliability standards adequately reflect the growing role of energy storage technologies in supporting grid stability and essential reliability services

WIRAB Large Load Project: Computational Load FIR Template

Harmonizing Large Load Interconnection Requirements in the West

Project Goals:

- Develop a practical framework for large load interconnection in the Western Interconnection
- Improve consistency and transparency in how large loads are evaluated and studied
- Identify key technical and operational considerations necessary to maintain reliability
- Support Western states and regulators as they evaluate rapidly growing large load requests
- Provide a forum for utilities, system operators, regulators, and industry stakeholders to share practices and lessons learned

Industry Advisory Group

IAG has:

- Convened western stakeholders including utilities, states, system operators, and large load developers
- Served as the primary forum for technical discussion and stakeholder engagement
- Helped inform the development of a Large Load Interconnection Requirements Template and related recommendations

IAG Kickoff Meeting: May 28th

Next Meeting: November 12th (register)

Final Webinar: December 3rd

Large Load Industry Advisory Group Meeting Schedule

Western Interconnection Regional Advisory Body

Date	Topics
✅ May 28, 2026 (11:00 a.m.–12:00 p.m. MT)	Kickoff: Background, Goals, and Timeline
✅ June 25, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Review
✅ July 16, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Template Section #1
✅ August 13, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Template Section #2
✅ September 24, 2026 (11:00 a.m.–12:00 p.m. MT)	Large Load Interconnection Requirements Template Section #3
✅ October 22, 2026 (11:00 a.m.–12:00 p.m. MT)	Template Review and Finalizing
November 12, 2026 (11:00 a.m.–12:00 p.m. MT)	Template Finalizing and Next Steps
December 3, 2026 (11:00 a.m.–12:00 p.m. MT)	Industry and Public Webinar

Industry Advisory Group: Participation

October 2026 Registration Snapshot: Registered Participants: 171; Organizations Represented: 132

Category	Registrants
Utilities & Power Providers	78
Government & Regulators	24
Reliability & Market Organizations	12
Developers, Large Loads & Technology	25
Engineering, Consulting & Legal	15
Research & Trade Associations	12
Other / Unclassified	5

Participant Engagement

53 Active Participants

- Interested in contributing directly to development of the Large Load Interconnection Requirements Template

118 Monitoring Participants

Meeting	Participants
May	78
June	87
July	57
August	61
September	76
October	61

Computational Load FIR Template: Development Process



Convened an Industry Advisory Group to bring utility, large-load developer, and other stakeholder perspectives into the process.



Developed the draft in stages with Elevate Energy, reviewing technical sections through a series of advisory group meetings.



Gathered and incorporated feedback through meeting discussions and written comments on successive drafts.



Reviewed the full template with the advisory group to resolve remaining issues and seek general consensus.



Coordinated with evolving industry efforts, including NERC's computational load standards work, to inform the template's requirements.

NERC Computational Load Definitions & Registration Criteria

New NERC Definitions/Criteria (proposed)

Appendix 2 (Definitions Used in the Rules of Procedure)

Appendix 2 to the NERC Rules of Procedure includes defined terms used throughout the Rules of Procedure. The proposed revisions add the following three terms:

- "Computational Load Operator" means the entity that operates a Computational Load Site.
- "Computational Load Owner" means the entity that owns and maintains a Computational Load Site.
- "Computational Load Site" means one or more buildings, structures, or installations at a single location that
  1) Primarily contains information technology infrastructure used for:
     - creating, executing, and delivering software applications and services;
     - artificial intelligence training, deployment, and delivery;
     - cryptocurrency mining; or
     - other computational activities at a data center; and
  2) is supplied through electrical equipment that is connected to the BPS.

- Computational Load Owner or Operator of a Computational Load Site with a total connected Load greater than or equal to 50 MW that is supplied through electrical equipment connected at a voltage level greater than or equal to 100 kV from one or more points of connection.

NERC BoT approved the CLO definitions and registration criteria on 10/8, and NERC submitted to FERC for approval on 10/21. Comments due to FERC by 11/20

FERC may potentially approve before end of 2026

New NERC CLO Standards

- **CLO-001**: Interconnection, Studies, & Modeling Data
  - For future or modified facilities, must participate in the Transmission **Provider's interconnection process/studies/commissioning reqs**, and ensure facilities meet the new **interconnection requirements**
  - For ALL facilities, must provide detailed verified/validated **models** to the applicable Transmission Providers (meeting their modeling requirements)
- **CLO-002**: Operational Data & Communications
  - Must share real-time **operational data**
  - Must have real-time **operators** that are regularly trained, always available via a defined communication medium, and responding to Operating Instructions
- **CLO-003**: Protection & Disturbance Monitoring
  - Must have a defined/implemented process for **protection system** settings/coordination
  - Must have high-resolution **monitoring equipment** installed to capture system events/disturbances
- **CLO-004***: Disturbance Performance & Ride-through
  - This standard will define the ride-through and disturbance performance requirements for CL Sites
  - This is NOT yet drafted, just beginning the drafting process.
  - **The standard # is not yet defined, so this is just an estimate for easier communications.*

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Potential NERC CLO-001/002/003 Compliance Timelines



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CLO-001: Computational Load Interconnection, Studies & Modeling Data

Interconnection Requirements & Studies

- **R1: TO & DP must create Computational Load Site (CLS) interconnection requirements (IRs)**
- R2: Those IRs must include coordination activities with other applicable transmission entities, and commissioning activities with CLSs
- R3: Generator Owners must make CLS IRs when a CLS is interconnecting to their generation facility
- R4: TPs and PCs must study the reliability impact of interconnecting CLSs using steady state, short circuit, and dynamic studies for new interconnection or existing interconnection seeking to make a qualified change
- R5: CL Owner must coordinate/cooperate on these studies with the TO, GO, DP, TP, or PC
- R6: TOs, GOs, and DPs must coordinate with the TP or PC on these studies
- R7: Each PC must make a publicly available definition for *qualified change:*

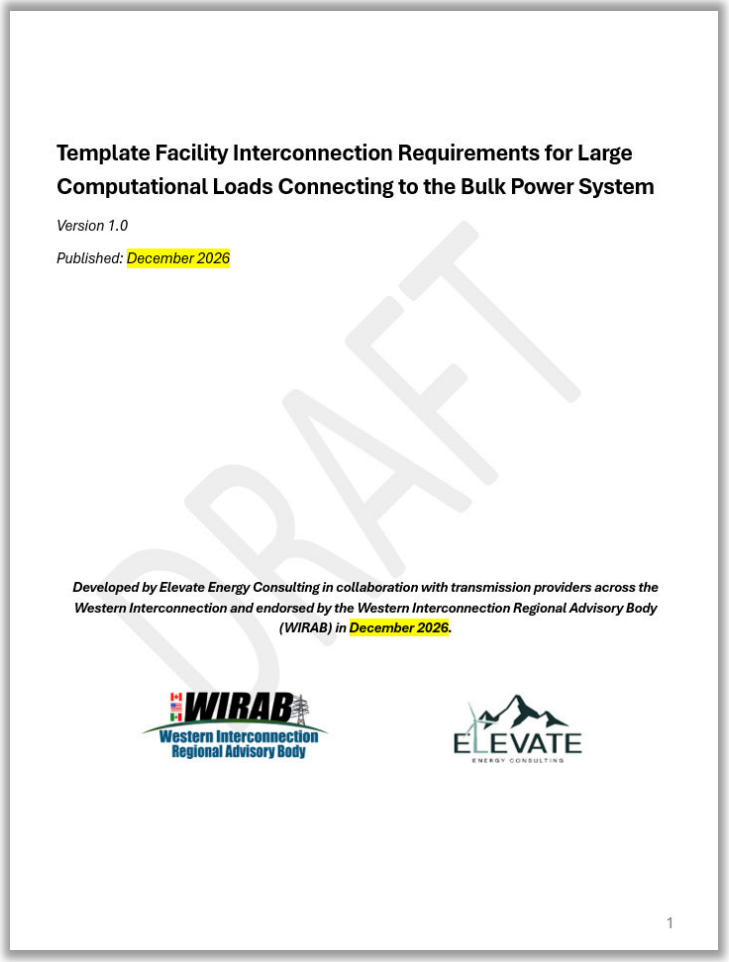
*A **qualified change** under FAC-002-4 refers to specific equipment modifications or operational upgrades to existing facilities that could impact the reliability of the Bulk Electric System (BES)*

From the Level 3 Alert:

- PCs should revise "qualified change" to include:
  - Growth of computational load, year-over-year
  - Changes to settings, parameters, or configurations that affect electrical supply equipment and end-use equipment (i.e., changes the compute end-use characteristic).
  - Repurpose of load to different applications (e.g., AI training to data warehousing)

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Template Interconnection Requirements



Template Facility Interconnection Requirements for Large Computational Loads Connecting to the Bulk Power System

Version 1.0

Published: December 2026

DRAFT

Developed by Elevate Energy Consulting in collaboration with transmission providers across the Western Interconnection and endorsed by the Western Interconnection Regional Advisory Body (WIRAB) in December 2026.

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- Definitions and applicability
- Interconnection technical data submittal
- Capability and performance requirements
- Protection requirements
- Monitoring requirements
- Operational requirements
- Modeling requirements
- Commissioning requirements
- Qualified change definition

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Next Steps: Finalizing and Releasing the Template FIR

5 Nov.

WIRAB endorsement of IAG process

12 Nov.

Final IAG Meeting

19 Nov.

Finalize the FIR template document

3 Dec.

Public release via webinar and post on website for download

2027 and Beyond

Outreach, Follow up, and Next Steps

Requested WIRAB Endorsement

Endorse the collaborative process used to develop the Template FIR:

- Engaged utilities, large-load developers, and other stakeholders through an Industry Advisory Group.
- Reviewed successive drafts through six meetings and written comment opportunities.
- Incorporated stakeholder feedback and considered evolving NERC computational load standards efforts.

Endorsement supports the development process and public release; it does not constitute technical approval of individual requirements.

WECC

Future of Path Ratings Update
November 2026 WIRAB Meeting

Vic Howell
Director, Reliability Assessments and Modeling

Mallory Huggins
Director, Strategic Outreach and Partnerships

Electric Reliability & Security for the West

November 5, 2026

Drivers for Change

- Outdated Project Coordination, Path Rating, and Progress Report Processes framework, created 30 years ago; evolving landscape
- January 2023 Path Task Force Report
- Circumstance between WECC and two entities
- WECC's subsequent letter

Needs that Must be Met by Future Processes

- Project awareness
- Information sharing
- Coordination
- Study reference
- Protection—transmission service rights
- Encourage transmission investment
- Universal applicability

Takeaways from the Future of Path Ratings Workshop

Protection—Transmission Service Rights

- Workshop attendees indicated the need for a mandatory and enforceable mechanism to protect transmission investments from degradation caused by transmission expansion and enhancements elsewhere in the system.
- This is outside WECC's delegated authority. Workshop attendees acknowledged that WECC should not have a role in this.
- It is important that this process does not create unintended consequences that discourage transmission expansion.

Proposal Accepted by Stakeholders

Two separate initiatives

Activities Within WECC

- Develop WECC Regional Criteria to address:
  - Awareness
  - Information sharing
  - Coordination
  - Study reference
- WECC documents developed through WECC Standards Development Process

Activities Outside WECC

- Develop mandatory and enforceable process to protect transmission investments from degradation caused by transmission expansion and enhancements elsewhere in the system
- Stakeholder documents developed without WECC's involvement

- The documents from these two initiatives would replace the *Project Coordination, Path Rating, and Progress Report Process* and the *Path Rating Catalog*.

Upcoming Events

- November (details TBD): WREGIS webinars on Terms of Use updates
- November 18
  - 2:00 p.m. MST: Technical Insights in the West
    - Large Loads is the topic
  - 3:00 p.m. MST: WREGIS Town Hall
- November 19, 2:00 p.m. MST: Reliability & Security Oversight Update
- December 8–9: WECC Board of Directors and Associated Meetings

WECC

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FERC, NERC, WECC: Activities Update



FERC Activities

- Western seams coordination (AD26-10-000), CAISO-SPP Joint Report and our response (BOSR, MSC, WIRAB, COSR, CREPC Leadership)
  - Questions? George Lynch (glynch@westernenergyboard.org)

- Reliability Technical Conference (Oct. 21, 2026; recording)
  - How grid operators are managing data center and AI load growth alongside inverter-based resource integration.
  - How declining Colorado River hydropower is reshaping resource adequacy planning in the West.

NERC Activities

- NERC's Board of Trustees adopted Reliability Standards for computational loads (Project 2026-02) on October 26, 2026.
- MSPP Implementation – ROP & SPM revisions passed initial ballot with strong stakeholder support on October 26, 2026.
- NERC published the draft Reliability Standard ERA-001-1, Planning Energy Reliability Assessments (Project 2024-02) on October 28, 2026.
  - Comments are due December 10, 2026.

WECC Activities

- Joint RAC and RRC Meeting on October 22, 2026
  - Potential to combine committees and new leadership
  - Future Technical Insights in the West topics
  - Standards updates + more!

- WECC Planning Information Data Portal
  - WECC's System Performance Data Portal provides real-time information on grid conditions, including maps, graphics, and data related to reliability of the Bulk Electric System in the Western Interconnection
  - Adding new Planning Information before end of year.
  - WECC will discuss this portal at the December WIRAB Monthly Meeting

Upcoming Meetings

WIRAB Monthly Meeting

First Thursday of the Month at 2:00 PM MT

Next Meeting: December 3, 2026 at 2:00 PM MT

WIRAB Large Loads FIR Template: Industry and Public Webinar

December 3, 2026 (11:00 a.m.–12:00 p.m. MT)

Register

Thank You!

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