

NERC & Grid Reliability Change Watch

Selected developments affecting transmission planning, large computational loads, data centers, modeling, operations, protection, and cybersecurity

Edition August 2026	Last verified 15 August 2026	Scope Selected high-impact changes; not a complete standards inventory	Primary sources Official NERC materials and NERC One-Stop-Shop workbook
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What changed - and why organizations should act now

NERC's 2026 activity shows two parallel movements: immediate risk mitigation for computational loads and longer-term changes to registration, reliability standards, modeling data, operational information, and cyber-system categorization. Utilities and large-load developers should treat the present period as preparation time: assign ownership, improve model and data quality, validate disturbance behavior, coordinate protection and controls, and preserve reviewable evidence.

Topic	NERC item	Status / date	Who may be affected	Why it matters	Practical action
Computational-load registration and standards	Project 2026-02 Computational Loads; related registry-criteria work	UNDER DEVELOPMENT FERC year-end 2026 deadline; NERC targeted Board action in Dec. 2026	Potential Computational Load Entities; utilities; planners; operators; data-center developers	NERC is developing definitions, registration criteria, and measurable requirements for large computational loads.	Track drafts/comment periods. Map ownership of models, operating data, protection, controls, and disturbance performance.
Immediate computational-load risk actions	Level 3 Essential Action Alert: Computational Load Modeling, Studies, Instrumentation, Commissioning, Operations, Protection, and Control	ESSENTIAL ACTION ALERT Issued 4 May 2026; responses due 3 Aug. 2026	Registered entities identified by NERC; coordination may involve large-load customers and vendors	NERC cited rapid customer-initiated load reductions and oscillations that can leave little time for real-time response.	Confirm response completion and evidence across models, studies, instrumentation, commissioning, operations, protection, and controls.
Risk mitigation for emerging large loads	Reliability Guideline: Risk Mitigation for Emerging Large Loads	NON-BINDING GUIDELINE Published 1 May 2026	Utilities; grid operators; large-load owners/developers; equipment manufacturers	NERC recommends coordinated practices for integrating industrial-scale loads while protecting grid stability.	Benchmark interconnection, modeling, ride-through, communications, and operating practices against the guideline.
Planning-model data	MOD-032-2 - Data for Power System Modeling and Analysis	FUTURE ENFORCEMENT Effective 1 Apr. 2028; R2-R4 transition 1 Apr. 2029	Planning Coordinators; Transmission Planners; entities providing modeling data	Revised data requirements and reporting procedures support planning-horizon case development.	Inventory data, owners, formats, validation checks, submission workflows, and retained evidence.
Model validation	MOD-033-3 - Steady-State and Dynamic System Model Validation	EFFECTIVE Effective 1 Apr. 2026	Reliability Coordinators and other applicable registered entities	Establishes a process for system-model validation to support model accuracy.	Confirm procedures, actual-system comparisons, discrepancy handling, responsibilities, and evidence.
Transmission Owner Control Centers	CIP-002-8 - Cyber Security: BES Cyber System Categorization	FUTURE ENFORCEMENT Effective 1 July 2028	Transmission Owners with applicable real-time control capabilities; CIP and operations teams	The revised Control Center definition may bring certain Transmission Owner capabilities into TOCC classification and CIP scoping.	Assess real-time SCADA control at two or more transmission-Facility locations; document architecture, authority, associated data centers, and categorization.
Operational data specifications	TOP-003-7 - Transmission Operator and Balancing Authority Data and Information Specification and Collection	FUTURE ENFORCEMENT Effective 1 Oct. 2026	Transmission Operators; Balancing Authorities; requested-data providers	Supports the data and information needed to plan, monitor, and assess reliable operation.	Confirm specifications, providers, collection processes, quality checks, timing, and evidence before the effective date.

What GR can help organizations do

1. Readiness diagnostic	Identify affected functions, owners, data, models, studies, controls, and evidence gaps.	2. Study and model readiness	Review load models, validation, scenarios, protection assumptions, and grid/facility interactions.
3. Workflow automation	Connect study cases, simulations, results, evidence, and reporting while preserving engineering review.	4. Implementation roadmap	Prioritize actions by effective date, reliability consequence, effort, and accountable owner.

About the perspective

Dr. Sudhir Agarwal brings more than 35 years of experience in power-system planning and reliability, probabilistic methods, utility studies, reliability software, and engineering-study automation. GR's role is to translate changing requirements into practical study, modeling, evidence, and implementation questions - not to provide legal advice or compliance certification.

How this watch is maintained

Each published entry distinguishes enforceable standards, future-effective standards, projects under development, and non-binding alerts or guidelines. Dates and status are checked against primary NERC materials; older editions should remain archived so readers can see what changed and when.

Important notice

Prepared independently from publicly available NERC and FERC materials. General Reliability is not affiliated with or endorsed by NERC. This publication provides engineering interpretation and does not constitute legal advice, compliance certification, or a substitute for the official standards, implementation plans, registration criteria, alerts, guidelines, or regulatory orders. Requirements and project drafts may change; confirm the current controlling documents before acting.

Primary-source links

- Computational-load registration and standards: <https://www.nerc.com/standards/reliability-standards-under-development/2026-02-computational-loads>
- Immediate computational-load risk actions: <https://www.nerc.com/newsroom/nerc-issues-level-3-alert-reliability-guideline-focused-on-large-load-challenges>
- Risk mitigation for emerging large loads: <https://www.nerc.com/initiatives/large-loads-action-plan>
- Planning-model data: <https://www.nerc.com/standards/reliability-standards/mod/mod-032-2>
- Model validation: <https://www.nerc.com/standards/reliability-standards/mod>
- Transmission Owner Control Centers: <https://www.nerc.com/glossary-of-terms>
- Operational data specifications: <https://www.nerc.com/standards/reliability-standards/top>

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