

Electric Reliability Organization Enterprise Strategic Plan 2016–2019

The Electric Reliability Organization (ERO) Enterprise is a collaborative, international network comprised of the North American Electric Reliability Corporation (NERC) and the eight Regional Entities that brings together collective leadership, experience, judgment, skills, and technologies for assuring the reliable operation of the North American Bulk Electric System (BES). This plan summarizes the ERO Enterprise's mission, vision, values, and goals and provides strategic direction and priorities for 2016 and beyond.

Mission

To assure the reliable operation of the North American Bulk Electric System.

Vision

To be the trusted leadership that assures the reliable operation of the North American BES by promoting effective collaboration, cooperation, and communication around important risks to reliability; implementing relevant standards; and using expertise from the industry to produce outcomes and manage risks to reliability in a cost-effective manner.

Core Values and Guiding Principles

The following core values and guiding principles serve as guidelines for the conduct and behavior of all involved in the ERO Enterprise.

Accountability and Independence – The ERO Enterprise will:

- Be accountable for the public responsibilities delegated to it (a public trust obligation).
- Be impartial, independent of special interests, and impervious to improper influence.
- Balance its own independent regulatory judgment with the need to involve those with expert knowledge and experience in BES reliability matters.

Responsiveness – The ERO Enterprise will act in a timely manner on the basis of unfolding events, emerging reliability risks, and the needs of industry and other stakeholders.

Fairness and Inclusiveness – The ERO Enterprise will:

- Be open and transparent.
- Provide access for clear communication with stakeholders.

- Ensure the legitimate interests of all parties, including costs imposed on registered entities, are duly considered and balanced in the development of policies and reliability standards, and in its programs and operations.
- Conduct compliance and enforcement actions judiciously and in proportion to risk, paying regard to both potential and actual (realized) risks.

Adaption and Innovation – The ERO Enterprise will:

- Continuously assess and prioritize its goals.
- Embrace change and encourage new ideas that contribute to effective action.
- Recognize the complex relationships and potential tensions between reliability objectives and business imperatives (including cost control).
- Be nimble and artful in development of tools and dissemination of lessons learned and other information to respond to novel, unfamiliar, and emerging challenges.

Excellence – The ERO Enterprise will:

- Promote and rely upon the active participation of the best technical leaders from industry.
- Strive for excellence and efficiency in all aspects of Enterprise activities.

Efficiency – The ERO Enterprise will make informed decisions regarding efficient use of its resources and resources shared by industry, with due consideration of cost.

Integrity – The ERO Enterprise will:

- Maintain the highest levels of professional and ethical conduct.
- Be independent, impartial, fair, intellectually honest, truthful, and candid.
- Be rigorous and thorough in all it does, doing the right things the right way.
- Earn trust by treating every person with fairness and respect.
- Work to meet or exceed expectations of stakeholders.

Four Pillars of Success

In order to succeed, the ERO Enterprise will emphasize:

- **Reliability** – to address events and identifiable risks, thereby ensuring the reliability of the BES through proper mitigation and remediation.
- **Assurance** – to provide assurance to the public, industry, and government for the reliable performance of the BES.

- **Learning** – to promote learning and continuous improvement of operations and adapt to lessons learned for BES reliability.
- **Risk-Based Approach** – to focus attention, resources, and actions on issues most important to BES reliability.

Strategic Goals 2016–2019

The ERO Enterprise has identified five goals in the following strategic areas: standards; compliance monitoring, enforcement, registration, and certification; risks to reliability; and coordination and collaboration.

Standards

Goal 1. Develop clear, reasonable, and technically sound mandatory Reliability Standards in a timely and efficient manner. These standards establish threshold requirements for assuring the BES is planned, operated, and maintained to minimize risks of cascading failures, avoid damage to major equipment, or limit interruptions of bulk electric supply.

Objectives and valued outcomes include:

- Reliability Standards are clear, responsive to reliability and security risks, practical to implement, and cost-effective.**

Key deliverables include:

- Include in periodic reviews an assessment of whether the Reliability Standard is properly structured for emerging risks.
- Evaluate significant BES events (Category 3 and above) to identify and address any gaps in Reliability Standards.
- Assess Reliability Standards compared to the BES risk profile; address the most important unmitigated risks, including applicable high-impact, low-frequency risks.
- Develop and use ERO Enterprise feedback loops to provide information from compliance and other program areas to assist in development of Reliability Standard improvement projects.
- Address all high-priority risks that are designated for mitigation through a Reliability Standard within one year, or two years if technical study is required.
- Address all new directives from applicable governmental authorities within one year, or two years if technical study is required.
- Facilitate smooth transition to new Reliability Standards, including providing Reliability Standards implementation guidance when needed in collaboration with industry.
- Develop and implement procedures for assessing the cost impact of Reliability Standards, as needed.

Compliance Monitoring, Enforcement, Registration, and Certification

Goal 2. Be a strong enforcement authority that is independent, without conflict of interest, objective, and fair, and promote a culture of reliability excellence through risk-informed compliance monitoring and enforcement. The ERO Enterprise retains and refines its ability to use Reliability Standards enforcement when warranted and imposes penalties and sanctions commensurate with risk.

Objectives and valued outcomes include:

- a. The ERO Enterprise registers and deregisters entities commensurate with risk to the BES and ensures all key reliability entities are certified to have essential capabilities.**

Key deliverables include:

- Consistently register entities based on risk to the BES and the BES definition.
- The certification program is effective and implemented consistently across the ERO Enterprise.

- b. The ERO Enterprise holds industry accountable for violations commensurate with risk to the BES; resulting actions are timely and transparent to industry.**

Key deliverables include:

- Compliance Oversight Plans developed for registered entities address the relevant risks.
- ERO Enterprise compliance monitoring is focused on the most significant risks to the BES.
- Non-compliance is processed using the appropriate method, considering the risk to the BES.
- The ERO Enterprise conducts outreach, training, and education as necessary to support the smooth implementation of new Reliability Standards.

Risks to Reliability

Goal 3. Identify the most significant risks to reliability, provide assurance for mitigating reliability risks, and promote a culture of reliability excellence. The ERO Enterprise identifies and prioritizes reliability risks, facilitates effective solutions and interventions, and monitors results. The ERO Enterprise works with industry stakeholders and experts to ensure the mitigation of known risks to reliability and facilitates a learning environment by analyzing events, communicating lessons learned, tracking recommendations, and sharing good industry practices.

Objectives and valued outcomes include:

- a. Risks are identified and prioritized based on reliability impacts, cost and practicality of assessments, and projected resources.**

Key deliverables include:

- Expand development of reliability data-grounded analyses and sustain independent, technical assessments of proposed regulatory rules or proposed statutes (state, provincial, or federal) as well as significant market rules to determine potential impacts to reliability.
- Prepare an annual long-term reliability assessment, special reliability assessments, State of Reliability Report, and associated reliability metrics.
- Maintain a BES risk profile to prioritize and rank reliability risks.
- Develop project plans and business case assessments for high-priority risks; implement or facilitate initiatives to address high-priority risks.

b. Events and system performance are consistently analyzed for sequence, cause, and remediation to identify and reduce reliability risks, trends, and lessons learned to promote BES reliability.

Key deliverables include:

- Analyze significant events (e.g., sampling of Category 2 events in addition to assessing Category 3 and above) to identify gaps in Reliability Standards, compliance effectiveness, registration, and risk controls effectiveness, as well as the development of lessons learned or other information sharing activities that promote BES reliability.
- Continue to promote the use of the event analysis secure portal to enable industry to share their event reports with others to increase the sharing of the technical details and engineering specifics of events.
- Continue relay misoperation performance analysis to reduce misoperations, inform industry on relay misoperations trends, and share good industry practices more widely.
- Enhance risk analysis capabilities by integrating risk data sources, such as event analysis, Transmission Availability Data System (TADS), Generating Availability Data System (GADS), and relay misoperations as well as other occurrences (e.g., AC equipment failures) to expand the ability of the ERO Enterprise to provide lessons learned and recommendations from events and identified risks and their mitigation to promote reliability.

c. The ERO Enterprise supports the Electricity Information Sharing and Analysis Center (E-ISAC), Cybersecurity Risk Information Sharing Program (CRISP), critical infrastructure, situational awareness, physical security, and cybersecurity preparedness and provides independent reliability information to policy makers.

Key deliverables include:

- Develop an E-ISAC implementation strategy plan from the Electricity Sector Coordinating Council (ESCC) Strategic Review recommendations.

- Expand communications among the E-ISAC, the Telecommunications ISAC, and Natural Gas ISAC.
- Continue to facilitate deployment of CRISP technology and enhanced actionable communication among participants.
- Expand security maturity model assessments to be widely accessible across industry.
- Complete the implementation of the GMD Reliability Standards across industry.
- Oversee the implementation of the Physical Security Reliability Standard.
- Issue and track physical security and cybersecurity recommendations to protect the BES.
- Expand the use and value of physical security and cybersecurity threat and vulnerability information sharing, analytics, and analysis.
- Implement periodic wide-area security exercises (e.g., GridEx).
- Support industry acquisition of security clearances and facilitate access to secured briefings through local fusion and law enforcement centers.
- Make available to industry anonymized, timely, and actionable information regarding threats to the BES.

d. Reliability models and data accurately represent system behavior and are shared among stakeholders.

Key deliverables include:

- Assess data and modeling needs and develop recommendations to ensure quality planning and operating data and models are available to registered entities across each interconnection.
- Evaluate event disturbances using phasor measurements and other methods to assess sufficiency of data and models.

Goal 4. ERO Enterprise identifies, evaluates, studies, and independently assesses emerging risks to reliability. The ERO Enterprise supports the development of comprehensive reliability assessments that provide a technical platform for important policy discussions on challenges facing the interconnected North American BES, including assessment of essential reliability services (ERS).

Objectives and valued outcomes include:

- a. Increase the sophistication of reliability assessments to include measurement of ERS, the amount of control (ability to observe and dispatch), and system robustness for cyber and physical security to evaluate changing behavior of the BES.**

Key deliverables include:

- Conduct a reliability validation assessment of EPA final rule 111(d) considering the potential range of implementation strategies among states, including sub-regional reliability evaluation as state plans begin to emerge, to provide a sound data/analysis framework to validate and advise relevant entities of the reliability aspects of the proposed plans, including highlighting issues, risks, and education.
- Develop sufficiency/adequacy guidelines for ERS including emerging risks. Expand the considerations to encompass the comprehensive range of reliability attributes under more diverse resource mix and load behavior, such as ramping, fast regulation, reserve services, and interdependent sector performance.
- Expand the guidelines for both short-term and long-term horizons to simulate and consider fuel and other related upstream risks in reliability assessments and capacity impacts due to extreme cold weather, interstate pipeline failure, most severe single contingency, capacity shortfalls, and other assumptions.
- Enhance reliability assessments to reflect changing resource mix behavior, including distributed energy resources and ERS, with probabilistic approaches, considering the variable and energy-limited nature of the resource shifts.
- Evaluate the impacts on recovery and restoration plans including consideration of distributed resources and mitigation of risks from physical and cyber-attacks along with supply-chain considerations.

Coordination and Collaboration

Goal 5. Improve transparency, consistency, quality, and timeliness of results; operate as a collaborative enterprise; and improve efficiencies and cost-effectiveness. The ERO accomplishes this by working with the Regional Entities and registered entities to ensure effective coordination, collaboration, and process improvements. The ERO Enterprise is an efficient steward of resources and leverages information systems to create efficiencies and process controls.

Objectives and valued outcomes include:

a. The ERO Enterprise acts in a coordinated and collaborative manner with stakeholders.

Key deliverables include:

- As the international ERO, NERC and the Regions articulate a shared vision of reliability excellence and support and inspire stakeholders continent-wide, including in international jurisdictions, in working to attain that vision.
- Maintain a list of suggestions and recommendations made by stakeholders (e.g., through policy input) and ERO Enterprise responses to each.
- Engage the support and expertise of stakeholders in prioritizing and resourcing reliability initiatives.
- Communicate expectations clearly and foster collaboration to deliver important results in advancing system reliability.

b. The ERO Enterprise acquires, engages, and retains highly qualified talent suited to the mission.

Key deliverables include:

- Develop qualification requirements for attracting, engaging, and retaining key technical and leadership staff across the ERO Enterprise and implement training as needed.
- Leverage expertise across the enterprise to support the strategic plan and goals.

c. The ERO Enterprise internal risks are understood and managed; ERO Enterprise processes are effective, efficient, and continuously improved.

Key deliverables include:

- Implement an ERO Enterprise internal risk management program.
- Continue the ERO Enterprise IT application and “Rigid Core / Flexible Edges” architecture strategy.
- Clearly delineate ERO Enterprise roles and responsibilities using the ERO Enterprise Operating Model action items to mature the collaborative processes.