

2016 ERO Enterprise and Corporate Metrics

<i>ERO Enterprise Metric 1: Reliability Results</i>		
Measure of success	Threshold	Target
Determine the frequency and severity of Bulk Electric System (BES) events, excluding weather, flood, or earthquake. The target is fewer, less severe events during 2016; no Category 4 and 5 events, and Category 1–3 events are trending favorably.		<ul style="list-style-type: none"> No Category 4 or 5 events. The slope of the cumulative trend line in the composite daily “event Severity Risk Index” (eSRI) for Category 1–3 events remains flat or negative. <ul style="list-style-type: none"> Measured for the period beginning January 1, 2011 to-date, includes days with zero events and excludes Category 4 and 5 events, events caused by terrestrial weather, and AESO islanding.
<i>ERO Enterprise Metric 2: Assurance Effectiveness</i>		
Measure of success	Threshold	Target
Assess all Category 3 and above events. The target is to reach zero gaps in Reliability Standards and compliance monitoring by 2017.	<ul style="list-style-type: none"> Following any Category 3 or above event, a documented gap analysis that reviews Reliability Standards and compliance monitoring is completed and recommendations identified within 90 days of both the event analysis(es) and compliance self-assessment(s) from Registered Entity(ies) and the ERO Enterprise. 	<ul style="list-style-type: none"> Target is zero gaps. If there are gaps identified in existing Reliability Standards or compliance monitoring, an alternative acceptable target is that gaps are closed within one year of the gap analysis report being released, two years if a technical study is needed first. Expand the existing gap analysis metric by sampling five (5) additional events that occurred between 2014 and 2016, and develop a program which indicates potential gaps in NERC’s Reliability Standards and compliance monitoring activities. The purpose of this activity is to expand the current program to include more events, thus providing a feedback mechanism to assure compliance and standards are addressing the risks to reliability. The program should be ready for implementation in 2017.

ERO Enterprise Metric 3: Risk Mitigation Effectiveness

Measure of success	Threshold	Target
Review the BES risk profile each year to determine actual and potential risks.	Stated threshold results achieved for each risk.	Stated target results achieved for each risk. The target is to identify, select, and mitigate the high priority risks (with specific metrics for each established project).
1. Changing Resource Mix	<ul style="list-style-type: none"> • Publish a reliability guidance document for state regulators to assist them in their state and regional plans to address the Clean Power Plan rule. • Incorporate an evaluation of the potential effects on reliability from a single fuel dependency (natural gas) in the Long-Term Reliability Assessment (LTRA). • Launch a distributed energy resources (DER) task force under the Planning Committee to identify reliability considerations when accommodating large amounts of DER. • Develop power flow and dynamic base case for the study of high penetration of Variable Energy Resources (VER). 	<ul style="list-style-type: none"> • Develop a whitepaper on planning and operating expectations for adequate amounts of essential reliability services (ERS) to maintain reliability. The whitepaper should inform the development of a “sufficiency guideline,” to be developed in 2017. • Conduct a short-term reliability assessment that addresses an emerging issue and rapid transitions of resources focused on high-risk areas (examples include persisting drought conditions, potential impacts of retirements of vulnerable nuclear generation, operational risk scenarios). • Develop an outreach and coordination plan, and implement the plan with states using the NERC assessments as a foundation to support policy decisions. This outreach and coordination includes webinars, state visits, and state energy-related forums. • Complete a report on strategies and methods to maintain reliability while accommodating large amounts of DER. • Develop and complete guidebook for probabilistic assessment of resource adequacy.
2. Extreme Physical Events	<ul style="list-style-type: none"> • In collaboration with the Regional Entities, develop a compliance monitoring plan for the remaining CIP-014 requirements prior to their initial enforcement period. • Conduct oversight of the Regional Entities’ implementation of the CIP-014 compliance monitoring plan. • Continue to conduct industry and stakeholder training or outreach for CIP-014, as necessary. • Continue to conduct industry and stakeholder training or outreach for geomagnetic disturbance (GMD) standards as necessary. 	<ul style="list-style-type: none"> • Evaluate potential noncompliance of CIP-014 to inform the need for additional training or outreach. • Evaluate potential noncompliance of GMD standards to inform the need for additional training or outreach.

<p>3. Cybersecurity Preparedness</p>	<ul style="list-style-type: none"> • Continue to conduct industry and stakeholder training or outreach for CIP Version 5 (CIP V5) as necessary to address emerging issues identified by industry during implementation, if any. • Implement two ESCC recommendations to the E-ISAC in accordance with guidance received from the NERC Board. <ul style="list-style-type: none"> ▪ Develop a How to Guide to encourage new members to engage with the E-ISAC. ▪ Review products, services, programs, and tools currently offered by the E-ISAC to identify member segments, needs and expectations. • Develop an alternative method for machine-to-machine automation for information gathering beyond CRISP and offer participation to industry members on a pilot basis. 	<ul style="list-style-type: none"> • Evaluate potential noncompliance of CIP V5 to inform the need for additional training or outreach. • Develop and begin to implement a training or outreach program to improve industry readiness for and successful implementation of low impact requirements for CIP V5. • In collaboration with the Regional Entities, develop an initial compliance monitoring plan for the initial enforcement period of low impact requirements for CIP V5. • Complete all action items scheduled for completion in 2016 as set forth in a work plan as agreed to by E-ISAC management and the E-ISAC Member Executive Committee. • Implement one additional ESCC recommendation to the E-ISAC as agreed to by the Member Executive Committee and the E-ISAC, and in accordance with guidance received from the NERC Board of Trustees. Specific recommendations include items listed in the Threshold and Establish User Communities. • At least seven (7) E-ISAC industry members use the pilot alternative method for automation by year-end.
<p>4. Protection System Misoperations</p>	<ul style="list-style-type: none"> • Build and deploy an IT process for registered entity relay misoperations submissions that enables NERC and the Regional Entities to collaboratively collect, analyze, and understand those factors that are contributing to relay misoperations. 	<ul style="list-style-type: none"> • NERC and the Regional Entities develop and implement collaborative strategies to improve relay misoperation rates, specifically targeting the top three contributing factors to relay misoperations. • Reduce the number of relay misoperations of the top three contributing factors by a statistically significant amount in 2016, as compared to the baseline in the 2014 Relay Misoperations report and the 2014 State of Reliability report.

<p>5. Resource Availability Due to Extreme Conditions</p>	<ul style="list-style-type: none"> • Perform analysis, including the use of GADS, TADS, and DADs data, to evaluate BES performance during 2012 through Q1 of 2016 extreme weather events and identify any trends or recommendations as appropriate. • Continue to monitor for severe weather performance of the BES during 2016 and use appropriate intervention strategies, e.g., lessons learned, event analysis report recommendations, webinars, training or outreach. 	<ul style="list-style-type: none"> • Produce an annual extreme weather preparedness webinar and formal feedback to support short-term and special reliability assessments.
<p>6. Model Building</p>	<ul style="list-style-type: none"> • Complete the transition of all model building designees and ensure all criteria of the model building designees are being performed (or a plan is in place to address criteria satisfactory to NERC). • Develop a Reliability Guideline accepted by the Planning Committee for power plant model verification using Phasor Measurement Unit (PMU) data. 	<ul style="list-style-type: none"> • Develop Phase 2 Case Quality Metrics, test on latest heavy summer power flow models, and provide results and recommendations to NERC’s model building designees. • Perform industry outreach and coordination to reinforce power plant and system model verification using PMU data; i.e. webinars, industry panels, NERC subcommittee outreach, etc. • Establish and implement a process for modeling notifications to inform industry about errors in models and enhancements.
<p>7. Equipment Performance</p>	<ul style="list-style-type: none"> • Verify the top three most impactful failures by substation equipment (see NERC’s 2014 AC Substation Equipment Failure report). 	<ul style="list-style-type: none"> • Develop a strategy and plan that includes an achievable goal for reduction of the top three most impactful failures by substation equipment types. • Establish success measures and begin implementation of plans for the top three most impactful failures by substation equipment types.

ERO Enterprise Metric 4: Program Execution Effectiveness

Sum of the weighted sub-metrics.		
<i>Sub-metrics</i>		
Measure of success	Threshold	Target
<p>Sub-metric A</p> <p>Reliability Standards address risk and projects consider cost effectiveness/impact</p>	<ul style="list-style-type: none"> Initiate all high-risk projects identified in the 2016 Reliability Standards Development Plan (RSDP) by the end of 2016. Develop a method for determining cost effectiveness/impact of Reliability Standards during standards development. 	<ul style="list-style-type: none"> Initiate at least two enhanced periodic reviews in 2016, ensuring that the projects are structured sufficiently to address emerging risks. Pilot one application of cost effectiveness/impact. Develop a risk-based input mechanism to prioritize enhanced periodic reviews.
Measure of success	Threshold	Target
<p>Sub-metric B</p> <p>Guidance and training or outreach is provided to industry to support the smooth implementation of Reliability Standards</p>	<ul style="list-style-type: none"> Provide ERO Enterprise Compliance Monitoring and Enforcement Program (CMEP) staff training or outreach for every Reliability Standard approved by FERC in 2016 within 90 days of the date of the order. Provide industry training or outreach for every Reliability Standard approved by FERC in 2016 within 90 days of the date of the order. Implement guidance protocols. 	<ul style="list-style-type: none"> Develop a documented process to provide feedback to the Reliability Standards development process on gaps or ambiguities identified within the currently enforceable Reliability Standards.
Measure of success	Threshold	Target
<p>Sub-metric C</p> <p>The registration program is evaluated for structure and consistency</p>	<ul style="list-style-type: none"> NERC-led panel is in place to conduct registration reviews according to established risk-based criteria. Complete a documented review, with an ERO Enterprise staff team, regarding the structure and consistency of the current registration program. Evaluate the need for an ERO Enterprise staff training program to support consistent execution of the recommended registration program. 	<ul style="list-style-type: none"> Develop a plan and begin implementing recommendations from the review of the registration program. If training is needed, begin program design.
Measure of success	Threshold	Target

Sub-metric D

Risk-based CMEP implementation is complete and is being measured for effectiveness

- By the end of Q2, develop a plan in collaboration with Regional Entities for completion of initial Inherent Risk Assessments (IRAs) for all registered entities.
- In collaboration with the Regional Entities, modify the procedures for the ERO Enterprise’s implementation of IRAs and how this is translated into a compliance oversight plan (COP).
- In collaboration with the Regional Entities, modify the procedures for the ERO Enterprise’s integration of Internal Control Evaluations (ICEs) and how it factors into COPs.
- Review of compliance exceptions and Find, Fix, Track and Reports (FFTs) conducted; 95% of compliance exceptions and FFTs sampled are appropriately categorized.
- 70% of all non-compliance is self-identified.
- Mitigation completion rates are as follows:

Noncompliance discovery year	Threshold
2013 and older	100%
2014	85%
2015	70%

- Regional Entities will document IRAs of all Reliability Coordinators (RCs), Balancing Authorities (Bas), and Transmission Operators (TOPs) by the end of 2016 and NERC will perform oversight.
- Compliance monitoring activities performed during 2016 cover the most significant risks to the BES.
- In collaboration with the Regional Entities, begin implementation of the ICE procedures as revised in threshold.
- Minimal risk noncompliance continues to be evaluated to look for trends or other relevant information and results are disseminated to Regional Entities and registered entities as appropriate.
- Review of compliance exceptions and FFTs conducted; 100% of compliance exceptions and FFTs sampled are appropriately categorized.
- 75% of all non-compliance is self-identified.
- 100% of Notices of Penalty approved by FERC.
- Mitigation completion rates are as follows:

Noncompliance discovery year	Target
2014	90%
2015	75%

Measure of success	Threshold	Target
<p>Sub-metric E</p> <p>The transition laid out in the operating model continues to be achieved regarding more predictable, consistent, and timely results and methods across the enterprise, as well as ensuring efficiencies and minimizing duplication and any activities not affecting reliability outcomes</p>	<ul style="list-style-type: none"> In collaboration with the Regional Entities, incorporate sub-metric D modifications for IRA and ICE into the NERC Compliance Monitoring Oversight Plan. In collaboration with the Regional Entities, incorporate sub-metric C registration program modifications into the NERC Organization Registration Oversight Plan. Implement the oversight plans for compliance monitoring, registration, and enforcement programs. 	<ul style="list-style-type: none"> In collaboration with the Regional Entities, develop documented oversight plans for event analysis, situational awareness, and performance analysis in accordance with the NERC Oversight Program Framework. Complete all ERO Enterprise tool projects in accordance with ERO EMG approved schedule, without material project overrun or setback. This includes user management registration and Enterprise Reporting Phase 3. In collaboration with the Regional Entities, review the organization certification program regarding its effectiveness in determining an entity's ability to become certified and then operational. Begin to incorporate changes to the program, if applicable, based on the outcomes of the review.
Measure of success	Threshold	Target
<p>Sub-metric F</p> <p>The ERO Enterprise stakeholder survey measures stakeholders' perceptions of the ERO Enterprise's execution of its work in an effective and consistent manner to achieve operational excellence and to reduce the risk to the reliable operations of the BES</p>	<ul style="list-style-type: none"> Issue survey in Q2. Present final results report and action plans for identified focus areas to the NERC Board of Trustees for acceptance. 	<ul style="list-style-type: none"> Actions for improvement scheduled for completion in 2016, as approved by the NERC President, are completed in 2016. Actions plan addresses priority issues from both 2015 and 2016 surveys.
Measure of success	Threshold	Target
<p>Sub-metric G</p> <p>Recommendations and lessons learned from GridEx III are developed</p>	<ul style="list-style-type: none"> Provide a report on lessons learned and recommendations for improvement from GridEx III to the NERC Board of Trustees and ESCC. 	<ul style="list-style-type: none"> Integrate lessons learned into the NERC Crisis Action Plan and into the E-ISAC standard operating procedures. Pass lessons learned to the ESCC for use in its playbook, and at least one substantive recommendation will be incorporated into the ESCC playbook.