ERO Enterprise Metric 1: Reliability Results		
Measure of success	Threshold	Target
Determine the frequency and severity of ~~BPS~~**BES** events, excluding weather, flood, or earthquake. The target is fewer, less severe events during ~~2015–2018~~**2016**; no Category 4 and 5 events, and Category 1–3 events are trending favorably.		- 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. - Measured for the period beginning 1/1/2011 to-date, includes days with zero events and excludes Category 4 and 5 events, events caused by terrestrial weather, AESO islanding.

ERO Enterprise Metric 2: Assurance Effectiveness		
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.	Following any Category 3 or above event, a **documented** gap analysis ~~of standards~~**that reviews Reliability Standards** and compliance monitoring is completed and recommendations identified within 90 days of ~~receipt~~**completion** of event analysis(es) and compliance self-assessment(s) from Registered Entity(ies).	Target is zero gaps. If there are gaps identified in existing ~~standards~~**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.

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	**Develop a Reliability Guideline for primary frequency control.** **Publish a reliability guidance document for states to assure reliability is maintained as they develop their plans to address the Clean Power Plan rule.** **Incorporate an evaluation of fuel dependency in the LTRA.**	~~By yearend 2015, complete an assessment of efficacy of proposed measures for Essential Reliability Services (ERS) based on industry field testing of those ERS measures as recommended in the ERS report submitted to NERC in Q1~~. **Develop a whitepaper on planning and operating expectations for adequate amounts of essential reliability services (ERS) to maintain reliability.** ~~By April 2015, complete a Phase 1 analytic assessment of the potential reliability impacts of the proposed EPA Clean Power Plan, including the adequacy of supply~~

<table>
<tr>
<td></td>
<td></td>
<td>

resources and transmission infrastructure, essential reliability services, and natural gas deliverability. **Conduct a short term reliability assessment that addresses emerging and rapid transitions and resources focused on high risk areas (e.g., DER penetration and solar eclipse in WECC, potential impacts of retirements of vulnerable nuclear generation).**

- ~~By yearend 2015, with the EPA final rule available, develop a detailed plan for the assessment of reliability impacts of the final rule.~~ **Conduct outreach with states using assessments as a foundation to support policy decisions. This outreach includes webinars, state visits, and state energy-related forums.**

- **Conduct a short term reliability assessment on natural gas interdependency that focuses on at least two high-risk NERC assessment areas.**

</td>
</tr>
<tr>
<td>

2. Extreme Physical Events

</td>
<td>

- ~~Provide ERO staff training and industry education on implementation of GMD operations standard (EOP-010) at one or more workshops and one or more webinars by Q2 2015.~~ **In collaboration with the Regional Entities, develop a compliance monitoring plan for the remaining CIP-014 requirements prior to their initial enforcement period.**

- ~~Provide ERO staff training and industry education on implementation of GMD engineering (TPL-007) at one or more workshops and one or more webinars by yearend.~~ **NERC will conduct oversight of the Regional Entities' the CIP-014 compliance monitoring plan.**

- ~~Provide ERO staff training and industry education on physical security (CIP-014) at two or more workshops and two or more webinars by yearend.~~ **Continue to conduct industry and stakeholder training or outreach for CIP-014 as necessary.**

</td>
<td>

- ~~Complete threshold training and education and additionally publish RSAW and implementation guidance for GMD operations (EOP-010).~~ **Evaluate potential noncompliance of CIP-014 to inform the need for additional training or outreach.**

- ~~Complete threshold training and education and additionally publish RSAW and implementation guidance for GMD engineering (TPL-007).~~**Evaluate potential noncompliance of GMD standards to inform the need for additional training or outreach.**

- ~~Complete threshold training for CIP-014 and publish compliance guidance on R1 and R2 in Q1, R4 and R5 in Q2, and R6 in Q3.~~ **No Category 4 or 5 events resulting from a physical attack or GMD event.**

</td>
</tr>
</table>

	• **Continue to conduct industry and stakeholder training or outreach for GMD standards as necessary.**	
3. Cybersecurity Preparedness **[E-ISAC-related metrics moved here from sub-metric H]**	• ~~Provide ERO staff training and industry education on cyber security (CIP V5 standards) at two or more workshops and two or more webinars by yearend.~~ **In collaboration with the Regional Entities, implement a compliance monitoring plan for the initial enforcement period of CIP V5.** • ~~Complete CIP V5 RSAW in Q2.~~**NERC will conduct oversight of the Regional Entities' implementation of the CIP V5 compliance monitoring plan.** • ~~Publish guidance and reference materials addressing transition challenge topics identified in 2014 (or demonstrate topics are addressed by alternate means).~~ **Continue to conduct industry and stakeholder training or outreach for CIP V5 as necessary.** • **Implement ESCC recommendations to the E-ISAC in accordance with guidance received from the NERC Board.**	• ~~Publish lessons-learned and FAQ documents from the CIP V5 implementation study report and ongoing work with the CIP V5 transition advisory group~~. **Evaluate potential noncompliance of CIP V5 to inform the need for additional training or outreach.** • ~~Develop common CIP V5 compliance audit approach addendum to auditor handbook (high and medium scoped programs) by Q4.~~**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.** • ~~Deliver five CIP auditor workshops, covering RSAW, lessons learned, FAQ and common auditor approaches. Ensure all CIP auditors have received necessary training by yearend~~. **In collaboration with the Regional Entities, develop an initial compliance monitoring plan for the initial enforcement period of low impact requirements for CIP V5.** • **No uncontrolled cascading outages resulting from a cyberattack.** • **Expand E-ISAC membership and coverage to include additional regions, entities, utilities, and strategic partners in the electricity industry.**
4. Protection System Misoperations	• ~~Establish one or more metrics to trend relay misoperation performance and develop an initial benchmark to most recent data available~~. **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.**	• ~~Complete at least two mitigation actions from among those recommended in the *NERC Staff Analysis of Reported Misoperations,* presented to the Planning Committee in December 2014 to reduce the risk of Protection System Misoperations.~~**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.** • ~~Trend misoperations related to the mitigation actions taken and report the effectiveness of NERC and~~

		industry actions.**Reduce the number of relay misoperations of the top three contributing factors by a statistically significant amount (80 percent confidence) in 2016 as compared to the base-line of 2014 (see 2015 State of Reliability report).**
5. **Resource Availability Due to** Extreme ~~Weather Preparedness and Resiliency Efforts~~**Conditions**	• Perform analysis, including the use of GADS, TADS, and DADs data, to evaluate ~~BPS~~**BES** performance during 2012–~~2014~~**2016** extreme weather events and identify any trends or recommendations as appropriate. • Continue to monitor for severe weather performance of the ~~BPS~~**BES** during ~~2015~~**2016** and use appropriate intervention strategies~~:~~**,** **e.g.,** lessons learned, event analysis report recommendations, webinars, ~~and~~ training **or outreach**.	• ~~Develop analysis methods for severe weather events in relation to historical trends, using metrics from GADs, TADS and DADs, capacity-deficiency management procedures or tools, and other appropriate benchmarks.~~ • ~~Identify potential interdependencies between extreme weather and resiliency performance, and document in a whitepaper.~~ • Produce an annual extreme weather preparedness webinar and formal feedback to support ~~seasonal~~**short term** and special reliability assessments.
6. **Model Building** **[Model Building moved here from sub-metric I]**	• **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).**	• **Calculate model quality and validation metrics for the model building designee to integrate into the interconnection models. Provide recommendations to the model building designees.**
7. ~~Right-of-Way Clearances~~**Equipment Performance**	• ~~Develop a statistical approach for sampling high priority line discrepancies that can be used to improve NERC's assurance that facility ratings have been appropriately calculated.~~ • ~~Develop an assurance plan and test this statistical approach by conducting a spot validation of a select subset of high priority line clearance discrepancies.~~ • **Identify the top three most impactful AC substation equipment failure modes (see NERC's whitepaper on AC Equipment Failures).**	• ~~Leverage Regional Entity resources to complete validation site visits for the purpose of assuring NERC that entities with significant high priority line discrepancies are calculating facility ratings appropriately.~~ • ~~Leverage industry forums as needed (e.g., NATF) to publish best practices by entities that completed mitigation of high priority line discrepancies, as well as methods for cost-effective programs to sustain adequate conductor clearances consistent with facility ratings.~~ • **Develop a strategy that includes an achievable goal for reduction of the top three most impactful AC substation equipment failure modes.** • **Begin implementation of this strategy for the top three most impactful AC substation equipment**

		failure modes. **This could include a webinar, industry outreach, and vendor collaboration.**

ERO Enterprise Metric 4: Program Execution Effectiveness		
Sum of the weighted sub-metrics.		
Sub-metrics		

Measure of success	Threshold	Target
Sub-metric A ~~Percent of all board-approved standards¹ meet quality criteria and results-based construct.~~**Reliability Standards address risk and projects consider cost effectiveness/impact**	• Initiate ~~100% of standards upgrade and improvement~~**all high-risk** projects ~~needed to bring standards to steady state, as detailed~~**identified** in the **2016** RSDP ~~(16 projects).~~**by the end of 2016.** • **Develop a method for determining cost effectiveness/impact of Reliability Standards during standards development.**	• **Initiate at least two enhanced periodic reviews in 2016, ensuring that the projects are structured sufficiently to address emerging risks.** • ~~Complete (NERC board approval) of 80% of these projects (13 out of 16) by yearend 2015~~**Pilot one application of cost effectiveness/impact**. • ~~All new standards that go to the NERC board meet quality criteria as outlined in the RSDP.~~**Develop a risk-based input mechanism to identify the most pressing need for enhanced periodic reviews.**

Measure of success	Threshold	Target
Sub-metric B ~~Quality, up-~~**Guidance and training or outreach is provided** to ~~date guidance developed for board-approved~~ **industry to support the smooth implementation of** Reliability Standards ~~related to risk elements to support risk-based compliance monitoring.~~	• ~~Every standard that goes to ballot will have guidance alongside. Every standard that is reviewed as part of the 10-year review cycle will have a current up-to-date guidance.~~**Provide ERO Enterprise CMEP staff training or outreach for every Reliability Standard approved by FERC in 2016 within 90 days of the date of the order.** • ~~Conduct guidance and outreach for 50% of standards that are associated with the risk elements identified in the annual compliance and enforcement monitoring program.~~**Provide industry training or outreach for every Reliability Standard approved by FERC in 2016 within 90 days of the date of the order.**	• ~~NERC Compliance Assurance, in concert with the Regions and support from Standards as needed, conducts in-depth training for compliance and enforcement staff within 3 months after every standard is approved by FERC in 2015.~~**Develop a documented process to provide feedback to the Reliability Standards development process on gaps or ambiguities identified within currently enforceable Reliability Standards.** • ~~Conduct guidance and outreach for 75% of standards that are associated with the risk elements identified in the annual compliance and enforcement monitoring program.~~

	• **Implement guidance protocols.**	

Measure of success	Threshold	Target
Sub-metric C ~~Improve registration practices commensurate with risk and RAI in light of the new BES definition and the obligations of registered entities to operate reliably.~~**The registration program is evaluated for structure and consistency**	• **NERC-led panel is in place to conduct reviews according to established criteria.** • **Complete a documented review, with an ERO Enterprise staff team, regarding the structure and consistency of the registration program.** • **Evaluate the need for a training program to support consistent execution of the registration program.**	~~For Phase 1:~~ • ~~Non-ROP and non-IT changes implemented by yearend 2015: common registration form, one-time attestations, internal policies and procedures, and guidelines and metrics for NERC oversight of Regional Entities.~~ **Develop a plan and begin implementing recommendations from the review of the registration program.** • ~~ROP criteria regarding elimination of functional registration categories fully implemented six months from FERC approval.~~**If a training program is needed, begin program design.** • ~~ROP criteria regarding modifications to Distribution Provider registrations fully implemented 12 months from FERC approval.~~ ~~For Phase 2:~~ ~~Conduct technical analysis and develop a report with recommendations regarding the risks, benefits, and proposed criteria for applying subsets of standards for TO, TOP, GO, and GOP registered functions that have minimal impact on bulk power system reliability.~~

Measure of success	Threshold	Target
Sub-metric ~~G~~D ~~Transformation of RAI concepts to~~**Risk-based CMEP** implementation ~~of risk-based compliance monitoring~~**is complete** and ~~enforcement.~~**is being measured for effectiveness**	• ~~During 2015, all ERO auditors and risk evaluation personnel receive requisite training on Inherent Risk Assessment and Internal Controls Evaluation through workshops and webinars, including use of case examples, lessons learned, and best practices.~~ **By the end of Q2, develop a plan in collaboration with Regional Entities for completion of initial IRAs for all registered entities.** • ~~Two workshops and two webinars for industry participants covering risk-based compliance and enforcement during 2015.~~ **In**	• ~~Provide Regional Entities with written documents guiding regional implementation of risk-based compliance monitoring and enforcement, including quality attributes to be monitored, metrics to be monitored, and oversight assurance plan.~~**Regional Entities will document IRAs of all RCs, BAs, and TOPs by the end of 2016 and NERC will perform oversight.** • ~~Deliver feedback on consistency to Regional Entities and provide summary report to board on a quarterly basis regarding the nature of oversight assurance corrective adjustments.~~**Compliance monitoring activities performed during 2016 cover the most significant risks to the BES.**

collaboration with the Regional Entities, enhance the procedures for the ERO Enterprise's implementation of IRAs and how this is translated into a compliance oversight plan (COP).

- ~~Risk-based compliance and enforcement web site remains current and continues to receive positive feedback in stakeholder meetings through yearend.~~ **In collaboration with the Regional Entities, enhance the procedures for the ERO Enterprise's integration of ICE and how it factors into COPs.**

- ~~With inputs from the advisory group, develop quantitative and qualitative metrics associated with 7 success factors and report results to NERC board quarterly.~~ **Review of compliance exceptions and FFTs conducted; 90% of compliance exceptions and FFTs sampled are appropriately categorized.**

- ~~Submit compliance filing to resolve directives~~, ~~if any, from regulator regarding risk-based compliance and enforcement.~~ **70% of all non-compliance is self-identified.**

- **90% of Notices of Penalty approved by FERC.**

- **Mitigation completion rates are as follows:**

Noncompliance discovery year	Threshold
2011 and older	98%
2012	95%
2013	90%
2014	75%
2015	75%

- **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
2011 and older	100%
2012	98%
2013	95%
2014	80%
2015	80%

Measure of success	Threshold	Target
Sub-metric H ~~Increase ES-ISAC participation and appropriately anonymized information sharing through the use of CRISP and the ES-ISAC secure portal.~~ **[Moved to Metric 3, Item 3]**	• ~~50% increase in information sharing activities delivered to industry (based off of 2014 AOO posts and watch list entries).~~ • ~~100% increase in security issues reported by industry into the ES-ISAC portal.~~ • ~~Initial subscription entities have CRISP installed and operational.~~ • ~~Jointly with ESCC, complete a strategic assessment of the scope and capabilities of the ES-ISAC, including benchmarking to other sector ISACs and inputs regarding industry needs.~~	• ~~100% increase in information sharing activities (based off of AOO posts and watch list entries).~~ • ~~300% increase in security issues reported by industry into the ES-ISAC portal.~~ • ~~At least 85% of initial subscription CRISP participants are receiving at least monthly issue reports from ES-ISAC/PNNL during Q3 and Q4.~~ • ~~By Q4 2015, improve timeliness for sharing of indicators of compromise and physical and cyber threat information following first notice to ES-ISAC: 4 hours or less for significant security event with threat level for recurring/additional harm remaining high, 24 hours or less for significant security event with residual threat level reduced to normal, and 72 hours or less for non-significant security events that cause no known impacts to Electricity Sector systems and typically occur ten or more times per year across North America.~~ • ~~Include in 2016 business plan changes to ISAC scope and resources per the ESCC strategic assessment, and complete any actions designated for 2015 completion.~~
Measure of success	Threshold	Target
Sub-metric I ~~Report to Board of Trustees on assessment of quality and availability of planning and engineering models and data with recommendations for model enhancements.~~ **[Moved to Metric 3, Item 6]**	• ~~Acquire and measure quality of summer power flow and dynamic cases, creating a feedback loop to case creation groups.~~ • ~~Develop procedures for taking interconnection-wide system readings to benchmark power flow case fidelity.~~ • ~~Test model fidelity using real system data and document results in an internal whitepaper.~~	• ~~Assess and improve the model validation procedures. Update NERC Model Validation Procedure with results of field trials to present to Planning Committee in Q3 2015.~~ • ~~Publish NERC Validation Procedure by yearend.~~
Sub-metric ~~J~~E ~~Achieving~~ **The** transition laid out in operating model **continues to be achieved** regarding ~~ERO~~	• In collaboration with the Regional Entities, **finalize the documented oversight plans for compliance monitoring, registration, and enforcement in accordance with the NERC**	• 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**

~~Enterprise personnel and ERO Enterprise (NERC and Regional Entity) infrastructure and applications.~~ **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.**	**Oversight Program Framework.**~~complete a compliance filing with FERC addressing the attributes of Regional Entity consistency and how they will be achieved.~~ • ~~Complete, execute, and file updated Regional Delegation Agreements by Q2 2015.~~**Begin implementation of the oversight plans for compliance monitoring, registration, and enforcement.**	**Framework.** ~~and implement an oversight program for risk-based compliance and enforcement, including quality attributes to be monitored by NERC and performance metrics to be monitored. Provide quarterly reports to the NERC board.~~ • ~~In collaboration with Regional Entities, develop oversight programs for event analysis and organization registration that are ready for implementation in Q1 2016. Documents include quality attributes to be monitored by NERC and performance metrics to be monitored.~~ • 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.**
Sub-metric ~~F~~**K** ~~Stakeholder annual satisfaction/perception survey of the ERO's effectiveness to manage risk, budget, and stewardship.~~ **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**	• Conduct survey in Q1 and **present initial results to the NERC Board by end of Q2 with high-level focus areas for improvement identified** ~~prepare initial benchmarking report by Q2, with specific focus areas for improvement identified.~~ • ~~Action plan for each focus area identified for improvement by Q2.~~	• ~~2015 planned improvements are completed by yearend.~~**Present final results report and action plans for each area identified for improvement to the NERC Board.** • ~~Second annual stakeholder satisfaction/perception survey ready to launch in Q3 2015 or Q1 2016 as preferred by industry.~~
Sub-metric ~~L~~**G** ~~BES Security Metrics Framework provides method to assess threats, identify risk, and develop remediation strategies.~~**Recommendations and lessons learned from GridEx III are developed**	• ~~Draft security metrics framework for industry input and comment by Q2.~~**Provide a report on lessons learned and recommendations for improvement from GridEx III to the NERC Board and ESCC.** • ~~Execute GridEx III in 2015, providing a severe cybersecurity and physical security scenario to exercise crisis response and recovery plans across industry and to gather actionable lessons learned to deliver back to industry, the ERO, and ESCC.~~	• ~~Deliver a security metrics framework for NERC board approval by yearend.~~**Integrate lessons learned into national strategic playbooks, plans, and cross-sector coordination documents.** • ~~Expand GRIDEX III to include regionally-facilitated sub-exercises and to also include an expanded executive tabletop with other lifeline sectors.~~ • ~~Provide a preliminary report to NERC board and ESCC summarizing key lessons from GRIDEX III and comparative improvements from the previous exercise.~~

~~Sub-metrics D, E, and F related to enforcement have been removed but will be tracked and reported quarterly to the Board of Trustee Compliance Committee at the quarterly meetings.~~