

2016-2018 Reliability Standards Development Plan

Howard Gugel, Director of Standards
Standards Oversight and Technology Committee Meeting
November 4, 2015

RELIABILITY | ACCOUNTABILITY



- Deliberate, measured approach
- Prioritization considerations
 - Risk assessment
 - Industry input
- Feedback loops and factors for consideration of risk
 - Emerging risks and changing technologies
 - Event analysis and compliance violation statistics
 - Lessons learned and FAQs
 - Regional variances

- Eight projects continuing from 2015 into 2016
- Enhanced Periodic Reviews
- Emerging risks
- FERC directives
- Standard Authorization Requests

- Integration of Variable Generation Task Force (IVGTF) recommendations
- Essential Reliability Services Task Force (ERSTF) recommendations
- Reliability Issues Steering Committee (RISC) identified emerging risks

- Steady State definition
 - FERC directives and recommendations for retirement have been addressed
 - Quality and content have been reviewed
 - Standards have transitioned closer to being results-based
- Achieved in early 2016

- Measured in-depth review to improve quality and content of standards
 - Verify content is appropriate for standard
 - Builds on Independent Experts' work
- Enhanced periodic reviews address:
 - Emerging risks
 - FERC directives
 - Standards Authorization Requests outstanding
- Initiation expected in Q1 2016

- Enhanced periodic reviews
 - Can the Reliability Standard be practically implemented?
 - Is there a concern that it is not cost effective?
- Cost of Risk Reduction Analysis
 - Guideline in development
 - In Standards Committee Process Subcommittee work plan
- Draft 2016 ERO Corporate Metric
 - Support development of guideline
 - Implement in developing new Standard, where applicable

- Status
 - Industry comment period closed on August 17, 2015
 - NERC Standards Committee endorsed on September 23, 2015
- Next steps
 - Present to the NERC Board of Trustees for approval
 - File with the applicable governmental authorities fourth quarter 2015



Questions and Answers

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Reliability Standards Quarterly Status Report

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Table 4: Summary of Total Directives

	Pre-2013 Directives*	Post 2012 Directives*	Total
Issued prior to year-end 2012	191		
Issued since year-end 2012		56	
Resolved as of September 30, 2015	168	46	
Remaining	23	10	33
Projected to be resolved in 2015	5	3	8
Projected remaining at year-end 2015	18	7	25

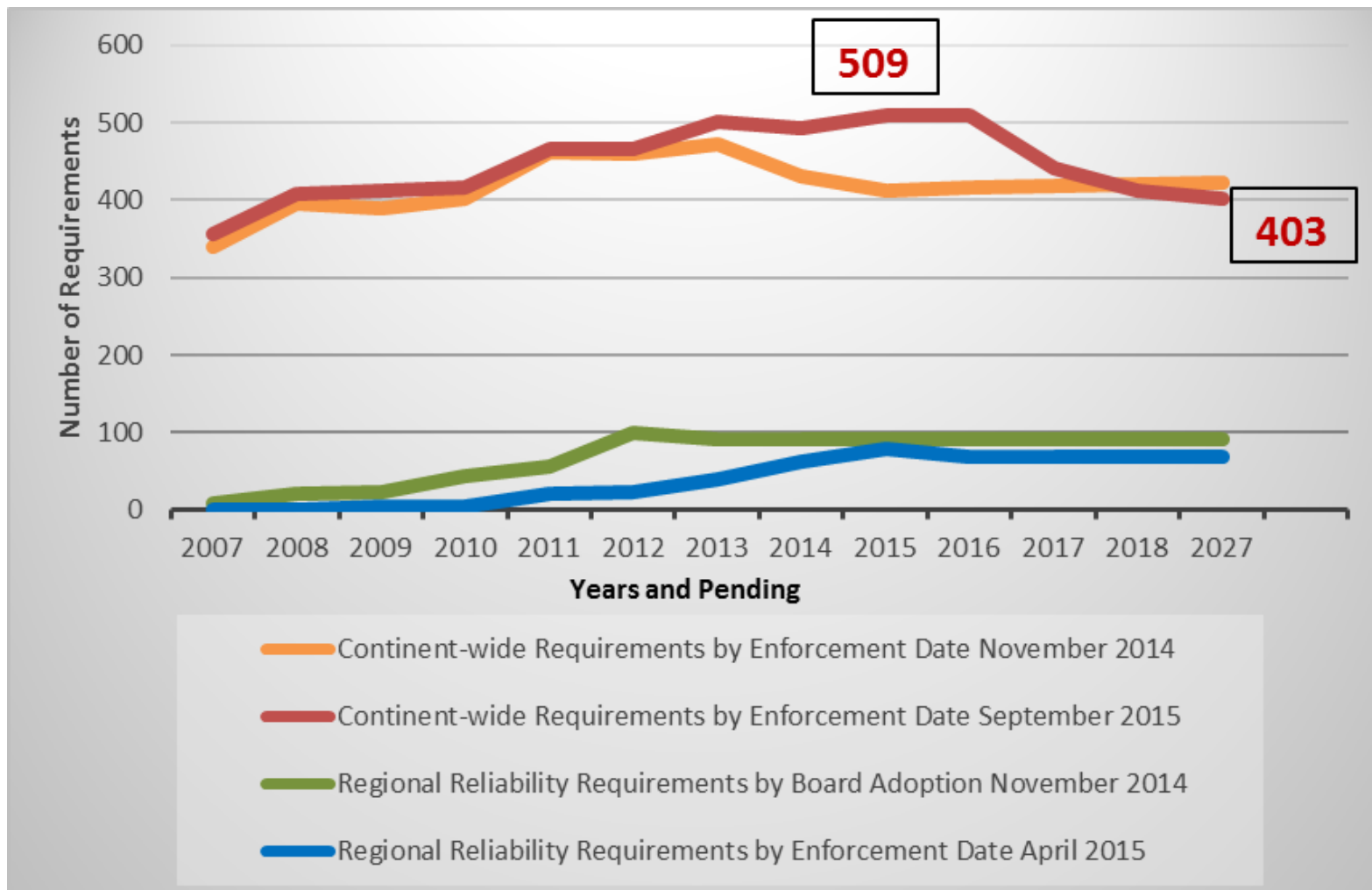
*Does not include directives for other NERC departments

	Current Status	P81 and IERP Recommendations for Retirement
Total*		281
Addressed	238	
In current projects	35	
Not assigned	8	
*Unique requirements		

Resolution	Number	Percent
Retired	110	46%
Modified	103	43%
Retained	25	11%
Total	238	

- February (3)
- May (5 planned; 3 actual)
- August (4 planned; 1 actual)
- November (3 planned; 3 actual plus 2 directives projects)
- February 2016 (5 planned)

Trend for Number of Requirements



- Endorsed the 2016-2018 Reliability Standards Development Plan
- Developing a Standards metric
- Held officer elections (subject to Board approval)
 - Re-elected Brian J. Murphy as Chair
 - Elected Michelle D'Antuono as Vice Chair



Questions and Answers

ERO IT Applications Update

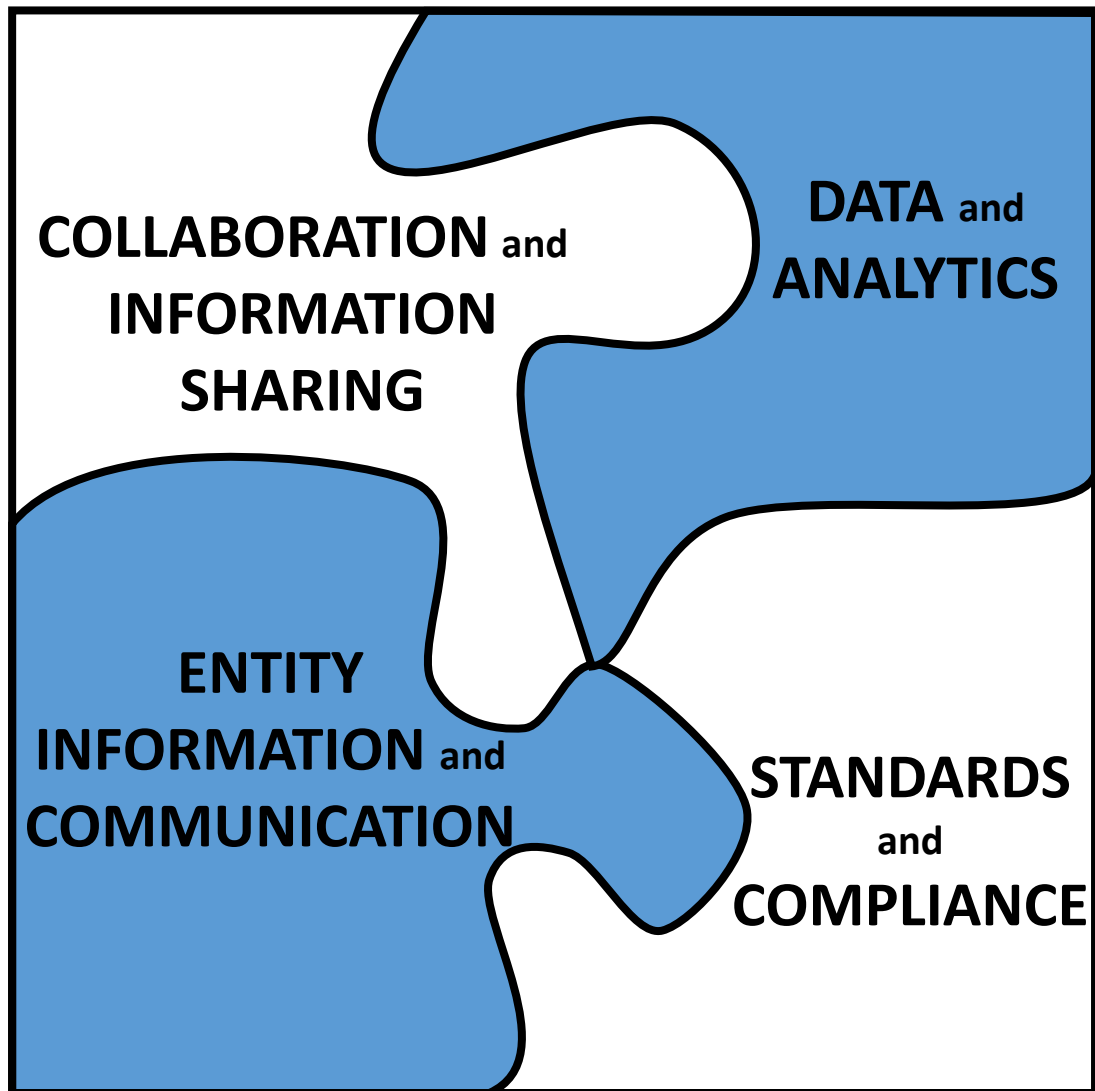
Stan Hoptroff, Vice President and Chief Technology Officer
Standards Oversight and Technology Committee
November 4, 2015

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- ERO IT Applications Project Update
- ERO Enterprise Systems Initiatives
 - Collaboration and Information Sharing
 - Entity Information and Communications
 - Standards and Compliance
 - Data and Analytics
- Compliance Monitoring and Enforcement Program (CMEP) Tools Update
- Document Management Program Update
- Priorities Looking Ahead

- Enterprise Reporting Phase 2 – Q4 2015
- Standards Balloting Enhancements – Q4 2015
- Compliance Reporting and Tracking System (CRATS) Enhancements – Q1 2016
- Misoperation Data Capture



- Four strategic systems initiatives with technology solutions
- Ongoing reevaluation and adjustment

Enhance collaboration and information sharing by leveraging Microsoft's SharePoint platform

- Phase 1 (2015–2017)
 - Deliver Document Management and NERC Intranet interface
- Phase 2 (2016–2018)
 - Deliver a new NERC.com
- Phase 3a (2017–2018)
 - Deliver a new NERC Extranet; replace email document collaboration with SharePoint based document collaboration
- Phase 3b (2017–2018)
 - Provide a new solution for Extranet discussion groups

Improve entity specific communication and information sharing across the ERO Enterprise.

- Phase 1a (2016)
 - Enable user management
- Phase 1b (2016)
 - Replace the three current entity registration processes with one common centralized solution
- Phase 2 (2017–2018)
 - Deliver a new intelligent announcements and alert solution

Implement new Enterprise-wide support tools for CMEP

- Phase 1 (2016–2017)
 - Deliver a centralized entity registration solution
- Phase 2 (2017–2019)
 - Enable NERC Reliability Standards to be used and shared as “data”
- Phase 3 (2017–2019)
 - Deliver new solutions and retire current solutions that support the CMEP

Consolidate data collected by NERC and make it available for analysis by authorized organizations

- Phase 2 (2015–2016)
 - Complete a master data inventory
 - Build a master data model
 - Deliver initial components for an enterprise reporting data warehouse
- Phase 3 and beyond (2016–2019)
 - Integration of data based on business priority

- CMEP Technology Roadmap approved by ERO TLT
 - Replace existing systems and move to a common model
 - Use commercial corporate compliance and oversight software for core functions
 - Use xRM for registered entity information
 - Phased delivery 2016 through 2019
 - Additional time added for analysis of business processes
 - Request for Information in progress

- Program launch: August 3, 2015
- Support and commitment throughout NERC leadership
- Activities in progress:
 - Design workshops
 - Infrastructure setup
 - Training and communications planning
 - Pilot planning: Finance, Information Technology, and Human Resources

- Keep focus on technology investments that deliver tangible business value
 - Document Management Program
 - User Management and Registration
 - Entity Registration
 - Enterprise Reporting – Regions, Reliability Risk Management, Reliability Assessment and Performance Analysis, Compliance
 - Continue to refine and share vision and roadmaps for the ERO Enterprise Systems Initiatives



Questions and Answers



Background

- Reach consensus on ERO Enterprise priorities:
 - Event Analysis (EA) application
 - Reliability Assessments application
 - Compliance and Registration
 - Enterprise Reporting and Data Management
- Ensure that the right information is provided to the right people at the right locations
- Ensure consistent, disciplined decision-making process (“TLT” and “gated process”)
- Recognize NERC and regional-specific IT requirements, business needs, activities, and realities

- Recognize a bias for proven off-the-shelf solutions with minimal modifications or configurations
- Ensure data integrity and data sharing via proven integration techniques
- Conform to the ES-ISAC Code of Conduct
- Ensure important cross-sector institutional relationships are respected and nurtured (National Council of ISACs, American Gas Association, etc.)