NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

ERO IT Applications Update

Stan Hoptroff, Vice President and Chief Technology Officer
Standards Oversight and Technology Committee
August 12, 2015

RELIABILITY | ACCOUNTABILITY

Today's Topics

- ERO IT Applications – Project Updates
- ES-ISAC Technology Update
- Cybersecurity Risk Information Sharing Program (CRISP) Technology Update
- Document Management Program Update
- Priorities Looking Ahead

ERO IT Guiding Principles

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

ERO IT Guiding Principles (Continued)

- 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.)

ERO Applications Update – YTD Completed

- Standards Balloting System
- Enterprise Reporting Phase 1 (GADS/TADS/DADS Data)
- Reliability Assessment Data System (RADS-NERC)
- Event Analysis (NERC Go Live)

RADS Business Value

- Automates data load and data management processes, allowing more time for analysis
- Increased analytical capability with enterprise-grade tools
- Access to assessment data (1990-current) enables trending
- Self-service reporting tools, including ad hoc capabilities

Events Analysis Business Value

- Enterprise application based on industry standard xRM platform
- Integrates master data (CRATS, GADS,TADS), eliminating manual data entry
- Enables more efficient data collection, tracking, analytics, and reporting
- Provides a consistent experience for regional event data submission and access to reports

ES-ISAC Technology Update

- ES-ISAC Information Sharing Portal planned improvements
  - Development of new portal interfaces and communications in User Acceptance Testing
  - Migration to Production expected by 10/01/2015
  - Development of additional enhancements for 2015 GridEx III exercise began on 07/31/2015
  - Evaluation of effort and cost for addition of ESCC/SEWG section under way
- Office and Systems Separation Effort
  - Construction of separate ES-ISAC offices and computer room is complete
  - Logical separation and computer room buildout underway to be completed by 10/01/2015

CRISP Technology Update

- Currently, 20 participants enrolled in the program
- Analysis is being performed for 16 of the 20 participants
- Two information sharing device installs were completed in June and are ready to send data for analysis
- Three participants currently on hold pending DOE legal review of Banner Affirmations; once approval is received from DOE, participants will be fully operational
- Working with last site to complete installation by 08/31/2015
- Efforts for onboarding of eight additional sites by end of 2015 underway

Document Management Program Update

- Received FERC approval for reserve spend on June 3, 2015
- Project launch occurred on August 3, 2015
- Pre-launch activities underway
  - Communications
  - Governance
  - Scheduling
  - Contract-MSA/SOW with ERO perspective

Priorities Looking Ahead

- Focused technology investments that deliver tangible business value
  - Events Analysis-Regions
  - Enterprise Reporting Phase 2
  - CRATS Enhancements
  - Document Management Program
- Continue progress with ES-ISAC, CRISP
- Develop, refine, and communicate vision and roadmap for the ERO Enterprise Systems Initiative

Questions and Answers

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Draft 2016-2018 Reliability Standards Development Plan

Howard Gugel, Director of Standards

Standards Oversight and Technology Committee Meeting

August 12, 2015

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Draft 2016-2018 Reliability Standards Development Plan Highlights

- 16 projects expected to be completed in 2015
- Six projects expected to carry over from 2015 into 2016
- Incorporates feedback from May Board and MRC discussions
- Enhanced periodic reviews
  - Deliberate and measured pace
  - Compliance input up front
  - Prioritization of development based on risk

Factors for Consideration

- Emerging risks and changing technologies
- Events analysis and compliance violation statistics
- Lessons learned and frequently asked questions
- Requests for interpretations
- Reliability Standard Audit Worksheet (RSAW) development, measures, and compliance input
- Regional variances
- Construct of standards
- Surveys and polls

Timeline

2015

- **June 15–29:** Standards Committee comment period
- **July 15:** Standards Committee authorized posting for industry comment
- **July 16–August 17:** Industry comment period
- **Late August–Mid-September:** Consideration of comments submitted to Standards Committee for another comment period
- **November 5:** Presentation to NERC Board of Trustees for adoption
- **December 31:** Filing to the applicable governmental authorities

Questions and Answers

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Reliability Standards Quarterly Status Report

Howard Gugel, Director of Standards

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Progress on FERC Directives

	Pre-2013 Directives*	Post 2012 Directives*	Total
Issued prior to year-end 2012	191		
Issued since year-end 2012		56	
Resolved as of March 31, 2015	168	44	
Remaining	**23**	**12**	35
Projected to be resolved in 2015	18	6	24
Projected remaining at year-end 2015	5	6	11

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Progress on Paragraph 81 and Independent Experts' Review Panel (IERP)

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

*Unique requirements

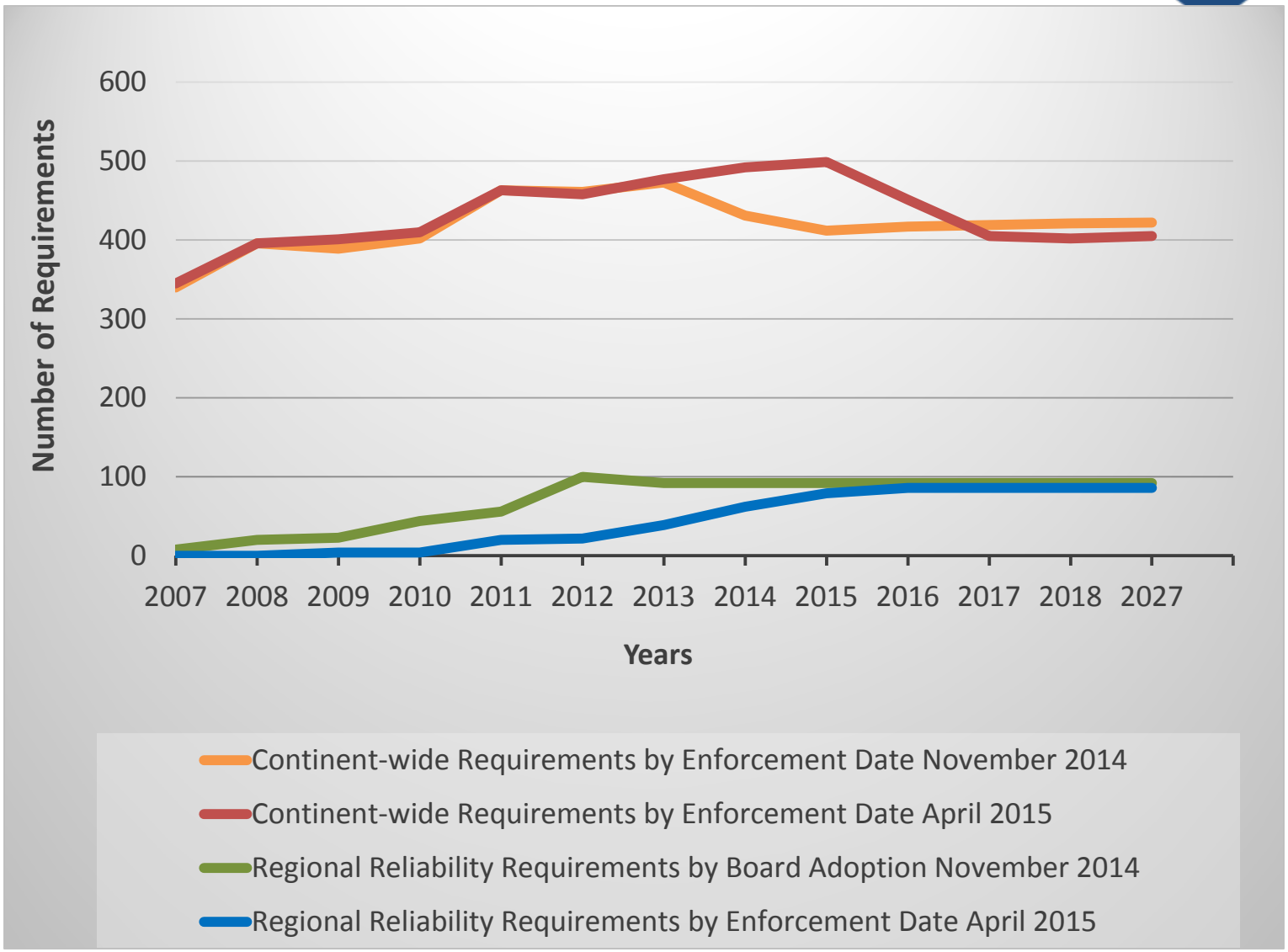
Progress on Paragraph 81 and IERP (continued)

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

Reaching Steady-State in 2015

- February (3)
- May (5 planned; 3 actual)
- August (4 planned; 1 actual)
- November (3 planned; 7 projected plus 2 directives projects)
- Early 2016 (4 planned)

Trend for Number of Requirements



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