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NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Transmission Lessons Learned from the V5 Transition

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- Standards Development Web Page:
  - <http://www.nerc.com/pa/Stand/Pages/Project-2014-XX-Critical-Infrastructure-Protection-Version-5-Revisions.aspx>
- SAR Posted & Comment Period complete
  - SAR revisions in progress
- Desire to address all 4 directives within one year
- Initial Posting of revisions planned for June
- Extensive SDT conference calls and other work between meetings

<b>Proposed Timeline for the</b>		
<b>Project 2014-02 Standard Drafting Team (SDT)</b>		
<b>Anticipated Date</b>	<b>Location</b>	<b>Event</b>
1/15/2014	-	SC Authorizes SAR
1/29/2014	-	SC Appoints Standards Drafting Team
2/19/2014-2/21/2014	Washington, DC	SDT Meeting
3/18/2014-3/20/2014	Sacramento, CA	SDT Meeting
4/22/2014-4/24/2014	Atlanta, GA	SDT Meeting
5/12/2014-5/14/2014	Columbus, OH	SDT Meeting
6/2/2014	-	First 45-Day Comment Period & Ballot Opens
7/17/2014	-	First 45-Day Comment Period & Ballot Closes
7/29/2014-7/31/2014	TBD	SDT Meeting
8/19/2014-8/21/2014	TBD	SDT Meeting
8/29/2014	-	Second 45-Day Comment Period & Ballot Opens
10/13/2014	-	Second 45-Day Comment Period & Ballot Closes
10/??/2014	TBD ?	SDT Meeting ?
10/31/2014	-	Final Ballot Opens
11/10/2014	-	Final Ballot Closes
11/13/2014	-	Presentation to NERC Board of Trustees for Adoption
12/31/2014	-	NERC Files Petition with Applicable Governmental Authorities

- Effective Date of Final Rule: **February 3, 2014**
  - Effective Date for Compliance with all non-periodic requirements:  
**April 1, 2016** for High and Medium Impact  
**April 1, 2017** for Low Impact
  - Compliance with initial performance of periodic requirements as discussed in the Implementation Plan, using an Effective Date of **April 1, 2016**

- New Assets included - Medium
  - Capacity-based calculation
  - All 500kV or higher Transmission
  - IROL Transmission
  - Generation Interconnection (based on bright-line identified generation)
  - NPIR Transmission
- New Assets included - Low
  - All Cranking Paths
  - All remaining BES Transmission

**2.5. Transmission Facilities that are operating between 200 kV and 499 kV at a single station or substation, where the station or substation is connected at 200 kV or higher voltages to three or more other Transmission stations or substations and has an "aggregate weighted value" exceeding 3000 according to the table below. The "aggregate weighted value" for a single station or substation is determined by summing the "weight value per line" shown in the table below for each incoming and each outgoing BES Transmission Line that is connected to another Transmission station or substation. For the purpose of this criterion, the collector bus for a generation plant is not considered a Transmission Facility, but is part of the generation interconnection Facility. (V4 1.7)**

Voltage Value of a Line	Weight Value per Line
less than 200 kV (not applicable)	(not applicable)
200 kV to 299 kV	700
300 kV to 499 kV	1300
500 kV and above	0

See [http://www.nerc.com/docs/pc/rmwg/pas/index\\_team/SRI\\_Equation\\_Refinement\\_May6\\_2011.pdf](http://www.nerc.com/docs/pc/rmwg/pas/index_team/SRI_Equation_Refinement_May6_2011.pdf)

- *All* BES Facilities now covered by CIP Standards
  - No longer have “Critical Assets” and other assets
  - CIP Standards now apply to non-routably connected assets
  - CIP Standards now apply to low impact assets (i.e. non-Critical Cyber Assets)
- Routably connected Medium Impact BES Cyber Systems
  - Generally the same as V3 CCA requirements
  - Clarifications and additions based on directives from FERC Order No. 706

- Low Impact BES Cyber Systems:
- CIP-003-5: Security Management Controls
  - Low Impact requirements
    - Physical Protections;
    - Electronic Protections where Routable Connectivity;
    - Security Awareness;
    - Incident Response



- The following slides discuss requirements for Medium Impact BES Cyber Systems *without* External Routable Connectivity ...

- CIP-004-5: Personnel & Training
  - Larger group of personnel potentially subject to PRA and Training requirements
- CIP-005-5: Electronic Security Perimeters
  - ESP identified if internal routable, even if no external routable connectivity
    - For identifying PCAs
- CIP-006-5: Physical Security of BES Cyber Systems
  - Operational or procedural controls to restrict physical access

- CIP-007-5: System Security Management
  - Security Patch Management program
  - Malicious Code Prevention
  - Security Event Monitoring (per BES Cyber System capability)
  - Account Management (default and generic accounts)
  - Default Passwords (per Cyber Asset capability)
  - Password Complexity (per Cyber Asset capability)
- CIP-008-5: Incident Reporting and Response Planning
  - Incident response procedures, testing, updating
  - Incident response procedure testing

- CIP-009-5: Recovery Plans for BES Cyber Systems
  - Recovery Plans (including restoration of function)
- CIP-010-1: Configuration Change Management and Vulnerability Assessments.
  - Baseline configuration
  - Authorize and document changes that deviate from the existing baseline configuration
  - Analyze changes for security impacts
  - Vulnerability Assessments once every 15 months (paper or active); address vulnerabilities found

- CIP-011-1: Information Protection
  - Identify & Protect BES Cyber System Information
  - Erase BES Cyber System Information prior to reuse or disposal

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## *Questions*

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