CIP Reliability Standards Update

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Ontario Power Generation

Agenda:

- Introduction
- CIP Version 5:
 - Goals
 - Schedule
 - Scoping
 - Implementation Plan
- Q&A

Introduction:

- 22 years experience in Utility Sector
- P&C Field Engineer turned IT turned manager
- Experience with SCADA, protections, real time systems, telecommunication, networking
- Manager of OPG's "Technical" Compliance Section for hydro and thermal generation
- Member of NPCC Task Force on Infrastructure Security and Technology (TFIST)
- Member of the NERC Order 706 SDT (CIP Standards)

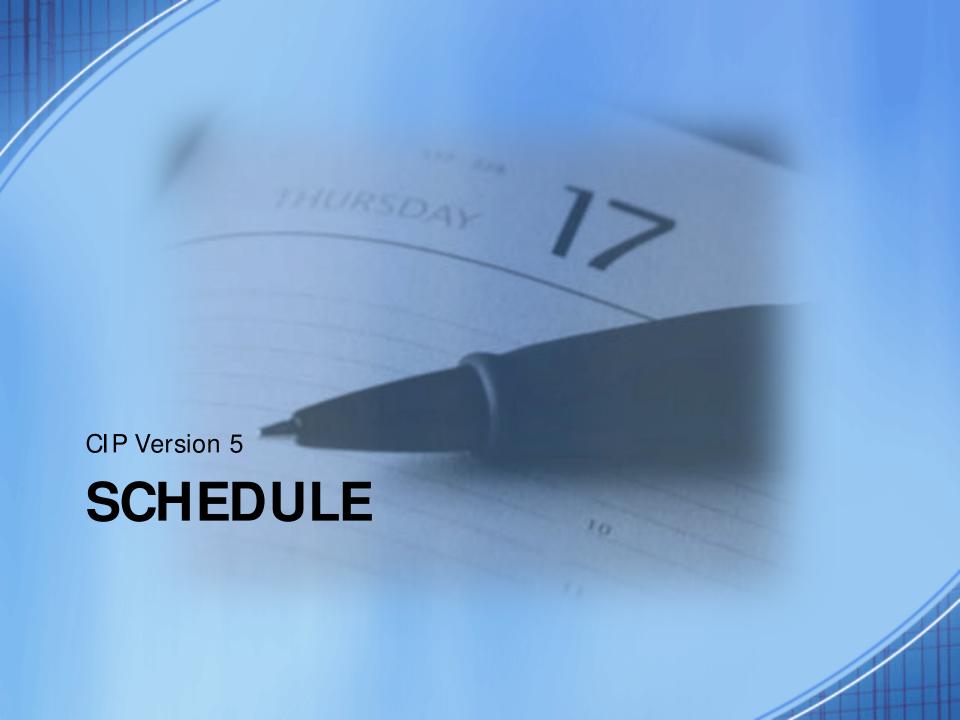


CIP Version 5 Goals:

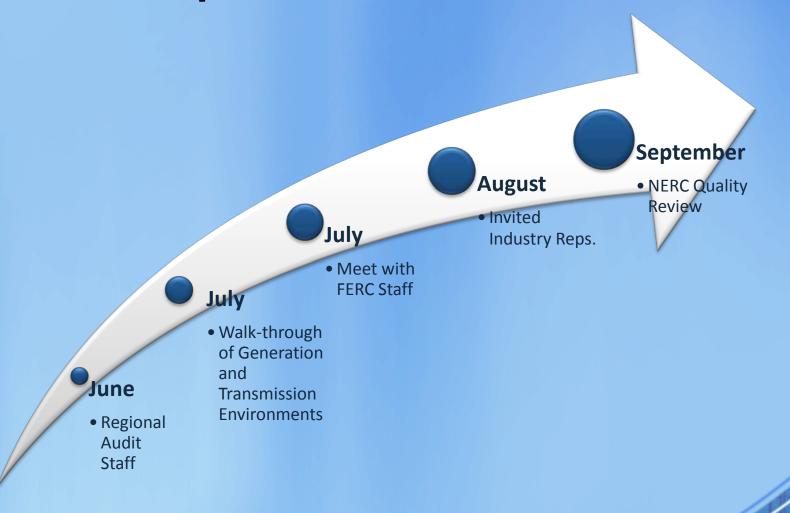
- Goal 1: To address the remaining Requirementsrelated directives from all CIP related FERC orders, all approved interpretations, and CAN topics within applicable existing requirements.
- **Goal 2:** To develop consistent identification criteria of BES Cyber Systems and application of cyber security requirements that are appropriate for the risk presented to the BES.
- **Goal 3:** To provide guidance and context for each Standard Requirement.

CIP Version 5 Goals:

- **Goal 4:** To leverage current stakeholder investments used for complying with existing CIP requirements.
- **Goal 5:** To minimize technical feasibility exceptions.
- **Goal 6:** To develop requirements that foster a "culture of security" and due diligence in the industry to complement a "culture of compliance".
- Goal 7: To develop a realistic and comprehensible implementation plan for the industry.



Development Schedule:

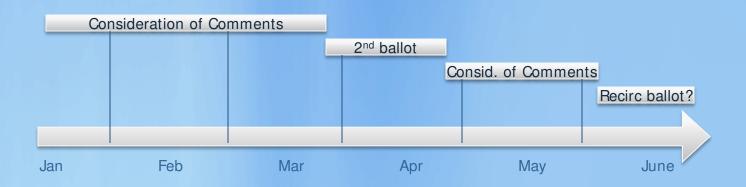


Comment and Ballot Period:

- November 7, 2011 January 6, 2012
 - Formal 60-day comment period
- December 16, 2011 January 6, 2012
 - Initial Ballot

2012 Schedule:

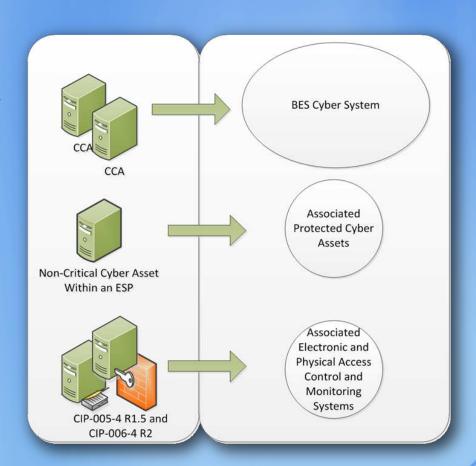
- January 6 March 26
 - Consideration of Comments
- March 26 April 27
 - 30-day posting for comment and successive ballot
- June 6–22
 - Possible Recirculation ballot





Approach:

- Initially based on CIP002
 V4 Attachment-A "Critical Asset Criteria"
- A shift from identifying Critical Cyber Assets to identifying BES Cyber Systems
- Directly supporting BES Reliability Operating Services



Impact Categorization:

High I mpact

- Large Control Centers
- Additional controls beyond CIPv4

Medium Impact

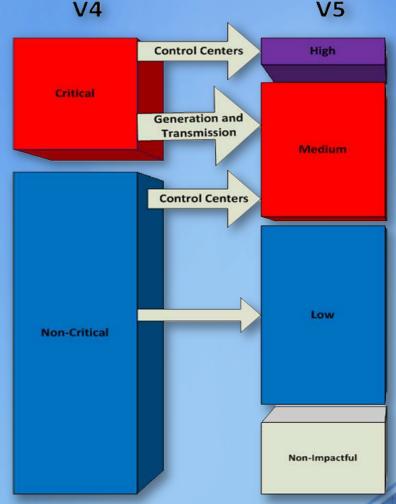
- Generation and Transmission
- Other Control Centers
- •Similar to CIP-003 to 009 v4

All other BES Cyber Systems

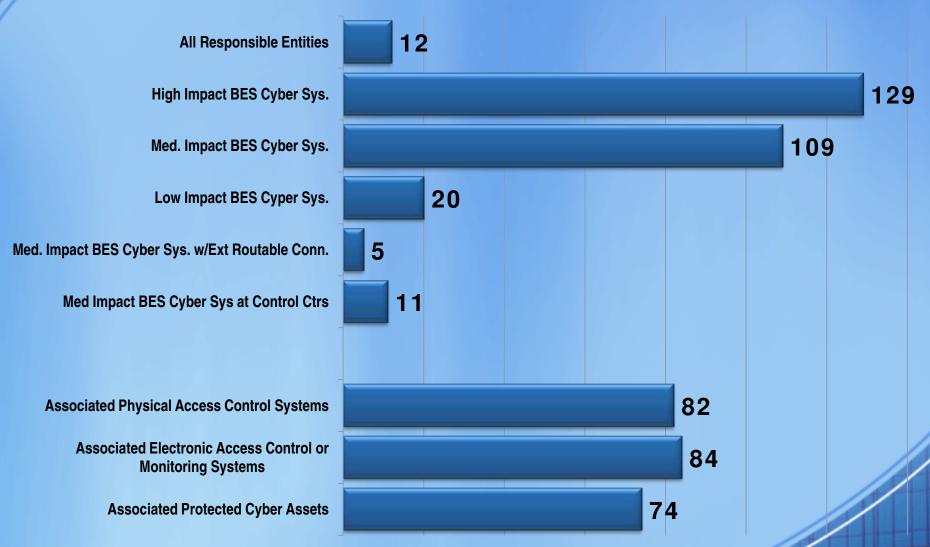
- Security Policy
- Security Awareness
- •Incident Response
- Boundary Protection

·Non-I mpactful

(Does not support a BES Reliability Operating Function OR can not impact on BES reliability within 15 minutes.)



V5 Requirements (unofficial)





IMPLEMENTATION PLAN

Implementation Plan

- Single Implementation Plan
 - Incorporated Unplanned Changes from "Implementation Plan for Newly Identified Critical Cyber Assets and Newly Registered Entities" (IPNICCANRE)
- Single Effective Date
 - No staggered implementation. No Compliant/Auditably Compliant dates

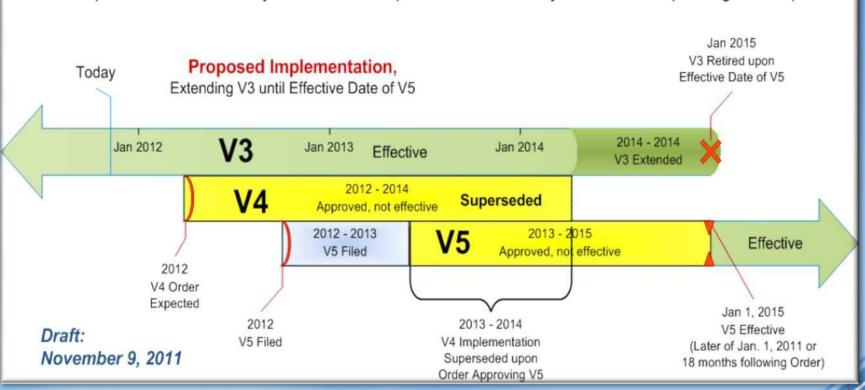
V3/ V4/ V5 Transition

Notwithstanding any order to the contrary, CIP-002-4 through CIP-009-4 do not become effective, and CIP-002-3 through CIP-009-3 remain in effect and are not retired until the effective date of the Version 5 CIP Cyber Security Standards under this implementation plan.

Transition Plan Timeline

Implementation Plan for Version 5 of CIP Cyber Security Standards

(Graphic for illustrative and comparative purposes only; dates are estimates only and based on assumptions. There is no way to know or anticipate when FERC may take action on pending matters)





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