PC37.240

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Type of Project: Revision to IEEE Standard C37.240-2014
PAR Request Date: 12-Oct-2017
PAR Approval Date: 06-Dec-2017
PAR Expiration Date: 31-Dec-2021
Status: PAR for a Revision to an existing IEEE Standard
Root Project: C37.240-2014

1.1 Project Number: PC37.240
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard Cybersecurity Requirements for Power System Automation, Protection and Control Systems

Changes in title: ~~IEEE~~ Standard Cybersecurity Requirements for ~~Substation~~Power System Automation, Protection~~,~~ and Control Systems

3.1 Working Group: PC37.240 Cyber Security Standard (PE/PSCC/C37.240_WG)
Contact Information for Working Group Chair
Name: Steven Kunsman
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Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Power System Communications and Cybersecurity (PE/PSCC)
Contact Information for Sponsor Chair
Name: Daniel Nordell
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 01/2020
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2020

5.1 Approximate number of people expected to be actively involved in the development of this project: 20
5.2 Scope: The standard provides technical requirements for power system cybersecurity. Based on sound engineering practices, requirements can be applied to achieve high levels of cybersecurity of power system automation, protection and control systems independent of voltage level or criticality of cyber assets.

Changes in scope: ~~This~~The ~~document~~standard provides technical requirements for ~~substation~~power system cybersecurity. ~~It~~Based ~~presents~~on sound engineering practices, ~~that~~requirements can be applied to achieve high levels of cybersecurity of power system automation, protection~~,~~ and control systems independent of voltage ~~class~~level or criticality of cyber assets~~. Cybersecurity includes trust and assurance of data in motion, data at rest, and incident response~~.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: This document will not include a purpose clause.
5.5 Need for the Project: Utilities and manufacturers need to develop this standard to define cyber security requirements for substation automation, protection and control systems to improve the overall power system network security from hacker and other security vulnerabilities.
Modern substation automation, protection and control systems, while using technology advancements to achieve greater power system reliability, can be vulnerable to a multitude of cyber security threats. These vulnerabilities and threats can lead to overall power system integrity issues. With the increasing dependency on communication technology and the growing pressure of a secure utility infrastructure, various standardization bodies are in the process of developing cyber security standards where very little effort has gone into the harmonization or rationalization of these standards to the substation applications. Example of important standards to the utility community are:

NERC CIP - Critical Infrastructure Protection (Standards are CIP-002 through CIP-009)
IEEE 1686 - IEEE Standard for Substation Intelligent Electronic Devices (IEDs) Cyber Security Capabilities
IEEE P1711 - IEEE Trial Use Standard for a Cryptographic Protocol for Cyber Security of Substation Serial Links
IEC 62351 - Power systems management and associated information exchange - Data and communications security
This standard builds on the other work to date to produce a specification for a technically feasible cyber security implementation.

5.6 Stakeholders for the Standard: Electric power utilities and substation equipment and system manufacurers

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Intellectual Property
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No
6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

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7.1 Are there other standards or projects with a similar scope?: No
7.2 Joint Development
Is it the intent to develop this document jointly with another organization?: No

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8.1 Additional Explanatory Notes: