Unofficial Comment Form

Project 2021-03 CIP-002

**Do not** use this form for submitting comments. Use the [Standards Balloting and Commenting System (SBS)](https://sbs.nerc.net/) to submit comments on **Project 2021-03 CIP-002** by **8 p.m. Eastern, Wednesday, July 12, 2023.   
m. Eastern, Thursday, August 20, 2015**

Additional information is available on the [project page](https://www.nerc.com/pa/Stand/Pages/Project%202021-03%20CIP-002%20Transmission%20Owner%20Control%20Centers.aspx). If you have questions, contact Standards Developer, [Dominique Love](mailto:Dominique.Love@nerc.net) (via email), or at 404-217-7578.

## Background Information

The purpose of Reliability Standard CIP-002 is toidentify and categorize Bulk Electric System (BES) Cyber Systems and their associated BES Cyber Assets for the application of cyber security requirements commensurate with the adverse impact that loss, compromise, or misuse of those BES Cyber Systems could have on the reliable operation of the BES. Identification and categorization of BES Cyber Systems support appropriate protection against compromises that could lead to misoperation or instability in the BES.

The Standards Committee (SC) assigned a portion of the Project 2016-02 Standard Authorization Request ([SAR](https://www.nerc.com/pa/Stand/Project202103_CIP002_Transmission_Owner_Control_Ce/CIP_SAR_822_directives_V5TAG_2016June1_clean.pdf)) that relates to Transmission Owner Control Centers (TOCCs) to the Project 2021-03 Standard Drafting Team (SDT). The SAR portion is to review CIP-002 and evaluate standard revised Criterion 2.12 to categorize certain TOCCs performing Transmission Operator functions as medium impact based on an aggregate weighted value of their BES Transmission Lines. In addition, the SDT assisted NERC staff in meeting the directive from the NERC Board of Trustees (BOT) to conduct further study of the need to readdress the applicability of the Critical Infrastructure Protection Reliability Standards to theses Control Centers to support reliability. To help meet this directive and the scope of the SAR, the SDT initiated a field test. The SC approved the [Field Test Plan](https://www.nerc.com/pa/Stand/Project202103_CIP002_Transmission_Owner_Control_Ce/2021-03%20CIP-002%20TOCC%20Field%20Test.pdf) on November 17, 2021. Three fields tests were conducted in 2022 and the [final report](https://www.nerc.com/pa/Stand/Project202103_CIP002_Transmission_Owner_Control_Ce/2021-03_CIP-002_TOCC_Field_Test_Final_Report_01262023.pdf) was posted to the project page in January 2023.

The SDT is conducting an informal comment period to solicit feedback on proposed Standard language below that addresses:

* Control Center Definition
* New Definition for Data Center
* CIP-002-5.1a Criterion 2.12 with Exclusion process

**Questions**

**Definitions:**

*Control Center: One or more ~~facilities hosting~~ rooms where a responsible entity hosts operating personnel, as detailed below, that monitor and control the Bulk Electric System (BES) in real-time ~~to perform the reliability tasks, including their associated data centers, of:~~ , and any Data Centers intended to support the function of those rooms.*

1. *NERC certified personnel of a Reliability Coordinator~~,~~ having the capability or authority to control Facilities;*
2. *NERC certified personnel of a Balancing Authority~~,~~ having the capability or authority to control Facilities;*
3. *NERC certified personnel of a Transmission Operator ~~for~~ having the capability or authority to control Transmission Facilities at two or more locations~~, or~~;*
4. *~~a Generator Operator for generation Facilities at two or more locations.~~Transmission Owner operating personnel having the capability to electronically control Transmission Facilities at two or more locations; or*
5. *Generation Operator operating personnel having the capability to electronically control generation Facilities at two or more locations.*
6. Control Center Definition: The SDT has proposed modifications to the definition of a Control Center based on ambiguity that surfaced during the Field Test. The crux of the ambiguity related to the existence of a TOCC and authority to control versus capability to control. As such, the SDT proposes to clearly specify that a Transmission Owner with the capability to electronically control Transmission Facilities at two or more locations has a Control Center. Further, the SDT is proposing to replace “to perform the reliability tasks” with specific language related to the capability or authority to control Facilities. Do you agree with the SDT’s approach? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments:

1. Control Center Definition: The SDT replaced “One or more facilities hosting operating personnel” with “One or more rooms where a responsible entity hosts operating personnel” to eliminate confusion between the terms ‘facility’ and NERC-defined ‘Facility’ that appears later in the definition of a Control Center. Further, the use of the term ‘rooms’ is intended to clarify that a Control Center may be one or more rooms within a larger building. Do you agree with the SDT’s approach? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments:

1. Control Center Definition: The SDT replaced “including their associated data centers” with “and any Data Centers intended to support the function of those rooms” to reference a recommended new defined term for Data Center and to clarify that an entity may have data centers that do not support the functions performed within the Control Center (e.g., data archival, etc.). Do you agree with the SDT’s approach? If not, please provide your rational and an alternate proposal.

Yes

No

Comments:

*Data Center: A network of computing and storage resources that enable the use of shared applications in the exchange and management of data. The key components of a Data Center may include, but are not limited to, routers, switches, firewalls, storage systems, servers, and application-delivery controllers. The site could be located on-site within the entity’s physical building locations or could be in a virtual setting.*

1. Data Center Definition: The SDT developed a definition for Data Center to support a common understanding of the term across the industry. Do you agree with the SDT’s approach and the proposed definition? If not please provide your rational and an alternate proposal.

Yes

No

Comments:

**CIP-002.5-1a Criterion 2.12:**

*Each BES Cyber System, not included in Section 1 above, used by and located at any of the following:*

**2.12**. *Each Control Center or backup Control Center, operated by a registered Transmission Operator or owned by a registered Transmission Owner, ~~used to perform the functional obligations of the Transmission Operator~~ that is not already included in the High Impact Rating (H)~~,~~ above~~.~~, with an “aggregate weighted value” exceeding 6000 according to the table below, subject to the listed exclusion. The “aggregate weighted value” for a Control Center or backup Control Center is determined by summing the “ weight value per characteristic” shown in the table for each BES Transmission Line monitored and controlled by the Control Center or backup Control Center.*

|  |  |
| --- | --- |
| *Characteristics of a Line* | *Weight Value*  *per Characteristic* |
| *Each BES Transmission Line less than 100kV* | *100* |
| *Each BES Transmission Line 100kV to 199kV* | *250* |
| *Each BES Transmission Line 200kV to 299kV* | *700* |
| *Each BES Transmission Line 300kV to 499kV* | *1300* |
| *Each BES Transmission Line 500kV and above* | *0* |
| *Each BES Transmission Line identified as part of a Cranking Path* | *12000* |

*Exclusion:*

*Control Centers or backup Control Centers, operated by a registered Transmission Operator or owned by a registered Transmission Owner, with an “aggregate weighted value” between 6000 and 12000 are excluded provided that the BES Transmission system net export, as calculated for all BES Transmission Lines monitored and controlled by the Control Center or backup Control Center, does not exceed 75 MW during non-Energy Emergency Alert (EEA) conditions. The system net export is based on the hourly integrated power flow values over the course of the most recent two-year period.*

1. Criterion 2.12: The BOT withdrew the previously proposed Reliability Standard CIP-002-6 in February 2021 and issued a resolution stating “that NERC Staff, working with stakeholders, is directed to promptly conduct further study of the need to readdress the applicability of the CIP Reliability Standards to such Control Centers to safeguard reliability, for the purpose of recommending further action to the Board”. Pursuant to further study performed by the SDT via a Field Test, the SDT has determined that the previously proposed bright line of 6000 remains an appropriate initial criterion to differentiate between low impact and medium impact BES Cyber Systems, while safeguarding reliability. Further, the SDT recommends consideration of additional characteristics that may merit inclusion or exclusion. As such, the SDT has recommended revisions based on the previously proposed version of the standard. Do you agree with this approach? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments:

1. Criterion 2.12: The SDT added the following preface to Criteria 2.11, 2.12 and 2.13: “Each BES Cyber System, not included in Section 1 above, used by and located at any of the following:”. The intent of this addition was to align the language in the Medium Impact Rating section of CIP-002 Attachment 1 that applies to Control Centers with the language in the High Impact Rating section of CIP-002 Attachment 1. Do you agree with the SDT’s approach? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments:

1. Criterion 2.12: The SDT proposes to remove the following language “used to perform the reliability tasks of a Transmission Operator in real-time to monitor and control BES Transmission Lines” in favor of explicitly identifying Control Centers that are “operated by a registered Transmission Operator or owned by a registered Transmission Owner”. This eliminates the ambiguity that has been identified regarding the application of ‘performing the reliability tasks of a Transmission Operator’ to Transmission Owners and also eliminates duplication with language that already exists in the NERC defined term Control Center. Do you agree with the SDT’s approach? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments:

1. Criterion 2.12: The SDT assigned a ‘weight value per characteristic’ to BES Transmission Lines less than 100kV given that the NERC defined term Bulk Electric System allows for specific inclusions of equipment that is less than 100kV. Do you agree with the SDT’s approach? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments:

1. Criterion 2.12: The SDT has incorporated an additional characteristic, each BES Transmission Line identified as part of a Cranking Path, as an inclusion characteristic that would automatically ensure a Control Center is dispositioned above the bright line of 12000. This is based on the low probability, but high impact event where a cyber-compromised Control Center impacts restoration efforts following a widespread blackout. Further, systems and facilities critical to system restoration are specifically called out in the Low Impact Rating section of CIP-002 Attachment 1 which is indicative of reliability impacts. Other characteristics that were considered for inclusion such as Flowgates, IROLs and Remedial Action Schemes were ultimately excluded because the mere presence of these does not constitute a reliability risk to the BES and the ones that do impact reliability have already been addressed under CIP-002 Attachment 1 Criteria 2.6 and 2.9. Do you agree with the SDT’s approach? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments:

1. Criterion 2.12: The SDT has developed an exclusion clause that would allow the BES Cyber Assets that are associated with a Control Center or backup Control Center to be classified as Low Impact instead of Medium Impact in the event that the calculated “aggregate weighted value” falls between 6000 and 12000, and the calculated BES Transmission system net export does not exceed 75 MW during non-Energy Emergency Alert conditions over the most recent two-year period. The 12000 cap on the “aggregate weighted value” is based on the equivalent of four stations with Medium impact BES Cyber Systems. The selection of the 75 MW threshold is based on the BES definition inclusion criterion for a generation plant. Energy Emergency Alert conditions were excluded given that an entity may be required to provide assistance, including load shed, to support the system. Do you agree with the SDT’s approach and the proposed exclusion clause? If not, please provide your rationale and an alternate proposal.

Yes

No

Comments: