

CLO-001

1. Do you agree that the proposed definitions of Computational Load Site and Computational Load Owner, together with the Facility Applicability provisions, provide sufficient clarity regarding the Computational Load Site facilities and entities subject to proposed Reliability Standard CLO-001-1 and their alignment with the proposed NERC registry criteria? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the DT.

- a. Yes.
- b. **Comment: APPA, LPPC, and TAPS appreciate the drafting team including language in the applicability section stating that the standards only apply to Computational Load Sites that meet the 50MW and 100kV thresholds. However, further language should be added to the technical rationale and future implementation guidance emphasizing this fact. Standard compliance hinges on interpretation of requirements by auditors: the added clarification that requirements are only applicable to computational load sites that meet the MW and kV thresholds would provide further standard interpretation direction and be in line with the intent of the drafting team.**

Alternatively, we propose using “applicable” before each usage of the term “computational load site” throughout the standards to further emphasize that requirements only apply to computational load sites included in the applicable facilities section.

2. Do you agree that the Functional Entity Applicability for the proposed Reliability Standard CLO-001-1 includes entities that may be involved in the interconnection, data sharing, commissioning, or studies of Computational Load Sites? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the DT.
 - a. **N/A**
3. The DT has developed proposed Reliability Standard CLO-001-1, Requirements R1 - R11, to address the following near-term essential actions identified to be addressed in the Standard Authorization Request (SAR): data sharing (for planning); interconnection process and requirements; interconnection studies and modeling; and commissioning.
 - a. Do you agree that proposed Reliability Standard CLO-001-1, Requirements R1 - R3, address the following near-term essential actions identified to be addressed in the SAR: interconnection process and requirements; and commissioning? If not, or if you agree but have comments or suggestions,

please suggest alternate language for the DT's consideration and provide appropriate justification.

- i. Yes
- ii. Comment: R1.1 is an area where the term “applicable Computational Load Site” should be used. Since the registration team moved the 50MW and 100kV thresholds out of the definition of Computational Load Site, the requirement could be interpreted as applying to any Transmission Owner or Distribution that has a Computational Load Site on its system, regardless of its size of connection kV.

- b. Do you agree that proposed Reliability Standard CLO-001-1, Requirements R4 – R7, address the following near-term essential actions identified to be addressed in the SAR: interconnection process and requirements; and interconnection studies and modeling? If you do not agree, or if you agree but have comments or suggestions, please suggest alternate language for the DT's consideration and provide appropriate justification.

- i. Yes
- ii. Comment: CLO-001 requires computational load facilities to provide study data, but the technical rationale does not clearly explain the level of detail expected for short-circuit modeling

Specifically, it would be helpful to clarify whether facilities are expected to provide positive-, negative-, and zero-sequence data for information technology loads, or whether a simplified representation would be acceptable. Additional guidance would improve consistency in study assumptions and reduce the likelihood of differing interpretations among planners and computational load entities.

- c. Do you agree that proposed Reliability Standard CLO-001-1, Requirements R8 – R11, address the following near-term essential actions identified to be addressed in the SAR: data sharing (for planning)? If you do not agree, or if you agree but have comments or suggestions, please suggest alternate language for the DT's consideration and provide appropriate justification.

- i. N/A

- 4. Do you agree that the clarifying conforming revisions to proposed Reliability Standards FAC-001-5 and FAC-002-5 are modest in nature and will avoid duplicative requirements for entities as it relates to the interconnection of Computational Load Sites? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the DT.

- i. N/A

5. Do you agree that the proposed Implementation Plan for Standard CLO-001 Computational Load Interconnection, Studies, and Modeling represents a reasonable period to implement proposed Reliability Standard CLO-001-1? If not, please suggest an alternate timeframe for implementation with appropriate justification to identify the specific implementation milestone(s) of concern and your proposed revisions.
 - i. N/A
6. Do you agree that the proposed Reliability Standard CLO-001-1 addresses the scope of the SAR in a cost-effective manner while supporting the reliable integration of Computational Load Sites? If you do not agree, or if you agree but have suggestions for improvement to enable more cost-effective approaches, please provide your recommendation and, if appropriate, technical, or procedural justification.
 - i. N/A
7. Provide any additional comments, a detailed explanation of any recommended revisions, implementation concerns or areas where additional guidance may be beneficial for the DT to consider, if desired.
 - a. CLO-001 creates the framework for collecting the data necessary for accurate interconnection, planning, and modeling information. However, it remains unclear how planners should proceed if a computational load owner declines to provide dynamic models because the underlying hardware, software, or operating characteristics are considered proprietary.

Clarification would help planners, transmission owners, and computational load entities understand what level of information is sufficient to satisfy the standard while still protecting legitimate confidential business information. Without clear expectations, entities could reach different conclusions regarding what constitutes adequate data for reliability studies.

CLO-001 Implementation Plan

1. Do you agree that the proposed definitions of Computational Load Site and Computational Load Owner, together with the Facility Applicability provisions, provide sufficient clarity regarding the Computational Load Site facilities and entities subject to proposed Reliability Standard CLO-001-1 and their alignment with the proposed NERC registry criteria? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the DT.
 - a. Yes
 - b. Comment: APPA, LPPC, and TAPS appreciate the drafting team including language in the applicability section stating that the standards only apply to

Computational Load Sites that meet the 50MW and 100kV thresholds. However, further language should be added to the technical rationale and future implementation guidance emphasizing this fact. Standard compliance hinges on interpretation of requirements by auditors: the added clarification that requirements are only applicable to computational load sites that meet the MW and kV thresholds would provide further standard interpretation direction and be in line with the intent of the drafting team.

Alternatively, we propose using “applicable” before each usage of the term “computational load site” throughout the standards to further emphasize that requirements only apply to computational load sites included in the applicable facilities section.

2. Do you agree that the Functional Entity Applicability for the proposed Reliability Standard CLO-001-1 includes entities that may be involved in the interconnection, data sharing, commissioning, or studies of Computational Load Sites? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the DT.
 - a. N/A
3. The DT has developed proposed Reliability Standard CLO-001-1, Requirements R1 - R11, to address the following near-term essential actions identified to be addressed in the Standard Authorization Request (SAR): data sharing (for planning); interconnection process and requirements; interconnection studies and modeling; and commissioning.
 - a. Do you agree that proposed Reliability Standard CLO-001-1, Requirements R1 - R3, address the following near-term essential actions identified to be addressed in the SAR: interconnection process and requirements; and commissioning? If not, or if you agree but have comments or suggestions, please suggest alternate language for the DT’s consideration and provide appropriate justification.
 - i. Yes
 - ii. Comment: R1.1 is an area where the term “applicable Computational Load Site” should be used. Since the registration team moved the 50MW and 100kV thresholds out of the definition of Computational Load Site, the requirement could be interpreted as applying to any Transmission Owner or Distribution that has a Computational Load Site on its system, regardless of its size of connection kV.
 - b. Do you agree that proposed Reliability Standard CLO-001-1, Requirements R4 – R7, address the following near-term essential actions identified to be

addressed in the SAR: interconnection process and requirements; and interconnection studies and modeling? If you do not agree, or if you agree but have comments or suggestions, please suggest alternate language for the DT's consideration and provide appropriate justification.

- i. Yes
- ii. Comment: CLO-001 requires computational load facilities to provide study data, but the technical rationale does not clearly explain the level of detail expected for short-circuit modeling

Specifically, it would be helpful to clarify whether facilities are expected to provide positive-, negative-, and zero-sequence data for information technology loads, or whether a simplified representation would be acceptable. Additional guidance would improve consistency in study assumptions and reduce the likelihood of differing interpretations among planners and computational load entities.

- c. Do you agree that proposed Reliability Standard CLO-001-1, Requirements R8 – R11, address the following near-term essential actions identified to be addressed in the SAR: data sharing (for planning)? If you do not agree, or if you agree but have comments or suggestions, please suggest alternate language for the DT's consideration and provide appropriate justification.
 - i. N/A
- 4. Do you agree that the clarifying conforming revisions to proposed Reliability Standards FAC-001-5 and FAC-002-5 are modest in nature and will avoid duplicative requirements for entities as it relates to the interconnection of Computational Load Sites? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the DT.
 - a. N/A
- 5. Do you agree that the proposed Implementation Plan for Standard CLO-001 Computational Load Interconnection, Studies, and Modeling represents a reasonable period to implement proposed Reliability Standard CLO-001-1? If not, please suggest an alternate timeframe for implementation with appropriate justification to identify the specific implementation milestone(s) of concern and your proposed revisions.
 - a. Yes

CLO-002

- 1. Do you agree that the proposed definition of Computational Load Operator, together with the Facility Applicability provisions, provides sufficient clarity regarding the

Computational Load Site facilities and entities subject to proposed Reliability Standard CLO-002-1 and alignment with the proposed NERC registry criteria? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the drafting team.

- a. Yes
- b. Comment: APPA, LPPC, and TAPS appreciate the drafting team including language in the applicability section stating that the standards only apply to Computational Load Sites that meet the 50MW and 100kV thresholds. However, further language should be added to the technical rationale and future implementation guidance emphasizing this fact. Standard compliance hinges on interpretation of requirements by auditors: the added clarification that requirements are only applicable to computational load sites that meet the MW and kV thresholds would provide further standard interpretation direction and be in line with the intent of the drafting team.

Alternatively, we propose using “applicable” before each usage of the term “computational load site” throughout the standards to further emphasize that requirements only apply to computational load sites included in the applicable facilities section.

- 2. Do you agree that the Functional Entity Applicability for the proposed Reliability Standard CLO-002-1 includes entities that may be involved in operational functions or have data needed to support the reliable operations of Computational Load Sites? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the drafting team.

- a. N/A

- 3. Do you agree with the proposed modified definition of "Operating Instruction"? If not, please provide the basis for your disagreement and your proposed revisions.

- a. Yes
- b. Comment: The modification of the definition “Operating Instruction” in the NERC Glossary of Terms could have unintended impacts on other standards that use the term (e.g., COM-002-4, IRO-001-4, TOP-001-6). It is not clear whether this modification will create duplicative requirements. Although the drafting team intended for only CLO-002 to apply to computational load sites, the modified definition may make other existing standards applicable.

Without additional clarification, entities may struggle to determine whether the same communication or operating instruction obligation is being

imposed through multiple standards. Clarifying how CLO-002 is intended to interact with existing requirements would help prevent duplicative compliance obligations and improve consistency across regions.

4. Do you agree that proposed Reliability Standard CLO-002-1, Requirements R1 - R15, address the following near-term essential actions identified to be addressed in the Standard Authorization Request (SAR): data sharing (for operations); and operations communications and response? If not, or if you agree but have comments or suggestions, please suggest alternate language for the drafting team's consideration and provide appropriate justification.
 - a. N/A
5. Do you agree with proposed Reliability Standard CLO-002-1 Implementation Plan? If not, please suggest an alternate timeframe for implementation with appropriate justification to identify the specific implementation milestone(s) of concern and your proposed revisions.
 - a. N/A
6. Do you agree that proposed Reliability Standard CLO-002-1 addresses the scope of the SAR in a cost-effective manner? If you do not agree, or if you agree but have suggestions for improvement to enable more cost-effective approaches, please provide your recommendation and, if appropriate, technical, or procedural justification.
 - a. N/A
7. Provide any additional comments for the drafting team to consider, if desired.
 - a. None

CLO-002 Implementation Plan

1. Do you agree that the proposed definition of Computational Load Operator, together with the Facility Applicability provisions, provides sufficient clarity regarding the Computational Load Site facilities and entities subject to proposed Reliability Standard CLO-002-1 and alignment with the proposed NERC registry criteria? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the drafting team.
 - a. Yes
 - b. Comment: APPA, LPPC, and TAPS appreciate the drafting team including language in the applicability section stating that the standards only apply to Computational Load Sites that meet the 50MW and 100kV thresholds. However, further language should be added to the technical rationale and future implementation guidance emphasizing this fact. Standard compliance hinges on interpretation of requirements by auditors: the added clarification

that requirements are only applicable to computational load sites that meet the MW and kV thresholds would provide further standard interpretation direction and be in line with the intent of the drafting team.

Alternatively, we propose using “applicable” before each usage of the term “computational load site” throughout the standards to further emphasize that requirements only apply to computational load sites included in the applicable facilities section.

c.

2. Do you agree that the Functional Entity Applicability for the proposed Reliability Standard CLO-002-1 includes entities that may be involved in operational functions or have data needed to support the reliable operations of Computational Load Sites? If you do not agree, or if you agree but have comments or suggestions, please provide your recommendation(s) for the drafting team.

- a. N/A

3. Do you agree with the proposed modified definition of "Operating Instruction"? If not, please provide the basis for your disagreement and your proposed revisions.

- a. Yes

- b. Comment: The modification of the definition “Operating Instruction” in the NERC Glossary of Terms could have unintended impacts on other standards that use the term (e.g., COM-002-4, IRO-001-4, TOP-001-6). It is not clear whether this modification will create duplicative requirements. Although the drafting team intended for only CLO-002 to apply to computational load sites, the modified definition may make other existing standards applicable.

Without additional clarification, entities may struggle to determine whether the same communication or operating instruction obligation is being imposed through multiple standards. Clarifying how CLO-002 is intended to interact with existing requirements would help prevent duplicative compliance obligations and improve consistency across regions.

4. Do you agree that proposed Reliability Standard CLO-002-1, Requirements R1 - R15, address the following near-term essential actions identified to be addressed in the Standard Authorization Request (SAR): data sharing (for operations); and operations communications and response? If not, or if you agree but have comments or suggestions, please suggest alternate language for the drafting team’s consideration and provide appropriate justification.

- a. N/A

5. Do you agree with proposed Reliability Standard CLO-002-1 Implementation Plan? If not, please suggest an alternate timeframe for implementation with appropriate justification to identify the specific implementation milestone(s) of concern and your proposed revisions.
 - a. **N/A**
6. Do you agree that proposed Reliability Standard CLO-002-1 addresses the scope of the SAR in a cost-effective manner? If you do not agree, or if you agree but have suggestions for improvement to enable more cost-effective approaches, please provide your recommendation and, if appropriate, technical, or procedural justification.
 - a. **N/A**
7. Provide any additional comments for the drafting team to consider, if desired.
 - a. **None**

CLO-003

1. Do you agree that the Facility Applicability for the proposed Reliability Standard CLO-003-1 aligns with the NERC registry criteria for Computational Load Sites? If not, please provide the basis for your disagreement and your proposed revisions.
 - a. **N/A**
2. Do you agree that the Functional Entity Applicability for the proposed Reliability Standard CLO-003-1 includes entities that may be involved in ensuring appropriate disturbance monitoring equipment or protection coordination for Computational Load Sites? If not, please provide the basis for your disagreement and your proposed revisions.
 - a. **N/A**
3. Do you agree that proposed Reliability Standard CLO-003-1, Requirements R1 - R10, address the following near-term essential actions identified in the Standard Authorization Request (SAR): protection and high-resolution monitoring? If not, or if you agree but have comments or suggestions, please suggest alternate language for the drafting team's consideration and provide appropriate justification.
 - a. **Yes**
 - b. **Comment: CLO-003 Requirements R2, R3, and R4 require monitoring and recording data associated with the "main power transformer," but the term is not explicitly defined within the standard. While the drafting team has indicated that the concept is carried over from PRC-028, questions arose regarding whether this refers to the transmission-connected transformer owned by the utility or the step-down transformer located within the computational load facility.**

The footnote clarification of this definition does not provide additional guidance to answer this question. For example, if the transmission system terminates at a utility substation and power is then distributed at medium voltage across a data center campus, some may interpret the utility-owned transformer as the main power transformer. Others may interpret the customer-owned transformer that steps down voltage to the actual Computational Load Sites as the main power transformer because it is the transformer most closely associated with the Computational Load Site. This distinction is important because it affects where recording equipment must be installed and what electrical quantities must be measured—additional guidance should therefore be provided in the technical rationale.

4. Do you agree with the proposed Reliability Standard CLO-003-1 Implementation Plan? If not, please suggest an alternate timeframe for implementation with appropriate justification to identify the specific implementation milestone(s) of concern and your proposed revisions.
 - a. N/A
5. Do you agree that the proposed Reliability Standard CLO-003-1 addresses the scope of the SAR in a cost-effective manner? If you do not agree, or if you agree but have suggestions for improvement to enable more cost-effective approaches, please provide your recommendation and, if appropriate, technical, or procedural justification.
 - a. N/A
6. Provide any additional comments, a detailed explanation of any recommended revisions, implementation concerns or areas where additional guidance may be beneficial for the drafting team to consider, if desired.
 - a. None

CLO-003 Implementation Plan

1. Do you agree that the Facility Applicability for the proposed Reliability Standard CLO-003-1 aligns with the NERC registry criteria for Computational Load Sites? If not, please provide the basis for your disagreement and your proposed revisions.
 - a. N/A
2. Do you agree that the Functional Entity Applicability for the proposed Reliability Standard CLO-003-1 includes entities that may be involved in ensuring appropriate disturbance monitoring equipment or protection coordination for Computational Load Sites? If not, please provide the basis for your disagreement and your proposed revisions.

- a. N/A
- 3. Do you agree that proposed Reliability Standard CLO-003-1, Requirements R1 - R10, address the following near-term essential actions identified in the Standard Authorization Request (SAR): protection and high-resolution monitoring? If not, or if you agree but have comments or suggestions, please suggest alternate language for the drafting team's consideration and provide appropriate justification.
 - a. Yes
 - b. Comment: CLO-003 Requirements R2, R3, and R4 require monitoring and recording data associated with the "main power transformer," but the term is not explicitly defined within the standard. While the drafting team has indicated that the concept is carried over from PRC-028, questions arose regarding whether this refers to the transmission-connected transformer owned by the utility or the step-down transformer located within the computational load facility.

The footnote clarification of this definition does not provide additional guidance to answer this question. For example, if the transmission system terminates at a utility substation and power is then distributed at medium voltage across a data center campus, some may interpret the utility-owned transformer as the main power transformer. Others may interpret the customer-owned transformer that steps down voltage to the actual Computational Load Sites as the main power transformer because it is the transformer most closely associated with the Computational Load Site. This distinction is important because it affects where recording equipment must be installed and what electrical quantities must be measured—additional guidance should therefore be provided in the technical rationale.

- 4. Do you agree with the proposed Reliability Standard CLO-003-1 Implementation Plan? If not, please suggest an alternate timeframe for implementation with appropriate justification to identify the specific implementation milestone(s) of concern and your proposed revisions.
 - a. N/A
- 5. Do you agree that the proposed Reliability Standard CLO-003-1 addresses the scope of the SAR in a cost-effective manner? If you do not agree, or if you agree but have suggestions for improvement to enable more cost-effective approaches, please provide your recommendation and, if appropriate, technical, or procedural justification.
 - a. N/A

6. Provide any additional comments, a detailed explanation of any recommended revisions, implementation concerns or areas where additional guidance may be beneficial for the drafting team to consider, if desired.

- a. **None**