

Consideration of Comments

Interpretation 2010-INT-05

CIP-002-1 Requirement R3 for Duke Energy

The CIP-002-1 Requirement R3 Drafting Team thanks all commenters who submitted comments on Interpretation 2010-INT-05 CIP-002-1 Requirement R3 for Duke Energy. These standards were posted for a 45-day public comment period from February 8, 2012 through March 23, 2012. Stakeholders were asked to provide feedback on the standards and associated documents through a special electronic comment form. There were 33 sets of comments, including comments from approximately 91 different people from approximately 58 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

All comments submitted may be reviewed in their original format on the standard's project page:

<http://www.nerc.com/filez/standards/2010-INT-05 Interpretation CIP-002-1 Duke.html>

Summary:

The IDT carefully reviewed all comments in response to the posting for parallel formal comment period and ballot that ended March 23, 2012. In the draft interpretation the IDT sought to clarify for Duke Energy that the examples given in CIP-002-x, Requirement R3 are illustrative, not prescriptive. The IDT also sought to clarify the meaning of the phrase "essential to the operation of the Critical Asset" as requested by Duke Energy, because the requirement specifies that "the Responsible Entity shall develop a list of associated Critical Cyber Assets essential to the operation of the Critical Asset." The IDT clarifies that a Cyber Asset that "may" be used, but is not "required" (i.e., a Critical Asset cannot function as intended without the Cyber Asset), for the operation of a Critical Asset is not "essential to the operation of the Critical Asset" for purposes of Requirement R3. The IDT made one clarifying change to reword a parenthetical phrase, and the IDT made no further changes to the interpretation. Many commenters agreed with the interpretation and several comments provided additional justification in support of the interpretation, and the IDT explains its rationale in response to several minority concerns below. The interpretation will be posted for a recirculation ballot.

- There were a few commenters that believe the request for interpretation is asking for clarity on the application, but the comments on the subject do not raise any significant issues that would affect the interpretation. The IDT believes that in this case, it appears to be a question of semantics, where the IDT and industry both believe, overall, that the request is asking for clarity on the meaning of a requirement.
- Some commenters suggest that the interpretation could be construed as restricting the reach of the standard or that the interpretation is unnecessary or does not add new information, but the IDT disagrees. The IDT acknowledges that the interpretation may be construed to restrict many

parties or individuals' prior, different understanding or organizational interpretation of the reach of the standard. Furthermore, the interpretation is necessary because it provides clarity for all entities.

- A commenter disagreed with the interpretation by noting that the response to Question 1 states that the types of Cyber Assets in the example "should be considered," and the language "should be considered" is not found in CIP-002-3, Requirement R3 and should not be inferred. The IDT explains that the examples do not imply that the items listed as examples in the requirement must be classified as Critical Cyber Assets, which requires some "consideration" within the context of the requirement.
- One commenter suggested that Version 4's language may have a similar issue. The IDT notes that an interpretation applies only so long as the relevant language in a standard is in effect, and it agrees that this interpretation might be applicable for clarifying CIP Version 4, provided the same lack of clarity persists.
- One commenter agreed with the Interpretation as to Question 2, but requested that the IDT clarify that "essential," as used in Requirement R3, is synonymous with "inherent", "necessary" and "required". The commenter also submits that Registered Entities are best qualified to determine whether a Cyber Asset is essential to the operation of a Critical Asset. Much like the list of examples is illustrative, the IDT agrees with most commenters that the interpretation provides clarity, and it is not necessary at this time to list further synonyms for "essential." Further, the IDT does agree that a Registered Entity's determination of whether a Cyber Asset is required by a Critical Asset should be rebuttably presumed to be correct.
- Two commenters commented on the parenthetical clause in the original interpretation, suggesting that it was confusing upon first reading the language or that it seems to define "required." One commenter suggested rewording the clause, and one commenter suggested removing the clause as unnecessary. The IDT agrees, and it re-worded the clause from "(i.e. without which a Critical Asset cannot function as intended)" to "(i.e., a Critical Asset cannot function as intended without the Cyber Asset)." This is a clarifying change, and it is not substantive.
- One commenter suggested that the IDT incorporate the provisions of NERC's CAN-0005 so that the CAN may be retired. The IDT understands that the interpretation, once approved, may result in withdrawal of CAN-0005.
- Other commenters were concerned that the interpretation does not explicitly state that redundancy is not a consideration for identifying Cyber Assets that are "essential." The IDT agrees that redundancy is not a consideration in determining whether a Cyber Asset is "essential," and this interpretation does not change that notion.

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President of Standards and Training, Herb Schrayshuen, at 404-446-2560 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures: <http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

The NERC Board of Trustees indicated that the interpretation process should not be used to address requests for a decision on “how” a reliability standard applies to a registered entity’s particular facts and circumstances. Do you believe this request for an interpretation is asking for clarity on the meaning of a requirement or clarity on the application of a requirement.....9

request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.

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- 2. The NERC Board of Trustees indicated that the interpretation process should not be used to address requests for a decision on “how” a reliability standard applies to a registered entity’s particular facts and circumstances. Do you believe this request for an interpretation is asking for clarity on the meaning of a requirement or clarity on the application of a requirement?17**

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- 3. The NERC Board of Trustees indicated that in deciding whether or not to approve a proposed interpretation, it will use a standard of strict construction and not seek to expand the reach of the standard to correct a perceived gap or deficiency in the standard. Do you believe this interpretation expands the reach of the standard?.....25**

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- 4. The NERC Board of Trustees indicated that in deciding whether or not to approve a proposed interpretation, it will use a standard of strict construction and not seek to expand the reach of the standard to correct a perceived gap or deficiency in the standard. Do you believe this interpretation expands the reach of the standard?.....32**

interpretation for Question 2 of the Request for Interpretation expands the reach of the standard.

interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.

Do you agree with the Interpretation Drafting Team’s response to Question 1 of the Request for Interpretation? If not, please explain specifically what you disagree with.....39

- 6. Do you agree with the Interpretation Drafting Team’s response to Question 2 of the Request for Interpretation? If not, why not.46**

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment											
				1	2	3	4	5	6	7	8	9	10		
1.	Group	Guy Zito	Northeast Power Coordinating Council												X
Additional Member		Additional Organization		Region	Segment Selection										
1.	Alan Adamson	New York State Reliability Council, LLC		NPCC	10										
2.	Greg Campoli	New York Independent System Operator		NPCC	2										
3.	Sylvain Clermont	Hydro-Quebec TransEnergie		NPCC	1										
4.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.		NPCC	1										
5.	Gerry Dunbar	Northeast Power Coordinating Council		NPCC	10										
6.	Mike Garton	Dominion Resources Services, Inc.		NPCC	5										
7.	Kathleen Goodman	ISO - New England		NPCC	2										
8.	Chantel Haswell	FPL Group, Inc.		NPCC	5										
9.	David Kiguel	Hdro One Networks Inc.		NPCC	1										
10.	Michael R. Iombardi	Northeast Utilities		NPCC	1										

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
11. Randy MacDonald	New Brunswick Power Transmission	NPCC 9												
12. Bruce Metruck	New York Power Authority	NPCC 6												
13. Lee Pedowicz	Northeast Power Coordinating Council	NPCC 10												
14. Robert Pellegrini	The Untied Illuminating Company	NPCC 1												
15. Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC 1												
16. David Ramkalawan	Ontario Power Generation, Inc.	NPCC 5												
17. Brian Robinson	Utility Services	NPCC 8												
18. Saurabh Saksena	National Grid	NPCC 1												
19. Michael Schiavone	National Grid	NPCC 1												
20. Wayne Sipperly	New York Power Authority	NPCC 5												
21. Tina Teng	Independent Electricity System Operator	NPCC 2												
22. Donald Weaver	New Brunswick System Operator	NPCC 2												
23. Ben Wu	Orange and Rockland Utilities	NPCC 1												
24. Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC 3												
2. Group	Emily Pennel	Southwest Power Pool Regional Entity												X
No additional members listed.														
3. Group	Chris Higgins	Bonneville Power Administration	X		X		X	X						
Additional Member Additional Organization Region Segment Selection														
1. Forrest	Krigbaum	WECC	1, 3, 5, 6											
2. Nick	Choi	WECC	1											
3. Mike	Miller	WECC	1											
4. Erika	Doot	WECC	3, 5, 6											
5. Stephen	Larson	WECC	1, 3, 5, 6											
6. Peter	Raschio	WECC	1											
7. Mark	Tucker	WECC	1, 3, 5, 6											
8. Rebecca	Berdahl	WECC	3											
4. Group	Christine Hasha	ISO/RTO Council Standards Review Committee		X										
Additional Member Additional Organization Region Segment Selection														
1. Mark Thompson	AESO	WECC	2											
2. Gary DeShazo	CAISO	WECC	2											

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
3. Steve Myers	ERCOT	ERCOT 2												
4. Ben Li	IESO	NPCC 2												
5. Kathleen Goodman	ISONE	NPCC 2												
6. Marie Knox	MISO	RFC 2												
7. Donald Weaver	NBSO	NPCC 2												
8. Greg Campoli	NYISO	NPCC 2												
9. Al DiCaprio	PJM	RFC 2												
10. Charles Yeung	SPP	SPP 2												
5. Group	Connie Lowe	Dominion	X		X		X	X						
Additional Member Additional Organization Region Segment Selection														
1. Greg Dodson		SERC 1, 3, 5, 6												
2. Mike Garton		NPCC 5												
3. Louis Slade		RFC 5												
4. Michael Gildea		MRO 5												
6. Group	Sam Ciccone	FirstEnergy	X		X	X	X	X						
Additional Member Additional Organization Region Segment Selection														
1. Doug Hohlbaugh	FE	RFC												
7. Group	Scott Harris	Kansas City Power & light	X		X		X	X						
Additional Member Additional Organization Region Segment Selection														
1. Dean Larson	Kansas City Power & Light	SPP 1, 3, 5, 6												
2. Michael Gammon	Kansas City Power & Light	SPP 1, 3, 5, 6												
8. Group	Marie Knox	MISO Standards Collaborators										X		
Additional Member Additional Organization Region Segment Selection														
1. Jim Cyrulewski	JDRJC Associates, LLC	RFC 8												
9. Group	Jason Marshall	ACES Power Marketing Standards Collaborators							X					
Additional Member Additional Organization Region Segment Selection														
1. Scott Brame	North Carolina Electric Membership Corporation	SERC 1, 3, 4, 5												
2. Mark Ringhausen	Old Dominion Electric Cooperative	RFC 3, 4												
3. Erin Woods	East Kentucky Power Cooperative	SERC 1, 3, 5												

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
4. Shari Heino		Brazos Electric Power Cooperative	ERCOT 1										
5. Bob Solomon		Hoosier Energy	RFC 1										
10.	Group	Jesus Sammy Alcaraz	Imperial Irrigation District (IID)	X		X	X	X	X				
Additional Member Additional Organization Region Segment Selection													
1.	Mauricio Lopez	IID	WECC 1, 3, 4, 5, 6										
2.	Israel Gonzalez	IID	WECC 1, 3, 4, 5, 6										
3.	Peter Nguyen	IID	WECC 1, 3, 4, 5, 6										
11.	Individual	Brian Millard	Tennessee Valley Authority	X		X		X	X				
12.	Individual	Sandra Shaffer	PacifiCorp	X		X		X	X				
13.	Individual	Shane Eaker	Southern Company	X		X		X	X				
14.	Individual	Jay Walker	NIPSCO	X		X		X	X				
15.	Individual	Andrew Z. Puztai	American Transmission Company, LLC	X									
16.	Individual	Randi Nyholm	Minnesota Power	X		X		X	X				
17.	Individual	Thad Ness	American Electric Power	X		X		X	X				
18.	Individual	Greg Rowland	Duke Energy	X		X		X	X				
19.	Individual	Michael Falvo	Independent Electricity System Operator		X								
20.	Individual	Michelle R D'Antuono	Ingleside Cogeneration LP					X					
21.	Individual	Kim Koster	MidAmerican Energy Company	X		X		X	X				
22.	Individual	Kirit Shah	Ameren	X		X		X	X				
23.	Individual	Jonathan Appelbaum	United Illuminating Company	X									
24.	Individual	Thomas Johnson	Salt River Project	X		X		X	X				
25.	Individual	David Thorne	Pepco Holdings Inc	X		X							
26.	Individual	Andrew Gallo	City of Austin dba Austin Energy	X		X	X	X	X				
27.	Individual	Patrick Brown	Essential Power, LLC	X				X					
28.	Individual	Anthony Jablonski	ReliabilityFirst										X
29.	Individual	Ron Donahey	Tampa Electric Company	X		X		X	X				
30.	Individual	Christina Bigelow	Midwest ISO		X								

Group/Individual		Commenter	Organization	Registered Ballot Body Segment										
				1	2	3	4	5	6	7	8	9	10	
31.	Individual	Joe Doetzl	CRSI											
32.	Individual	Darryl Curtis	Oncor Electric Delivery Company	X										
33.	Individual	DANA SHOWALTER	E.ON CLIMATE & RENEWABLES					X						

1. The NERC Board of Trustees indicated that the interpretation process should not be used to address requests for a decision on “how” a reliability standard applies to a registered entity’s particular facts and circumstances. Do you believe this request for an interpretation is asking for clarity on the meaning of a requirement or clarity on the application of a requirement?

- The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.
- The request in Question 1 of the Request for Interpretation is asking for clarity on the application of a requirement.

Summary Consideration:

Most commenters agreed that question 1 of the request for interpretation is asking for clarity on the meaning of a requirement, and the IDT agrees. There were a few commenters that believe question 1 of the request for interpretation is asking for clarity on the application, but the comments on the subject do not raise any significant issues that would affect the interpretation. The IDT believes that in this case, it appears to be a question of semantics, where the IDT and industry both believe, overall, that the request is asking for clarity on the meaning of a requirement.

Organization	Yes or No	Question 1 Comment
Southern Company	The request in Question 1 of the Request for Interpretation is asking for clarity on the application of a requirement.	The question asks if the examples provided are prescribed to be CCAs or types of equipment that could be assessed as possible CCAs.
<p>Response: Thanks for your comment and supporting rationale. This appears to be a question of semantics, where the IDT and industry majority believe, overall, that the request asks for clarity on the meaning of a requirement.</p>		
Ingleside Cogeneration LP	The request in Question 1 of the Request for Interpretation is asking for clarity on the	Since the language and intent of a reliability requirement is the ultimate arbiter of compliance, examples may be considered by some auditors to be more than just “information only”. Ingleside Cogeneration believes that the

Organization	Yes or No	Question 1 Comment
	application of a requirement.	request is looking to ensure that a violation will not be assessed because an example is not addressed by a Responsible Entity in the process of identifying its Critical Cyber Assets.
<p>Response: Thanks for your comment and supporting rationale. This appears to be a question of semantics, where the IDT and industry majority believe, overall, that the request asks for clarity on the meaning of a requirement.</p>		
Independent Electricity System Operator	The request in Question 1 of the Request for Interpretation is asking for clarity on the application of a requirement.	
City of Austin dba Austin Energy	The request in Question 1 of the Request for Interpretation is asking for clarity on the application of a requirement.	
MISO Standards Collaborators	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	The request seeks clarification of whether the phrase at issue is illustrative or prescriptive. As a result, MISO submits that the request is asking for clarity on the meaning of the requirement as opposed to the application thereof.
<p>Response: Thank you for your comment, which agrees with this IDT’s position.</p>		
Midwest ISO	The request in Question 1	The request seeks clarification of whether the phrase at issue

Organization	Yes or No	Question 1 Comment
	of the Request for Interpretation is asking for clarity on the meaning of a requirement.	is illustrative or prescriptive. As a result, MISO submits that the request is asking for clarity on the meaning of the requirement as opposed to the application thereof.
Response: Thanks for your comment and supporting rationale, which agrees with this IDT’s position on the question.		
Northeast Power Coordinating Council	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Southwest Power Pool Regional Entity	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Bonneville Power Administration	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
ISO/RTO Council Standards Review Committee	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

Organization	Yes or No	Question 1 Comment
Dominion	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
FirstEnergy	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Kansas City Power & light	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
ACES Power Marketing Standards Collaborators	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Imperial Irrigation District (IID)	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

Organization	Yes or No	Question 1 Comment
Tennessee Valley Authority	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
NIPSCO	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
American Transmission Company, LLC	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Minnesota Power	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
American Electric Power	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

Organization	Yes or No	Question 1 Comment
Duke Energy	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
MidAmerican Energy Company	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Ameren	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
United Illuminating Company	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Salt River Project	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

Organization	Yes or No	Question 1 Comment
Pepco Holdings Inc	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Essential Power, LLC	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
ReliabilityFirst	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Tampa Electric Company	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
CRSI	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

Organization	Yes or No	Question 1 Comment
Oncor Electric Delivery Company	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
E.ON CLIMATE & RENEWABLES	The request in Question 1 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

2. The NERC Board of Trustees indicated that the interpretation process should not be used to address requests for a decision on “how” a reliability standard applies to a registered entity’s particular facts and circumstances. Do you believe this request for an interpretation is asking for clarity on the meaning of a requirement or clarity on the application of a requirement?

- The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.
- The request in Question 2 of the Request for Interpretation is asking for clarity on the application of a requirement.

Summary Consideration:

Much like question 1, most commenters agree with the IDT that question 2 of the request for interpretation asks for clarity on the meaning of a requirement. Some commenters believe that the request asks for clarity on the application of a requirement, noting that the request asks if laptops at remote locations have to comply with CIP-002, Requirement R3. The IDT agrees that there may be an application component, but on balance, the request is asking for clarity. The IDT believes that the laptops illustration was provided as an example of why further clarity is needed in order to help the industry understand this requirement. One commenter asked whether the IDT believes the interpretation expands the scope of the requirement. The IDT does not.

Organization	Yes or No	Question 2 Comment
MidAmerican Energy Company	The request in Question 2 of the Request for Interpretation is asking for clarity on the application of a requirement.	The request is asking for clarity on applying the requirement. The request is asking if laptops at remote locations have to comply with CIP-002 R3.
<p>Response: Thanks for your comment and rationale, however the IDT believes that the laptops illustration was provided as an example of why further clarity is needed in order to help the industry understand this requirement.</p>		
Salt River Project	The request in Question 2 of the Request for Interpretation is asking for	

Organization	Yes or No	Question 2 Comment
	clarity on the application of a requirement.	
City of Austin dba Austin Energy	The request in Question 2 of the Request for Interpretation is asking for clarity on the application of a requirement.	
MISO Standards Collaborators	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	The request seeks clarification of the meaning of "essential to the operation of the Critical Asset" in CIP-002. As a result, MISO submits that the request is asking for clarity on the meaning of the requirement as opposed to the application thereof.
Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.		
Southern Company	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	The question asks for clarification about the meaning of the word “essential.”
Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.		
Ingleside Cogeneration LP	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	Question 2 revolves around the meaning of the term “essential” which determines if a Cyber Asset must be identified as a Critical Cyber Asset. This assessment becomes quite complex, especially in the case of mobile remote assets typically used in maintenance and trouble shooting. If CIP physical and electrical protections apply to such devices, some valuable capabilities will be lost. The NERC

Organization	Yes or No	Question 2 Comment
		Board of Trustees indicated that in deciding whether or not to approve a proposed interpretation, it will use a standard of strict construction and not seek to expand the reach of the standard to correct a perceived gap or deficiency in the standard. Do you believe this interpretation expands the reach of the standard?
<p>Response: Thanks for your comment and provided rationale. The IDT views the remote laptops discussion as illustrative of why clarity needs to be provided surrounding the exact nature of this requirement. By rendering further clarity and then responding back to how it may affect that particular illustration, we have not substantively expanded the scope of the requirement.</p>		
Midwest ISO	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	The request seeks clarification of the meaning of "essential to the operation of the Critical Asset" in CIP-002. As a result, MISO submits that the request is asking for clarity on the meaning of the requirement as opposed to the application thereof.
<p>Response: Thanks for your comment providing rationale that reinforces the IDT's position on this question.</p>		
Northeast Power Coordinating Council	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Southwest Power Pool Regional Entity	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Bonneville Power	The request in Question 2 of	

Organization	Yes or No	Question 2 Comment
Administration	the Request for Interpretation is asking for clarity on the meaning of a requirement.	
ISO/RTO Council Standards Review Committee	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Dominion	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
FirstEnergy	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Kansas City Power & light	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
ACES Power Marketing Standards Collaborators	The request in Question 2 of the Request for	

Organization	Yes or No	Question 2 Comment
	Interpretation is asking for clarity on the meaning of a requirement.	
Imperial Irrigation District (IID)	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Tennessee Valley Authority	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
NIPSCO	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
American Transmission Company, LLC	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Minnesota Power	The request in Question 2 of the Request for Interpretation is asking for	

Organization	Yes or No	Question 2 Comment
	clarity on the meaning of a requirement.	
American Electric Power	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Duke Energy	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Independent Electricity System Operator	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Ameren	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
United Illuminating Company	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a	

Organization	Yes or No	Question 2 Comment
	requirement.	
Pepco Holdings Inc	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Essential Power, LLC	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
ReliabilityFirst	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
Tampa Electric Company	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
CRSI	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

Organization	Yes or No	Question 2 Comment
Oncor Electric Delivery Company	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	
E.ON CLIMATE & RENEWABLES	The request in Question 2 of the Request for Interpretation is asking for clarity on the meaning of a requirement.	

3. The NERC Board of Trustees indicated that in deciding whether or not to approve a proposed interpretation, it will use a standard of strict construction and not seek to expand the reach of the standard to correct a perceived gap or deficiency in the standard. Do you believe this interpretation expands the reach of the standard?

- The interpretation for Question 1 of the Request for Interpretation expands the reach of the standard.
- The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.

Summary Consideration:

Many commenters agreed with the IDT’s interpretation relating to Question 1 of the Request for Interpretation, noting agreement that the interpretation clarifies that the list of examples is illustrative, not prescriptive. Other commenters noted that the interpretation provides clarity and does not expand the reach of the standard. One commenter suggested that the interpretation introduces a concept not in the requirement, and references its explanation in comments provided in support of question 5 of this comment form. The IDT responds to this in response to consideration of comments for question 5.

Organization	Yes or No	Question 3 Comment
MISO Standards Collaborators	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	MISO submits that, by clarifying that the list of examples at control centers and backup control centers in Requirement R3 is illustrative and not prescriptive, the Interpretation does not expand the reach or scope of the standard.
Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.		
Southern Company	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	The clarification that the examples are illustrative is helpful in understanding the requirement, but does not expand the reach of the requirement.

Organization	Yes or No	Question 3 Comment
Response: Thanks for your supporting comment.		
Midwest ISO	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	MISO submits that, by clarifying that the list of examples at control centers and backup control centers in Requirement R3 is illustrative and not prescriptive, the Interpretation does not expand the reach or scope of the standard.
Response: Thanks for your comment providing rationale that reinforces the IDT's position on this question.		
Northeast Power Coordinating Council	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Bonneville Power Administration	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
ISO/RTO Council Standards Review Committee	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Dominion	The interpretation for Question 1 of the Request for Interpretation does	

Organization	Yes or No	Question 3 Comment
	not expand the reach of the standard.	
FirstEnergy	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Kansas City Power & light	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
ACES Power Marketing Standards Collaborators	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Imperial Irrigation District (IID)	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Tennessee Valley Authority	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of	

Organization	Yes or No	Question 3 Comment
	the standard.	
NIPSCO	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
American Transmission Company, LLC	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Minnesota Power	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
American Electric Power	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Duke Energy	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	

Organization	Yes or No	Question 3 Comment
Independent Electricity System Operator	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Ingleside Cogeneration LP	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
MidAmerican Energy Company	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Ameren	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
United Illuminating Company	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	

Organization	Yes or No	Question 3 Comment
Salt River Project	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Pepco Holdings Inc	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
City of Austin dba Austin Energy	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Essential Power, LLC	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
ReliabilityFirst	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	

Organization	Yes or No	Question 3 Comment
Tampa Electric Company	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
CRSI	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Oncor Electric Delivery Company	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
E.ON CLIMATE & RENEWABLES	The interpretation for Question 1 of the Request for Interpretation does not expand the reach of the standard.	
Southwest Power Pool Regional Entity	The interpretation for Question 1 of the Request for Interpretation expands the reach of the standard.	As discussed in our comments to Question #5 below, the interpretation for Question 1 introduces a concept not present in the currently approved requirement.

Organization	Yes or No	Question 3 Comment
Response: See IDT's response to Southwest Power Pool Regional Entity's Question #5 comments below.		

4. The NERC Board of Trustees indicated that in deciding whether or not to approve a proposed interpretation, it will use a standard of strict construction and not seek to expand the reach of the standard to correct a perceived gap or deficiency in the standard. Do you believe this interpretation expands the reach of the standard?

- The interpretation for Question 2 of the Request for Interpretation expands the reach of the standard.
- The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.

Summary Consideration:

Most commenters agree that the interpretation for question 2 of the Request for Interpretation does not expand the reach of the standard, but, rather, provides clarity around which Cyber Assets are essential compared to those that are merely valuable but not essential.

Some commenters suggest that the interpretation could be construed as restricting the reach of the standard, but the IDT disagrees. The IDT acknowledges that the interpretation may be construed to restrict many parties or individuals' prior, different understanding or organizational interpretation of the reach of the standard.

One commenter suggested the interpretation is unnecessary because "essential" is defined in collegiate dictionaries and there is no technical basis for adding clarity to or better defining this term, either in an interpretation or in the NERC Glossary of Terms. The IDT observed that several definitions exist for this word, but it disagrees that the interpretation is unnecessary. The IDT clarified the meaning as it applies within the four corners of this particular standard's wording and scope, and it added context-sensitive clarity relating to the Requirement itself.

Organization	Yes or No	Question 4 Comment
Southern Company	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	The response to question 2 does not expand the reach of the standard but provides clarity around which cyber assets are essential vs. assets that are valuable but not essential.

Organization	Yes or No	Question 4 Comment
<p>Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.</p>		
ReliabilityFirst	<p>The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.</p>	<p>The interpretation for Question 2 could be construed as restricting the reach of the standard.</p>
<p>Response: Thanks for your comment providing rationale. While the IDT disagrees that this interpretation restricts the original reach of this requirement, we do agree that it may be construed to restrict other parties’ prior understanding or organizational interpretation of the reach of this requirement.</p>		
Midwest ISO	<p>The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.</p>	<p>MISO submits that, by clarifying that a Critical Cyber Asset ("CCA") must be required by a Critical Asset ("CA") such that the CA cannot function as intended without the CCA, the Interpretation does not expand the reach or scope of the standard.</p>
<p>Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.</p>		
Northeast Power Coordinating Council	<p>The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.</p>	
Southwest Power Pool Regional Entity	<p>The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the</p>	

Organization	Yes or No	Question 4 Comment
	standard.	
Bonneville Power Administration	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
ISO/RTO Council Standards Review Committee	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Dominion	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
FirstEnergy	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Kansas City Power & light	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	

Organization	Yes or No	Question 4 Comment
ACES Power Marketing Standards Collaborators	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Imperial Irrigation District (IID)	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Tennessee Valley Authority	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
NIPSCO	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
American Transmission Company, LLC	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	

Organization	Yes or No	Question 4 Comment
Minnesota Power	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
American Electric Power	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Duke Energy	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Independent Electricity System Operator	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Ingleside Cogeneration LP	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	

Organization	Yes or No	Question 4 Comment
Ameren	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
United Illuminating Company	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Salt River Project	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Pepco Holdings Inc	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
City of Austin dba Austin Energy	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	

Organization	Yes or No	Question 4 Comment
Essential Power, LLC	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Tampa Electric Company	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
CRSI	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
Oncor Electric Delivery Company	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
E.ON CLIMATE & RENEWABLES	The interpretation for Question 2 of the Request for Interpretation does not expand the reach of the standard.	
MISO Standards	The interpretation for	MISO submits that, by clarifying that a Critical Cyber Asset ("CCA")

Organization	Yes or No	Question 4 Comment
Collaborators	Question 2 of the Request for Interpretation expands the reach of the standard.	must be required by a Critical Asset ("CA") such that the CA cannot function as intended without the CCA, the Interpretation does not expand the reach or scope of the standard.
<p>Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.</p>		
MidAmerican Energy Company	The interpretation for Question 2 of the Request for Interpretation expands the reach of the standard.	The request is seeking the definition for the term “essential.” Essential is defined in collegiate dictionaries and there is no technical basis for adding clarity to or better defining this term either in an interpretation or in the NERC Glossary of Terms.
<p>Response: Thanks for your comment and provided rationale. The IDT observed that several definitions exist for this word. The IDT clarified the meaning as it applies within the four corners of this particular standard’s wording and scope, and it added context-sensitive clarity to the Requirement itself.</p>		

5. Do you agree with the Interpretation Drafting Team’s response to *Question 1* of the Request for Interpretation? If not, please explain specifically what you disagree with.

Summary Consideration:

Most commenters agreed with the IDT’s interpretation to question 1 of the Request for Interpretation. One commenter noted that guidance documents are often very long, and that one string of examples in the requirement could not be exhaustive. Furthermore, that commenter noted that the statement with the examples has been removed from CIP-002-4, presently pending FERC’s approval, and that it seems apparent to that commenter that this action was taken because the examples only served to confuse Responsible Entities and auditors alike - and are more appropriately addressed in a guideline document. Both of those comments and rationales support the IDT’s view that the list is illustrative, not prescriptive.

A commenter disagreed with the interpretation by noting that the response to Question 1 states that the types of Cyber Assets in the example "should be considered," and the language "should be considered" is not found in CIP-002-3, Requirement R3 and should not be inferred. The commenter agrees that the list of example Cyber Assets enumerated in Requirement R3 is not all inclusive, but notes that the list does identify types of Cyber Assets that perform functions that are essential to the operation of the control center. As such, the commenters suggests that examples are appropriately classified as Critical Cyber Assets *if* found in a control center that has been identified as a Critical Asset. In response, the IDT noted that the interpretation’s response to Question 1 clarifies that the examples are illustrative. Thus, since it is not a prescriptive list, those examples “should be considered” to determine whether they meet the requirement’s language. Since the examples do not imply that the items listed as examples in the requirement must be classified as Critical Cyber Assets, some consideration is necessary within the context of the requirement.

One commenter agreed with the interpretation, but does not believe that the interpretation is necessary or adds new information. In response, the IDT understands that many entities already understood or interpreted this requirement similarly to the interpretation’s response, and to those entities, this interpretation may at first seem unnecessary. However, the interpretation provides necessary clarity for all entities.

Organization	Yes or No	Question 5 Comment
Alberta Electric System Operator	Abstain	The AESO agrees with the interpretation of CIP-002, however we are casting an abstain vote as this standard is not applicable in Alberta at this time.

Organization	Yes or No	Question 5 Comment
Response: Thanks for providing the IDT with your rationale.		
Bonneville Power Administration	Affirmative	please refer to BPA’s submitted comments
Brazos Electric Power Cooperative, Inc.	Affirmative	See comments submitted by ACES Power Marketing.
Consolidated Edison Co. of New York	Affirmative	See NPCC region-wide group comment form
FirstEnergy Corp.	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Southern Company Services, Inc.	Affirmative	See comments submitted by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA's comments submitted through the electronic comment form.
California ISO	Affirmative	Comments provided jointly with the ISO/RTO Standards Review Committee
Electric Reliability Council of Texas, Inc.	Affirmative	ERCOT ISO has joined the comments of the ISO/RTO Council Standards Review Committee
AEP	Affirmative	Response is being submitted via electronic form by Thad Ness on behalf of American Electric Power.
Alabama Power Company	Affirmative	See comments submitted in the electronic comments form by John Horishny.
FirstEnergy Energy Delivery	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Georgia Power Company	Affirmative	See electronic comments submitted by John Horishny.

Organization	Yes or No	Question 5 Comment
Gulf Power Company	Affirmative	See comments submitted in the electronic comments form by John Horishny.
Mississippi Power	Affirmative	See comments submitted in the electronic comments form by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA’s comments submitted through the electronic comment form
Ohio Edison Company	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Wisconsin Energy Corp.	Affirmative	Comments are requested to be submitted using the separate electronic comment form rather than with the vote. I strongly support this interpretation and do not have any specific comments to submit with this vote.
AEP Service Corp.	Affirmative	Comments are being submitted via electronic form by Thad Ness on behalf of American Electric Power.
Bonneville Power Administration	Affirmative	Please see BPA comments submitted via the electronic comment form.
Brazos Electric Power Cooperative, Inc.	Affirmative	Please see comments filed by ACES Power Marketing.
FirstEnergy Solutions	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Occidental Chemical	Affirmative	See comments by submitted by Ingleside Cogeneration LP
Southern Company Generation	Affirmative	Please see Southern Company comments submitted by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA’s comments submitted through the electronic comment form.
AEP Marketing	Affirmative	Comments are being submitted via electronic form by Thad Ness on behalf of

Organization	Yes or No	Question 5 Comment
		American Electric Power.
FirstEnergy Solutions	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period
Northern Indiana Public Service Co.	Affirmative	see NIPSCO comments submitted
Southern Company Generation and Energy Marketing	Affirmative	See comments submitted in the electronic comments form by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA's comments submitted through the electronic comment form.
Bonneville Power Administration	Yes	BPA agrees that the examples in CIP-002 R3 are illustrative and not meant to be prescriptive.
Response: Thanks for your comment providing rationale that reinforces the IDT's position on this question.		
MISO Standards Collaborators	Yes	MISO agrees with the Interpretation as to Question 1.
Response: The IDT recognizes this affirmation as limited only to Question 1		
Ingleside Cogeneration LP	Yes	Ingleside Cogeneration LP strongly agrees with the IDT's interpretation that the examples given in R3 should be considered "illustrative, not prescriptive". Our assessment shows two actions taken by NERC in regard to the requirement which support this clarification. First, the entire purpose of NERC's security guideline for "Identifying Critical Cyber Assets" is to provide a means for Responsible Entities to establish which Cyber Assets should be critical. This is a 47 page document with multiple evaluations and complex procedural steps. Clearly a single sentence in a requirement cannot be considered to be exhaustive - or anything more than a suggestion. Second, the statement with the examples has been removed from CIP-

Organization	Yes or No	Question 5 Comment
		002-4, presently pending FERC’s approval. It seems apparent to us that this action was taken because the examples only served to confuse Responsible Entities and auditors alike - and are more appropriately addressed in a guideline document.
Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.		
Tampa Electric Company	Yes	Tampa Electric agrees with the Interpretations Drafting Team response to Question 1
Response: The IDT recognizes this affirmation as limited only to Question 1		
Midwest ISO	Yes	MISO agrees with the Interpretation as to Question 1.
Response: The IDT recognizes this affirmation as limited only to Question 1		
Northeast Power Coordinating Council	Yes	
ISO/RTO Council Standards Review Committee	Yes	
Dominion	Yes	
FirstEnergy	Yes	
Kansas City Power & light	Yes	
ACES Power Marketing Standards Collaborators	Yes	
Imperial Irrigation District (IID)	Yes	
Tennessee Valley Authority	Yes	

Organization	Yes or No	Question 5 Comment
PacifiCorp	Yes	
Southern Company	Yes	
NIPSCO	Yes	
American Transmission Company, LLC	Yes	
Minnesota Power	Yes	
American Electric Power	Yes	
Duke Energy	Yes	
Independent Electricity System Operator	Yes	
Ameren	Yes	
United Illuminating Company	Yes	
Salt River Project	Yes	
Pepco Holdings Inc	Yes	
City of Austin dba Austin Energy	Yes	
Essential Power, LLC	Yes	

Organization	Yes or No	Question 5 Comment
ReliabilityFirst	Yes	
CRSI	Yes	
Oncor Electric Delivery Company	Yes	
E.ON CLIMATE & RENEWABLES	Yes	
MidAmerican Energy Co.	Negative	See MidAmerican comments
Southwest Power Pool Regional Entity	No	The response to Question 1 states that the examples of the types of Cyber Assets "should be considered." The language "should be considered" is not found in CIP-002/R3 and should not be inferred. While the SPP RE agrees that the list of example Cyber Assets enumerated in R3 is not all inclusive, the list does identify types of Cyber Assets that perform functions that are essential to the operation of the control center. As such, the examples are appropriately classified as Critical Cyber Assets *if* found in a control center that has been identified as a Critical Asset.
<p>Response: Thanks for providing your rationale for response. The interpretation’s response to Question 1 clarifies that the examples are illustrative. Thus, since it is not a prescriptive list, those examples “should be considered” to determine whether they meet the requirement’s language. Since the examples do not imply that the items listed as examples in the requirement must be classified as Critical Cyber Assets, some consideration is necessary within the context of the requirement.</p>		
MidAmerican Energy Company	No	While we agree with the conclusion in the response to Question 1, we do not believe this interpretation is needed at this time. The response does not provide any new information.
<p>Response: The IDT understands that many entities already understood or interpreted this requirement similarly to the interpretation’s response, and to those entities, this interpretation may at first seem unnecessary. However, the interpretation</p>		

Organization	Yes or No	Question 5 Comment
		provides necessary clarity for all entities.

6. Do you agree with the Interpretation Drafting Team’s response to Question 2 of the Request for Interpretation? If not, why not.

Summary Consideration:

Most commenters agreed with the IDT’s interpretation with respect to question 2 of the request for interpretation, and they agreed with the IDT’s rationale that if a Cyber Asset is not required, but is merely “valuable to” the operation of a Critical Asset, it is not essential.

One commenter suggested that Version 4’s language may have a similar issue. The IDT notes that an interpretation applies only so long as the relevant language in a standard is in effect, and it agrees that this interpretation might be applicable for clarifying CIP Version 4, provided the same lack of clarity persists.

One commenter agreed with the Interpretation as to Question 2, but requested that the IDT clarify that “essential,” as used in Requirement R3, is synonymous with “inherent”, “necessary” and “required”. The commenter also submits that Registered Entities are best qualified to determine whether a Cyber Asset is essential to the operation of a Critical Asset and therefore a Critical Cyber Asset pursuant to the clarification provided by the Interpretation. The commenter states that a Registered Entity’s determination of whether a Cyber Asset is required by a Critical Asset should be rebuttably presumed to be correct. As the majority of industry agreed with this balloted draft’s current explanation of essential, the IDT did not incorporate the proposed change. Much like the list of examples is illustrative, the IDT agrees with most commenters that the interpretation provides clarity, and it is not necessary at this time to list further synonyms for “essential.” Further, the IDT does agree that a Registered Entity’s determination of whether a Cyber Asset is required by a Critical Asset should be rebuttably presumed to be correct.

Two commenters commented on the parenthetical clause in the original interpretation, suggesting that it was confusing upon first reading the language or that it seems to define “required.” One commenter suggested rewording the clause, and one commenter suggested removing the clause as unnecessary. The IDT agrees, and it re-worded the clause from “(i.e. without which a Critical Asset cannot function as intended)” to, “(i.e., a Critical Asset cannot function as intended without the Cyber Asset).” This is a clarifying change, and it is not substantive.

One commenter suggested that the IDT incorporate the provisions of NERC’s CAN-0005 so that the CAN may be retired. While the IDT understands this interpretation’s rationale to be in keeping with CAN-0005 and possibly forthcoming CIP versions, the IDT is bound by the Guidelines for Interpretation Drafting teams to interpret the words on the page of any standard being interpreted. The IDT believes that incorporating the submitted suggestions would expand the scope of the requirement in question. Furthermore, the IDT understands that the interpretation, once approved, may result in withdrawal of CAN-0005.

Other commenters were concerned that the interpretation does not explicitly state that redundancy is not a consideration for identifying Cyber Assets that are “essential.” The IDT agrees that redundancy is not a consideration in determining whether a Cyber Asset is “essential,” and this interpretation does not change that notion.

One commenter suggested the interpretation is unnecessary because “essential” is defined in collegiate dictionaries and there is no technical basis for adding clarity to or better defining this term either in an interpretation or in the NERC Glossary of Terms. The IDT observed that several definitions exist for this word, but it disagrees that the interpretation is unnecessary. The IDT clarified the meaning as it applies within the four corners of this particular standard’s wording and scope, and it added context-sensitive clarity to the Requirement itself.

One commenter believed that the clarification provided for essential is much narrower than the guidance provided in the Security Guideline for the Electricity Sector: Identifying Critical Cyber Assets, and that the interpretation does not provide additional clarity than what is provided in the existing guideline. The IDT understands that many entities already understood or interpreted this requirement similarly to the interpretation’s response, and to those entities, this interpretation may at first seem unnecessary. However, the interpretation provides necessary clarity for all entities.

Organization	Yes or No	Question 5 Comment
Alberta Electric System Operator	Abstain	The AESO agrees with the interpretation of CIP-002, however we are casting an abstain vote as this standard is not applicable in Alberta at this time.
Response: Thanks for providing the IDT with your rationale.		
Bonneville Power	Affirmative	please refer to BPA’s submitted comments

Organization	Yes or No	Question 5 Comment
Administration		
Brazos Electric Power Cooperative, Inc.	Affirmative	See comments submitted by ACES Power Marketing.
Consolidated Edison Co. of New York	Affirmative	See NPCC region-wide group comment form
FirstEnergy Corp.	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Southern Company Services, Inc.	Affirmative	See comments submitted by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA's comments submitted through the electronic comment form.
California ISO	Affirmative	Comments provided jointly with the ISO/RTO Standards Review Committee
Electric Reliability Council of Texas, Inc.	Affirmative	ERCOT ISO has joined the comments of the ISO/RTO Council Standards Review Committee
AEP	Affirmative	Response is being submitted via electronic form by Thad Ness on behalf of American Electric Power.
Alabama Power Company	Affirmative	See comments submitted in the electronic comments form by John Horishny.
FirstEnergy Energy Delivery	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Georgia Power Company	Affirmative	See electronic comments submitted by John Horishny.
Gulf Power Company	Affirmative	See comments submitted in the electronic comments form by John Horishny.

Organization	Yes or No	Question 5 Comment
Mississippi Power	Affirmative	See comments submitted in the electronic comments form by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA’s comments submitted through the electronic comment form
Ohio Edison Company	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Wisconsin Energy Corp.	Affirmative	Comments are requested to be submitted using the separate electronic comment form rather than with the vote. I strongly support this interpretation and do not have any specific comments to submit with this vote.
AEP Service Corp.	Affirmative	Comments are being submitted via electronic form by Thad Ness on behalf of American Electric Power.
Bonneville Power Administration	Affirmative	Please see BPA comments submitted via the electronic comment form.
Brazos Electric Power Cooperative, Inc.	Affirmative	Please see comments filed by ACES Power Marketing.
FirstEnergy Solutions	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period.
Occidental Chemical	Affirmative	See comments by submitted by Ingleside Cogeneration LP
Southern Company Generation	Affirmative	Please see Southern Company comments submitted by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA’s comments submitted through the electronic comment form.
AEP Marketing	Affirmative	Comments are being submitted via electronic form by Thad Ness on behalf of American Electric Power.

Organization	Yes or No	Question 5 Comment
FirstEnergy Solutions	Affirmative	Please see FirstEnergy's comments submitted through the formal comment period
Northern Indiana Public Service Co.	Affirmative	see NIPSCO comments submitted
Southern Company Generation and Energy Marketing	Affirmative	See comments submitted in the electronic comments form by John Horishny.
Tennessee Valley Authority	Affirmative	Please see TVA's comments submitted through the electronic comment form.
Bonneville Power Administration	Yes	BPA agrees that if a Cyber Asset is not required, merely "valuable to" the operation of a Critical Asset, it is not essential.
Response: Thanks for your comment providing rationale that reinforces the IDT's position on this question.		
FirstEnergy	Yes	Since there are no question for general comments, we offer them in this last question. Just as a reminder, this Interpretation, once approved, will also need to be added to the pending CIP-002-4 standard which is currently before FERC for approval. It would seem that the Interpretation, if approved, could be added to the Version 4 standard as an errata change.
Response: Thanks for your additional comment. As an interpretation applies only so long as the relevant language in a standard is in effect, we agree this interpretation might be applicable for clarifying CIP Version 4, provided the same lack of clarity persists, which First Energy apparently believes to be the case.		
Kansas City Power & light	Yes	IDT clearly defines "essential" in its response. More importantly it states a "valuable" asset is not necessarily "essential" to the operation of a Critical Asset, thereby, indirectly addressing Duke's concern with physical controls around workstations such as laptops when used from remote locations.

Organization	Yes or No	Question 5 Comment
<p>Response: Thanks for your comment providing rationale that reinforces the IDT’s position on this question.</p>		
<p>MISO Standards Collaborators</p>	<p>Yes</p>	<p>MISO generally agrees with the Interpretation as to Question 2, however MISO also requests that the Interpretation Drafting Team clarify that “essential,” as used in Requirement R3, is synonymous with “inherent”, “necessary” and “required”. MISO also submits that Registered Entities are best qualified to determine whether a Cyber Asset is essential to the operation of a CA and is therefore a CCA pursuant to the clarification provided by the Interpretation. As a result, a Registered Entity’s determination of whether a Cyber Asset is required by a CA should be rebuttably presumed to be correct.</p>
<p>Response: Thanks for your provided rationale. As the majority of industry agreed with this balloted draft’s current explanation of essential, we have not incorporated the proposed change. Much like the list of examples is illustrative, the IDT agrees with most commenters that the interpretation provides clarity, and it is not necessary at this time to list further synonyms for “essential.” Further, we agree with the MISO commenting body’s final conclusion.</p>		
<p>ACES Power Marketing Standards Collaborators</p>	<p>Yes</p>	<p>While we agree with the drafting team, we recommend rewording “(i.e. without which a Critical Asset cannot function as intended)” to “(i.e. the Critical Asset cannot function without the Cyber Asset)”. While the wording is technically correct, it is difficult to read and can be confusing.</p>
<p>Response: Thanks for your suggestion, which has been considered within the next draft. The IDT reworded the clause, but not the meaning or substance, so that it now reads, “(i.e., a Critical Asset cannot function as intended without the Cyber Asset)”</p>		
<p>Duke Energy</p>	<p>Yes</p>	<p>However, the interpretation could be improved by striking the parenthetical “(i.e., without which a Critical Asset cannot function as intended),” from the second paragraph. This parenthetical attempts to define the word “required”, which is not necessary for the interpretation.</p>
<p>Response: Thanks for your suggestion, which has been considered within the next draft. Rather than remove it, the IDT reworded the clause, but not the meaning or substance, so that it now reads, “(i.e., a Critical Asset cannot function as intended without the</p>		

Organization	Yes or No	Question 5 Comment
Cyber Asset)		
Ingleside Cogeneration LP	Yes	We commend the Interpretation Drafting Team for developing a reading of the term “essential” based upon its commonly understood usage. We also agree that it is important to provide gradations which are close to the concept of essentiality, but does not meet the criticality litmus test. This allows the exclusion of Cyber Assets which “may be used, but not required” or are “merely valuable” to the inherent operation of the Critical Asset. It is left up to the Responsible Entity to make those assessments using an internal methodology that is comprehensive and defensible - and is consistent with the intent of CIP-002 as it is written today. We realize this flexibility may be limited in CIP version 5. However, those standards must still go through the vetting process; which will allow the industry to review, post comments, and vote upon any proposed changes.
Response: Thanks for support and supporting rationale for this interpretation.		
Tampa Electric Company	Yes	Tampa Electric agrees with the Interpretations Drafting Team response to Question 2. We strongly support the concept that essential to the operation of the Critical Asset means that it is necessary for the operation of that Critical Asset.
Response: Thanks for your strong support.		
Midwest ISO	Yes	MISO generally agrees with the Interpretation as to Question 2, however MISO also requests that the Interpretation Drafting Team clarify that “essential,” as used in Requirement R3, is synonymous with “inherent”, “necessary” and “required”. MISO also submits that Registered Entities are best qualified to determine whether a Cyber Asset is essential to the operation of a CA and is therefore a CCA pursuant to the clarification provided by the Interpretation. As a result, a Registered Entity’s determination of whether a Cyber Asset is required by a CA should be rebuttably presumed to be correct.

Organization	Yes or No	Question 5 Comment
<p>Response: Thanks for your provided rationale. As the majority of industry agreed with this balloted draft’s current explanation of essential, we see a greater risk in accepting the proposed change compared to leaving the words as currently written. Further, we agree with the MISO commenting body’s final conclusion.</p>		
Northeast Power Coordinating Council	Yes	
ISO/RTO Council Standards Review Committee	Yes	
Dominion	Yes	
Imperial Irrigation District (IID)	Yes	
Tennessee Valley Authority	Yes	
PacifiCorp	Yes	
Southern Company	Yes	
NIPSCO	Yes	
American Transmission Company, LLC	Yes	
Minnesota Power	Yes	
American Electric Power	Yes	
Independent Electricity System Operator	Yes	

Organization	Yes or No	Question 5 Comment
Ameren	Yes	
United Illuminating Company	Yes	
Salt River Project	Yes	
Pepco Holdings Inc	Yes	
City of Austin dba Austin Energy	Yes	
Essential Power, LLC	Yes	
Oncor Electric Delivery Company	Yes	
E.ON CLIMATE & RENEWABLES	Yes	
MidAmerican Energy Co.	Negative	See MidAmerican comments
Southwest Power Pool Regional Entity	No	The response to Question 2 must be revised to specifically include the proviso that redundancy is NOT a consideration when determining if a Cyber Asset is "essential." Redundancy cannot be a consideration because, generally, vulnerability of the redundant asset is the same as the primary asset's vulnerability. To achieve security you have to consider both primary and redundant assets. The interpretation must also incorporate the provisions of CAN-0005 in such a way as to make CAN-0005 no longer necessary.
<p>Response: While the IDT understands this particular rationale to be more in keeping with CAN-0005 and possibly forth-coming CIP versions, the IDT is bound by the Guidelines for Interpretation Drafting teams to interpret the words on the page of any standard</p>		

Organization	Yes or No	Question 5 Comment
<p>being interpreted. The IDT believes that incorporating the submitted suggestions would expand the scope of the requirement in question. Furthermore, the IDT understands that the interpretation, once approved, may result in withdrawal of CAN-0005.</p> <p>The IDT agrees that redundancy is not a consideration in determining whether a Cyber Asset is “essential,” and this interpretation does not change that notion.</p>		
<p>MidAmerican Energy Company</p>	<p>No</p>	<p>MidAmerican Energy does not believe this interpretation is needed at this time. The request is seeking the definition for the term “essential.” Essential is defined in collegiate dictionaries and there is no technical basis for adding clarity to or better defining this term either in an interpretation or in the NERC Glossary of Terms. The interpretation provides no new useful information and creates more confusion by introducing the new term “inherent to.”</p>
<p>Response: The IDT understands that many entities already understood or interpreted this requirement similarly to the interpretation’s response, and to those entities, this interpretation may at first seem unnecessary. However, the interpretation provides necessary clarity for all entities. The phrase “inherent to” in the interpretation is contextual and clarifying information, and the IDT disagrees that it is a new term.</p>		
<p>ReliabilityFirst</p>	<p>No</p>	<p>The Interpretation’s “Response to Question 2” may render CIP-002-3 through CIP-009-3 non-functional. The statement, “A Cyber Asset that ‘may’ be used, but is not ‘required’ (i.e., without which a Critical Asset cannot function as intended), for the operation of a Critical Asset is not ‘essential to the operation of the Critical Asset’ for purposes of Requirement R3” transforms CIP-002-3 R3 into a single point of failure analysis. Cyber systems used in the operation of the BES are designed so there is no single point of failure. Therefore, there would be no Critical Cyber Assets in the meaning stated by the “Response to Question 2.”The Interpretation must be revised to make clear that any Cyber Asset, even if replicated locally or remotely, that, if damaged, lost or compromised, can have a negative impact on the reliable operation of the associated Critical Asset must be identified as a Critical Cyber Asset.</p>
<p>Response: The IDT agrees that redundancy is not a consideration in determining whether a Cyber Asset is “essential,” and this</p>		

Organization	Yes or No	Question 5 Comment
interpretation does not change that notion.		
CRSI	No	The definition provided for essential is much narrower than the guidance provided in the Security Guideline for the Electricity Sector: Identifying Critical Cyber Assets. The interpretation does not provide additional clarity than what is provided in the existing guideline.
<p>Response: Thanks for your rationale. The IDT understands that many entities already understood or interpreted this requirement similarly to the interpretation’s response, and to those entities, this interpretation may at first seem unnecessary. However, the interpretation provides necessary clarity for all entities.</p>		

END OF REPORT