

Consideration of Comments

Interpretation 2012-INT-05
CIP-002-3 for OGE

The Interpretation 2012-INT-05 Drafting Team thanks all commenters who submitted comments on the Interpretation of CIP-002-3, Requirement R1, for OGE (Project 2012-INT-05). This interpretation was posted for a 30-day public comment period from June 27, 2012 through July 27, 2012. Stakeholders were asked to provide feedback on the interpretation through a special electronic comment form. There were 30 sets of comments, including comments from approximately 100 different people from approximately 90 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](#).

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 and Director, Standards, Mark Lauby, at 404-446-2560 or at mark.lauby@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Standard Processes Manual: http://www.nerc.com/files/Appendix_3A_StandardsProcessesManual_20120131.pdf

Index to Questions, Comments, and Responses

1. Do you agree with this interpretation? If not, what, specifically, do you disagree with? Please provide specific suggestions or proposals for any alternative language. 8

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.	Carmen Agavriloi	Independent Electricity System Operator		NPCC	2										
3.	Greg Campoli	New York Independent System Operator		NPCC	2										
4.	Sylvain Clermont	Hydro-Quebec TransEnergie		NPCC	1										
5.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.		NPCC	1										
6.	Gerry Dunbar	Northeast Power Coordinating Council		NPCC	10										
7.	Mike Garton	Dominion Resources Services, Inc.		NPCC	5										
8.	Kathleen Goodman	ISO - New England		NPCC	2										
9.	Michael Jones	National Grid		NPCC	1										

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
10. David Kiguel	Hydro One Networks Inc.	NPCC 1												
11. Michael R. Lombardi	Northeast Utilities	NPCC 1												
12. Randy MacDonald	New Brunswick Power Transmission	NPCC 9												
13. Bruce Metruck	New York Power Authority	NPCC 6												
14. Silvia Parada Mitchell	NextEra Energy, LLC	NPCC 5												
15. Lee Pedowicz	Northeast Power Coordinating Council	NPCC 10												
16. Robert Pellegrini	The United Illuminating Company	NPCC 1												
17. Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC 1												
18. David Ramkalawan	Ontario Power Generation, Inc.	NPCC 5												
19. Brian Robinson	Utility Services	NPCC 8												
20. Michael Schiavone	National Grid	NPCC 1												
21. Wayne Sipperly	New York Power Authority	NPCC 5												
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	Steve Alexanderson P.E.	Western Small Entity Comment Group											
					X	X							X	
	Additional Member	Additional Organization	Region	Segment Selection										
1.	Eric Scott	City of Palo Alto	WECC	3										
2.	Russ Schneider	Flathead Electric	WECC	3, 4										
3.	Dale Dunckel	Okanogan PUD	WECC	1										
4.	Russell A. Noble	Cowlitz County PUD No. 1	WECC	3, 4, 5										
5.	Ronald Sporseen	Blachly-Lane Electric Cooperative	WECC	3										
6.	Ronald Sporseen	Central Electric Cooperative	WECC	3										
7.	Ronald Sporseen	Consumers Power	WECC	3, 1										
8.	Ronald Sporseen	Clearwater Power Company	WECC	3										
9.	Ronald Sporseen	Douglas Electric Cooperative	WECC	3										
10.	Ronald Sporseen	Fall River Rural Electric Cooperative	WECC	3										
11.	Ronald Sporseen	Northern Lights	WECC	3										
12.	Ronald Sporseen	Lane Electric Cooperative	WECC	3										
13.	Ronald Sporseen	Lincoln Electric Cooperative	WECC	3										
14.	Ronald Sporseen	Raft River Rural Electric Cooperative	WECC	3										

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
15. Ronald Sporseen	Lost River Electric Cooperative	WECC 3												
16. Ronald Sporseen	Salmon River Electric Cooperative	WECC 3												
17. Ronald Sporseen	Umatilla Electric Cooperative	WECC 3												
18. Ronald Sporseen	Coos-Curry Electric Cooperative	WECC 3												
19. Ronald Sporseen	West Oregon Electric Cooperative	WECC 3												
20. Ronald Sporseen	Pacific Northwest Generating Cooperative	WECC 3, 4, 8												
21. Ronald Sporseen	Power Resources Cooperative	WECC 5												
3. Group	Christopher Higgins	Bonneville Power Administration	X		X		X	X						
Additional Member Additional Organization Region Segment Selection														
1. Richard Winters		WECC 1												
2. Forrest Krigbaum		WECC 1												
3. Scott Smith		WECC 1												
4. James Phillips		WECC 1												
5. Karin Butler		WECC 1												
6. Christine Jensen		WECC 1, 3, 5, 6												
4. Group	Bob Steiger	Salt River Project	X		X		X	X						
No additional members listed.														
5. Group	Will Smith	MRO NSRF	X	X	X	X	X	X						X
Additional Member Additional Organization Region Segment Selection														
1. MAHMOOD SAFI	OPPD	MRO 1, 3, 5, 6												
2. CHUCK LAWRENCE	ATC	MRO 1												
3. TOM BREENE	WPS	MRO 3, 4, 5, 6												
4. JODI JENSON	WAPA	MRO 1, 6												
5. KEN GOLDSMITH	ALTW	MRO 4												
6. ALICE IRELAND	XCEL	MRO 1, 3, 5, 6												
7. DAVE RUDOLPH	BEPC	MRO 1, 3, 5, 6												
8. ERIC RUSKAMP	LES	MRO 1, 3, 5, 6												
9. JOE DEPOORTER	MGE	MRO 3, 4, 5, 6												
10. SCOTT NICKELS	RPU	MRO 4												
11. TERRY HARBOUR	MEC	MRO 3, 5, 6, 1												
12. MARIE KNOX	MISO	MRO 2												

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
13. LEE KITTELSON	OTP	MRO	1, 3, 4, 5											
14. SCOTT BOS	MPW	MRO	1, 3, 5, 6											
15. TONY EDDLEMAN	NPPD	MRO	1, 3, 5											
16. MIKE BRYTOWSKI	GRE	MRO	1, 3, 5, 6											
17. DAN INMAN	MPC	MRO	1, 3, 5, 6											
6. Group	Sam Ciccone	FirstEnergy		X		X	X	X	X					
Additional Member Additional Organization Region Segment Selection														
1. M. McLean	FE	RFC												
2. M. Koziel	FE	RFC												
3. L. Raczkowski	FE	RFC												
4. P. Buerling	FE	RFC												
5. D. Hohlbaugh	FE	RFC												
7. Group	Emily Pennel	Southwest Power Pool Regional Entity												X
No additional members listed.														
8. Group	Christine Hasha	ISO/RTO Council Standards Review Committee			X									
Additional Member Additional Organization Region Segment Selection														
1. Gary DeShazo	CAISO	WECC	2											
2. Steve Myers	ERCOT	ERCOT	2											
3. Ben Li	IESO	NPCC	2											
4. Kathleen Goodman	ISONE	NPCC	2											
5. Dave Francis	MISO	RFC	2											
6. Greg Campoli	NYISO	NPCC	2											
9. Group	Robert Rhodes	SPP Standards Review Group			X									
Additional Member Additional Organization Region Segment Selection														
1. John Allen	City Utilities of Springfield	SPP	1, 4											
2. Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5											
3. Bo Jones	Westar Energy	SPP	1, 3, 5, 6											
10. Group	Jason Marshall	ACES Power Marketing							X					
Additional Member Additional Organization Region Segment Selection														
1. John Shaver	Arizona Electric Power Cooperative/SW Transmission Cooperative	WECC	1, 4, 5											

Group/Individual	Commenter	Organization	Registered Ballot Body Segment																	
			1	2	3	4	5	6	7	8	9	10								
2.	Patrick Woods	East Kentucky Power Cooperative	SERC	1, 3, 5																
3.	Bill Watson	Old Dominion Electric Cooperative	RFC/SERC	3, 4																
4.	Megan Wagner	Sunflower Electric Power Corporation	SPP	1																
5.	Susan Sosbe	Wabash Valley Power Association	RFC/SERC	3																
11.	Individual	Sandra Shaffer	PacifiCorp		X		X		X	X										
12.	Individual	Shammara Hasty	Southern Company		X		X		X	X										
13.	Individual	Kasia Mihalchuk	Manitoba Hydro		X		X		X	X										
14.	Individual	Alan Rivaldo	Public Utility Commission of Texas																X	
15.	Individual	Chris Mattson	Tacoma Power		X		X	X	X	X										
16.	Individual	Jay Campbell	NV Energy		X		X	X	X											
17.	Individual	Oliver Burke	Entergy Services, Inc.		X		X		X	X										
18.	Individual	Thad Ness	American Electric Power		X		X		X	X										
19.	Individual	David Thorne	Pepco Holdings Inc.		X		X													
20.	Individual	Michelle R DAntuono	Ingleside Cogeneration LP						X											
21.	Individual	Michael Falvo	Independent Electricity System Operator			X														
22.	Individual	Grant Wilkerson	Westar Energy		X		X		X											
23.	Individual	Patrick Brown	Essential Power, LLC						X											
24.	Individual	Greg Rowland	Duke Energy		X		X		X	X										
25.	Individual	Andrew Gallo	City of Austin dba Austin Energy		X		X	X	X	X										
26.	Individual	RoLynda Shumpert	South Carolina Electric and Gas		X		X		X	X										
27.	Individual	Anthony Jablonski	ReliabilityFirst																	X
28.	Individual	Scott Bos	Muscatine Power and Water		X		X		X	X										
29.	Individual	Terry Harbour	MidAmerican Energy Company		X		X		X	X										
30.	Individual	Mike Stanley	MEAG Power		X		X		X											

1. **Do you agree with this interpretation? If not, what, specifically, do you disagree with? Please provide specific suggestions or proposals for any alternative language.**

Summary Consideration: The Interpretation Drafting Team (IDT) carefully reviewed all comments in response to the posting of a formal comment period that ended July 27, 2012. In the draft interpretation, the IDT clarifies the meaning of CIP-002-3, Requirement R1.2.5 as it relates and applies to new technologies such as Advanced Meter Infrastructure (AMI). Commenters provided several points of constructive feedback for the IDT’s consideration in modifying the draft interpretation in preparation for the next formal comment period and parallel initial ballot. Among the issues identified in comments were recommendations that the IDT amend its response and that it add detail to the response and clarify the response with improved wording. The IDT believes that a few of the commenters who disagreed with the interpretation disagreed due to a misunderstanding of the response, and the IDT has adopted several of the recommended wording changes. Several commenters stated that Load shed of 300 MW or greater is not the issue, but rather that the 300 MW is specifically purposed for BES function of automatic UVLS or UFLS. In response, the IDT agrees with the position that it is not the 300 MW threshold that triggers criticality, but rather what the 300 MW UVLS or UFLS functionally defines. There was a comment that the wording relating to “automatic” could be clarified. In response, the IDT considered the comment but determined that it is generally a well-understood term and would need to be incorporated within an entity’s risk-based assessment methodology (RBAM) and processes. There were a few comments that stated the reference to annual is an incorrect citation. In response, the IDT has clarified references from Requirement R4 to Requirement R2 and from Requirement R1 to Requirement R1.2.5.

Organization	Yes or No	Question 1 Comment
Western Small Entity Comment Group	No	The AMI remote connect/disconnect feature described by OGE works at the service voltage level. The meters in question are manufactured with relays inside, so that direct metered services may individually be remotely connected or disconnected. The voltages involved are typically 120V to 480V. While it is true that such a system could be configured to disconnect enough services simultaneously to reach an aggregate exceeding 300MW, the limitations of section 215 of the FPA preclude any consideration of these

Organization	Yes or No	Question 1 Comment
		<p>systems for the purposes of mandatory standards. While there may be some confusion regarding where the line between the Bulk Power System and local distribution lies exactly, the comment group believes these service voltage facilities are unquestionably on the local distribution side and cannot be subject to standards regardless of how they are configured. There can be no requirement to annually reconsider these systems as Critical Assets under the limitations provided by Congress.</p>
<p>Response: Thank you for your comment. Within the CIP standards and related security requirements, loss of Load is within the scope of NERC Reliability Standards as specified in the standards. As the interpretation identifies, if a registered entity has not purposed a system such as AMI to “automatically”, which means without human operator initiation, shed 300 MW or greater of Load it does not need to consider that system under their RBAM. If the equipment is placed on the transmission facilities, the purpose must be evaluated for possible inclusion in the RBAM.</p>		
MRO NSRF	No	<p>The NSRF does not agree that the IDT can clearly state that the AMI is not critical under R1.2.5. The IDT should not make the following statement of: “Applying these requirements to the remote connect or disconnect functionality associated with advanced metering infrastructure (AMI), the drafting team concludes in its interpretation that AMI is not a Critical Asset under R1.2.5 so long as the AMI is not designed to or cannot, without human operator intervention, shed a load of 300MW or more”. The NSRF disagrees with this interpretation for the following reasons;1. R1.2.5 is written to specifically address “systems and facilities” that are “critical to automatic load shedding under a common control system capable of shedding 300 MW or more”. Not that you have a threshold of “automatic load shedding under a common control system capable of shedding 300 MW or more”. The use of 300 MW or more is a pseudo threshold. Consideration of “system and facilities” is the intent of the requirement.</p> <p>2. Each applicable entity’s RBAM should consider (R1.2) their “systems and facilities” that are critical to automatic load shedding...300 MW or more.</p>

Organization	Yes or No	Question 1 Comment
		<p>Upon consideration, the entity may or may not elect to identify the “system or facility” as a Critical Asset, based on their RBAM.</p> <p>3. The NSRF believes CIP-002-3 is clearly written and that the IDT cannot determine if an Entity’s AMI is a Critical Asset or not.</p>
<p>Response: Thank you for your response. The IDT agrees that CIP-002-3 is clearly written and that it cannot determine if an entity’s AMI is a Critical Asset. The entity would make that determination by using its RBAM.</p> <p>In response to OGE’s question, the IDT is making the point that AMI is one potential method to shed Load and that the entity would need to determine in its RBAM if it had a system that could “automatically” shed Load and whether the system qualified as a Critical Asset under the terms of the standard.</p> <p>The IDT has also removed the following sentence to clarify the interpretation: “If it does, pursuant to Requirement R1.2, the Responsible Entity must consider that asset for identification as a Critical Asset under its RBAM required by CIP-002-3, Requirement R1.”</p>		
<p>Southwest Power Pool Regional Entity</p>	<p>No</p>	<p>The explanatory language of the interpretation is confusing and provides little clarification to the requesting entity. It provides misleading guidance regarding the distinction of "critical" to automatic load shed. It also could be misconstrued by a Responsible Entity in its present form to more broadly apply to all Smart Grid systems functionality in general, leading the entity to conclude that Smart Grid is excluded from the CIP standards. A system or facility is "critical" to load shedding when it is the system or facility that actually disconnects the load upon command of a system intended to perform load reduction as one of its functions, whether manual or automated. Automatic load shedding is that action that occurs without operator intervention, although it may be initiated by an operator under certain circumstances as further explained below. The "common control system" is that programmatic application communicating with and directing the actions of the systems or facilities disconnecting the load. The common control system may be "capable" of shedding more than 300 MW of load</p>

Organization	Yes or No	Question 1 Comment
		<p>while in normal practice less than 300 MW is shed at one time. It is the capability and not the normal practice that must be evaluated. The Responsible Entity must take all of these factors into consideration when determining whether a Cyber Asset meets the R1.2.5 criterion. The Responsible Entities generally recognize that protective relays configured to perform automatic under-frequency or under-voltage load shed meet the criterion of "critical to automatic load shedding" and the entities can readily determine if these devices are capable of shedding 300 MW or more either individually or under a common control system. Responsible Entities generally overlook upstream systems and their potential impact if their capabilities are misused. Responsible Entities often view their SCADA/EMS load shed programs as "manual," not "automatic," without evaluating the actual functionality. While an operator may initiate the load shed by entering a target MW, some load shed programs then automatically perform all of the analysis required to shed sufficient load blocks to attain the target reduction. It is automatic in the sense that the operator could manually open up all of the breakers in the load block scheme, one at a time, to achieve the same result. Similarly, while an operator may initiate rotating load shed by entering a target reduction value, some load shed programs perform all of the necessary steps to automatically cycle through the load blocks until instructed to stop. In a similar manner, Smart Grid systems are often capable of multiple functions including demand response (essentially automatic load shed made possible by curtailing selected appliance load) as well as remote customer meter connect/disconnect (clearly a manual operation and the specific issue at hand). If the demand response functionality of the Smart Grid system is capable of reducing load by 300 MW or more, then it must be considered a Critical Cyber Asset even if load shed is not its "primary" function. The AMI Remote Disconnect function is theoretically capable of being misused to shed 300 MW or more, however that would be done one meter at a time given the programmatic capability</p>

Organization	Yes or No	Question 1 Comment
		<p>of the system. AMI Remote Disconnect is considered to be a manual function - one operator action against one meter. AMI Remote Disconnect is not and cannot be construed to be load shed functionality. The interpretation can be improved, clarified, and simplified by eliminating the explanatory discussion and simply responding to the narrowly focused question asked by OG&E. OG&E specifically asks if the AMI Remote Disconnect function is a system or facility critical to automatic load shedding under a common control system capable of shedding 300 MW or more. The similarly focused response should simply state that while other functions of a Smart Grid AMI system may be capable of automatically shedding 300 MW or more of load, the specific AMI Remote Disconnect function is not a system or facility critical to load shed. An AMI system specifically built and configured to only perform the Remote Disconnect function does not meet the criterion found in CIP-002-3, Requirement R1.2.5.</p>
<p>Response: Thank you for your response. The IDT did not answer the specific AMI question because the role of the IDT is to answer questions concerning the interpretation of the standards and not to answer specific technological applications under the standard. Each entity needs to understand their system and evaluate it under their RBAM. The IDT has made several changes to the wording of its response to make it clearer, however, including language specifying that “an AMI system specifically built and configured to perform the Remote Disconnect function that does not automatically shed load without human operator initiation would not meet the criteria found in CIP-002-3, Requirement R1.2.5.”</p>		
Public Utility Commission of Texas	No	<p>I essentially agree with the interpretation but checked "No" because I think the last sentence needs more clarity. The last part of the last sentence reads "...so long as the AMI is not designed to or cannot, without human operator intervention, shed a load of 300MW or more." I propose that the sentence in the interpretation be reworded to read: "as long as the AMI is not designed to shed a load of 300MW or more, or at least cannot do so without human operator intervention."</p>
<p>Response: Thank you for your response. The interpretation has been reworded to improve clarity and to specify that it must be</p>		

Organization	Yes or No	Question 1 Comment
<p>both automatically and without human operator intervention. The IDT notes that the language quoted in the comment was from the background information that the IDT provided and is not part of the interpretation itself.</p>		
<p>Ingleside Cogeneration LP</p>	<p>No</p>	<p>Ingleside Cogeneration LP believes that the interpretation developed by the drafting team comes to the correct conclusion - that OGE’s Smart Grid AMI function is not likely going to be identified as a BES Critical Asset. However, it puts the onus on the Responsible Entity to assess the service loss caused by an asset which clearly does not serve a BES function. This effectively expands the scope of the RBAM to apply to equipment that has nothing to do with critical BES functions as they are presently understood. Perhaps of more concern, the drafting team has ignored the results of extensive investigation into this issue which took place during the development of CIP Version 4. In CIP-002-4, the corresponding bright-line criterion states the following:”1.13. Each system or Facility that performs automatic load shedding, without human operator initiation, of 300 MW or more implementing Under Voltage Load Shedding (UVLS) or Under Frequency Load Shedding (UFLS) as required by the regional load shedding program.”This language is unambiguous and fully addresses the concern by OGE that their Smart Grid Advanced Meter Infrastructure (AMI) could be considered a Smart Grid remote meter disconnect function to be a Critical Asset because it can be configured to shed an aggregate load greater than 300 MW. The intent is to identify UVLS and UFLS systems that are a part of a regional reliability program - not delve into remote meter connections. We are aware that NERC Compliance has taken a position that the bright-line criteria cannot replace the RBAM until CIP Version 4 takes effect in 2014. We are puzzled why an superior system which has been vetted by industry and approved by FERC should be out-of-bounds - especially since the stance does not appear to be related to reliability. Furthermore, there are costs to ambiguity - every dollar spent evaluating the AMI system takes away from other reliability needs. In addition, there is a hidden cost that a conservative reading of the interpretation will lead Responsible Entities to conclude that</p>

Organization	Yes or No	Question 1 Comment
		<p>cyber-hardening is necessary for Smart Grid technologies. If this becomes a wide-spread belief, then many will choose to delay or not deploy the capability. There are enormous societal benefits to Smart Grid (e.g.; intelligent energy conservation) that are at stake - so we urge the project team to take a more definitive stance that AMI systems are not part of the BES and do not need to be considered as Critical Assets.</p>
<p>Response: Thank you for your response. The IDT notes that a Responsible Entity’s evaluation and application of its RBAM is necessarily driven by facts and circumstances. Furthermore, the IDT is responding to OGE’s request within the context of CIP Versions 1 through 3, which include the RBAM, and based on Guidelines for Interpretation Drafting Teams. This interpretation will not apply to Version 4, which does not use the RBAM, and the IDT does not interpret the previous versions with the information that does not appear in the standard.</p>		
<p>Duke Energy</p>	<p>No</p>	<p>While the interpretation arrives at the correct conclusion, the logic in the third paragraph of the response is needlessly complicated and not supported by a reading of the plain language of R4. Suggested rewording of the third paragraph: "During the identification and documentation of the risk-based assessment methodology used to identify Critical Assets required by R1, a Responsible Entity shall consider “Systems and facilities critical to automatic load shedding under a common control system capable of shedding 300 MW or more” as specified in R1.2.5. R2 then requires the entity to apply this risk-based assessment methodology annually to identify Critical Assets. If a system or facility is not “critical to” automatically shedding load, or the common control system is not “capable of” automatically shedding 300 MW or more, the asset is not required to be considered in the methodology per R1.2.5, and the asset may not be a Critical Asset."Also, in the fifth paragraph of the response, insert the word "automatically" before the word "shedding".</p>
<p>Response: Thank you for your response. The IDT used your language to rewrite its response.</p>		

Organization	Yes or No	Question 1 Comment
Muscatine Power and Water	No	<p>MPW does not agree that the IDT can clearly state that the AMI is not critical under R1.2.5. The IDT should not make the following statement of: "Applying these requirements to the remote connect or disconnect functionality associated with advanced metering infrastructure (AMI), the drafting team concludes in its interpretation that AMI is not a Critical Asset under R1.2.5 so long as the AMI is not designed to or cannot, without human operator intervention, shed a load of 300MW or more". MPW disagrees with this interpretation for the following reasons;</p> <ol style="list-style-type: none"> 1. R1.2.5 is written to specifically address "systems and facilities" that are "critical to automatic load shedding under a common control system capable of shedding 300 MW or more". Not that you have a threshold of "automatic load shedding under a common control system capable of shedding 300 MW or more". The use of 300 MW or more is a pseudo threshold. Consideration of "system and facilities" is the intent of the requirement. 2. Each applicable entity's RBAM should consider (R1.2) their "systems and facilities" that are critical to automatic load shedding...300 MW or more. Upon consideration, the entity may or may not elect to identify the "system or facility" as a Critical Asset, based on their RBAM. 3. MPW believes CIP-002-3 is clearly written and that the IDT cannot determine if an Entity's AMI is a Critical Asset or not.
<p>Response: Thank you for your response. The IDT agrees that CIP-002-3 is clearly written and that it cannot determine if an entity's AMI is a Critical Asset. The entity would make that determination by using its RBAM.</p> <p>In response to OGE's question, the IDT is making the point that AMI is potentially one of a number of potential methods to shed Load and that the entity would need to determine via its RBAM if it had a system that could "automatically" shed Load and whether the system qualified as a CA under the terms of the standard.</p>		

Organization	Yes or No	Question 1 Comment
ACES Power Marketing	No	<p>Conceptually, we agree with the interpretation. We offer a few refinements to further improve the interpretation.</p> <ol style="list-style-type: none"> 1) The first sentence in the third paragraph should reference CIP-002-3 R2 not CIP-002-3 R4. The annual application of the risk-based assessment (RBAM) is not required in CIP-002-3 R4 as interpretation implies. Rather it is required in CIP-002-3 R2. CIP-002-3 R4 requires the senior manager to approve the RBAM, list of Critical Assts, and list of Critical Cyber Assets. While this approval likely will require some level of review, it will be a management review not the annual RBAM application. Thus, “Each year, during the annual approval required under CIP-002-3, Requirement R4,” should become “Each year per CIP-002-3 Requirement R2”. 2) The interpretation needs to match the order of the application of the requirements more closely. In the first sentence of the third paragraph, we suggest “a Responsible Entity must reevaluate whether it has systems or facilities, as specified in Requirement R1.2.5” should be changed to a “Responsible Entity must annually apply its RBAM to identify if any system or facilities, as specified in Requirement R1.2.5, are Critical Assets”. 3) In the last sentence of the third paragraph, “the asset may not be a Critical Asset” should be changed to “the asset is not required to be considered a potential Critical Asset in its RBAM through CIP-002-3 R1.2.5.” Otherwise, it is not perfectly clear that the responsible entity does not have to consider these “systems and facilities” as potential Critical Assets in its RBAM. Otherwise, the responsible entity may be left confused if they are obligated to consider these “systems and

Organization	Yes or No	Question 1 Comment
		<p>facilities”.</p> <p>4) In the third line of the third paragraph, R1.2 should be R1.2.5.</p> <p>5) The fourth paragraph needs some modifications. “Asset” should be “Critical Asset and CIP-002-3, Requirement R1 should refer to Requirement R2. R1 does not compel identification of any assets of any type. Rather it simply requires that the responsible entity to identify and document an RBAM.</p> <p>6) A more direct statement is needed to clarify that if the “systems and facilities” are not automatic and require operator (or user) intervention that they are not subject to R1.2.5. The last statement in the Background Information section of the comment form is much clearer than the interpretation and could be adopted. It reads: “Applying these requirements to the remote connect or disconnect functionality associated with advanced metering infrastructure (AMI), the drafting team concludes in its interpretation that AMI is not a Critical Asset under R1.2.5 so long as the AMI is not designed to or cannot, without human operator intervention, shed a load of 300MW or more.” This really clarifies what is meant by automatic. “Systems and facilities” could be substituted for AMI to make the statement technology neutral.</p>
<p>Response: Thank you for your response. The IDT took your comments into consideration along with the recommendations made by other commenters and reworded its response. Q1 – Q4: The third paragraph has been reworded. Q5: Your recommended changes have been adopted. Q6: Based on its understanding of Guidelines for Interpretation Drafting Teams, the IDT believes that such a statement is more appropriately included as part of the background information as opposed to part of the interpretation itself. The IDT intends for the interpretation to provide an input to the RBAM consideration process, not to prescribe an outcome. However, based in part on this suggestion, the IDT did further clarify in the interpretation itself that “an AMI system specifically built and configured to perform the Remote Disconnect function that does not automatically shed load</p>		

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without human operator initiation would not meet the criteria found in CIP-002-3, Requirement R1.2.5."		
Bonneville Power Administration	Yes	BPA agrees with this interpretation with the understanding that a System Operator does not have access to the AMI and a one push button cannot achieve 300MW or more.
Response: Thank you for your response. The IDT agrees with your comment and notes that "a one push button" is not automatic.		
Salt River Project	Yes	SRP supports OGE's interpretation that SmartGrid AMI systems are not designed to allow for automatic load shedding.
Response: Thank you for your response and supportive comment.		
FirstEnergy	Yes	<p>We fundamentally agree with the interpretation but offer the following comments and suggested wording:</p> <p>Although the interpretation request is specific to CIP-002-3, the team should consider whether or not their response is within the spirit of CIP-002-4 bright line Attachment 1 criterion 1.13 which reads: "Each system or Facility that performs automatic load shedding, without human operator initiation, of 300 MW or more implementing Under Voltage Load Shedding (UVLS) or Under Frequency Load Shedding (UFLS) as required by the regional load shedding program."</p> <p>The subtle difference between version 3 and version 4 is that version 4 seems to include only those systems associated with UVLS and UFLS and not more generically as in the wording of version 3 and is the reason the requestor indicates that the AMI system is not relied upon for its UVLS and UFLS functionality. Another key clarification the bright line made was in the phrase "without human operator initiation". It sounds like AMIs are intended as a convenience or efficiency gain of dropping load from a central</p>

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		<p>location and would be operator initiated. The risk of a hacker just breaking into some system and dropping load is likely not a BES reliability risk. Additionally, if the hacker would compromise the AMI such that the load can not be shed from a centralized location (assuming operator initiated) still does not impact BES reliability since the transmission operator would have EMS controls as a back-up for shedding load, even if the load shed is for a reliability purpose and not an economic need. The reason the bright line criterion 1.13 landed where it did is that the real risk is that a load shedding scheme performing automatic load shed during a critical frequency or voltage collapse cannot be compromised and must be available to act when automatic controls triggering those systems are met. In light of our comments, we suggest a slight modification to the last paragraph of the interpretation to include the phrase "without human operator initiation shed load for a critical BES reliability purpose" and suggest the following wording for the last paragraph:"Therefore, if a system or facility such as AMI meets the specifications of Requirement 1.2.5 (i.e., is both capable of shedding 300 MW or more and is set up and purposed to automatically, without human operator initiation, shed load for a critical BES reliability purpose), the Responsible Entity should consider the system or facility for identification as a Critical Asset under its RBAM. Otherwise, the Responsible Entity is not required to consider the system or facility for identification as a Critical Asset."</p>
<p>Response: Thank you for your response. The IDT rewrote the last paragraph using the main points of your recommendation.</p>		
<p>ISO/RTO Council Standards Review Committee</p>	<p>Yes</p>	<p>In regards to the Response section of the Interpretation, the SRC requests the correction(s) shown below.</p> <p>Response Section, page 2 "Each year, during the annual approval required under CIP-002-3, Requirement R2, a Responsible Entity must reevaluate whether it has systems or facilities, as specified in Requirement R1.2.5, that</p>

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		<p>are “critical to automatic load shedding under a common control system capable of shedding 300 MW or more.” If it does, pursuant to Requirement R1.2, the Responsible Entity must consider that asset for identification as a Critical Asset under its RBAM required by CIP-002-3, Requirement R1. If a system or facility is not “critical to” automatical shedding load, or the common control system is not “capable of” shedding 300 MW or more, the asset may not be a Critical Asset.”</p> <p>Explanation: Requirement R2 is the requirement for the annual application of the risk-based assessment methodology required in R1. Requirement 4 is only for approval and not for update or reevaluation. The change to “automatical” is a grammatical fix. Response Section, page 3 “Therefore, if a system or facility such as AMI meets the specifications of Requirement 1.2.5 (i.e., is critical to automatic load shedding under a common control system and is capable of shedding 300 MW or more), the Responsible Entity should consider the system or facility for identification as a Critical Asset under its RBAM.” An entity should consider AMI under its RBAM if the equipment/facility has the requisite capability - i.e. capable of shedding 300 MW or more - despite whether the equipment/facilities are in fact purposed to perform that function in practice. The reason that capability, and not actual function, should be the determining factor is because if the equipment can be manipulated to manipulate load, despite its actual practical function, it should be assessed for criticality because it can affect system reliability. Explanation: The SRC requests the interpretation be modified consistent with the above revisions because if an AMI system is capable of shedding load, despite its actual functionality, it has the potential to negatively impact the BES in the event of misuse or security breach.</p>
<p>Response: Thank you for your response. The IDT notes that there is not a need for a grammar fix, as the standard uses the term “automatic,” and the IDT cannot change the standard itself.</p>		

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Southern Company	Yes	Southern Company appreciates the opportunity to provide the following comments regarding the interpretation of CIP-002-3, Requirement 1. As part of the annual approval, the methodology and logic as required by NERC CIP - 002 is used to determined the list of assets critical to the reliability of the Bulk Electric System. Southern Company agrees that each entity should determine its Critical Assets, if any.
Response: Thank you for your response and supportive comments.		
Pepco Holdings Inc.	Yes	PHI supports the interpretation
Response: Thank you for your support of the interpretation.		
ReliabilityFirst	Yes	ReliabilityFirst generally agrees with the drafted interpretation but offers one minor comment for consideration. ReliabilityFirst believes there is an incorrect reference to “an annual approval” per CIP-002-3 R4 in the draft Interpretation. ReliabilityFirst believes the correct reference should be to the “annual application of the RBAM” located in CIP-002-3 R2.
Response: Thank you for your comment. The IDT clarified the references.		
MidAmerican Energy Company	Yes	MidAmerican Energy Company believes CIP-002-3, R1.2.5 is clear as written, but does not disagree with the proposed interpretation response.
Response: Thank you for your response.		
MEAG Power	Yes	
Northeast Power Coordinating Council	Yes	

Organization	Yes or No	Question 1 Comment
SPP Standards Review Group	Yes	
PacifiCorp	Yes	
Manitoba Hydro	Yes	
Tacoma Power	Yes	
NV Energy	Yes	
Entergy Services, Inc.	Yes	
American Electric Power	Yes	
Independent Electricity System Operator	Yes	
Westar Energy	Yes	
Essential Power, LLC	Yes	
City of Austin dba Austin Energy	Yes	
South Carolina Electric and Gas	Yes	

END OF REPORT