NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Project 2014-01 Standards Applicability for Dispersed Generation Resources
Recommended Applicability Changes to VAR-002-4

The Dispersed Generation Resources (DGR)[1] standards drafting team (SDT) thanks all commenters who submitted comments on the standards. Recommended applicability changes to VAR-002-4 and VAR-002-2b(X) were posted for a 45-day comment period from August 27, 2014 through October 16, 2014. Stakeholders were asked to provide feedback on the standards and associated documents through an electronic comment form. There were 18 responses, including comments from approximately 88 different entities from approximately 63 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

Please note that the Federal Energy Regulatory Commission (FERC) approved VAR-002-3 on August 1, 2014, and VAR-002-2b was retired effective at midnight on September 30, 2014. Therefore, the SDT will not post its recommended applicability changes to VAR-002-2b.

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

This document contains the SDT's response to all industry comments received during this comment period. The SDT encourages commenters to review its responses to ensure all concerns have been addressed. The SDT notes that a significant majority of commenters agrees with the SDT's recommendations on this standard, but that some commenters expressed specific concerns. Some comments supporting the SDT's recommendations are discussed below but in most cases are not specifically addressed in this response. Also, several comments in response to specific questions are duplicated in other questions, and several commenters raise substantively the same concerns as others. Therefore, the SDT's consideration of all comments is addressed in this section in summary form, with duplicate comments treated as a single issue. Any comments made on another standard are addressed in the SDT's response to comments on that standard.

1. Summary Consideration

Based on the results from the recent comment and ballot period, it appears that industry overwhelmingly agrees with the SDT's recommendations to make applicability changes to account for

[1] The terms "dispersed generation resources" and "dispersed power producing resources" are used interchangeably.

the unique characteristics of DGRs in the VAR-002 Reliability Standard. However, there are some disagreements among stakeholders and typographical errors contained in and illuminated by industry comments. The SDT has carefully reviewed and considered each stakeholder comment and has revised its recommendations where suggested changes are consistent with SDT intent and industry consensus. However, all recommended changes are non-substantive as contemplated by the NERC Standard Processes Manual and therefore do not require an additional ballot. The SDT's consideration of all comments follows.

2. General Comments

Industry identified a number of typographical and formatting errors in the posted recommendations to VAR-002. The DGR SDT has addressed each identified typographical and formatting error as appropriate in the posted redlined standard.

3. Recommended Applicability Changes to VAR-002

Several commenters suggested that there should either be a variance in recognition of the WECC regional standards VAR-002-WECC-1 and VAR-501-WECC-1 or an explanation as to how this continent-wide standard is or is not impacted by those regional standards given all contained requirements relative to actions required to be taken by the Generator Operator when the AVR or PSS is out of service.

The DGR SDT reviewed the Reliability Standards to determine those that would require revision, and determined that neither VAR-002-WECC-1 nor VAR-501-WECC-1 needed further action. As such, and as discussed in the White Paper, the DGR SDT did not recommend that the regions revise those standards, nor did the DGR SDT determine it was necessary to include the regional VAR standards in the DGR SDT-developed list of low-priority standards.

Furthermore, the DGR SDT maintains that addressing WECC regional standards VAR-002-WECC-1 and VAR-501-WECC-1 through a variance in a continent-wide standard is not technically justified, and modification of regional standards is beyond the scope of the DGR SDT.

At least one commenter questions including standard language in bullet format. The DGR SDT's use of the bullet format is consistent with guidance from NERC staff. In the absence of industry consensus or guidance from NERC staff that supports eliminating the bullet format in favor of another format, the DGR SDT elects to retain the bullet format.

At least one commenter believes the standard should define dispersed power producing resource.

The DGR SDT maintains that this issue is adequately addressed in the White Paper. The DGR SDT believes that the proposed language as it exists adequately describes the treatment of dispersed power producing resources, a position that is supported by clear industry consensus.

At least one commenter expressed concern that VAR-002 states non-applicability of the standard for dispersed generation resources identified through Inclusion I4 of the Bulk Electric System (BES) definition, and indicated that the bullet added to Requirement R3 part 3.1 exempts all I4 generators from reporting on their VAR capability status. The commenter suggested that the result was discriminatory to I2 generators and omits key data for TOPs, and will result in less ability for TOPs to correctly model their VAR supply. The commenter further stated that I4 generators are already obligated to comply with the standard without the proposed changes, and suggested that further explanation of the rational basis for the proposed changes from the DGR SDT should be provided that validates the changes proposed.

VAR-002 addresses control and management of reactive resources and provides voltage control where it has an impact on the BES. For dispersed power producing resources identified in Inclusion I4, the requirement that addresses reporting of changes in reactive capability should not apply at the individual generator level due to the unique characteristics and small scale of individual dispersed power producing resources. Instead, it should apply at the 75 MVA aggregate level. In addition, other Reliability Standards, such as proposed TOP-003, require the Generator Operator to provide real time data as directed by the TOP, and are more appropriately addressed through those Reliability Standards. Similarly, the SDT maintains that Footnote 5 is drafted such that individual generating unit transformers are subject to exception; however, the exception does not include the main generation facility transformer. Further, the SDT appreciates the commenters' concerns regarding modeling capability; however, as VAR-002 addresses control and management of reactive resources and provides voltage control where it has an impact on the BES, the SDT maintains that modeling issues are best addressed in the NERC MOD Standards.

At least one commenter questions whether the exception that is being proposed for Requirement R4 also should be applied to Requirement R3, reasoning that otherwise, the Generator Operator will be required to report status changes for AVRs or other voltage controlling devices for each individual generating unit of a DGR.

The DGR SDT understands that the generation facilities subject to Inclusion I4 of the BES definition can be comprised of individual generating units that are typically controlled by centralized voltage/reactive controllers that can be considered alternative voltage control devices as listed in Requirement R4. Additionally, there are generation facilities that perform this voltage/reactive control at the individual power producing resource. The DGR SDT has determined that a status change of these controllers should be reported regardless of which voltage/reactive control design is used at a facility, which explains why the exclusion was not extended to Requirement R3. The exclusion in Requirement

R4 was intended to exclude reporting of an individual generator at a dispersed generating facility coming offline as a change in reactive capability. For these reasons the DGR SDT respectfully declines to adopt the commenter's recommendation.

At least one commenter suggested adding the terms from footnotes in the standard to the NERC Glossary. Other commenters suggested revisions to, or elimination of, footnotes in the standard. The DGR SDT has carefully considered these suggestions and declines to adopt them at this time because they are either outside the scope of this project or are not technically justified.

At least one commenter does not agree with deleting the rationales used in the previous versions of the standard. The rationale information included in previous versions of the standard is available as appropriate in other associated documents, and the DGR SDT therefore respectfully declines to adopt the commenter's suggestion.

At least one commenter requests the DGR SDT revise either Requirement R4 or R5 regarding placement of exclusion language for consistency, noting that the Requirement R4 exclusion statement is a bulleted item within the requirement text, and that the Requirement R5 exclusion statement is a footnote at the bottom of the page.

The purpose of each item is unique with respect to the other, so the DGR SDT chose not to express the items in the same manner. The purpose of the bulleted item in Requirement R4 is to exclude individual generating resources from the Requirement R4 as appropriate. The purpose of the footnote in Requirement R5 is to clarify the applicability of that Requirement. For these reasons, the DGR SDT respectfully declines to adopt the commenter's suggestion.

Some commenters suggest modifications to the standard's Violation Severity Levels (VSLs). However, changing VSLs is outside the scope of this project.

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 Director of Standards, Valerie Agnew, at 404-446-2566 or at valerie.agnew@nerc.net . In addition, there is a NERC Reliability Standards Appeals Process.[2]

[2] The appeals process is in the Standard Processes Manual: http://www.nerc.com/comm/SC/Documents/Appendix_3A_StandardsProcessesManual.pdf

Index to Questions, Comments, and Responses

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	Jason Marshall	ACES Standards Collaborators	X		X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.		John Shaver	Arizona Electric Power Cooperative	WECC	4, 5
2.		Paul Jackson	Buckeye Power	RFC	3, 4, 5
3.		Scott Brame	North Carolina Electric Membership Corporation	SERC	3, 4, 5
4.		Bill Hutchison	Southern Illinois Power Cooperative	SERC	1, 5
5.		Ellen Watkins	Sunflower Electric Power Corporation	SPP	1
6.		Matthew Caves	Western Farmers Electric Cooperative	SPP	1, 5
7.		John Shaver	Southwest Transmission Cooperative	WECC	1

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
8.	Bob Solomon	Hoosier Energy	RFC	1								
2. Group	Randi Heise	Dominion Resources, Inc.	X		X		X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Randi Heise	Dominion	NPCC	6
2.	Mike Garton	Dominion	NPCC	5
3.	Louis Slade	Dominion	SERC	5, 6
4.	Larry Nash	Dominion	SERC	1, 3
5.	Connie Lowerq	Dominion	RFC	5, 6

3. Group	Kathleen Black	DTE Electric Co.			X	X	X					

	Additional Member	Additional Organization	Region	Segment Selection
1.	Kent Kujala	NERC Compliance	RFC	3
2.	Daniel Herring	NERC Training & Standards Development	RFC	4
3.	Mark Stefaniak	Merchant Operations	RFC	5

4. Group	Joe DePoorter	MRO NERC Standards Review Forum	X	X	X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Amy Casucelli	Xcel Energy	MRO	1, 3, 5, 6
2.	Chuck Wicklund	Otter Tail Power	MRO	1, 3, 5
3.	Dan Inman	Minnkota Power Coop	MRO	1, 3, 5, 6
4.	Dave Rudolph	Basin Electric Power	MRO	1, 3, 5, 6
5.	Kayleigh Wilkerson	Lincoln Electric System	MRO	1, 3, 5, 6
6.	Jodi Jensen	WAPA	MRO	1, 6
7.	Ken Goldsmith	Alliant Energy	MRO	4
8.	Mamood Safi	Omaha Public Power District	MRO	1, 3, 5, 6
9.	Marie Knox	MISO	MRO	2
10.	Mike Brytowski	Great River Energy	MRO	1, 3, 5, 6
11.	Randi Nyholm	Minnesota Power	MRO	1, 5
12.	Scott Nickels	Rochester Public Utilities	MRO	4
13.	Terry Harbour	MidAmerican Energy	MRO	1, 3, 5, 6
14.	Tom Breene	Wisconsin Public Service	MRO	3, 4, 5, 6
15.	Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
5.	Group	Guy Zito	Northeast Power Coordinating Council	X	X	X		X	X		X	X	X

	Additional Member	Additional Organization	Region	Segment Selection
1.	Alan Adamson	Ne York State Reliability Council, LLC	NPCC	10
2.	David Burke	Orange and Rockland Utilities Inc.	NPCC	3
3.	Greg Campoli	New York Independent System Operator	NPCC	2
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
5.	Kelly Dash	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
10.	Mark Kenny	Northeast Utilities	NPCC	1
11.	Helen Lainis	Independent Electricity System Operator	NPCC	2
12.	Alan MacNaughton	New Brunswick Power Corporation	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.	Ayesha Sabouba	Hydro One Networks Inc.	NPCC	1
21.	Brian Shanahan	National Grid	NPCC	1
22.	Wayne Sipperly	New York Power Authority		5
23.	Ben Wu	Orange and Rockland Utilities Inc.	NPCC	1
24.	Peter Yost	Consolidated Edison Co, of New York, Inc.	NPCC	3

6.	Group	Robert Rhodes	SPP Standards Review Group	X	X	X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Allen	City Utilities of Springfield	SPP	1, 4
2.	John Boshears	City Utilities of Springfield	SPP	1, 4
3.	Jerry Bradshaw	City Utilities of Springfield	SPP	1, 4

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
4.	Kevin Foflygen	City Utilities of Springfield	SPP	1, 4									
5.	Stephanie Johnson	Westar Energy	SPP	1, 3, 5, 6									
6.	Bo Jones	Westar Energy	SPP	1, 3, 5, 6									
7.	Mike Kidwell	Empire District Electric	SPP	1, 3, 5									
8.	Tiffany Lake	Westar Energy	SPP	1, 3, 5, 6									
9.	Nick McCarty	Kansas City Power & Light	SPP	1, 3, 5, 6									
10.	Kyle McMenamin	Xcel Energy	SPP	1, 3, 5, 6									
11.	Shannon Mickens	Southwest Power Pool	SPP	2									
12.	Wes Mizell	Westar Energy	SPP	1, 3, 5, 6									
13.	James Nail	City of Independence, MO	SPP	3, 5									
14.	Ellen Watkins	Sunflower Electric Power Corporation	SPP	1									
15.	J. Scott Williams	City Utilities of Springfield	SPP	1, 4									
7.	Individual	Janet Smith	Arizona Public Service Co	X		X		X	X				
8.	Individual	Kaleb Brimhall	Colorado Springs Utilities	X		X		X	X				
9.	Individual	Thomas Foltz	American Electric Power	X		X		X	X				
10.	Individual	Heather Bowden	EDP Renewables North America LLC					X					
11.	Individual	Timothy Brown	Idaho Power	X									
12.	Individual	Scott Berry	Indiana Municipal Power Agency				X						
13.	Individual	Michelle D'Antuono	Ingleside Cogeneration LP/Occidental Energy Ventures Corp.			X		X		X			
14.	Individual	Jo-Anne Ross	Manitoba Hydro	X		X		X	X				
15.	Individual	Spencer Tacke	Modesto Irrigation District			X	X		X				
16.	Individual	John Seelke	Public Service Enterprise Group	X		X		X	X				
17.	Individual	Karin Schweitzer	Texas Reliability Entity										X
18.	Individual	Michael Moltane	International Transmission Company Holdings Corp	X									

1. **Do you agree with the revisions made in proposed VAR-002-4 to clarify applicability of VAR-002-3 to dispersed power producing resources included in the BES through Inclusion I4 of the BES definition? If not, please provide technical rationale for your disagreement along with suggested language changes.**

Summary Consideration: The DGR SDT thanks all commenters for their comments and refers the reader to the summary response above.

Organization	Yes or No	Question 1 Comment
SPP Standards Review Group	No	Description of Current Draft - Language in this section indicates that VAR-002-3 '...was adopted by the NERC Board of Trustees in May 2014 and is pending regulatory approval'. Shouldn't this be revised to indicate that FERC has now approved VAR-002-3 and it will become effective on October 1, 2014? A similar statement is included in the Rationale Box appearing alongside the Introduction.R3 - Shouldn't the exception that is being proposed for Requirement R4, also be applied to Requirement R3? Otherwise, the Generator Operator will be required to report status changes for AVRs or other voltage controlling devices for each individual generating unit of a dispersed power producing resource.R4 - In the first line of the bullet under Requirement R4, insert 'Requirement' between 'in' and 'R4'.Rationale Box for Exclusion in Requirement R4 - Replace 'real time' with the officially recognized term 'Real-time' in the last line in the Rationale Box.M5 - To make Measure M5 consistent with the language in Requirement R5, delete 'transformers' following 'its step-up'.
Modesto Irrigation District	No	For both VAR-002 proposed modifications, I don't think we should state non-applicability of the Standard for dispersed generation resources identified through Inclusion I4 of the BES definition, as the new addition of "Rationale for Footnote 5" erroneously states (i.e., "as they are not used to

Organization	Yes or No	Question 1 Comment
		improve voltage performance at the point of interconnection", which is simply not true). Some technical reasons for including the smaller generating units are as follows:WECC requires dynamic model verification for all units 20 MVA or larger connected at voltages 60 kV and above. This is because WECC members have learned over the years to recognize the significant role that smaller size generators play in system response and stability. Also, the WECC MVWG (Modeling and Validation Work Group) is currently performing a study to determine what is the minimum size generator for which model testing and verification needs to be completed.Also, within the next few years, there will be thousands of MWs of PV solar plants on-line in Central California, a large percentage of which will be small, 20 MW plants. We see about 2,500 MW of 20 MW PV units in the queue for the SGIP, SGIP-TC, WDAT, Clusters 1&2, and Clusters 3&4 in California, all coming on-line between now and 2018.Also, past WECC studies over the years of major outages have shown that generators, and indeed loads, below 100 kV, have played a major role in the impact of outages. In fact, the most accurate duplication of the August 1996 outage, and more recent outages that the WECC MVWG has simulated, have shown that the accuracy of the simulated results of actual system outages is highly affected by the accuracy of the modeled system below 100 kV.
Public Service Enterprise Group	No	VAR-002-2b(X)The bullet added to subpart 3.1 exempts ALL I4 generators from reporting on their VAR capability status. Not only is this discriminatory to I2 generators, it omits key data for TOPs required to maintain voltage via VAR supply. If the bullet was changed so that changes in AGGREGATE VAR capability for a facility that contains I4 generators was reported, that would be OK; but it is unacceptable as written.Footnote 5 in R4 is also unacceptable for two reasons. First, it is discriminatory to I2 generators. Second, the modeling of ALL transformers, which consume VARS, will result in less ability for TOPs to correctly model their VAR supply.We also point out that I4 generators are already obligated to

Organization	Yes or No	Question 1 Comment
		comply with the standard without the proposed changes, and no reliability argument has been offered by the SDT that validates the changes proposed.VAR-002-4The same comments made for VAR-002-2b(X) apply, except that the bullet is in R4 and footnote 5 is in R5. While this standard is not effective, its predecessor, as discussed previously, does require I4 generators to meet the same requirements. No reliability argument has been provided by the SDT to support the change.
Colorado Springs Utilities	No	We Support the Comments of - Public Service Enterprise Group (PSEG).
Dominion Resources, Inc.	Yes	Dominion supports the revisions to R4 and R5 in support of clarity.
Ingleside Cogeneration LP/Occidental Energy Ventures Corp.	Yes	Occidental Energy Ventures Corp. agrees that the scope of R3.1 and R4 has been appropriately modified to capture the applicable AVRs, PSSs, and transformers located within a dispersed generation facility. There is no good reason to apply BES-level voltage and reactive requirements to individual windmills or solar panels - unless somehow a significant aggregation point is affected. This is unlikely to be the case most of the time, and if every minimal incident is subject to VAR-002-4, both the relay owner and CEA community could be overwhelmed.
ACES Standards Collaborators	Yes	We agree with the changes.
DTE Electric Co.	Yes	
MRO NERC Standards Review Forum	Yes	
Arizona Public Service Co	Yes	
American Electric Power	Yes	

Organization	Yes or No	Question 1 Comment
EDP Renewables North America LLC	Yes	
Idaho Power	Yes	
Manitoba Hydro	Yes	
Texas Reliability Entity	Yes	

2. Do you have any additional comments to assist the DGR SDT in further developing its recommendations?.

Summary Consideration: The DGR SDT thanks all commenters for their comments and refers the reader to the summary response above.

Organization	Yes or No	Question 2 Comment
DTE Electric Co.	No	
SPP Standards Review Group	No	
Arizona Public Service Co	No	
American Electric Power	No	
Idaho Power	No	
Ingleside Cogeneration LP/Occidental Energy Ventures Corp.	No	
Manitoba Hydro	No	
Modesto Irrigation District	No	
Dominion Resources, Inc.	Yes	Comments: Dominion believes there should either be a variance in recognition of the WECC regional standards VAR-002-WECC-1 and VAR-501-WECC-1 in this standard or an explanation as to how this continent-wide standard is or is not impacted by those regional standards given all contained requirements relative to actions required to be taken by the Generator Operator when the AVR or PSS is out of service.We suggest the SDT review the current style guide regarding whether to use sub-parts (3.1, 4.1,

Organization	Yes or No	Question 2 Comment
		etc) as opposed to using bullets. Having sub-parts identified make identification of information to communicate.
Public Service Enterprise Group	Yes	Describe the reliability impacts of proposed changes
Northeast Power Coordinating Council	Yes	For VAR-002-4, the Drafting Team should consider adding start-up and shutdown from footnotes 1 and 2 to the NERC Glossary. For footnote 2 on page 5 suggest replacing “prepared” with “intended”. Because the Rationale Boxes stay with the standard after approval, the Drafting Team should consider moving the information in the footnotes to the appropriate Rationale Boxes, and deleting the footnotes.
Indiana Municipal Power Agency	Yes	IMPA does not agree with the deletion of the rationales for each requirement on pages 11 and 12. These rationales are used for the previous version of the standard and are still needed in the standard. The additions made by the dispersed generation SDT should not have changed the basis for these rationales. IMPA is fine with adding to them but not deleting all of them.
ACES Standards Collaborators	Yes	The language adopted in the bullet under Part 3.1 of VAR-002-2b(X) is inconsistent with the August 10, 2009 informational filing NERC submitted to FERC regarding how NERC would begin using a new approach to assign VRFs and VSLs to the main requirement only. In this filing, NERC stated that they would no longer refer to “components” or “sub-parts” of requirements as sub-requirements. Rather, they would be numbered or bulleted lists. Thus, the Requirement R3.1 reference in the bullet under Part 3.1 is inconsistent and should be labeled as Part 3.1.
Texas Reliability Entity	Yes	VAR-002-41)Requirements R4 and R5: Texas Reliability Entity, Inc. (Texas RE) requests the SDT make a change to either R4 or R5 regarding placement of exclusion language for consistency. In Requirement R4 the exclusion statement is a bulleted item within the requirement text. In Requirement R5 the exclusion statement is a footnote at the bottom of the page. Texas RE suggests that moving the exclusion language in the

Organization	Yes or No	Question 2 Comment
		requirement language of Requirement R5 is preferable to moving Requirement R4 exclusion language to a footnote. 2)Requirement R5 VSLs: Texas RE requests the SDT consider changing Requirement R5 VSL Levels as follows: Moderate "...one of the types of data..."High "...two of the types of data..."Severe "...all of the types of data..."Changing the VSL language in this manner is consistent with VAR-002-2b(x), Requirement R4 VSL levels. VAR-002-2b(X)Texas RE suggests a minor change to the Requirement R4 Severe VSL: replace the word "any" with "all" in the first statement. As written, it would appear that a responsible entity failing to provide any one of the types of data would result in a severe VSL instead of the failure to provide all of the types of data. This change would result in the following Severe VSL language: "The Responsible entity failed to provide to its associated Transmission Operator and Transmission Planner all of the types of data as specified in R4.1.1 and R 4.1.2 and 4.1.3 and 4.1.4..."
Colorado Springs Utilities	Yes	We Support the Comments of - Public Service Enterprise Group (PSEG).
International Transmission Company Holdings Corp	Yes	The Standard should define dispersed power producing resource. While in a practical sense this is a facility comprised of wind turbines or PV inverters, offering exclusions from Requirements based on an undefined criteria is not a good practice. R4 – ITC recommends removal of the sub-bullet under R4 excluding the generators identified through Inclusion I4. The exclusion using BES I4 is confusing and may conflict with existing standard VAR-001-4. A non-BES unit or several non-BES units combined together could have an impact on the BES and thus removing the generators from VAR-002-4 R4 solely based on Inclusion I4 may be affect reliability. Per VAR-001-4 R4, the TOP is required to specify criteria that will exempt generators from following a voltage or reactive power schedule and associated notification requirements. Therefore, ITC recommends that VAR-002-3 R4 should be reworded as "Unless exempted by the Transmission Operator, each Generator Operator shall notify its associated Transmission Operator within 30 minutes of becoming aware of a change in reactive capability due to factors other than a status change described in Requirement 3". The

Organization	Yes or No	Question 2 Comment
		TOP can determine what notifications are necessary and be more specific depending on the needs of the system or individual facility. For example, a TOP exemption criteria may contain: “Dispersed power producing facilities are exempt from reactive capability change notifications less than 10% of the total aggregate lagging reactive capability as measured at the POI at nominal voltage”. TOPs typically will not want to receive individual turbine outage notifications; however, there may be instances where a dispersed power producing resource could lose an individual unit that may affect reliable operations (i.e. large individual units, near nuclear facility). In addition, the sub-bullet language in VAR-002-4 may be interpreted such that generators not in BES are exempt from reactive capability notifications and, in turn, exempt from following schedules which may be in conflict with VAR-001-4 and potentially impact the reliability of the BES. VAR-001-4 requires the TOP to determine the exemption criteria for generators and ITC recommends that VAR-002-4 be consistent with this practice as the TOP may require non-BES generators to follow a voltage or reactive power schedule based on the collective impact to the BES.
MRO NERC Standards Review Forum	Yes	
EDP Renewables North America LLC	Yes	

END OF REPORT