NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments on Initial Ballot — Interpretation Y-W Electric and Tri-State (Revision 2) (Project 2009-17)
Initial Ballot (April 28-May 10, 2010)

Summary Consideration:
The majority of the commenters stated, in various ways, concerns regarding what could be construed as a BES element and requested further clarification. The SDT explained that providing a clarification or further defining a BES element was outside the scope of the interpretation. The SDT believes that references to the BES in the interpretation are clear and valid in the context of the existing NERC definition of the BES (as defined by the Regional Reliability Organization per the NERC Glossary of Terms). The SDT further explained that the request for interpretation did not ask for clarification as to when a piece of equipment was considered a BES element. Y-W Electric Association, INC. and Tri-State Generation and Transmission Association, Inc. requested an interpretation of the term "transmission Protection System" and specifically whether protection for a radially-connected transformer protection system energized from the BES was considered a transmission Protection System and if it is subject to these standards. The SDT believes that the interpretation clearly answers both the general and specific aspects of the request.

A couple of commenters indicated that some Protection Systems were installed strictly for the purpose of protecting generators, substation transformers and Distribution Systems downstream. They were concerned that, based on this interpretation, they would now be considered transmission Protection Systems. The SDT explained that in order to be considered a "transmission Protection System", all three of the aspects of the interpretation must be met:
(1) installed for the purpose of detecting Faults on the transmission elements,
(2) the protected element is identified as included in the BES, and
(3) trips an interrupting device that interrupts current supplied directly from the BES.

The definition of Bulk Electric System: As defined by the Regional Reliability Organization, the electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher. Radial transmission facilities serving only load with one transmission source are generally not included in this definition.

If you feel that the drafting team overlooked your comments, 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 of Standards, Herbert Schrayshuen, at 609-452-8060 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

Voter	Entity	Segment	Vote	Comment
Larry E Watt	Lakeland Electric	1	Negative	a protection system installed on that non-BES transformer could be determined to be a "transmission Protection System" with this interpretation. This contradicts the example.

[1] The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.

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Response: The interpretation states that the requirements are "applicable to any Protection System that is installed for the purpose of detecting Faults on Transmission elements (lines, buses, transformers, etc.) identified as being included in the Bulk Electric System" (emphasis added). A Protection System installed on a non-BES transformer is not included in this list. This interpretation therefore excludes the possibility that the commenter's example could be determined to be a "transmission Protection System."				
Horace Stephen Williamson	Southern Company Services, Inc.	1	Negative	Although we are in agreement with the first part of the definition that has been proposed for the phase 'transmission Protection System' as "any Protection System that is installed for the purpose of detecting faults on transmission elements identified as being included in the Bulk Electric System" we do not concur with the modification to the qualifier noted as 'and trips an interrupting device that interrupts current supplied directly from the BES'. We feel that the original applicability to 'and initiates action to clear the protected element from all local sources' more accurately addresses the transmission reliability concerns. As now proposed, a 230/69-kV facility that is interconnected with other non- BES 69-kV sources (other substations or generation facilities) and has Protection Systems installed to detect faults on the 230-kV source (.. Protection System that is installed for the purpose of detecting faults on transmission elements identified as being included in the Bulk Electric System..) and trips a 69-kV device, would not be included since it isn't tripping a device ' that interrupts current supplied directly from the BES'.
Richard J. Mandes	Alabama Power Company	3	Negative	
Anthony L Wilson	Georgia Power Company	3	Negative	
Gwen S Frazier	Gulf Power Company	3	Negative	
Don Horsley	Mississippi Power	3	Negative	
Response: The drafting team believes the present interpretation appropriately addresses the reliability concern. In the commenters' example, if a failure to interrupt the Fault current from the 69 kV system resulted in a reliability concern the 69 kV Elements could be identified as BES Elements.				
George Tatar	Black Hills Corp	5	Negative	BHP voted No becaused of the qualifiers "that interrupts current supplied directly from the BES' and 'the transformer is a BES element". These qualifiers force the issue of whether a

Voter	Entity	Segment	Vote	Comment
				transformer fed from a non-BES line can be considered a BES transformer. Because the interpretation, as written, does not allow the entities question to be consistently and reliably answered, BHP is voting NO.
Response: Deciding whether the transformer in the commenter's example is a BES element is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Eric Egge	Black Hills Corp	1	Negative	Black Hills Power respectfully votes against the interpretation because of the qualifiers 'that interrupts current supplied directly from the BES' and 'the transformer is a BES element'. These qualifiers force the issue of whether a transformer fed from a non-BES line can be considered a BES transformer. This issue arises because of disagreement of whether a radial transmission line tapped off the BES serving only load is part of the BES, and that question arises from different interpretation of what constitutes 'one' source or 'two' sources. Although the interpretation must be limited in scope to the standards affected, the original interpretation request from the submitting entities asks whether 'protection for a radially-connected transformer protection system energized from the BES is considered a transmission Protection System'. Because the interpretation as written does not allow the entities' question to be consistently and reliably answered, Black Hills Power is voting "No".
Response: Deciding whether the transformer in the commenter's example is a BES element is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Danny McDaniel	Cleco Power LLC	1	Negative	Cleco agrees with the intent of the interpretation but disagrees that an Entity must determine if the transformer or line is a BES element. Additional clarification is required. Protection systems on radially connected transformers or lines serving load only that do not interrupt transmission grid flow as part of its protection scheme should not be part of the transmission Protection System. If the protection scheme tripped load served by the radially connected line or transformer and additional flows between transmission substations, the protection scheme would be part of the transmission Protection System.
Bryan Y Harper	Cleco Utility Group	3	Negative	
Matthew D Cripps	Cleco Power LLC	6	Negative	
Response: The drafting team has not stated in this interpretation what Entity is responsible for determining if a transformer or a line is a BES element. Deciding whether a transformer or line is a BES element is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization				

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per the NERC Glossary of terms).				
Terry Harbour	MidAmerican Energy Co.	1	Negative	Comment: Further clarification is required regarding the definition of a “BES element” (e.g., What is a BES transformer?). Receiving current from the BES is not a suitable criterion for applicability. As currently written 115kV/12kV distribution transformers could be incorrectly classified as a BES elements (without a clear definition) because they receive current from the BES. The concept of "no potential loop" back to the BES as presented in one of the examples is incorrect as this could bring in all facilities into scope regardless of voltage when that facility could be tied to another 100 kV and greater source. This could include lower voltage distribution based networks or possibly 15 kV class feeders with ties to adjacent feeders also fed from nearby BES substations. We propose the following definitions. Non-GSU transformers must have all windings (excluding any tertiary) rated at 100kV and above to be classified as a BES transformer. GSU transformers must have one winding rated at 100kV and above in order to be classified to be a BES transformer. These definitions are consistent with the bright line 100 kV and greater concept.
Response: Providing clarification regarding the definition of a “BES element” is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Kenneth Goldsmith	Alliant Energy Corp. Services, Inc.	4	Negative	Further clarification is required regarding the definition of "BES Element" (e.g. What is a BES transformer?). Receiving current from the BES is not a suitable criterion for applicability. As currently written 115 kV/12 kV distribution transformers would incorrectly be classified as as BES Element because they receive current from the BES. We propose the following definitions: Non-GSU Transformers -- Must have all windings (excluding the tertiary winding) rated at 100 kV and above to be classified as a BES Transformer. GSU Transformers -- Must have a primary winding rated at 100 kV or above in order to be classified as a BES Transformer.
Response: Providing clarification regarding the definition of a “BES element” is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				

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Randi Woodward	Minnesota Power, Inc.	1	Negative	Further clarification is required regarding the definition of a "BES Element" (e.g., What is a BES transformer?). We propose the following definitions: - Non GSU transformers must have all windings (excluding tertiary windings) rated at 100kV and above in order to be classified as a BES transformer. - GSU transformers must have a primary winding rating at 100kV and above in order to be classified as a BES transformer.
Response: Providing clarification regarding the definition of a "BES element" is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Bruce Merrill	Lincoln Electric System	3	Negative	Further clarification is required regarding the definition of a "BES element" (e.g., What is a BES transformer?). Receiving current from the BES is not a suitable criterion for applicability. As currently written 115kV/12kV distribution transformers would incorrectly be classified as a BES element because they receive current from the BES. We propose the following definitions: Non-GSU transformers must have all windings (excluding the tertiary winding) rated at 100kV and above in order to be classified to be a BES transformer. GSU transformers must have a primary winding rated at 100kV and above in order to be classified to be a BES transformer.
Eric Ruskamp	Lincoln Electric System	6	Negative	
Response: Providing clarification regarding the definition of a "BES element" is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Dan R. Schoenecker	Midwest Reliability Organization	10	Negative	Further clarification is required regarding the definition of a "BES element" (e.g., What is a BES transformer?). Receiving current from the BES is not a suitable criterion for applicability. As currently written 115kV/12kV distribution transformers would incorrectly be classified as a BES element because they receive current from the BES.
Response: Providing clarification regarding the definition of a "BES element" is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Michelle Rheault	Manitoba Hydro	1	Negative	Manitoba Hydro does not agree with the statement "A Protection System for a radially connected transformer energized from the BES would be considered a transmission Protection System and subject to these standards only if the protection trips an interrupting

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Greg C Parent	Manitoba Hydro	3	Negative	device that interrupts current supplied directly from the BES and the transformer is a BES element". We feel that consideration of the transformer low side being networked or connected to a source should determine if it is a transmission Protection System, as stated in previous interpretation. If a radially connected transformer trips an interrupting device that interrupts current supplied directly from the BES, and the interrupting device is in a ring bus configuration, this does not affect, the remaining BES transmission lines on that ring. Why did the last interpretation state that a radially connected transformer is not a transmission Protection System, and this interpretation states that it is a transmission Protection System? Would a radially connected transformer not be the same as a radially connected line, which does not fall under PRC-005-1?
Daniel Prowse	Manitoba Hydro	6	Negative	
Response: Changes between the previous interpretation and the current interpretation to remove the reference to low-side networks were made in response to comments. The drafting team believes the reference to interrupting current supplied from the BES provides more clarity than the pervious reference to low-side networks. With regard to the commenters' comparison of the previous and present interpretations, please note that the present interpretation does not state that a Protection System on a radially connected transformer is a "transmission Protection System."				
Paul Shipps	Lakeland Electric	6	Negative	Needs better wording on "interrupts current supplied directly from the BES", not having to determine what the purpose of back-up protection is.
Response: The drafting team spent considerable time drafting this phrase and does not believe that additional clarity is necessary.				
James R. Keller	Wisconsin Electric Power Marketing	3	Negative	The Comment Period and Ballot Period should not overlap. The industry and Standard Drafting Team should have opportunity to review comments prior to a ballot.
Linda Horn	Wisconsin Electric Power Co.	5	Negative	
Response: The drafting team is unaware of any overlap during development of this interpretation. There is no comment period for interpretations – comments are limited to those submitted with ballots. The present interpretation and responses to comments from the previous ballot were posted at the start of the 30-day pre-ballot window which was open from March 29 to April 28. The 30-day pre-ballot window provides the industry with the opportunity to review comments prior to the ballot window which was open from April 28 to May 10.				

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Chifong L. Thomas	Pacific Gas and Electric Company	1	Negative	The interpretation applies Requirements R1 and R3 in PRC-004-1, and to 1 and R2 in PRC-005-1. PG&E is concerned that, as written, the interpretation could introduce confusion for the generator Protection System. The interpretation states, "a Protection System for a radially connected transformer energized from the BES would be considered a transmission Protection System and subject to these standards only if the protection trips an interrupting device that interrupts current supplied directly from the BES and the transformer is a BES element." However, from NERC Glossary of Terms, the definition of BES includes "the electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher". Therefore, if a generator protection trips the generator, the generator protection system can also be deemed a transmission Protection System because the generator is included in the BES. PG&E suggests that the interpretation be modified to state, "a Protection System for a radially connected transformer, which serves only Load and energized from the BES, would be considered a transmission Protection System and subject to these standards only if the protection trips an interrupting device that interrupts current supplied directly from the BES and the transformer is a BES element."
Response: In order to be considered a "transmission Protection System," all three aspects of the interpretation must be met: (1) installed for the purpose of detecting Faults on Transmission Elements, (2) the protected Element is identified as included in the BES, and (3) trips an interrupting device that interrupts current supplied directly from the BES. Generator protection installed to detect Faults on the generator or generator step-up transformer or to protect the generator against abnormal operating conditions do not meet the first aspect and would not be considered "transmission Protection Systems."				
Robert Kondziolka	Salt River Project	1	Negative	The Interpretation does not answer the question asked. It bases its guidance on whether or not the transformer is a BES element. Determining whether the transformer is a BES element causes the confusion and inconsistencies we believe the Interpretation request wanted to resolve.
John T. Underhill	Salt River Project	3	Negative	
Glen Reeves	Salt River Project	5	Negative	
Response: The request for interpretation did not ask for clarification as to when a transformer is considered to be a BES element. Y-W Electric Association, Inc. (Y-WEA) and Tri-State Generation and Transmission Association, Inc. (Tri-State) requested an interpretation of the term "transmission Protection System" and specifically whether protection for a radially-connected transformer protection system energized from the BES is considered a transmission Protection System and is subject to these standards. The drafting team believes the interpretation clearly answers both the general and specific aspects of this request. Providing clarification regarding the definition of a "BES element" is outside the scope of the interpretation.				
Karl Bryan	U.S. Army Corps of Engineers	5	Negative	The interpretation does not clearly answer the question posed by the "request for interpretation". The intent of the Reliability Standards is to have one set of rules for the BES

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	Northwestern Division			and yet the Regional Entities appear to be carving out exceptions that are going beyond the intent of a reliable BES. In regards to this particular issue, either the transformer feeding a radial load is in or out of the BES and the disparity amongst the REs (RFirst and WECC) needs to be fixed.
Response: The request for interpretation did not ask for clarification as to when a transformer is considered to be a BES element. Y-W Electric Association, Inc. (Y-WEA) and Tri-State Generation and Transmission Association, Inc. (Tri-State) requested an interpretation of the term "transmission Protection System" and specifically whether protection for a radially-connected transformer protection system energized from the BES is considered a transmission Protection System and is subject to these standards. The drafting team believes the interpretation clearly answers both the general and specific aspects of this request. Providing clarification regarding the definition of a "BES element" is outside the scope of the interpretation.				
Anthony Jankowski	Wisconsin Energy Corp.	4	Negative	The interpretation is contrary to the NERC BES definition and the RFC BES definition.
Response: The drafting team cannot respond without clarification as to how the interpretation is contrary to the definition of BES. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Gregory J Le Grave	Wisconsin Public Service Corp.	3	Negative	The interpretation needs to be further clarified to state: BES transformers are defined as: Generator step-up transformers that have high side voltage of 100Kv or greater. Or Transformers that have a high and low side voltages of 100Kv or greater.
Leonard Rentmeester	Wisconsin Public Service Corp.	5	Negative	
Response: The request for interpretation did not ask for a definition of what constitutes a BES transformer. Y-W Electric Association, Inc. (Y-WEA) and Tri-State Generation and Transmission Association, Inc. (Tri-State) requested an interpretation of the term "transmission Protection System" and specifically whether protection for a radially-connected transformer protection system energized from the BES is considered a transmission Protection System and is subject to these standards. The drafting team believes the interpretation clearly answers both the general and specific aspects of this request. Providing clarification regarding the definition of "BES transformers" is outside the scope of the interpretation.				
Paul B. Johnson	American Electric Power	1	Negative	The revised interpretation is a significant improvement and AEP appreciates the work by the drafting team. However, AEP feels the last sentence of the first paragraph of the

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Raj Rana	American Electric Power	3	Negative	interpretation could be improved from: "...trips an interrupting device that interrupts current supplied directly from the BES." to the following: "...trips an interrupting device (such as circuit breakers and circuit switchers) that interrupts current flowing through the networked BES." In addition, AEP feels the last sentence of the last paragraph of the interpretation could be improved from: "...trips an interrupting device that interrupts current supplied directly from the BES and the transformer is a BES element." to the following: "...trips an interrupting device (such as circuit breakers and circuit switchers) that interrupts current flowing through the networked BES and the transformer is a BES element."
Response: The drafting team appreciates this input, but believes that the existing phrase more precisely reflects our intent.				
Edward P. Cox	AEP Marketing	6	Negative	The revised interpretation is a significant improvement and AEP appreciates the work by the drafting team. However, AEP feels the last sentence of the first paragraph of the interpretation could be improved from: "...trips an interrupting device that interrupts current supplied directly from the BES." to the following: "...trips an interrupting device (such as circuit breakers and circuit switchers) that interrupts current flowing through the networked BES." In addition, AEP feels the last sentence of the last paragraph of the interpretation could be improved from: "...trips an interrupting device that interrupts current supplied directly from the BES and the transformer is a BES element." to the following: "...trips an interrupting device (such as circuit breakers and circuit switchers) that interrupts current flowing through the networked BES and the transformer is a BES element."
Response: The drafting team appreciates this input, but believes that the existing phrase more precisely reflects our intent.				
Richard Salgo	Sierra Pacific Power Co.	1	Negative	The Standards Drafting Team is commended for eliminating the elements of vagueness from the prior interpretation (use of "generally" and deferral to the Regional Entity for specific clarification). However, we disagree with a key concept of this version, that an applicable protection system would trip an interrupting device that interrupts current supplied directly from the BES. Focusing on the very purpose of a transmission protection system, the principle of inclusion of a protection system in the subject standards applicability should revolve around whether the protection system detects and acts to isolate faults on transmission elements from any source of energy, not whether it interrupts current supplied from the BES. In the 2nd paragraph, the interpretation reads "..only if the protection trips an interrupting device that interrupts current supplied directly from the BES and the transformer is a BES element". From this statement, it appears that the intent is for both conditions to be satisfied (interruption of current from the BES AND the transformer being a part of the BES). In that event, with the transformer presumed to be a part of the BES, there would be no

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				doubt as to the status of the associated protection system and no need for interpretation. However, the situation posed in the request is that of a radial transformer, and as such, the transformer itself would not likely be part of the BES at any rate, given the general radial exclusion in the present NERC definition of BES. As well, the radial nature of the transformer indicates that it may not even be considered to be a transmission element at all, but rather, distribution. We suggest a modification to the interpretation such that a Protection System be considered to be a transmission Protection System if it is installed for the purpose of detecting faults on transmission elements identified as being included in the BES, initiating action to clear the protected element from any source of energy.
Response: The modification to the interpretation proposed by the commenter is substantially the same as the first interpretation developed by the drafting team. Based on industry input through the Standard Development Process the drafting team has modified the interpretation and believes the present version of the interpretation appropriately addresses reliability of the Bulk Electric System by including the phrase "and trips an interrupting device that interrupts current supplied directly from the BES."				
Anthony Schacher	Salem Electric	3	Negative	The sytem protection devices have been installed to protect the substation transformers and distribution system downstream of the protection device, not the BES upstream. Therefore they should be exempt of the standard requirements
Response: In order to be considered a "Transmission Protection System," all three aspects of the interpretation must be met: (1) installed for the purpose of detecting Faults on Transmission Elements, (2) the protected Element is identified as included in the BES, and (3) trips an interrupting device that interrupts current supplied directly from the BES. Per the interpretation if the substation transformers and distribution system downstream of the protection device referenced by the commenter are not BES elements, then the protection systems installed for detecting Faults on these elements are not "transmission Protection Systems."				
Thomas C. Mielnik	MidAmerican Energy Co.	3	Negative	We are concerned that the interpretation could be interpreted in a way that incorrectly leads to the conclusion that transformers with low side below 100 kV (and the transformer's sytem protection) are BES. Both windings need to be 100 kV and above to be considered to be BES.
Response: The existing definition of Bulk Electric System is not changed by this interpretation and providing clarification regarding the definition of a BES transformer is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Claudiu Cadar	GDS Associates, Inc.	1	Negative	We do not support the interpretation of PRC-004-1 and PRC-005-1 requirements based on the following reasons: o Consistent with current reliability standards if the transmission line is radial in nature and

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				no other network customer is impacted when the protective device operates, then no transmission Protection System exists. o NERC interpretation suggests certain situations where the transformer connected to the BES in a load serving radial configuration would be also considered a BES element. Would the secondary voltage of the transformer at 100 kV or above be determinant to consider the transformer a BES element? The definition of BES states that "Radial transmission facilities serving only load with one transmission source are generally not included in this definition." In load serving radial configurations the only party impacted by a potential transformer failure would be the customer and not the BES, so the transformer cannot be considered a BES element. o If a protection system exists for any other reason than fault protection of the Bulk Electric System, most of the times it would be categorized as a Special Protection System (i.e. preventing overload of a transformer or line based upon a contingent situation, etc.). Transfer trip schemes and blocking schemes react to faulted conditions, however we do not believe that non-BES elements would be considered part of a protection system unless the RC or TOP indicates that the portion of the transmission system would be critical. o We suggest to revise the interpretation of the term "transmission Protection System" in a more clear and concise form. o We consider that not only the transmission Protection System is in need of subsequent clarifications and clearness, but also the definition of BES. This argument resides on FERC Order 693 and FERC Docket No. RC09-3-000 related to the definition of BES where the Commission explained that "Although we are accepting the NERC definition of bulk electric system and NERC's registration process for now, the Commission remains concerned about the need to address the potential gaps in coverage of facilities. For example, some current regional definitions of bulk electric system exclude facilities below 230 kV and transmission lines that serve major load centers such as Washington, DC and New York City. The Commission intends to address this matter in a future proceeding.[…]". o Although the above argument may be considered beyond the scope of current interpretation, we consider that due to the related nature of the mentioned definitions, NERC may need to pursue additional steps for clarification rather than a simple term interpretation. The drafting team may consider proposing the addition of a new term such as "Transmission Protection System", or to modify the existing "Protection System" definition and "Bulk Electric System" by case if found appropriate.

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Response: The drafting team was not asked to provide an interpretation of when transformers or other elements would be considered BES elements. As such, discussion of whether radial transformers can be BES elements and whether winding voltage has a bearing on such determinations are outside the scope of this interpretation. The interpretation purposely makes reference to "to any Protection System that is installed for the purpose of detecting Faults on Transmission Elements" to exclude Special Protection Systems. The intent of the commenter's reference to non-BES elements being considered part of a Protection System is not clear given the NERC Glossary definitions of Element (Any electrical device with terminals that may be connected to other electrical devices such as a generator, transformer, circuit breaker, bus section, or transmission line. An element may be comprised of one or more components.) and Protection System (Protective relays, associated communication systems, voltage and current sensing devices, station batteries and DC control circuitry.) are mutually exclusive. The drafting team acknowledges there are existing dockets that reference the definition of the BES. As contemplated by the commenter, however, the drafting team agrees that providing clarification regarding the definition of a "BES Element" is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms) and also will be applicable if a NERC-wide methodology for determining BES facilities is developed.				
Timothy VanBlaricom	California ISO	2	Negative	We feel that a formal definition of 'transmission protection system' should be developed so that all RROs interpret the meaning in the same way.
Response: Development of a formal definition is outside the scope of the request for interpretation. If the commenter desires a formal definition a Standard Authorization Request (SAR) may be submitted requesting development of a formal definition.				
Gregory L Pieper	Xcel Energy, Inc.	1	Negative	Xcel Energy believes that this interpretation uses language that depends upon definition of BES elements (in this case transformers). How to determine if a transformer is classified as BES has not been clearly established (i.e. it is not clear as to if classification is based on high side or low side voltage). We believe it needs to be established how these boundary components and supporting systems (e.g. protection system) are classified in order to form a basis for the interpretation.
Michael Ibold	Xcel Energy, Inc.	3	Negative	
Liam Noailles	Xcel Energy, Inc.	5	Negative	
David F. Lemmons	Xcel Energy, Inc.	6	Negative	
Response: Providing clarification regarding the definition of a "BES Element" is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				

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John J. Moraski	Baltimore Gas & Electric Company	1	Affirmative	BGE is comfortable with the interpretation as written. Specifically, the scope of inclusion is now limited as below: ...a Transmission Protection System and subject to these standards only if the protection trips an interrupting device that interrupts current supplied directly from the BES and the transformer is a BES element The transformer in the class of substation we are concerned with is not a BES element.
Response: Thank you for your support.				
Russell A Noble	Cowlitz County PUD	3	Affirmative	Is the definition of a BES transformer understood? My understanding is both primary and secondary are at or above 100 kV. Also, it must also be noted that some transmission side current interrupters (circuit switchers) can't clear a full transmission fault. They are there to protect the transformer from high impedance internal transformer faults. Should a transmission full available current fault occur, the upstream BES breaker(s) must clear the fault.
Response: Thank you for your support. However, please note that providing clarification regarding the definition of a "BES transformer" is outside the scope of the interpretation. The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				
Kevin Querry	FirstEnergy Solutions	3	Affirmative	No Comments
Response: Thank you for your support.				
Frank F. Afranji	Portland General Electric Co.	1	Affirmative	PGE agrees with the interpretation given by the System Protection and Controls Subcommittee. The protection system for a radially connected transformer should be considered a transmission Protective System since it interupts current from the BES. If the transformer breaker was to misoperate, it could cause delayed tripping from the remaining transmission line breakers ultimately effectin the BES.
Response: Thank you for your support. Please note that as stated in the interpretation, the commenter's example would be considered a "Transmission Protection System" only if the protection trips an interrupting device that interrupts current supplied directly from the BES and the transformer is a BES element.				
Alan Gale	City of Tallahassee	5	Affirmative	TAL would like to thank the Drafting Team for their efforts. This is one example of how posting interpretations for industry comment prior to voting could shorten the overall process

Voter	Entity	Segment	Vote	Comment
				and lead to concensus on the first vote.
Response: Thank you for your support.				
Kim Warren	Independent Electricity System Operator	2	Affirmative	The IESO appreciates the drafting team's thoughtful consideration of the points we had raised in the previous two ballots. We accept that there are imitations to the current interpretation process and therefore respectfully suggest that the drafting team include in the Reliability Standards Issues Database for future consideration, the issue of how uncleared faults on non-BES elements that may impact the BES, should be addressed in the reliability standards. We also wish to point out that this issue is fully addressed in the NPCC region by virtue of the performance-based methodology applied for defining the BES (BPS).
Response: Thank you for your support.				
Steve Alexanderson	Central Lincoln PUD	3	Affirmative	The new interpretation is an improvement over the last. We are still are baffled why the team did not include the NERC definition of "transmission" to show they are not creating a brand new definition. Perhaps comments included with affirmative ballots receive less attention than those with negative ballots. If so, this one may go unnoticed as well.
Response: Thank you for your support. The drafting team believes that simply linking the NERC Glossary defined terms “Transmission” and “Protection System” would not provide the level of clarity required to address this request for interpretation.				
James A Ziebarth	Y-W Electric Association, Inc.	4	Affirmative	Y-WEA appreciates the clarity that the drafting team put in this interpretation. This interpretation should bring about much more uniform understanding and enforcement of standards PRC-004-1 and PRC-005-1.
Response: Thank you for your support.				
Amir Y Hammad	Constellation Power Source Generation, Inc.	5	Abstain	Although this interpretation is reasonable when viewed between transmission and distribution elements, Constellation is concerned with this interpretation potentially being used for generation facilities connected to the BES. As an example, take a 10 MW generation facility connected at 115kV . This facility would not be part of the BES per the current definitions. However, as written, this interpretation would conclude that any protection of the step up transformer makes it part of the BES, even though the facility does not meet the BES criteria. Although this is not the intent of the interpretation, it is a potential consequence if applied

Voter	Entity	Segment	Vote	Comment
				incorrectly.
Response: The drafting team agrees this example would be an incorrect application of the interpretation.				
Chuck B Manning	Electric Reliability Council of Texas, Inc.	2	Abstain	the interpretation does NOT clearly answer the question
Response: Y-W Electric Association, Inc. (Y-WEA) and Tri-State Generation and Transmission Association, Inc. (Tri-State) requested an interpretation of the term "transmission Protection System" and specifically whether protection for a radially-connected transformer protection system energized from the BES is considered a transmission Protection System and is subject to these standards. The drafting team believes the interpretation clearly answers both the general and specific aspects of this request.				
Kent Saathoff	Electric Reliability Council of Texas, Inc.	10	Abstain	The question being asked is if the transformer protection system of a radially connected transformer, energized by the BES, is considered a BES transmission Protection System. The interpretation does not clearly state whether or not the transformer is part of the BES and further implies it may be some times but not all times, depending on how the transformer is cleared (separated from the transmission by the breaker vs. disconnecting the transformer and including clearing a section of transmission).
Response: The drafting team believes that references to the Bulk Electric System in the interpretation are clear and valid in the context of the existing NERC definition of the Bulk Electric System (as defined by the Regional Reliability Organization per the NERC Glossary of terms).				