

Individual or group. (35 Responses)
Name (22 Responses)
Organization (22 Responses)
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Lead Contact (13 Responses)
Contact Organization (13 Responses)
Question 1 (35 Responses)
Question 1 Comments (35 Responses)
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Question 4 (35 Responses)
Question 4 Comments (35 Responses)
Question 5 (35 Responses)
Question 5 Comments (35 Responses)

Individual
John Tolo
Tucson Electric Power
Yes
I agree R3 should be deleted
Yes
Group
Northeast Power Coordinating Council
Guy Zito
Northeast Power Coordinating Council
Yes
Yes
Yes
No
We agree with the approach. We recommend that the term "data center" be defined. How will the independence of any single data center be evaluated? This is almost impossible to prove. What type of dated evidence (see M7) will be required to be compliant to this requirement? Also, M7 use "any common facility" while R7 use "any single data center"; for consistency, the same term should be used.
No
Once "data center" is clearly defined, we believe the standard will be ready for balloting. For lack of a general comments question, would like to propose here the following change: in R1.5 and R8.1 the terms " to fully implement the backup functionality" should be replaced by "to fully implement the backup functionality elements identified in Requirement R1.2". Regional Entity has been replaced with Reliability Assurer to reflect what is proposed in Version 4 of the Functional Model. The terms Regional Entity, and Regional Reliability Organization are used throughout the NERC Standards. One term should be used consistently throughout the Standards.
Individual
Dan Rochester

Ontario IESO
Yes
Yes, this requirement should be removed – but not for the reason stated above. If there is no R3, there is no requirement that Compliance would be able to enforce in the first place. However, we believe that R3 can be removed if R1 is modified as follows (suggested deletion in parenthesis): "Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it ensures reliable operations of the BES in the event that its primary control functionality is lost. (center becomes inoperable.) This Operating Plan for backup functionality shall include the following, at a minimum:"
Yes
A standard is not the proper place to address registration and BES definition issues. The applicability should be just to the TOP and any limitation should be handled in registration.
Yes
We agree with the clarification language that is added to avoid the need for tertiary functionality. However, we wonder why R4 stipulates specifically the requirement for a "backup control centre facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators" as opposed to adopting the more appropriate language used in R5, viz. "backup functionality (provided either through a backup control center facility or contracted services)". It is conceivable that an RC may arrange for backup capability with another entity as opposed to having its own backup facility. Also, it has been raised by many commenters in previous postings that it is the backup "capability" or "functionality" that matters, not the facility. We suggest R4 be revised to adopt this more flexible and appropriate language. If the different language in R4 was intended to also stipulate the need for having certified RC operators, then why is this not a requirement in R5? The two requirements should have similar if not identical language. We also think that the last part of both requirements that says: "...compliance with all Reliability Standards that depend on a primary control center functionality" is unnecessary. The responsible entity must comply with all reliability standards under either the primary functionality or backup capability condition. Isn't meeting all reliability standards and continuing to operating, monitor and maintain BES reliability the very reason for having the backup functionality?
Yes
We agree with the clarifying language, but hold the opinion that the last part of the requirement "that depend on the primary control functionality" is unnecessary. The responsible entity must comply with all reliability standards under either the primary functionality or backup capability condition, hence the need for the backup functionality.
No
Whether or not the standard is ready for ballot will depend on the extent to which the above comments are addressed. Further, the following comments also need to be addressed: VSLs for R2: The Severe condition is "The Reliability Coordinator, Balancing Authority, or Transmission Operator has an Operating Plan for backup functionality but no version of the plan is available at all of its control locations." There is no mention of having no version at one of the primary and backup control locations. If one version is missing, what VSL is assigned? VSLs for R3: VSL measures the extent to which an entity fails a requirement, not how impactful the failure is. However, the VSLs for R3 are assigned according to what level of VRFs the requirements have failed. Factoring the impact of a failure in the determination of the extent of failure is improper. These need to be revised. VSLs for R4: Similar comments as for VSLs for R3. Further, please note our comments and suggestions under Q3. If R4 is to be revised, the VSLs (and Measure) will need to be revised accordingly. VSLs for R5: Same comments as for VSLs for R4. We are particularly concerned with the determination of VSL based on VRFs for R3, R4 and R5. This is improper in applying the fundamental concept of VRF and VSL. We feel that the standard is not ready for balloting until these VSLs are revised to remove the VRF component.
Group
PJM Interconnection
Patrick Brown
NERC & Regional Coordination Department
Yes
We agree that Requirement R3 should be deleted. Backup capability is defined as "the ability to maintain situational awareness and continue to comply with reliability standards when primary control center facilities are not operational" as such, "backup capability" does not need to equate to "backup facility." The standard should be written to require the necessary/essential functionality (not require another facility) when the primary capability is lost (as is done in R1). Simply, the standard needs to require the principle need, yet not be too prescriptive on how that is accomplished.
Yes
Yes
We agree that the clarifications provided are correct and that there is no need for 'tertiary functionality.' However, it appears some clarifying language is needed to better articulate the need for "backup capability." In addition, while the language in R4 is fairly clear, the language in R5 is very confusing and has the affect of including multiple requirements

in one run on sentence. This will pose problems both in terms of trying to adhere to the requirement as well as trying to audit the requirement. Although it appears the SDT was looking to include acceptable risk for time periods of two weeks or less for planned outages when backup functionality is not required, we do not believe that there should be any reference to 'tertiary facility' or 'backup facility' in this requirement with respect to planned or unplanned outages. As such, we believe these sub requirements can be omitted. We propose the following language to the SDT for Requirements 4 and 5 with the caveat that the SDT must resolve the frequency for which it is acceptable to not have backup capability (it should be a risk-informed basis): R4. Each Reliability Coordinator shall have backup capability (provided either through a backup control center or through contracted services or other pre-established means) utilizing certified Reliability Coordinator operators and the functionality necessary to maintain compliance with all reliability standards and the situational awareness provided by the primary control center when it is operational. The unavailability of backup capability is permissible for periods of up to two weeks per _____ due to planned or unplanned outages as long as the Responsible Entity implements continuing and reasonable efforts to restore its backup capability. R.5. Each Balancing Authority and Transmission Operator shall have backup capability (provided either through a backup control center or through contracted services or other pre-established means) that includes monitoring, control, logging, and alarming functionality necessary to maintain compliance with all reliability standards and the situational awareness provided by the primary control center when it is operational. The unavailability of backup capability is permissible for periods of up to two weeks per _____ due to planned or unplanned outages as long as the Responsible Entity implements continuing and reasonable efforts to restore its backup capability.

Yes

No

Numerous requirements need to be rewritten for clarification and subsequently, VSLs will need to be rewritten followed by another posting prior to this standard being ready for balloting. In addition, there are still some areas which should be cleaned up: R1 - the term current should be omitted as it adds a new term which should simply be covered by R6. R1.2.5 - does this refer to CIP 003 - CIP 009, or some other cyber security requirements?

Individual

Jack Kerr

Dominion Virginia Power

No

If there is a reliability need for backup capabilities for delegated tasks, then this should be explicitly stated in a reliability standard. It should not be implied or be something that, on review, Compliance deems is necessary but that is without a clear basis in the standards.

Yes

No

As written, the clarifications do not appear to have avoided the need for tertiary facilities/functionalities. In fact, the proposed wording implies that there is a need for tertiary facilities/functionalities if a planned outage of more than two weeks is anticipated. An RC or TOP is not likely to assume that some day they might have to plan an outage in excess of two weeks and then go ahead and acquire tertiary facilities/functionalities to have on hand just in case. Therefore, it should be clear that, under normal operations (all systems "Go"), only primary and adequate backup facilities/functionalities are required for compliance. Failure to provide adequate backup in the first place would constitute non-compliance. Under degraded operations (loss of primary facilities/functionalities or loss of the adequate backup facilities/functionalities previously provided), there should be separate and specific requirements for plans an RC or TOP should make and/or actions they should take until normal operations are restored (similar to what R1.6.2 now says but promoted to a stand-alone requirement). Compliance under degraded operations would be evaluated based on these new requirements specific to degraded operations instead of the original requirements to have backup facilities/functionalities. This eliminates the conundrum of being non-compliant when primary or backup facilities/functionalites are lost. Tertiary facilities/functionalities are not cost effective and are not necessary to achieve an Adequate Level of Reliability. Some entities, especially those who operate markets, may chose to acquire tertiary facilities/functionalities for various reasons. In doing so, they are choosing to "plan and operate their portion of the System to achieve a level of reliability that is above the standards." (Words in quotes are from the NERC definition of Adequate Level of Reliability.)

Yes

The SDT should be aware of the concerns about NERCnet and the ISN that have been discussed by the Reliability Coordinator Working Group. If the loss of "any single data center" at a service provider facility can result in the ISN data being unavailable, is this a potential compliance issue? The measure M7 refers to "any common facility" instead of to "any single data center". The requirement and the measure should use the same terms.

No

1) See response to question 3. 2) Requirement R9 allows 6 months after an unplanned outage before a plan is needed for restoration of the primary or backup capability. This is too long. A plan should be required within two weeks even if it is only a preliminary plan. The plan should be updated at least monthly thereafter until the restoration is complete.

Individual
Al McMeekin
South Carolina Electric & Gas Company
Yes
Yes
No
Suggested language for R4: Each Reliability Coordinator shall have backup control center functionality provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators for maintaining compliance with all applicable Reliability Standards. No tertiary functionality is required. Suggested language for R5: Each Balancing Authority and Transmission Operator shall have backup functionality provided through a backup control center facility or contractual services, for maintaining compliance with all applicable Reliability Standards. No tertiary functionality is required.
No
See my suggested version of the standard.
No
See my suggested version of standard. R1. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a copy of their most recently approved Operating Plan describing the manner in which it ensures reliable operations of the BES in the event that its control center becomes inoperable. This Operating Plan for backup functionality shall be available in its primary control center and at the location supporting backup functionality. The Operating Plan shall include the following: R1.1. Operating Procedures that stipulate: R1.1.1 Who has the decision-making authority for determining when to implement the Operating Plan. R1.1.2 The actions required to transition from loss of primary control center functionality to backup control functionality. R1.1.3 The actions required during the transition period. R1.1.4 The estimated transition time to fully implement the backup functionality which must be attained in less than or equal to two hours. R1.1.5 The list of all entities to notify when a change of operating locations or functionality is required. R1.1.6 The roles for personnel involved during the initiation and implementation of the Operating Plan. R1.2. A summary description of the elements required to support the backup functionality. These elements shall include: R1.2.1. Tools and applications that allow visualization capabilities to ensure operating personnel maintain situational awareness of the BES. R1.2.2. Data communications. R1.2.3. Voice communications. R1.2.4. Power source(s). R1.2.5. Physical and cyber security. R1.3. A description of the methods used for keeping the backup functionality compatible with the primary control center functionality. R2. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall annually review and approve its Operating Plan for backup functionality R2.1. An Operating Plan shall be updated and approved within sixty calendar days of any changes described in Requirement R1. R3 (Deleted) R4. See Question 3. R5. See Question 3. R6. (Now R2) R7. Incorporated into R1. R8. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct a test of its Operating Plan once each calendar year and document the results. The results should state: R8.1 The transition time from loss of primary control center functionality to full backup control functionality. R8.2 The length of time the backup functionality was utilized to operate the BES. A minimum of two continuous hours is required. R9. Each Reliability Coordinator, Balancing Authority, and Transmission Operator that has experienced a loss of its primary or backup capability, and anticipates that loss will last for more than six calendar months shall provide a plan to its Reliability Assurer within six calendar months of the date the functionality was lost, detailing how it will re-establish backup capability.
Individual
Randy Schimka
San Diego Gas and Electric Co
Yes
Yes
Yes
No
We agree with the change in principle, but there is different language in requirement R7 vs. the measure M7. The requirement states "Each other or any single data center" and the measure states "Each other or any common facility", which has a different meaning to us. Our preference would be for both sentences to use the "common facility" language.
No
We have a few issues related to the language in the revised standard that we feel need to be addressed: R1.1 - the

phrase "prolonged period of time" needs to be defined more clearly. One person could interpret that phrase to mean 3 months, while another person might think anything over 1 week is prolonged. R3 - "Transmission Operator directing BES operations through other entities"...We would suggest replacing the word "entities" with something else, such as parties or organizations. We feel that "entities" is too closely related to the registration process. What if the party in question is not a registered entity? It gets confusing. R6.1 - We would suggest adding the word "substantial" so that the second line reads "shall take place within sixty calendar days of any substantial changes". Other wording that is more precise is also welcome, but we wanted it to be clear that an update of the plan is not necessary for more trivial changes that happen several times per month at the control centers. R9 - We don't understand who the "Reliability Assurer" is. We actually liked the previous "Regional Entity" wording. Thanks very much, Randy Schimka SDG&E

Individual

Thomas Fung

BCTC

Yes

Yes

Yes

Yes

Yes

Individual

Chris Scanlon

Exelon

Yes

Yes

No

We agree with the intent of the changes and support the need to avoid creating a requirement for a tertiary control center. However, we believe the changes are confusing and there is large amount of extraneous information that only confuses the mater. For instance, there is no need to state "that provides the functionality required for maintaining compliance with all Reliability Standards". RCs are already to comply with all applicable standards regardless of this statement and whether they are operating from their primary or backup facility. This clause does nothing to increase or strengthen that requirement and is unneeded. We suggest modifying R4 to: "Each RC shall have a backup control center facility available except: during planned outages of the primary or backup facilities of two weeks or less or during unplanned outages of the primary or backup facilities." Likewise, we suggest the following wording for R5: "Each BA and TOP shall have backup functionality that includes monitoring, control, logging, and alarming available except: during planned outages of the primary or backup facilities of two weeks or less or during unplanned outages of the primary or backup facilities."

No

We agree with what we believe is the drafting team's intent. However, the current wording is ambiguous and is subject to inconsistent interpretation and application. Therefore we suggest the wording for R7 being changed to: Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and back-up facilities that can independently maintain the functionality, data availability and communications needed to maintain compliance with Reliability Standards.

No

There are significant opportunities for rewording requirements in this revision, for example the ambiguous wording in R7 requires a fourth comment period.

Individual

Alice Murdock

Xcel Energy

No

If something is monitored by Compliance, then there needs to be an associated standard/requirement. In this case, what standard or requirement would apply if this were to be deleted?

Yes

Yes
Recommend R5.2 include a time limit (e.g. 14 days) as well; may need to add a cumulative limit per year on both as well to prevent abuse. Enhance the allowable planned outage time as a reference to days (e.g. 14 days), rather than weeks, for more clarity.
Yes
However, this seems misplaced. possibly move in R1?
No
We agree with the intent of the standards but would like the items mentioned in our comments addressed prior to balloting. R1.1 "prolonged" is a subjective term and will need to be changed or defined in order to have a standard that minimizes interpretation. R1.3 "consistent" is a subjective term and will need to be changed or defined in order to have a standard that minimizes interpretation.
Group
Ameren Services
Gerry Beckerle
Ameren Services
Yes
Yes
No
R4 and R5 should be combined and all three entities, RC, BA, and TOP should be required to have at least two facilities that are independent of each other to the extent that compliance to NERC Standards can be maintained from those facilities. These facilities maybe a primary facility, with backup(s), or multiple primary facilities. Facilities may be shared with other entities, but must be able to meet the compliance requirements of all the entities sharing the facility. If an entity has two independent facilities that they can operate from, whether shared or not, a tertiary is not required. If for any reason an entity does not have at least two facilities to operate independantly from, that entity must prepare a mitigation plan acceptable to their Regional Entity.
No
R7 is redundant of R1 and should be removed. If a facility becomes "inoperable", and the entity has another facility capable of operating and meeting the NERC compliance standards, then it would be independent.
No
R1: Delete the word "current", it is not defined and adds nothing. R1: "backup functionality" should be restored to "backup capability" R1.1: "functionality" should be replaced with "facility" and "for a prolonged period of time" defined. This may be the period of time it would take to completely replace the facility that became inoperable. R3: Agree that it should be removed as mentioned in Question 1, above. R4 and R5: In addition to the consideration of the comments in question 3, above; R4 should be clear that an RC's backup control center, that happens to be another entity's control center, does not depend on their primary control center. Likewise R5 should be clear that an BA/TOP backup control center, that happens to be provided through contracted services, does not depend on their primary control center R4.1, R4.2, R5.1, and R5.2 are exceptions and if they remain should be clearly stated as such. No subrequirements should be worded, such that on their own they could be mis-interpeted. R6.1 Only changes pertinent to the implementation of the operating plan should be required within the time frame specified. R7: As noted above in question # 4, R7 is redundant of R1 and should be removed. If a facility becomes "inoperable", and the entity has another facility capable of operating and meeting the NERC compliance standards, then it would be independent. R8: Define "annual"; is it a calander year or something else. Under the effective date section of this standard, clearly state when the first test needs to be completed. R8.1 Add "simulated" in front of "loss of primary control" M1: Is there a significance in the words "current, in force Operating Plan"? Is not "current" and "in force" the same? If not, please explain. M2: Is there a significance in the words "current, in force Operating Plan"? Is not "current" and "in force" the same? If not, please explain. M6: Is there a significance in the words "current, in force Operating Plan"? Is not "current" and "in force" the same? If not, please explain.
Individual
Brent Ingebrigtson
E.ON U.S.
Yes
Yes
No

R5 - The first sentence is long and redundant. Compliance is required whether operating from the primary facility or backup facility. The sentence could end after "...maintaining compliance". Also, R5.1 and 5.2 should not be sub-requirements but rather bullets. Finally, the standard should explicitly state that tertiary functionality is not required.
No
R7 - Rather than a separate requirement R. 7, the drafting team should consider adding language to R1 that specifies required redundancy.
No
R1.6.2 appears redundant with R1.6 which requires a description of the actions to be taken during the transition. The phrase "manage the risk" is vague and subject to differing interpretations by organizations and auditors. R1.6.2 also describes outages of primary or backup functionality which can be different from a "loss of primary control center" used in R1.6. Requirement R. 8 requires "an annual test of its Operating Plan that demonstrates: the transition time...". R8 introduces additional reliability risk for the BES by requiring RC/BA/TOPs to annually remove from service their primary control center, relocate staff, and then re-initialize all systems. This standard should allow for simulated exercises rather than actual test, similar to requirements in EOP-005. Annual test should be defined as a test each "calendar year".
Group
Pepco Holdings, Inc - Affiliates
Richard Kafka
Pepco Holdings, Inc.
Yes
Group
Southern Company Transmission
JT Wood
Southern Company Services, Inc.
Yes
Yes
No
We suggest combining R4 and R5 into one requirement and indicating that a tertiary functionality is not required for the functional entities listed. If a tertiary functionality is required, conditions for when it is required should be addressed rather than stating when it is not required. We have additional suggested revisions to R4 and R5, which are included in the comments for Question 5.
No
The language should be more specific in indicating that an event that could make the primary center inoperable should not make the backup functionality inoperable. We suggest adding language in R1 that addresses mitigation of single points of failure and, therefore, eliminate R7.
No
We have the following comments regarding the noted requirements of this standard: R1: The word, "current", should be removed from the language of the requirement. R1: What is the difference between "operability" "and functionality"? Are they the same? R1.1: Delete "for a prolonged period of time." R1.3: What does "consistent" mean? – does it mean "adequate to meet compliance"? 1.6.2: This requirement appears to be redundant to R1.6. R2: The word, "current", should be removed from the language of the requirement. R4: In the first sentence, change "facility" to "functionality" and delete all remaining language of the sentence following "functionality". R5: In the first sentence, delete all remaining language of the sentence following "functionality". R6.1: We suggest that changes that are necessary for the operator to implement the back-up plan should be updated within 60 days - all other changes shall be addressed during the annual review. R8: When does the first test have to be performed, following implementation, to be compliant? - one day or within one year after implementation? We request that "annual" be replaced with "a calendar year". R8.1: We suggest adding the word "simulated" in front of "loss of primary control". General Comment: Measures and VSLs should use the same words and be consistent with the requirements of the Standard.

Individual
Darryl Curtis
Oncor Electric Delivery
No
This requirement should stay in EOP-008-1 because the "other entities" referred to in R3 are the entities that have actual device control of BES elements (very true in ERCOT).
Yes
Group
Bonneville Power Administration
Denise Koehn
Transmission Reliability Program
Yes
Yes
Not sure if it should be applicable to small TOPs.
No
If we have a planned outage for 3 weeks (longer than 2 weeks criteria) of either the primary or the backup facility we need an alternate (tertiary facility under the new requirements) facility in place. Current standard says we need interim provisions during transfer if it will take longer than 1 hour to implement plan. New standard has a 2 hour window requirement for the plan to be fully implemented.
Yes
May be OK: Uncertainty due to the phrase "or any single data center". Not sure what that means. In data retention and VSL sections it refers to it as a common FACILITY.
No
It has potential, but not sure about possible planned construction outage time duration.
Group
PacifiCorp
Sandra Shaffer
PacifiCorp
No
Requirement 3 should be left in the Standard. While it may be redundant with present efforts to review delegation agreements, it stipulates the intent of the Standard: that entities remain responsible for operations on the BES even if those duties are implemented via others. Keeping this requirement in the Standard, explicitly, insures that all entities understand the requirements and intent of this Standard, regardless of changes that may occur in the future regarding a separate process associated with review of delegation agreements. The process to review delegation agreements can change without industry input, as that process is not subject to the same approval requirements as those necessary when a Standard is created or modified.
Yes
Yes
Yes
No
R9 is ambiguous and requires clarification prior to balloting. It is unclear whether R9 requires that the responsible entity must submit a plan within six months showing how it will re-establish backup capability or whether it requires the responsible entity to completely re-establish backup capability within six months. This is a very critical distinction. In addition, R9 contains the term "Reliability Assurer" which is not a NERC defined term. It is unclear to what entity this term is referring. This must be clarified before the Standard is ready for balloting.

Individual
Thad Ness
American Electric Power (AEP)
Yes
No
It seems that 200 kV provides a reasonable demarcation of transmission facilities on the Bulk Electric System; below 200 kV are generally more localized distribution facilities. Within this segment, the existing applicability treated all Transmission Owners equally.
Yes
Yes
Yes
While ready for ballot, a couple other suggestions: (a) The term "Reliability Assurer" should be defined within the applicability of the standard. Is it typically the RC, NERC, or some other entity? (b) R9 - What is the action that the Reliability Assurer to take when it receives the plan. If no action is required, the plan could be maintained by the RC, BA, or TO. We are not sure of what value is intended to be provided by the Reliability Assurer when the plan is received perhaps months after the loss of primary and/or back-up capability. (c) R3, M3 - We are not sure that references to third party entities is necessary as the applicable entity is ultimately still responsible.
Group
FMPA and its ARP Participants Listed as Follows: City of Vero Beach; Kissimmee Utility Authority; and Beaches Energy Services
Frank Gaffney, Regulatory Compliance Officer
Florida Municipal Power Agency; City of Vero Beach; Kissimmee Utility Authority; Beaches Energy Services
Yes
No
We agree that all Transmission Operators should have a plan for loss of control center functionality, but, as written, the standard, particularly Requirement 5, seems to force all BAs and TOPs to have a back-up control center or contract for services for one (see parenthetical in R5 and M5). We believe that smaller BAs and TOPs can meet all of the requirements within the standard for backup functionality without a back-up control center or contracted services. For instance, we know of at least one TOP that is only a TOP for one substation, and therefore existing substation facilities can fulfill all of the backup functionality specified in the standard without the need for a backup control center. Similarly, we know of at least one BA who only has one power plant in its BA area, meaning that the BA can be operated from the power plant without a backup control center. We suggest striking the parenthetical in R5 and M5, or expanding it to read "provided either through a backup control center facility, contracted services, or other means".
Yes
No
As written, the requirement R7 (and M7) could be interpreted as requiring redundant Remote Terminal Units (RTUs) at substations and associated communications. The wording of the requirement should be made to define more accurately what primary and backup capabilities are, and that they do not include the RTUs or communication from the RTUs.
No
See comments above. We suggest: 1) removing the parenthetical from R5 and M5; 2) defining what "primary and backup capabilities" in R7 and M7 mean more specifically, and specifically excluding the need for redundant RTUs and associated communications; 3) Reliability Assurers (referred to in R9 and M9) ought to be a defined term, or we suggest staying with Regional Entity at this time until Reliability Assurers is a defined term in NERC's Glossary; and 4) although R1.2 only refers to physical and cyber security and does not refer to "Critical Assets" or "Critical Cyber Assets", it ought to be clear that just because there may be a backup control center, it does not automatically become a Critical Asset or Critical Cyber Asset, especially if the primary control center is not a Critical Asset or Critical Cyber Asset
Individual
D. Bryan Guy
Progress Energy
Yes
Yes

No
We suggest combining R4 and R5 into one requirement.
Yes
No
Effective Date: Include when the first test of the Operating Plan (R8) has to be performed. Is it (a) before the effective date, (b) within the same calendar year as the effective date, or (c) within 1 year of the effective date? To be consistent with the once per calendar year recurring requirement, we suggest option (b). R1.3: The term "consistent" can have too many interpretations - it could be interpreted that the backup tools must be exactly the same as the primary, which should not be required. If this statement was intended as a reminder to keep Operator tools similar at the backup, then make this a "should" statement instead of a "shall." Another option would be to reword it to say "for keeping the backup functionality adequate to meet compliance." R8: Suggest clarifying "annual" here and in all other applicable sections of the standard. Based upon the SDT's response to previous comments, we recommend using the phrase "once per calendar year"
Individual
Roger Champagne
Hydro-Québec TransÉnergie (HQT)
Yes
Yes
Yes
No
We agree with the approach. We recommend that the term "data center" be defined. How will the independence of any single data center be evaluated? This is almost impossible to prove. What type of dated evidence (see M7) will be required to be compliant to this requirement? Also, M7 use "any common facility" while R7 use "any single data center"; for consistency, the same term should be used.
No
Once "data center" is clearly defined, we believe the standard will be ready for balloting. For lack of a general comments question, we would like to propose here the following change: in R1.5 and R8.1 the terms "to fully implement the backup functionality" should be replaced by "to fully implement the backup functionality elements identified in Requirement R1.2". Regional Entity has been replaced with Reliability Assurer to reflect what is proposed in Version 4 of the Functional Model. The terms Regional Entity, and Regional Reliability Organization are used throughout the NERC Standards. One term should be consistently used throughout the Standards.
Individual
Rao Somayajula
ReliabilityFirst Corporation
Yes
Individual
Edward J Davis
Entergy Services, Inc
Yes
Yes

Yes
Yes
Yes
We request the drafting team consider increasing the maximum transition time to 3 hours from 2 hour in R1.5. The cost of full implementation of backup functionality in 2 hours is significantly greater than implementation within 3 hours with little attendant increase of reliability resulting from the additional one hour.
Group
Midwest ISO Standards Collaborators
Jason L. Marshall
Midwest ISO
Yes
Yes
No
We agree with the intent of the changes and support the need to avoid creating a requirement for a tertiary control center. However, we believe the changes are confusing and there is large amount of extraneous information that only confuses the mater. For instance, there is no need to state "that provides the functionality required for maintaining compliance with all Reliability Standards". RCs are already required to comply with all applicable standards regardless of this statement and whether they are operating from their primary or backup facility. This clause does nothing to increase or strengthen those requirements and is unneeded. We suggest modifying R4 to: "Each RC shall have a backup control center facility available except: during planned outages of the primary or backup facilities of two weeks or less or during unplanned outages of the primary or backup facilities." Likewise, we suggest the following wording for R5: "Each BA and TOP shall have backup functionality that includes monitoring, control, logging, and alarming available except: during planned outages of the primary or backup facilities of two weeks or less or during unplanned outages of the primary or backup facilities."
No
We agree with the drafting team's intent. However, we believe this requirement should be a sub-requirement of R1. Also, the VSL associated with Requirement 7 violates the Commission established VSL guideline that a VSL can't add to the requirement. Instead of using the data center as the requirement does, the VSL uses common facility. Facility could be construed to mean any communication equipment outside of the control centers and data center and ultimately out of the control of the registered entity if they rely on third party communications.
No
There is significant clean up identified in this standard. A fourth comment period should be pursued to verify that the drafting team has addressed concerns appropriately. Additionally, we offer these comments. We suggest it is possible to create four VSLs for requirement 9 based on the number of months the plan is late. FERC established in their June 2008 VSL order that their preference is to create a VSL for every level if possible. This is clearly possible based on our suggestion.
Group
FirstEnergy
Sam Ciccone
FirstEnergy Corp.
Yes
We agree that the compliance concept of delegation agreements should not reside in this or any reliability standard. The rules governing delegation of tasks should be clearly described in the NERC Rules of Procedure or Registration Criteria.
Yes
Yes
However, the change to R4 that requires "certified Reliability Coordinator Operators" should be carried through to R5 to require BAs and TOPs delegate tasks to NERC certified BAs and TOPs. This will make R4 and R5 consistent.
Yes
Although we agree with R7, it should be clear that this requirement cannot be met during the time period when the primary or back-up functionality is lost for more than six months as provided by R9. We ask that this be clarified by adding the wording "except as permitted by R9" at the end of Requirement R7. Also, we would like confirmation from the SDT that R7 is not describing an "N-2" contingencv. To alleviate anv confusion. we suggest a slight change in

wording to R7 as follows: "Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and backup capabilities that do not depend on each other, and that do not depend on any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality." We are not clear on the need for the phrase "that depend on the primary control functionality" in R7. It is ambiguous and seems unnecessary, so we ask the SDT to explain the need for this phrase.

No

We ask that our comments provided above have been appropriately considered before balloting begins. Also, we provide the following comments: In Requirement R9, the SDT changed the term "Regional Entity" to "Reliability Assurer". "Reliability Assurer" is a new term used in Version 4 of the NERC Functional Model but it is not clear if Version 4 is the latest approved Model. From looking at the NERC website, it only appears as though Version 3 is approved. We ask the SDT to confirm. Furthermore, if Version 4 is approved and Reliability Assurer is, in fact, an approved term, we believe the standard would be much clearer if Regional Entity was still used because it is much more familiar to industry at this point in time since Version 4 of the Functional Model is new. If still desired to be used, the SDT can put Reliability Assurer in parenthesis immediately following Regional Entity, i.e. "Regional Entity (Reliability Assurer)"

Individual

Michael Ayotte

ITC

Yes

Yes

Yes

We agree with the intent of the SDT, however the proposed wording is clumsy. Suggest removal of the phrase ""that provides the functionality required for maintaining compliance with all Reliability Standards".

Yes

Suggest removing the phrase "that depend on the primary control functionality." from the end of R7 as it is unnecessary. R7 references a "single data center" while the VSL matrix for R7 references "common facility". Common facility is much broader than data center.

No

In addition to changes suggested in Q4, we believe that VSL's for R7 should be developed for lower and medium/high. We suggest it is possible to create four VSLs for all requirements. FERC established in their June 2008 VSL order that their preference is to create a VSL for every level if possible.

Individual

Rick White

Northeast Utilities

Yes

Yes

Yes

Yes

We agree with the approach. We recommend that the term "data center" be defined. How will the independence of any single data center be evaluated? This is almost impossible to prove. What type of dated evidence (see M7) will be required to be compliant to this requirement? Also, M7 use "any common facility" while R7 use "any single data center"; for consistency, the same term should be used.

No

Once "data center" is clearly defined, we believe the standard will be ready for balloting. For lack of a general comments question, would like to propose here the following change: in R1.5 and R8.1 the terms "to fully implement the backup functionality" should be replaced by "to fully implement the backup functionality elements identified in Requirement R1.2". Regional Entity has been replaced with Reliability Assurer to reflect what is proposed in Version 4 of the Functional Model. The terms Regional Entity, and Regional Reliability Organization are used throughout the NERC Standards. One term should be consistently used throughout the Standards.

Individual

Kathleen Goodman

ISO New England Inc.

Yes

Yes
Yes
No
We agree with the approach. We recommend that the term "data center" be defined. How will the independence of any single data center be evaluated? This is almost impossible to prove. What type of dated evidence (see M7) will be required to be compliant to this requirement? Also, M7 use "any common facility" while R7 use "any single data center"; for consistency, the same term should be used.
No
Once "data center" is clearly defined, we believe the standard will be ready for balloting. For lack of a general comments question, would like to propose here the following change: in R1.5 and R8.1 the terms " to fully implement the backup functionality" should be replaced by "to fully implement the backup functionality elements identified in Requirement R1.2". Regional Entity has been replaced with Reliability Assurer to reflect what is proposed in Version 4 of the Functional Model. The terms Regional Entity, and Regional Reliability Organization are used throughout the NERC Standards. One term should be be consistently used throughout the Standards.
Individual
Greg Rowland
Duke Energy
Yes
Yes
No
Both R4 and R5 are too long, awkwardly worded, and are subject to too much interpretation. Suggest combining them into one requirement reducing it to basically the last sentence used in R4 and R5, explaining that a tertiary is not required when the listed events occur. This could then be combined with another requirement – possibly R1.
No
This requirement raises complex issues of redundancy that go beyond the need to provide backup functionality.
No
In addition to the comments for Questions #3 and #4 above, this standard lacks sufficient clarity in the following areas to proceed to ballot: R1. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current (what does "current" mean?) Operating Plan describing the manner in which it ensures reliable operations of the BES in the event that its primary control center (some entities have concerns with premise of primary and secondary – they have dual "primary" centers so the notion of primary and secondary is problematic) becomes inoperable (what does "inoperable" mean – should this be clarified to mean "loss of functionality"?). R1.3. An Operating Process for keeping the backup functionality consistent (what does this mean – does this mean exact duplicate functionality, does this mean every application, process, etc needs to be exactly consistent, what is the time dimension allowed for achieve consistency?) with the primary control center. R1.6. An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to fully implement the backup functionality elements identified in Requirement R1.2. The Operating Process shall include at a minimum: R1.6.1. A list of all entities (all is a very inclusive word – suggest something like "primary") to notify when there is a change in operating locations. R1.6.2. Actions to manage the risk to the BES (what does this phrase mean – what is the risk to the BES associated with loss of a control center?) during the transition from primary to backup functionality as well as during outages of the primary or backup functionality. R1.7. Identification of the roles for personnel (is this by name or by function, i.e. Manager of the Control Center?) involved during the initiation and implementation of the Operating Plan for backup functionality. R3. Each Reliability Coordinator, Balancing Authority, and Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. [Violation Risk Factor = Medium] [Time Horizon =Operations Planning] (This requirement is vague and subject to different interpretations. Suggest removing the entire requirement.) R4 and R5: See comment above on Question # 3. R6. Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall annually review and approve its Operating Plan for backup functionality. [Violation Risk Factor = Lower] [Time Horizon = Operations Planning] R6.1. An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes in capabilities described in Requirement R1. (How significant of a change in capabilities requires a revised/approved update within 60 days?) R9. Each Reliability Coordinator, Balancing Authority, and Transmission Operator that has experienced a loss of its primary or backup capability and that anticipates that the loss of primary or backup capability will last for more than six calendar months, shall provide a plan to its Reliability Assurer (who is this? This is apparently a new term defined in the next version of the Functional Model: since this new version is not vet approved. should it be used here?) within six calendar

<p>months of the date when the functionality is lost, showing how it will reestablish backup capability. [Violation Risk Factor = Medium] [Time Horizon = Operations Planning] After these clarifications are made, the measures need to be closely reviewed again to assure they are aligned with the words in the requirements. For instance, the measures should not introduce new requirements as several appear to do as currently written. Likewise the VSL matrix will need to be reviewed again for alignment with the requirements.</p>
Individual
Gregory Campoli
New York Independent System Operator
Yes
Yes
Yes
No
<p>We agree with the approach, however we believe the term "data center" needs to be defined for this standard. How will the independence of any single data center be evaluated? This is almost impossible to prove. It is not clear what type of dated evidence (see M7) will be required to be compliant to this requirement? Also, M7 use "any common facility" while R7 use "any single data center"; for consistency, the same term should be used.</p>
No
<p>Once "data center" is clearly defined, we believe the standard will be ready for balloting. For lack of a general comments question, would like to propose here the following change: in R1.5 and R8.1 the terms "to fully implement the backup functionality" should be replaced by "to fully implement the backup functionality elements identified in Requirement R1.2". Regional Entity has been replaced with Reliability Assurer to reflect what is proposed in Version 4 of the Functional Model. The terms Regional Entity, and Regional Reliability Organization are used throughout the NERC Standards. One term should be consistently used throughout the Standards.</p>
Group
MRO NERC Standards Review Subcommittee
Michael Brytowski
MRO
Yes
<p>With this clarification, the SDT has removed redundancy from this updated Standard, thank you. Please remove requirement 3 for the next posting of this standard.</p>
Yes
Yes
<p>With this clarification, the SDT has removed redundancy from this updated Standard, thank you. The MRO NSRS suggests that in R4.2 and R5.2 the SDT include R9's time line of six months to submit a plan to the RE or RC. Then R9 can be deleted.</p>
Yes
No
<p>R1, Requires the entity to "have a current Operating Plan". NERC defines Operating Plan as "A document that identifies a group of activities that may be used to achieve some goal. An Operating Plan may contain Operating Procedures and Operating Processes. A company-specific system restoration plan that includes an Operating Procedure for black-starting units, Operating Processes for communicating restoration progress with other entities, etc., is an example of an Operating Plan". Contained in the defined term, NERC explains that an Operating Procedure and Operating Process are sub-components within the Operating Plan. R1.3 and R1.6 dictate the use of an Operating Process. R1.4 dictates the use of an Operating Procedure. This will lead to confusion within the industry. Recommend the SDT streamline these requires since they are sub-components of an Operating Plan. R1, R4, R5 and R7, Request clarification, The Operating Plan described in R1 is to contain items for "backup functionality" and at a minimum contain the sub-requirements in R1.2. Then in R4 (and in R5 for the BA and TOP), the SDT requires the RC to "have a backup control center facility that provides the functionality required for maintaining compliance with ALL Reliability Standards that depend on primary control center functionality". The PURPOSE of this Standard is for continued reliability operations of the BES (also stated in R1, and R3). FERC Order 693 states in paragraph 672, under (3) "provide for a minimum functionality to replicate the critical reliability functions of the primary control center". Note: same paragraph (5) states: "includes a Requirement that all reliability coordinators have full backup control centers". Does this proposed Standard apply to the Reliability of the BES or all Standards assigned to a RC, TOP, and BA, please clarify. R1.5, States that an entitv has up to 2 hours to fully implemet the backup functionalitv. Where did the two hour time frame</p>

come from and what is the justification for it? There are some examples in actual emergencies that indicates the backup control center should be a substantial distance from the primary, to prevent the possibility of losing both the primary and backup facilities to the emergency, which may make it impossible to have the backup up, running, and fully functional within 2 hours. Please note the hurricanes in New Orleans, floods in Iowa. R5, The SDT is adding more components to the non-defined term of "backup functionality" as stated in the sub-requirements of R1.2. Added are the processes of "monitoring, control, logging, and alarming". If these are components of R1.2.1, then they should be added to R1.2.1, which will stream line the Standard. R2, The MRO NSRS does not believe that it is necessary for an unmanned facility (like a repeater tower) that "supports" the backup facility to have a copy of the Operating Plan and suggests the requirement be modified to clarify. R7 and R9, please clarify what backup "capability" is when the rest of the proposed standard references backup "functionality". R9, Uses the term Reliability Assurer and is undefined as stated by NERCs Reliability Functional Model (V4) "While the specific role of the Reliability Assurer is not fully developed at the present time, the following are representative of the Tasks that might be performed:". The term Regional Entity or Reliability Coordinator should be used since they are defined and should be contained in R9. If at a later date Reliability Assurer is approved, NERC may submit an errata to update the Requirement.

Individual

Catherine Koch

Puget Sound Energy

Yes

If the SDT believes this requirement will be covered in another location or in another standard that is most logical, then yes R3 should be deleted.

Yes

Yes, this is a necessary change. It removes this standard from interpretation by each entity and requires each to have back-up provisions. This is critical as many entities rely on neighboring entities to operate from day to day.

Yes

No

R7 indicates "does not depend on each other or any single data center". M7 changes the words of "any single data center" to " any common facility". The difference in these terms and how they could be interpreted is significant. The SDT should revise M7 to match R7 at a minimum. The term "common facility" could be extremely interpreted to require duplicative RTU sensors at all substations and communications systems transmitting the information to isolate the primary and the backup control centers from any dependancy. Also it would be helpful to clarify whether "depend on each other" or "common facility" includes the building the centers reside in. In previous comments, the SDT responded that "the intent (of R7) is that if the primary control center is destroyed, the backup facility will be capable of collecting the data needed to support the reliable operation of the BES.". This response could imply the centers must reside in separate buildings or at some significant distance from each other to prevent both locations from being impacted by a natural disaster. The SDT should explicitly list the components that the backup control center should not be dependent on.

No

Puget Sound Energy commented previously that the 24 month implementation timeline was not reasonable. The SDT responded that "The SDT agrees with the majority of commenters that 24 months is the correct timeframe for this standard." The questions/comments regarding the terms used in R7/M7 mentioned in response to question 4 could have significant impact on the ability for an entity to meet within this timeframe. Until R7 is further clarified, the SDT should extend the implementation timeframe from 24 months to 36 months. Also in accordance with FERC's "Order on Violation Severity Levels Proposed by the Electric Reliability Organization," issued June 19, 2008 (Docket No. RR08-4-000), FERC has stated its preference for graduated VSLs since the application of any penalty for a violation can be more consistently and fairly applied based on the degree of the violation. In light of this, NERC should revise the proposed VSLs to include graduated violation severity levels for each and every requirement.

Group

IRC Standards Review Committee

Ben Li

IESO

Yes

Yes, this requirement should be removed – but not for the reason stated above. If there is no R3, there is no requirement that Compliance would be able to enforce in the first place. However, we believe that R3 can be removed if the first 2 sentences in R1 are modified as follows (suggested deletion in parenthesis): Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it ensures reliable operations of the BES in the event that its primary control functionality is lost. (center becomes inoperable.) This Operating Plan for backup functionality shall include the following, at a minimum:.....

Yes

This is a reastration issue and really identifies an issue with the definition of the BES. A standard is not the proper

place to address registration and BES definition issues. The applicability should be just to the TOP and any limitation should be handled in registration.
Yes
We agree with the clarification language that is added to avoid the need for tertiary functionality. However, we wonder why R4 stipulates specifically the requirement for a "backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators" as opposed to adopting the more appropriate language used in R5, viz. "backup functionality (provided either through a backup control center facility or contracted services)". It is conceivable that an RC may arrange for backup capability with another entity as opposed to having its own backup facility. Also, it has been raised by many commenters in previous postings that it is the backup "capability" or "functionality" that matters, not the facility. We suggest R4 be revised to adopt this more flexible and appropriate language. If the different language in R4 was intended to also stipulate the need for having certified RC operators, then why is this not a requirement in R5? The two requirements should have similar if not identical language. We also think that the last part of both requirements that says: "...compliance with all Reliability Standards that depend on a primary control center functionality" is unnecessary. The responsible entity must comply with all reliability standards under either the primary functionality or backup capability condition. Isn't meeting all reliability standards and continuing to operating, monitor and maintain BES reliability the very reason for having the backup functionality?
Yes
We agree with the clarifying language, but hold the opinion that the last part of the requirement "that depend on the primary control functionality" is unnecessary. The responsible entity must comply with all reliability standards under either the primary functionality or backup capability condition, hence the need for the backup functionality.
No
Whether or not the standard is ready for ballot will depend on the extent to which the above comments are addressed. Further, the following comments also need to be addressed: VSLs for R2: The Severe condition is "The Reliability Coordinator, Balancing Authority, or Transmission Operator has an Operating Plan for backup functionality but no version of the plan is available at all of its control locations." There is no mention of having no version at one of the primary and backup control locations. If one version is missing, what VSL is assigned? VSLs for R3: VSL measures the extent to which an entity fails a requirement, not how impactful the failure is. However, the VSLs for R3 are assigned according to what level of VRFs the requirements have failed. Factoring the impact of a failure in the determination of the extent of failure is improper. These need to be revised. VSLs for R4: Similar comments as for VSLs for R3. Further, please note our comments and suggestions under Q3. If R4 is to be revised, the VSLs (and Measure) will need to be revised accordingly. VSLs for R5: Same comments as for VSLs for R4. We are particularly concerned with the determination of VSL based on VRFs for R3, R4 and R5. This is improper in applying the fundamental concept of VRF and VSL. We feel that the standard is not ready for balloting until these VSLs are revised to remove the VRF component.
Individual
Jason Shaver
American Transmission Company
Yes
However, it appears that R3 has not been deleted in the redlined version of the Standard posted. If the redlined version is what is being voted upon, we disagree with the language as it is currently written. The way it is currently written it would require the TOP to ensure that the other entities have backup functionality, which puts the TOP in the role of regulator, and we have no such authority. We do not have the authority to monitor backup functionality of other entities nor to compel other entities to have backup functionality. The language suggested in the last redlined version is more appropriate.
Yes
Yes
However, we recommend removing the phrase "To avoid requiring tertiary functionality" so that it reads better as a requirement.
Yes
However, the sentence is long and could be broken up into two sentences. The phrase in blue at the end of the requirement does not add value and could be removed, "...that depend on the primary control functionality".
No
R9 uses the term Reliability Assurer which is not currently defined by NERC. It should be replaced with Regional Entity. R7 and R9 use the term "backup capability". The rest of the requirements use the term "backup functionality". For consistency and clarity, it is recommended that one term is used consistently in all of the requirements. The changes or deletion of R3 needs to be clarified. If R3 is kept, then the verbiage needs to be modified as stated above. R2 should read "at the location which provides backup functionality", not "at the location supporting backup functionality". Many locations may support backup functionality, not all of which are manned and would need a copy of the plan. This re-write would remove the need for unmanned locations to have a copy of the Operating Plan.

Group
SERC OC Standards Review
Jim S. Griffith
Southern Co. Services, Inc.
Yes
Yes
No
We suggest combining R4 and R5 into one requirement and indicating that a tertiary functionality is not required for the functional entities listed. If a tertiary functionality is required, conditions for when it is required should be addressed rather than stating when it is not required. We have additional suggested revisions to R4 and R5, which are included in the comments for Question 5.
No
The language should be more specific in indicating that an event that could make the primary center inoperable should not make the backup functionality inoperable. We suggest adding language in R1 that addresses mitigation of single points of failure and, therefore, eliminate R7.
No
We have the following comments regarding the noted requirements of this standard: R1: The word, "current", should be removed from the language of the requirement. R1: What is the difference between "operability" "and functionality"? Are they the same? R1.1: Delete "for a prolonged period of time." R1.3: What does "consistent" mean? – does it mean "adequate to meet compliance"? 1.6.2: This requirement appears to be redundant to R1.6. R2: The word, "current", should be removed from the language of the requirement. R4: In the first sentence, change "facility" to "functionality" and delete all remaining language of the sentence following "functionality". R5: In the first sentence, delete all remaining language of the sentence following "functionality". R6.1: We suggest that changes that are necessary for the operator to implement the back-up plan should be updated within 60 days - all other changes shall be addressed during the annual review. R8: When does the first test have to be performed, following implementation, to be compliant? - one day or within one year after implementation? We request that "annual" be replaced with "a calendar year". R8.1: We suggest adding the word "simulated" in front of "loss of primary control". General Comment: Measures and VSLs should use the same words and be consistent with the requirements of the Standard.