

Comment Report

Project Name: 2022-03 Energy Assurance with Energy-Constrained Resources | Draft 1
Comment Period Start Date: 1/25/2024
Comment Period End Date: 3/11/2024
Associated Ballots: 2022-03 Energy Assurance with Energy-Constrained Resources BAL-007-1 IN 1 ST
2022-03 Energy Assurance with Energy-Constrained Resources Implementation Plan IN 1 OT

There were 57 sets of responses, including comments from approximately 186 different people from approximately 109 companies representing 10 of the Industry Segments as shown in the table on the following pages.

Questions

1. The SDT has proposed a new Energy Reliability Assessment (ERA) definition which is intended to support the near-term and seasonal time horizons. Is the definition clear and understandable? If not, please provide the basis that supports your answer.

2. The SDT developed a process that defines how both near-term and seasonal ERAs will be performed and specifies the requirements for both ERAs together. Are the process and the required parameters clear and understandable? If not, please provide the basis that supports your answer or suggestions for revisions. Please specify if comments are related to the near-term ERA, seasonal ERA, or both.

3. The SDT proposes to require a set of scenarios to be developed which is needed in the performance of ERAs. Additionally, there is Attachment 1 that further supports the development of the set of scenarios. Are the scenarios specified in Requirement 2 the correct level or risk to consider in an ERA, and is the development of scenarios clear and understandable? If not, please provide the basis that supports your answer or suggestions for revisions. Please specify if comments are related to the near-term, seasonal ERA, or both.

4. The SDT proposes entities determine energy reserve margins which would provide clear criteria for whether or not the results of an ERA require Operating Plan(s) to mitigate potential energy deficiencies. Are energy reserve margins the right method to set that criterion and are the specific energy reserve margin specified in Requirement 8 the correct thresholds for both near-term and seasonal ERAs? Is this approach clear and understandable? If not, please provide the basis that supports your answer or suggestions for revision.

5. Does the proposed new standard address the reliability gaps or risks identified in the SAR and differentiate itself from other standard requirements? In your response, please provide any information that supports your answer.

6. Is the proposed standard practicable to:

- i. Be implementable?
- ii. Is the proposed standard auditable?
- iii. Able to comply with?

In your response, please provide any information that supports your answer.

7. Provide any additional comments for the SDT to consider, if desired.

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
BC Hydro and Power Authority	Adrian Andreoiu	1	WECC	BC Hydro	Hootan Jarollahi	BC Hydro and Power Authority	3	WECC
					Helen Hamilton Harding	BC Hydro and Power Authority	5	WECC
					Adrian Andreoiu	BC Hydro and Power Authority	1	WECC
MRO	Anna Martinson	1,2,3,4,5,6	MRO	MRO Group	Shonda McCain	Omaha Public Power District (OPPD)	1,3,5,6	MRO
					Michael Brytowski	Great River Energy	1,3,5,6	MRO
					Jamison Cawley	Nebraska Public Power District	1,3,5	MRO
					Jay Sethi	Manitoba Hydro (MH)	1,3,5,6	MRO
					Husam Al-Hadidi	Manitoba Hydro (System Performance)	1,3,5,6	MRO
					Kimberly Bentley	Western Area Power Administration	1,6	MRO
					Jaimin Patal	Saskatchewan Power Corporation (SPC)	1	MRO
					George Brown	Pattern Operators LP	5	MRO
					Larry Heckert	Alliant Energy (ALTE)	4	MRO
					Terry Harbour	MidAmerican Energy Company (MEC)	1,3	MRO
					Dane Rogers	Oklahoma Gas and Electric (OG&E)	1,3,5,6	MRO

					Seth Shoemaker	Muscataine Power & Water	1,3,5,6	MRO
					Michael Ayotte	ITC Holdings	1	MRO
					Andrew Coffelt	Board of Public Utilities-Kansas (BPU)	1,3,5,6	MRO
					Peter Brown	Invenergy	5,6	MRO
					Angela Wheat	Southwestern Power Administration	1	MRO
					Bobbi Welch	Midcontinent ISO, Inc.	2	MRO
WEC Energy Group, Inc.	Christine Kane	3		WEC Energy Group	Christine Kane	WEC Energy Group	3	RF
					Matthew Beilfuss	WEC Energy Group, Inc.	4	RF
					Clarice Zellmer	WEC Energy Group, Inc.	5	RF
					David Boeshaar	WEC Energy Group, Inc.	6	RF
Southern Company - Southern Company Services, Inc.	Colby Galloway	1,3,5,6	MRO,RF,SERC,Texas RE,WECC	Southern Company	Matt Carden	Southern Company - Southern Company Services, Inc.	1	SERC
					Joel Dembowski	Southern Company - Alabama Power Company	3	SERC
					Ron Carlsen	Southern Company - Southern Company Generation	6	SERC
					Leslie Burke	Southern Company - Southern Company Generation	5	SERC
Public Utility District No. 1 of Chelan County	Diane E Landry	1,3,5,6		CHPD	Joyce Gundry	Public Utility District No. 1 of Chelan County	3	WECC

					Anne Kronshage	Public Utility District No. 1 of Chelan County	6	WECC
					Rebecca Zahler	Public Utility District No. 1 of Chelan County	5	WECC
Elizabeth Davis	Elizabeth Davis		RF,SERC	ISO/RTO Standards Review Committee	Mike Del Viscio	PJM	2	RF
					Bobbi Welch	Midcontinent ISO, Inc.	2	RF
					Gregory Campoli	New York Independent System Operator	2	NPCC
					Charles Yeung	Southwest Power Pool, Inc. (RTO)	2	MRO
					Ali Miremadi	California ISO	2	WECC
Jennie Wike	Jennie Wike		WECC	Tacoma Power	Jennie Wike	Tacoma Public Utilities	1,3,4,5,6	WECC
					John Merrell	Tacoma Public Utilities (Tacoma, WA)	1	WECC
					John Nierenberg	Tacoma Public Utilities (Tacoma, WA)	3	WECC
					Hien Ho	Tacoma Public Utilities (Tacoma, WA)	4	WECC
					Terry Gifford	Tacoma Public Utilities (Tacoma, WA)	6	WECC
					Ozan Ferrin	Tacoma Public Utilities (Tacoma, WA)	5	WECC
ACES Power Marketing	Jodirah Green	1,3,4,5,6	MRO,RF,SERC,Texas RE,WECC	ACES Collaborators	Bob Soloman	Hoosier Energy Electric Cooperative	1	RF
					Jason Proconiar	Buckeye Power, Inc.	4	RF
					Nick Fogleman	Prairie Power, Inc.	1,3	SERC

					Kris Carper	Arizona Electric Power Cooperative, Inc.	1	WECC
					Jolly Hayden	East Texas Electric Cooperative, Inc.	NA - Not Applicable	Texas RE
					Nikki Carson-Marquis	Minnkota Power Cooperative, Inc.	1	MRO
					Bill Pezalla	Old Dominion Electric Cooperative	3,4	SERC
LaKenya Vannorman	LaKenya Vannorman		SERC	Florida Municipal Power Agency (FMPA)	Chris Gowder	Florida Municipal Power Agency	5	SERC
					Dan O'Hagan	Florida Municipal Power Agency	4	SERC
					Navid Nowakhtar	Florida Municipal Power Agency	3	SERC
					Jade Bulitta	Florida Municipal Power Agency	6	SERC
Black Hills Corporation	Rachel Schuldt	6		Black Hills Corporation - All Segments	Micah Runner	Black Hills Corporation	1	WECC
					Josh Combs	Black Hills Corporation	3	WECC
					Rachel Schuldt	Black Hills Corporation	6	WECC
					Carly Miller	Black Hills Corporation	5	WECC
					Sheila Suurmeier	Black Hills Corporation	5	WECC
Northeast Power Coordinating Council	Ruida Shu	1,2,3,4,5,6,7,8,9,10	NPCC	NPCC RSC	Gerry Dunbar	Northeast Power Coordinating Council	10	NPCC
					Alain Mukama	Hydro One Networks, Inc.	1	NPCC
					Deidre Altobell	Con Edison	1	NPCC

Jeffrey Streifling	NB Power Corporation	1	NPCC
Michele Tondalo	United Illuminating Co.	1	NPCC
Stephanie Ullah-Mazzuca	Orange and Rockland	1	NPCC
Michael Ridolfino	Central Hudson Gas & Electric Corp.	1	NPCC
Randy Buswell	Vermont Electric Power Company	1	NPCC
James Grant	NYISO	2	NPCC
John Pearson	ISO New England, Inc.	2	NPCC
Harishkumar Subramani Vijay Kumar	Independent Electricity System Operator	2	NPCC
Randy MacDonald	New Brunswick Power Corporation	2	NPCC
Dermot Smyth	Con Ed - Consolidated Edison Co. of New York	1	NPCC
David Burke	Orange and Rockland	3	NPCC
Peter Yost	Con Ed - Consolidated Edison Co. of New York	3	NPCC
Salvatore Spagnolo	New York Power Authority	1	NPCC
Sean Bodkin	Dominion - Dominion Resources, Inc.	6	NPCC
David Kwan	Ontario Power Generation	4	NPCC
Silvia Mitchell	NextEra Energy -	1	NPCC

						Florida Power and Light Co.			
						Glen Smith	Entergy Services	4	NPCC
						Sean Cavote	PSEG	4	NPCC
						Jason Chandler	Con Edison	5	NPCC
						Tracy MacNicoll	Utility Services	5	NPCC
						Shivaz Chopra	New York Power Authority	6	NPCC
						Vijay Puran	New York State Department of Public Service	6	NPCC
						ALAN ADAMSON	New York State Reliability Council	10	NPCC
						David Kiguel	Independent	7	NPCC
						Joel Charlebois	AESI	7	NPCC
						Joshua London	Eversource Energy	1	NPCC
Ryan Strom	Ryan Strom		RF	Buckeye Power Group	Carl Spaetzel	Buckeye Power, Inc.	3	RF	
					Jason Proconiar	Buckeye Power, Inc.	4	RF	
					Kevin Zemanek	Buckeye Power, Inc.	5	RF	
Dominion - Dominion Resources, Inc.	Sean Bodkin	6		Dominion	Connie Lowe	Dominion - Dominion Resources, Inc.	3	NA - Not Applicable	
					Lou Oberski	Dominion - Dominion Resources, Inc.	5	NA - Not Applicable	
					Larry Nash	Dominion - Dominion Virginia Power	1	NA - Not Applicable	
					Rachel Snead	Dominion - Dominion Resources, Inc.	5	NA - Not Applicable	

Shannon Mickens	Shannon Mickens		MRO,SPP RE,WECC	SPP RTO	Shannon Mickens	Southwest Power Pool Inc.	2	MRO
					Mia Wilson	Southwest Power Pool Inc.	2	MRO
					Josh Phillips	Southwest Power Pool Inc.	2	MRO
					Darian Richards	Southwest Power Pool Inc	2	MRO
					Jim William	Southwest Power Pool Inc.	2	MRO
					Mason Favazza	Southwest Power Pool Inc.	2	MRO
					Heather Harris	Southwest Power Pool Inc.	2	MRO
					Will Tootle	Southwest Power Pool Inc.	2	MRO
					Sunny Raheem	Southwest Power Pool Inc.	2	MRO
					Daniel Baker	Southwest Power Pool Inc.	2	MRO
					Margaret Quispe	Southwest Power Pool Inc.	2	MRO
					Bryan Wood	Southwest Power Pool Inc.	2	MRO
					Brian Strickland	Southwest Power Pool Inc	2	MRO
Stephen Whaite	Stephen Whaite		RF	ReliabilityFirst Ballot Body Member and Proxies	Lindsey Mannion	ReliabilityFirst	10	RF
					Stephen Whaite	ReliabilityFirst	10	RF
Western Electricity	Steven Rueckert	10		WECC Entity Monitoring	Steve Rueckert	WECC	10	WECC
					Phil O'Donnell	WECC	10	WECC

Coordinating Council								
Tim Kelley	Tim Kelley		WECC	SMUD and BANC	Nicole Looney	Sacramento Municipal Utility District	3	WECC
					Charles Norton	Sacramento Municipal Utility District	6	WECC
					Wei Shao	Sacramento Municipal Utility District	1	WECC
					Foung Mua	Sacramento Municipal Utility District	4	WECC
					Nicole Goi	Sacramento Municipal Utility District	5	WECC
					Kevin Smith	Balancing Authority of Northern California	1	WECC
Associated Electric Cooperative, Inc.	Todd Bennett	3		AECI	Michael Bax	Central Electric Power Cooperative (Missouri)	1	SERC
					Adam Weber	Central Electric Power Cooperative (Missouri)	3	SERC
					Gary Dollins	M and A Electric Power Cooperative	3	SERC
					William Price	M and A Electric Power Cooperative	1	SERC
					Olivia Olson	Sho-Me Power Electric Cooperative	1	SERC
					Mark Ramsey	N.W. Electric Power Cooperative, Inc.	1	SERC
					Heath Henry	NW Electric Power Cooperative, Inc.	3	SERC

Tony Gott	KAMO Electric Cooperative	3	SERC
Micah Breedlove	KAMO Electric Cooperative	1	SERC
Brett Douglas	Northeast Missouri Electric Power Cooperative	1	SERC
Skyler Wiegmann	Northeast Missouri Electric Power Cooperative	3	SERC
Mark Riley	Associated Electric Cooperative, Inc.	1	SERC
Brian Ackermann	Associated Electric Cooperative, Inc.	6	SERC
Chuck Booth	Associated Electric Cooperative, Inc.	5	SERC
Jarrold Murdaugh	Sho-Me Power Electric Cooperative	3	SERC

1. The SDT has proposed a new Energy Reliability Assessment (ERA) definition which is intended to support the near-term and seasonal time horizons. Is the definition clear and understandable? If not, please provide the basis that supports your answer.

Richard Gilbert - Florida Reliability Coordinating Council – Member Services Division - 8 - SERC

Answer No

Document Name

Comment

The SDT defines Energy Reliability Assessment (ERA) as:

Evaluation of the resources that supply electrical energy and ancillary services for the Bulk Power System to reliably meet the expected demand during the associated time period. ERAs account for the impact of actions that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).

Although FRCC generally agrees that an ERA can be defined as the “[e]valuation of the resources that supply electrical energy and ancillary services for the Bulk Power System to reliably meet the expected demand during the associated time period,” FRCC would strike the second sentence in its entirety as being extraneous and potentially confusing.

Indeed, although accounting for the “impact of actions that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources” should be implicitly understood to “reliably meet expected demand,” as is already clearly stated in the first sentence of the definition, the inclusion of additional language is, at a minimum, needlessly duplicative. More troubling is that the inclusion suggests the language may be open to a different interpretation than what is explicitly stated in the first sentence, which leads to an internal ambiguity within the definition as a whole.

FRCC recommends the second sentence be stricken as follows:

Energy Reliability Assessment (ERA) - Evaluation of the resources that supply electrical energy and ancillary services for the Bulk Power System to reliably meet the expected demand during the associated time period. [~~Delete: ERAs account for the impact of actions that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).~~]

Likes 1 Entergy, 3, Keele James

Dislikes 0

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Entity Monitoring

Answer No

Document Name

Comment

WECC suggests that the DT should consider a change to support understanding: “Energy Reliability Assessment (ERA) - Evaluation of the resources (add “**ability to**”) (~~delete~~ “that”) supply electrical energy and ancillary services for the Bulk Power System to reliably meet the expected demand during

the associated time period. (delete "ERAs account for") The impact of actions that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel) (add "**are included in the evaluation.**")

WECC suggests inclusions (or exclusions) of items for considering the term "ancillary services" as that flexibility may allow significant inconsistencies between ERAs by a BA (as well as BAs within an Interconnection or a Reserve Sharing Group (RSG).) Voltage and frequency may be considered "ancillary services" by some entities but not by others. Set the minimum expectations and then allow variability to occur after inclusion (e.g., "ancillary services including, but are not limited to, Operating Reserves, ...)

Is the SDT making a distinction between "ancillary services" and the defined term "Ancillary Services"? Use of Glossary Terms but not reflected as defined terms (i.e. capitalized) is ambiguous and may not produce the reliability results intended.

Likes 0

Dislikes 0

Response

Rachel Schuld - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer

No

Document Name

Comment

Black Hills Corporation agrees with EEI's comments: EEI is of the opinion that further clarity would benefit the proposed definition of Energy Reliability Assessment. To address our concerns, we offer the following edits in boldface for consideration:

Energy Reliability Assessment (ERA): Documented evaluation of the **registered BPS** resources that supply electrical energy and ancillary services for the Bulk Power System to (*remove: **reliably***) meet the expected demand during (*remove: **the associated***) **a specified** time period. ERAs account for the impact of actions **taken to minimize the impact of energy emergencies** that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).

Likes 0

Dislikes 0

Response

Anna Martinson - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO Group

Answer

No

Document Name

Comment

The MRO NERC Standards Review Forum (NSRF) recommends verbiage be added to describe the time component; e.g. "contemporaneously." Also, if demand is intended to mean "the rate at which energy is being used by the customer," the term should be capitalized since this is the existing definition for "Demand" in the NERC Glossary.

Suggested edits below:

Energy Reliability Assessment (ERA) - Evaluation of the ability of resources that supply electrical energy and reserves to the Bulk Power System to reliably and contemporaneously meet the expected Demand throughout the associated evaluation period.

During the 2/12/24 webinar, the SDT indicated the ERA definition is intended to apply to both the Operations and Planning horizons. If so, this definition needs to be considered with respect to how operational and/or planning models can model and/or evaluate ancillary services and fuel inventories as there may be limitations.

Additionally, the MRO NSRF is seeking clarity regarding which “ancillary services” must be included in the assessment. Is the intent to assess the adequacy of Operating Reserves; i.e. spinning and supplemental for purposes of providing regulation?

• If so, the MRO NSRF notes that Operating Reserves and Most Severe Single Contingency (MSSC) are already addressed under BAL-002.

• Other ancillary services, e.g. frequency response and voltage support, are addressed under BAL-003 and VAR-001, with voltage and reactive control (VAR-001) being a function of the Transmission Operator.

Therefore, the MRO NSRF asks the SDT clarify what BAL-007 seeks to achieve. Currently, there is a lot of overlap between proposed BAL-007 and other existing standards, including TOP-002, BAL-002 and BAL-003. [Note: TOP-002, R4, Part 4.4 already requires BAs to have an Operating Plan that addresses energy reserve requirements, including deliverability capability.]

Finally, the MRO NSRF asks the final sentence be stricken to accommodate alternative approaches that do not require finite fuel inventory information. If finite fuel information is required, Generator Operators should be required to provide it to the BA.

Likes 1	American Municipal Power, 5, Ritts Amy
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Dislikes 0	
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Response

Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion

Answer	No
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Document Name	
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Comment

Dominion Energy supports the comments submitted by EEI.

Likes 0	
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Dislikes 0	
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Response

Stephen Whaite - Stephen Whaite On Behalf of: Lindsey Mannion, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer	No
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Document Name	
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Comment

RF recommends the SDT consider replacing “ancillary services” with Operating Reserves.

Likes 0

Dislikes 0

Response

Christine Kane - WEC Energy Group, Inc. - 3, Group Name WEC Energy Group

Answer

No

Document Name

Comment

WEC Energy Group supports the MRO NSRF comments.

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1

Answer

No

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer

No

Document Name

Comment

Duke Energy proposes the following ERA definition:

Energy Reliability Assessment (ERA) - Evaluation of the resources that supply electrical energy for the Bulk Power System to meet the expected demand during the assessment period, accounting for the impacts of depleted and replenished resources (e.g., fuel).

Likes 0

Dislikes 0

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer

No

Document Name

Comment

"See comments submitted by the Edison Electric Institute"

Likes 0

Dislikes 0

Response

Nazra Gladu - Manitoba Hydro - 1

Answer

No

Document Name

Comment

Manitoba Hydro is generally supportive of comments by the MRO NSRF. However, Manitoba Hydro sees value in retaining the term "sequential" in the definition to make it abundantly clear that respecting chronology in energy analyses is necessary to appropriately assess reliability of systems with energy limited resources such as battery storage and reservoir hydro.

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - 1,3 - WECC,Texas RE

Answer

No

Document Name

Comment

PNMR supports EEI's comments related to the Energy Reliability Assessment (ERA) definition and support the proposed changes in their response.

Likes 0

Dislikes 0

Response

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro

Answer

No

Document Name

Comment

BC Hydro appreciates the drafting team's efforts and the opportunity to comment, and offers the following.

The second sentence in the proposed definition appears to be a Requirement on the ERA. BC Hydro suggests that if the drafting team feels this is critical to the performance of the ERA, it should be included as a Requirement in the Standard rather than within the definition itself.

Also, unless the drafting team has opted to use the generic term demand instead of the NERC Glossary Term, the capitalized word should be used instead in the ERA definition.

BC Hydro suggests the following revised wording for the ERA Definition:

Energy Reliability Assessment (ERA) – Evaluation of the resources that supply electrical energy and necessary ancillary services for the Bulk Power System to reliably meet the expected Demand throughout the evaluation period.

Please note the addition of “necessary” in conjunction with the “ancillary services” term used in the definition. BC Hydro suggests that it should only be those ancillary services pertinent to energy reserves, such as Contingency and/or Operating Reserves.

Likes 0

Dislikes 0

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

No

Document Name

Comment

BPA does not believe the definition is clear and understandable with respect to a Balancing Authority (BA). Much of the information needed to meet the ERA is not data currently available to a BA. BPA recommends that NERC add load serving entities and/or load responsible entities as part of the NERC Compliance Registry registration list. This way, the standard would be applicable to LSEs and/or LREs and they would be the entity responsible for compliance with this standard. BPA understands and recognizes that not all registered entities are responsible for the load within their BA

footprint. BPA also recommends that another responsible entity be added to the NERC Compliance Registry registration list that would allow entities to be part of a group that would be the responsible entity for the requirements of this standard, such as is defined for BAL-002 with the Reserve Sharing Group concept. To the extent the definition requires an upstream fuel analysis, BPA respectfully suggests the BA is not the correct level for this type of assessment. BPA (as a BA) is not a fuel procurer nor a weather forecaster (for wind, water, solar, etc.). The BA is generally responsible for balancing load and generation in real-time, not forecasting either of them. While the BA could procure the forecasts from a GO or GOP (in the sense of the information seemingly required by R1.2.3), BPA believes it's more logical for a GO or GOP to own the responsibility for forecasting fuel needs and documenting environmental restrictions. In the ERA definition, the first phrase '[e]valuation of the resources...' is not an action/activity that a BA should be responsible for.

Likes 0

Dislikes 0

Response

Kinte Whitehead - Exelon - 3

Answer

No

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; John Merrell, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; - Jennie Wike, Group Name Tacoma Power

Answer

No

Document Name

Comment

Tacoma Power supports the MRO NSRF comments.

Likes 1

Public Utility District No. 1 of Snohomish County, 1, Rhoads Alyssia

Dislikes 0

Response

David Jendras Sr - Ameren - Ameren Services - 3

Answer

No

Document Name	
Comment	
Ameren agrees with and supports MISO's comments.	
Likes 0	
Dislikes 0	
Response	
Richard Vendetti - NextEra Energy - 5	
Answer	No
Document Name	
Comment	
Florida Power & Light generally supports defining the Energy Reliability Assessment (ERA) as a new NERC Glossary term, however, we do not agree with the language "impact of actions that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources". It is inherent to all Balancing Authorities of the obligation to reliably meet expected demand. The second sentence in the definition adds ambiguity which could lead to misinterpretation.	
Likes 0	
Dislikes 0	
Response	
Dania Colon - Orlando Utilities Commission - 5	
Answer	No
Document Name	
Comment	
Although the FRCC generally agrees with the ERA definition, the FRCC does not agree with the inclusion of the second sentence. Accounting for the "impact of actions that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources" should be implicitly understood to "reliably meet expected demand." The inclusion of the second sentence in the definition does not add clarity but instead could lead to misinterpretation. FRCC recommends deleting the entire second sentence.	
Likes 0	
Dislikes 0	
Response	

Alan Kloster - Alan Kloster On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Alan Kloster

Answer No

Document Name

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute and the MRO NSRF for question #1.

Likes 0

Dislikes 0

Response

Ryan Strom - Ryan Strom On Behalf of: Carl Spaetzel, Buckeye Power, Inc., 4, 5, 3; Jason Proconiar, Buckeye Power, Inc., 4, 5, 3; Kevin Zemanek, Buckeye Power, Inc., 4, 5, 3; - Ryan Strom, Group Name Buckeye Power Group

Answer No

Document Name

Comment

Buckeye supports the comments made by ACES:

We at ACES appreciate the effort put forth by the SDT to develop the new ERA definiton. While we largely agree with the currently proposed definition, we do have some minor concerns that we feel warrant further scrutiny.

It is our opinion that the SDT should either capitalize all words that are currently defined in the NERC Glossary of Terms or provide alternate definitons for each term that are specific to the newly proposed Reliability Standard. Namely, both the terms “ancillary services” and “demand” are defined terms; however, neither is capitalized nor is an alternate definition provided. Therefore, it is unclear as to what these terms are referring to.

Additionally, we believe that the last sentence of the proposed definiton should be removed. We believe the additional information provided by this sentence only creates additional confusion rather than reducing it.

Likes 0

Dislikes 0

Response

Shannon Mickens - Shannon Mickens On Behalf of: Joshua Phillips, Southwest Power Pool, Inc. (RTO), 2; - Shannon Mickens, Group Name SPP RTO

Answer No

Document Name

Comment

SPP has a concern about the BA having the flexibility to determine the time period for the ERAs as well as what is meant by the term “ancillary services.”

SPP recommends that the term “demand” be capitalized if the existing definition for “Demand” in the NERC Glossary is intended to apply; if the NERC Glossary definition is not intended to apply, SPP recommends that a different term or phrase be used that more clearly indicates the intended meaning.

Furthermore, SPP proposes the following revisions to the ERA definition (shown below).

Revised Definition

Energy Reliability Assessment (ERA) - Evaluation of the known ability of resources that supply electrical energy and reserves for the Bulk Power System to reliably meet the expected Demand during the associated time period. This evaluation should consider the impact of actions in mitigating energy reliability risks.

Likes 0

Dislikes 0

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Fong Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer

No

Document Name

Comment

SMUD and BANC support the comments submitted by the MRO NSRF.

Likes 0

Dislikes 0

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer

No

Document Name

Comment

Energy Reliability Assessment (ERA): Documented evaluation of the **registered BPS** resources that supply electrical energy and ancillary services for the Bulk Power System to **reliably** meet the expected demand during **the associated a specified** time period. ERAs account for the impact of

actions **taken to minimize the impact of energy emergencies** that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).

Likes 0

Dislikes 0

Response

Robert Follini - Avista - Avista Corporation - 3

Answer

No

Document Name

Comment

Further clarity to the proposed definition of Energy Reliability Assessment. To address our concerns, we offer the following edits in boldface for consideration:

Energy Reliability Assessment (ERA): Documented evaluation of the **registered BPS** resources that supply electrical energy and ancillary services for the Bulk Power System to meet the expected demand during **a specified** time period. ERAs account for the impact of actions **taken to minimize the impact of energy emergencies** that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).

Likes 0

Dislikes 0

Response

Robert Blackney - Edison International - Southern California Edison Company - 1

Answer

No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer No

Document Name

Comment

NV Energy is of the opinion that further clarity would benefit the proposed definition of Energy Reliability Assessment. To address our concerns, we offer the following edits in boldface for consideration:

Energy Reliability Assessment (ERA): Documented evaluation of the **registered BPS** resources that supply electrical energy and ancillary services for the Bulk Power System to **reliably** meet the expected demand during **the associated a specified** time period. ERAs account for the impact of actions **taken to minimize the impact of energy emergencies** that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).

Likes 0

Dislikes 0

Response

Aaron Staley - Orlando Utilities Commission - 1

Answer No

Document Name

Comment

See Tacoma Power comments.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer No

Document Name

Comment

Further clarity to the proposed definition of Energy Reliability Assessment is needed. To address our concerns, we offer the following edits in boldface for consideration:

Energy Reliability Assessment (ERA): Documented evaluation of the **registered BPS** resources that supply electrical energy and ancillary services for the Bulk Power System to meet the expected demand during a **specified** time period. ERAs account for the impact of actions **taken to minimize the impact of energy emergencies** that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).

Likes 1 American Municipal Power, 5, Ritts Amy

Dislikes 0

Response

LaKenya Vannorman - LaKenya Vannorman On Behalf of: Chris Gowder, Florida Municipal Power Agency, 5, 6, 3; Jade Bulitta, Florida Municipal Power Agency, 5, 6, 3; Navid Nowakhtar, Florida Municipal Power Agency, 5, 6, 3; - LaKenya Vannorman, Group Name Florida Municipal Power Agency (FMMPA)

Answer No

Document Name

Comment

FMMPA supports and recommends implementation of Southern Company comments.

Likes 0

Dislikes 0

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer No

Document Name

Comment

SRP agrees and supports comments from MRO NSRF (with SMUD/Tacoma Power). SRP also believes that the definition doesn't actually state the time frames as near-term or seasonal but uses "associated time period" and "assessment period" instead. We would like for the drafting team to clarify the definition to include relevant time frames.

Likes 0

Dislikes 0

Response

Daniela Atanasovski - APS - Arizona Public Service Co. - 1

Answer No

Document Name	
Comment	
<p>AZPS asserts that the proposed new ERA definition is not sufficiently clear. The ERA definition lacks specificity regarding “associated time period” and suggests specifying the time period as what is written is nebulous . Additionally, it is not clear how “impact” is defined. To address our concerns, we offer the following edits in boldface and strikethrough for consideration:</p> <p>Energy Reliability Assessment (ERA): Documented evaluation of the registered BPS resources that supply electrical energy and ancillary services for the Bulk Power System to meet the expected demand during a specified time period. ERAs account for the impact of actions taken to minimize the impact of energy emergencies that occur sequentially throughout the assessment period, including the depletion and replenishment of finite upstream resources (e.g., fuel).</p>	
Likes	0
Dislikes	0
Response	
<p>Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2</p>	
Answer	No
Document Name	
Comment	
<p>It is unclear what is meant by “the depletion and replenishment of finite upstream resources (e.g., fuel),” as the language is very expansive and appears to require BAs to evaluate portions of the supply chain that they have no authority over and for which they cannot obtain meaningful data, such as uranium supply chains, gas pipeline design and operations, and railroad networks used for shipping coal. In addition, it is unclear whether the term “demand” is intended to have the meaning contained in the NERC Glossary or a different definition.</p>	
Likes	0
Dislikes	0
Response	
<p>Jennifer Neville - Western Area Power Administration - 6</p>	
Answer	No
Document Name	
Comment	
<p>During the 2/12/24 webinar, the SDT indicated the ERA definition is intended to apply to both the Operations and Planning horizons. If so, this definition needs to be considered with respect to how operational and/or planning models can model and/or evaluate ancillary services and fuel inventories as there may be limitations.</p>	

Additionally, more clarity is needed regarding which "ancillary services" must be included in the assessment. Is the intent to assess the adequacy of Operating Reserves; i.e. spinning and supplemental for purposes of providing regulation?

Likes 0

Dislikes 0

Response

Denise Sanchez - Denise Sanchez On Behalf of: Diana Torres, Imperial Irrigation District, 1, 6, 5, 3; George Kirschner, Imperial Irrigation District, 1, 6, 5, 3; Jesus Sammy Alcaraz, Imperial Irrigation District, 1, 6, 5, 3; Tino Zaragoza, Imperial Irrigation District, 1, 6, 5, 3; - Denise Sanchez

Answer No

Document Name

Comment

IID proposes the following changes to the new NERC defined term:

Energy Reliability Assessment (ERA) - Evaluation of the availability of key resources that supply electrical energy and ancillary services to the Bulk Power System in order to reliably meet the expected Demand during the time period being evaluated.

Likes 0

Dislikes 0

Response

Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer No

Document Name

Comment

Southern Company supports the EEI comments and would add that the second sentence defines the ERA **process**; it does not help define an ERA and should be struck.

Southern Company would suggest the following language changes:

Energy Reliability Assessment (ERA): Documented evaluation of the **registered BPS** resources that supply electrical energy and ancillary services for the Bulk Power System to meet the expected demand during **the associated and specified** time period.

Likes 0

Dislikes 0

Response

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Collaborators

Answer No

Document Name

Comment

We at ACES appreciate the effort put forth by the SDT to develop the new ERA definition. While we largely agree with the currently proposed definition, we do have some minor concerns that we feel warrant further scrutiny.

It is our opinion that the SDT should either capitalize all words that are currently defined in the NERC Glossary of Terms or provide alternate definitions for each term that are specific to the newly proposed Reliability Standard. Namely, both the terms “ancillary services” and “demand” are defined terms; however, neither is capitalized nor is an alternate definition provided. Therefore, it is unclear as to what these terms are referring to.

Additionally, we believe that the last sentence of the proposed definition should be removed. We believe the additional information provided by this sentence only creates additional confusion rather than reducing it.

Likes 0

Dislikes 0

Response

Elizabeth Davis - Elizabeth Davis On Behalf of: Thomas Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis, Group Name ISO/RTO Standards Review Committee

Answer No

Document Name

Comment

The ISO RTO Council Standards Review Committee (SRC) has three points we wish addressed to this question.

- 1) Flexible time period for ERAs.
- 2) Capitalization of terms if defined in the NERC Glossary.
- 3) Requirements for upstream fuel data.

The administrative effort needed to implement a standard must be balanced against the resulting reliability benefit. In this instance, the approach described in the standard will not work for all entities and will require some to replace existing processes that are working well with something that is less effective and more administratively burdensome.

The IRC SRC supports the BA having the flexibility to determine the time period for the ERAs.

The IRC is proposing that the ERA Definition be amended to clarify what is meant by the term “ancillary services.” The SRC also recommends that the term “demand” be capitalized if the existing definition for “Demand” in the NERC Glossary is intended to apply; if the NERC Glossary definition is not intended to apply, the SRC recommends that a different term or phrase be used that more clearly indicates the intended meaning.

The SRC also notes that a portion of the definition, as currently written, appears to solely rely on the BA in determining depletion and replenishment of finite upstream resources (e.g., fuel). BA’s that do not own, manage, or operate resources are inherently subject to limited fuel / supply chain data and information. As a result, the current language presents a compliance impediment on the BA to procure such data. The SRC proposes the following

revisions to the ERA definition (below) and finally requests the SDT to review all SRC comments holistically as we believe the revised ERA definition aligns well with our other recommendations and still meets the intended Project purpose and scope.

Energy Reliability Assessment (ERA) - Evaluation of the *known ability* of resources that supply electrical energy and *reserves* for the Bulk Power System to reliably meet the expected Demand during the associated time period. *This evaluation should consider the impact of actions in mitigating energy reliability risks.*

Likes 0

Dislikes 0

Response

Stephanie Kenny - Edison International - Southern California Edison Company - 6

Answer

No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Darcy O'Connell - California ISO - 2

Answer

No

Document Name

Comment

In addition to supporting comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee, CAISO has the following comments:

- The way it is written right now, asking ERA to be completed by BA and checked by RC is bound to be marginally successful because these entities do not always have visibility to the “upstream resources” (e.g., fuel). There should be NG operators responsibility to share specific information with BAs and RC.
- Suggest using “Load forecast” instead of “expected demand”. “Load forecast” is used in OPA definition already.
- It would be beneficial to describe needed inputs of the ERA and what it is trying to achieve. “Reliably meet demand” is too broad. Prescriptive scope and scale will leave less room for guessing.
- Consider including time horizon into definition
- Phrase “the depletion and replenishment of finite upstream resource” leaves a lot interpretation on how far into the supply chain (natural gas) BAs and RCs will need to dig into. Suggest revising for better clarity on what is required
- Can the drafting team provide explanation on what does this mean: “impact of actions that occur sequentially throughout the assessment period”? Whose actions? Why “sequentially” as opposed to “concurrently”?

Likes 0

Dislikes 0

Response

Diane E Landry - Public Utility District No. 1 of Chelan County - 1,3,5,6, Group Name CHPD

Answer No

Document Name

Comment

Much of the information needed to meet the ERA is not data currently available to a BA. Chelan PUD recommends that NERC add load serving entities and/or load responsible entities as part of the NERC Functional Model. This way, the standard would be applicable to LSEs and/or LREs and they would be the entity responsible for compliance with this standard. Chelan PUD understands and recognizes that not all registered entities are responsible for the load within their BA footprint. Chelan PUD also recommends that another responsible entity be added to the NERC Functional Model that would allow entities to be part of a group that would be the responsible entity for the requirements of this standard, such as is defined for BAL-002 with the Reserve Sharing Group concept.

Likes 0

Dislikes 0

Response

Nicolas Turcotte - Hydro-Quebec (HQ) - 1

Answer Yes

Document Name

Comment

NPCC RSC is seeking clarity on what is meant by 'ancillary services' in the ERA definition.

The SDT may want to consider providing practical guidance in the Technical Rational as to the scope and scale of the fuel supply chain a BA needs to assess. The language in the current ERA definition ("the depletion and replenishment of finite upstream resources (e.g., fuel))" can seem very expansive and may appear to require BAs to evaluate portions of the supply chain for which a BA does not have the ability to obtain meaningful information.

It would be helpful to include the time horizon in the definition.

Likes 0

Dislikes 0

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Helen Lainis - Independent Electricity System Operator - 2	
Answer	Yes
Document Name	
Comment	
The SDT may want consider providing practical guidance in the Technical Rational as to the scope and scale of the fuel supply chain a BA needs to assess.	
Likes 0	
Dislikes 0	
Response	
Constantin Chitescu - Ontario Power Generation Inc. - 5	
Answer	Yes
Document Name	
Comment	
OPG supports NPCC Regional Standards Committee's comments: "NPCC RSC is seeking clarity on what is meant by 'ancillary services' in the ERA definition. The SDT may want to consider providing practical guidance in the Technical Rational as to the scope and scale of the fuel supply chain a BA needs to assess. The language in the current ERA definition ("the depletion and replenishment of finite upstream resources (e.g., fuel))" can seem very expansive and may appear to require BAs to evaluate portions of the supply chain for which a BA does not have the ability to obtain meaningful information."	
Likes 0	

Dislikes 0

Response

Junji Yamaguchi - Hydro-Quebec (HQ) - 5

Answer Yes

Document Name

Comment

NPCC RSC is seeking clarity on what is meant by 'ancillary services' in the ERA definition.

The SDT may want to consider providing practical guidance in the Technical Rational as to the scope and scale of the fuel supply chain a BA needs to assess. The language in the current ERA definition ("the depletion and replenishment of finite upstream resources (e.g., fuel))" can seem very expansive and may appear to require BAs to evaluate portions of the supply chain for which a BA does not have the ability to obtain meaningful information.

It would be helpful to include the time horizon in the definition.

Likes 0

Dislikes 0

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC

Answer Yes

Document Name

Comment

NPCC RSC is seeking clarity on what is meant by 'ancillary services' in the ERA definition.

The SDT may want to consider providing practical guidance in the Technical Rational as to the scope and scale of the fuel supply chain a BA needs to assess. The language in the current ERA definition ("the depletion and replenishment of finite upstream resources (e.g., fuel))" can seem very expansive and may appear to require BAs to evaluate portions of the supply chain for which a BA does not have the ability to obtain meaningful information.

Likes 0

Dislikes 0

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer	Yes
Document Name	
Comment	
No Additonal Comments	
Likes 0	
Dislikes 0	
Response	
Donald Lock - Talen Generation, LLC - 5	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Sean Steffensen - IDACORP - Idaho Power Company - 1	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Donna Wood - Tri-State G and T Association, Inc. - 1	
Answer	Yes
Document Name	
Comment	

Likes 0

Dislikes 0

Response

C. A. Campbell - LS Power Development, LLC - 5

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Holly Mitchell - NorthWestern Energy - NA - Not Applicable - WECC

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

2. The SDT developed a process that defines how both near-term and seasonal ERAs will be performed and specifies the requirements for both ERAs together. Are the process and the required parameters clear and understandable? If not, please provide the basis that supports your answer or suggestions for revisions. Please specify if comments are related to the near-term ERA, seasonal ERA, or both.

Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI

Answer No

Document Name

Comment

AECI would suggest splitting the operational (1-8 weeks ahead) analytics apart from the longer term (seasonal and years out). Many times these studies are performed by multiple departments and skillsets, not a solitary department or staff member. The near term focus accounts for known load and weather forecasts whereas the longer timer horizon will be based on assumptions typical of resource planning analysis. The seasonal ERA may be a better fit in the TOP-0XX-X draft standard.

Likes 0

Dislikes 0

Response

Diane E Landry - Public Utility District No. 1 of Chelan County - 1,3,5,6, Group Name CHPD

Answer No

Document Name

Comment

Chelan has hydro generation and for a hydro system like Chelan PUD's, an inventory concern may not show up until late in a season. While the requirement says the process can be updated more frequently than annually, is it expected that hydro inventory concerns not known at the beginning of the year should require a process update.

Likes 0

Dislikes 0

Response

Darcy O'Connell - California ISO - 2

Answer No

Document Name

Comment

In addition to supporting comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee, CAISO has the following comments:

- Propose to change to “three” days instead of “five” days, to better bridge the OPA process with ERA process.
- The 150% requirement had no technical rationale behind it and could not be provided by the drafting team. Currently, BAs operate with established reserve requirement that were established by their public utilities commission and vary greatly. Propose to include analysis and establishment of this number as BA responsibility that can be communicated to the RC. What is the rationale behind 150%?
- Will there be analysis done on how these requirements will affect Western Interconnection in particular? Will there be work done on regional standard for WECC? In the west, RC footprint does not match BA footprint. We have over 30 BAs in the West and only 2 US RCs.
- How are disagreements in mutually agreed schedules will be arbitrated?

Likes 0

Dislikes 0

Response

Stephanie Kenny - Edison International - Southern California Edison Company - 6

Answer

No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

C. A. Campbell - LS Power Development, LLC - 5

Answer

No

Document Name

Comment

While we are in general agreement with requirement R1, we believe R1 omits a factor that may have material and consequential impacts on energy assurance analysis, especially on the near-term analysis. In the introduction to the whitepaper “Considerations for Performing an Energy Reliability Assessment” dated March 2023, the ERATF states “[e]nergy reliability assessments are critical for assuring the reliable operation of the Bul Power System (BPS)” and “...natural gas-fired generation deliver energy to support intra-hour and intra-hour ramping to match variations in demand and energy production...” We agree with these statements and believe that that electric-gas coordination remains one of the most significant concerns of the energy transition, yet the proposed standard does little to address these specific concerns. As the recently revised reliability guideline for fuel assurance articulates states, an assessment of natural gas availability cannot be severed from how the BAs may commit and schedule natural gas-fired generators. Stated differently, natural gas generator fuel availability and operational flexibility is directly influenced by the BA’s generator commitment practices. Therefore, the BA must place the generator’s physical characteristics, its fuel supply characteristics, and the limiting conditions of the pipeline tariff in context with how the BA would expect to commit and schedule the generator in order to accurately determine whether energy is available in sufficient quantity in certain circumstances. In a recent example, a system operator’s apparent lack of awareness of how the electric and gas systems

work together led to operating day challenges and unexpected generator outages. The operating day during tight conditions is too late to recognize the differences between the timely and intraday markets or whether fuel must be taken ratably.

While we do not dispute that natural gas supply disruptions may be a concern and should be addressed, supply disruptions are a separate and distinct problem from the scheduling concerns we are raising. As an example, the PJM footprint experienced supply disruptions during Winter Storm Elliott (WSE), and those disruptions affected a minority of pipelines serving generators. However, PJM experienced generator outages on pipelines that were not affected by supply disruptions including generators located far from the production, gathering, and processing facilities most affected. PJM's analysis of WSE demonstrates that 90% of natural gas related outages were of generators that were not

committed before the end of the gas day timely nomination cycle suggesting commitment practices may have been at least as impactful as outages caused by supply disruptions.[1]. The reasons why BAs commit generators during the operating day (as opposed to the day ahead) are beyond the scope of these comments and the reliability standards, but the consequences of singularly focusing on generator capabilities without addressing how BA practices may constrain or expand those capabilities may risk leading to faulty analyses. We encourage the SDT to add a requirement along the lines of:

"1.2.3.5 How the BA expects to commit the generator and how such commitment practices may influence the generator's ability to obtain fuel."

[1] Slide 12 of PJM's *Winter Storm Elliott Continued Outage Analysis* dated March 9, 2023 accessed at: <https://www.pjm.com/-/media/committees-groups/committees/oc/2023/20230309/20230309-item-04a---winter-storm-elliott-outage-data-review.ashx>

Likes 0

Dislikes 0

Response

Elizabeth Davis - Elizabeth Davis On Behalf of: Thomas Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis, Group Name ISO/RTO Standards Review Committee

Answer

No

Document Name

Comment

Comments:

The IRC SRC has three points we are seeking to be addressed to this question.

- 1) Flexible frequency in performing ERAs.
- 2) Clarification of the term Operation Plan.
- 3) Clarification of intent of risk reduction mitigation measures.

The SRC suggests flexibility be provided to the BA in determining the frequency at which it performs its ERAs in the operating horizon.

R1.

The SRC proposes the following clarification to R1.1: "...each of the following time horizons"

The SRC requests that the term "assessment period" be clarified to indicate whether it refers to the period being assessed or the period during which the assessment is being performed. The SRC also recommends that the term "likely" in R2.1.7 be replaced with the term "credible."

R3.

The term "Operating Plans" may be misconstrued to mean actions that would be implemented in near real-time or during an emergency. Please clarify that the requirement is intended to refer to something along the lines of mitigation plans that could be implemented in advance of real-time or emergency conditions to reduce the risk in real-time. For example, 'Operating Plan(s)' could be replaced with '**mitigation measure(s)**' or '**risk reduction measure(s)**.'

The SRC also requests that the standard be revised to clarify whether these risk reduction measures are intended to be developed in response to the results of a particular ERA or whether a global list of potential risk reduction measures is intended to be developed before the ERA is performed (or whether BAs have the flexibility to choose either approach or use both approaches as needed in a complementary manner).

Likes 0

Dislikes 0

Response

Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer

No

Document Name

Comment

Southern Company supports the EEL comments and agrees that the seasonal ERA falls outside of the functional responsibilities of the Balancing Authority and should not be included in this standard.

Likes 0

Dislikes 0

Response

Denise Sanchez - Denise Sanchez On Behalf of: Diana Torres, Imperial Irrigation District, 1, 6, 5, 3; George Kirschner, Imperial Irrigation District, 1, 6, 5, 3; Jesus Sammy Alcaraz, Imperial Irrigation District, 1, 6, 5, 3; Tino Zaragoza, Imperial Irrigation District, 1, 6, 5, 3; - Denise Sanchez

Answer

No

Document Name

Comment

IID would like to see some clarification of the role of the Reliability Coordinator (RC) in ERA process.

IID has the following questions:

- Are ERA processes, scenarios, Operating Plans, and Corrective Action Plans only reviewed by RCs for completeness or will assumptions and conclusions also be evaluated?

- If RCs are approving the ERA processes of their BAs, do they have final approval authority over the setting of “predefined criteria” established by their BAs?
- Are there going to be guidelines for the RCs to follow in evaluating the above?

Likes 0

Dislikes 0

Response

Jennifer Neville - Western Area Power Administration - 6

Answer No

Document Name

Comment

Due to the amount of overlap in proposed BAL-007 and other standards, it is recommended the SDT work within the existing TOP-002 framework and expand it to accommodate Energy Reliability Assessments.

Likes 0

Dislikes 0

Response

Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

It is unclear whether the term “assessment period” in Requirement R1 refers to the period being assessed or the period during which the assessment is being performed.

Likes 0

Dislikes 0

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer No

Document Name

Comment

With regard to R3, the Operating Plans to mitigate risks associated with ERA scenarios are overlapping with EOP-011 requirements to have Emergency Operating Plans. Does this create a “Double Jeopardy” potential for BAs? Are these meant to be developed after a potential risk is identified or before? The risks of the scenarios listed in Attachment 1 seem to align with the potential emergency conditions of EOP-011. Why not lean on EOP-011 as the criteria for the Operating Plans and to prepare for potential risks as identified by the ERA process.

Additionally, does the process need to involve the RC reviewing each BAs ERA process and scenarios? Operating Plans developed as part of R3 should be included in the EOP-011 RC review process which again potentially creates a “Double Jeopardy” condition of duplicative requirements for both the RC and the BA entities.

Likes 0

Dislikes 0

Response

Daniela Atanasovski - APS - Arizona Public Service Co. - 1

Answer

No

Document Name

Comment

For R1, AZPS suggests the Standard Drafting Team specify the assessment period, define what is considered a season, and specify the granularity of the assessments as it is not clear (e.g., hourly assessments).

AZPS agrees with the need for filling the gap between the Planning Time horizon to the Operations Planning horizon; however, it also agrees with the following EEI comments:

While the proposed requirements are clear, we have a number of concerns as currently written. First, a Seasonal ERA falls outside of the functional responsibilities for the Balancing Authority. A seasonal ERA should be a planning function and is more appropriate to be performed as a Resource Planning function. It is also outside of the stated purpose and scope of the SAR for this time horizon. We suggest that the “Seasonal ERA” be removed from this standard and incorporated into a Resource Planning standard.

Next, in requirement R1.1, the Operations Planning Time Horizon is already defined by NERC in their Time Horizons document. Additionally, “Near-term” is not a defined horizon or even a defined time period. (see https://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf)

While the term “Near-term” is used inconsistently within NERC Reliability Standards and is included in the NERC Glossary (in part) as part of the term “Near-Term Transmission Planning Horizon,” its use in Requirement R1 is confusing. To address this concern, the SDT should align this standard to those defined time periods already defined by NERC. For example, the SDT could replace “Near-term” in BAL-007-1 with the NERC defined term of “Peak Demand” period. Noting that the NERC glossary of terms defines “Peak Demand” is defined as, “The highest hourly integrated Net Energy for Load within a Balancing Authority Area occurring within a given period (e.g., day, month, season, or year).”

With this in mind, a Peak Demand time period could be next-day to up to one month out from Real-time. This time period definition would place borders around the study dates that would be allowed within an ERA, however, this Peak Demand period would not tie the BA to a duration to perform ERAs. For lack of a better name this Peak Demand time period could be called “monthly Peak Demand period.”

EEI additionally finds the frequency and duration requirement language for Near-Term ERAs to be confusing in its attempt to provide flexibility. We maintain that the Balancing Authority should determine the frequency, duration, and granularity of the ERAs based on area, region, or market needs.

To address these concerns, we propose the following changes to R1 (in boldface):

R1. Each Balancing Authority shall document and maintain a Reliability Coordinator-reviewed Energy Reliability Assessment (ERA) process, which shall be reviewed **and updated as necessary every 24 months**. The ERA process document shall: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

1.1. Identify the frequency and duration of the ERAs with a corresponding rationale:

1.1.1. **The study dates for which an ERA may be performed encompass a monthly Peak Demand period defined at between day-ahead to no more than one month out from Real-time.**

1.1.2 **The ERA shall be performed during this time period at a frequency, duration, granularity, AND with a beginning study date as determined by the Balancing Authority to sufficiently assess the risk of energy emergencies.**

We are also concerned that within Requirement R1.2, there are terms that are unclear. Referring to the ERA starting conditions of the ERA {C}[A1]{C} {C}[A2]{C} as “base cases” infers base case model development for power flow models, which is not the intent of the requirement. To address this issue consider changing “base cases” to “expected conditions” under which the ERA would be performed.

Next, “Time series demand” is neither a NERC defined term, nor is it defined in the standard and needs to be clarified as to its intent. While we believe the term is intended to include the expected demand over each time-step of the study duration, we suggest the SDT consider using more descriptive language to codify the meaning.

To address our concerns, we suggest the proposed changes to Requirement R1.2 (in bold face below):

1.2 Include a process for the development of the base case **expected conditions** that includes but is not limited to the following up-to-date data:

1.2.1. **Expected demand over each time-step of the study duration.**

1.2.2. Demand response, as appropriate;

1.2.3. Generator capability considering known constraints of:

1.2.3.1. Availability, including planned outages, and flexibility;

1.2.3.2. Fuel supply and inventory concerns;

1.2.3.3. Fuel switching capabilities; and

1.2.3.4. Environmental constraints.

1.2.4. Energy transfer assumptions; and

1.2.5. Energy storage capability.

1.3. Include a documented rationale for the base case elements chosen in Requirement R1.2.

Finally, a review time of 24 months for the ERA Process would be a more practical period as it would allow more time to review performance throughout the year and allow the Balancing Authority to work through any needed changes.

Likes 0

Dislikes 0

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer No

Document Name

Comment

SRP agrees and supports comments from Tacoma Power. In addition, SRP is unclear on what the short-term time frame is because it's as short as five days and as long as 6 weeks. In addition, it is also unclear how often an ERA is needed to be performed given the lack of specificity in time frames. Is NERC expecting an ERA once per month? What is the expectation for seasonal ERAs?

Likes 0

Dislikes 0

Response

LaKenya Vannorman - LaKenya Vannorman On Behalf of: Chris Gowder, Florida Municipal Power Agency, 5, 6, 3; Jade Bulitta, Florida Municipal Power Agency, 5, 6, 3; Navid Nowakhtar, Florida Municipal Power Agency, 5, 6, 3; - LaKenya Vannorman, Group Name Florida Municipal Power Agency (FMPA)

Answer No

Document Name

Comment

FMPA supports and recommends implementation of Southern Company comments.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer No

Document Name

Comment

There are a number of concerns as currently written. First, a Seasonal ERA falls outside of the functional responsibilities for the Balancing Authority. A seasonal ERA should be a planning function and is more appropriate to be performed as a Resource Planning function. It is also outside of the stated purpose and scope of the SAR for this time horizon. We suggest that the "Seasonal ERA" be removed from this standard and incorporated into a Resource Planning standard.

Next, in requirement R1.1, the Operations Planning Time Horizon is already defined by NERC in their Time Horizons document. Additionally, "Near-term" is not a defined horizon or even a defined time period. (see https://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf)

While the term “Near-term” is used inconsistently within NERC Reliability Standards and is included in the NERC Glossary (in part) as part of the term “Near-Term Transmission Planning Horizon”, its use in Requirement R1 is confusing. To address this concern, the SDT should align this standard to those defined time periods already defined by NERC. For example, the SDT could replace “Near-term” in BAL-007-1 with the NERC defined term of “Peak Demand” period. Noting that the NERC glossary of terms defines “Peak Demand” is defined as, “The highest hourly integrated Net Energy for Load within a Balancing Authority Area occurring within a given period (e.g., day, month, season, or year).”

With this in mind, a Peak Demand time period could be next day to up to one month out from Real-time. This time period definition would place borders around the study dates that would be allowed within an ERA, however, this Peak Demand period would not tie the BA to a duration to perform ERAs. For lack of a better name this Peak Demand time period could be called “monthly Peak Demand period.”

The frequency and duration requirement language for Near-Term ERAs to be confusing in its attempt to provide flexibility. We maintain that the Balancing Authority should determine the frequency, duration, and granularity of the ERAs based on area, region, or market needs.

To address these concerns, we propose the following changes to R1 (in boldface):

R1. Each Balancing Authority shall document and maintain a Reliability Coordinator-reviewed Energy Reliability Assessment (ERA) process, which shall be reviewed **and updated as necessary every 24 months**. The ERA process document shall: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

1.1. Identify the frequency and duration of the ERAs with a corresponding rationale:

1.1.1. **The study dates for which an ERA may be performed encompass a monthly Peak Demand period defined at between day-ahead to no more than one month out from Real-time.**

1.1.2 **The ERA shall be performed during this time period at a frequency, duration, granularity, AND with a beginning study date as determined by the Balancing Authority to sufficiently assess the risk of energy emergencies.**

There are terms that are unclear within Requirement R1.2. Referring to the ERA starting conditions of the ERA as “base cases” infers base case model development for power flow models, which is not the intent of the requirement. To address this issue consider changing “base cases” to “expected conditions” under which the ERA would be performed.

Next, “Time series demand” is neither a NERC defined term, nor is it defined in the standard and needs to be clarified as to its intent. While we believe the term is intended to include the expected demand over each time-step of the study duration, we suggest the SDT consider using more descriptive language to codify the meaning.

To address our concerns, we suggest the proposed changes to Requirement R1.2 (in bold face below):

1.2 Include a process for the development of the **expected conditions** that includes but is not limited to the following up-to-date data:

1.2.1. **Expected demand over each time-step of the study duration.**

1.2.2. Demand response, as appropriate;

1.2.3. Generator capability considering known constraints of:

1.2.3.1. Availability, including planned outages, and flexibility;

1.2.3.2. Fuel supply and inventory concerns;

1.2.3.3. Fuel switching capabilities; and

1.2.3.4. Environmental constraints.

1.2.4. Energy transfer assumptions; and

1.2.5. Energy storage capability.

1.3. Include a documented rationale for the elements chosen in Requirement R1.2.

Finally, a review time of 24 months for the ERA Process would be a more practical period as it would allow more time to review performance throughout the year and allow the Balancing Authority to work through any needed changes.

Likes 0

Dislikes 0

Response

Aaron Staley - Orlando Utilities Commission - 1

Answer

No

Document Name

Comment

See Tacoma Power comments.

Likes 0

Dislikes 0

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer

No

Document Name

Comment

While the proposed requirements are clear, we have a number of concerns as currently written. First, a Seasonal ERA falls outside of the functional responsibilities for the Balancing Authority. A seasonal ERA should be a planning function and is more appropriate to be performed as a Resource Planning function. It is also outside of the stated purpose and scope of the SAR for this time horizon. We suggest that the "Seasonal ERA" be removed from this standard and incorporated into a Resource Planning standard.

Next, in requirement R1.1, the Operations Planning Time Horizon is already defined by NERC in their Time Horizons document. Additionally, "Near-term" is not a defined horizon or even a defined time period. (see https://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf)

While the term "Near-term" is used inconsistently within NERC Reliability Standards and is included in the NERC Glossary (in part) as part of the term "Near-Term Transmission Planning Horizon", its use in Requirement R1 is confusing. To address this concern, the SDT should align this standard to those defined time periods already defined by NERC. For example, the SDT could replace "Near-term" in BAL-007-1 with the NERC defined term of "Peak Demand" period. Noting that the NERC glossary of terms defines "Peak Demand" is defined as, "The highest hourly integrated Net Energy for Load within a Balancing Authority Area occurring within a given period (e.g., day, month, season, or year)."

With this in mind, a Peak Demand time period could be next-day to up to one month out from Real-time. This time period definition would place borders around the study dates that would be allowed within an ERA, however, this Peak Demand period would not tie the BA to a duration to perform ERAs. For lack of a better name this Peak Demand time period could be called “monthly Peak Demand period.”

NV Energy additionally finds the frequency and duration requirement language for Near-Term ERAs to be confusing in its attempt to provide flexibility. We maintain that the Balancing Authority should determine the frequency, duration, and granularity of the ERAs based on area, region, or market needs.

To address these concerns, we propose the following changes to R1 (in boldface):

R1. Each Balancing Authority shall document and maintain a Reliability Coordinator-reviewed Energy Reliability Assessment (ERA) process, which shall be reviewed **at least annually and updated, if necessary and updated as necessary every 24 months**. The ERA process document shall: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

1.1. Identify the frequency and duration of the ERAs with a corresponding rationale **for each following time horizons**:

1.1.1. Near-term; and **The study dates for which an ERA may be performed encompass a monthly Peak Demand period defined at between day-ahead to no more than one month out from Real-time.**

1.1.1.1. **The end of the near-term assessment period shall be greater than five days and less than six weeks from the start of the assessment.**

1.1.1.2 **Each subsequent near-term assessment period shall partially overlap the previous near-term assessment period.**

1.1.2 **Seasonal; The ERA shall be performed during this time period at a frequency, duration, granularity, AND with a beginning study date as determined by the Balancing Authority to sufficiently assess the risk of energy emergencies.**

1.1.2.1 **Seasonal ERAs shall be performed for a minimum of two seasons that cover a calendar year that is representative of seasonal risks for operations.**

1.1.2.2 **Document a deadline for completing each seasonal ERA based on mitigation options for each seasonal ERA.**

We are also concerned that within Requirement R1.2, there are terms that are unclear. Referring to the ERA starting conditions of the ERA as “base cases” infers base case model development for power flow models, which is not the intent of the requirement. To address this issue consider changing “base cases” to “expected conditions” under which the ERA would be performed.

Next, “Time series demand” is neither a NERC defined term, nor is it defined in the standard and needs to be clarified as to its intent. While we believe the term is intended to include the expected demand over each time-step of the study duration, we suggest the SDT consider using more descriptive language to codify the meaning.

To address our concerns, we suggest the proposed changes to Requirement R1.2 (in bold face below):

1.2 Include a process for the development of the base case **expected conditions** that includes but is not limited to the following up-to-date data:

1.2.1. **Time series demand; Expected demand over each time-step of the study duration.**

1.2.2. Demand response, as appropriate;

1.2.3. Generator capability considering known constraints of:

1.2.3.1. Availability, including planned outages, and flexibility;

1.2.3.2. Fuel supply and inventory concerns;

- 1.2.3.3. Fuel switching capabilities; and
- 1.2.3.4. Environmental constraints.
- 1.2.4. **Documented** Energy transfer assumptions; and
- 1.2.5. Energy storage capability.

1.3. Include a documented rationale for the base case elements chosen in Requirement R1.2.

Finally, a review time of 24 months for the ERA Process would be a more practical period as it would allow more time to review performance throughout the year and allow the Balancing Authority to work through any needed changes.

Likes 0

Dislikes 0

Response

Robert Blackney - Edison International - Southern California Edison Company - 1

Answer

No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Robert Follini - Avista - Avista Corporation - 3

Answer

No

Document Name

Comment

There are a number of concerns as currently written. First, a Seasonal ERA falls outside of the functional responsibilities for the Balancing Authority. A seasonal ERA should be a planning function and is more appropriate to be performed as a Resource Planning function. It is also outside of the stated purpose and scope of the SAR for this time horizon. We suggest that the "Seasonal ERA" be removed from this standard and incorporated into a Resource Planning standard.

Next, in requirement R1.1, the Operations Planning Time Horizon is already defined by NERC in their Time Horizons document. Additionally, "Near-term" is not a defined horizon or even a defined time period. (see https://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf)

While the term "Near-term" is used inconsistently within NERC Reliability Standards and is included in the NERC Glossary (in part) as part of the term "Near-Term Transmission Planning Horizon", its use in Requirement R1 is confusing. To address this concern, the SDT should align this standard to

those defined time periods already defined by NERC. For example, the SDT could replace “Near-term” in BAL-007-1 with the NERC defined term of “Peak Demand” period. Noting that the NERC glossary of terms defines “Peak Demand” is defined as, “The highest hourly integrated Net Energy for Load within a Balancing Authority Area occurring within a given period (e.g., day, month, season, or year).”

With this in mind, a Peak Demand time period could be next-day to up to one month out from Real-time. This time period definition would place borders around the study dates that would be allowed within an ERA, however, this Peak Demand period would not tie the BA to a duration to perform ERAs. For lack of a better name this Peak Demand time period could be called “monthly Peak Demand period.”

The frequency and duration requirement language for Near-Term ERAs to be confusing in its attempt to provide flexibility. We maintain that the Balancing Authority should determine the frequency, duration, and granularity of the ERAs based on area, region, or market needs.

To address these concerns, we propose the following changes to R1 (in boldface):

R1. Each Balancing Authority shall document and maintain a Reliability Coordinator-reviewed Energy Reliability Assessment (ERA) process, which shall be reviewed **and updated as necessary every 24 months**. The ERA process document shall: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

1.1. Identify the frequency and duration of the ERAs with a corresponding rationale

1.1.1. **The study dates for which an ERA may be performed encompass a monthly Peak Demand period defined at between day-ahead to no more than one month out from Real-time.**

1.1.2 **The ERA shall be performed during this time period at a frequency, duration, granularity, AND with a beginning study date as determined by the Balancing Authority to sufficiently assess the risk of energy emergencies.**

There are terms that are unclear within Requirement R1.2. Referring to the ERA starting conditions of the ERA as “base cases” infers base case model development for power flow models, which is not the intent of the requirement. To address this issue consider changing “base cases” to “expected conditions” under which the ERA would be performed.

Next, “Time series demand” is neither a NERC defined term, nor is it defined in the standard and needs to be clarified as to its intent. While we believe the term is intended to include the expected demand over each time-step of the study duration, we suggest the SDT consider using more descriptive language to codify the meaning.

To address our concerns, we suggest the proposed changes to Requirement R1.2 (in bold face below):

1.2 Include a process for the development of the base case **expected conditions** that includes but is not limited to the following up-to-date data:

1.2.1.

1.2.2. Demand response, as appropriate;

1.2.3. Generator capability considering known constraints of:

1.2.3.1. Availability, including planned outages, and flexibility;

1.2.3.2. Fuel supply and inventory concerns;

1.2.3.3. Fuel switching capabilities; and

1.2.3.4. Environmental constraints.

1.2.4. Energy transfer assumptions; and

1.2.5. Energy storage capability.

1.3. Include a documented rationale for the base case elements chosen in Requirement R1.2.

Finally, a review time of 24 months for the ERA Process would be a more practical period as it would allow more time to review performance throughout the year and allow the Balancing Authority to work through any needed changes.

Likes 0

Dislikes 0

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer

No

Document Name

Comment

There are a number of concerns as currently written. First, a Seasonal ERA falls outside of the functional responsibilities for the Balancing Authority. A seasonal ERA should be a planning function and is more appropriate to be performed as a Resource Planning function. It is also outside of the stated purpose and scope of the SAR for this time horizon. We suggest that the "Seasonal ERA" be removed from this standard and incorporated into a Resource Planning standard.

Next, in requirement R1.1, the Operations Planning Time Horizon is already defined by NERC in their Time Horizons document. Additionally, "Near-term" is not a defined horizon or even a defined time period. (see https://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf)

While the term "Near-term" is used inconsistently within NERC Reliability Standards and is included in the NERC Glossary (in part) as part of the term "Near-Term Transmission Planning Horizon", its use in Requirement R1 is confusing. To address this concern, the

SDT should align this standard to those defined time periods already defined by NERC. For example, the SDT could replace "Near-term" in BAL-007-1 with the NERC defined term of "Peak Demand" period. Noting that the NERC glossary of terms defines "Peak Demand" is defined as, "The highest hourly integrated Net Energy for Load within a Balancing Authority Area occurring within a given period (e.g., day, month, season, or year)."

With this in mind, a Peak Demand time period could be next-day to up to one month out from Real-time. This time period definition would place borders around the study dates that would be allowed within an ERA, however, this Peak Demand period would not tie the BA to a duration to perform ERAs. For lack of a better name this Peak Demand time period could be called "monthly Peak Demand period."

The frequency and duration requirement language for Near-Term ERAs to be confusing in its attempt to provide flexibility. We maintain that the Balancing Authority should determine the frequency, duration, and granularity of the ERAs based on area, region, or market needs.

To address these concerns, we propose the following changes to R1 (in boldface):

R1. Each Balancing Authority shall document and maintain a Reliability Coordinator-reviewed Energy Reliability Assessment (ERA) process, which shall be reviewed **at least annually and updated, if necessary and updated as necessary every 24 months**. The ERA process document shall: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

1.1. Identify the frequency and duration of the ERAs with a corresponding rationale **for each following time horizons**:

1.1.1. Near-term; and **The study dates for which an ERA may be performed encompass a monthly Peak Demand period defined at between day-ahead to no more than one month out from Real-time.**

1.1.1.1. The end of the near-term assessment period shall be greater than five days and less than six weeks from the start of the assessment.

1.1.1.2 Each subsequent near-term assessment period shall partially overlap the previous near-term assessment period.

1.1.2 Seasonal; The ERA shall be performed during this time period at a frequency, duration, granularity, AND with a beginning study date as determined by the Balancing Authority to sufficiently assess the risk of energy emergencies.

1.1.2.1 Seasonal ERAs shall be performed for a minimum of two seasons that cover a calendar year that is representative of seasonal risks for operations.

1.1.2.2 Document a deadline for completing each seasonal ERA based on mitigation options for each seasonal ERA.

There are terms that are unclear within Requirement R1.2. Referring to the ERA starting conditions of the ERA as “base cases” infers base case model development for power flow models, which is not the intent of the requirement. To address this issue consider changing “base cases” to “expected conditions” under which the ERA would be performed.

Next, “Time series demand” is neither a NERC defined term, nor is it defined in the standard and needs to be clarified as to its intent. While we believe the term is intended to include the expected demand over each time-step of the study duration, we suggest the SDT consider using more descriptive language to codify the meaning.

To address our concerns, we suggest the proposed changes to Requirement R1.2 (in bold face below):

1.2 Include a process for the development of the base case **expected conditions** that includes but is not limited to the following up-to-date data:

1.2.1. **Time series demand; Expected demand over each time-step of the study duration.**

1.2.2. Demand response, as appropriate;

1.2.3. Generator capability considering known constraints of:

1.2.3.1. Availability, including planned outages, and flexibility;

1.2.3.2. Fuel supply and inventory concerns;

1.2.3.3. Fuel switching capabilities; and

1.2.3.4. Environmental constraints.

1.2.4. **Documented** Energy transfer assumptions; and

1.2.5. Energy storage capability.

1.3. Include a documented rationale for the base case elements chosen in Requirement R1.2.

Finally, a review time of 24 months for the ERA Process would be a more practical period as it would allow more time to review performance throughout the year and allow the Balancing Authority to work through any needed changes.

Dislikes 0

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Fong Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer

No

Document Name

Comment

SMUD and BANC support the comments submitted by Tacoma Power.

Likes 0

Dislikes 0

Response

Shannon Mickens - Shannon Mickens On Behalf of: Joshua Phillips, Southwest Power Pool, Inc. (RTO), 2; - Shannon Mickens, Group Name SPP RTO

Answer

No

Document Name

Comment

SPP has a concern that the proposed standard might conflict with other standards (TOP-002, EOP-011). It's our understanding that the assessment has the potential to overlap or create conflict.

We recommend that the drafting team coordinates with the TOP and EOP drafting teams to ensure that all requirements align to reduce conflict as well as address the appropriate time intervals that are not covered in those standards.

Likes 0

Dislikes 0

Response

Alan Kloster - Alan Kloster On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Alan Kloster

Answer

No

Document Name

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) to question #2. Evergy also encourages the drafting team to review the comments regarding administrative effort versus reliability benefit in the MRO NSRF's response to question #2 which Evergy also support and incorporate by reference.

Likes 0

Dislikes 0

Response

Dania Colon - Orlando Utilities Commission - 5

Answer

No

Document Name

Comment

The process and the required parameters are not clear and understandable. FRCC has a concern that this requirement is written to only address BAs and does not allow for studies to be performed at a Reserve Sharing Group level instead of individual BAs. The FRCC RC has a Reserve Sharing Group with nine BAs. With the current language, the BAs and RC would be responsible for reviewing nine BAs near-term and seasonal time horizons scenarios and document those reviews along with the administrative burden of compiling evidence for all of those reviews (R4). In addition, the creation of compliance evidence for the implementation of the ongoing near-term ERAs will be cumbersome due to the large number of studies and their documented scenarios, rationale, and criteria.

The FRCC already performs coordinated next-day, 8-day, 28-day, and four seasonal studies for the entire FRCC RC area without the requirement of compiling burdensome evidence noted by the new standard requirements. If each of the nine BAs in the FRCC RC area were required to independently perform the near-term and seasonal ERAs as described in this standard, it would be a constant influx and overabundance of study results for the RC to review without improving the situational awareness that we currently achieve through our coordinated next-day, 8-day, 28-day, and seasonal assessments.

The near-term language used in this requirement is not a NERC defined time horizon. The NERC Time Horizons document outlines the appropriate time horizons to be utilized for each requirement (see excerpt below).

"When establishing a time horizon for each requirement, the following criteria should be used:

1. Long-term Planning – a planning horizon of one year or longer.
2. Operations Planning – operating and resource plans from day-ahead, up to, and including seasonal.
3. Same-day Operations – routine actions required within the timeframe of a day, but not real-time.
4. Real-time Operations – actions required within one hour or less to preserve the reliability of the bulk electric system.
5. Operations Assessment – follow-up evaluations and reporting of real-time operations."

The timing requirements outlined for the near-term language are confusing and difficult to apply to a calendar-based approach. For example, "the end of the near-term assessment period shall be greater than five days and less than six weeks from the start of the assessment" is confusing. FRCC recommends a simpler approach to the requirement like, 28-day assessment for daily peak demand.

In addition, FRCC believes the intent is for these studies to include any known transmission or generation outages in the study scenarios. It would be clearer to state that in the scenario concepts.

Likes 0

Dislikes 0

Response

Richard Vendetti - NextEra Energy - 5

Answer

No

Document Name

Comment

Florida Power & Light does not agree that the required parameters are clear and understandable. A Seasonal ERA as defined by the SDT is within the responsibility of the Resource Planner; not the Balancing Authority. It is also outside of the stated purpose and scope of the SAR for this time horizon. The "Seasonal ERA" is also the responsibility of the Resource Planner to analyze "Seasonal Load variation". Additionally, in the term "Near-term" is used inconsistently within NERC standards and including another time frame called "Near-term" can cause confusion and any proposed subset time periods of the NERC defined horizon should also be tied to existing NERC defined time periods for clarity.

Likes 0

Dislikes 0

Response

David Jendras Sr - Ameren - Ameren Services - 3

Answer

No

Document Name

Comment

Ameren agrees with and supports MISO's comments.

Likes 0

Dislikes 0

Response

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; John Merrell, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; - Jennie Wike, Group Name Tacoma Power

Answer

No

Document Name

Comment

Tacoma Power supports the SDT’s approach to either creating a new BAL Standard like BAL-007 or revising an existing BAL Standard (i.e., BAL-002). Tacoma Power does not support adding Balancing Authority responsibilities to the TOP Standards, even though TOP-002-5 R8 will include similar seasonal assessments.

However, additional changes are needed to BAL-007 to make the process and the required parameters more clear and understandable. The NERC standards should be results-based, focusing on the outcome to be achieved. A results-based focus would accommodate alternative methods for assessing energy reliability that are equally as good as the approach currently described under BAL-007, while allowing entities who would like to use the method outlined under BAL-007 the ability to do so as well. As written, BAL-007 limits “how” an entity may perform the ERA evaluation.

To rectify this, Tacoma Power recommends revising the standard to focus on the objective, i.e. ensuring energy sufficiency, by requiring the completion of the three (3) basic activities outlined in the Technical Rationale (page 2).

- Developing and documenting ERA process, scenario, and Operating Plans
- Performing ERAs and comparing to an Energy Reserve Margin that allows for regional flexibility; and
- If Energy Reserve Margins are not met, implementing Operating Plan to mitigate energy reliability risks

Ultimately, the BA should have some discretion in determining when to develop a formal written Operating Plan(s) within its ERA process as, the further out an Operating Plan is written, the more times it will need to be modified. The proposed new Requirements should not require specific mitigating actions, such as a fixed amount of generating resources on standby. In addition, the value of advance planning may vary by system. Next day planning may be sufficient for systems with a smaller risk profile while systems with higher risk profile may benefit from additional advance planning. Tacoma Power looks forward to engaging with the SDT during future interactions to help draft language that allows for multiple ERA evaluation approaches, while still providing objective and results-based measures.

Likes 3	Public Utility District No. 1 of Snohomish County, 1, Rhoads Alyssia; Orlando Utilities Commission, 1, Staley Aaron; American Municipal Power, 5, Ritts Amy
Dislikes 0	

Response

Kinte Whitehead - Exelon - 3

Answer	No
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Document Name	
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Comment

Exelon supports the comments submitted by the

Likes 0	
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Dislikes 0	
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Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer	No
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Document Name	
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Comment

BPA recommends the SDT revise R1. The specifics called for in R1.2.3 seem like good things. However, for a hydro system like BPA's, an inventory concern may not show up until late in a season. While the requirement says the process can be updated more frequently than annually, is it expected that hydro inventory concerns not known at the beginning of the year should require a process update, replete with review/approval by the RC? BPA does not understand the intent behind the R1.2.4 requirement and seeks clarity from the SDT.

Additionally, BPA is unclear as to the detail needed in the base case/studies that would sufficiently distinguish it from a transfer limit study done by the TO or TOP.

Likes 0

Dislikes 0

Response

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro

Answer

No

Document Name

Comment

The Standard appears to be drafted as a methodology and is very prescriptive on how to achieve the identified objectives stated in the Purpose section of the Standard, i.e. mitigate risks of energy emergencies due to resource mix and fuel availability.

BC Hydro suggests that the Standard only mandate that the entities develop an ERA process and/or procedure, perform ERAs accordingly, and implement corrective actions if energy deficiencies are identified. Existing Standards EOP-011 and TOP-002 offer a robust platform to build on and avoid duplicative requirements.

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - 1,3 - WECC, Texas RE

Answer

No

Document Name

Comment

PNMR supports EEI's recommended changes to R1 and the frequency change from 1 year to 24 months for ERA process review and reassignment of responsibility for the Seasonal ERA studies from the Balancing Authority to the Resource Planner.

Likes 0

Dislikes 0

Response

Nazra Gladu - Manitoba Hydro - 1

Answer No

Document Name

Comment

Manitoba Hydro agrees with comments provided by the MRO NSRF and the recommendation to have the focus be results-based. This will enable BAs who are most familiar the unique aspects of their respective systems best design, schedule and perform ERAs.

Likes 0

Dislikes 0

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer No

Document Name

Comment

“See comments submitted by the Edison Electric Institute”

Likes 0

Dislikes 0

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer No

Document Name

Comment

Duke Energy supports and recommends implementation of EEI provided comments. Additionally, the process should require the BA to define normal load and high load assumptions for both the near-term and seasonal ERAs. In some instances of a near-term ERA, the ‘high load’ assumption may not be much different to the ‘normal load’ assumption, given other forecast related information. Having the BA define such parameters in the RC-reviewed process will allow the RC to weigh-in on such assumptions.

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1

Answer No

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Christine Kane - WEC Energy Group, Inc. - 3, Group Name WEC Energy Group

Answer No

Document Name

Comment

WEC Energy Group supports the MRO NSRF comments.

Likes 0

Dislikes 0

Response

Sean Steffensen - IDACORP - Idaho Power Company - 1

Answer No

Document Name

Comment

Any requirements regarding frequency of assessments should be based on the specific facts and circumstances of the region. Depending on the region and season, having an affirmative requirement in all months or for all weeks (i.e., in the near-term assessment) may not be necessary. Further, the requirement for overlapping assessment periods for the near-term ERAs may be unnecessary in all seasons and may only be helpful in higher-risk or higher-load seasons. Additionally, the ERA process in general appears duplicative of other planning processes that utilities routinely undertake, including Integrated Resource Planning, Seasonal Readiness planning, risk management, resource adequacy planning, and month-ahead and day-ahead planning. It is unclear how this process is intended to differ from those, nor is it clear what benefit it would provide above and beyond those existing processes.

Likes 0

Dislikes 0

Response

Stephen Whaite - Stephen Whaite On Behalf of: Lindsey Mannion, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer No

Document Name

Comment

RF recommends wind, solar, and hydro/rain forecasts be included as an explicit category under R1 Part 1.2.3.

Likes 0

Dislikes 0

Response

Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion

Answer No

Document Name

Comment

Dominion Energy supports the comments submitted by EEI.

Likes 0

Dislikes 0

Response

Anna Martinson - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO Group

Answer No

Document Name

Comment

Recognizing the challenge of drafting a standard from scratch, the MRO NSRF sincerely appreciates the effort dedicated to crafting BAL-007. That said, the MRO NSRF has several concerns regarding BAL-007 and offers the following recommendations.

1. BAL-007 should be results-based, focusing on the outcome to be achieved. A results-based focus would accommodate a variety of methods for assessing energy reliability that are equally as valid as the approach outlined under BAL-007. The standard should accommodate the approach

currently outlined under BAL-007 and the flexibility for BAs to employ alternate approaches now and into the future without having to revise the standard.

The MRO NSRF notes this could be accomplished by requiring the three (3) activities outlined in the Technical Rationale (page 2).

- Developing and documenting ERA process, scenario, and Operating Plans

- Performing ERAs and comparing to Energy Reserve Margin; and

- If Energy Reserve Margins are not met, implementing an Operating Plan to mitigate energy reliability risks

2. Expand existing TOP-002 versus drafting a new standard (e.g. BAL-007). For example (using existing TOP-002, R4 as a model):

RX. Each Balancing Authority shall have a multi-day, forward looking Energy Reliability Assessment (ERA) that leads into its next day Operating Plan cited in Requirement R4 that addresses: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

4.1 Expected generation resource availability, commitment and dispatch

4.2 Expected energy transfers

4.3 Demand patterns

4.4 Capacity and energy reserve requirements, including deliverability capability

4.5 Relevant risk scenarios

4.6 Coordination with neighboring BAs

Working within the existing TOP-002 framework will eliminate the need to repeat existing requirements: R4 (entity notification) and R5 (providing a copy to the RC).

Thought and consideration should be given to administrative effort versus reliability benefit as the benefit associated with ERAs may vary by system. The Balancing Authority should have some discretion as to when an Operating Plan(s) is issued prior to next day as, the further out

an Operating Plan is written, the more times it will need to be modified. Existing TOP-002, requirement R5, provides a backstop for Operating Plans once an entity reaches next day.

Finally, language in the **FERC-NERC Winter Storm Elliott Report, Recommendation #8** could be another source from which to draw ideas as illustrated below:

Balancing Authorities should assess whether ... a multi-day risk assessment processes or advance or multi-day reliability commitments—are needed to address anticipated energy shortages or transmission system-related reliability problems... by performing energy risk assessments... BAs should consider the following:

A. how to account for uncertainty in load forecasts, generating unit fuel availability and extreme weather availability, and the effects of extreme weather across multiple regions; and

B. committing generating units prior to the onset of extreme weather

Likes 0

Dislikes 0

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer

No

Document Name

Comment

Black Hills Corporation agrees with EEI's comments: While the proposed requirements are clear, we have a number of concerns as currently written. First, a Seasonal ERA falls outside of the functional responsibilities for the Balancing Authority. A seasonal ERA should be a planning function and is more appropriate to be performed as a Resource Planning function. It is also outside of the stated purpose and scope of the SAR for this time horizon. We suggest that the "Seasonal ERA" be removed from this standard and incorporated into a Resource Planning standard.

Next, in requirement R1.1, the Operations Planning Time Horizon is already defined by NERC in their Time Horizons document. Additionally, "Near-term" is not a defined horizon or even a defined time period. (see https://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf)

While the term "Near-term" is used inconsistently within NERC Reliability Standards and is included in the NERC Glossary (in part) as part of the term "Near-Term Transmission Planning Horizon", its use in Requirement R1 is confusing. To address this concern, the SDT should align this standard to those defined time periods already defined by NERC. For example, the SDT could replace "Near-term" in BAL-007-1 with the NERC defined term of "Peak Demand" period. Noting that the NERC glossary of terms defines "Peak Demand" is defined as, "The highest hourly integrated Net Energy for Load within a Balancing Authority Area occurring within a given period (e.g., day, month, season, or year)."

With this in mind, a Peak Demand time period could be next-day to up to one month out from Real-time. This time period definition would place borders around the study dates that would be allowed within an ERA, however, this Peak Demand period would not tie the BA to a duration to perform ERAs. For lack of a better name this Peak Demand time period could be called "monthly Peak Demand period."

EEI additionally finds the frequency and duration requirement language for Near-Term ERAs to be confusing in its attempt to provide flexibility. We maintain that the Balancing Authority should determine the frequency, duration, and granularity of the ERAs based on area, region, or market needs.

To address these concerns, we propose the following changes to R1 (in boldface):

R1. Each Balancing Authority shall document and maintain a Reliability Coordinator-reviewed Energy Reliability Assessment (ERA) process, which shall be reviewed (*remove: at least annually and updated, if necessary*) and updated as necessary every 24 months. The ERA process document shall: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

1.1. Identify the frequency and duration of the ERAs with a corresponding rationale (*remove: for each following time horizons*):

1.1.1. (*Remove: Near-term; and*) The study dates for which an ERA may be performed encompass a monthly Peak Demand period defined at between day-ahead to no more than one month out from Real-time.

(remove: 1.1.1.1. **The end of the near-term assessment period shall be greater than five days and less than six weeks from the start of the assessment.**)

(remove: 1.1.1.2 *Each subsequent near-term assessment period shall partially overlap the previous near-term assessment period.*)

1.1.2 (remove: **Seasonal;**) **The ERA shall be performed during this time period at a frequency, duration, granularity, AND with a beginning study date as determined by the Balancing Authority to sufficiently assess the risk of energy emergencies.**

(remove: 1.1.2.1 **Seasonal ERAs shall be performed for a minimum of two seasons that cover a calendar year that is representative of seasonal risks for operations.**)

(remove: 1.1.2.2 Document a deadline for completing each seasonal ERA based on mitigation options for each seasonal ERA.)

We are also concerned that within Requirement R1.2, there are terms that are unclear. Referring to the ERA starting conditions of the ERA as “base cases” infers base case model development for power flow models, which is not the intent of the requirement. To address this issue consider changing “base cases” to “expected conditions” under which the ERA would be performed.

Next, “Time series demand” is neither a NERC defined term, nor is it defined in the standard and needs to be clarified as to its intent. While we believe the term is intended to include the expected demand over each time-step of the study duration, we suggest the SDT consider using more descriptive language to codify the meaning.

To address our concerns, we suggest the proposed changes to Requirement R1.2 (in bold face below):

1.2 Include a process for the development of the (remove: *base case*) **expected conditions** that includes but is not limited to the following up-to-date data:

1.2.1. (remove: **Time series demand**); **Expected demand over each time-step of the study duration.**

1.2.2. Demand response, as appropriate;

1.2.3. Generator capability considering known constraints of:

1.2.3.1. Availability, including planned outages, and flexibility;

1.2.3.2. Fuel supply and inventory concerns;

1.2.3.3. Fuel switching capabilities; and

1.2.3.4. Environmental constraints.

1.2.4. (remove: **Documented**) Energy transfer assumptions; and

1.2.5. Energy storage capability.

1.3. Include a documented rationale for the (remove: *base case*) elements chosen in Requirement R1.2.

Finally, a review time of 24 months for the ERA Process would be a more practical period as it would allow more time to review performance throughout the year and allow the Balancing Authority to work through any needed changes.

Likes 0

Dislikes 0

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Entity Monitoring

Answer No

Document Name

Comment

Seasonal performance may cause confusion in evaluating compliance. Is a “Summer” Seasonal ERA to be performed for two summers or spring and summer? If a Fall Seasonal ERA is then performed is it summer and fall or fall and winter? Or fall of year X and fall of year Y? The technical rationale does an excellent job of illustrating the near-term concept and WECC suggests the SDT do the same for seasonal to avoid discussion or confusion after the Standard is enforceable. Compliance risk often causes unwanted scenarios.

The language appears to introduce terms that may not be widely known or understood. For instance- Time series demand—is that forecasted Demand or something different? A thorough scrub to ensure Glossary of Terms usage is correct and meets style guidelines (e.g., Contingency is an approved Glossary of Terms term and is used extensively but not capitalized. Attachment 1 calls out an “Energy contingency” and “Fuel contingency” but those terms are used sparingly—and do not follow style guide to be capitalized in the Standard). “base case”- understood by planners but perhaps not by BAs/RCs.

Part 1.3- Unclear as to what a “base case element “ is and what is expected here. The word Element is a defined term in the NERC Glossary. Should it be capitalized here? Part 1.2 says to include all the Part 1.2 subparts. Consider changing Part 1.3 to say “Include a documented rationale for data in Requirement R1.2.”

Would 1.2.5 be included in 1.2.3? Technical rationale could illustrate expectations.

Likes 0

Dislikes 0

Response

Richard Gilbert - Florida Reliability Coordinating Council – Member Services Division - 8 - SERC

Answer No

Document Name

Comment

The process and the required parameters are not clear and understandable.

FRCC’s first concern is that this standard only addresses requirements for Balancing Authorities (BAs) and Reliability Coordinators (RCs), but does not allow for Reserve Sharing Groups (RSGs) or collections of BAs to perform these requirements. FRCC, which has an RSG comprised of nine (9) BAs, believes the “Applicability” of the standard should be written more flexibly to allow for BAs *or RSGs or Collection of BAs*. By allowing for RSGs or Collection of BAs, FRCC RC would then be responsible to review ERA processes for one RSG or Collection of BAs, as opposed to nine (9) separate BAs, which is administratively efficient without any sacrifice to reliability. By contrast, without the addition of RSGs or Collection of BAs, the RC would be responsible not only to review the ERA processes for nine (9) separate BAs as well as their corresponding near-term and seasonal time horizon scenarios each time they are run, but also to compile all reviews and responses of each individual entity in order to demonstrate compliance for RC function. The tracking of multiple reviews and responses, along with compiling the evidence to support completion, on this individual basis would cause a significant administrative burden on the RC function. Having nine (9) BAs each submitting individual process documents (and revisions) along with the large number of scenarios would require substantial additions to RC personnel in order to remain in compliance without providing any additional

reliability assurances. Moreover, the creation of compliance evidence for the implementation of the ongoing near-term ERAs would be cumbersome due to the large number of studies and their documented scenarios, rationales, and criteria.

As an additional example of the potential burdens the standard imposes on compliance, FRCC notes that, in addition to performing BA and TOP coordinated next-day Operational Planning Analysis along with four (4) seasonal studies, FRCC also performs BA and TOP coordinated 8-day and 28-day studies at least weekly. All studies include at a minimum an N-1 contingency analysis with forecasted load, expected generation output levels, and other known system constraints including generation or facility outages. FRCC currently performs this function without the need to compile burdensome administrative evidence; FRCC is able to instead focus on the study results and development of Operating Plans. If each of the nine (9) BAs in the FRCC RC area were required to independently perform the near-term and seasonal ERAs as described in the proposed standard language, it would result in a constant influx and overabundance of study results for the RC to review. The RC would have to manage this avalanche of additional results fruitlessly, as there would be no improvement in the situational awareness that we currently achieve through our coordinated next-day, 8-day, 28-day, and seasonal assessments.

FRCC also has several concerns with the Near-Term language. FRCC is concerned that, by attempting to provide flexibility (*see R1.1.1.1 and R1.1.1.2*), the frequency and duration requirement language for Near-Term ERAs only leads to confusion. FRCC maintains that the BA or RSG should determine the frequency, duration, and granularity of the ERAs based on area or region. Compounding the potential confusion is that “Near-Term” is not a NERC-defined time horizon (*see excerpt from NERC Time Horizon document below*):

“When establishing a time horizon for each requirement, the following criteria should be used:

- 1. Long-term Planning – a planning horizon of one year or longer.*
- 2. Operations Planning – operating and resource plans from day-ahead, up to, and including seasonal.*
- 3. Same-day Operations – routine actions required within the timeframe of a day, but not real-time.*
- 4. Real-time Operations – actions required within one hour or less to preserve the reliability of the bulk electric system.*
- 5. Operations Assessment – follow-up evaluations and reporting of real-time operations.”*

Failing to explicitly define “near term” dooms compliance to failure. Accordingly, FRCC proposes that “Near-Term” be replaced in the standard with the NERC defined term of “**Peak Demand**.” NERC defines Peak Demand in its Glossary of Terms as, “[t]he highest hourly integrated Net Energy For Load within a Balancing Authority Area occurring within a given period (e.g., day, month, season, or year).” Providing a clear definition of the applicable “Peak Demand” time period (e.g., between next-day to up to one month out from Real-time – the “Monthly Peak Demand Period”) could then place borders around the permitted study dates without tying the BA to a specific duration to perform ERAs.

Similarly, “Time Series demand” is neither a NERC defined term, nor is it defined in the standard. Any final standard would require the inclusion of an explicit definition and explanation.

FRCC’s final concern relates to the review time. FRCC suggests that a review time of 24 months for the ERA Process would allow adequate time to review performance throughout the year and allow the BA (or RSG) to implement necessary changes.

Likes	1	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott
Dislikes	0	
Response		
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC		
Answer	Yes	
Document Name		

Comment**R1.1.**

NPCC RSC supports the BA having the flexibility to determine the time period for the ERAs.

R.1.2.

Based on the standard as drafted, this appears to imply a deterministic assessment. Is a probabilistic assessment permitted? To accommodate alternative ERA approaches, the RSC proposes that the BA determine the type of assessment. As we move into the future, and probabilistic models and analysis become more prevalent, the standard can evolve to reflect generally accepted industry practices.

Likes	0
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Dislikes	0
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Response**Junji Yamaguchi - Hydro-Quebec (HQ) - 5****Answer**

Yes

Document Name**Comment****R1.1.**

NPCC RSC supports the BA having the flexibility to determine the time period for the ERAs.

R.1.2.

Based on the standard as drafted, this appears to imply a deterministic assessment. Is a probabilistic assessment permitted? To accommodate alternative ERA approaches, the RSC proposes that the BA determine the type of assessment. As we move into the future, and probabilistic models and analysis become more prevalent, the standard can evolve to reflect generally accepted industry practices.

Likes	0
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Dislikes	0
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Response**Constantin Chitescu - Ontario Power Generation Inc. - 5****Answer**

Yes

Document Name**Comment**

OPG supports NPCC Regional Standards Committee's comments:

"R1.1.

NPCC RSC supports the BA having the flexibility to determine the time period for the ERAs.

R.1.2.

Based on the standard as drafted, this appears to imply a deterministic assessment. Is a probabilistic assessment permitted? To accommodate alternative ERA approaches, the RSC proposes that the BA determine the type of assessment. As we move into the future, and probabilistic models and analysis become more prevalent, the standard can evolve to reflect generally accepted industry practices."

Likes 0

Dislikes 0

Response

Helen Lainis - Independent Electricity System Operator - 2

Answer

Yes

Document Name

Comment

R1.1.

The IESO supports the BA having the flexibility to determine the time period for the ERAs.

R.1.2.

Based on the standard as drafted, this appears to imply a deterministic assessment. Is a probabilistic assessment permitted? To accommodate alternative ERA approaches, the IESO proposes that the BA determine the type of assessment. As we move into the future, and probabilistic models and analysis become more prevalent, the standard can evolve to reflect generally accepted industry practices

Likes 0

Dislikes 0

Response

Nicolas Turcotte - Hydro-Quebec (HQ) - 1

Answer

Yes

Document Name

Comment

R1.1.

NPCC RSC supports the BA having the flexibility to determine the time period for the ERAs.

R.1.2.

Based on the standard as drafted, this appears to imply a deterministic assessment. Is a probabilistic assessment permitted? To accommodate alternative ERA approaches, the RSC proposes that the BA determine the type of assessment. As we move into the future, and probabilistic models and analysis become more prevalent, the standard can evolve to reflect generally accepted industry practices.

Likes 0

Dislikes 0

Response

Holly Mitchell - NorthWestern Energy - NA - Not Applicable - WECC

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Collaborators

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Ryan Strom - Ryan Strom On Behalf of: Carl Spaetzel, Buckeye Power, Inc., 4, 5, 3; Jason Proconiar, Buckeye Power, Inc., 4, 5, 3; Kevin Zemanek, Buckeye Power, Inc., 4, 5, 3; - Ryan Strom, Group Name Buckeye Power Group

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Donald Lock - Talen Generation, LLC - 5

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Donna Wood - Tri-State G and T Association, Inc. - 1

Answer

Document Name

Comment

NA

Likes 0

Dislikes 0

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer

Document Name

Comment

Requirement Part 1.1.1.1 states that the end of the near-term assessment period shall be greater than five days but does not state the minimum beginning of the near-term assessment period so it is unclear whether the beginning of the near-term assessment starts at the current operating day or after the day ahead. BAs conduct studies for next day operations conditions under TOP-002 (R4), and it does not provide additional insight to conduct extra assessment for day ahead. Texas RE recommends the following language:

1.1.1.1 The beginning of the near-term assessment shall be at minimum, two days after the current operating day and the end of the near-term assessment period shall be greater than five days and less than six weeks from the start of the assessment (i.e. minimum beginning time for near-term ERA is t_0+2 days, where t_0 is the operating day)

In Requirement Part 1.1.2.2, Texas RE recommends that the study schedules for Seasonal ERAs should not depend on the mitigation options for each seasonal ERA for schedule consistency and auditability. A lead time of 30 days for completing the seasonal ERA would be appropriate in order to give the BA time review the ERA prior to the beginning of the season. Texas RE recommends the following language:

1.1.2.2 Document a deadline for completing each seasonal ERA at least 30 calendar days prior to the beginning of the season. Mitigation options for each seasonal ERA shall be documented.

In Requirement Part 1.2.3.1, Texas RE requests clarification on the word “flexibility”. Texas RE suggests changing “flexibility” to “uncertainty”. In addition, Texas RE suggests that the BA include any transmission system constraints in the base case in order to have the wide-area view. Texas RE recommends adding the following:

1.2.3.5 All identified transmission system constraints.

Likes	0
Dislikes	0
Response	

3. The SDT proposes to require a set of scenarios to be developed which is needed in the performance of ERAs. Additionally, there is Attachment 1 that further supports the development of the set of scenarios. Are the scenarios specified in Requirement 2 the correct level or risk to consider in an ERA, and is the development of scenarios clear and understandable? If not, please provide the basis that supports your answer or suggestions for revisions. Please specify if comments are related to the near-term, seasonal ERA, or both.

Donald Lock - Talen Generation, LLC - 5

Answer No

Document Name

Comment

R1.1.2.1, in calling for Energy Reserve Assessments that are, “representative of seasonal risks,” invites repeating past mistakes of basing ERAs typical weather conditions. Winter Storm Uri for example brought the weather to hit Texas in 32 years, far beyond the 0.2 percentile cutoff of the EOP-012 ECWT and evidently also out-of-scope for BAL-007 seasonal ERAs. Preventing a repetition of this disaster requires identifying credible statistical outlier (i.e. non-representative) weather conditions. We suggest looking at ASHRAE 50-year return dry bulb temperatures for summer (with zero wind), winter (with zero wind) and looking also at winter with a 20 mph wind.

This will make the BA’s job easier, by deriving clear, easily identifiable benchmark conditions from the historical weather record rather than relying on complex and potentially useless theoretical analyses. Winter Storm Uri would have caused little or no difficulty if power generation and fuel supply resources that were added in the affected area during recent decades had been built under the rule that they must be capable of handling a repeat of the winter storm of January 1989 – it’s that simple.

Concerns that BAL-007 is too watered-down are amplified by R2 of the standard, which requires making projected (50/50 probability) and high confidence level (90/10) load studies for Att. 1 contingencies regarding energy (loss of the largest energy supply) and fuel (loss of fuel supply that causes the largest reduction in electrical energy supply). These are not adequate stress tests. The Polar Vortex of 2014, Winter Storm Uri, Winter Storm Elliott etc have shown that the essential first step to achieving BES resiliency is identifying the worst credible weather. BAL-007 conclusions regarding generation adequacy will have no grounding if one is not looking at the most serious challenge. Only then can one accurately estimate the worst-case interaction of load, generation outages (many of them, not just the largest unit), fuel supply constraints (potentially area-wide, not just the most important element).

Likes 0

Dislikes 0

Response

Richard Gilbert - Florida Reliability Coordinating Council – Member Services Division - 8 - SERC

Answer No

Document Name

Comment

FRCC agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring, but the scenarios identified in Attachment 1 provide no reliability benefit and are not set at the correct level or risk, nor are they necessary to perform a useful ERA.

More specifically, to be useful and make efficient use of BA and RC time and resources, the standard needs to allow either the BA or RSG or Collection of BAs to determine the likely contingencies to be studied for the ERA. As written, the Energy Contingencies identified in Attachment 1 only allow for

each individual BA to determine and study their likely contingencies; it excludes RSGs or Collection of BAs and the way RSGs or Collection of BAs could operate. If each FRCC BA independently studied the loss of their largest energy supply without the consideration of how the RSG or Collection of BAs functions or the reasonability of a single contingency to take down the entire site, each BA would be documenting mitigation activities not realistic to how the BAs in the FRCC RC area operate.

In addition, the BA or RSG or Collection of BAs should determine the appropriate Energy and Fuel contingencies that would yield the most value from the ERA process based on their BA or RSG or Collection of BAs area. The Energy Contingency in Attachment 1 is redundant to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 that is used to determine a BAs' or RSG's or Collection of BAs' Contingency Reserves. Attachment 1 is inconsistent in referencing "single contingencies" in the first paragraph and then "N-1 contingency" in the second paragraph. Some generation sites are designed to not have a single point of failure that would remove all generation output from the site. Again, the BA or RSG or Collection of BAs would be best position to know and understand the appropriate contingencies to be studied for an ERA.

Also, it is unrealistic to require performance of the extreme (and unlikely) Fuel Contingency descriptions provided in Attachment 1 on a repetitive cycle for every "near-term" ERA. (As explained previously, FRCC objects to the standard' use of the term "Near-Term," as it is not clearly defined.) Again, this would be an instance in which FRCC BAs would each end up unrealistically considering the loss of an entire gas pipeline outage resulting in the loss of multiple units without any consideration of the RSG or the likelihood of this type of contingency occurring.

As written, this standard would require BAs to create an excessive number of studies to be reviewed and analyzed without providing any additional reliability benefits. Instead, the requirements should allow for BAs or RSGs or Collection of BAs to establish and define the assessment scenarios and contingencies as part of their RC reviewed ERA process document and not as a separate R2 requirement creating additional evidence requirements. The standard should not dictate the required number and prescribed scenarios for the ERA, which should be left to the BA or RSG or Collection of BAs to incorporate in their RC reviewed process document based on actual conditions in their area. The BA or RSG or Collection of BAs should not be required to include high-risk, low-probability scenarios in ERAs performed in the Operations Planning Time Horizon.

In addition, the FRCC believes that the R3 requirement to develop Operating Plan(s) to mitigate unacceptable risk identified in the ERA needs to be addressed along with ERA scenarios and contingency selection concepts in R1 and not be a separate requirement.

Likes	1	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott
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Dislikes	0	
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Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Entity Monitoring

Answer	No
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Document Name	
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Comment

In terms of both ERA types- It is not clear if shoulder months with high penetrations of IBRs will be captured. Parts 2.1.1, 2.1.2, and 2.1.3 seem to consider the possibilities but may not capture the variability aspects of the IBR fleets. Based on the proposed (are they proposed?) definitions of "Energy contingency" and "fuel contingency" (the word "Contingency" is a defined term in the Glossary. Should it be capitalized here?) the variability may not be captured. Using "a single Contingency" within "Energy contingency" limits the impact to that definition—"The unexpected failure or outage of (add "a system component"), such as a generator, transmission line, circuit breaker, switch or other electrical element" and does not necessarily capture multiple outages of solar, wind, or battery installations that only last a short time (that will be the compliance risk approach presented by entities). If a single Contingency (e.g., fault causing loss of transmission line and resulting low voltage), causes the loss of a large number of IBRs but most return to service in minutes the MWh impact may be minimal in either ERA scenario.

Likes	0
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Dislikes 0

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer

No

Document Name

Comment

Black Hills Corporation agrees with EEI's comments: While EEI agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring, we do not agree that the scenarios in requirement R2 are the correct level of risk within the Operations Planning Horizon nor that the scenarios are clear and understandable. We suggest that the SDT consider incorporating scenario development within Requirement R1.

We also do support the proposed number and prescription in BAL-007-1 for the scenarios, noting the statement on page 4 of the SAR, "*For energy reliability assessments, measurements and observations should be compared to predefined criteria, and results should be in terms of impact on the BES. The predefined criteria do not need to be specifically defined within the Standard. Instead, each entity will establish and document criteria as part of complying with the Standard.*" While we support that the scenarios should contain contingencies related to demand, energy, and fuel considerations; the BA should be afforded the latitude to determine what is reasonable to include within the Operations Time Horizon. The BA should also not be required to include high-risk, low-probability scenarios in their ERAs.

We are also concerned that as written this requirement would require more BA resources in order to create the large number of studies being proposed and question whether these studies would provide the desired reliability benefit. Moreover, requiring a specific number and type of scenarios to be analyzed in each time-step of the ERA process could result excessive amounts of data that could produce "false positives" that would make it difficult to determine when the BA should act.

We further question the usefulness of the Attachment 1 and the identified contingencies because it is unclear whether they add any reliability benefits or provide any utility in developing useful ERAs. The energy contingency in Attachment 1 also appears to be redundant to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 which is used to determine a Balancing Authority's Contingency Reserves. It is also important to recognize that the fuel contingency in Attachment 1 would only be as useful as the Balancing Authority's visibility into fuel supply information. We agree that the BA should determine the energy and fuel contingencies that would yield the most value from the ERA process for their geographic region and market structure but see little value in what is provided in Attachment 1. For this reason, we ask the SDT to consider removing Attachment 1 from this standard.

Finally, the R3 requirement to develop Operating Plan(s) to mitigate unacceptable risk identified in the ERA needs to be addressed along with ERA scenarios. The SDT made it clear that these Operating Plans should be specific to the new BAL-007 standard and would not overlap or conflict with existing Operating Plan(s) already required in TOP-002-4 R4 Next Day, BAL-002 R2 MSSC Contingency Reserves, and EOP-011-2 R2 Energy and Capacity Emergencies. However, this standard does not provide the BA with any authority to mitigate FORECASTED energy emergencies. This limits the actions a BA can take in BAL-007 to increased study frequency, communication with generators and other relevant entities, requesting that the RC take action such as moving generation outages, or identifying existing Operating Plans that would be enacted should the risk of an actual energy emergency become imminent. With this in mind, we suggest that the SDT consider reducing the scope of requirement R3 and making it a sub requirement of R1. We additionally ask the SDT to consider changing the requirement to the development of strategic actions that would minimize the risks associated with energy emergencies that the BA could reasonably take up to and including the identification of existing Operating Plans, should a forecasted energy emergency become an actual energy emergency.

To address these concerns, we offer the following changes to Requirements R1, R2 and R3 for SDT consideration (changes in boldface):

R1.

1.4. Include a documented set of Balancing Authority determined ERA scenarios to be considered that include the following:

1.4.1. The Projected System Load

1.4.2. Energy and/or Fuel contingencies

1.4.3. Any event that is projected or likely to occur.

1.4.4. How these contingencies are considered.

1.5 Include a documented rationale for scenarios chosen in Requirement R1.4

1.6 Develop and document mitigating actions that could be used to mitigate unacceptable risk(s) identified by the results of an ERA. Such actions may include but are not limited to:

1.6.1. Increase ERA study frequency.

1.6.2. Communicate with generators concerning fuel sources.

1.6.3. Request the RC to take specific action.

1.6.4. Identify existing Operating Plan(s) that would be informed by the ERA results should the forecasted energy emergency become an actual emergency.

(remove R2 and R3:

R2. Each Balancing Authority shall develop, document, and maintain a set of Reliability Coordinator-reviewed ERA scenarios for both the near-term and seasonal time horizons, as follows: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

R3. Each Balancing Authority shall develop, maintain, and document one or more Operating Plan(s) to mitigate unacceptable risk(s) associated with ERA scenario(s) with a likely event of occurring. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

Likes 0

Dislikes 0

Response

Anna Martinson - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO Group

Answer

No

Document Name

Comment

The MRO NSRF observes that the Attachment 1 scenarios are reminiscent and duplicative of those prescribed under EOP-011 and TOP-002, Requirement R8. In addition, the scenarios recommended may not capture those that are the highest risk for each BA. Therefore, each BA should be able to determine the scenarios relevant to ensuring reliable operations in its footprint. The standard should accommodate alternative approaches which may be equally as good or superior. Examples could be provided in the Technical Rationale.

Additional commentary regarding the contingencies in BAL-007-1, Attachment 1:

• Energy contingency – The MRO NSRF supports a more dynamic definition like the one in BAL-007.

• Fuel Assurance – The MRO NSRF views the requirement to utilize a ‘bottom-up’ approach, based on fuel, as overly prescriptive and administratively burdensome. The proposed approach will be challenging to implement and may not translate into real reliability benefits, particularly since there is no requirement for Generator Operators to provide the fuel information. BAs will not know the finite fuel information for each generating unit without the unit having an obligation to provide it.

In addition, requiring BAs to become intimately familiar with gas pipeline operations takes time and effort away from managing electric system operations. For BAs with many pipelines in their footprint, gathering and maintaining this information will be fraught with error and for what purpose? Focusing solely on loss of fuel to the exclusion of other relevant factors (e.g. unplanned outages caused by equipment failures) leads to poor and inaccurate results.

The standard should be written to accommodate a variety of modeling approaches (scenarios, stochastic, deterministic, probabilistic, etc.) so it doesn’t need to be revised with technology advancements.

Example: One BA sets its reserve margin threshold based on quantified Net Uncertainties and predicted daily risk profiles. The Net Uncertainty is quantified based on the historical distribution at specified confidence levels, accounting for load, wind and solar forecast errors, thermal generation availability and interchange changes between Next-Day projection and Real-Time actual. A machine learning model is used to predict the daily risk profile at High/Medium/Low levels based on what was experienced in historical like-weather and operating conditions. This dynamic, data-driven method is more reliable and efficient to manage varying system conditions instead of static administrative values which can become stagnant.

Likes 0

Dislikes 0

Response

Nicolas Turcotte - Hydro-Quebec (HQ) - 1

Answer

No

Document Name

Comment

R2.1

Is high load left up to each BA to define?

The SDT want may consider adding some specificity in the Technical Rationale regarding the load levels or range of load levels, and solar, wind, water or other variable or uncontrolled fuel resources that must be assessed over the assessment period, for example:

- use the mean energy demand profile over the assessment period for the system normal condition,
- use the xxth percentile, or nth standard deviations above the median energy demand profile for the high demand condition.
- use the xxth percentile, or nth standard deviation below the median profile for the energy supplied from one or more variable fuel sources for the fuel supply contingency or for scenario 2.1.7

As the proposed ERA scenarios may seem too stringent, the RSC proposes that the BAs could determine the ERA scenarios that are relevant to their area. If a minimum set of contingencies need to be set, the RSC suggest the following as a starting point:

- a high energy demand with the single largest energy production source

- a median (or not as high) energy demand scenario with the fuel contingency that interrupts multiple units and represents the largest total energy supply.

We would still suggest that the assessment include an accounting of the total energy from each resource type and the resulting capacity factor of these resources in the high load or contingency scenarios, to assess whether there is high confidence that their higher capacity factors are achievable.

R3.

Operating Plans may be misconstrued to mean actions that would be implemented in near real-time or during an emergency. Please clarify that the intent is that these Operating Plans are more like mitigation measures that must be implemented far in advance as is necessary to make them effective in mitigating potential energy deficiencies. We suggest replacing ‘Operating Plan(s)’ with ‘**mitigation measure(s)**.’

In addition, we disagree with the example in the **Technical Rationale** that Operating Plans might include load shedding. Plans could include:

- dispatching resources such that limited fuel resources conserve fuel during low demand periods for use in higher demand periods.,
- re-scheduling of maintenance outages to make more energy resources available,
- instructing generators to order more fuel, increase fuel supplies, or firm up fuel deliveries to the extent contracts allow;

however, the plans should **exclude actions such as relying on voltage reductions or load shedding**. These are considered emergency procedures and should not be permitted in longer-term operating plans (longer-term plans shouldn’t rely on having to use emergency procedures -- they should be reserved for unplanned emergency situations).

R2.1.3: Replace “fuel” contingency by “resource” contingency

R2.1.7: what is the criteria for determining whether a historical event falls under this criterion?

R4: this requirement seems superfluous as it is implied in R1 and R2 that the ERA process is RC reviewed.

R1 to R3 : a deadline should be established in the agreed upon process.

R7 : the BA shall also develop, maintain and document an operation plan to mitigate unacceptable risk associate with the ERA scenario that is required in R3 if there is an issue.

Likes	0
Dislikes	0
Response	
Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion	
Answer	No
Document Name	
Comment	

Dominion Energy supports the comments submitted by EEI.

Likes 0

Dislikes 0

Response

Christine Kane - WEC Energy Group, Inc. - 3, Group Name WEC Energy Group

Answer

No

Document Name

Comment

WEC Energy Group supports the MRO NSRF comments.

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1

Answer

No

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer

No

Document Name

Comment

Duke Energy supports and recommends implementation of EEI provided comments.

Likes 0

Dislikes 0

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer

No

Document Name

Comment

“See comments submitted by the Edison Electric Institute”

Likes 0

Dislikes 0

Response

Nazra Gladu - Manitoba Hydro - 1

Answer

No

Document Name

Comment

Manitoba Hydro is supportive of comments provided by the MRO NSRF. For the Manitoba system, the different system conditions (prior outages, loading, generation scheduling) might result in a different single large energy contingency or critical contingencies. For other utilities, the different systems require different focuses when performing the ERA to address the issues. The standard should accommodate modelling improvements or alternative approaches to modelling uncertainties to ensure the BA is performing ERAs that are best suited to their area.

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - 1,3 - WECC,Texas RE

Answer

No

Document Name

Comment

PNMR supports EEI's recommended changes to R1, R2, and R3 provided in their response.

Likes	0
Dislikes	0
Response	
Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro	
Answer	No
Document Name	
Comment	
BC Hydro suggests that BAs should have the ability to determine the relevant scenarios to ensuring reliable operations based on prevailing operating conditions operational experience in their respective footprints. The Technical Rationale would be the appropriate location for possible ways to derive relevant scenarios rather than being prescribed within the Requirement.	
Likes	0
Dislikes	0
Response	
Kinte Whitehead - Exelon - 3	
Answer	No
Document Name	
Comment	
Exelon supports the comments submitted by the EEI.	
Likes	0
Dislikes	0
Response	
Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; John Merrell, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; - Jennie Wike, Group Name Tacoma Power	
Answer	No
Document Name	
Comment	
The scenarios in BAL-007 are reminiscent and duplicative of those already prescribed under existing standards (EOP-011 and TOP-002, Requirement R8) and should not be prescribed in BAL-007. Instead, the BA should have the ability to determine the scenarios relevant to ensuring reliable operations in its footprint. This would better accommodate alternative approaches, such as the Western Power Pool's WRAP. Examples of what scenarios could be	

considered in an ERA should still be provided in the Technical Rationale or an Implementation Guide. Tacoma Power supports moving the examples from the Standard to these guidance documents.

Likes 2

Public Utility District No. 1 of Snohomish County, 1, Rhoads Alyssia; American Municipal Power, 5, Ritts Amy

Dislikes 0

Response

David Jendras Sr - Ameren - Ameren Services - 3

Answer

No

Document Name

Comment

Ameren agrees with and supports MISO's comments.

Likes 0

Dislikes 0

Response

Richard Vendetti - NextEra Energy - 5

Answer

No

Document Name

Comment

Florida Power & Light does not agree that the scenarios in requirement R2 are the correct level of risk for within the Operations Planning Horizon nor that the scenarios are clear and understandable. First, the BA should determine what is reasonable to include within the Operations Time Horizon. The BA should not be required to include high-risk, low-probability scenarios in their ERAs. Third, as written this requirement would require more BA resources to create an excessive number of studies without an additional reliability benefit. The proposed standard is redundant, specifically regarding to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 which is used to determine a Balancing Authority's Contingency Reserves. The Fuel Contingency in Attachment 1 would only be as useful as the Balancing Authority's visibility to fuel supply information. The SDT made it clear that these Operating Plans should be specific to the new BAL-007 standard and would not overlap or conflict with existing Operating Plan(s) already required in TOP-002-4 R4 Next Day, BAL-002 R2 MSSC Contingency Reserves, and EOP-011-2 R2 Energy and Capacity Emergencies however they clearly do overlap.

Likes 0

Dislikes 0

Response

Helen Lainis - Independent Electricity System Operator - 2

Answer	No
Document Name	
Comment	
<p>R2.1</p> <p>Is high load left up to each BA to define?</p> <p>The SDT want may consider adding some specificity in the Technical Rationale regarding the load levels or range of load levels, and solar, wind, water or other variable or uncontrolled fuel resources that must be assessed over the assessment period, for example:</p> <ul style="list-style-type: none"> · use the mean energy demand profile over the assessment period for the system normal condition, · use the xxth percentile, or nth standard deviations above the median energy demand profile for the high demand condition · use the xxth percentile, or nth standard deviation below the median profile for the energy supplied from one or more variable fuel sources for the fuel supply contingency or for scenario 2.1.7 <p>As the proposed ERA scenarios may seem too stringent, the IESO proposes that the BAs have the ability to determine the ERA scenarios that are relevant to their area. If a minimum set of contingencies need to be set, the IESO suggest the following as a starting point:</p> <ul style="list-style-type: none"> · a high energy demand with the single largest energy production source · a median (or not as high) energy demand scenario with the fuel contingency that interrupts multiple units and represents the largest total energy supply. <p>We would still suggest that the assessment include an accounting of the total energy from each resource type and the resulting capacity factor of these resources in the high load or contingency scenarios, to assess whether there is high confidence that their higher capacity factors are achievable.</p> <p>R3.</p> <p>Operating Plans may be misconstrued to mean actions that would be implemented in near real-time or during an emergency. Please clarify that the intent is that these Operating Plans are more like mitigation measures that must be implemented far in advance as is necessary to make them effective in mitigating potential energy deficiencies. We suggest replacing 'Operating Plan(s)' with 'mitigation measure(s).'</p> <p>In addition, we disagree with the example in the Technical Rationale that Operating Plans might include load shedding. Plans could include:</p> <ul style="list-style-type: none"> · dispatching resources such that limited fuel resources conserve fuel during low demand periods for use in higher demand periods., · re-scheduling of maintenance outages to make more energy resources available, · instructing generators to order more fuel, increase fuel supplies, or firm up fuel deliveries to the extent contracts allow; <p>however, the plans should exclude actions such as relying on voltage reductions or load shedding. These are considered emergency procedures and should not be permitted in longer-term operating plans (longer-term plans shouldn't rely on having to use emergency procedures -- they should be reserved for unplanned emergency situations).</p>	
Likes 0	

Dislikes 0

Response

Dania Colon - Orlando Utilities Commission - 5

Answer

No

Document Name

Comment

The scenarios identified in Attachment 1 are not at the correct level or risk. FRCC agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring. However, we do not agree to the scenarios in requirement R2 are the correct level or risk within the Operations Planning Horizon. In addition to the overall standard not taking into account Reserve Sharing Groups, the Energy Contingencies identified in Attachment 1 do not acknowledge how Reserve Sharing Groups operate. If each BA was required to independently study the loss of their largest energy supply without the consideration of how the Reserve Sharing Group functions, each BA would be documenting mitigation activities not realistic to how the BAs in the FRCC RC area operate. The requirements should allow for BAs or RSGs to establish and define the assessment scenarios and contingencies as part of their RC reviewed ERA process document.

The Energy Contingency also states that the contingency may not persist through the entire assessment period. This is unclear.

In addition, the Fuel Contingency descriptions provided in Attachment 1 are unrealistic to perform on a repetitive cycle for every near-term ERA. As stated, FRCC BAs would each have to consider the loss of an entire gas pipeline outage resulting in the loss of multiple units without the consideration of a Reserve Sharing Group and the likelihood of this type of contingency occurring. It also does not take into account that some generation sites are dual fueled. Again, the language in this contingency description stating that the contingency may not persist through the entire assessment period is unclear.

As written, this requirement would require BAs to create an excessive number of studies to be reviewed and analyzed without reliability benefit. Requiring the specific types of scenarios outlined in this standard to be built on a continuous basis would result in volumes of data to be analyzed and not allow for the appropriate development of Operating Plans to address realistic reliability issues.

Likes 0

Dislikes 0

Response

Alan Kloster - Alan Kloster On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Alan Kloster

Answer

No

Document Name

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and the MRO NSRF for question #3.

Likes 0

Dislikes 0

Response

Ryan Strom - Ryan Strom On Behalf of: Carl Spaetzel, Buckeye Power, Inc., 4, 5, 3; Jason Procuniar, Buckeye Power, Inc., 4, 5, 3; Kevin Zemanek, Buckeye Power, Inc., 4, 5, 3; - Ryan Strom, Group Name Buckeye Power Group

Answer

No

Document Name

Comment

Buckeye supports the comments made by ACES:

It is our opinion that specific scenarios should not be included in the Reliability Standard. We believe that by doing so, it makes the Reliability Standard too prescriptive and limits the ability of the BA to appropriately develop specific scenarios for their Balancing Authority Area and the unique challenges encountered therein

Likes 0

Dislikes 0

Response

Constantin Chitescu - Ontario Power Generation Inc. - 5

Answer

No

Document Name

Comment

OPG supports NPCC Regional Standards Committee’s comments:

“R2.1

Is high load left up to each BA to define?

The SDT want may consider adding some specificity in the Technical Rationale regarding the load levels or range of load levels, and solar, wind, water or other variable or uncontrolled fuel resources that must be assessed over the assessment period, for example:

• use the mean energy demand profile over the assessment period for the system normal condition,

• use the xxth percentile, or nth standard deviations above the median energy demand profile for the high demand condition.

• use the xxth percentile, or nth standard deviation below the median profile for the energy supplied from one or more variable fuel sources for the fuel supply contingency or for scenario 2.1.7

As the proposed ERA scenarios may seem too stringent, the RSC proposes that the BAs could determine the ERA scenarios that are relevant to their area. If a minimum set of contingencies need to be set, the RSC suggest the following as a starting point:

- a high energy demand with the single largest energy production source
- a median (or not as high) energy demand scenario with the fuel contingency that interrupts multiple units and represents the largest total energy supply.

We would still suggest that the assessment include an accounting of the total energy from each resource type and the resulting capacity factor of these resources in the high load or contingency scenarios, to assess whether there is high confidence that their higher capacity factors are achievable.

R3.

Operating Plans may be misconstrued to mean actions that would be implemented in near real-time or during an emergency. Please clarify that the intent is that these Operating Plans are more like mitigation measures that must be implemented far in advance as is necessary to make them effective in mitigating potential energy deficiencies. We suggest replacing 'Operating Plan(s)' with '**mitigation measure(s)**.'

In addition, we disagree with the example in the **Technical Rationale** that Operating Plans might include load shedding. Plans could include:

- dispatching resources such that limited fuel resources conserve fuel during low demand periods for use in higher demand periods.,
- re-scheduling of maintenance outages to make more energy resources available,
- instructing generators to order more fuel, increase fuel supplies, or firm up fuel deliveries to the extent contracts allow;

however, the plans should **exclude actions such as relying on voltage reductions or load shedding**. These are considered emergency procedures and should not be permitted in longer-term operating plans (longer-term plans shouldn't rely on having to use emergency procedures -- they should be reserved for unplanned emergency situations)."

Likes	0
Dislikes	0

Response

Shannon Mickens - Shannon Mickens On Behalf of: Joshua Phillips, Southwest Power Pool, Inc. (RTO), 2; - Shannon Mickens, Group Name SPP RTO

Answer	No
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Document Name	
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Comment

SPP proposes that the BA should have the ability to determine the ERA scenarios relevant to ensuring reliable operations in its footprint. Examples could still be provided in the Technical Rationale to support the relevancy of the requirements.

Likes	0
Dislikes	0

Response

Junji Yamaguchi - Hydro-Quebec (HQ) - 5

Answer No

Document Name

Comment

R2.1

Is high load left up to each BA to define?

The SDT want may consider adding some specificity in the Technical Rationale regarding the load levels or range of load levels, and solar, wind, water or other variable or uncontrolled fuel resources that must be assessed over the assessment period, for example:

{C}· use the mean energy demand profile over the assessment period for the system normal condition,

{C}· use the xxth percentile, or nth standard deviations above the median energy demand profile for the high demand condition.

{C}· use the xxth percentile, or nth standard deviation below the median profile for the energy supplied from one or more variable fuel sources for the fuel supply contingency or for scenario 2.1.7

As the proposed ERA scenarios may seem too stringent, the RSC proposes that the BAs could determine the ERA scenarios that are relevant to their area. If a minimum set of contingencies need to be set, the RSC suggest the following as a starting point:

{C}· a high energy demand with the single largest energy production source

{C}· a median (or not as high) energy demand scenario with the fuel contingency that interrupts multiple units and represents the largest total energy supply.

We would still suggest that the assessment include an accounting of the total energy from each resource type and the resulting capacity factor of these resources in the high load or contingency scenarios, to assess whether there is high confidence that their higher capacity factors are achievable.

R3.

Operating Plans may be misconstrued to mean actions that would be implemented in near real-time or during an emergency. Please clarify that the intent is that these Operating Plans are more like mitigation measures that must be implemented far in advance as is necessary to make them effective in mitigating potential energy deficiencies. We suggest replacing 'Operating Plan(s)' with '**mitigation measure(s)**.'

In addition, we disagree with the example in the **Technical Rationale** that Operating Plans might include load shedding. Plans could include:

{C}· dispatching resources such that limited fuel resources conserve fuel during low demand periods for use in higher demand periods.,

{C}· re-scheduling of maintenance outages to make more energy resources available,

{C}· instructing generators to order more fuel, increase fuel supplies, or firm up fuel deliveries to the extent contracts allow;

however, the plans should **exclude actions such as relying on voltage reductions or load shedding**. These are considered emergency procedures and should not be permitted in longer-term operating plans (longer-term plans shouldn't rely on having to use emergency procedures -- they should be reserved for unplanned emergency situations).

R2.1.3: Replace "fuel" contingency by "resource" contingency

R2.1.7: what is the criteria for determining whether a historical event falls under this criterion?

R4: this requirement seems superfluous as it is implied in R1 and R2 that the ERA process is RC reviewed.

R1 to R3 : a deadline should be established in the agreed upon process.

R7 : the BA shall also develop, maintain and document an operation plan to mitigate unacceptable risk associate with the ERA scenario that is required in R3 if there is an issue.

Likes 0

Dislikes 0

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Fong Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer

No

Document Name

Comment

SMUD and BANC support the comments submitted by Tacoma Power.

Likes 0

Dislikes 0

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer

No

Document Name

Comment

While EEI agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring, we do not agree that the scenarios in requirement R2 are the correct level of risk within the Operations Planning Horizon nor that the scenarios are clear and understandable. We suggest that the SDT consider incorporating scenario development within Requirement R1.

We also do support the proposed number and prescription in BAL-007-1 for the scenarios, noting the statement on page 4 of the SAR, *“For energy reliability assessments, measurements and observations should be compared to predefined criteria, and results should be in terms of impact on the BES. The predefined criteria do not need to be specifically defined within the Standard. Instead, each entity will establish and document criteria as part of complying with the Standard.”* While we support that the scenarios should contain contingencies related to demand, energy, and fuel considerations; the BA should be afforded the latitude to determine what is reasonable to include within the Operations Time Horizon. The BA should also not be required to include high-risk, low-probability scenarios in their ERAs.

We are also concerned that as written this requirement would require more BA resources in order to create the large number of studies being proposed and question whether these studies would provide the desired reliability benefit. Moreover, requiring a specific number and type of scenarios to be analyzed in each time-step of the ERA process could result excessive amounts of data that could produce “false positives” that would make it difficult to determine when the BA should act.

We further question the usefulness of the Attachment 1 and the identified contingencies because it is unclear whether they add any reliability benefits or provide any utility in developing useful ERAs. The energy contingency in Attachment 1 also appears to be redundant to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 which is used to determine a Balancing Authority’s Contingency Reserves. It is also important to recognize that the fuel contingency in Attachment 1 would only be as useful as the Balancing Authority’s visibility into fuel supply information. We agree that the BA should determine the energy and fuel contingencies that would yield the most value from the ERA process for their geographic region and market structure but see little value in what is provided in Attachment 1. For this reason, we ask the SDT to consider removing Attachment 1 from this standard.

Finally, the R3 requirement to develop Operating Plan(s) to minimize unacceptable risk identified in the ERA needs to be addressed along with ERA scenarios. The SDT made it clear that these Operating Plans should be specific to the new BAL-007 standard and would not overlap or conflict with existing Operating Plan(s) already required in TOP-002-4 R4 Next Day, BAL-002 R2 MSSC Contingency Reserves, and EOP-011-2 R2 Energy and Capacity Emergencies. However, this standard does not provide the BA with any authority to minimize forecasted energy emergencies. This limits the actions a BA can take in BAL-007 to increased study frequency, communication with generators and other relevant entities, requesting that the RC take action such as moving generation outages, or identifying existing Operating Plans that would be enacted should the risk of an actual energy emergency become imminent. With this in mind, we suggest that the SDT consider reducing the scope of requirement R3 and making it a sub requirement of R1. We additionally ask the SDT to consider changing the requirement to the development of strategic actions that would minimize the risks associated with energy emergencies that the BA could reasonably take up to and including the identification of existing Operating Plans, should a forecasted energy emergency become an actual energy emergency.

To address these concerns, we offer the following changes to Requirements R1, R2 and R3 for SDT consideration (changes in boldface):

R1.

{C}1.4. Include a documented set of Balancing Authority determined ERA scenarios to be considered that include the following:

{C}1.4.1. The Projected System Load

1.4.2. Energy and/or Fuel contingencies

1.4.3. Any event that is projected or likely to occur.

1.4.4. How these contingencies are considered.

1.5 Include a documented rationale for scenarios chosen in Requirement R1.4

1.6 Develop and document actions that could be used to minimize unacceptable risk(s) identified by the results of an ERA. Such actions may include but are not limited to:

1.6.1. Increase ERA study frequency.

1.6.2. Communicate with generators concerning fuel sources.

1.6.3. Request the RC to take specific action.

1.6.4. Identify existing Operating Plan(s) that would be informed by the ERA results should the forecasted energy emergency become an actual emergency.

R2. Each Balancing Authority shall develop, document, and maintain a set of Reliability Coordinator-reviewed ERA scenarios for both the near-term and seasonal time horizons, as follows: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

R3. Each Balancing Authority shall develop, maintain, and document one or more Operating Plan(s) to mitigate unacceptable risk(s) associated with ERA scenario(s) with a likely event of occurring. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

Likes 0

Dislikes 0

Response

Robert Follini - Avista - Avista Corporation - 3

Answer

No

Document Name

Comment

While EEI agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring, we do not agree that the scenarios in requirement R2 are the correct level of risk within the Operations Planning Horizon nor that the scenarios are clear and understandable. We suggest that the SDT consider incorporating scenario development within Requirement R1.

We also do support the proposed number and prescription in BAL-007-1 for the scenarios, noting the statement on page 4 of the SAR, "*For energy reliability assessments, measurements and observations should be compared to predefined criteria, and results should be in terms of impact on the BES. The predefined criteria do not need to be specifically defined within the Standard. Instead, each entity will establish and document criteria as part of complying with the Standard.*" While we support that the scenarios should contain contingencies related to demand, energy, and fuel considerations; the BA should be afforded the latitude to determine what is reasonable to include within the Operations Time Horizon. The BA should also not be required to include high-risk, low-probability scenarios in their ERAs.

We are also concerned that as written this requirement would require more BA resources in order to create the large number of studies being proposed and question whether these studies would provide the desired reliability benefit. Moreover, requiring a specific number and type of scenarios to be analyzed in each time-step of the ERA process could result excessive amounts of data that could produce "false positives" that would make it difficult to determine when the BA should act.

We further question the usefulness of the Attachment 1 and the identified contingencies because it is unclear whether they add any reliability benefits or provide any utility in developing useful ERAs. The energy contingency in Attachment 1 also appears to be redundant to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 which is used to determine a Balancing Authority's Contingency Reserves. It is also important to recognize that the fuel contingency in Attachment 1 would only be as useful as the Balancing Authority's visibility into fuel supply information. We agree that the BA should determine the energy and fuel contingencies that would yield the most value from the ERA process for their

geographic region and market structure but see little value in what is provided in Attachment 1. For this reason, we ask the SDT to consider removing Attachment 1 from this standard.

Finally, the R3 requirement to develop Operating Plan(s) to minimize unacceptable risk identified in the ERA needs to be addressed along with ERA scenarios. The SDT made it clear that these Operating Plans should be specific to the new BAL-007 standard and would not overlap or conflict with existing Operating Plan(s) already required in TOP-002-4 R4 Next Day, BAL-002 R2 MSSC Contingency Reserves, and EOP-011-2 R2 Energy and Capacity Emergencies. However, this standard does not provide the BA with any authority to minimize forecasted energy emergencies. This limits the actions a BA can take in BAL-007 to increased study frequency, communication with generators and other relevant entities, requesting that the RC take action such as moving generation outages, or identifying existing Operating Plans that would be enacted should the risk of an actual energy emergency become imminent. With this in mind, we suggest that the SDT consider reducing the scope of requirement R3 and making it a sub requirement of R1. We additionally ask the SDT to consider changing the requirement to the development of strategic actions that would minimize the risks associated with energy emergencies that the BA could reasonably take up to and including the identification of existing Operating Plans, should a forecasted energy emergency become an actual energy emergency.

To address these concerns, we offer the following changes to Requirements R1, R2 and R3 for SDT consideration (changes in boldface):

R1.

{C}1.4. Include a documented set of Balancing Authority determined ERA scenarios to be considered that include the following:

{C}1.4.1. The Projected System Load

1.4.2. Energy and/or Fuel contingencies

1.4.3. Any event that is projected or likely to occur.

1.4.4. How these contingencies are considered.

1.5 Include a documented rationale for scenarios chosen in Requirement R1.4

1.6 Develop and document actions that could be used to minimize unacceptable risk(s) identified by the results of an ERA. Such actions may include but are not limited to:

1.6.1. Increase ERA study frequency.

1.6.2. Communicate with generators concerning fuel sources.

1.6.3. Request the RC to take specific action.

1.6.4. Identify existing Operating Plan(s) that would be informed by the ERA results should the forecasted energy emergency become an actual emergency.

REMOVE THIS..R2. Each Balancing Authority shall develop, document, and maintain a set of Reliability Coordinator-reviewed ERA scenarios for both the near-term and seasonal time horizons, as follows: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

REMOVE THIS R3. Each Balancing Authority shall develop, maintain, and document one or more Operating Plan(s) to mitigate unacceptable risk(s) associated with ERA scenario(s) with a likely event of occurring. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

Likes 0

Dislikes 0

Response

Answer No

Document Name

Comment

R2.1

Is high load left up to each BA to define?

The SDT want may consider adding some specificity in the Technical Rationale regarding the load levels or range of load levels, and solar, wind, water or other variable or uncontrolled fuel resources that must be assessed over the assessment period, for example:

- use the mean energy demand profile over the assessment period for the system normal condition,
- use the xxth percentile, or nth standard deviations above the median energy demand profile for the high demand condition.
- use the xxth percentile, or nth standard deviation below the median profile for the energy supplied from one or more variable fuel sources for the fuel supply contingency or for scenario 2.1.7

As the proposed ERA scenarios may seem too stringent, the RSC proposes that the BAs could determine the ERA scenarios that are relevant to their area. If a minimum set of contingencies need to be set, the RSC suggest the following as a starting point:

- a high energy demand with the single largest energy production source
- a median (or not as high) energy demand scenario with the fuel contingency that interrupts multiple units and represents the largest total energy supply.

We would still suggest that the assessment include an accounting of the total energy from each resource type and the resulting capacity factor of these resources in the high load or contingency scenarios, to assess whether there is high confidence that their higher capacity factors are achievable.

R3.

Operating Plans may be misconstrued to mean actions that would be implemented in near real-time or during an emergency. Please clarify that the intent is that these Operating Plans are more like mitigation measures that must be implemented far in advance as is necessary to make them effective in mitigating potential energy deficiencies. We suggest replacing 'Operating Plan(s)' with '**mitigation measure(s)**.'

In addition, we disagree with the example in the **Technical Rationale** that Operating Plans might include load shedding. Plans could include:

- dispatching resources such that limited fuel resources conserve fuel during low demand periods for use in higher demand periods.,
- re-scheduling of maintenance outages to make more energy resources available,

-instructing generators to order more fuel, increase fuel supplies, or firm up fuel deliveries to the extent contracts allow;

however, the plans should **exclude actions such as relying on voltage reductions or load shedding**. These are considered emergency procedures and should not be permitted in longer-term operating plans (longer-term plans shouldn't rely on having to use emergency procedures -- they should be reserved for unplanned emergency situations).

Likes 0

Dislikes 0

Response

Robert Blackney - Edison International - Southern California Edison Company - 1

Answer No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer No

Document Name

Comment

While NV Energy agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring, we do not agree that the scenarios in requirement R2 are the correct level of risk within the Operations Planning Horizon nor that the scenarios are clear and understandable. We suggest that the SDT consider incorporating scenario development within Requirement R1.

We also do support the proposed number and prescription in BAL-007-1 for the scenarios, noting the statement on page 4 of the SAR, "*For energy reliability assessments, measurements and observations should be compared to predefined criteria, and results should be in terms of impact on the BES. The predefined criteria do not need to be specifically defined within the Standard. Instead, each entity will establish and document criteria as part of complying with the Standard.*" While we support that the scenarios should contain contingencies related to demand, energy, and fuel considerations; the BA should be afforded the latitude to determine what is reasonable to include within the Operations Time Horizon. The BA should also not be required to include high-risk, low-probability scenarios in their ERAs.

We are also concerned that as written this requirement would require more BA resources in order to create the large number of studies being proposed and question whether these studies would provide the desired reliability benefit. Moreover, requiring a specific number and type of scenarios to be

analyzed in each time-step of the ERA process could result excessive amounts of data that could produce “false positives” that would make it difficult to determine when the BA should act.

We further question the usefulness of the Attachment 1 and the identified contingencies because it is unclear whether they add any reliability benefits or provide any utility in developing useful ERAs. The energy contingency in Attachment 1 also appears to be redundant to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 which is used to determine a Balancing Authority’s Contingency Reserves. It is also important to recognize that the fuel contingency in Attachment 1 would only be as useful as the Balancing Authority’s visibility into fuel supply information. We agree that the BA should determine the energy and fuel contingencies that would yield the most value from the ERA process for their geographic region and market structure but see little value in what is provided in Attachment 1. For this reason, we ask the SDT to consider removing Attachment 1 from this standard.

Finally, the R3 requirement to develop Operating Plan(s) to mitigate unacceptable risk identified in the ERA needs to be addressed along with ERA scenarios. The SDT made it clear that these Operating Plans should be specific to the new BAL-007 standard and would not overlap or conflict with existing Operating Plan(s) already required in TOP-002-4 R4 Next Day, BAL-002 R2 MSSC Contingency Reserves, and EOP-011-2 R2 Energy and Capacity Emergencies. However, this standard does not provide the BA with any authority to mitigate forecasted energy emergencies. This limits the actions a BA can take in BAL-007 to increased study frequency, communication with generators and other relevant entities, requesting that the RC take action such as moving generation outages, or identifying existing Operating Plans that would be enacted should the risk of an actual energy emergency become imminent. With this in mind, we suggest that the SDT consider reducing the scope of requirement R3 and making it a sub requirement of R1. We additionally ask the SDT to consider changing the requirement to the development of strategic actions that would minimize the risks associated with energy emergencies that the BA could reasonably take up to and including the identification of existing Operating Plans, should a forecasted energy emergency become an actual energy emergency.

To address these concerns, we offer the following changes to Requirements R1, R2 and R3 for SDT consideration (changes in boldface):

R1.

{C}1.4. Include a documented set of Balancing Authority determined ERA scenarios to be considered that include the following:

{C}1.4.1. The Projected System Load

1.4.2. Energy and/or Fuel contingencies

1.4.3. Any event that is projected or likely to occur.

1.4.4. How these contingencies are considered.

1.5 Include a documented rationale for scenarios chosen in Requirement R1.4

1.6 Develop and document mitigating actions that could be used to mitigate unacceptable risk(s) identified by the results of an ERA. Such actions may include but are not limited to:

1.6.1. Increase ERA study frequency.

1.6.2. Communicate with generators concerning fuel sources.

1.6.3. Request the RC to take specific action.

1.6.4. Identify existing Operating Plan(s) that would be informed by the ERA results should the forecasted energy emergency become an actual emergency.

R2. Each Balancing Authority shall develop, document, and maintain a set of Reliability Coordinator-reviewed ERA scenarios for both the near-term and seasonal time horizons, as follows: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

R3. Each Balancing Authority shall develop, maintain, and document one or more Operating Plan(s) to mitigate unacceptable risk(s) associated with ERA scenario(s) with a likely event of occurring. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

Likes 0

Dislikes 0

Response

Aaron Staley - Orlando Utilities Commission - 1

Answer

No

Document Name

Comment

See Tacoma Power comments.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer

No

Document Name

Comment

While EEI agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring, we do not agree that the scenarios in requirement R2 are the correct level of risk within the Operations Planning Horizon nor that the scenarios are clear and understandable. We suggest that the SDT consider incorporating scenario development within Requirement R1.

We also do support the proposed number and prescription in BAL-007-1 for the scenarios, noting the statement on page 4 of the SAR, *“For energy reliability assessments, measurements and observations should be compared to predefined criteria, and results should be in terms of impact on the BES. The predefined criteria do not need to be specifically defined within the Standard. Instead, each entity will establish and document criteria as part of complying with the Standard.”* While we support that the scenarios should contain contingencies related to demand, energy, and fuel considerations; the BA should be afforded the latitude to determine what is reasonable to include within the Operations Time Horizon. The BA should also not be required to include high-risk, low-probability scenarios in their ERAs.

We are also concerned that as written this requirement would require more BA resources in order to create the large number of studies being proposed and question whether these studies would provide the desired reliability benefit. Moreover, requiring a specific number and type of scenarios to be analyzed in each time-step of the ERA process could result excessive amounts of data that could produce “false positives” that would make it difficult to determine when the BA should act.

We further question the usefulness of the Attachment 1 and the identified contingencies because it is unclear whether they add any reliability benefits or provide any utility in developing useful ERAs. The energy contingency in Attachment 1 also appears to be redundant to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 which is used to determine a Balancing Authority’s Contingency Reserves. It is also

important to recognize that the fuel contingency in Attachment 1 would only be as useful as the Balancing Authority's visibility into fuel supply information. We agree that the BA should determine the energy and fuel contingencies that would yield the most value from the ERA process for their geographic region and market structure but see little value in what is provided in Attachment 1. For this reason, we ask the SDT to consider removing Attachment 1 from this standard.

Finally, the R3 requirement to develop Operating Plan(s) to minimize unacceptable risk identified in the ERA needs to be addressed along with ERA scenarios. The SDT made it clear that these Operating Plans should be specific to the new BAL-007 standard and would not overlap or conflict with existing Operating Plan(s) already required in TOP-002-4 R4 Next Day, BAL-002 R2 MSSC Contingency Reserves, and EOP-011-2 R2 Energy and Capacity Emergencies. However, this standard does not provide the BA with any authority to minimize forecasted energy emergencies. This limits the actions a BA can take in BAL-007 to increased study frequency, communication with generators and other relevant entities, requesting that the RC take action such as moving generation outages, or identifying existing Operating Plans that would be enacted should the risk of an actual energy emergency become imminent. With this in mind, we suggest that the SDT consider reducing the scope of requirement R3 and making it a sub requirement of R1. We additionally ask the SDT to consider changing the requirement to the development of strategic actions that would minimize the risks associated with energy emergencies that the BA could reasonably take up to and including the identification of existing Operating Plans, should a forecasted energy emergency become an actual energy emergency.

To address these concerns, we offer the following changes to Requirements R1, R2 and R3 for SDT consideration (changes in boldface):

R1.

1.4. Include a documented set of Balancing Authority determined ERA scenarios to be considered that include the following:

1.4.1. The Projected System Load

1.4.2. Energy and/or Fuel contingencies

1.4.3. Any event that is projected or likely to occur.

1.4.4. How these contingencies are considered.

1.5 Include a documented rationale for scenarios chosen in Requirement R1.4

1.6 Develop and document actions that could be used to minimize unacceptable risk(s) identified by the results of an ERA. Such actions may include but are not limited to:

1.6.1. Increase ERA study frequency.

1.6.2. Communicate with generators concerning fuel sources.

1.6.3. Request the RC to take specific action.

1.6.4. Identify existing Operating Plan(s) that would be informed by the ERA results should the forecasted energy emergency become an actual emergency.

Likes 0

Dislikes 0

Response

LaKenya Vannorman - LaKenya Vannorman On Behalf of: Chris Gowder, Florida Municipal Power Agency, 5, 6, 3; Jade Bulitta, Florida Municipal Power Agency, 5, 6, 3; Navid Nowakhtar, Florida Municipal Power Agency, 5, 6, 3; - LaKenya Vannorman, Group Name Florida Municipal Power Agency (FMPA)

Answer	No
Document Name	
Comment	
FMPA supports and recommends implementation of Southern Company comments.	
Likes 0	
Dislikes 0	
Response	
Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez	
Answer	No
Document Name	
Comment	
SRP agrees and supports comments from Tacoma Power.	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	No
Document Name	
Comment	
<p>AZPS feels the set of scenarios being proposed should be considerations and not mandatory Requirements. AZPS agrees with EEI's comments that the Balancing Authority should be able to determine and develop scenarios appropriate for their specific area. AZPS also agrees with the following EEI comments:</p> <p>While EEI agrees that ERAs should be performed using scenarios and contingencies that are likely to occur or have a history of occurring, we do not agree that the scenarios in requirement R2 are the correct level of risk within the Operations Planning Horizon nor that the scenarios are clear and understandable. We suggest that the SDT consider incorporating scenario development within Requirement R1.</p> <p>We also do support the proposed number and prescription in BAL-007-1 for the scenarios, noting the statement on page 4 of the SAR, "<i>For energy reliability assessments, measurements and observations should be compared to predefined criteria, and results should be in terms of impact on the BES. The predefined criteria do not need to be specifically defined within the Standard. Instead, each entity will establish and document criteria as part of complying with the Standard.</i>" While we support that the scenarios should contain contingencies related to demand, energy, and fuel considerations;</p>	

the BA should be afforded the latitude to determine what is reasonable to include within the Operations Time Horizon. The BA should also not be required to include high-risk, low-probability scenarios in their ERAs.

We are also concerned that as written this requirement would require more BA resources in order to create the large number of studies being proposed and question whether these studies would provide the desired reliability benefit. Moreover, requiring a specific number and type of scenarios to be analyzed in each time-step of the ERA process could result excessive amounts of data that could produce “false positives” that would make it difficult to determine when the BA should act.

We further question the usefulness of the Attachment 1 and the identified contingencies because it is unclear whether they add any reliability benefits or provide any utility in developing useful ERAs. The energy contingency in Attachment 1 also appears to be redundant to the Most Severe Single Contingency (MSSC) calculation already required in BAL-002 which is used to determine a Balancing Authority’s Contingency Reserves. It is also important to recognize that the fuel contingency in Attachment 1 would only be as useful as the Balancing Authority’s visibility into fuel supply information. We agree that the BA should determine the energy and fuel contingencies that would yield the most value from the ERA process for their geographic region and market structure but see little value in what is provided in Attachment 1. For this reason, we ask the SDT to consider removing Attachment 1 from this standard.

Finally, the R3 requirement to develop Operating Plan(s) to *minimize* unacceptable risk identified in the ERA needs to be addressed along with ERA scenarios. The SDT made it clear that these Operating Plans should be specific to the new BAL-007 standard and would not overlap or conflict with existing Operating Plan(s) already required in TOP-002-4 R4 Next Day, BAL-002 R2 MSSC Contingency Reserves, and EOP-011-2 R2 Energy and Capacity Emergencies. However, this standard does not provide the BA with any authority to *minimize* forecasted energy emergencies. This limits the actions a BA can take in BAL-007 to increased study frequency, communication with generators and other relevant entities, requesting that the RC take action such as moving generation outages, or identifying existing Operating Plans that would be enacted should the risk of an actual energy emergency become imminent. With this in mind, we suggest that the SDT consider reducing the scope of requirement R3 and making it a sub requirement of R1. We additionally ask the SDT to consider changing the requirement to the development of strategic actions that would minimize the risks associated with energy emergencies that the BA could reasonably take up to and including the identification of existing Operating Plans, should a forecasted energy emergency become an actual energy emergency.

To address these concerns, we offer the following changes to Requirements R1, R2 and R3 for SDT consideration (changes in boldface):

- R1.
- 1.4. Include a documented set of Balancing Authority determined ERA scenarios to be considered that include the following:**
 - 1.4.1. The Projected System Load**
 - 1.4.2. Energy and/or Fuel contingencies**
 - 1.4.3. Any event that is projected or likely to occur.**
 - 1.4.4. How these contingencies are considered.**
 - 1.5 Include a documented rationale for scenarios chosen in Requirement R1.4**
 - 1.6 Develop and document mitigating actions that could be used to *minimize* risk(s) identified by the results of an ERA. Such actions may include but are not limited to:**
 - 1.6.1. Increase ERA study frequency.**
 - 1.6.2. Communicate with generators concerning fuel sources.**
 - 1.6.3. Request the RC to take specific action.**
 - 1.6.4. Identify existing Operating Plan(s) that would be informed by the ERA results should the forecasted energy emergency become an actual emergency.**

In R1.6, the SDT should consider removing “unacceptable” as it may be perceived differently by the entity.

Likes 0

Dislikes 0

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer No

Document Name

Comment

ISO-NE believes the listed scenarios are sufficient, however there should be some allowance and flexibility for BAs to determine if certain scenarios are not applicable to their area or if additional scenarios are needed.

Likes 0

Dislikes 0

Response

Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

BAs across the NERC footprint have large variations in size, risks faced, and operational characteristics. The scenarios specified in the Requirement R2 do not capture the correct level of risk for all BAs, and it is doubtful whether any prescribed set of scenarios would function equally well for all BAs. A better approach would be to allow each BA to develop its own scenarios that best capture the specific risks of its unique BA Area.

In addition, the references to fuel contingencies are very expansive and appear to require BAs to evaluate portions of the supply chain that they have no authority over and for which they cannot obtain meaningful data, such as uranium supply chains, gas pipeline design and operations, and railroad networks used for shipping coal. Finally, the term “likely” in Requirement R2.1.7 is ambiguous; replacing it with the term “credible” would result in a less ambiguous Requirement.

Likes 0

Dislikes 0

Response

Jennifer Neville - Western Area Power Administration - 6

Answer No

Document Name	
Comment	
The scenarios to be considered are reminiscent and duplicative of those already prescribed under existing standards (EOP-011 and TOP-002, Requirement R8) and should not be prescribed in BAL-007. Instead, the BA should have the ability to determine the scenarios relevant to ensuring reliable operations in its footprint.	
Likes 0	
Dislikes 0	
Response	
Denise Sanchez - Denise Sanchez On Behalf of: Diana Torres, Imperial Irrigation District, 1, 6, 5, 3; George Kirschner, Imperial Irrigation District, 1, 6, 5, 3; Jesus Sammy Alcaraz, Imperial Irrigation District, 1, 6, 5, 3; Tino Zaragoza, Imperial Irrigation District, 1, 6, 5, 3; - Denise Sanchez	
Answer	No
Document Name	
Comment	
IID believes the proposed scenarios for ERA levels appear to be reasonable. Due to the inherent complexity and uncertainty of forecasting the weather and allocating water supplies during scarcity, IID believes that evaluating "water as fuel" for hydro generation should be limited to situations where hydro generation makes up a significant portion of the BA's generation mix.	
Likes 0	
Dislikes 0	
Response	
Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company	
Answer	No
Document Name	
Comment	
Southern Company supports the EEI comments and agrees that the BA should determine the number of scenarios, scenario components, and Energy and Fuel Contingencies that are reasonable to include in an ERA for their area or market. Southern also agrees with EEI that the BA does not have additional authority to mitigate forecasted energy emergencies and any actions taken would be to minimize risk.	
Likes 0	
Dislikes 0	
Response	

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Collaborators

Answer No

Document Name

Comment

It is our opinion that specific scenarios should not be included in the Reliability Standard. We believe that by doing so, it makes the Reliability Standard too prescriptive and limits the ability of the BA to appropriately develop specific scenarios for their Balancing Authority Area and the unique challenges encountered therein.

Likes 0

Dislikes 0

Response

Elizabeth Davis - Elizabeth Davis On Behalf of: Thomas Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis, Group Name ISO/RTO Standards Review Committee

Answer No

Document Name

Comment

The IRC SRC has two points we would like addressed to this question.

- 1) BA determination and responsibility over ERA scenarios.
- 2) Relocation and revision of Fuel Contingency requirement to the Technical Rationale and to include only readily available information to BAs.

Requirement 2:

To accommodate alternative ERA approaches, the SRC proposes that the **BA should have the ability to determine the ERA scenarios relevant to ensuring reliable operations in its footprint.** Examples could still be provided in the Technical Rationale.

As we move into the future, and probabilistic models and analysis become more prevalent, the standard should be flexible enough to allow for industry and technology changes to reflect generally accepted industry practices.

As noted above, the SRC recommends that the BA have the ability to determine the ERA scenarios relevant to ensuring reliable operations in its footprint. Therefore, the contingencies outlined in **Attachment 1 should be migrated to the Technical Rationale.**

The SRC requests the following change under Fuel contingency:

Current: The fuel sources to be considered should include pipelines, suppliers of consumable fuels, and variable sources like solar and wind energy.

Proposed Revision: The fuel sources to be considered should include information readily available to the BA at the time of the ERA (or as provided to the BA by the Generator Operator) and may include pipelines, suppliers of consumable fuels, and variable sources like solar and wind energy.

Likes 0

Dislikes 0

Response

Holly Mitchell - NorthWestern Energy - NA - Not Applicable - WECC

Answer No

Document Name

Comment

R2 specifies “an” energy/fuel supply contingency, implying all known energy/fuel supply contingencies. Attachment 1 explicitly defines what “the largest” energy/fuel supply contingency is. It is unclear whether the intention is that only the largest energy/fuel supply contingency is studied or if all known energy/fuel supply contingencies are studied. (This is made clear in the technical justification but is not clear in the text of the standard draft.)

Likes 0

Dislikes 0

Response

Stephanie Kenny - Edison International - Southern California Edison Company - 6

Answer No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Darcy O'Connell - California ISO - 2

Answer No

Document Name

Comment

In addition to supporting comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee, CAISO has the following comments:

- Propose the SDT to include language that will allow BAs to exclude unlikely and extreme (improbable) risks from the ERA scenarios

Likes 0

Dislikes 0

Response

Diane E Landry - Public Utility District No. 1 of Chelan County - 1,3,5,6, Group Name CHPD

Answer No

Document Name

Comment

Chelan PUD recommends that the ERA requirements apply to LSEs and/or LREs and not be assigned to the BA.

Likes 0

Dislikes 0

Response

Stephen Whaite - Stephen Whaite On Behalf of: Lindsey Mannion, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response	
C. A. Campbell - LS Power Development, LLC - 5	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0

Response	
Sean Steffensen - IDACORP - Idaho Power Company - 1	
Answer	
Document Name	
Comment	
<p>Entities may have their own resource sufficiency/resource adequacy programs or requirements that entail similar evaluations for upcoming time periods such as peak seasons or situations such as loss of fuel. However, there may or may not be existing requirements to run analysis over a broad spectrum of scenarios even for non-peak months or seasons. Running and retaining the studies and the various scenarios on the timelines listed in the draft standard could take significant resources and time. This effort may be somewhat duplicative of other NERC standards or resource adequacy efforts. NERC should consider whether this requirement and standards are necessary given those other efforts, especially in anticipated system normal conditions.</p>	
Likes	0
Dislikes	0

Response	
Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC	
Answer	
Document Name	
Comment	
<p>BPA recommends that the ERA requirements apply to LSEs and/or LREs and not be assigned to the BA. Both the energy contingency and fuel supply contingency definitions in Attachment 1 suggest information that a BA may not have, and the responsibility for such should belong to a different registered function. For the RTO/ISO regions or those operating under a market structure, the information is submitted by GO/GOPs to the market operator. For regions like BPA, there is no market structure except the Western Energy Imbalance Market, which does not delve into this level of</p>	

requirements. It is within-hour energy transactions between the parties. Many of these RTOs/ISOs also perform the function of RC beside the market function.

Likes 0

Dislikes 0

Response

Donna Wood - Tri-State G and T Association, Inc. - 1

Answer

Document Name

Comment

NA

Likes 0

Dislikes 0

Response

4. The SDT proposes entities determine energy reserve margins which would provide clear criteria for whether or not the results of an ERA require Operating Plan(s) to mitigate potential energy deficiencies. Are energy reserve margins the right method to set that criterion and are the specific energy reserve margin specified in Requirement 8 the correct thresholds for both near-term and seasonal ERAs? Is this approach clear and understandable? If not, please provide the basis that supports your answer or suggestions for revision.

Diane E Landry - Public Utility District No. 1 of Chelan County - 1,3,5,6, Group Name CHPD

Answer No

Document Name

Comment

Chelan PUD is concerned that the requirements of BAL-007 are largely duplicative and potentially inconsistent with established and NERC-approved reserve sharing and FERC approved resource adequacy programs. **BAL-007 must recognize that a regional reliability program is an acceptable way to meet the Standard and thus should be recognized in the Requirement as an acceptable means of meeting the energy reserve margins.**

The Western Power Pool (WPP) is working in conjunction with western utilities to develop the FERC-approved Western Resource Adequacy Program (WRAP). This program takes advantage of load and generation diversity within the western interconnection to provide an efficient and effective program that pools capacity resources together to meet regional resource adequacy requirements without an undue burden on individual Balancing Authorities.

As permitted by NERC and WECC standards BAL-002 and BAL-002-WECC; participating Balancing Authorities within the WPP have instituted the WPP Reserve Sharing Program for Contingency Reserve. By collectively pooling resources, Participants are entitled to use not only their own "internal" reserve resources, but to call on other Participants for assistance if internal reserve does not fully cover a contingency. BAL-007 does not specifically recognize that utilities can meet the requirements dictated by R8 via participation in a regional program such as the WRAP. **This stipulation must be included in the Standard.** By way of comparison, BAL-002 includes language that specifically recognizes the ability to meet reserves via a Reserve Sharing Group. BAL-007 should include similar language to BAL-002 but with a focus on a resource adequacy program participation.

Likes 0

Dislikes 0

Response

Darcy O'Connell - California ISO - 2

Answer No

Document Name

Comment

In addition to supporting comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee, CAISO has the following comments:

- The CAISO does not support changing the proposed reserve margin unless NERC demonstrates there are technical justification for the change. BAs work with their PUCs to establish reserve margins.

Likes 0

Dislikes 0

Response

Stephanie Kenny - Edison International - Southern California Edison Company - 6

Answer No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Holly Mitchell - NorthWestern Energy - NA - Not Applicable - WECC

Answer No

Document Name

Comment

Energy reserve margins are a logical way to set the criterion, although “Energy Reserve Margin” should be a defined term. (See Question 7.)

More clarity should be provided with respect to the “largest N-1 Contingency”:

- • Is this analogous to Most Severe Single Contingency?
- • Is this contingency considering the capacity or the schedule of the lost energy?
- • Is the intention that the largest N-1 Contingency is an energy contingency, a fuel contingency, or the greater of the two? Is this the same for each R8.1, R8.2, R8.3?
- • Is the intention that the largest N-1 Contingency is what has been modeled in the ERA scenario in R2.1, or is it effectively an N-1-1 for R8.2 and R8.3 (e.g. for R8.2 the scenarios have an energy contingency built in—would the N-1 Contingency called out in R8.2 then be the next greatest N-1?)

The adders in the energy reserve margin calculations do not make sense. A generating unit or transmission path cannot carry >100% of its capacity, so the energy reserve margin should not account for >100% of the N-1. If it is determined that buffer is needed, it should be built into the load adder and/or scenario development process, or a separate buffer term (per comments on the load adder below).

An alternative option for a buffer would be a percentage of available generating capacity.

The technical justification for the 2%/5% load adder is “to reflect the risk of load forecast error”. This would inherently be captured under the development of designated high load cases. The load adder is redundant with the development of high load cases.

It is unclear why R8.2 and R8.3 have different methods for calculating energy reserve margin. This difference is not accounted for in the technical justification and seems to only convolute the energy reserve margin calculations.

Likes 0

Dislikes 0

Response

C. A. Campbell - LS Power Development, LLC - 5

Answer

No

Document Name

Comment

We agree with the energy margin approach only if generator capabilities are adjusted as we recommend in response to Question #2. If the generator capabilities are not adjusted then the energy reserves may not be deployable when required and result in an energy deficit when the analysis suggests their should be.

Likes 0

Dislikes 0

Response

Elizabeth Davis - Elizabeth Davis On Behalf of: Thomas Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis, Group Name ISO/RTO Standards Review Committee

Answer

No

Document Name

Comment

There are three main issues we seek the SDT to address to this question.

- 1) BA and RC collaboration to determine an acceptable level of risk.
- 2) Clarification of the ultimate goal of the standard; i.e. maintaining energy reserve margin or serving load
- 3) Clarification of duplication between R8.1 and R 8.2.

Energy Reserve Margins

Although there are generally accepted assessment metrics for capacity assessment, there are no generally accepted energy assessment metrics. In absence of generally accepted energy assessment metrics, the SRC proposes that the BA work with its RC to determine the appropriate Energy Reserve margin for its footprint. The margins proposed in the standard can be unreasonably large and do not allow the flexibility necessary for BAs to factor in the impact of Reserve Sharing Groups that they might be members of.

If the SDT is trying to develop industry accepted energy assessment criteria via this proposed standard, the energy reserve margin needs to be considered in combination with the demand scenarios and contingencies to be assessed (i.e., how severe or stressed the scenarios are, and how much energy margin is required).

Finally, the standard needs to acknowledge that there may be times when the BA's ERA indicates there is insufficient energy to serve all the demand while maintaining its energy reserve margin. During those periods, is it more important for the BA to maintain its energy reserve margin by shedding load or by reducing the energy reserve margin to show it can continue to serve load only by reducing the energy reserve margin? The BA standard should not penalize the BA if there are insufficient resources available to serve the projected load as resource adequacy requirements are not under the BA's jurisdiction.

R8.1, R8.2

The requirements for these two are the same; are they intended to be the same? In R8.2 is the contingency intended to be the second largest contingency (the first was already simulated).

Likes 0

Dislikes 0

Response

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Collaborators

Answer

No

Document Name

Comment

Similar to our response to question 3, It is our opinion that it should be up to the individual BA to determine both sufficient energy reserve margins and the method for determining said margins. We do however believe that there is room in the standard to require the BA to consider the ERA scenarios when developing said margins.

Likes 0

Dislikes 0

Response

Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer

No

Document Name

Comment

Southern Company supports the EEI comments and agrees that the BA should determine and set the reserve margin levels with which to compare against the results on an ERA that would provide the most meaningful information for the BA area.

Likes 0

Dislikes 0

Response

Denise Sanchez - Denise Sanchez On Behalf of: Diana Torres, Imperial Irrigation District, 1, 6, 5, 3; George Kirschner, Imperial Irrigation District, 1, 6, 5, 3; Jesus Sammy Alcaraz, Imperial Irrigation District, 1, 6, 5, 3; Tino Zaragoza, Imperial Irrigation District, 1, 6, 5, 3; - Denise Sanchez

Answer No

Document Name

Comment

IID believes that Balancing Authorities should be allowed to include energy obtained from a Reserve Sharing Group (RSG) in the calculation of energy reserve margins.

Likes 0

Dislikes 0

Response

Jennifer Neville - Western Area Power Administration - 6

Answer No

Document Name

Comment

While determining adequate Energy Reserve Margins is important to ensuring energy reliability, care needs to be taken when discussing reserve margins. As written, requirement R8 and its three sub-parts are very prescriptive and limit flexibility and the Technical Rationale is silent as to how the percentages in Parts 8.1-8.3 were determined. There is not a need for the standard to determine a specific threshold. Rather, the BA should be able to determine an appropriate threshold for their footprint based on their criteria.

Likes 0

Dislikes 0

Response

Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

It is unclear how factors such as demand response and block load transfers factor in to the concept of an energy reserve margin, so it is difficult to determine whether energy reserve margins are the correct method to determine whether mitigation of potential deficiencies is required. Regardless of how the energy reserve margin is calculated, the margins specified in Requirement R8 for both near-term and seasonal ERAs are unreasonably large. The margins currently specified in Requirement R8 would frequently result in the ERA showing a potential energy deficiency in scenarios where no energy deficiency actually exists, effectively rendering the ERA ineffective at accomplishing its stated purpose. Also, depending on what risk reduction measures may be required (see ERCOT's response to Question 6), this highly conservative margin could also potentially reduce reliability by leading the BA to take actions in the near-term that might lessen its ability to address an actual energy deficiency further in the future. For example, canceling a generator's maintenance outage to secure its availability in the near term to address an energy reserve margin deficiency identified under an ERA could preclude that generator's availability at a later time when it might actually be needed to serve load. The most effective method of evaluating ERA results will vary from BA to BA, and attempting to dictate a particular method or threshold in a Reliability Standard will compromise the usefulness of the ERA.

Likes 0

Dislikes 0

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer No

Document Name

Comment

With regards to R8, "...150% of the largest N-1 Contingency within each Balancing Authority's footprint plus at least 2% of the load forecast...". Is that saying, 150% of your largest N-1 and then 2% of the peak load in the study period, or is it based on historical peak? Assuming it is for the study period, if your peak load was 30,000 MW, you'd carry an additional 600 MW of reserve for your assessment timeline? This statement is tied to the near term assessment, so it's done more frequently. Does that imply that we expected to update and change the reserve requirements for each study? Would it not be easier to have this value be a static number based on peak load or seasonal peak load?

What is the technical rationale for developing the new criteria listed in 8.1 through 8.3?

It seems that the criteria could and probably should be the same as the already existing Energy Emergency Alerts (EEAs) as defined by EOP-011. ISO-NE believes that utilizing an already existing EEA levels would be beneficial to streamline the ERA reserve margins

Likes 0

Dislikes 0

Response

Daniela Atanasovski - APS - Arizona Public Service Co. - 1

Answer No

Document Name

Comment

AZPS believes that R8 should address or include Reserve Sharing Groups. AZPS is not aware of tools to accomplish the energy reserve margins requirement. Is it the BAs that are setting the Reserve Margin or the Load Serving Entities? AZPS agrees with EEI's comments, to remove R8 subsets and keep R8 requirement. The R8.1 is inconsistent with R2.1.1 and R2.1.4 scenarios; R8.1 requires ERMS for the Largest N-1 contingency however R2.1.1 and R2.1.4 are scenarios for normal operating conditions.

Additionally, AZPS agrees with the following EEI comments:

EEI supports the use of energy reserve margins to address potential energy emergencies, however, those reserve margins should not be specifically identified in BAL-007 but the BA should determine what is needed based on regional experience, modeling data, and realistic capabilities.

R8. Each Balancing Authority shall develop energy reserve margins for the ERA scenarios developed under Requirement R2. A technical rationale supporting reserve margins shall be developed to support energy reserve margins for planned scenarios that are based on regional experience, modeling data and realistic capabilities within the BA's area. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

Remove 8.2

Likes 0

Dislikes 0

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer

No

Document Name

Comment

SRP agrees and supports comments from Tacoma Power. In addition, SRP isn't opposed to computing the reserve margins for the time horizons as described in the draft Standard. However, the minimums prescribed in R8 appear to be excessive for most risks, up to 3 to 4 times our Contingency Reserve requirement. Plus, SRP feels that the requirement is completely unreasonable as 150% is excessive and during times of scarcity. SRP believes the example below has more appropriate margins and are more consistent with the at-risk capacity. A BA is then free to use a higher margin if appropriate for a scenario where there is firmer expectation of widespread inability to deliver natural gas or coal, or for periods of low wind or cloudy days.

The following are some examples of more appropriate minimum reserve margins for your consideration.

2.1.1. Projected system load for the interval being studied with system normal (no contingency) conditions; Near-term ERA margin at least 2% of the load forecast, Seasonal ERA margin at least 5% of the load forecast.

2.1.2. Projected system load for the interval being studied with an energy contingency as described in Attachment 1; ERA margin at least the higher of 100% of the largest N-1 Contingency or Near-term ERA margin at least 2% of the load forecast, Seasonal ERA margin at least 5% of the load forecast.

2.1.3. Projected system load for the interval being studied with fuel supply contingency as described in Attachment 1; ERA margin at least 75% of the at-risk generation capacity.

2.1.4. High load for the interval being studied with system normal (no contingency) conditions; Near-term ERA margin at least 2% of the load forecast, Seasonal ERA margin at least 5% of the load forecast.

2.1.5. High load for the interval being studied with energy contingency as described in Attachment 1; ERA margin at least the higher of 100% of the largest N-1 Contingency or Near-term ERA margin at least 2% of the load forecast, Seasonal ERA margin at least 5% of the load forecast.

2.1.6. High load for the interval being studied with fuel supply contingency as described in Attachment 1; and ERA margin at least 75% of the at-risk generation capacity plus 2% of the load forecast, Seasonal ERA margin at least 5% of the load forecast.

2.1.7. If appropriate for the seasonal time horizon, a scenario(s) with a likely event of occurring within the interval being studied that may include

seasonally appropriate historical events, generation specific fuel or energy contingency scenarios, and weather events that are projected to occur if appropriate for the seasonal time horizon only. ERA margin at least 75% of the at-risk generation capacity plus 2% of the load forecast, Seasonal ERA margin at least 5% of the load forecast.

Likes 0

Dislikes 0

Response

LaKenya Vannorman - LaKenya Vannorman On Behalf of: Chris Gowder, Florida Municipal Power Agency, 5, 6, 3; Jade Bulitta, Florida Municipal Power Agency, 5, 6, 3; Navid Nowakhtar, Florida Municipal Power Agency, 5, 6, 3; - LaKenya Vannorman, Group Name Florida Municipal Power Agency (FMPA)

Answer

No

Document Name

Comment

FMPA supports and recommends implementation of Southern Company comments.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer

No

Document Name

Comment

EI supports the use of energy reserve margins to address potential energy emergencies, however, those reserve margins should not be specifically identified in BAL-007 but the BA should determine what is needed based on regional experience, modeling data, and realistic capabilities. To address these concerns, we offer the following changes to Requirements R8, including the deletion of subparts 8.1, 8.2 and 8.3 for SDT consideration (changes in boldface):

R8. Each Balancing Authority shall **develop** energy reserve margins for **the** ERA scenarios **developed under Requirement R2. A technical rationale supporting reserve margins shall be developed to support energy reserve margins for planned scenarios that are based on regional experience, modeling data and realistic capabilities within the BA's area.** *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

Likes 0

Dislikes 0

Response

Aaron Staley - Orlando Utilities Commission - 1

Answer No

Document Name

Comment

See Tacoma Power comments.

Likes 0

Dislikes 0

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer No

Document Name

Comment

NV Energy is concerned that the requirements of BAL-007 are largely duplicative and potentially inconsistent with established and NERC-approved reserve sharing and FERC approved resource adequacy programs. **BAL-007 must recognize that a regional reliability program is an acceptable way to meet the Standard and thus should be recognized in the Requirement as an acceptable means of meeting the energy reserve margins.**

The Western Power Pool (WPP) is working in conjunction with western utilities to develop the FERC-approved Western Resource Adequacy Program (WRAP). This program takes advantage of load and generation diversity within the western interconnection to provide an efficient and effective program that pools capacity resources together to meet regional resource adequacy requirements without an undue burden on individual Balancing Authorities.

As permitted by NERC and WECC standards BAL-002 and BAL-002-WECC; participating Balancing Authorities within the WPP have instituted the WPP Reserve Sharing Program for Contingency Reserve. By collectively pooling resources, Participants are entitled to use not only their own "internal" reserve resources, but to call on other Participants for assistance if internal reserve does not fully cover a contingency. BAL-007 does not specifically recognize that utilities can meet the requirements dictated by R8 via participation in a regional program such as the WRAP. **This stipulation must be included in the Standard.** By way of comparison, BAL-002 includes language that specifically recognizes the ability to meet reserves via a Reserve Sharing Group. BAL-007 should include similar language to BAL-002 but with a focus on a resource adequacy program participation.

Likes 0

Dislikes 0

Response

Robert Blackney - Edison International - Southern California Edison Company - 1

Answer No

Document Name	
Comment	
See comments submitted by the Edison Electric Institute	
Likes 0	
Dislikes 0	
Response	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC	
Answer	No
Document Name	
Comment	
R8.1, R8.2	
The requirements for these two are the same; are they intended to be the same? In R8.2 is the contingency intended to be the second largest contingency (the first was already simulated).	
Energy Reserve Margins	
Although there are generally accepted assessment metrics and criteria for capacity assessment, there are no generally accepted energy assessment criteria. In absence of generally accepted energy assessment metrics and criteria, we propose that the BA with the RC determine the appropriate energy measures for its Area.	
Since ERA concepts are evolving, developing industry accepted energy assessment criteria will take some time (i.e., what is the appropriate level of energy reserve margins, in combination with the demand scenarios and contingencies to be assessed). The metrics could be included in future when there is industry consensus.	
Likes 0	
Dislikes 0	
Response	
Robert Follini - Avista - Avista Corporation - 3	
Answer	No
Document Name	
Comment	

EI supports the use of energy reserve margins to address potential energy emergencies, however, those reserve margins should not be specifically identified in BAL-007 but the BA should determine what is needed based on regional experience, modeling data, and realistic capabilities. To address these concerns, we offer the following changes to Requirements R8, including the deletion of subparts 8.1, 8.2 and 8.3 for SDT consideration (changes in boldface):

R8. Each Balancing Authority shall develop energy reserve margins for the ERA scenarios developed under Requirement R2. A technical rationale supporting reserve margins shall be developed to support energy reserve margins for planned scenarios that are based on regional experience, modeling data and realistic capabilities within the BA's area. [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

REMOVE THIS {C}8.1 For the ERA scenarios identified in Requirement R2.1.1 and Requirement R2.1.4, the energy reserve margin is at least 150% of the largest N-1 Contingency within BAL-007-1 – Energy Reliability Assessments Draft 1 of BAL-007-1 January 2024 Page 7 of 16 Public Public each Balancing Authority's footprint plus at least 2% of the load forecast for the near-term ERA or at least 5% of the load forecast for the seasonal ERA;

REMOVE THIS {C}8.2 For the ERA scenarios identified in Requirement R2.1.2 and Requirement R2.1.5, the energy reserve margin is at least the larger of 150% of the largest N-1 Contingency within each Balancing Authority's footprint or 2% of the load forecast for the near-term ERA or at least 5% of the load forecast for the seasonal ERA; and

REMOVE THIS {C}8.3 For the ERA scenarios identified in Requirements R2.1.3, Requirement R2.1.6, and Requirement R2.1.7, the energy reserve margin is at least 125% of the largest N-1 Contingency within each Balancing Authority's footprint.

Likes 0

Dislikes 0

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer

No

Document Name

Comment

EI supports the use of energy reserve margins to address potential energy emergencies, however, those reserve margins should not be specifically identified in BAL-007 but the BA should determine what is needed based on regional experience, modeling data, and realistic capabilities. To address these concerns, we offer the following changes to Requirements R8, including the deletion of subparts 8.1, 8.2 and 8.3 for SDT consideration (changes in boldface):

R8. Each Balancing Authority shall determine develop energy reserve margins calculated for each time step of an the ERA scenarios developed under Requirement R2. A technical rationale supporting reserve margins shall be developed to support energy reserve margins for planned

scenarios that are based on regional experience, modeling data and realistic capabilities within the BA's area. [Violation Risk Factor: Medium]
[Time Horizon: Operations Planning]

{C}8.1 For the ERA scenarios identified in Requirement R2.1.1 and Requirement R2.1.4, the energy reserve margin is at least 150% of the largest N-1 Contingency within BAL-007-1 – Energy Reliability Assessments Draft 1 of BAL-007-1 January 2024 Page 7 of 16 Public Public each Balancing Authority's footprint plus at least 2% of the load forecast for the near-term ERA or at least 5% of the load forecast for the seasonal ERA;

{C}8.2 For the ERA scenarios identified in Requirement R2.1.2 and Requirement R2.1.5, the energy reserve margin is at least the larger of 150% of the largest N-1 Contingency within each Balancing Authority's footprint or 2% of the load forecast for the near-term ERA or at least 5% of the load forecast for the seasonal ERA; and

{C}8.3 For the ERA scenarios identified in Requirements R2.1.3, Requirement R2.1.6, and Requirement R2.1.7, the energy reserve margin is at least 125% of the largest N-1 Contingency within each Balancing Authority's footprint.

Likes 0

Dislikes 0

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Fong Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer

No

Document Name

Comment

SMUD and BANC support the comments submitted by Tacoma Power.

Likes 0

Dislikes 0

Response

Junji Yamaguchi - Hydro-Quebec (HQ) - 5

Answer

No

Document Name

Comment

R8.1, R8.2

The requirements for these two are the same; are they intended to be the same? In R8.2 is the contingency intended to be the second largest contingency (the first was already simulated).

Energy Reserve Margins

Although there are generally accepted assessment metrics and criteria for capacity assessment, there are no generally accepted energy assessment criteria. In absence of generally accepted energy assessment metrics and criteria, we propose that the BA with the RC determine the appropriate energy measures for its Area.

Since ERA concepts are evolving, developing industry accepted energy assessment criteria will take some time (i.e., what is the appropriate level of energy reserve margins, in combination with the demand scenarios and contingencies to be assessed). The metrics could be included in future when there is industry consensus.

R9: is implicit and superfluous.

R10: In our interpretation, when the BA does the analysis in R1 and R2, if he sees a problem (R3) he will correct it at the source (by applying the management means at his disposal) so that in real time these issues are already addressed. These notifications are therefore unnecessary.

Likes 0

Dislikes 0

Response

Shannon Mickens - Shannon Mickens On Behalf of: Joshua Phillips, Southwest Power Pool, Inc. (RTO), 2; - Shannon Mickens, Group Name SPP RTO

Answer

No

Document Name

Comment

SPP has a concern about the energy reserve margins being the right method to set that criterion. From our perspective, there are generally accepted assessment metrics for capacity assessment, however, there are no generally accepted energy assessment metrics. In the absence of generally accepted energy assessment metrics, there is the concern of the assessment will not meet its expectations.

SPP recommends that the BA work with its RC to determine the appropriate Energy Reserve margin for its footprint. The margins proposed in the standard can be unreasonably large and do not allow the flexibility necessary for BAs to factor in the impact of Reserve Sharing Groups that's associated with their stakeholder process.

Likes 0

Dislikes 0

Response

Constantin Chitescu - Ontario Power Generation Inc. - 5

Answer No

Document Name

Comment

OPG supports NPCC Regional Standards Committee's comments:

"R8.1, R8.2

The requirements for these two are the same; are they intended to be the same? In R8.2 is the contingency intended to be the second largest contingency (the first was already simulated).

Energy Reserve Margins

Although there are generally accepted assessment metrics and criteria for capacity assessment, there are no generally accepted energy assessment criteria. In absence of generally accepted energy assessment metrics and criteria, we propose that the BA with the RC determine the appropriate energy measures for its Area.

Since ERA concepts are evolving, developing industry accepted energy assessment criteria will take some time (i.e., what is the appropriate level of energy reserve margins, in combination with the demand scenarios and contingencies to be assessed). The metrics could be included in future when there is industry consensus."

Likes 0

Dislikes 0

Response

Ryan Strom - Ryan Strom On Behalf of: Carl Spaetzel, Buckeye Power, Inc., 4, 5, 3; Jason Proconiar, Buckeye Power, Inc., 4, 5, 3; Kevin Zemanek, Buckeye Power, Inc., 4, 5, 3; - Ryan Strom, Group Name Buckeye Power Group

Answer No

Document Name

Comment

Buckeye supports the comments made by ACES:

Similar to our response to question 3, It is our opinion that it should be up to the individual BA to determine both sufficient energy reserve margins and the method for determining said margins. We do however believe that there is room in the standard to require the BA to consider the ERA scenarios when developing said margins.

Likes 0

Dislikes 0

Response

Alan Kloster - Alan Kloster On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Alan Kloster

Answer No

Document Name

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and the MRO NSRF for question #4.

Likes 0

Dislikes 0

Response

Dania Colon - Orlando Utilities Commission - 5

Answer No

Document Name

Comment

While the FRCC RC does agree that it is good practice to maintain an appropriate level of reserves, we do not agree with the method proposed in this standard. Again, the standard does not allow for multiple BAs to participate in an RSG.

The term "Energy Reserve" is not a NERC defined term and seems to be different from "Contingency Reserve" but is not defined or explained in the standard. Existing BAL-002 R2 covers the requirement to maintain a Contingency Reserves equal to, or greater than the MSSC to maintain system reliability. BAL-002 allows for RSGs, while this proposed standard does not. The additional "Energy Reserve" requirements far exceed the existing BAL-002 R2 requirements without an obvious reliability improvement.

The requirement for each BA to calculate an energy reserve margin of at least 150% of the largest N-1 Contingency (which now in Attachment 1 requires pipeline contingencies incorporating loss of multiple gasfired generators) within each BA's footprint plus at least 2% of the load forecast for the near-term ERA or at least 5% of the load forecast for the seasonal ERA is excessive. It would also be excessive for an RSG. FRCC RC does not believe this requirement is needed because Contingency Reserves are already calculated based on the existing BAL-002 R2 standard requirement.

Likes 0

Dislikes 0

Response

Helen Lainis - Independent Electricity System Operator - 2

Answer No

Document Name

Comment

R8.1, R8.2

The requirements for these two are the same; are they intended to be the same? In R8.2 is the contingency intended to be the second largest contingency (the first was already simulated).

Energy Reserve Margins

Although there are generally accepted assessment metrics and criteria for capacity assessment, there are no generally accepted energy assessment criteria. In absence of generally accepted energy assessment metrics and criteria, we propose that the BA with the RC determine the appropriate energy measures for its Area.

Since ERA concepts are evolving, developing industry accepted energy assessment criteria will take some time (i.e., what is the appropriate level of energy reserve margins, in combination with the demand scenarios and contingencies to be assessed). The metrics could be included in future when there is industry consensus. The SDT may want to consider a working group to further develop this.

Likes 0

Dislikes 0

Response**Richard Vendetti - NextEra Energy - 5****Answer**

No

Document Name**Comment**

Florida Power & Light does not agree with the methodology proposed in this standard to check the results of an ERA against an “Energy Reserve” margin. The term “Energy Reserve” is not a NERC defined term nor is it defined or well explained in the standard. It is a new term that is different from the NERC defined term “Reserve Margin” or “Contingency Reserve”. Reserve margins already exist sufficient to determine if the results of an ERA would potentially lead to an EEA. The existing BAL-002 R2 standard requirement calculates Contingency Reserves based on the Most Severe Single Contingency (MSSC). Additionally, EOP-011-2 Energy Emergency Alerts already describes the situations when to declare an EEA and uses Contingency Reserves as a measure to determine EEA levels. Requiring the BA to calculate another reserve margin solely for use in the ERA process does not bring added reliability benefit and is redundant.

Likes 0

Dislikes 0

Response**David Jendras Sr - Ameren - Ameren Services - 3****Answer**

No

Document Name**Comment**

Ameren agrees with and supports MISO's comments.

Likes 0

Dislikes 0

Response

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; John Merrell, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; - Jennie Wike, Group Name Tacoma Power

Answer

No

Document Name

Comment

Tacoma Power is concerned that the requirements of BAL-007 are largely duplicative and potentially inconsistent with established and NERC-approved reserve sharing and FERC approved resource adequacy programs. **BAL-007 must recognize that a regional reliability program is an acceptable way to meet the Standard and thus should be recognized in the Requirement as an acceptable means of meeting the energy reserve margins.**

The Western Power Pool (WPP) is working in conjunction with western utilities to develop the FERC-approved Western Resource Adequacy Program (WRAP). This program takes advantage of load and generation diversity within the western interconnection to provide an efficient and effective program that pools capacity resources together to meet regional resource adequacy requirements without an undue burden on individual Balancing Authorities.

As permitted by NERC and WECC standards BAL-002 and BAL-002-WECC; participating Balancing Authorities within the WPP have instituted the WPP Reserve Sharing Program for Contingency Reserve. By collectively pooling resources, Participants are entitled to use not only their own "internal" reserve resources, but to call on other Participants for assistance if internal reserve does not fully cover a contingency. BAL-007 does not specifically recognize that utilities can meet the requirements dictated by R8 via participation in a regional program such as the WRAP. **This stipulation must be included in the Standard.** By way of comparison, BAL-002 includes language that specifically recognizes the ability to meet reserves via a Reserve Sharing Group. BAL-007 should include similar language to BAL-002 but with a focus on a resource adequacy program participation.

Likes 2

Public Utility District No. 1 of Snohomish County, 1, Rhoads Alyssia; American Municipal Power, 5, Ritts Amy

Dislikes 0

Response

Kinte Whitehead - Exelon - 3

Answer

No

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

No

Document Name

Comment

As stated in previous comments in this document, BPA believes BAs are not responsible for this type of energy reserve margin. These requirements are better suited to be performed by LSEs and/or LREs.

Likes 0

Dislikes 0

Response

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro

Answer

No

Document Name

Comment

The energy reserve margin criteria in Requirement R8 are very prescriptive and do not appear have an associated technical justification to substantiate the proposed per cent margins and an impact assessment to current operational practices and requirements (for instance, BAL-002 already sets reserves requirements).

BC Hydro suggests that the Standard require the entities to have a documented methodology to determine energy reserve margins based on their prevailing conditions and operational experience.

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - 1,3 - WECC,Texas RE

Answer

No

Document Name

Comment

EI supports the use of energy reserve margins to address potential energy emergencies, however, those reserve margins should not be specifically identified in BAL-007 but the BA should determine what is needed based on regional experience, modeling data, and realistic capabilities.

Additionally, PNM is concerned that the proposed standard is potentially inconsistent with NERC-approved reserve sharing groups and FERC approved regional resource adequacy programs. Ball-007 should clearly state that participation in these approved programs are acceptable ways to meet the standard. For example, language in BAL-002 specifically recognizes the ability to meet reserves through a Reserve Sharing Group. BAL-007 should make the same clear for regional resource adequacy programs.

Likes 0

Dislikes 0

Response

Nazra Gladu - Manitoba Hydro - 1

Answer

No

Document Name

Comment

Manitoba Hydro is supportive of comments provided by the MRO NSRF.

Likes 0

Dislikes 0

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer

No

Document Name

Comment

"See comments submitted by the Edison Electric Institute"

Likes 0

Dislikes 0

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer

No

Document Name

Comment

Duke Energy supports and recommends implementation of Southern Company comments. Additionally, the energy reserve margin proposed provides a metric for the evaluation and determination of the potential for energy deficiencies. Increasing the proposed margin above 150% risks the creation of 'false positives' for an energy deficiency that isn't plausible.

Likes 0

Dislikes 0

Response**Daniel Gacek - Exelon - 1**

Answer

No

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response**Christine Kane - WEC Energy Group, Inc. - 3, Group Name WEC Energy Group**

Answer

No

Document Name

Comment

WEC Energy Group supports the MRO NSRF comments.

Likes 0

Dislikes 0

Response**Sean Steffensen - IDACORP - Idaho Power Company - 1**

Answer

No

Document Name

Comment

The requirement to increase reserve margins to 150% of the largest N-1 Contingency within a BA is excessive given the fact that many entities are part of a reserve sharing pool and have access to reserves. The requirement should be flexible, perhaps up to the entity to determine or set on a regional basis, or should be specified to only apply to those not participating in a reserve sharing pool.

Likes 0

Dislikes 0

Response

Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion

Answer

No

Document Name

Comment

Dominion Energy supports the comments submitted by EEI.

Likes 0

Dislikes 0

Response

Nicolas Turcotte - Hydro-Quebec (HQ) - 1

Answer

No

Document Name

Comment

R8.1, R8.2

The requirements for these two are the same; are they intended to be the same? In R8.2 is the contingency intended to be the second largest contingency (the first was already simulated).

Energy Reserve Margins

Although there are generally accepted assessment metrics and criteria for capacity assessment, there are no generally accepted energy assessment criteria. In absence of generally accepted energy assessment metrics and criteria, we propose that the BA with the RC determine the appropriate energy measures for its Area.

Since ERA concepts are evolving, developing industry accepted energy assessment criteria will take some time (i.e., what is the appropriate level of energy reserve margins, in combination with the demand scenarios and contingencies to be assessed). The metrics could be included in future when there is industry consensus.

R9: is implicit and superfluous.

R10: In our interpretation, when the BA does the analysis in R1 and R2, if he sees a problem (R3) he will correct it at the source (by applying the management means at his disposal) so that in real time these issues are already addressed. These notifications are therefore unnecessary.

Likes 0

Dislikes 0

Response

Anna Martinson - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO Group

Answer

No

Document Name

Comment

While the MRO NSRF acknowledges energy reserve margin may be an important criterion to consider in ensuring energy reliability, the MRO NSRF has several concerns with what is proposed. The MRO NSRF asks the SDT to:

1. Distinguish how BAL-007 differs from BAL-002 and requirements to meet the Most Severe Single Contingency (MSSC) to eliminate opportunities for double jeopardy.
2. Meet with the NERC Resources Subcommittee to garner feedback and recommendations prior to its next posting.
3. Eliminate prescribed energy reserve margin percentages from the standard. Allow each BA to determine their own criteria. Relevant citations from page 4 of the SAR:
 - a. "For energy reliability assessments, ...results should be in terms of impact on the BES."
 - b. "The predefined criteria do not need to be specifically defined within the Standard. Alternatively, the standard would require each entity to establish and document criteria as part of complying with the Standard."
4. Justify how the percentages in Parts 8.1 - 8.3 were determined.

Each BA should be able to determine an appropriate energy reserve margin threshold for their footprint based on their criteria as illustrated by a working example below. With increasing uncertainties in the transitioning fleet and more extreme weather, reliability challenges can arise from more sources than fuel supply alone, including wind, solar, interchanges, etc. than just the largest contingency or load error threat envisioned in Requirement 8. In addition, with the advance of data analytics, some BAs are making progress to quantify "Net Uncertainties" to set the threshold and BAL-007 should not over-prescribe and limit BAs' good initiatives to best quantify "Net Uncertainty" and inform Operation Planning.

Example: One BA sets its reserve margin threshold based on quantified Net Uncertainties and predicted daily risk profiles. The Net Uncertainty is quantified based on the historical distribution at specified confidence levels, accounting for load, wind and solar forecast errors, thermal generation availability and interchange changes between Next-Day projection and Real-Time actual. A machine learning model is used to predict the daily risk profile at High/Medium/Low levels based on what was experienced in historical like-weather and operating conditions. This dynamic, data-driven method is more reliable and efficient to manage varying system conditions instead of static administrative values which can become stagnant.

The measure should be one of how reliably the BA was able to plan to serve its load.

Likes 0

Dislikes 0

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer No

Document Name

Comment

Black Hills Corporation mostly agrees with EEI's comments:

Black Hills believes this requirement may impact BAs differently based on the makeup of their generation resource portfolio and should consider other initiatives being taken by the industry such as WRAP and existing reserve sharing group requirements listed in BAL-002 before unilaterally mandating energy reserve margins for all BA footprints. Additionally, depending on a BAs current generation resource makeup and reserve margins, it could take 2-5 Years for a BA to build generation capacity that allows for compliance with this requirement.

EEI supports the use of energy reserve margins to address potential energy emergencies, however, those reserve margins should not be specifically identified in BAL-007 but the BA should determine what is needed based on regional experience, modeling data, and realistic capabilities.

R8. Each Balancing Authority shall (*remove: **determine***) **develop** energy reserve margins (*remove: **calculated***) for (*remove: **each time step of an***) **the ERA scenarios developed under Requirement R2. A technical rationale supporting reserve margins shall be developed to support energy reserve margins for planned scenarios that are based on regional experience, modeling data and realistic capabilities within the BA's area.** [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning*]

(remove 8.2: 8.2 For the ERA scenarios identified in Requirements R2.1.3, Requirement R2.1.6, and Requirement R2.1.7, an energy reserve margin of at least of 125% or more should be considered for of the largest N-1 Contingency within each Balancing Authority's footprint.)

Likes 0

Dislikes 0

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Entity Monitoring

Answer No

Document Name

Comment

Not for all applicable entities. An energy reserve margin of 150% of a BAs largest N-1 contingency is too high for small BAs or BAs that are part of an RSG. The DT need to address the needs of the small BAs as well as the large ones.

Likes 0

Dislikes 0

Response

Richard Gilbert - Florida Reliability Coordinating Council – Member Services Division - 8 - SERC

Answer

No

Document Name

Comment

While the FRCC RC agrees that it is good practice to maintain an appropriate level of reserves, we do not agree with the method proposed in this standard – a method which is not only new but also does not allow for multiple BAs to participate in an RSG or Collection of BAs.

First, the standard refers to the term “Energy Reserve,” which is not a NERC defined term, and fails to provide an explicit definition or clear explanation of what this reserve calculation is or why a new calculation is even necessary. Though the term appears to be used similarly to the “Contingency Reserve” term, there are obvious inconsistencies that warrant explanation, including that the existing BAL-002 R2 already covers the requirement to maintain a Contingency Reserves equal to or greater than the Most Severe Single Contingency (MSSC) to maintain system reliability. Another inconsistency is that BAL-002 allows for RSGs or Collection of BAs, while this proposed standard is entirely silent on the topic of RSGs or Collection of BAs. If the standard intended for the “Energy Reserve” requirements to change, enhance, or exceed the existing BAL-002 R2 “Contingency Reserve” requirements, then it has done so without explanation or any obvious reliability improvement.

FRCC also notes the excessiveness of the standard’s requirement for each BA to calculate an energy reserve margin of at least 150% of the largest N-1 Contingency (*which now in Attachment 1 requires pipeline contingencies incorporating loss of multiple gas-fired generators*) within each BA’s footprint plus at least 2% of the load forecast for the “Near-Term” ERA or at least 5% of the load forecast for the seasonal ERA. (As explained previously, FRCC objects to the standard’ use of the term “Near-Term,” as it is not clearly defined.) Not only is this requirement excessive for an individual BA, but it would also be excessive for an RSG or Collection of BAs. Regardless, the requirement is unnecessary because Contingency Reserves are already calculated based on the existing BAL-002 R2 standard requirement. The existing BAL-002 R2 standard requires calculation of Contingency Reserves based on the MSSC and only once per year. The EOP-011-2 Attachment 1 Energy Emergency Alerts describes the circumstances to declare an EEA and uses Contingency Reserves as a measure to determine EEA level. Should the SDT feel the need to include language in this standard to compare the results of ERAs against reserves they should consider comparing ERA results to the reserve requirements in BAL-002 and EOP-011. Requiring the BA to calculate another reserve margin solely for use in the ERA process does not bring added reliability benefit.

Likes 1

Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott

Dislikes 0

Response

Donald Lock - Talen Generation, LLC - 5

Answer

No

Document Name

Comment

BAL-007 is cited as being part of NERC’s resiliency initiative, but it does not deal with the paramount challenge in this respect – resource adequacy, i.e. dwindling reserve margins and a lack of dispatchable generation. This issue requires Corrective Action Plans (CAPs), including making Reliability Must-Run (RMR) designations, to forestall disastrous demand-vs-capacity mismatches.

BAL-007 calls instead for Operating Plans, in accordance with the SAR goal to, “address energy assurance rather than resource adequacy.” It is not possible however to have one without the other. Energy supply cannot be ensured if the equipment needed to generate or store it is lacking.

The “general processes” of BAL-007 Operating Plans may be useful for near-term (several days to weeks) ERAs, but actions such as rescheduling outages and conserving fuel can do nothing for a fundamental mismatch of electric power demand and generation/storage capacity. The Technical Rationale of BAL-007 admits as much by including load shedding among the elements that may be included in the Operating Plan.

One cannot plan for only a moderate degree of blackouts. One of the principal lessons of Winter Storm Uri is that extreme weather is associated with extreme uncertainty regarding load predictions, generation plant survival, fuel supplies, ability to draw power from neighboring areas and the like. A planned mere bobble in BES reliability may therefore quickly become a full-scale disaster.

Likes 0

Dislikes 0

Response

Stephen Whaite - Stephen Whaite On Behalf of: Lindsey Mannion, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Donna Wood - Tri-State G and T Association, Inc. - 1

Answer

Document Name

Comment

NA

Likes 0

Dislikes 0

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer

Document Name

Comment

Texas RE appreciates the SDT's efforts to draft a clear standard for entities to determine energy reserve margins to provide criteria for whether or not the results of an ERA require Operating Plan(s) to mitigate potential energy deficiencies. Texas RE is not quite clear on the difference between "energy reserve margins" and "contingency reserves", which are procured to address forecasting errors or to replace deployed reserves due to system generation tripping or other operational issues.

BAs procure various ancillary service products to meet Primary Frequency Response (PFR), Reg up, contingency reserves, non-spin, etc. some of these products are for load forecast uncertainty, frequency response due to the loss of the largest unit or load variation in real-time. Is the SDT's intention that this energy reserve margin be in addition to the ancillary services procured based on the expected system conditions?

Likes 0

Dislikes 0

Response

5. Does the proposed new standard address the reliability gaps or risks identified in the SAR and differentiate itself from other standard requirements? In your response, please provide any information that supports your answer.

Donald Lock - Talen Generation, LLC - 5

Answer No

Document Name

Comment

BAL-007 follows the SAR, but the SAR does not address grid resiliency, as explained above.

Likes 0

Dislikes 0

Response

Richard Gilbert - Florida Reliability Coordinating Council – Member Services Division - 8 - SERC

Answer No

Document Name

Comment

The new standard neither addresses reliability gaps or risks nor differentiates itself in any way, as assessment of the same Bulk Power System risks is already addressed comprehensively in BAL-002-3 (DCS), EOP-011-2 (Emergency Operations), EOP-012-1 (Extreme Cold Weather preparedness and Operations), and TOP-001-5 (Transmission Operations). This standard is largely duplicative of existing standards.

Likes 1 Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott

Dislikes 0

Response

Anna Martinson - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO Group

Answer No

Document Name

Comment

The proposed standard does not address the following items identified in the SAR.

Page 4: "For energy reliability assessments, ... results should be in terms of impact on the BES."

"The predefined criteria do not need to be specifically defined within the Standard. Alternatively, the standard would require each entity to establish and document criteria as part of complying with the Standard."

In addition, there is a lack of clarity and significant overlap as to how BAL-007 will work with existing NERC standards: TOP-002, BAL-002 and BAL-003.

Finally, the MRO NSRF supports the coordination of Operating Plans among BAs, if not addressed under BA-BA Coordination Agreements. For example, it would make sense to reconcile assumed energy transfers as part of the ERA, particularly for systems where such transfers are material (see Project 2022-03 SAR page 4: “Energy reliability assessments should be required to be coordinated between areas to synchronize interchange assumptions.”).

Likes 0

Dislikes 0

Response

Sean Steffensen - IDACORP - Idaho Power Company - 1

Answer

No

Document Name

Comment

The proposed standard seems to place a lot of additional study and reporting requirements on entities that are already providing similar information by way of separate resource adequacy programs, operating plans, emergency plans, or NERC standards. NERC should consider alternative programs sufficient.

Likes 0

Dislikes 0

Response

Christine Kane - WEC Energy Group, Inc. - 3, Group Name WEC Energy Group

Answer

No

Document Name

Comment

WEC Energy Group supports the MRO NSRF comments.

Likes 0

Dislikes 0

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer

No

Document Name

Comment

Duke Energy supports and recommends implementation of FRCC comments.

Likes 0

Dislikes 0

Response**Selene Willis - Edison International - Southern California Edison Company - 5**

Answer

No

Document Name

Comment

“See comments submitted by the Edison Electric Institute”

Likes 0

Dislikes 0

Response**Nazra Gladu - Manitoba Hydro - 1**

Answer

No

Document Name

Comment

Manitoba Hydro is generally supportive of MRO NSRF comments. Manitoba Hydro supports the intent to coordinate Operating Plans among BAs. The Manitoba Hydro system is predominantly hydroelectric and, similar to other hydro dominant systems, is highly interconnected to neighboring BAs, therefore coordination on assumed energy transfers can be an important aspect of seasonal and shorter term operations planning.

Likes 0

Dislikes 0

Response**Casey Perry - PNM Resources - 1,3 - WECC, Texas RE**

Answer

No

Document Name

Comment

PNMR supports allowing regions to develop processes tailored to their region and experiences as noted by EEI.

Likes 0

Dislikes 0

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

No

Document Name

Comment

BPA has internal generation planning processes for evaluating risks to meet its forward load obligations, but these do not cover the entire load and generation of the BA. Determining a consistent metric for load planning would streamline processes for identifying response plans to seasonal extreme events. BPA recommends this standard clarify the responsibilities of actions different Registered Entities (RC, TO/TOP, GO/GOP, {LSE if reinstated}, and BAs) for developing, evaluating, and executing action plans to cover identified risks for extreme seasonal events. Reiterated, BPA does not perform this work as a BA and does not cover all load and generation in the BPA BA.

Likes 0

Dislikes 0

Response

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; John Merrell, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; - Jennie Wike, Group Name Tacoma Power

Answer

No

Document Name

Comment

The proposed standard addresses the reliability gaps identified in the SAR; however, it does not differentiate itself from other existing standards. There is a lack of clarity and significant overlap as to how BAL-007 will work with existing NERC standards: TOP-002, BAL-002 and BAL-003. The new requirements should be written into an existing standard as a starting point.

In addition, the standard should clearly indicate what reliability benefit will be received from doing the additional work. A small BA will be pulling from the same resources to meet BAL-007 as it currently uses to meet TOP-002, BAL-002 and BAL-003. For example, the additional reliability benefit to collecting 30-days worth of hourly data utilizing the same resources is likely to be counterproductive.

There is a need to balance administrative effort against reliability benefit. The Balancing Authority should have some discretion in determining when to develop a formal written Operating Plan(s) to mitigate energy reliability risks as, the further out an Operating Plan is written, the more times it will need to be modified.

Likes 2

Public Utility District No. 1 of Snohomish County, 1, Rhoads Alyssia; American Municipal Power, 5, Ritts Amy

Dislikes 0

Response

David Jendras Sr - Ameren - Ameren Services - 3

Answer No

Document Name

Comment

Ameren agrees with and supports MISO's comments.

Likes 0

Dislikes 0

Response

Richard Vendetti - NextEra Energy - 5

Answer No

Document Name

Comment

Florida Power & Light does not agree that this proposed standard address's reliability gaps due to its redundancy when compared to existing and enforceable reliability standards e.g., BAL-002, BAL-502, EOP-011, TOP-002 just to reference a few. The results of an ERA can only prompt more frequent analysis, communication to other entities, and informing existing standard requirements already being performed.

Likes 0

Dislikes 0

Response

Dania Colon - Orlando Utilities Commission - 5

Answer No

Document Name

Comment

The assessment of energy risks to the Bulk Power System is already addressed in BAL-002-3 (DCS), EOP-011-2 (Emergency Operations), EOP-012-1 (Extreme Cold Weather preparedness and Operations), and TOP-

001-5 (Transmission Operations). An addition to these standards that further defines and delineates the responsibility for the Energy Risk Assessment would accomplish the same objectives as the new standard.

Likes 0

Dislikes 0

Response

Alan Kloster - Alan Kloster On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Alan Kloster

Answer

No

Document Name

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and the MRO NSRF for question #5.

Likes 0

Dislikes 0

Response

Shannon Mickens - Shannon Mickens On Behalf of: Joshua Phillips, Southwest Power Pool, Inc. (RTO), 2; - Shannon Mickens, Group Name SPP RTO

Answer

No

Document Name

Comment

SPP has a concern about the proposed standard and how it will address any reliability gaps or risks identified.

From our perspective, it is also unclear at what point in the process mitigation plans under the standard would need to be developed, and whether the BA would have discretion in determining when to develop a mitigation plan to mitigate energy reliability risks. Such discretion will be necessary if the mitigation measure requirement is retained, as the further out a mitigation plan is written, the more frequently it will need to be modified as circumstances change.

Although mitigation of threats is important, there may be limited options available, and the effectiveness of a mitigation strategy may be dependent on circumstances beyond the BA's direct control. Therefore, the standard should focus on performing the ERA, identifying potential issues, and collaborating with neighboring BAs to address issues that cross seams. SPP supports and sees value in advance, multi-day operations planning as it increases the amount of time Operations must formulate plans prior to the Operating Day. In terms of mitigation, it will be important to allow the BA to have flexibility, as plans will continue to change along with the weather forecast, load forecast, unplanned outages, generator availability, etc. as the Operating Day approaches.

Likes 0

Dislikes 0

Response	
<p>Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Fong Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC</p>	
Answer	No
Document Name	
Comment	
SMUD and BANC support the comments submitted by Tacoma Power.	
Likes	0
Dislikes	0
Response	
<p>Aaron Staley - Orlando Utilities Commission - 1</p>	
Answer	No
Document Name	
Comment	
See Tacoma Power comments.	
Likes	0
Dislikes	0
Response	
<p>Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable</p>	
Answer	No
Document Name	
Comment	
<p>EI supports the direction of BAL-007-1, however, we do not agree with the prescriptive language currently contained in this draft. We note that there are significant regional differences regarding the type and appropriate actions necessary to address energy emergencies, therefore BAs should be given the latitude to develop processes that are tailored to their region and experiences.</p>	
Likes	0

Dislikes 0

Response

LaKenya Vannorman - LaKenya Vannorman On Behalf of: Chris Gowder, Florida Municipal Power Agency, 5, 6, 3; Jade Bulitta, Florida Municipal Power Agency, 5, 6, 3; Navid Nowakhtar, Florida Municipal Power Agency, 5, 6, 3; - LaKenya Vannorman, Group Name Florida Municipal Power Agency (FMPA)

Answer

No

Document Name

Comment

FMPA supports and recommends implementation of Southern Company comments.

Likes 0

Dislikes 0

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer

No

Document Name

Comment

SRP agrees and supports comments from Tacoma Power.

Likes 0

Dislikes 0

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer

No

Document Name

Comment

As stated in a previous response, the Operating Plan submission and review with the RC has created an administrative burden for both the BA and RC with minimal additional reliability benefit. Since Operating Plans are already required under EOP-011 and TOP-002, the administrative requirements of R4-R6 are duplicative and are recommended to be removed.

Likes 0

Dislikes 0

Response

Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2

Answer No

Document Name

Comment

Due to the issues identified in ERCOT's responses to other questions, the reliability benefit of this standard as drafted is unclear. It is unclear what actions BAs would need to undertake as a result of this standard that they do not already perform, and the standard would require each BA to devote significant time, effort, and resources to performing evaluations that may not yield useful information about its particular BA Area.

Likes 0

Dislikes 0

Response

Jennifer Neville - Western Area Power Administration - 6

Answer No

Document Name

Comment

The proposed standard addresses the reliability gaps identified in the SAR; however, it does not differentiate itself from other existing standards. There is a lack of clarity and significant overlap as to how BAL-007 will work with existing NERC standards: TOP-002, BAL-002 and BAL-003. The new requirements should be written into an existing standard as a starting point.

In addition, the standard should clearly indicate what reliability benefit will be received from doing the additional work.

Likes 0

Dislikes 0

Response

Denise Sanchez - Denise Sanchez On Behalf of: Diana Torres, Imperial Irrigation District, 1, 6, 5, 3; George Kirschner, Imperial Irrigation District, 1, 6, 5, 3; Jesus Sammy Alcaraz, Imperial Irrigation District, 1, 6, 5, 3; Tino Zaragoza, Imperial Irrigation District, 1, 6, 5, 3; - Denise Sanchez

Answer No

Document Name

Comment

IID believes the proposed standard does not sufficiently differentiate itself from existing standards to warrant the creation of a new standard. There does not appear to be anything significant in the proposed BAL-007-1 that cannot be incorporated into existing TOP, EOP, and TPL standards. For example, TPL-001 already requires that Planning Assessments be conducted for multiple planning horizons. The proposed standard does not provide any guidance for the setting of “predefined criteria”. Because meeting or not meeting “predefined criteria” requires the initiation of Corrective Action Plans, some guidance should be provided by the standard for the creation of those criteria.

Likes	0
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Dislikes	0
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Response

Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer	No
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Document Name	
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Comment

Southern Company supports the EEI comments that the standard, as written, does not address the reliability gaps or risks.

Likes	0
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Dislikes	0
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Response

Elizabeth Davis - Elizabeth Davis On Behalf of: Thomas Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis, Group Name ISO/RTO Standards Review Committee

Answer	No
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Document Name	
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Comment

The IRC SRC seeks responses to four main issues for this question.

- 1) Accommodating existing and effective processes in place to assess energy risk.
- 2) BA determination of timing for developing mitigation plans.
- 3) Shift focus of the standard to performing assessments and having actions ready and less on what is an appropriate level of risk for all regions and entities.
- 4) Process and requirements for the BA to submit plans to the RC without mandating an extended (60-day) formal review and feedback loop

While the SRC supports the need to address the reliability gaps/risks identified in the SAR, the administrative effort needed to implement a standard must be balanced against the resulting reliability benefit. In this instance, the approach described in the standard may not work for all entities and could

require some to replace existing processes that are working well with something that is less effective and more administratively burdensome. This is why the SRC is advocating the need for a less prescriptive approach and added flexibility.

It is also unclear at what point in the process mitigation plans under the standard would need to be developed, and whether the BA would have discretion in determining when to develop a mitigation plan to mitigate energy reliability risks. Such discretion will be necessary if the mitigation measure requirement is retained, as the further out a mitigation plan is written, the more frequently it will need to be modified as circumstances change.

Although mitigation of threats is important, there may be limited options available, and the effectiveness of a mitigation strategy may be dependent on circumstances beyond the BA's direct control. Therefore, the standard should focus on performing the ERA, identifying potential issues and collaborating with neighboring BAs to address issues that cross seams. The SRC supports and sees value in advance, multi-day operations planning as it increases the amount of time Operations has to formulate plans prior to the Operating Day. In terms of mitigation, it will be important to allow the BA to have flexibility, as plans will continue to change along with the weather forecast, load forecast, unplanned outages, generator availability, etc. as the Operating Day approaches.

The SRC proposes that if ERA procedures and mitigation measures are required to be submitted to the RC, the submission process should resemble the process used under TOP-002, which does not require RC review and feedback concerning the BA's next day methodology. TOP-002 also does not require RC review of Operating Plans, which in large part are coordinated with neighboring BAs and submitted to the RC for situational awareness and coordination purposes.

If RC participation in the ERA process is retained, language should be added to the relevant requirements indicating that the submittal of the ERA process to the RC is only required "upon RC request." Pursuant to NERC Standards Efficiency Review (SER) criteria, requirements R4, R5 and R6 should be stricken and modifications to the language in R1 and R2 should remove the requirement that the ERA process be "Reliability Coordinator reviewed."

R1. Each Balancing Authority shall document and maintain an Energy Reliability Assessment (ERA) process, which shall be reviewed at least annually and updated, if necessary.

R2. Each Balancing Authority shall develop, document, and maintain a set of ERA scenarios for both the near-term and seasonal time horizons.

R4. The Balancing Authority shall submit the following information to its Reliability Coordinator for review upon request : [Violation Risk Factor: Low]
[Time Horizon: Operations Planning]

Likes 0

Dislikes 0

Response

Darcy O'Connell - California ISO - 2

Answer

No

Document Name

Comment

In addition to supporting comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee, CAISO has the following comments:

- A reliability that addresses energy is needed in the industry and BAL-007 is a step to address energy sufficiency. The CAISO believes that R2.1.2 is broad enough and gives BAs the ability to model expected variability caused by solar rooftop PV and expected charging patterns for electric vehicles for near term and seasonal and long term assessments.

- Did the SDT considered the counter argument of oversupply conditions if we procured 150% reserves during periods of high renewable penetration? and the risk didn't materialize? It is not clear if this 150% reserve is based on demand or a combination of demand and generation.

Likes 0

Dislikes 0

Response

Diane E Landry - Public Utility District No. 1 of Chelan County - 1,3,5,6, Group Name CHPD

Answer No

Document Name

Comment

Chelan PUD belongs to a regional reliability program and believes that is an acceptable way to meet this standard.

Likes 0

Dislikes 0

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer Yes

Document Name

Comment

Black Hills Corporation agrees with EEI's comments:

EEI supports the direction of BAL-007-1, however, we do not agree with the prescriptive language currently contained in this draft. We note that there are significant regional differences regarding the type and appropriate actions necessary to address energy emergencies, therefore BAs should be given the latitude to develop processes that are tailored to their region and experiences.

Likes 0

Dislikes 0

Response

Stephen Whaite - Stephen Whaite On Behalf of: Lindsey Mannion, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer Yes

Document Name

Comment

This standard does address a different time frame than other standards. Resolution of natural gas supply issues would be dependent on BA-developed Operating Plans.

Likes 0

Dislikes 0

Response**Daniel Gacek - Exelon - 1**

Answer

Yes

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response**Kinte Whitehead - Exelon - 3**

Answer

Yes

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Ryan Strom - Ryan Strom On Behalf of: Carl Spaetzel, Buckeye Power, Inc., 4, 5, 3; Jason Proconiar, Buckeye Power, Inc., 4, 5, 3; Kevin Zemanek, Buckeye Power, Inc., 4, 5, 3; - Ryan Strom, Group Name Buckeye Power Group

Answer

Yes

Document Name

Comment

Buckeye supports the comments made by ACES:

While we do agree that the proposed Reliability Standard addresses the reliability risks identified in the SAR, we do not fully agree with the currently proposed process for doing so.

Likes 0

Dislikes 0

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer

Yes

Document Name

Comment

EEl supports the direction of BAL-007-1, however, we do not agree with the prescriptive language currently contained in this draft. We note that there are significant regional differences regarding the type and appropriate actions necessary to address energy emergencies, therefore BAs should be given the latitude to develop processes that are tailored to their region and experiences.

Likes 0

Dislikes 0

Response

Robert Follini - Avista - Avista Corporation - 3

Answer

Yes

Document Name

Comment

EEl supports the direction of BAL-007-1, however, we do not agree with the prescriptive language currently contained in this draft. We note that there are significant regional differences regarding the type and appropriate actions necessary to address energy emergencies, therefore BAs should be given the latitude to develop processes that are tailored to their region and experiences.

Likes 0

Dislikes 0

Response

Robert Blackney - Edison International - Southern California Edison Company - 1

Answer	Yes
Document Name	
Comment	
See comments submitted by the Edison Electric Institute	
Likes 0	
Dislikes 0	
Response	
Dwanique Spiller - Berkshire Hathaway - NV Energy - 5	
Answer	Yes
Document Name	
Comment	
NV Energy supports the direction of BAL-007-1, however, we do not agree with the prescriptive language currently contained in this draft. We note that there are significant regional differences regarding the type and appropriate actions necessary to address energy emergencies, therefore BAs should be given the latitude to develop processes that are tailored to their region and experiences.	
Likes 0	
Dislikes 0	
Response	
Daniela Atanasovski - APS - Arizona Public Service Co. - 1	
Answer	Yes
Document Name	
Comment	
AZPS supports the direction of BAL-007-1, however, does not agree with the overly prescriptive language currently contained in Draft 1. AZPS agrees with the following EEI comments:	
We note that there are significant regional differences regarding the type and appropriate actions necessary to address energy emergencies, therefore BAs should determine and develop processes that are tailored to their region and experiences.	
Likes 0	
Dislikes 0	
Response	

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Collaborators

Answer Yes

Document Name

Comment

While we do agree that the proposed Reliability Standard addresses the reliability risks identified in the SAR, we do not fully agree with the currently proposed process for doing so.

Likes 0

Dislikes 0

Response

C. A. Campbell - LS Power Development, LLC - 5

Answer Yes

Document Name

Comment

The SAR left it to the SDT to “[d]efine a period of time to be studied within operation time horizons that appropriately considers the specific characteristics of the resources in the area being evaluated, including such properties as the logistics involved in the replenishment of fuel and the ability to accurately forecast or assume system conditions.” The SAR also required the SDT to consider the “time-coupled restrictions on the availability of fuel” and references natural gas delivery specifically. We believe that the SDT’s selection of an analysis more than 5-days from the delivery hour does not capture these “time-coupled restrictions.” The technical rationale implies that other reliability standards are adequate to address reliability deficiencies from the delivery hour through day 5. We disagree.

Irrespective of the term of natural gas transportation contracts that generators may be parties to, the scheduling cycle for natural gas is a 24-hour gas day. Moreover, most generators procure the commodity daily or over a weekend to match their expected operational profile. We are unsure how the proposed standard would capture these concerns of ensuring intra-hour matching or energy and reserves. Perhaps the team believes that an analysis covering a shorter horizon is either not needed or outside the scope of this project. Regardless, the SAR did not limit the horizon of ERAs to 5 days or more; therefore, we encourage the SDT to answer explicitly in its reply whether it concurs with these concerns, and if these concerns are outside the scope of this project how the SDT recommends closing this reliability gap.

Likes 0

Dislikes 0

Response

Stephanie Kenny - Edison International - Southern California Edison Company - 6

Answer Yes

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Helen Lainis - Independent Electricity System Operator - 2

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Holly Mitchell - NorthWestern Energy - NA - Not Applicable - WECC

Answer

Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Entity Monitoring

Answer

Document Name

Comment

There will be concern expressed on the possible overlap with other Standards. WECC believes the SDT needs to be extremely clear in that the Requirements here are to mitigate the risks posed and other similar language in other Standards may not capture the risk in the manner in which the SAR was envisioned.

Likes 0

Dislikes 0

Response

Donna Wood - Tri-State G and T Association, Inc. - 1

Answer

Document Name

Comment

NA

Likes 0

Dislikes 0

Response

6. Is the proposed standard practicable to:

- i. Be implementable?
- ii. Is the proposed standard auditable?
- iii. Able to comply with?

In your response, please provide any information that supports your answer.

Diane E Landry - Public Utility District No. 1 of Chelan County - 1,3,5,6, Group Name CHPD

Answer No

Document Name

Comment

As currently written, BAL-007 could not be implemented and would force entities to either build or procure a significant amount of new generating capability or place existing generation in continuous standby. Specifically, the energy reserve margins specified in R8 cannot be applied to small Balancing Authorities that have only a handful of generating resources and a small footprint. Complying with BAL-007 would present a significant and unsustainable burden to a small individual BA.

Additionally, the proposed Standard is not practicable as it precludes other methods, such as the Western Power Pool's WRAP, from consideration. Chelan PUD recommends the SDT revise the Standard to focus on results-based outcomes and provide flexibility to the BA to develop their own ERA procedure and scenarios suited to the needs of their footprint, including a means for working with a resource adequacy group to meet required energy reserve margins.

Likes 0

Dislikes 0

Response

Stephanie Kenny - Edison International - Southern California Edison Company - 6

Answer No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Elizabeth Davis - Elizabeth Davis On Behalf of: Thomas Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis, Group Name ISO/RTO Standards Review Committee

Answer No

Document Name	
Comment	
<p>The standard is unclear regarding risk mitigation. Specifically, requirement R3 is unclear regarding what constitutes an unacceptable risk, how likely an event must be before the BA has an obligation to mitigate it, and what degree of mitigation is sufficient to satisfy the standard, given the inherent limitations of the mitigation options available to BAs. As stated in the comment to Q5 we ask the SDT to consider how requirements can be written to place less emphasis on how well the mitigation plan performs post-event. Unlike long term planning studies which allow for longer lead times, the BA has limited capability to adjust to the situation at hand.</p>	
Likes 0	
Dislikes 0	
Response	
<p>Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Collaborators</p>	
Answer	No
Document Name	
Comment	
<p>The proposed standard does meet the 3 criteria identified above; however, we believe that it is too prescriptive and does not account for alternative methods or processes to mitigate risks to the BES. Furthermore, it is our opinion that by forces the BA to utilize a specific method explicitly defined in the Reliability Standard does not allow enough flexibility for future expansion. For example, as Artificial Intelligence (AI) and machine learning algorithms become more prevalent, the proposed standard, as currently written, would need to be modified to take advantage of these emerging technologies.</p>	
Likes 0	
Dislikes 0	
Response	
<p>Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company</p>	
Answer	No
Document Name	
Comment	
<p>Southern Company supports the EEI comments.</p>	
Likes 0	
Dislikes 0	

Response	
Denise Sanchez - Denise Sanchez On Behalf of: Diana Torres, Imperial Irrigation District, 1, 6, 5, 3; George Kirschner, Imperial Irrigation District, 1, 6, 5, 3; Jesus Sammy Alcaraz, Imperial Irrigation District, 1, 6, 5, 3; Tino Zaragoza, Imperial Irrigation District, 1, 6, 5, 3; - Denise Sanchez	
Answer	No
Document Name	
Comment	
IID believes the above issues should be reviewed and resolved prior to implementing BAL-007-1, assuming the creation of a new standard is warranted.	
Likes	0
Dislikes	0
Response	
Jennifer Neville - Western Area Power Administration - 6	
Answer	No
Document Name	
Comment	
There may be a role to expand the ability of contingency reserve sharing groups beyond meeting BAL-002 to address longer term energy contingencies (as opposed to BAL-002 and real-time events); e.g. provisions for extended calls of reserve energy, if available and mutually agreed upon, (while still restoring Contingency Reserves within the period required by BAL-002 and RSG protocols)	
Likes	0
Dislikes	0
Response	
Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2	
Answer	No
Document Name	
Comment	
The standard's references to operating plans are ambiguous, as Requirements R3 and R9 do not clearly specify what constitutes an unacceptable risk, how likely an event must be before the BA has an obligation to mitigate it, what degree of mitigation would be sufficient to satisfy the standard, and what sorts of mitigation should be presumed to be available to the BA. It is also unclear how a Regional Entity could address these issues in an audit.	

Requirements R3 and R9 could be understood to require elimination of identified unacceptable risks. However, due to the inherent limitations of the mitigation options available to BAs (BAs cannot require that new generation be constructed, and the timelines contemplated in the standard are too short to construct generation in any event; BAs also have little to no authority over fuel supply chains and generator fuel procurement contracts, and cannot rely too heavily on outage coordination, as generators that are denied sufficient time for planned outages are at an increased risk of experiencing a forced outage), there are many scenarios where the only way a BA could mitigate or eliminate identified risks would be to shed load (or plan to shed load) to bring its energy margins back up above the level specified in Requirement R8, even though the R8 margins are significantly higher than the margins at which a BA would ordinarily shed load. However, shedding load would seem to defeat the presumed energy adequacy purpose that underlies the standard.

Aside from shedding load, it is unclear what risk reduction measures BAs might be able to implement as a result of this standard that they do not already implement in the ordinary course of performing their duties, particularly in a scenario that involves a large severe weather event that spans multiple BA Areas, as all available generation would already be online during such an event.

It is also unclear whether the risk reduction measures discussed in Requirement R3 are intended to be developed in response to the results of an ERA or whether a list of potential risk reduction measures is intended to be developed before the ERA is performed (or whether BAs have the flexibility to choose either approach).

Likes 0

Dislikes 0

Response

Daniela Atanasovski - APS - Arizona Public Service Co. - 1

Answer

No

Document Name

Comment

AZPS does not agree that the standard as proposed is implementable or auditable in its current form.

AZPS agrees with the following EEI comments: EEI does not agree that the standard as proposed is implementable or auditable in its current form. To address our concerns, we suggest making the proposed changes offered in our comments.

Likes 0

Dislikes 0

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer

No

Document Name

Comment

SRP agrees and supports comments from Tacoma Power. In addition, SRP strongly believes that the concerns expressed in questions 4 and 7 need to be addressed. In addition, is there a requirement that the Operating Plan(s) need to be followed? The different scenarios are helpful but may not necessarily represent reality. Our thought process is that entities can develop the ERAs but most likely those plans won't be utilized when contingencies are experienced.

Likes 0

Dislikes 0

Response

LaKenya Vannorman - LaKenya Vannorman On Behalf of: Chris Gowder, Florida Municipal Power Agency, 5, 6, 3; Jade Bulitta, Florida Municipal Power Agency, 5, 6, 3; Navid Nowakhtar, Florida Municipal Power Agency, 5, 6, 3; - LaKenya Vannorman, Group Name Florida Municipal Power Agency (FMPA)

Answer

No

Document Name

Comment

FMPA supports and recommends implementation of Southern Company comments.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer

No

Document Name

Comment

EI does not agree that the standard as proposed is implementable or auditable in its current form. To address our concerns, we suggest making the proposed changes offered in our comments.

Likes 0

Dislikes 0

Response

Aaron Staley - Orlando Utilities Commission - 1

Answer

No

Document Name

Comment

See Tacoma Power comments.

Likes 0

Dislikes 0

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer No

Document Name

Comment

As currently written, BAL-007 could not be implemented and would force entities to either build or procure a significant amount of new generating capability or place existing generation in continuous standby. Specifically, the energy reserve margins specified in R8 cannot be applied to small Balancing Authorities that have only a handful of generating resources and a small footprint. Complying with BAL-007 would present a significant and unsustainable burden to a small individual BA.

Additionally, the proposed Standard is not practicable as it precludes other methods, such as the Western Power Pool's WRAP, from consideration. NV Energy recommends the SDT revise the Standard to focus on results-based outcomes and provide flexibility to the BA to develop their own ERA procedure and scenarios suited to the needs of their footprint, including a means for working with a resource adequacy group to meet required energy reserve margins.

Likes 0

Dislikes 0

Response

Robert Blackney - Edison International - Southern California Edison Company - 1

Answer No

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Robert Follini - Avista - Avista Corporation - 3**Answer** No**Document Name****Comment**

EEl does not agree that the standard as proposed is implementable or auditable in its current form. To address our concerns, we suggest making the proposed changes offered in our comments.

Likes 0

Dislikes 0

Response**Glen Farmer - Avista - Avista Corporation - 5****Answer** No**Document Name****Comment**

EEl does not agree that the standard as proposed is implementable or auditable in its current form. To address our concerns, we suggest making the proposed changes offered in our comments.

Likes 0

Dislikes 0

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Fong Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer No**Document Name****Comment**

SMUD and BANC support the comments submitted by Tacoma Power.

Likes 0

Dislikes 0

Response

Shannon Mickens - Shannon Mickens On Behalf of: Joshua Phillips, Southwest Power Pool, Inc. (RTO), 2; - Shannon Mickens, Group Name SPP RTO

Answer No

Document Name

Comment

SPP has a concern that the standard is unclear regarding risk mitigation. Specifically, requirement R3 is unclear regarding what constitutes an unacceptable risk, how likely an event must be before the BA has an obligation to mitigate it, and what degree of mitigation is sufficient to satisfy the standard, given the inherently limitations of the mitigation options available to BAs. Unlike long term planning studies which allow for longer lead times, the BA has limited capability to adjust to the situation at hand.

Likes 0

Dislikes 0

Response

Ryan Strom - Ryan Strom On Behalf of: Carl Spaetzel, Buckeye Power, Inc., 4, 5, 3; Jason Procuniar, Buckeye Power, Inc., 4, 5, 3; Kevin Zemanek, Buckeye Power, Inc., 4, 5, 3; - Ryan Strom, Group Name Buckeye Power Group

Answer No

Document Name

Comment

Buckeye supports the comments made by ACES:

The proposed standard does meet the 3 criteria identified above; however, we believe that it is too prescriptive and does not account for alternative methods or processes to mitigate risks to the BES. Furthermore, it is our opinion that by forces the BA to utilize a specific method explicitly defined in the Reliability Standard does not allow enough flexibility for future expansion. For example, as Artificial Intelligence (AI) and machine learning algorithms become more prevalent, the proposed standard, as currently written, would need to be modified to take advantage of these emerging technologies.

Likes 0

Dislikes 0

Response

Alan Kloster - Alan Kloster On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Alan Kloster

Answer No

Document Name

Comment

Energy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and the MRO NSRF for question #6.

Likes 0

Dislikes 0

Response

Dania Colon - Orlando Utilities Commission - 5

Answer

No

Document Name

Comment

i. Be implementable?

The implementation of this this standard would be hard to accomplish for smaller BAs within the near-term (within 5 years) due to the reserve requirements that is a significant (i.e. 10 times more reserves than before) departure from the current Reliability Guidelines. It would also be difficult for the RCs to increase staffing to allow for the appropriate reviews, responses, collection of compliance evidence, etc.

ii. Is the proposed standard auditable?

The retention of evidence that is necessary to provide adequate compliance with the standard will be a significant impediment to both Balancing Authorities and Reliability Coordinators, for which this type of evidence is already being collected.

iii. Able to comply with?

BAs and RCs would not be able to comply with the current language due to construction restraints and additional personnel requirements.

Likes 0

Dislikes 0

Response

Richard Vendetti - NextEra Energy - 5

Answer

No

Document Name

Comment

Florida Power & Light does not agree that the standard is implementable, auditable, or able to be complied with. There are terms within this proposed standard which are undefined and not clearly described thus rendering it difficult to know the correct interpretation of the standard requirements, particularly if BA's had various interpretations of the terms and methods. The proposed standard fails to specify how to mitigate forecasted energy emergencies making it difficult to comply with the requirements to develop mitigation plans in the various studies where forecasted energy emergencies are identified. Additionally, there would be an excessive number of results produced from frequent ERA studies would make auditing difficult. An auditor would have a difficult time reviewing through this volume of analysis to find evidence of compliance or non-compliance.

Likes 0

Dislikes 0

Response

David Jendras Sr - Ameren - Ameren Services - 3

Answer No

Document Name

Comment

Ameren agrees with and supports MISO's comments.

Likes 0

Dislikes 0

Response

Jennie Wike - Jennie Wike On Behalf of: Hien Ho, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; John Merrell, Tacoma Public Utilities (Tacoma, WA), 1, 4, 5, 6, 3; - Jennie Wike, Group Name Tacoma Power

Answer No

Document Name

Comment

As currently written, BAL-007 could not be implemented and would force entities to either build or procure a significant amount of new generating capability or place existing generation in continuous standby. Specifically, the energy reserve margins specified in R8 cannot be applied to small Balancing Authorities that have only a handful of generating resources and a small footprint. Complying with BAL-007 would present a significant and unsustainable burden to a small individual BA.

Additionally, the proposed Standard is not practicable as it precludes other methods, such as the Western Power Pool's WRAP, from consideration. Tacoma Power recommends the SDT revise the Standard to focus on results-based outcomes and provide flexibility to the BA to develop their own ERA procedure and scenarios suited to the needs of their footprint, including a means for working with a resource adequacy group to meet required energy reserve margins.

Likes 2 Public Utility District No. 1 of Snohomish County, 1, Rhoads Alyssia; American Municipal Power, 5, Ritts Amy

Dislikes 0

Response

Kinte Whitehead - Exelon - 3

Answer No

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

- i. No, BPA believes this is not implementable by a BA.
- ii. No, as BPA believes this standard would require a BA to acquire information it has no ownership of from other entities.
- iii. For the reasoning noted throughout our comments, BPA believes a BA could not comply with the proposed standard.

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - 1,3 - WECC,Texas RE

Answer No

Document Name

Comment

PNMR supports EEI's response for question 6.

Likes 0

Dislikes 0

Response

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro

Answer No

Document Name

Comment

The use of “Reliability Coordinator-reviewed” language in Requirements R1 and R2 appear to establish a requirement for the RC to review the BA’s ERA process and scenarios as part of the BA’s compliance, i.e. the BA’s process and/or scenarios would be found non-compliant per R1 and/or R2 if the RC hadn’t reviewed it. As there are specific Requirements for the BA to submit R1 process and R2 scenarios to the RC in R4, BC Hydro suggests that this is not required and recommends revising R1 wording to remove this language.

As drafted, the BAL-007-1 Draft 1 does not seem to account for Reserve Sharing Group based means to alleviating the risks related to resource mix and fuel availability.

Likes 0

Dislikes 0

Response**Nazra Gladu - Manitoba Hydro - 1**

Answer

No

Document Name

Comment

MH is supportive of MRO NSRF comments.

Likes 0

Dislikes 0

Response**Selene Willis - Edison International - Southern California Edison Company - 5**

Answer

No

Document Name

Comment

“See comments submitted by the Edison Electric Institute”

Likes 0

Dislikes 0

Response**Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF**

Answer

No

Document Name	
Comment	
Reference entity comments.	
Likes 0	
Dislikes 0	
Response	
Daniel Gacek - Exelon - 1	
Answer	No
Document Name	
Comment	
Exelon supports the comments submitted by the EEI.	
Likes 0	
Dislikes 0	
Response	
Christine Kane - WEC Energy Group, Inc. - 3, Group Name WEC Energy Group	
Answer	No
Document Name	
Comment	
WEC Energy Group supports the MRO NSRF comments.	
Likes 0	
Dislikes 0	
Response	
Sean Steffensen - IDACORP - Idaho Power Company - 1	
Answer	No
Document Name	
Comment	

The proposed standard places significant additional reporting requirements on BA's where this planning is already taking place under existing programs. As such, the proposed standard would impose burdensome new requirements for little to no benefit. Additionally, some of the requirements (R3 for example) are vague and therefore not practicable to implement. Near-term reliability planning is critical and undertaken today by entities even without this standard. While improvements can always be made, the incremental benefit of the improvement should also be considered. The standard appears to impose broad requirements without recognition of regional or local facts and circumstances. Resources should be focused on addressing high-risk seasons or periods, without requiring significant additional workload in lower-load, lower-risk periods. While events can still happen in those periods, the standard should balance the risk with the additional effort required, particularly given other existing requirements and processes.

Likes 0

Dislikes 0

Response

Stephen Whaite - Stephen Whaite On Behalf of: Lindsey Mannion, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer No

Document Name

Comment

R1. RF recommends the SDT make wind, solar, and hydro/rain forecasts an explicit category under 1.2.3.

R3. RF notes that “unacceptable risk” has many possible definitions and that “likely to occur” implies probability over 50%, which is a higher bar than normally set for determining BES contingencies that the BA needs to respond to. Better thresholds might be when the ERA has identified a deficiency that could lead to an Energy Emergency Alert, or require implementing capacity emergency procedures in near term planning.

R5 and R6. 60 days may be appropriate for seasonal studies, but RF is concerned it is too long of a review time for the near-term assessments, particularly if new Operating Plans are needed. Additionally, RF notes that M6 references 30 calendar days instead of the R6 60 calendar days requirement. Suggest 24 hours for near term studies.

R10.1 – RF requests the SDT clarify whether “within 24 hours” refers to Operating Plan implementation being required within 24 hours of performing the ERA and comparison, or whether the 24 hours is intended to establish a deadline for the BA to provide results to the RC at least 24 hours before the Operating Plan(s) are required to be implemented. We recommend the 24 hour deadline implementation.

Likes 0

Dislikes 0

Response

Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion

Answer No

Document Name

Comment

Dominion Energy supports the comments submitted by EEI.

Likes 0

Dislikes 0

Response

Anna Martinson - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO Group

Answer

No

Document Name

Comment

The MRO NSRF does not view the proposed standard as practicable since it precludes other methods that are equally as good and possibly better, from consideration.

Example: One BA sets its reserve margin threshold based on quantified “Net Uncertainties” and predicted daily risk profiles. The “Net Uncertainty” is quantified based on the historical distribution at specified confidence levels, accounting for load, wind and solar forecast errors, thermal generation availability and interchange changes between Next-Day projection and Real-Time actual. A machine learning model is used to predict the daily risk profile at High/Medium/Low levels based on what was experienced in historical like-weather and operating conditions.

This dynamic, data-driven method is more reliable and efficient to manage varying system conditions instead of static administrative values which can become stagnant.

The measure should be one of how reliably the BA was able to plan to serve its load.

The MRO NSRF recommends the SDT revise the standard to focus on results-based outcomes and provide flexibility to the BA to develop their own ERA process and scenarios to meet the reliability needs of its footprint, including a means to working with Reserve Sharing Groups (RSG) to meet desired energy reserve margins.

Contingency reserve sharing groups may be able to develop services beyond those envisioned under BAL-002 to ensure energy adequacy; e.g. provisions for extended calls of reserve energy, if available and mutually agreed upon, (while still restoring Contingency Reserves within the period required by BAL-002 and RSG protocols).

Likes 0

Dislikes 0

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer

No

Document Name

Comment

Black Hills Corporation agrees with EEI's comments:

EEl does not agree that the standard as proposed is implementable or auditable in its current form. To address our concerns, we suggest making the proposed changes offered in our comments.

Likes 0

Dislikes 0

Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Entity Monitoring

Answer

No

Document Name

Comment

Clarity is needed when reviewing auditability with a focus on ensuring the language mitigates the reliability risks. Flexibility is likely to be cited by industry as a consideration, but the SDT needs to consider how much flexibility is needed to ensure reliability. Terms like “unacceptable risk” (Requirement R3) are essentially unauditable. Whatever the entity feels is “unacceptable” and “likely” to occur would be “compliant”. A black out situation for a section of the grid would be considered unacceptable but would the entity consider it likely and create an Operating Plan (which may be covered in other Standards). How would an entity define unacceptable risks?

The timelines suggested in R5 and R6 do not seem to support the ERA scenarios provided or any Operating Plans that may be needed. The near-term ERA timeline will have passed and whatever scenario was developed would have already been completed. Even for the annual ERA process review the timeline may not meet the needs. At a minimum the SDT needs to shorten the timelines for results of the ERA scenarios (and types) to avoid gaps. The timelines, as proposed, produce a reliability gap in terms of ensuring Wide Area reliability. SDT should be aware that anytime a “within X” timeline is provided in a Requirement, that often is the norm to provide information. Considering that near-term is no greater than 6 weeks, multiple near-term scenarios may not be reviewed by the RC. Additionally, the Seasonal periodicity may cause seasonal ERA reviews not to be done in a timely manner.

Likes 0

Dislikes 0

Response

Richard Gilbert - Florida Reliability Coordinating Council – Member Services Division - 8 - SERC

Answer

No

Document Name

Comment

As mentioned throughout FRCC’s comments, several terms within the current language are unclear or undefined, including, without limitation, Near-Term and Energy Reserve. These ambiguities alone would make the standard difficult, if not impossible, to fully implement.

That the standard, as written, fails to address RSGs (or Collection of BAs) in lieu of individual BAs also renders implementation, compliance, and auditing difficult. In the FRCC area, which has an RSG comprised of nine (9) BAs, the RC would be responsible not only to review the ERA processes for each of the nine (9) separate BAs as well as their corresponding near-term and seasonal time horizon scenarios each time they are run, but also to compile all reviews and responses of each individual entity in order to demonstrate compliance for RC function. The tracking of reviews and responses,

along with compiling, retaining, and storing evidence, on this individual basis would cause a significant burden on the RC function. Moreover, given the massive amount of evidence collection that would ultimately be required, any auditor would have a Herculean task to parse through and digest the volume of available evidence in order to accurately determine compliance.

The standard's requirements are burdensome to all who play a role in the process -- from generation of multiple ERA results (with six different scenarios per time-step), to the additional calculation of a yet-undefined "Energy Reserve" margin calculation -- and would be additionally labor and personnel intensive to perform and capture appropriate compliance evidence. Setting aside the standard's internal ambiguities that would have to be resolved before any entity could even begin to attempt to comply, not only would additional personnel undoubtedly be needed by the RC, but also, the BAs themselves* would not be able to comply without the addition of personnel to assist in performing and analyzing the ERAs, as well as to compile all the required evidence to demonstrate compliance.

* Note that smaller BAs would be disproportionately impacted by the additional "Energy Reserve" margin calculations within the near-term (within 5 years) due to new reserve requirements significantly increasing (i.e. 10 times more reserves than before) from the current BAL-002 standards.

Likes 1	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott
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Dislikes 0	
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Response

Donald Lock - Talen Generation, LLC - 5

Answer	No
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Document Name	
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Comment

The standard is practical but inadequate, as explained above.

Likes 0	
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Dislikes 0	
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Response

Holly Mitchell - NorthWestern Energy - NA - Not Applicable - WECC

Answer	Yes
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Document Name	
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Comment

Likes 0	
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Dislikes 0	
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Response

Helen Lainis - Independent Electricity System Operator - 2**Answer** Yes**Document Name****Comment**

Likes 0

Dislikes 0

Response**Darcy O'Connell - California ISO - 2****Answer****Document Name****Comment**

In addition to supporting comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee, CAISO has the following comments:

- Propose to expand the applicability of this standard to entities that potentially need to provide data or assumptions to the BA for development of scenarios and plans. Add applicable entities that will need to provide RC with data and assumptions.
- Propose removing all requirements that are affected by and not currently supported by NERC jurisdiction, like natural gas suppliers, by including this requirements, SDT puts RC and BA entities in a position of making decisions without having complete information. Or a lever to get the information.
- The CAISO believes that each BA would have to tailor the study assumptions (eg through probabilistic production simulations) and recommend their own compliance measures to make this proposed standard implementable. This may cause consistency issues for the RC within multiple BA interconnections.

Likes 0

Dislikes 0

Response**Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen****Answer****Document Name****Comment**

Is the Standard Implementable? Maybe

Some BAs already have processes that would be compliant with the Standard as written, many others would have to revamp their process to be compliant with it. Does this work for the different size BAs?

Is the Standard Auditable

Not sure for all of it. What is the level of mitigation required if a risk is identified. We may identify a risk 3-4 weeks in advance, but where may not be any actions taken until that risk is identified closer to the operating day. This process could potentially require BAs to take actions preemptively when a risk is identified weeks in advance. While not common this could occur where for example an outage was cancelled when it was unnecessary to do so. It would be extremely difficult to write operating plans for every conceivable risk.

Able to comply with?

Possibly, This question is BA specific. Smaller BAs may not have much trouble. Larger BAs having to coordinate more entities, including gas pipeline information, may have difficulty in retrieving the necessary data to perform the ERAs effectively.

Likes 0

Dislikes 0

Response

Donna Wood - Tri-State G and T Association, Inc. - 1

Answer

Document Name

Comment

NA

Likes 0

Dislikes 0

Response

7. Provide any additional comments for the SDT to consider, if desired.

Donald Lock - Talen Generation, LLC - 5

Answer

Document Name

Comment

Composite challenges must also be studied. Winter Storm Uri for example involved an ice storm that took out the wind farms of northern Texas, then low temperature/high wind conditions that froze-up many conventional generation plants and NG production facilities, then a wind drought. A drenching rainstorm the day before the Polar Vortex of 2014 struck soaked insulation at many plants, causing a high number of forced outages, explaining why there were no problems during the nearly-as-cold Polar Vortex of 2015. The fact that these are rare scenarios does not disqualify them from consideration; quite the opposite, these events demonstrate the need to seriously research the weather history.

The, "Fuel supply and inventory concerns," wording of R1.2.3.2 echoes EOP-011-2 and (soon) EOP-012-2, suggesting that BAs will be dependent on inputs from GOs in this respect. GOs have no knowledge of area-wide limitations of natural gas (NG) production, storage and delivery systems, however. What appears on the surface to be an urgently needed new forecasting element, given the NG disruptions of Winter Storms Uri and Elliott, may therefore yield almost nothing useful for preventing future generation capacity emergencies. Identifying NG constraints would require a major research project by BAs, which BAL-007 fails to require.

The Technical Rationale identifies, "arranging for imports from neighboring areas," as potentially being among the actions triggered by Operating Plans, but BAL-007 should instead prohibit relying on such measures. Recent generation emergencies were caused in large part by lack of concern over generation capacity inadequacies, assuming that one's neighbors would always have power to spare, only to find that (predictably) adjacent ISOs had the same problems caused by the same storm.

We suggest that the Technical Rationale suggestion (p.9), "If ERA results still indicate unacceptable risk of energy deficiency two days prior to projected event, instruct thermal plants to warm up leading up to event to avoid outages due to ice formations and cold-start issues," be elevated from a possible element of Operating Plans to a mandatory one. Recent generation capacity emergencies have been badly exacerbated by waiting until the last moment to call-up the reserves, despite the repeated pleas of GO/GOPs over the years that this is the best and least expensive means of enhancing BES reliability during extreme winter weather. Such action is especially needed for combination threats such as the heavy rain-then-deep freeze of the 2014 Polar Vortex.

Likes 0

Dislikes 0

Response

Richard Gilbert - Florida Reliability Coordinating Council – Member Services Division - 8 - SERC

Answer

Document Name

Comment

FRCC's position is that the scope of this standard should be revised to reflect the provided comments, including to define all relevant terms, eliminate duplicative and/or confusing language, and allow for the use of RSGs or Collection of BAs. FRCC also urges consideration of the difficulty BAs and RCs would have in reviewing and using the excessive number of results produced from the currently prescribed ERA scenarios.

In addition, from an RC perspective, FRCC has several concerns with the standard that should be considered. First, FRCC maintains that Requirements R5, R6, and R11 would place undue administrative burden on RCs in requiring RCs to compile significant, but unnecessarily excessive volumes of evidence to show compliance of the reviews and timely notifications. FRCC also believes the RC should only be notified when there is an actual reliability issue OR upon request. Any results provided to the RC should indicate an imminent EEA before it is sent to the RC (unless otherwise instructed) to eliminate the excessive number of reviews needing to be performed without improved situational awareness or improved reliability.

Relatedly, the FRCC RC does not agree with the medium violation risk factor associated with Requirement 6. The dissemination of information within 60 days does not elevate to a medium level violation risk factor.

Finally, FRCC would argue that, since the RC must act in accordance with existing standard IRO-001 R1, the additional compliance requirements stated within the standard at issue are unnecessary and that Requirements R10 and R11 should be modified accordingly.

Likes 1	Tallahassee Electric (City of Tallahassee, FL), 1, Langston Scott
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Dislikes 0	
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Response

Steven Rueckert - Western Electricity Coordinating Council - 10, Group Name WECC Entity Monitoring

Answer

Document Name

Comment

Consider Requirement changes to R1 language as follows to support clarity similar to EOP-011 by using "shall develop, annually maintain, and implement". Technical rationale could state that "annually maintain" means annually review and update as needed. Or consider the following: "Each Balancing Authority shall document, (add "annually review, update as needed"), and maintain a Reliability Coordinator-reviewed Energy Reliability Assessment (ERA) process, (delete "which shall be reviewed at least annually and updated, if necessary"). The ERA process document shall: ". Entities may see the "if necessary" phrase being applied to the review and not necessarily any update. Secondary suggestion would be to add a separate sentence to say "The ERA process shall be reviewed annually, updated as needed based on the review, and provided to the Reliability Coordinator for its review."

It is not clear how Reserve Sharing Groups may be considered or impacted by this Standard. Should the RSG be included in the applicability section and the appropriate requirements?

Likes 0	
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Dislikes 0	
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Response

Anna Martinson - MRO - 1,2,3,4,5,6 - MRO, Group Name MRO Group

Answer

Document Name [2022-03_UCF_BAL-007_MRO NSRF_03-05-24_FINAL.docx](#)

Comment

1. Clarify the objective of the standard. What is the goal (metric) we want to achieve? Is it maintaining an energy reserve margin or reliably serving energy needs? In general, the MRO NSRF sees value in a multi-day planning for operational purposes. That said the proposed standard is overly concerned with prescribing how an ERA is performed.

2. The SDT should clarify that ERAs are an assessment. Therefore, if there are insufficient resources in real-time, despite a BA's efforts to effectively plan and execute their plan, there is no compliance exposure to the BA for inability to meet those energy needs. As today, the ERA process should feed into the next day Operating Plans and EOP-011. Load shed is an acceptable tool of last resort in preventing cascading instability and widespread outages.

3. Meet with the NERC Resources Subcommittee (RS) to garner feedback and recommendations prior to the next posting. As the NERC RS is made up of BA subject matter experts, this would be a great committee to run the next version of the draft standard by prior to posting for industry comment. One of the RS's primary responsibilities is to: "Review and assist in the development of interconnection balancing standards to assure problems resulting from balancing do not adversely affect reliability."

4. Expand TOP-002 versus drafting a new standard (e.g. BAL-007). See example below (using TOP-002, R4 as a model):

RX. Each Balancing Authority shall have a multi-day, forward looking Energy Reliability Assessment (ERA) that leads into its next day Operating Plan cited in Requirement R4 that addresses: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]

4.1 Expected generation resource availability, commitment and dispatch

4.2 Expected energy transfers

4.3 Demand patterns

4.4 Capacity and energy reserve requirements, including deliverability capability

4.5 Relevant risk scenarios

4.6 Coordination with neighboring BAs

Consideration should be given to:

• Using the TOP-002 framework. This would eliminate the need to repeat existing requirements; e.g. R4 (entity notification) and R5 (providing a copy to the RC).

• Administrative effort versus reliability benefit. The benefit of ERAs may vary by system. BAs should have discretion as to when an Operating Plan(s) is issued as, the further out an Operating Plan is written, the more times it will need to be modified. Existing TOP-002, R5, provides a backstop as it requires an entity to have an Operating Plan when it reaches next day.

• Using other relevant sources for requirements. For example, FERC-NERC Winter Storm Elliott Report, Recommendation #8 as illustrated below:

o Balancing Authorities should assess whether... a multi-day risk assessment process or advance or multi-day reliability commitments – are needed to address anticipated energy shortages or transmission system-related reliability problems...by performing energy risk assessments...BAs should consider the following:

A. How to account for uncertainty in load forecasts, generating unit fuel availability and extreme weather availability, and the effects of extreme cold weather across multiple regions

B. Committing generating units prior to the onset of extreme weather.

o Bal obtaining fuel), even if no dispatch oc.

5. Eliminate the Reliability Coordinator review of the BA's ERA process envisioned under Requirements R4-R6 as it is largely administrative and offers minimal reliability benefit. Similar to TOP-002 today, RC review of the BA's next day methodology is not required. What is important

is the submittal of Operating Plans to the RC for situational awareness and coordination purposes (see TOP-002, R7).

If retained, add language to indicate the BA is only required to submit their ERA process to the RC "upon request." Pursuant to NERC Standards Efficiency Review (SER) criteria, requirements R4, R5 and R6 should be stricken and the language in R1 and R2 modified to remove "Reliability Coordinator reviewed."

R1. Each Balancing Authority shall document and maintain an Energy Reliability Assessment (ERA) process, which shall be reviewed at least annually and updated, if necessary.

R2. Each Balancing Authority shall develop, document, and maintain a set of ERA scenarios for both the near-term and seasonal time horizons.

R4. The Balancing Authority shall submit the following information to its Reliability Coordinator for review upon request: [Violation Risk Factor: Low]
[Time Horizon: Operations Planning]

6. Justify the need to restore seasonal analysis requirements retired pursuant to [Project 2014-03 Revisions to TOP and IRO Standards](#). Project 2014-03 concluded entities already have the ability to determine the timeframe of studies that are needed (see [mapping document](#)). As the primary purpose of seasonal studies is to assess planned outage requests, concerns were addressed under IRO-017-1. If there is a reason to perform seasonal studies, the SDT should explain what benefits would be achieved above and beyond those already conducted pursuant to IRO-017 and IRO-008 as detailed below.

Page 36 of the [mapping document](#) explains why seasonal studies were retired for Balancing Authorities and Transmission Operators (see excerpts below).

• RETIRE TOP-002-2.1b, R4. Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal planning and operations with neighboring Balancing Authorities and Transmission Operators and with its Reliability Coordinator, so that normal Interconnection operation will proceed in an orderly and consistent manner.

• REPLACE with IRO-017-1, R2 and IRO-008-2, R2

o Proposed IRO-017-1, Requirement R2: R2. Each Transmission Operator and Balancing Authority shall perform the functions specified in its Reliability Coordinator's outage coordination process.

o Proposed IRO-008-2, Requirement R2: R2. Each Reliability Coordinator shall have a coordinated Operating Plan(s) for next-day operations to address potential System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) exceedances identified as a result of its

Operational Planning Analysis as performed in Requirement R1 while considering the Operating Plans for the next-day provided by its Transmission Operators and Balancing Authorities.

• JUSTIFICATION Page 41: “Specific requirements for seasonal studies are not necessary as proposed IRO-017-1 allows for the Reliability Coordinator to determine the timeframe of the studies that it needs.”

Likes 0

Dislikes 0

Response

Rachel Schuldt - Black Hills Corporation - 6, Group Name Black Hills Corporation - All Segments

Answer

Document Name

Comment

Black Hills generally disagrees with BAL-007-1 as currently written and is largely aligned with the edits being submitted by EEI.

The implementation plan/timeline is reasonable as currently written for all requirements with the exception of R8 which could require some BAs to add generation resources to meet compliance with the 150% threshold. Before Black Hills can agree with the implementation timeline there needs to be finalized language within BAL-007-1.

Black Hills Corporation agrees with EEI’s comments: EEI suggests that the term “mitigate” be removed from this Reliability Standard because the BA and RC can only take actions to minimize impacts, they have no ability to modify or correct a resource issue. Please note the suggested changes to the Purpose statement, as well as Requirements R3 and R10 below (in bold face).

Purpose: To assess and (*remove: mitigate*) **minimize** the risks of energy emergencies in the operations planning time horizon by analyzing the expected resource mix availability and the expected availability of fuel during the study period.

R3. Each Balancing Authority shall develop, maintain, and document one or more Operating Plan(s) to (*remove: mitigate*) **minimize** unacceptable risk(s) associated with ERA scenario(s) with a likely event of occurring. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning*]

R10. Each Balancing Authority shall provide the results of the ERA and the comparison of results from Requirement R9 to its Reliability Coordinator under the following conditions: [*Violation Risk Factor: Low*] [*Time Horizon: Operations Planning*]

10.1. The ERA comparison to the energy reserve margin requires implementation of an Operating Plan(s) to (*remove: mitigate*) **minimize the risks** within 24 hours for the near-term time horizon or;

10.2. The ERA performed is a seasonal ERA within 14 calendar days or;

10.3. The Reliability Coordinator has requested the results.

Likes 0

Dislikes 0

Response

Sean Bodkin - Dominion - Dominion Resources, Inc. - 6, Group Name Dominion

Answer

Document Name

Comment

DESC does not support draft 1 of BAL-007-1.

Comments:

Dominion Energy recommends the following:

R8:

-Specific examples would be helpful to clarify what is being asked for in these sub-requirements.

R10:

-The time requirements listed are confusing – please clarify with an example and how this pairs with the requirements listed within R8.

Attachment 1

For the first fuel contingency example, how would an entity address this scenario when we do not have historical norms for a contingency like this? Additional clarity would be helpful.

Likes 0

Dislikes 0

Response

Nicolas Turcotte - Hydro-Quebec (HQ) - 1

Answer

Document Name

Comment

3. Purpose

Availability may be construed to mean Capacity Availability. As such, we propose the following revision:

“To assess and mitigate the risks of energy emergencies in the operations planning time horizon by analyzing the expected **energy production capability of the available** resource mix availability and **its associated fuel supply** the expected availability of fuel during the study period”.

4.1 Functional entities

We suggest the standard be made applicable to all entities that are needed to provide data and forecasts, to ensure the assessments can be performed with up-to-date information. The standard must also especially apply to Generator Operators, as they may be required to take actions as dictated in the resulting mitigation plans.

R10.2

If The the ERA performed is a seasonal ERA, within 14 calendar days or;

Attachment 1

Should be moved up before the VSL matrix.

General

This is a good start. How severe or stressed the scenarios are, and how much energy margin is required can be debated and can evolve.

For R1.2.3.1, please clarify the word “availability” and the SDT intent, we are concerned about how auditors will audit this.

For R3, please clarify the word “unacceptable” and the SDT intent, we are concerned about how auditors will audit this.

Technical Rationale : page 5, figure 2, Mitigation Activities : missing the word “plan” in “implement Operating Associated with EOP-011...”. Furthermore, should “real-time” be capitalized?

Likes 0

Dislikes 0

Response

Stephen Whaite - Stephen Whaite On Behalf of: Lindsey Mannion, ReliabilityFirst , 10; - Stephen Whaite, Group Name ReliabilityFirst Ballot Body Member and Proxies

Answer

Document Name

Comment

RF appreciates the efforts of the Standard Drafting Team on this project.

Likes 0

Dislikes 0

Response

Daniel Gacek - Exelon - 1

Answer

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

Andy Thomas - Duke Energy - 1,3,5,6 - SERC,RF

Answer

Document Name

Comment

None.

Likes 0

Dislikes 0

Response

Rachel Coyne - Texas Reliability Entity, Inc. - 10

Answer

Document Name

Comment

Requirement R10 states: "The ERA comparison to the energy reserve margin requires the implementation of an Operating Plan(s) to mitigate risk within 24 hours for the near-term time horizon" but it is unclear if it is within 24 hours of the study being completed or the results reviewed.

Similarly, in Requirement Part 10.2, it is unclear whether the BA shall provide the results of the seasonal ERA within 14 days of completion or review.

Likes 0

Dislikes 0

Response

Selene Willis - Edison International - Southern California Edison Company - 5

Answer

Document Name

Comment

"See comments submitted by the Edison Electric Institute"

Likes 0

Dislikes 0

Response

Nazra Gladu - Manitoba Hydro - 1

Answer

Document Name

Comment

Thank you to the SDT for your efforts in drafting BAL-007 and for considering the above comments. Manitoba Hydro recognizes the challenge of drafting a new standard that does not overlap with existing standards and avoids being being overly prescriptive or administratively burdensome.

Likes 0

Dislikes 0

Response

Adrian Andreoiu - BC Hydro and Power Authority - 1, Group Name BC Hydro

Answer

Document Name

Comment

Requirement R5 indicates that the RC must review BA submission pursuant to R4 to determine Wide Area reliability risks. As R4 only requires BAs to submit information to its RC, BC Hydro requests the drafting team to clarify these expectations.

Requirement R11 is not clear as to which information the RC must provide other BAs and TOPs in its RC Area, and neighboring RCs under the “notify ... of the Implementation of an Operating Plan(s)”. BC Hydro’s understanding is that this is only a notification of the implementation of an Operating Plan and does not include the data behind it. Please clarify.

Also, the “24 hours from the time of receiving notification” timeline seems unclear as the RC receives from a BA the results of the ERA and the comparison with the R8 energy reserves margin. Suggest rewording for clarity.

Likes 0

Dislikes 0

Response

Casey Perry - PNM Resources - 1,3 - WECC,Texas RE

Answer

Document Name

Comment

PNMR supports removing the term “mitigation” from R3 and R10 as described in EEI’s comments.

Likes 0

Dislikes 0

Response

Cain Braveheart - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

Document Name

Comment

Regarding R1.2.4. “Documented energy transfer assumptions”, given the context of R1.2 and the proposed BAL-007-1 in general, BPA interprets this to mean ‘energy imports/exports’. This interpretation reinforces BPA’s belief that these requirements do not belong in the BAL category of NERC reliability standards, as the BA does not initiate/engage in the import and export of block energy transaction.

Likes 0

Dislikes 0

Response

Kinte Whitehead - Exelon - 3

Answer

Document Name

Comment

Exelon supports the comments submitted by the EEI.

Likes 0

Dislikes 0

Response

David Jendras Sr - Ameren - Ameren Services - 3

Answer

Document Name

Comment

Ameren agrees with and supports MISO's comments.

Likes 0

Dislikes 0

Response

Richard Vendetti - NextEra Energy - 5

Answer

Document Name

Comment

Florida Power and Light believes that the scope of this standard is redundant and excessive, thusly should not be approved based on its ambiguity of providing an increased reliability benefit. It is already part of each BA to utilize processes and procedures to assess the system to detect potential energy deficits, communicate to make known any imminent energy emergencies, and inform the need to implement mitigate energy emergencies. We strongly feel that an additional standard for assessment to determine forecasted energy issues would present an increased compliance burden on the Reliability Coordinator function as well as the BA to perform such studies.

Likes 0

Dislikes 0

Response

Helen Lainis - Independent Electricity System Operator - 2

Answer

Document Name

Comment

3. Purpose

Availability may be construed to mean Capacity Availability. As such, we propose the following revision:

“To assess and mitigate the risks of energy emergencies in the operations planning time horizon by analyzing the expected **energy production capability of the available** resource mix and **its associated fuel supply** during the study period”.

4.1 Functional entities

We suggest the standard be made applicable to all entities that are needed to provide data and forecasts, to ensure the assessments can be performed with up-to-date information. The standard must also especially apply to Generator Operators, as they may be required to take actions as dictated in the resulting mitigation plans.

R10.2

If the ERA performed is a seasonal ERA , within 14 calendar days or;

Attachment 1

Should be moved up before the VSL matrix.

.General

This is a good start. How severe or stressed the scenarios are, and how much energy margin is required can be debated and can evolve.

Likes 0

Dislikes 0

Response

Dania Colon - Orlando Utilities Commission - 5

Answer

Document Name

Comment

Several terms are undefined or unclear and the excessive number of results produced from the currently prescribed ERA scenarios would be difficult to review and utilize by BAs and RCs. Requirements R5, R6, and R11 place undue administrative burden on RCs requiring excessive compiling of evidence to show compliance of the reviews and timely notifications. The amount of process document reviews and BA submitted ERAs will require a lot of additional support personnel without adding reliability value to the Bulk Power System.

Likes 0

Dislikes 0

Response

Alan Kloster - Alan Kloster On Behalf of: Jeremy Harris, Evergy, 3, 5, 1, 6; Kevin Frick, Evergy, 3, 5, 1, 6; Marcus Moor, Evergy, 3, 5, 1, 6; Tiffany Lake, Evergy, 3, 5, 1, 6; - Alan Kloster

Answer

Document Name

Comment

Evergy supports and incorporates by reference the comments of the Edison Electric Institute (EEI) and the MRO NSRF for question #7.

Likes 0

Dislikes 0

Response

Constantin Chitescu - Ontario Power Generation Inc. - 5

Answer

Document Name

Comment

OPG supports NPCC Regional Standards Committee's comments:

"3. Purpose

Availability may be construed to mean Capacity Availability. As such, we propose the following revision:

"To assess and mitigate the risks of energy emergencies in the operations planning time horizon by analyzing the expected energy production capability of the available resource mix availability and its associated fuel supply the expected availability of fuel during the study period".

4.1 Functional entities

We suggest the standard be made applicable to all entities that are needed to provide data and forecasts, to ensure the assessments can be performed with up-to-date information. The standard must also especially apply to Generator Operators, as they may be required to take actions as dictated in the resulting mitigation plans.

R10.2

If The the ERA performed is a seasonal ERA, within 14 calendar days or;

Attachment 1

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General

This is a good start. How severe or stressed the scenarios are, and how much energy margin is required can be debated and can evolve.

For R1.2.3.1, please clarify the word "availability" and the SDT intent, we are concerned about how auditors will audit this.

For R3, please clarify the word "unacceptable" and the SDT intent, we are concerned about how auditors will audit this."

Likes 0

Dislikes 0

Response

Donna Wood - Tri-State G and T Association, Inc. - 1

Answer

Document Name

Comment

NA

Likes 0

Dislikes 0

Response

Shannon Mickens - Shannon Mickens On Behalf of: Joshua Phillips, Southwest Power Pool, Inc. (RTO), 2; - Shannon Mickens, Group Name SPP RTO

Answer

Document Name

Comment

R3: SPP recommends consideration of including this in the BA Emergency Operating Plan.

R4: SPP recommends removing mutually agreed upon schedule and recommends providing on an annual basis and upon revision.

R9: SPP Recommends moving away from an ERA margin and focusing on evidencing when Operating Plans are utilized.

Likes 0

Dislikes 0

Response

Tim Kelley - Tim Kelley On Behalf of: Charles Norton, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Fong Mua, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Ryder Couch, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; Wei Shao, Sacramento Municipal Utility District, 3, 6, 4, 1, 5; - Tim Kelley, Group Name SMUD and BANC

Answer

Document Name

Comment

SMUD and BANC appreciate the Standards Drafting Team's (SDT) efforts to create the initial draft of this new Standard. Ensuring that Balancing Authorities monitor and maintain sufficient energy reserve margin is a good way to improve reliability.

The SDT should consider the following recommendations to revise and improve this reliability standard.

- 1) The SDT should create a new definition for Energy Reserve Margin (ERM) so that entities fully understand what energy reserves are being measured and used for comparisons to the newly defined ERA.
- 2) The SDT should also consider simplifying the calculations for ERM in Requirement R8 as follows:

- The minimum ERM is the estimated Operating Reserve (e.g. regulation reserve and contingency reserve) **plus** the greater of either, the largest unplanned N-1 resource contingency, or the largest load contingency in addition to the normal peak load (e.g. 1-in-2 peak load forecast). The largest load contingency is defined as the load forecast difference between the high peak load (e.g. 1-in-10 peak load forecast) and the normal peak load (e.g. 1-in-2 peak load forecast).

To improve reliability, this Standard should focus only on the seasonal ERA because TOP-002 and BAL-002 already adequately cover the near-term or operational ERA. In the near-term or operational ERA, the load forecast and planned/unplanned resource outage information are already pretty accurate and therefore, there is no need to carry additional energy reserves beyond the Operating Reserve. Carrying additional energy reserves is not necessary and is cost prohibitive for many entities.

Likes 0

Dislikes 0

Response

Junji Yamaguchi - Hydro-Quebec (HQ) - 5

Answer

Document Name

Comment

3. Purpose

Availability may be construed to mean Capacity Availability. As such, we propose the following revision:

“To assess and mitigate the risks of energy emergencies in the operations planning time horizon by analyzing the expected **energy production capability of the available** resource mix availability and **its associated fuel supply** the expected availability of fuel during the study period”.

4.1 Functional entities

We suggest the standard be made applicable to all entities that are needed to provide data and forecasts, to ensure the assessments can be performed with up-to-date information. The standard must also especially apply to Generator Operators, as they may be required to take actions as dictated in the resulting mitigation plans.

R10.2

If The the ERA performed is a seasonal ERA, within 14 calendar days or;

Attachment 1

Should be moved up before the VSL matrix.

General

This is a good start. How severe or stressed the scenarios are, and how much energy margin is required can be debated and can evolve.

For R1.2.3.1, please clarify the word “availability” and the SDT intent, we are concerned about how auditors will audit this.

For R3, please clarify the word “unacceptable” and the SDT intent, we are concerned about how auditors will audit this.

Technical Rationale : page 5, figure 2, Mitigation Activities : missing the word “plan” in “implement Operating Associated with EOP-011...”. Furthermore, should “real-time” be capitalized?

Likes 0

Dislikes 0

Response

Glen Farmer - Avista - Avista Corporation - 5

Answer

Document Name

Comment

EEl suggests that the term “mitigate” be removed from this Reliability Standard because the BA and RC can only take actions to minimize impacts, they have no ability to modify or correct a resource issue. Please note the suggested changes to the Purpose statement, as well as Requirements R3 and R10 below (in bold face).

Purpose: To assess and **mitigate minimize** the risks of energy emergencies in the operations planning time horizon by analyzing the expected resource mix availability and the expected availability of fuel during the study period.

R3. Each Balancing Authority shall develop, maintain, and document one or more Operating Plan(s) to **mitigate minimize** unacceptable risk(s) associated with ERA scenario(s) with a likely event of occurring. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

R10. Each Balancing Authority shall provide the results of the ERA and the comparison of results from Requirement R9 to its Reliability Coordinator under the following conditions: *[Violation Risk Factor: Low] [Time Horizon: Operations Planning]*

{C}10.1. The ERA comparison to the energy reserve margin requires implementation of an Operating Plan(s) to **mitigate minimize the risks** within 24 hours for the near-term time horizon or;

{C}10.2. {C}The ERA performed is a seasonal ERA within 14 calendar days or;

{C}10.3. {C}The Reliability Coordinator has requested the results.

Likes 0

Dislikes 0

Response

Robert Follini - Avista - Avista Corporation - 3

Answer

Document Name

Comment

EI suggests that the term “mitigate” be removed from this Reliability Standard because the BA and RC can only take actions to minimize impacts, they have no ability to modify or correct a resource issue. Please note the suggested changes to the Purpose statement, as well as Requirements R3 and R10 below (in bold face).

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{C}10.2. {C}The ERA performed is a seasonal ERA within 14 calendar days or;

{C}10.3. {C}The Reliability Coordinator has requested the results.

Likes 0

Dislikes 0

Response

Robert Blackney - Edison International - Southern California Edison Company - 1

Answer

Document Name

Comment

See comments submitted by the Edison Electric Institute

Likes 0

Dislikes 0

Response

Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name NPCC RSC

Answer

Document Name

Comment

3. Purpose

Availability may be construed to mean Capacity Availability. As such, we propose the following revision:

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For R3, please clarify the word “unacceptable” and the SDT intent, we are concerned about how auditors will audit this.

Likes 0

Dislikes 0

Response

Marc Sedor - Seminole Electric Cooperative, Inc. - 3

Answer

Document Name

Comment

Seminole agrees with FRCC comments.

Can the SDT answer whether the following fuel sources must be considered for fuel contingencies if they are the fuel supply for a generator: (1) nuclear, (2) biomass, (3) waste to energy?

Marc Sedor, Seminole Electric 3/11/2024

Likes 0

Dislikes 0

Response

Dwanique Spiller - Berkshire Hathaway - NV Energy - 5

Answer

Document Name

Comment

NV Energy suggests that the term “mitigate” be removed from this Reliability Standard because the BA and RC can only take actions to minimize impacts, they have no ability to modify or correct a resource issue. Please note the suggested changes to the Purpose statement, as well as Requirements R3 and R10 below (in bold face).

Purpose: To assess and **mitigate minimize** the risks of energy emergencies in the operations planning time horizon by analyzing the expected resource mix availability and the expected availability of fuel during the study period.

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{C}10.1. {C}The ERA comparison to the energy reserve margin requires implementation of an Operating Plan(s) to **mitigate minimize the risks** within 24 hours for the near-term time horizon or;

{C}10.2. The ERA performed is a seasonal ERA within 14 calendar days or;

{C}10.3. The Reliability Coordinator has requested the results.

Likes 0

Dislikes 0

Response

Aaron Staley - Orlando Utilities Commission - 1

Answer

Document Name

Comment

See Tacoma Power comments.

Likes 0

Dislikes 0

Response

Mark Gray - Edison Electric Institute - NA - Not Applicable - NA - Not Applicable

Answer

Document Name

Comment

EI suggests that the term “mitigate” be removed from this Reliability Standard because the BA and RC can only take actions to minimize impacts, they have no ability to modify or correct a resource issue. Please note the suggested changes to the Purpose statement, as well as Requirements R3 and R10 below (in bold face).

Purpose: To assess and **minimize** the risks of energy emergencies in the operations planning time horizon by analyzing the expected resource mix availability and the expected availability of fuel during the study period.

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R10. Each Balancing Authority shall provide the results of the ERA and the comparison of results from Requirement R9 to its Reliability Coordinator under the following conditions: *[Violation Risk Factor: Low] [Time Horizon: Operations Planning]*

10.1. The ERA comparison to the energy reserve margin requires implementation of an Operating Plan(s) to **minimize the risks** within 24 hours for the near-term time horizon or;

10.2. {C}The ERA performed is a seasonal ERA within 14 calendar days or;

10.3. {C}The Reliability Coordinator has requested the results.

Likes 0

Dislikes 0

Response

LaKenya Vannorman - LaKenya Vannorman On Behalf of: Chris Gowder, Florida Municipal Power Agency, 5, 6, 3; Jade Bulitta, Florida Municipal Power Agency, 5, 6, 3; Navid Nowakhtar, Florida Municipal Power Agency, 5, 6, 3; - LaKenya Vannorman, Group Name Florida Municipal Power Agency (FMPA)

Answer

Document Name

Comment

N/A

Likes 0

Dislikes 0

Response

Israel Perez - Israel Perez On Behalf of: Mathew Weber, Salt River Project, 3, 1, 6, 5; Matthew Jaramilla, Salt River Project, 3, 1, 6, 5; Thomas Johnson, Salt River Project, 3, 1, 6, 5; Timothy Singh, Salt River Project, 3, 1, 6, 5; - Israel Perez

Answer

Document Name

Comment

SRP believes that the use of near-term in R1, R2, R8, R10 and R11 has the potential to create confusion in the industry as “Near-Term Transmission Planning Horizon” is already included in the NERC Glossary of Terms. Less confusion would occur if the SDT could use the recently updated NERC “Time Horizons” document and reference the Operations Planning Horizon or create a new term that allows for the distinction between Near Term Transmission Planning Horizon and the Near-Term Operating Horizon.

In addition, a BA doesn’t have infinite options to meet the energy reserve margins prescribed in R8. Our Operating Plans can only cover a set of finite options. R3 and R9 don’t really make this clear. One could infer that an Operating Plan is free to describe this aspect of mitigation steps. It may be better to modify R9 to “...if the energy reserve margins are not met, the Balancing Authority shall exhaust all available options from their applicable Operating Plan(s) developed in Requirement R3”.

Additionally, if this standard significantly increases reserve margin requirements, utilities may need more time than what is specified in the Implementation Plan. Even 24 or 36 calendar months to fully implement may not be enough as this may be 5 years or more to gather new generating resources. If the increased reserve margin requires new generating resource additions, the current market conditions for development of those resources may not be able to accommodate resource needs within the identified time period.

Likes 0

Dislikes 0

Response

Daniela Atanasovski - APS - Arizona Public Service Co. - 1

Answer

Document Name

Comment

For R4, AZPS recommends adding the information noted in bold below: The Balancing Authority shall submit the following information to its Reliability Coordinator for review on a mutually agreed-upon schedule **and data transfer method**.

For R5 & R6, AZPS recommends the SDT review the timelines as they are confusing. If there is anything the RC finds in an ERA, by the time BAs are required to respond would be outside of the ERA Period. Furthermore, R6. Measurement 6 is inconsistent with the Requirement of 60 and 30 days.

For R10.2, AZPS asserts that the intent is unclear and should be specified in the requirement. It is unclear if Balancing Authorities must be complete in 14 days or less, seasonal ERA with time period beginning 14 calendar days from the time it was performed. If a seasonal ERA was

Likes 0

Dislikes 0

Response

Keith Jonassen - Keith Jonassen On Behalf of: John Pearson, ISO New England, Inc., 2; - Keith Jonassen

Answer	
Document Name	
Comment	
<p>ISO-NE supports the comments from the SRC/IRC Council regarding GO/GOP requirements.</p> <p><i>Any fuel requirements remain in the standard, the Generator Owner or Generator Operator must be required to provide all “depletion and replenishment of finite upstream resources (e.g., fuel)” to the BA along with any other fuel availability information needed by the BA to perform its ERA.</i></p> <p>Utilizing TOP-003 R5 for this requirement puts the emphasis on the BA to repeatedly ask for the depletion and replenishment of resources without having direct knowledge of the fuel resource status. There should be a requirement for the GO/GOP to notify the BA of the status of finite resources if reliability or capability of the facility is affected.</p>	
Likes 0	
Dislikes 0	
Response	
Kennedy Meier - Electric Reliability Council of Texas, Inc. - 2	
Answer	
Document Name	
Comment	
<p>As currently drafted, the reliability benefit of the standard is unclear, and the standard could be understood to require BAs to shed load (or plan to shed load) even when there is no operational need to shed load. To the extent that an energy assurance reliability standard is needed, such a standard should focus on defining the risks that an ERA is intended to identify. It should not attempt to specify how the ERA should be performed, what thresholds should be used to determine whether a deficiency exists, or how the BA should address identified deficiencies. It also should not require BAs to obtain or make use of information that they do not have access to and have no way of accessing, such as information held by fuel transportation and delivery providers who are not subject to NERC or BA jurisdiction.</p> <p>In other words, such a standard should allow BAs the flexibility to determine the best way to identify and address energy risks in their BA Areas. Adding additional requirements to TOP-002 might be a more effective way to accomplish this than creating a new BAL standard, as BAL standards typically relate to managing the frequency on the grid rather than ERA-type assessments.</p> <p>To the extent that a standard is needed to address deficiencies identified by an ERA, energy assurance is ultimately a matter of resource adequacy, and other entities are in a better position than BAs to take action (particularly fuel- and supply chain-related action) to address potential energy deficiencies. Consequently, any requirements to take action to mitigate or address potential energy deficiencies should not be placed on BAs or RCs.</p> <p>Additionally, use of the term “Operating Plans” may create the impression that actions to address potential energy deficiencies need to be implemented in real-time or emergency conditions. The use of a term such as “mitigation measures” or “risk reduction measures” would clarify that such actions could be implemented in advance of real-time or emergency conditions.</p> <p>Finally, if the approach proposed in BAL-007 were to be adopted, the implementation period should be extended to 36 months to allow entities time to automate the ERA process.</p>	
Likes 0	

Dislikes 0

Response

Jennifer Neville - Western Area Power Administration - 6

Answer

Document Name

Comment

N/A

Likes 0

Dislikes 0

Response

Denise Sanchez - Denise Sanchez On Behalf of: Diana Torres, Imperial Irrigation District, 1, 6, 5, 3; George Kirschner, Imperial Irrigation District, 1, 6, 5, 3; Jesus Sammy Alcaraz, Imperial Irrigation District, 1, 6, 5, 3; Tino Zaragoza, Imperial Irrigation District, 1, 6, 5, 3; - Denise Sanchez

Answer

Document Name

Comment

IID believes that while it may be tempting to issue an additional standard which addresses the exact issues defined in the SAR for the sake of expediency, IID urges the SDT to take a more holistic and integrated approach by first analyzing and contemplate modifying the existing standards, where possible, prior to issuing a new standard.

Likes 0

Dislikes 0

Response

Colby Galloway - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company

Answer

Document Name

Comment

Southern Company supports the EEI comments and would add that a standard for assessment to determine forecasted energy issues should not present an increased compliance burden on the Reliability Coordinator function.

Southern Company maintains that the Reliability Coordinator should only be notified when there is an actual reliability issue OR upon request. Southern would suggest the below language changes to R10:

R10. Each Balancing Authority shall provide the results of the ERA to its Reliability Coordinator under the following conditions: *[Violation Risk Factor: Low] [Time Horizon: Operations Planning]*

10.1. The ERA results indicate that a reliability issue that represents an imminent risk of an Energy Emergency and requires implementation of an Operation Plan(s) to minimize risk or;

10.2. The Reliability Coordinator has requested the results.

Southern Company would assert the expectation that the RC will act in accordance with her/his duty to act established in IRO-001, R1, and additional compliance requirements are not needed. R11 should be struck or modified accordingly.

Likes 0

Dislikes 0

Response

Jodirah Green - ACES Power Marketing - 1,3,4,5,6 - MRO,WECC,Texas RE,SERC,RF, Group Name ACES Collaborators

Answer

Document Name

Comment

Thank you for the opportunity to comment. We are grateful for the tremendous effort put forth by the SDT to draft this new proposed standard.

Likes 0

Dislikes 0

Response

Elizabeth Davis - Elizabeth Davis On Behalf of: Thomas Foster, PJM Interconnection, L.L.C., 2; - Elizabeth Davis, Group Name ISO/RTO Standards Review Committee

Answer

Document Name

Comment

The IRC SRC raises four recommendations under this question.

1) Requirement for Generator Operators to provide upstream fuel data

- 2) Align the purpose of the proposed standard with the purpose stated in the companion Technical Rationale.
- 3) Allow 36 months for implementation of the ERA process.
- 4) Meet with the Resource Subcommittee prior to posting the next draft.

4.1 Functional entities

To the extent ERAs require information known by the Generator Owner or Generator Operator, the standard must require them to provide it to the BA to ensure the assessments can be performed with accurate and up-to-date information. To the extent that:

- Any fuel requirements remain in the standard, the Generator Owner or Generator Operator must be required to provide all “depletion and replenishment of finite upstream resources (e.g., fuel)” to the BA along with any other fuel availability information needed by the BA to perform its ERA.
- Any mitigation requirement remains in the standard, it should be placed on Generator Operators and Generator Owners, as these entities are best situated to take any mitigation actions that may be needed to address risks identified in ERA.

Standard Purpose: The SRC requests the Standard purpose reflect the purpose written in the Technical Rationale as it relates directly to the scope of this Project: The purpose of this standard is to assess energy risk in Operations Planning time horizon, determine if the risks are acceptable, and take actions to mitigate.

The SRC also recommends that the implementation time be changed to 36 months to allow enough time for BAs to develop methods to automate their ERAs.

Prior to posting the next draft, the SDT should meet with the NERC Resources Subcommittee (RS) to garner feedback. Since this is a BAL standard, and as the NERC RS is made up of BA subject matter experts, it would be worthwhile to ensure BAL-007 can pass muster. One of the RS’s primary responsibilities is to: “Review and assist in the development of interconnection balancing standards to assure problems resulting from balancing do not adversely affect reliability.”

The ISO RTO Council Standards Review Committee (IRC SRC) extends a huge thank you to NERC and the Standard Drafting Team in providing this update and all the work needed in completing this Project.

Likes	0
Dislikes	0

Response

Mark Flanary - Midwest Reliability Organization - 10

Answer	
Document Name	
Comment	

MRO is not ready to vote affirmative for the following reasons:

1. Requirement Parts 2.1.4, 2.1.5, and 2.1.6 refer to "High load" as an ERA scenario condition/benchmark. Since the term "high load" is not planned for inclusion in the NERC glossary and there is no other clarification in the Standard regarding its meaning, there is significant opportunity for differences in professional judgement between registered entity and CEA staff regarding its meaning, thus making these Parts very difficult to enforce.

2. The language in R3 refers to "unacceptable risk(s) associated with ERA scenario(s)" and "likely event of occurring". Use of these quite general wordings without additional guidance on what bounds their interpretation creates significant opportunity for differences in professional judgement between registered entity and CEA staff regarding their meaning, thus making this Requirement very difficult to enforce.

Likes 0

Dislikes 0

Response

Holly Mitchell - NorthWestern Energy - NA - Not Applicable - WECC

Answer

Document Name

Comment

“Energy Reserve Margin” should be a defined term. Without a definition, it is not clear if this is associated with operating and/or contingency reserves or if it is independent. (This is made clearer under the technical justification of Requirements 8 and 9, but should be a defined term regardless.) There should be clarity provided for “required” versus “actual” energy reserve margin (e.g. R8 calculations are the “required” and the “results of the ERA” cited in R9 are “actual”).

Per R9, “Each Balancing Authority shall compare results of the ERA to energy reserve margins in R8 [...]”. The “results of the ERA” should be more explicitly defined—are the results intended to be solely “actual” energy reserve margin or is this just a component?

Likes 0

Dislikes 0

Response

C. A. Campbell - LS Power Development, LLC - 5

Answer

Document Name

Comment

We appreciate the SDT’s work and are in agreement with the proposed standard except for the issues described in our responses to #2 and #5.

Likes 0

Dislikes 0

Response

Stephanie Kenny - Edison International - Southern California Edison Company - 6

Answer	
Document Name	
Comment	
See comments submitted by the Edison Electric Institute	
Likes 0	
Dislikes 0	
Response	
Darcy O'Connell - California ISO - 2	
Answer	
Document Name	
Comment	
In addition to supporting comments submitted by the ISO/RTO Counsel (IRC) Standards Review Committee, CAISO has the following comments:	
<ul style="list-style-type: none"> Propose to expand the applicability of this standard to entities that potentially need to provide data or assumptions to the BA for development of scenarios and plans. Add applicable entities that will need to provide RC with data and assumptions. 	
Likes 0	
Dislikes 0	
Response	
Todd Bennett - Associated Electric Cooperative, Inc. - 3, Group Name AECI	
Answer	
Document Name	
Comment	
AECI has the following additional comments for the SDT to consider:	
<ul style="list-style-type: none"> This project attempts to establish a requirement for reliability studies, but there may be more effective ways approach energy assurance. While not specifically mentioned in the standard, LOLE study techniques measure unserved energy and can address this need. The LOLE analytical framework is relatively mature compared to what is described in the draft standard. The draft standard allows for both probabilistic (LOLE) and deterministic (scenario based) methods. This approach allows for flexibility and may be an appropriate choice but the results are vague requirements by allowing both techniques. For example, high loads, fuel contingencies are frequently included in the stochastic possibilities in a probabilistic study whereas the standard, as written, implies that scenarios are needed. More specificity in requirements would be beneficial where practical. Entities need additional time to implement the draft standard as many may not currently be performing similar studies. Additional staff, skillset development, and resources may need to be budgeted for, 	

Likes	0
Dislikes	0
Response	
Romel Aquino - Edison International - Southern California Edison Company - 3	
Answer	
Document Name	EEI Draft Comments _ Project 2022-03 BAL-007 Draft 1 Rev 0b 3_05_2024.docx
Comment	
Likes	0
Dislikes	0
Response	

Comments by Dwayne Howard at BHE Montana

Questions

1. The SDT has proposed a new Energy Reliability Assessment (ERA) definition which is intended to support the near-term and seasonal time horizons. Is the definition clear and understandable? If not, please provide the basis that supports your answer.

0 Yes

0 No

Comments:

2. The SDT developed a process that defines how both near-term and seasonal ERAs will be performed and specifies the requirements for both ERAs together. Are the process and the required parameters clear and understandable? If not, please provide the basis that supports your answer or suggestions for revisions. Please specify if comments are related to the near-term ERA, seasonal ERA, or both.

0 Yes

0 No

Comments: **The standard does not allow for meeting the energy reserve margins through cooperative or sharing programs**

3. The SDT proposes to require a set of scenarios to be developed which is needed in the performance of ERAs. Additionally, there is Attachment 1 that further supports the development of the set of scenarios. Are the scenarios specified in Requirement 2 the correct level or risk to consider in an ERA, and is the development of scenarios clear and understandable? If not, please provide the basis that supports your answer or suggestions for revisions. Please specify if comments are related to the near-term, seasonal ERA, or both.

0 Yes

0 No

Comments: **Can scenarios allow Balancing Authorities to include cooperative or sharing programs**

4. The SDT proposes entities determine energy reserve margins which would provide clear criteria for whether or not the results of an ERA require Operating Plan(s) to mitigate potential energy deficiencies. Are energy reserve margins the right method to set that criterion and are the specific energy reserve margin specified in Requirement 8 the correct thresholds for both near-term and seasonal ERAs? Is this approach clear and understandable? If not, please provide the basis that supports your answer or suggestions for revision.

0 Yes

0 No

Comments:

5. Does the proposed new standard address the reliability gaps or risks identified in the SAR and differentiate itself from other standard requirements? In your response, please provide any information that supports your answer.

0 Yes

0 No

Comments:

6. Is the proposed standard practicable to:

i. Be implementable?

ii. Is the proposed standard auditable?

iii. Able to comply with?

In your response, please provide any information that supports your answer.

0 Yes

0 No

Comments: **Would ask that the Standard Drafting Team (SDT) please address the applicability of the proposed standard to "Generation Only" Balancing Authorities. As an example, a Generation Only Balancing Authority Area does not have any load, and as such would not be able to develop any of the "Reliability Coordinator ERA scenarios" as required by Requirement 2.**

7. Provide any additional comments for the SDT to consider, if desired.

Comments: