NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments
Part 1 - RSTC

Project Name:	RSTC Responses
Comment Period Start Date:	December 13, 2021
Comment Period End Date:	January 14, 2022
Associated Ballot(s):	N/A

There were 7 sets of responses, including comments from approximately 9 different people from approximately 8 companies representing several of the Industry Segments as shown in the table on the following pages.

All comments submitted can be reviewed in their original format on the ERATF extranet or the Response Attachment.

If you feel that your comment has been overlooked, let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, contact Chair Peter Brandien at pbrandien@iso-ne.com.

Questions

1. During the December 2021 RSTC meeting, the SAR, Appendix and Technical Justification was sent to the RSTC members for their review and comment.

The Industry Segments are:

1 — Transmission Owners
2 — RTOs, ISOs
3 — Load-serving Entities
4 — Transmission-dependent Utilities
5 — Electric Generators
6 — Electricity Brokers, Aggregators, and Marketers
7 — Large Electricity End Users
8 — Small Electricity End Users
9 — Federal, State, Provincial Regulatory or other Government Entities
10 — Regional Reliability Organizations, Regional Entities

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
Manitoba Hydro	David Jacobson			RSTC				
Bonneville Power Administration	Edison Elizeh			RSTC				
Evergy, Inc.	Kayla Messamore	Also Todd Lucas (SOCO) Greg Stone (Duke)		RSTC				
City Utilities	John Stephens			RSTC				
City Utilities	John Stephens			RSTC				
Utility Services	Brian Evans-Mongeon			RSTC				
WECC	Layne Brown			RSTC				

Comments		
Theme (A): Fuel Assurance with Energy-Constrained Resources		
Comment	**From**	**Response**
I'm not opposed to the idea of creating a standard related to energy reliability assessments, however, I think that a standard drafting team doesn't have enough information to prepare a standard at this point and the SAR is not focused enough. I would recommend that we ask the industry to prepare voluntary energy reliability assessment studies for their Planning Coordinator areas, similar to what is done for the biannual probability assessment studies. The ERATF could review the assessments for commonalities and best practices, which could then inform an eventual standard. The results of the energy assessments could be reported in the annual NERC LTRA.	David Jacobson (Manitoba Hydro)	Thank you for your comment. (1) We agree that broader input should be solicited. The ERATF workshop on February 16, 2022 served as the initial outreach to industry to provide comments to panelists and back to the ERATF on the Operations and Planning time horizons as well as the tools being developed. (2) Based on the comments received from the RSTC, Policy Input and the Feb 16 Industry workshop, the ERATF has modified its proposal and has created two SARs that provide greater granularity and specificity, accompanied by updated technical justification documents and working definitions of some key terms. (3) The consensus that we received during the Feb 16 Industry workshop is that there is a sense of urgency on moving forward with the creation of the standard. (4) The SAR is not prescriptive, and different geographic areas in the NERC footprint have

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		local issues, different sources of energy. We intentionally chose to not be specific. (5) The Standard is risk-based. (6) The EGWG has published the Fuel Assurance and Fuel-Related Reliability Risk Reliability Guideline, which will be revised every three years (next revision is during 2023). The guideline will support the standard. (7) The ERATF is available to address technical questions. (8) The task force will consider having an annual 'best practices' webinar.
Requirements for energy assessment should include a clearly defined periodic basis and performed in each of the NERC defined planning time horizons, as well as the operations time horizon. Periodicity should include clauses for their re-performance and/or update of existing assessment when changes to assumptions and input data invalidates an existing assessment.	Edison Elizeh (Bonneville Power Administration)	Thank you for your comment. (9) This will be clear when we modify the SAR into two SARs. (10) The drafting team will help define the periodicity for the planning and operational horizons. See Response to Comment Manitoba Hydro Theme (A) Response (4).

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Fundamentally, the issue the ERATF is attempting to solve with this SAR (as supported by the Technical Justification) is poorly defined and unnecessarily complicated. We appreciate the level of focus which is being placed on this issue, agree that the focus is well-warranted, and that a Reliability Standard could ultimately be part of the solution, but broader industry input and a more structured, systematic approach to defining the problem – and its potential solutions – are necessary to make the solutions ultimately effective.	Kayla Messamore (Evergy) Todd Lucas (Southern Company) Greg Stone (Duke)	Thank you for your comment. See Response to Comment Manitoba Hydro Theme (A) Responses (1, 2, 4, 5,6).
The issue of energy and capacity adequacy during extreme weather conditions is more related to traditional methods of assessing readiness for an annual or seasonal peak demand. I believe the issue of extreme event planning particularly in cold weather is already being addressed through a different SAR. We should avoid any duplication.	John Stephens (City Utilities)	Thank you for your comment. (11) Regarding the comment on energy and capacity adequacy, we think an energy assessment is required in addition to the existing capacity assessments that are being performed. The SAR includes defining an 'energy reliability assessment' and explains the difference between an energy reliability assessment and a capacity assessment. (12) Regarding the comment on the extreme event planning and avoiding any duplication,

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		the drafting team will stay informed and track the work being completed by the cold weather drafting team, *Project 2021-07: Extreme Cold Weather Grid Operations, Preparedness, and Coordination*.
Thank you for the opportunity to review the proposed SAR and its' supporting documentation. It is appreciated to see that a Reliability Standard could ultimately be part of the solution, but broader industry input and a more structured, systematic approach to defining the problem – and its potential solutions – are necessary to make the solutions ultimately effective. While it is understood that there is a need for responsibly (and reliably) providing energy in the absence of certain conditions, the current draft does not provide sufficient clarity on the resolution that would come out of this project. Fundamentally, a SAR (and its associated documentation) should identify the specific technical gaps for the creation of new standards, or the identification of gaps within the currently established reliability standards and do so on a standard-by-standard format. For the industry to be responsive in the SDP, they need to assess	Brian Evans-Mongeon (Utility Services)	Thank you for your comment. (13) This project will enhance reliability by requiring industry to analyze their energy-related issues and the impact of currently unstudied constraints on the reliability of the BES. The focus of an energy reliability assessment is to analyze two parameters: fuel assurance and flexibility based on the evolving resource mix, and gas delivery security. These two parameters need to be analyzed in two time horizons – the Operations/Operations Planning and Planning time horizons. (14) The ERATF has updated the proposal to divide it into two SARs to address these comments and provide greater specificity and granularity to the proposals.

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the specific changes that are being presented in the SAR and or technical write-ups. Without those, the industry cannot provide supplemental input to either support or contest the proposal. The current SAR is too open-ended and undefined in its approach. As the technical experts addressing this matter, the ERATF needs to take the time to identify the basis for new standards and or the revisions to existing standards. The current documentation does not outline or identify the specific needs to be addressed. The current SAR is too broadly written and likely sets a future Drafting Team up for a lengthy duration and potential failure in attempting to incorporate industry input on myriad issues simultaneously. Without more analysis and consideration of whether and how fuel assurance is coupled with a reliability gap and the understanding of whether specific standards can reasonably solve the issue, any project team is likely to be continuously challenged to find the right balance and nature of the work needed to fix any perceived deficiencies. In order to		(15) The task force has also prepared draft definitions to accompany the SAR to provide the Standards Committee and the Standard Drafting Team has the support, technical justification, and guidance desired as it pursues any modifications to Reliability Standards. (16) The ERATF also solicited and appreciates the input provided by stakeholders in response to the *Whitepaper*, Questionaire, Workshop, and requests for comments. The ERATF webpage will post this material to serve as reference documentation that could be beneficial to any Standard Drafting Team. (17) These modifications to add greater specificity and granularity to the ERATF SAR proposals and the ERATF's publication of the record in their creation, should provide the basis to support work by any Standards Drafting Team without usurping its role. (18) The ERATF believes that its modifications to the SAR proposals and supporting documentation strikes the appropriate balance between responding to

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achieve this and considering the fundamental nature of the issue of resource adequacy, we believe broader stakeholder input is imperative to define the reliability gap and appropriately scope the SAR.		industry's helpful comments on the earlier proposals and remaining consistent with the Standards Development Process contemplated under the Standards Committee's oversight.
The proposed SAR to address Energy Adequacy is a great step to help ensure energy studies are done as the industry continues the transition to more variable generation resources. The current SAR highlights the need to study extreme demand conditions during all hours of the year, not just the peak summer and winter demand hours. However, what resources should be included in the various studies are not identified and could lead to misleading results.	Layne Brown (WECC)	Thank you for your comment. See Response to Comment Manitoba Hydro Theme (A) in Responses (4, 5, 6, 7, 8).
Comments		
Theme (B): Regional/Market Issues		
Comment	**From**	**Response**

Comments		
Theme (A): Fuel Assurance with Energy-Constrained Resources		
Comment	**From**	**Response**
The SAR document appears to be written primarily focused on fuel supply. Shouldn't this issue be expanded to other common modes of failure which are expected or have proven to impact energy adequacy? These scenarios or risks will likely vary from region to region.	John Stephens (City Utilities)	Thank you for your comment. (1) This is certainly the case and makes for good reason that the SAR will not define the specific requirements for every locale. (2) It is acknowledged in a variety of working groups, including the ERATF, that there are regional differences in how specific an energy reliability assessment would need to be and therefore, the recommendation to update the language in the SAR includes the passage "and transmission capacity and deliverability to the load centers."
There are regional market-based influences within regional tariffs that will impact this proposal. Or the point that some reliability actions coming from this proposal will influence the need to market-based structures. Cost recovery for such mechanisms is not guaranteed for all organizations and thus this would likely put upward pressure on retail rates or transactional costs inequitably.	Brian Evans-Mongeon (Utility Services)	Thank you for your comment. (3) The ERATF agrees with the importance of focusing on risk-based requirements. (4) In addition, in accordance with the NERC Rules of Procedure, Section 303(2) and (3) a Reliability Standard, "shall neither mandate nor prohibit any specific market structure" and a "Reliability Standard shall not preclude market solutions to achieving compliance…."

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WECC feels the proposed ERA is critical for ensuring energy supply will be adequate to match future energy needs. As more variable resources are added to the grid, and more carbon free mandates are issued, there may be pressure for entities to demonstrate future generation plans are adequate for future demand. Defining what resources would be counted for the different time-period studies would help to produce unbiased and informative assessments.	Layne Brown (WECC)	Thank you for your comment. See Response to Comment Manitoba Hydro Theme (A) Responses (4, 5,6, 7, 8).

Comments		
Theme (C): Jurisdiction/Duplicate Efforts/Administrative Burden		
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It would be challenging to assume the Standard drafting could come up with a design basis document for what risks/impacts are acceptable and what scenarios should be considered as planned events and what is an extreme event. Should there be a white paper from ERTF on this issue first? The white paper could be developed in parallel with the industry pilot	David Jacobson (Manitoba Hydro)	Thank you for your comment. (1) We agree with the fact that it will be a challenge to craft NERC Standard language that requires energy reliability assessments to be performed without prescribing specific actions.

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assessments. The white paper could also develop potential energy adequacy metrics and have industry test them.		(2) Consideration is being given to the implications of being specific and placing unnecessary limitations on vastly different energy situations across North America. (3) Regarding the comment on a white paper, the ERATF or another technical team will consider writing a guideline. If the SDT have technical challenges, they can approach a technical subcommittee to offer guidance.
Energy assessments for near term and operational time horizon must be coordinated between areas to harmonize interchange assumptions.	Edison Elizeh (Bonneville Power Administration)	Thank you for your comment. (4) The phrase "Energy reliability assessments must be coordinated between areas to harmonize interchange assumptions" has been added to the SAR. (5) Regarding the time horizon comments, we modify the SAR into two SARs, one for the operations time horizon and the second for the planning time horizon. See Response to Comment Manitoba Hydro Theme (A) Response (4).

Comments		
Theme (C): Jurisdiction/Duplicate Efforts/Administrative Burden		
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The SAR lists "Planning Coordinator, Reliability Coordinator, Balancing Authority, Transmission Operator, and Generation Operator" as the Functional Entities which the Standard would apply to. It's unclear whether each of these Entities would be responsible for performing energy assessments or whether they would all simply be impacted by the Standard. In terms of performing energy assessments, it seems most logical that a requirement to assess the Operational/Operational Planning timeframe would apply to the Balancing Authority (or potentially the Reliability Coordinator) and a requirement to assess the Mid- to Long-Term timeframe would apply to the Planning Coordinator. Inputs to perform those assessments would then need to come from the Generation Operator, the Transmission Operator, and the Resource Planner, at a minimum.	Kayla Messamore (Evergy) Todd Lucas (Southern Company) Greg Stone (Duke)	Thank you for your comment. (6) We agree. The SAR is being split into two separated, but related, requests. The first will address the Planning time horizon (≥ 1 year), and the second will address the Operations and Operations Planning time horizons (< 1 year). That distinction will allow for the Standard Drafting Team to better target required studies to be performed and by whom. See Response to Comment Utility Services Theme (A) in Responses (13, 14, 15, 16, 17, 18).
How to address Jurisdictional issues between state and federal regulators of electric and natural gas production and delivery?	John Stephens (City Utilities)	Thank you for your comment. (7) The SARs explicitly do not address issues between jurisdictions as this is outside of NERC's jurisdiction.

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		(8) The SAR is focused purely on assessing reliability and risk. Any actions or methods that any entities need to increase energy reliability based on these standards should be left to those entities and organizations with jurisdiction.
Additionally, the directional nature of this proposal goes beyond current capabilities of organizations with regard to the ability to assess ongoing near term operational weather conditions (forecasts of temperature, rain, wind, and sun). Where or how does the ERATF see meeting these provisions within the context of this proposal? - In reviewing the SAR and the technical justification document, some people have asked questions regarding the appropriateness of this request against the Energy Policy Act affording NERC jurisdiction, as well as how this proposal fits within the Section 215 of the FPA. These documents could provide clarity on how this will fit	Brian Evans-Mongeon (Utility Services)	Thank you for your comment. (9) It has been noted in the comments herein as well as the ERATF February 16 industry workshop that energy studies are already being performed by several Reliability Coordinators and Planning Coordinators. (10) Risk-based Reliability Standards, such as those proposed by the ERATF, which require responsible entities to assess certain potential risks to reliability of the Bulk Electric System and plan accordingy are consistent with section 215 of the FPA. Industry responses to the ERATF reflect varying current capability to perform energy analysis. The SDT will be responsible for creating an Implementation Plan for any draft Reliability Standard which would

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within the authority of the ERO to conduct such activities.		provide a timeframe for entities to transition to any obligations ultimately created. (11) Section 215(a)(3) of the FPA states, "The term 'reliability standard' means a requirement, approved by the Commission under this section, to provide for reliable operation of the bulk-power system. The term includes requirements for the operation of existing bulk-power system facilities, including cybersecurity protection, and the design of planned additions or modifications to such facilities to the extent necessary to provide for reliable operation of the bulk-power system, but the term does not include any requirement to enlarge such facilities or to construct new transmission capacity or generation capacity." The performance based SARs would fit within that definition. Section 215(a)(4) of the FPA defines "'reliable operation' means operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance,

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		including a cybersecurity incident, or unanticipated failure of system elements." ERATF February 16 Industry Workshop ERATF Industry Workshop Q&A Document - February 16, 2022 ERATF Industry Workshop February 16 2022 Agenda ERATF Industry Workshop Presentations ERATF Industry Workshop Speaker Biographies

Comments		
Theme (D): More Technical Support and Specificity		
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I don't believe that flexibility should be mixed together with fuel assurance. In general, flexibility is linked to having sufficient ramping capability. There can be plenty of capacity and energy available but insufficient ramping due to a number of reasons. Fuel assurance links well with energy adequacy but not necessarily with ramping.	David Jacobson (Manitoba Hydro)	Thank you for your comment. (1) The recommendations of the SAR speak only to ensuring that energy is available (e.g. natural gas) to provide for ramping when other forms of energy (e.g. solar) become unavailable. Resource capability to meet the load ramps may need to be addressed, but

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		only the available energy to meet the quickly changing demand is in-scope for this SAR. (2) Essential reliability services (ERS) supports ramping, frequency and voltage support.
Define terms e.g. energy assessment, fuel, fuel assurance, etc. For energy assessments, metrics and observations should be compared to targets or predefined criteria. Results should be in terms of the impact to the Bulk Power System. Energy assessments should be required to include the appropriate assumptions and scenarios that account for but not limited to: time-coupled restrictions on the availability of fuel, the impact of energy storage and other flexible resources, the logistical constraints of the associated fuel delivery supply chains, common mode outages not connected to fuel supply, coincident outages of multiple independent resources, outage duration based on failure modes, and variable resources need to account for their unique characteristics, and transmission capacity and deliverability to the load centers. Other commodities for energy production should also be modeled including water for steam,	Edison Elizeh (Bonneville Power Administration)	Thank you for your comment. (3) We updated the language in the SAR: "and transmission capacity and deliverability to the load centers."

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cooling and/or lubrication, waste heat and/or compressed air.		
The current SAR is too broadly written and likely sets a future Drafting Team up for a lengthy duration and potential failure in attempting to incorporate industry input on myriad issues simultaneously. Without more analysis and consideration of whether and how fuel assurance is coupled with a reliability gap and the understanding of whether specific standards can reasonably solve the issue, any project team is likely to be continuously challenged to find the right balance and nature of the work needed to fix any perceived deficiencies. In order to achieve this and considering the fundamental nature of the issue of resource adequacy, we believe broader stakeholder input is imperative to define the reliability gap and appropriately scope the SAR. In terms of problem and solution definition, the Technical Justification and the SAR are both unclear on many key items outlined in detail below. We recommend that the ERATF, at the very least, wait to revise and resubmit the Technical Justification and SAR	Kayla Messamore (Evergy) Todd Lucas (Southern Company) Greg Stone (Duke)	Thank you for your comment. (4) We agree, and most of the revisions to the SAR that were provided by a K. Messamore were incorporated in the most recent revision. K Messamore is a member of the ERATF. (5) The February 16, 2022 ERATF workshop addressed the need for broader industry input and a more structured, systematic approach to defining the problem – and its potential solutions – are necessary to make the solutions ultimately effective. (6) A follow up webinar to provide an update on how the SAR comments have been addressed is scheduled for May 19, 2022, 2 - 3 pm Eastern. The revised SARs will be presented to the RSTC during the June 2022 meeting, for their technical endorsement. The revisions are based on comments from the RSTC, Policy Input and the Feb 16, 2022 Industry Workshop.

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for RSTC comment after it has received and incorporated industry comments through the upcoming February workshop and Policy Input from the MRC. The ERATF should use the workshop and Policy Input to refine some of the items that are outlined in detail below to make the final SAR more actionable for a Drafting Team. In parallel, the ERATF should use the input to determine whether a Standard is the most effective mechanism to solve the targeted reliability risk across all timeframes. Given the existence of the Reliability Assessment process that is embedded in the NERC ROP, further expansion of that process, through the RAS/PAWG, with input from the rest of industry as needed, would seem to be a more effective way of meeting the need in the Mid-/Long-Term Planning timeframe without creating jurisdictional issues or creating unnecessary parallel processes. ~~o~~ Through the process of ERATF review, RSTC representatives have provided detailed comments on both the Technical Justification document and the SAR. Given the		(7) Regarding effective mechanism comment and the comment on the current SAR being too broadly written, a decision was made to convert the SAR into two SARs that have a more structured, systematic approach to defining the problem - the planning horizon and the operations horizon. (8) Based on the RSTC and Policy Input comments, and the Feb 2022 Industry Workshop comments, the Project Scope section of the SAR was evaluated and modified to ensure that the goals are clear. In addition, two SARs were created, one for the operations time horizon and one for the planning time horizon. (9) We agree, and the 'operations and operational planning' energy reliability assessments will be performed by the Reliability Coordinator and Balancing Authority, and the 'planning' energy reliability assessments will be performed by the Reliability Coordinator and Planning Coordinator.

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fundamental nature of the issue of resource adequacy and the overall direction of the task force, broader stakeholder input is imperative. To that end, substantive redlines on the SAR have been provided in the past and, to our knowledge, none of these redlines have been incorporated or given an explanation as to why they have not been incorporated. Given the substantive nature of those redlines, we concluded that it is more appropriate to express our overall concerns here, rather than reinforcing (through detailed wording changes) that fundamental changes would be needed to better identify the concern and the goal within the parameters of NERC's expertise and authority. Fundamentally, the issue the ERATF is attempting to solve with this SAR (as supported by the Technical Justification) is poorly defined and unnecessarily complicated. We appreciate the level of focus which is being placed on this issue, agree that the focus is well-warranted, and that a Reliability Standard could ultimately		(10) The ERATF agrees that the SDT should consider the manner in which data is reported to support ERO Enterprise assessments of the Bulk Power System in drafting any proposed Reliability Standard requirements. The ERATF also highlights the distinction between the ERO Enterprise assessment of "the reliability and adequacy of the bulk-power system in North America" per section 215(g) of the FPA and the relevant responsible entities' assessment of potential risks to energy assurance associated with their relevant facilities and identification of potential mitigating measures as proposed under the draft SARs. As a result, the SARs are not proposing to duplicate work done by the ERO Enterprise, even as the ERATF hopes that efforts under any Reliability Standards will compliment reliability assessments of the Bulk Power System provided by the ERO Enterprise. (11) As reflected above, the SARs propose risk-based Reliability Standards requirement within the scope contemplated within

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be part of the solution, but broader industry input and a more structured, systematic approach to defining the problem – and its potential solutions – are necessary to make the solutions ultimately effective. The current SAR is too broadly written and likely sets a future Drafting Team up for a lengthy duration and potential failure in attempting to incorporate industry input on myriad issues simultaneously. Without more analysis and consideration of whether and how fuel assurance is coupled with a reliability gap and the understanding of whether specific standards can reasonably solve the issue, any project team is likely to be continuously challenged to find the right balance and nature of the work needed to fix any perceived deficiencies. In order to achieve this and considering the fundamental nature of the issue of resource adequacy, we believe broader stakeholder input is imperative to define the reliability gap and appropriately scope the SAR. In terms of problem and solution definition, the Technical Justification and the SAR are both unclear on many key items outlined in		section 215 of the FPA. Moreover, the SDT would be prohibited per the statute from seeking to create Reliability Standards that would require "the construction of additional generation or transmission capacity or to set and enforce compliance with standards for adequacy or safety of electric facilities or services" To avoid confusion, the ERATF has modified the SAR related documentation that it pertains to ascertaining energy assurance and availability. (12) The SAR includes a section on coordination with the SDTs members will occur throughout the process of creating the Standards. (13) Regarding the comment on the lengthy duration and potential failure in attempting to incorporate industry input on myriad issues simultaneously, the decision to convert the SAR into 2 SARs will address the issue. In some instances, such as fuel assurance and variable generation, there is a need to consider them simultaneously

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detail below. We recommend that the ERATF, at the very least, wait to revise and resubmit the Technical Justification and SAR for RSTC comment after it has received and incorporated industry comments through the upcoming February workshop and Policy Input from the MRC. The ERATF should use the workshop and Policy Input to refine some of the items that are outlined in detail below to make the final SAR more actionable for a Drafting Team. In parallel, the ERATF should use the input to determine whether a Standard is the most effective mechanism to solve the targeted reliability risk across all timeframes. Given the existence of the Reliability Assessment process that is embedded in the NERC ROP, further expansion of that process, through the RAS/PAWG, with input from the rest of industry as needed, would seem to be a more effective way of meeting the need in the Mid-/Long-Term Planning timeframe without creating jurisdictional issues or creating unnecessary parallel processes.		(14) The work being done at NAESB and EGWG may certainly improve both the performance of studies and the ability to better coordinate the gathering of information required to perform accurate energy analyses. However, neither the EGWG, NAESB, or the cold weather SAR are requiring the performance of energy reliability assessments to be performed. (15) Regarding the comment on language, working definitions for energy reliability assessments, energy assurance and fuel were created by the ERATF. In addition, the language in the SARs focuses on energy reliability assessments. See Response to Comment Utility Services Theme (A) in Responses (13, 14, 15, 16, 17, 18). See Response to Comment Utility Services Theme (C) Response (10).

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Detailed comments – areas where the Technical Justification and SAR are unclear or problematic: • What specific reliability risk is this SAR is attempting to mitigate? o The White Paper, Technical Justification and SAR blend together reliability risks related to energy analysis / assessments, fuel security, and generator flexibility ("Purpose or Goal" section of SAR). While we believe the true focus of the Standard is intended to be on energy assessments and improving our analysis of energy adequacy risks, that is not entirely clear as written and should be refined. o The current mix of references to energy assessments, fuel security, and generator flexibility creates perceived overlap with ongoing efforts in the EGWG and in response to the Winter Storm Uri investigation. The language should be clarified to focus on just energy assessments. o In 2019 and 2020, the Electric-Gas Working Group developed a Reliability Guide for Balancing Areas to assess what could be the specific Area weaknesses within their generation mix. Has any Balancing Area		

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provided this information to the ERATF for consideration in the Technical Justification or development of the SAR. Such information from the Balancing Authorities could be extremely beneficial in developing next steps and identifying weaknesses. • What an energy assessment specifically entails? o The definition of an energy assessment has been left to a Standards Drafting Team, which is inappropriate given this entire effort (and the supposed reliability benefit it would provide) hinges on that definition. Since the entire scope is based on the definition of energy assessment, the SAR cannot be appropriately scoped without some definitive guidance on what an energy assessment should be. • What timeframe these energy assessments are focused on? o The ERATF work has broadly focused on the Operations, Operational Planning and Mid- to Long-Term Planning time horizons which is certainly logical because energy assessments of some form can be performed in all of these timeframes. However, the types of energy assessments that can and		

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should be performed in those timeframes are likely very different and blending them all together in one SAR (and one Standard) makes the effort unnecessarily complex and likely sets the Drafting Team up for failure in attempting to create a single Standard for assessments which apply to all. o For example, a probabilistic assessment in the Operational timeframe is likely impractical and less necessary given the relatively higher certainty compared to future years. • Who is responsible for performing these energy assessments? o The SAR lists "Planning Coordinator, Reliability Coordinator, Balancing Authority, Transmission Operator, and Generation Operator" as the Functional Entities which the Standard would apply to. It's unclear whether each of these Entities would be responsible for performing energy assessments or whether they would all simply be impacted by the Standard (i.e., by needing to provide data to support the assessment). o In terms of performing energy assessments, it seems most logical that a		

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requirement to assess the Operational / Operational Planning timeframe would apply to the Balancing Authority (or potentially the Reliability Coordinator) and a requirement to assess the Mid- to Long-Term timeframe would apply to the Planning Coordinator. Inputs to perform those assessments would then need to come from the Generation Operator, the Transmission Operator, and the Resource Planner, at a minimum. • How prescriptive the Standard is expected to be in terms of outlining the inputs, methodology and outputs of an energy assessment? o The key risks associated with energy adequacy vary significantly for different regions. For example, some regions are more impacted by wind or hydro resources and others are more impacted by natural gas supply. As a result, developing an overly prescriptive Standard for conducting energy assessments (which forces all regions to look at the same risks in the same way) is likely to be inefficient. It's likely that a more "general" version of the list below from the SAR (not specifically focused on "logistical constraints", for example, but evaluating fuel		

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delivery risk in general), along with a few missing pieces like load and EFOR, could be more efficiently utilized by different Entities as is appropriate for their individual system and resource mix. ▯ "Time-coupled restrictions on the availability of fuel, the impact of energy storage and other flexible resources, the logistical constraints of the associated fuel delivery supply chains, common mode outages not connected to fuel supply, coincident outages of multiple independent resources, outage duration based on failure modes, and variable resources need to account to be included to account for their unique characteristics" • How the proposed Standard interacts with the required reliability assessments already performed (LTRA, WRA, SRA, ProbA)? o Under the ROP, Regional Entities already provide NERC large amounts of data to perform reliability assessments multiple times every year. This process is continually being improved and includes conducting energy reliability assessments – including probabilistic assessments and regional risk scenarios – for each region and identifying		

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potential risks in the Mid-to Long-Term Planning horizon. It is unclear what additional value will be provided in the Planning Timeframe by requiring a Standard to look at essentially the same issues. Instead, if the current analyses are not producing the desired results, it would seem to be more efficient to improve them rather than create a new parallel set of analyses. • What targets or predefined criteria the energy assessments should be compared to? o The item in the SAR that calls for the comparison to targets or predefined criteria should be clarified. We do not believe the SAR is calling for these targets to be developed under the Standard and simply that the results would be compared to resource adequacy criteria which already exist, but this could be made clearer. Other general comments • Given the type of analysis which we believe is envisioned under this SAR – specifically that it would be looking at energy / resource adequacy, the TPL standard seems like a very inappropriate place for such a		

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Standard to live (whether it includes Operational timeframe, Mid/Long-Term timeframe, or both). • The use of the Transmission Planning-specific time horizons in the SAR seems unnecessary. We understand that they are defined terms in the NERC Glossary, but "Operations" is not, so it ultimately seems that the timeframes that are most appropriate for these assessments should be defined, as opposed to anchoring to those Transmission Planning definitions o If we use a time-frame other than the defined Transmission Planning horizons, would we include the Resource Planner (RP) which is defined as responsible for "developing long-term plan (generally one year and beyond) plan for the resource adequacy of specific loads (customer demand and energy requirements) within a Planning Authority area."? • SAR Section on 'Industry Need' includes discussion of demand volatility while the 'Purpose or Goal' and 'Project Scope' sections do not include demand volatility. Revising the definition of load is included in the Project Scope, but it is		

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unclear whether this revised definition would adequately address the issue of demand volatility. • Probabilistic metrics (LOLE, LOLP, LOLH, EUE) could be consistent throughout. LOLH is discussed in 'Industry Need' introduction section but not included in the listed metrics after Standard Requirement. The current mix of references to energy assessments, fuel security, and generator flexibility creates perceived overlap with ongoing efforts in the EGWG and in response to the Winter Storm Uri investigation. The language should be clarified to focus on just energy assessments.		
I agree with the need to advance this work and direct more scrutiny to energy availability during times and scenarios not traditionally assessed. I believe that there is already some level of these assessments being performed in the Operations and Near-Term Planning horizons, especially in regions which have already experienced significant levels of Grid Transformation (DERs,	John Stephens (City Utilities)	Thank you for your comment. (16) We agree with the idea of collaboration. The Feb 16, 2022 Industry Workshop was one of the initial events focusing on that outreach. (17) Following the issuance of the SAR and formation of a Standard Drafting Team, the

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renewables, coal retirements, etc.), and we should seek to engage those entities to build upon their experiences.		purpose of the ERATF will be to support and inform the drafting team, and continue the coordination with the various RSTC subcommittees and working groups, and coordinating with the NERC RAPA team. (18) As part of the ERATF's activites, the ERATF sent survey questions to industry members and included results as part of the technical justification as well as sharing ideas through the workshop.
Thank you for the opportunity to review the proposed SAR and its' supporting documentation. It is appreciated to see that a Reliability Standard could ultimately be part of the solution, but broader industry input and a more structured, systematic approach to defining the problem – and its potential solutions – are necessary to make the solutions ultimately effective. While it is understood that there is a need for responsibly (and reliably) providing energy in the absence of certain conditions, the current draft does not provide sufficient clarity on the resolution that would come out of this project. Fundamentally, a SAR (and its	Brian Evans-Mongeon (Utility Services)	Thank you for your comment. (19) The work being done at NAESB and EGWG may certainly improve both the performance of studies and the ability to better coordinate the gathering of information required to perform accurate energy analyses. Neither the EGWG, NAESB, or the cold weather SAR are requiring the performance of energy reliability assessments to be performed. The Project Scope section of the SAR will be evaluated to ensure that the goal is clear. (20) Any energy reliablity assessments will require input from all the mentioned groups

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associated documentation) should identify the specific technical gaps for the creation of new standards, or the identification of gaps within the currently established reliability standards and do so on a standard-by-standard format. For the industry to be responsive in the SDP, they need to assess the specific changes that are being presented in the SAR and or technical write-ups. Without those, the industry cannot provide supplemental input to either support or contest the proposal. The current SAR is too open-ended and undefined in its approach. As the technical experts addressing this matter, the ERATF needs to take the time to identify the basis for new standards and or the revisions to existing standards. The current documentation does not outline or identify the specific needs to be addressed. The current SAR is too broadly written and likely sets a future Drafting Team up for a lengthy duration and potential failure. Without more analysis and consideration of whether and how fuel assurance is coupled		and more to evaluate risk of interconnected systems. The text of the SARs is updated to reflect the need for the drafting team to coordinate with these groups and related drafting teams. See Response to Comment Manitoba Hydro Theme (A) Responses (1, 2, 4, 5, 6).

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with a reliability gap and the understanding of whether specific standards can reasonably solve the issue, any project team is likely to be continuously challenged to find the right balance and nature of the work needed to fix any perceived deficiencies. In order to achieve this and considering the fundamental nature of the issue of resource adequacy, we believe broader stakeholder input is imperative to define the reliability gap and appropriately scope the SAR. In terms of problem and solution definition, the Technical Justification and the SAR are both unclear on many key items outlined in detail below. We recommend that the ERATF, at the very least, wait to revise and resubmit the Technical Justification and SAR for RSTC comment after it has received and incorporated industry comments through the upcoming February workshop and Policy Input from the MRC. The ERATF should use the workshop and Policy Input to refine some of the items that are outlined in detail below to make the final SAR more actionable for a Drafting Team. In parallel, the ERATF		

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should use the input to determine whether a Standard is the most effective mechanism to solve the targeted reliability risk across all timeframes. Where the Technical Justification and SAR could benefit from greater clarity: • What reliability risk is this SAR is attempting to solve? o While we believe a standard's focus is intended to be on energy assessments and improving our analysis of energy adequacy risks, how this is achieved and recognizes uniqueness of regional/provincial/state requirements is not clear and should be better outlined or defined. Current energy assessments, fuel security, and generator flexibility creates perceived overlap with ongoing efforts in the EGWG and in response to the Winter Storm Uri investigation, as well as efforts proposed with the Cold Weather Project, Facility Ratings, and NAESB's outline on gas/electric coordination. The language should be clarified to focus on just energy assessments.		

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- In 2019 and 2020, the Electric-Gas Working Group developed a Reliability Guide for Balancing Areas to assess what could be the specific Area weaknesses within their generation mix. Has any Balancing Area provided this information to the ERATF for consideration in the Technical Justification or development of the SAR. Such information from the Balancing Authorities could be extremely beneficial in developing next steps and identifying weaknesses. • What an energy assessment specifically entails? o The definition of an energy assessment has been left to a Standards Drafting Team, which is inappropriate given this entire effort (and the supposed reliability benefit it would provide) hinges on that definition. Since the entire scope is based on the definition of energy assessment, the SAR cannot be appropriately scoped without some definitive guidance on what an energy assessment should be. Other general comments		

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• Given the type of analysis which we believe is envisioned under this SAR – specifically that it would be looking at energy / resource adequacy, the TPL standard seems like a very inappropriate place for such a Standard to live (whether it includes Operational timeframe, Mid/Long-Term timeframe, or both). • The use of the Transmission Planning-specific time horizons in the SAR seems unnecessary. We understand that they are defined terms in the NERC Glossary, but "Operations" is not, so it ultimately seems that the timeframes that are most appropriate for these assessments should be defined, as opposed to anchoring to those Transmission Planning definitions. • Given recent notice on the activities and influences for inverter-based resources versus historic mixes, are there specific considerations that need to be provided for or recognized due to the differential nature of the operations. This would also include the consideration on the growing nature of the sub-BES based resourcing that		

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increasingly creates some of the provisional needs on fuel resourcing. SAR Section on 'Industry Need' includes discussion of demand volatility while the 'Purpose or Goal' and 'Project Scope' sections do not include demand volatility. Revising the definition of load is included in the Project Scope, but it is unclear whether this revised definition would adequately address the issue of demand volatility.		
WECC suggests the current NERC resource type classifications be added to the SAR to uniformly apply what resources are included in the three suggested time period studies: Short-term Operational studies, Near-Term transmission studies, and Long-Term transmission studies. The NERC Long-Term Reliability Assessment (LTRA) has different tiers to classify future resource additions. These same tiers could be included in the Energy Resource Adequacy (ERA) process for consistent treatment of resources in each time-period study. • For Operational studies only Existing Resources (ER) would be included. As new	Layne Brown (WECC)	Thank you for your comment. See Response to Comment Manitoba Hydro Theme (A) Response (4). (21) Studies being peformed as required by the SAR may result in changes to the LTRA process and reporting but the SAR intentionally does not specify that action.

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resources come on-line, or existing resources are retired, the ER would change. • For Near-Term studies ER and units under construction (Tier 1) with on-line dates, or units announced to retire, prior to the study period included. • For Long-Term studies ER and Tier 1 units would be included and other units with approved permits and interconnection agreements (Tier 2) with on-line dates, or units announced to retire prior to the study period included.		