NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments
Part 2 – Policy Input

Project Name:	Policy Input Letter Responses
Comment Period Start Date:	January 5, 2022
Comment Period End Date:	January 27, 2022
Associated Ballot(s):	N/A

There were 11 sets of responses, including comments from approximately 13 different people from 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 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. Will the proposed approach summarized above and outlined in the SAR enable stakeholders to identify energy deficit risks and develop mitigations from energy constrained resources?

2. Is there a preferred alternative approach to that outlined in the SAR, or enhancements to the proposed approach in the SAR, that would enable stakeholders to identify energy deficit risks and develop mitigations from energy-constrained resources?

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
Canadian Electricity Association	Francis Bradley							
Edison Electric Institute								
New York State Reliability Council	Paul Gioia, Esq.							
National Rural Electric Cooperative Assn.	Patti Metro							
North American Generator Forum								
State/Municipal and Transmission Dependent Utilities	John Haarlow John Twitty Brian Evans-Mongeon	Sector 2						
Federal Utilities and Federal Power Marketing Administration	Edison G. Elizeh	Sector 4						
Merchant Electricity Generator Segment	Martin Sidor, NRG Energy Inc. Sean Cavote, PSEG	Sector 6						

Large End-Use Consumers	ELCON (Electricity Consumers Resource Council)	Sector 8						
Small End-Use Electricity Customer	Mike Moody Darryl Lawrence	Sector 9						
ISO/RTO Council (IRC)								

Comments		
Theme (A): Fuel Assurance with Energy-Constrained Resources		
Comment	**From**	**Response**
CEA appreciates the efforts of the Energy Reliability Assessment Task Force ("ERATF") to assess risks associated with energy-constrained resources, and to better understand how stakeholders are evaluating energy constraint and fuel availability issues. CEA supports efforts to enable stakeholders to continue to have the right tools and information to ensure Bulk Power System ("BPS") reliability given the evolution of resource mixes in different regions, coupled with more extreme weather events, new policy demands and a variety of security risks. These factors add complexity and new challenges to reliable BPS operation.	CEA – Canadian Electricity Association Francis Bradley, President and CEO	Thank you for your comment and for your support. (1) During 2022, the ERATF will work with the other RSTC subcommittees and working groups to identify and/create metrics and tools.
The Board of Trustees seeks policy input on fuel assurance with energy constrained resources. Understanding and mitigating energy constraints and fuel availability issues is important. A systematic approach to addressing these issues is imperative. Defining the problem, its scope in North America, and potential solutions are necessary elements to make any proposed solution effective. The Energy Reliability Assessment Task Force ("ERATF") developed	EEI – Edison Electric Institute	Thank you for your comment. (2) 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. (3) The ERATF has modified its proposal into two SARs that provide greater granularity

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a SAR and an accompanying Technical Justification Whitepaper ("Whitepaper") with a goal to address energy deficiencies through assessments, analysis, and mitigation as indicated in the policy input letter. EEI recommends obtaining broader industry input and clarity surrounding the SAR and the issues contained therein. The current draft of the SAR contains several items that need clarification, including a more fulsome description of the reliability gap to be addressed. Broader input should include entities that would be directly affected by a new standard, including all RTOs/ISOs as resource adequacy and fuel availability intermingle market and reliability issues. At minimum, the SAR should be revised to ensure that a sound technical basis is defined for any new standard in order to achieve a specified reliability goal.		and specificity, accompanied by updated technical justification documents. See Response to Comment CEA Theme (A) Response (1).
Yes, the NYSRC supports the SAR's objective of requiring assessments of the reliability impact of a grid having energy-constrained resources to supplement the historical focus on capacity-constrained resources with an assessment of energy assurance.	NYSRC – New York State Reliability Council Paul Gioia, Esq.	Thank you for your comment and support. See Response to Comment CEA Theme (A) Response (1).

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• To this end, the section of the SAR under the heading of NERC Reliability Standards Review reviews much of the critical criteria work that will be needed in the development of new or modified NERC Standards. • The ability to identify risk and develop mitigation is dependent upon targets or predefined criteria in the new or modified NERC Standards. • Given that the deployment of mitigation actions such as transmission reinforcement or interconnection of large-scale, long-term storage or dispatchable emissions free resources may take many years, it is necessary to know the specific metrics and minimum risk criteria for those metrics as early as possible.		
The Cooperative Sector agrees that NERC needs to take action to ensure energy resources are assessed over the appropriate periods and energy deficits are identified. Responsible entities should, in a timely manner, take actions to address shortfalls. There is a diverse set of industry stakeholders including federal and state regulators that should provide input into this	NRECA – National Rural Electric Cooperative Association Patti Metro	Thank you for your comments and support. The ERATF agrees.

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to ensure that we are not duplicating responsibilities in capacity planning that already exist. Utilizing the Standards Development Process is the appropriate tool to recommend, highlight and address these reliability concerns and to avoid overlapping responsibilities.		
The NAGF believes that the proposed approach described in the draft SAR needs additional work before stakeholders will be able to identify energy deficient risks and develop mitigations from energy constrained resources.	NAGF – North American Generator Forum	Thank you for your comment. (4) In response to such feedback and comments from the RSTC, the ERATF has updated the SARs and associated technical justification documents. See Response to Comment EEI Theme (A) Response (2). See Response to Comment CEA Theme (A) Response (1).
The proposed SAR and White Paper provide a good outline of the issues currently associated with fuel assurance assessment and energy adequacy. As the ERATF notes, the issue of fuel assurance assessment for energy adequacy is far reaching and complex. The SAR work to date is laudable,	SM-TDU – State/Municipal and Transmission Dependent Utilities John Haarlow Terry Huval John Twitty Brian Evans-Mongeon	Thank you for your comment and support.

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and the full SAR process will provide a useful forum to identify and gain sufficient technical detail for the process to be ultimately successful. Working through the technical details should provide additional framing and opportunities to further define the SAR scope.		
The Federal PMAs agree that the proposed SAR provides a meaningful way to identify required fuel supply and delivery assurance for energy-constrained resources. However this approach will not fully mitigate the risk the load faces if energy is available from resources but there are not sufficient transmission capacity or the system is constrained due to dynamic performance issues to deliver that energy from designated resources to the load. The time needed to install new generation capacity like wind or solar is much shorter than building new transmission infrastructure or upgrading the existing transmission capacity to meet the load requirements. Currently there are no standards addressing the need for load responsible entities to acquire transmission	Federal Utilities / Federal Power Marketing Administration Edison G. Elizeh	Thank you for your comment. (5) We agree with the limitations based on transmission constraints should be included in an energy analysis. Intentionally being non-prescriptive, specific considerations should be determined by the entity performing the analysis. An area with no transmission constraints would not include transmission in their study, but the area would be required to fully understand their systems in order to make that determination. The same philosophy applies to natural gas constraints, wind and solar droughts, hydro limitations, emissions limitations, etc.

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capacity to meet their future needs. Focusing just on generation adequacy alone will not mitigate the risk the load might face during abnormal weather or system conditions with changes in the resource mix.		
Finally, regarding the policy input letter's question about preferred alternative approaches, there are many market-based ways to mitigate risks associated with energy-constrained resources, such as scarcity pricing to encourage production and discourage consumption under tight conditions. We urge the BOT to give full consideration to the Market Interface Principles, which the draft SAR states it satisfies. Specifically, Large Consumers take a resource neutral approach, and we ask that any Reliability Standard regarding energy-constrained resources focus on BPS reliability and remain agnostic to given electricity production technologies or fuels.	Large End-Use Consumers ELCON – Electricity Consumers Resource Council	Thank you for your comment. (6) Solutions would need to be non-prescriptive and tailored to each regions specific arrangements. The first steps of solving the energy reliability problem are defining the energy reliability problem. The ERATF agrees with the sentiment to remain agnostic to given electricity production technologies or fuels, but they must be accurately represented in studies. (7) 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…."
The members of Sector (9) agree that the SAR as proposed will identify energy deficit risks to reliability. But as outlined in the	Small End-Use Electricity Customer Mike Moody Darryl Lawrence	Thank you for your comment. We agree with the statements.

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response to question 2 below NERC will only develop potential mitigation for energy constrained resources. The approach is consistent with the limitations of NERC's Reliability Assessment program function and NERC's current regulatory authority. Making a problem visible is only the first step.		See Response to Comment ELCON Theme (A) Responses (6, 7).
The IRC believes the proposed approach outlined in the Draft SAR goes a long way to enabling identification of energy deficit risks and development of mitigations from energy constrained resources. We offer below suggestions for enhancement to the SAR. ***Strengthen the approach for risk mitigation*** The IRC agrees that the proposed approach outlined in the SAR would allow stakeholders to identify energy deficit risks. However, the SAR does not provide enough clarity or emphasis on how new or revised standards will ensure mitigation of existing energy deficit risks once they are identified. To ensure reliability benefit of new or revised standards, they must provide a significant	ISO/RTO Council - IRC	Thank you for your comment. (8) In response to such feedback and comments from the RSTC, the ERATF has updated the SARs and associated technical justification documents. See Response to Comment EEI Theme (A) Response (2). See Response to Comment CEA Theme (A) Response (1).

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reduction in risks to energy security, and by extension, fuel security that have become more apparent in recent extreme weather events. With that objective in mind, the IRC provides these subsequent comments to address specific concerns.		

Comments		
Theme (B): Regional/Market Issues		
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Given that in many regions there is or will be an increased penetration of variable resources such as wind and solar, or an increased dependence on hybrid resources or natural gas, CEA understands that fuel assurance and forward energy supply planning are becoming increasingly important. As such, a requirement for an energy reliability assessment to assess fuel assurance and flexibility based on the	CEA – Canadian Electricity Association Francis Bradley, President and CEO	Thank you for your comment. We agree with the statements. See Response to Comment ELCON Theme (A) Responses (6, 7).

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evolving resource mix and gas delivery security could be one tool that may be helpful in addressing these issues. That said, different regions across North America face different realities in regard to fuel assurance with energy-constrained resources that must be accounted for, including different levels or types of risk associated with this issue. For example, some regions are not moving away from nuclear resources or are better able to balance variable renewables due to their unique resource mix. CEA encourages NERC to work with the Regional Entities as they perform long term adequacy studies to incorporate fuel assurance and energy supply planning, where warranted.		
"Energy Assessment" should be defined. Since the entire scope of the SAR is based on the definition of energy assessment, guidance should be provided on what an energy assessment should be and why the current set of studies and analysis are insufficient to address the potential	EEI – Edison Electric Institute	Thank you for your comment. (1) The ERATF has updated the proposal and associated materials to address these recommendations. See Response to Comment EEI

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reliability gap. This should include how users, owners and operators would be expected to use the results of the new assessments to address reliability gaps. • Define the timeframes most appropriate for these assessments, as opposed to anchoring to Transmission Planning definitions. • Clarify which entities would be responsible for performing energy assessments and/orimpacted by the Standard		Theme (A) Response (2). See Response to Comment CEA Theme (A) Response (1).
Many public power Balancing Authority (BA) entities operate outside of organized markets and therefore would not have all the market information described in the ERATF Whitepaper.[1] Therefore, an assessment in the operational time frame could implicate different data requirements from one BA to another and more generally on a regional basis. The SM-TDUs are not suggesting that the operations time frame be dismissed; rather that, due to regional differences,	SM-TDU – State/Municipal and Transmission Dependent Utilities John Haarlow Terry Huval John Twitty Brian Evans-Mongeon	Thank you for your comment. (2) The ERATF has updated the proposal to reflect two SARs to better address such concerns. See Response to Comment EEI Theme (A) Response (2). See Response to Comment CEA Theme (A) Response (1).

[1] ERATF White Paper, P. 6.

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including the operations time frame in this SAR, and, in turn, the standards development effort, could present an issue that might interfere with the agility of the SAR to meet its goal of addressing the fuel assessment issue. Consequently, the operations time frame may require a SAR of its own rather than being part of this effort.		
Recognizing that the SAR works within the Reliability Standards framework, Large Consumers comment only that there also exist many market-based approaches for mitigating risks associated with energy-constrained resources, and we urge the BOT to give full consideration to the Market Interface Principles, which the draft SAR states it satisfies.	Large End-Use Consumers ELCON – Electricity Consumers Resource Council	Thank you for your comment. See Response to Comment ELCON Theme (A) Responses (6, 7).
Allow flexibility in the standards to account for regional risks We think the proposed approach outlined in the SAR will enable stakeholders to identify energy risks and develop mitigations. However, new/modified standard requirements will need flexibility to account	ISO/RTO Council - IRC	Thank you for your comment. We agree with the statements. See Response to Comment ELCON Theme (A) Responses (6, 7).

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for specific regional needs. Identifying energy deficit risks is very complex and developing a risk calculation that factors in all risk types will be challenging. Each region or ISO/RTO has their own characteristics that must be included in a risk calculation model. Due to this complexity, establishing a single continent-wide requirement to meet a target level of adequacy would be challenging as would the accuracy needed from such a model to base mitigation solutions upon. Therefore, any standards must provide enough flexibility to allow regions to develop risk models and perform assessments that recognize the nature of their system and the reliability of the data and models they can achieve.		

Comments		
Theme (C): Jurisdiction/Duplicate Efforts/Administrative Burden		
Comment	**From**	**Response**
Further, different entities and stakeholders currently deploy a variety of assessments and tools to address a wide range of different issues associated with planning and addressing risk. NERC is also currently focusing on issues related to this topic, including winter readiness. Any new requirements should not add unnecessary administrative burdens, should complement or bolster existing efforts, and should not be overly prescriptive. Further, CEA supports efforts to ensure that NERC activities, in regard to fuel assurance with energy constrained resources, complement other efforts in regard to changing resource mixes and more extreme weather events. NERC should also carefully consider alternative approaches that may be proposed by stakeholders. Finally, some of the issues addressed in the proposed SAR may be outside of the purview of NERC or what utilities can do individually. This is not to say that entities should not account for these issues and do what is	CEA – Canadian Electricity Association Francis Bradley, President and CEO	Thank you for your comment. (1) The ERATF agrees with the need for a risk-based Reliability Standards. See Response to Comment ELCON Theme (A) Responses (6, 7).

Comments		
Theme (C): Jurisdiction/Duplicate Efforts/Administrative Burden		
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possible to address them, but only to note that a new standard may not be able to account for or mitigate all risks.		
EEI also recommends that the ERATF review, revise and resubmit the SAR for Reliability and Security Technical Committee comment after incorporating industry comments from the ERATF sponsored Workshop and MRC input. Specifically, the ERATF should consider refining the language to address the jurisdictional, market, and assessment issues described in herein. Given the Reliability Assessment process embedded in the NERC Rules of Procedure, further expansion of that process, through the Reliability Assessment Subcommittee and Probabilistic Assessment Working Group, with input from the rest of industry as needed, should be an alternative analyzed and discussed at the Workshop as a potentially more effective way of appropriately addressing the Mid-/Long-Term Planning timeframe.	EEI – Edison Electric Institute	Thank you for your comment. (1) The SAR is undergoing review in response to all comments being received post-Workshop. See Response to Comment EEI Theme (A) Responses (2, 3).
Further, within the jurisdiction of the Federal Energy Regulatory Commission, there exists more than one area of regulation that should	NRECA – National Rural Electric Cooperative Association Patti Metro	Thank you for your comment. (2) The ERATF appreciates these comments regarding the intricacies of regulation in

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be evaluated and resolved to ensure that obligations are consistent and complementary. For example, load service and resource adequacy obligations, while not directly stated, can be inferred from the Open Access Transmission Tariff. To ensure that any reliability standard is appropriately scoped and complementary to the existing regulatory framework and obligations, the ERATF or appropriate committee should evaluate the intersection of state and federal regulatory authority and obligations and ensure that the obligations and defined terms proposed in the SAR complement and supplement these existing obligations and do not conflict with or duplicate them. The Cooperative Sector appreciates that the ERATF conducted a survey to begin identifying areas to improve existing standards and the possible need for new reliability standards. However, it is not clear if that review only included a review of responsibilities in the NERC standards or included a review of regulations from other parts of the industry which should include a review of existing market rules in areas		areas affecting the considerations to be assessed under the proposed SARs. The ERATF agrees that the SDT should evaluate such matters early in the process and looks forward to stakeholder discussion at SDT meetings as industry works to navigate these questions while developing risk-based requirements.

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served by organized markets.. Absent a thorough review, analysis, and cross-reference of these existing assessments and associated assumptions (whether required by another reliability standard or stemming from an OATT or state jurisdictional obligation), the results and/or assumptions of these existing assessments could, conflict with the results and/or assumptions of the assessments contemplated within the SAR, creating a dynamic where the overall goal of reliability is not achieved as effectively as possible due to overlapping regulations that are potentially in conflict. If this holistic review of industry regulations has not occurred, we recommend this review occur early in the standards development process.		
The SAR addresses fuel assessment processes that would involve electric utility personnel obtaining information from natural gas providers or distributed energy resources. These proposals, too, may benefit from further development given the fact that information would need to be obtained from entities that are not subject to the ERO's	SM-TDU – State/Municipal and Transmission Dependent Utilities John Haarlow Terry Huval John Twitty Brian Evans-Mongeon	Thank you for your comment. (3) The ERATF will share these comments with any SDT.

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mandatory standards regime. Such information requests might raise issues somewhat analogous to those that have arisen in connection with the supply chain standard and the need to obtain information from potentially non-jurisdictional sources such as equipment vendors. Unlike supply chain vendor assessment requests, fuel assessment information requests could put electric utilities in the position of asking for information from entities that are already subject to reporting requirements imposed by state, local, or federal authorities. Moreover, the information may be market sensitive. Consequently, the SAR process will need to ensure that the drafting team structures any proposed standard in a manner that addresses the potential obstacles to obtaining fuel assessment information.		
Sector (9) recommends that the NERC BoT be proactive with the findings of NERC's Resource Adequacy program (adjusted to assess energy limitation risks as outlined by the ERATF recommendations). The NERC BoT	Small End-Use Electricity Customer Mike Moody Darryl Lawrence	Thank you for your comment. (4) The ERO Enterprise is dedicated to working with federal regulators, as well as state and local regulators, on matters that could impact reliability of the Bulk Power

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must work more convincingly with the states to send the clear message that States will "own" any resource adequacy induced losses of load when they occur. Without State acceptance of NERC findings produced by the ERATF solution, there will likely be no mitigation of energy-constrained resource induced loss of load risk.		System. The ERATF appreciates Sector 9's emphasis on the importance of including state regulators in conversations pertaining to energy assurance.

Comments		
Theme (D): More Technical Support and Specificity		
Comment	**From**	**Response**
Before any drafting of a standard, CEA requests that NERC provide more clarity on how new or revised standards will ensure mitigation of existing energy deficit risks, once they are identified. Further, CEA encourages NERC to consider how to establish performance metrics to identify when risk mitigation is required, and what types of mitigations are appropriate. This	CEA – Canadian Electricity Association Francis Bradley, President and CEO	Thank you for your comment. (1) The ERATF has modified its proposal into two SARs that provide greater granularity and specificity, accompanied by updated technical justification documents. See Response to Comment CEA Theme (A) Response (1).

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Theme (D): More Technical Support and Specificity		
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would offer some clarity in an environment where entities who need to perform an assessment may also face advocacy from other reliability or policy stakeholders to implement corrective action plans.		(2) The ERATF believes that the updated SARs and accompanying material would support Reliability Standards modifications to support an adequate level of reliability to the Bulk Electric System (acknowledging that the SARs do not seek to insure the Bulk Electric System against all risks to reliability under all circumstances).
NERC should consider separating the current SAR into multiple SARs, focused on specific operational and planning time horizons. The types of energy assessments that can and should be performed in the proposed time horizons would likely require different mitigation and addressing them in one SAR (and potentially one Standard) may be overly complex. 4 EEI applauds all of the hard work that has gone into developing these two documents. Efforts to address issues with energy constrained resources and fuel availability with the changing resource mix is important and requires collaboration and coordination among affected stakeholders. Due to the concerns outlined above, EEI respectfully requests the Board delay consideration of a resolution to allow time	EEI – Edison Electric Institute	Thank you for your comment. (3) We agree and the SAR is being separated by time horizon and delayed for further analysis.

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Theme (D): More Technical Support and Specificity		
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for the industry and the RSTC to further clarify and refine the SAR(s).		
A suggested enhancement to the proposed SAR would emphasize the need for analytical procedures for the assessment of risk with energy-constrained resources. • It is recognized that limited analytical procedures currently exist in this area and it is suggested that their timely development is essential to the objective of the proposed SAR. In its responses, the NYSRC conveys the time criticality of the work that is needed in the next few years for a successful transition to a decarbonized electric grid and agrees with NERC in calling this transition the greatest risk to reliability in the next 10 years.	NYSRC – New York State Reliability Council Paul Gioia, Esq.	Thank you for this recommendation.
Many of the "unique characteristics" described in the SAR are outside the oversight or legal responsibilities of entities that are required to comply with FERC approved Reliability Standards. The SAR does not identify the Resource Planner function as a Functional Entity to	NRECA – National Rural Electric Cooperative Association Patti Metro	Thank you for your comment. (4) We agree that the unique characteristics may, in some cases, be outside of FERC jurisdiction. However, the SAR is not suggesting to change these characteristics but rather to ensure their impact on the BES

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which the SAR would apply. As "[t]he entity that develops a long-term (generally one year and beyond) plan for the resource adequacy of specific Loads (customer demand and energy requirements) within a Planning Authority area," the SAR should identify a clear role for this function within the energy reliability assessments and other obligations proposed while ensuring existing regulations around integrated resource planning are not duplicated.		is evaluated and plans are created to prepare for these risks. Regarding the comment on the Resource Planner, the Resource Planner would be impacted, but not necessarily primary since Resource Planning is very focused on "resource adequacy". A Resource Planner might provide input to the Planning Coordinator on the performance of the studies.

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Theme (D): More Technical Support and Specificity		
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The NAGF believes that the proposed approach described in the draft SAR needs additional work before stakeholders will be able to identify energy 2 deficient risks and develop mitigations from energy constrained resources. The NAGF recommends the following issues be addressed prior to moving this effort forward: a)Broader stakeholder input is need to ensure the proposed approach defined in the draft SAR represents input from all affected registered entity segments (BA, GOP, PC, RC, and TOP) across the ERO. b) The draft SAR is broadly written and does not adequately define the specific reliability risks to be mitigated. c) The proposed approach needs to be coordinated with other existing efforts to eliminate overlaps and possible contradictory outcomes. d) Entities with the wide-area overview of generation, load, and transmission are best suited for performing energy risk assessments and developing mitigations for energy-constrained resources.	NAGF – North American Generator Forum	Thank you for your comment. (5) 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. See Response to Comment EEI Theme (A) Response (2). See Response to Comment CEA Theme (A) Response (1).

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Theme (D): More Technical Support and Specificity		
Comment	**From**	**Response**
As discussed above, the SAR identifies far-reaching and complex issues associated with ensuring energy adequacy. The SM-TDUs believe that additional technical detail can further inform the standards development effort aimed at addressing these issues. Specifically, as noted the issues of time frames and jurisdiction may suggest tightening the scope of the SAR to better ensure the success of the standard's development and the agility of completing the initial fuel assurance standard in a timely manner. We look forward in this regard to the upcoming workshop and SAR process. The SM-TDUs also believe the MRC meeting discussion on Board questions will assist the SAR's development.	SM-TDU – State/Municipal and Transmission Dependent Utilities John Haarlow Terry Huval John Twitty Brian Evans-Mongeon	Thank you for your comment. (6) 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. See Response to Comment EEI Theme (A) Response (2). See Response to Comment CEA Theme (A) Response (1).
The Federal PMAs recommend inclusion of transmission adequacy as part of the proposed standard. As stated above, changes in resource mix and grid transformation will require new methods and strategies for planning, modeling, and operating the bulk power system. We need to ensure the existing infrastructure has sufficient flexible	Federal Utilities / Federal Power Marketing Administration Edison G. Elizeh	Thank you for your comment. (7) We agree and we updated the language in the SAR: "and transmission capacity and deliverability to the load centers."

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ramping/ balancing capacity to provide the needed operating flexibility to meet the changing patterns of variability and new characteristics of system performance. Traditional concepts of energy adequacy that just look at generation fuel and production need to evolve to consider transmission adequacy and operating flexibility during all hours, including consideration of correlated outages, transmission availability, and common-mode failure dependencies. The industry needs a standard that covers both the element of energy-constrained resources as outlined by Energy Reliability Assessment Task Force (ERATF), and transmission availability and performance. The load responsible entities need to follow the standard to insure adequate energy production and that this energy is deliverable to their load across all hours.		
Large Consumers believe the SAR will promote the necessary shift in thinking regarding resource adequacy—from a dispatchable capacity-based, peak-load-hour analysis to a more detailed analysis that	Large End-Use Consumers ELCON – Electricity Consumers Resource Council	Thank you for your comments. (8) The ERATF will share these recommendations with the SDT.

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takes into account energy reliability, system ramping needs, and other complex interactions between the Bulk Power System (BPS) and interconnected networks, such as the natural gas delivery system. Energy reliability assessments should be required to include the appropriate assumptions and scenarios that account for, but not limited to the following: ▪ Time-coupled restrictions on the availability of fuel ▪ Impact of energy storage and other flexible resources ▪ 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 ▪ Variable resources need to be included to account for their unique characteristics		

Comments		
Theme (D): More Technical Support and Specificity		
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In order for NERC requirements to benefit reliability, energy assessment studies need to accurately portray and assess system conditions and risks. Generator data, load data, and distributed generation and storage data (including that for behind the meter generation, Distributed Energy Resources (DER) and other DER technologies) will be needed that may not be readily available to ISOs/RTOs today. As DER levels continue to increase, visibility is required into the potential challenges that they pose to the Bulk Power System (BPS) from a planning and forecasting perspective. In addition, risk mitigation plans may include obligations on asset owners to take actions. The IRC recognizes there may be jurisdictional issues that must be addressed to resolve these problems. We ask that NERC work with regulators to provide a mechanism for ISO/RTOs to obtain the data and mitigate risks that the SAR and end standard(s) would require.	ISO/RTO Council - IRC	Thank you for your comment. (9) The ERATF appreciates the comments raised by the IRC and the importance of navigating issues associated with parallel regulation and the transforming grid.