Sector 8 Policy Input for the NERC Board of Trustees & Member Representatives Committee

February 9-10, 2022 Meetings

ELCON, on behalf of Large End-Use Consumers, submits the following policy input for the consideration of NERC's Board of Trustees (BOT) and the Member Representatives Committee (MRC). It responds to BOT Chair Ken Defontes, Jr.'s January 5, 2022 letter to Paul Choudhury, Chair of the MRC.

SUMMARY

Large Consumers (Sector 8) agree that it is appropriate to go through the Standard Authorization Request (SAR) process to further identify and mitigate energy deficit risks. The BOT requested MRC input on the following questions:

1. **Will the proposed approach … in the SAR enable stakeholders to identify energy deficit risks and develop mitigations from energy constrained resources?** Yes, Large Consumers support the approach laid out by the Energy Reliability Assessment Task Force (ERATF) white paper and believe the SAR[1] put forth by the ERATF will facilitate the required increase in the depth of analysis regarding energy reliability and fuel assurance.
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?** 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 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 takes into account energy reliability, system

[1] The SAR title is "Fuel Assurance with Energy-Constrained Resources."

ramping needs, and other complex interactions between the Bulk Power System (BPS) and interconnected networks, such as the natural gas delivery system.

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Below we respond to each listed item in the policy input letter:

• Energy reliability assessments should define terms (e.g., energy reliability assessment, fuel, and fuel assurance).

Yes. Establishing a common language is a necessary first step.

• For energy reliability 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.

Yes, but we need not establish new criteria even as assessments become far more detailed. For example, planning reserve margins can maintain the standard of allowing no more than one BPS reliability event in ten years while assessments widen in scope to review all at-risk hours, not simply system peak load hours.[2]

• 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**

Yes to all.

• Energy reliability assessments must be coordinated between areas to harmonize interchange assumptions.

Yes. This is a key oversight and coordination function of the federally designated Electric Reliability Organization.

• Wide-spread, long-term, extreme event analysis needs to be defined and included in the assessments.

Yes. However, the design basis event should derive from reasonable assumptions and be tailored to each assessment region. To the extent that such assessments indicate that new investments in the BPS or adjacent systems are needed to resolve the identified

[2] As the ERATF white paper states at note 2, "The method determining Planning Reserve Margins was historically based on only one data point (or hour), which is the peak load of the day. The inability to meet this single hour peak was considered an event for one day." Even if we leave the "one in ten" standard unchanged, we can analyze a much larger set of energy-constrained hours (to include certain extreme events that may last several hours or days).

energy reliability constraint, consumer interests should be protected by relying on market forces or otherwise seeking out the most cost-effective solution.

• **Requirements for energy reliability 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 energy reliability assessments when changes to assumptions and input data invalidates an existing assessment.**

Given the present pace of change in the resource mix, regular reassessment seems prudent. It may be worth noting, however, that although "changes to assumptions and input data" are now invalidating existing assessments (and are the basis for today's policy input), we must always weigh today's cause for reassessment against future priorities. Hence any requirement to study energy assurance in future periods should also have an exit clause. To borrow from Greek historian Polybius, "In all human affairs, ... leave always some room to fortune, and to accidents which cannot be foreseen." In other words, we should be open to the idea that other, higher priority assessments may arise.

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Large Consumers would like to offer two brief responses to questions posed in the ERATF white paper:

• **Does there need to be common practices on how effective load carrying capability [ELCC] or other useful metrics are determined?**

One common practice that could be useful is the frequent reassessment of ELCC values based on a resource's marginal contribution to system reliability. Given the fact that ELCC values for intermittent resources decline as more of those resources are integrated, average ELCC values will overstate marginal contributions and hence undermine reliability assessments. So, while specific ELCC estimates will depend on a variety of inputs, it may be an industry-wide best practice to use marginal rather than average ELCC values.

• **Could strategically overbuilding a similar technology (i.e. solar) augmented by either storage or some portion of the firm capacity fleet (albeit operating at low capacity factors only when needed) provide for a resilient and reliable transition?**

Leaving the dispatchable/firm capacity fleet to operate at low capacity factors may or may not be a resilient and reliable way to operate the BPS. However, unless such a shift happens voluntarily under market forces, it would almost certainly sacrifice affordability, which is a top priority for Large Consumers. In general, overbuilding is not in the consumer's best interest.

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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.

Thank you for your consideration.