



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

August 13 & 14, 2014 Meetings

The Large End Use Consumer segment appreciates the opportunity to respond to the request for policy input in Chairman Gorbet's July 16, 2014 letter to John A. Anderson, Chairman, Member Representatives Committee. The Electricity Consumers Resource Council (ELCON) is responding on behalf of Segment 8.

Item 1. Reliability Assurance Initiative (RAI)

Large Industrial's overall assessment of the draft *Inherent Risk Assessment (IRA) Guide* is very positive. Although it is a complex undertaking to accurately capture the characteristic and behavioral features that determine those entities who do/do not pose a threat to the larger electric system, we believe NERC has provided a tangible means to do so. We are particularly appreciative of the initial attempt to define and categorize information attributes and risk factors that can be quantified. Without such definition, the process would rely too heavily on subjective analysis – which introduces inconsistencies that can be based upon preferences of Compliance Enforcement Authorities (CEAs).

It is important to Large Industrials that reliability requirements are being consistently enforced. As such, most of our responses to the questions posed by Chairman Gorbet encourage the use of automated data collection that can be corroborated by other registered entities. This tends to reduce the role of fallible human judgment in the assessment and identifies gaps in the perception of reliability between interconnected neighbors – which we believe is where the most risk to the BES exists.

1. Do you agree with the process design of the draft IRA Guide to appropriately scope oversight? Are there areas for enhancement in the draft IRA Guide that would address specific concerns (please provide examples)?

As discussed above, Large Industrials agree that the IRA guide is comprehensive and non-subjective. Our only suggestions would be to account for the extent of interconnected automation (e.g., AGC, telemetry, relay pilot systems, forecast/outage notification portals) that reduce human error. No automation would be considered a high risk, while high-resolution, redundant, and easily-validated data exchange mechanisms would be low risk.

2. What additional information or examples would help demonstrate the processes outlined in the draft IRA Guide?

Large Industrials believe that it would be useful if both positive and negative examples of behavioral attributes from the pilot programs could be provided (in a sensitive manner of course). This may expose weaknesses in a registered entity's compliance program that they were totally unaware of – allowing them an opportunity to correct them before a problem manifests itself.

3. What types of training and information on the draft IRA Guide would be beneficial to support clear communication and expectations between the CEA and registered entity for gathering and assessing data pertinent to risk?

The traditional use of webinars, program review/commentary opportunities, and compliance conferences will be helpful. In addition, NERC should consider offering registered entities the opportunity to participate in the application of an initial IRA. Those who accept the offer could meet with the CEA and interconnected entities for a personalized assessment – which may also be an indicator of good compliance behavior. This may also help reduce any influx of violations in the roll out of RAI.

4. Are there any other considerations not identified in the draft IRA Guide that you believe need to be addressed?

Perhaps this is captured elsewhere, but Large Industrials believe that the IRA Guide should establish NERC's commitment to regular evaluations of the procedure's global performance. Event, Misoperations, and similar data can be used to draw the connection between the IRA Guide and BES reliability – and identify corrections that drive a more effective focus.

Item 2. Risk-Based Registration (RBR) Initiative

Large Industrials strongly support efforts to adopt and implement risk-based registration criteria. This is a long-overdue attempt to apply principles of smart regulation to NERC's implementation of FPA Section 215. We commend NERC President and CEO Gerry Cauley for championing the process. An important part of this effort is the review of current registration criteria and practices that ensure that "the right entities are subject to the right set of applicable Reliability Standards."

Large North American manufacturing facilities are retail customers of electric utilities. With the exception of a small number of manufacturing facilities with utility-scale behind-the-meter generation, manufacturing facilities are loads dependent on their local utilities (including ISOs and RTOs, where applicable) for utility services. In that respect, manufacturing facilities are an anomaly within NERC, as all other entities that are subject to BES classification and registration are suppliers. A manufacturer's interconnection with the local TO/TOP is almost always designed by that TO/TOP to ensure safe and reliable delivery of electric energy.

ELCON, in its capacity to represent Large Industrials, appreciated the opportunity to participate on the RBR Advisory Group (RBRAG). ELCON will continue to support the RBRAG's work for as long as necessary to complete the Phase 2 effort and secure FERC approval of the final RBR design and implementation plan.

First, we briefly respond to the five questions posed by Chairman Gorbet:

1. Are there any additional issues that should be considered when completing the technical assessments needed to measure the potential risks to Bulk Electric System reliability from the proposed reforms?

We are not aware at this time of any additional issues that should be considered when completing the technical assessments needed to measure the potential risks to BES reliability from the proposed reforms.

2. Do you agree with the proposed design of the RBR program? Are there areas for enhancement that would address specific concerns?

We agree with the proposed design of the RBR program. Notably, we strongly support the removal of three functional categories from the NERC Compliance Registry (PSE, IA and LSE). We also like the stronger emphasis on the design and use of a Materiality Test. We also support the development of so-called "Tiering" and will encourage its further development in Phase 2. We do not see the need at this time for further enhancements to address any specific concerns.

3. Do the implementation plan and ROP revisions provide a clear and concise plan toward implementation of the proposed design?

We support the implementation plan as drafted and changes to the Rules of Procedure.

4. Are there additional venues or mechanisms that NERC should consider to communicate the details of the proposed design and implementation plan?

We do not see the need for additional venues or mechanisms that NERC should consider to communicate the details of the proposed RBR design and implementation plan.

5. Are there any other considerations not identified in the draft design framework that you believe need to be addressed in this initiative?

We are unaware of any other considerations not identified in the draft RBR design framework that need to be addressed.

ELCON sponsored two proposals that are included in the draft RBR design and implementation plan, and the remainder of our input to the BOT on Item 2 is in regard to these proposals:

- (1) Special Considerations for Load-Only Manufacturing Plants (Page 11)
- (2) Special Considerations for Industrial Cogeneration (i.e., behind-the-meter generation) (Page 12)

Load-Only Manufacturing Plants

Large manufacturing facilities may or may not have some form of on-site generation, but very few have BES generation. The “load-only manufacturing plants” that do not have BES generation on the site of the facility rarely have a potentially important transmission path from the manufacturing site to the interconnected grid that would be material to the reliability of the BES.

The bright-line nature of the revised BES definition—which for all practical purposes was intended for utilities—makes the definition a “blunt instrument” in practice. It is especially imprecise when applied to utility customers such as manufacturing facilities. Large manufacturing facilities are served by multiple feeds at voltages in excess of 100-kV, and the design of the substation and internal “wiring” may result in BES classification. The entity may therefore become a candidate for registration as TO/TOP. To date, however, load-only manufacturing facilities have not been registered as TOs/TOPs. The obvious reason for this is that reliability is assured by the real-time actions of the RC/BA/TOP service providers, an arrangement that is required by law in many if not most jurisdictions. The irony is that the design of manufacturers’ interconnection facilities was dictated by the manufacturer’s need for higher standards of reliability than those of their utilities: there is no higher priority for manufacturers than the safe, reliable and continuous operation of the industrial processes. They must protect these assets.

FERC’s directive requiring the revision of NERC’s BES definition was predicated on the assumption that any change to the definition would not significantly change the status of registrants in the NCR or require a significant number of new registrants. Early discussions with ELCON members revealed otherwise. Hence the need for, and support of ELCON, its members and the broader Segment 8 community for, the criteria proposed in the draft RBR design document.

ELCON provided RBRAG with a technical study that estimated the order of magnitude of the number of US manufacturing facilities in the lower 48 states that might be interconnected with the BES at voltages in excess of 100 kV. There are over 600,000 manufacturing plants in the continental US. An unknown but not insignificant number of these plants are at risk of becoming BES classified and subsequently registered entities based on a literal application of the BES bright lines. After a review of only 16 manufacturing sectors (out of a total of 36), ELCON has conservatively estimated that 1,100 plants are potentially

interconnected at 100 kV or higher. This number should be considered the lower end of a broad range; the high end could easily be two or three times that number. It is not known if 1%, 5% or 10% of these facilities would fail to meet the criteria for exclusion in BES Exclusions E2 and E3. ELCON's best-guess, order of magnitude estimate of the number of manufacturing facilities that are at risk of registration is between 11 and 330.

The criteria proposed in the draft RBR design document would not exempt all load-only manufacturing facilities from registration. As stated in the design document, the proposed criteria does "not preclude the ability of the retail customer's Regional Entity, in consultation with the entity's RC/BA/TOP service providers, to register the entity if the Regional Entity can establish that the plant is material to the reliability of the BES. Such demonstration of materiality shall include a fact-specific analysis reflecting technical judgment."

Industrial Cogeneration (i.e., Behind-the- Meter Generation)¹

There are two types of industrial cogeneration that should be recognized by NERC. First, there is a small number of utility-scale generators that are capable of acting like, and intend to act like, merchant generators. This is part of their business model. These entities are currently BES classified and are registered in the NERC Compliance Registry. Like any merchant generator, they rely on close coordination with the relevant RC, BA and TO/TOP. Large Industrials do not challenge the need to register these entities consistent with the registration of other merchant generators.

There is another class of industrial cogenerators—the vast majority of them—that are capable of providing power to the grid on a more discretionary basis. The primary function of these machines is to provide steam to one or more industrial processes. Some cogenerated electricity is also consumed on site, but power in excess of the immediate needs is usually sold. Depending on the industrial process(es) and production schedule, some cogenerators can increase or decrease the amount of power offered for sale.

ELCON is aware that some cogenerators are deliberately withholding sales to the grid to avoid crossing the 75-MVA threshold that might otherwise trigger potential registration as BES generators. The reason is simple. The economic benefits of extra sales does not compensate for the costly implications of registration. This is unfortunate to the industry because pending environmental regulations, coal-fired unit retirements, nuclear unit retirements, and the addition of intermittent energy resources are adding considerable uncertainty to reserve levels. The question for NERC is which risk is greater: the risk of not registering these generators and allowing discretionary sales within certain limits, or the risk that a significant number of these generators will at the same time collectively withhold power during a critical peaking event.

The proposed criteria in the draft RBR design document would allow sales in excess of the threshold where subject to security-constrained economic dispatch and otherwise limited by the BA (e.g., in the ISOs and RTOs), without risk of triggering registration status. Large Industrials support this proposal and ELCON provided a technical study to RBRAG that highlights the importance of the issue. The study considers any customer-owned cogeneration plant with a nameplate rating in excess of 150 MW to have the potential to control its power sales to the grid to avoid crossing the 75-MVA threshold for entity registration. There

¹ ELCON encourages NERC to not use the term "behind-the-meter generation" and replace it with "industrial cogeneration" to differentiate these facilities from utility generators that only produce electricity. Cogeneration is widely misunderstood in the industry and hopefully by encouraging the use of a term that more accurately describes its technical characteristics it might provoke a Google search for a quick education.

are 133 such plants (some have multiple units) in the continental US and Canada, with an aggregate nameplate rating of 48,101 MW and an average nameplate rating per plant of 362 MW. Thus the resources that could be lost absent implementation of the RBR initiative are substantial.

Item 3. Critical Infrastructure Protection (CIP) Version 5 Transition

The Board seeks input from the MRC on steps that NERC and the Regional Entities can take to enhance the effectiveness of their transition guidance and coordination efforts to provide stakeholders increased confidence that their CIP Version 5 transition efforts and activities are meeting implementation expectations. Similarly, the Board requests input on what activities and resources it views as most useful to achieving confidence in entities' transition efforts.

The most recent draft of the transition guidance document requires registered entities that rely on the CIP v4 bright-line criteria to replace it with the CIP v5 criteria within 60 days of its publication. Large Industrials disagree with this approach, and believe that there are a large number of entities who have chosen to use the CIP v4 criteria and/or have begun transitioning to CIP v4. Large Industrials believe that it is sufficient to require the current in-effect Risk-Based Assessment Methodology (RBAM) be revised to include CIP-002-5 bright-line criteria upon the next scheduled review, unless a change in criticality status is expected to result.

Additionally, there will be a large number of registered entities who have no previous exposure to CIP but will be required to implement a program under v5 for their Low Impact assets. As such, Large Industrials believe that NERC and the Regional Entities should enhance their outreach and coordination efforts specific to these entities, who have minimal CIP exposure, and no Medium or High Impact Cyber Assets. Having communication and guidance specific to the requirements associated with Low Impact Cyber Assets should be an important aspect of NERC and the Regional Entities outreach efforts.

Item 4. Cybersecurity Risk Information Sharing Program (CRISP)

The Board seeks input from the MRC regarding the following:

1. Should NERC take on the risks and challenges associated with serving as the program lead for CRISP, as described in the MRC Informational Session background materials, and do you have any specific comments regarding the structure of the program?

For the time being the proposed program structure makes sense and gives NERC a chance to demonstrate its excellence in this role for consideration later on a more permanent basis.

2. On July 15, 2014, NERC posted the final draft of its 2015 business plan and budget and included detailed information regarding a proposed initial funding mechanism for NERC's participation in the CRISP program. Do you have any specific comments regarding the proposed initial funding mechanism?

We do not support any funding mechanism that attempts to recover expenses from Segment 8 entities. The cost of NERC's involvement should be limited to utilities. Many if not most Segment 8 entities participate in their own industrial sector ISACs or related programs and utilities are not assessed for those activities. It is our understanding that NERC's budgeted expenses for its involvement is capped at \$600k for the foreseeable future. Large Industrials support such a cap.

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