

FERC Reliability Technical Conference

Panel I: 2016 State of Reliability

Remarks of Miranda Keating Erickson, Vice President Operations

Alberta Electric System Operator

June 1, 2016

Good morning, and thank you for the opportunity to address this important topic today. As I read the questions prepared for this panel, there were really three themes that came to the forefront from my perspective.

First, as we contemplate the standards process, I believe it is critical to our success as an industry that we recognize – one size does not fit all. As with any process, over the past decade as we moved from voluntary to mandatory standards, we have seen the pendulum swing; from undocumented processes and voluntary standards with little to no enforceability – through to extremely detailed, regimented mandatory standards with an enormous amount of documented processes and administration. This was likely necessary, allowing us to achieve:

- Consistency of practices and system performance across jurisdictions
- Documentation of practices that were previously passed on verbally or only documented informally
- Limited degradation of system reliability over time, due to regularly scheduled reviews/audits of limits, settings, and operational performance; and
- Proactive identification of operational risks.

But as with any process, there comes a time where the pendulum has to settle out, and the process can and should be “right-sized”. There are two competing challenges here: one is a desire to minimize change – steady state for standards is desired to minimize un-necessary work on minor revisions. The other is ensuring our focus is truly on operational reliability – reducing unnecessary administration and paperwork that don’t actually contribute to reliability. I believe that NERC is on the right path forward as they look to a more risk-based approach in the standards process.

We have a somewhat unique process for adopting mandatory reliability standards in Alberta, which has enabled us, in some ways, to begin to tackle this concept of “right-sizing”. We are required to review each new or revised NERC standard, determine its applicability in Alberta, and where appropriate, to amend the standard to make it technically relevant in Alberta prior to putting it in front of our Alberta Utilities Commission for approval. For example, we have no nuclear facilities in Alberta, and so have not adopted any of the standards related to operation of nuclear facilities. Because this process takes some time, by design we are able to learn from other jurisdictions as the standards take effect, and apply a critical eye to each requirement. This allows us to maintain consistency with other jurisdictions, but in some ways advance a step in terms of focus and priority on which requirements will really benefit the reliability of our system vs those more administrative in nature.

Second, the power system that we all know is changing. The paradigm shift in system planning and operations resulting from the increase in renewables and distributed energy resources, along with the increasing reliance on natural gas as a supply source will continue to be a challenge for the industry as a whole. The change in system characteristics may mean a need for different or additional ancillary services and performance criteria to ensure the reliability of the system. We now need to consider the impacts of fuel supply disruptions on reliability. The increasing volume of distribution-connected variable resources must be taken into account in system planning and operations. And at the same time, we need to deal with aging infrastructure and a much more challenging regulatory environment to get additional infrastructure built.

Third, and this point has certainly been driven home in Alberta recently, we must remember that no amount of standards can prevent all events from happening that will impact the reliability of our electricity system. Snow storms will happen. Ice storms will happen. Tornadoes and hurricanes will happen. As I well know, floods and wild fires will happen. And let’s not kid ourselves – at some point, somewhere, cyber and physical attacks will happen. That means resiliency is just as important as prevention. It is critical that we also focus on our ability to minimize impacts and improve response and recovery time when these events do occur.

Thank you, and I look forward to our discussion.