

**Panel 2 Remarks of Thomas J. Galloway, President and Chief Executive Officer
North American Transmission Forum**

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Good afternoon Chairman Wellinghoff, Commissioners, and other panelists. I appreciate the opportunity to participate in today's important panel. The mission of the North American Transmission Forum (NATF) is to promote excellence in the reliable operation of the electric transmission system. And, our vision is to continuously improve electric transmission reliability. The NATF currently has 70 U.S. and Canadian member organizations that collectively represent about 370,000 transmission circuit miles at or above 100 kV (80% of total) and over 90% of the net peak demand. Approximately 2,000 NATF subject matter experts (SMEs) routinely exchange information, learn lessons, and hold one another accountable for higher levels of reliability performance through a number of interdependent programs including best practice development, metrics, information sharing, and peer reviews. So, effective incorporation of lessons learned into a more reliable grid is precisely on point with the NATF's reason for being.

In addition, I have a personal zeal for this topic arising from my time working for the Institute of Nuclear Power Operations. As you may know, the Kemeny Commission found a principal cause of the Three Mile Island (TMI) accident to be inadequate sharing of lessons from a similar, earlier event at another

plant. So, originating with my 10 year INPO career, I have lived and breathed that effective implementation of lessons learned was a key to continuous improvement.

I'd like to start by offering what I consider a valid definition for a lesson learned as well as detailing some associated elements. A lesson learned is the knowledge acquired from an experience that causes a worker, organization, or industry to improve in terms of safety, reliability, quality, efficiency or some other important performance aspect. It is important to differentiate a lesson identified from a lesson learned. Said another way, learning about a lesson is different than learning from it. In order for a lesson to be "learned", some fundamental improvement must result in practices or behavior. Additionally, it is equally important to note that a lesson can be learned in either a negative or positive context. A negative experience, like an event, can generate a reaction to avoid future, similar occurrences. Or, in a positive context, learning can occur wherein a superior approach is identified and adopted proactively to improve performance and thereby preclude or reduce the risk of future negative outcome. Positive lessons to be learned are often referred to in different terms, such as best practices or strengths. Elements of a lesson to be learned could be considered to include:

1. Understanding what happened (delta from expectations, good or bad)
2. Understanding why it happened (causation)
3. Generalizing and prioritizing the key learning points

4. Identifying target audiences, effectively communicating
5. Anchoring (learning) the lesson based on relative priority/significance

Of the above, items one to four primarily involve lesson identification and sharing while item five is primarily focused on the learning. In all cases, a quick understanding what occurred and why are essential first steps.

Currently, lessons identified from events analyses are disseminated to and throughout our industry in several ways, each with attendant strengths and weaknesses. These methods include formal lessons published by NERC, communication of lessons by NATF and other industry organizations to respective memberships, and direct peer to peer sharing. NERC and the Regional Entities (the ERO) have focused extensively on lessons stemming from event analyses and the total number of lessons published in 2011 exceeds those in 2010. However, challenges persist between lesson sharing and compliance roles which can negatively impact timeliness and the level of detail in the information yielded. The NATF shares lessons from important events confidentially with its membership as part of routine member meetings and through our information sharing program. For instance, members involved in the February 2011 “Cold Snap” shared actionable lessons with other members within days following that set of events. This allowed some NATF members to quickly modify load shed plans and validate

gas infrastructure needs on their respective systems. But, events involving non-NATF members can hinder comprehensive sharing. Lastly, while ad hoc peer to peer sharing is positive it does little to ensure the lessons are in fact disseminated or learned in a systematic way. Collectively, much work remains to ensure systematic and effective lesson identification and learning via events analysis. And, while systematic and effective learning from events analyses is an important component of any organization or industry committed to continuous improvement, it has a fundamental limitation. It is by nature reactive, focused on deriving learning from negative experiences or outcomes that have already occurred.

Regarding reliability standards, industry stakeholders, the NERC Standards Committee, and ERO staff are now using a more systematic standards development plan that appropriately focuses efforts on the most important technical topics – including response to FERC directives. Efforts are also underway to sharpen the standards-making to be more results-based and to maintain focus on achieving an adequate level of reliability. Both of those initiatives are positive. Non standards-making processes, such as Alerts and Events Analyses, are used to inform the standards process and work is underway to tighten these feedback loops. One caution is that these feedback loops should be used to influence the standards making processes, and not progress to become an overly rigid determinant. A related caution is that proliferation of too many

mandatory requirements could distract, or worse, foster a checklist mentality wherein industry members adopt the false belief that simple compliance with the myriad requirements will suffice to ensure reliability. Collectively we should resist becoming overly reactive in standards-making given those serious considerations and extensive resource demands. Standards-making, as I believe the ERO intends, should remain a strategic initiative focused on establishing clear and well integrated requirements needed to preserve an adequate level of reliability. A more robust overall approach would be to continually clarify the mandatory standard requirements needed to ensure adequate reliability while creating strong incentives for industry to willingly create and adopt “best practices” that could more quickly, efficiently, and adaptively install reliability margin above and beyond base requirements.

NERC Alerts are used to convey reliability issues of potential significance and immediacy to broad audiences. There are three Alert levels scaled to the perceived issue significance and the required degree of industry response. NERC has recently established a protocol wherein industry can review and comment on draft Alerts unless the content or timing dictates otherwise. I understand this protocol will be formalized in upcoming NERC Rules of Procedure changes. This change in protocol is an extremely positive step – as it allows industry subject matter experts to better understand and, where appropriate, help clarify and

perhaps prioritize the reliability issue to be solved. A continued evolution of this process would enable proactive industry engagement in providing solutions, based on the significance of the Alert topic relative to other ongoing reliability improvement initiatives. However, similar to Events Analyses, the Alerts process effectiveness is hampered by several factors including that it is primarily reactive, unwieldy to use, and the subject topics can comingle learning opportunities with compliance implications.

There are several keys to understanding whether the industry is effectively implementing NERC Alerts and Events Analyses lessons. These involve continued regulatory and industry alignment on reliability priorities as discussed in today's first panel, development and implementation of related industry supported improvement plans, and the creation and monitoring of related metrics. The metrics need to address three principal aspects:

1. Clarity, timeliness, and relative priority of any identified lessons
2. Implementation of effective solutions on par with the lesson significance to properly anchor the learning
3. Tangible linkage to prioritized reliability improvements – either specific reliability achievements and/or reduction in reliability risk.

Lastly, as I alluded to earlier, the items directly above deal primarily with treatment of identified lessons in a negative, reactive context – in other words, correction of problems to avoid repeat negative experiences or outcomes. The NATF believes there is an equal or more significant reliability benefit to learning lessons in a positive context – identifying, sharing and holding peers accountable to implement best practices. To that end NATF continues to aggressively identify, share, and anchor best practices as a means for members to continually install margin above adequate levels of reliability. Each of our interdependent program areas is designed to allow members to quickly and efficiently exchange information and methods essential to continuous reliability improvement.

NATF's program areas currently include Practices, Metrics, Information Sharing, and Peer Reviews. Practices governs the creation and evolution of superior practices for 10 important reliability areas which currently include facility ratings, vegetation management, and human performance. Metrics programs allow members to confidentially view one another's data and self-select other members for direct comparison based on relevance - such as comparable member size, interconnection, and overall reliability approach. Metrics will be further evolved to allow for more granular comparisons and place more focus on emerging trends. Information sharing is used to quickly disseminate information to members on

significant events and to allow members to pose questions and obtain solution options for discrete technical or operational challenges.

In particular, the NATF's Peer Review program largely depends on using lessons learned to drive reliability improvement. Teams of 20 to 25 subject matter experts visit a "host" member to review performance against defined practice areas. These reviews result in tangible recommendations for host member improvement as well as affording team members access to reliability improvement options from their interactions with both the host and other team members. We see the NATF Peer Review program as a primary reliability performance improvement engine. As such, we plan to increase the formality, focus, and frequency of peer reviews over the next several years with the aim of generating more dramatic reliability improvements.

So, in conclusion, the NATF sees incorporation of lessons learned into a more reliable grid as a critically important activity directly aligned with our mission and vision. And, we see a number of our program areas as adding significant value and complementing NERC's role and efforts in programs such as Events Analysis and Alerts.

I appreciate your time and look forward to your questions.