



NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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Before the Federal Energy Regulatory Commission

TECHNICAL CONFERENCE

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**Comments of
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Panel I: Establishing and Processing Electric Reliability Standards

The Energy Policy Act of 2005 (EPAct 2005) authorizes the Commission to approve standards that provide for reliable operation of the bulk power system and to remand those that do not.

The panelists will provide insight into the following questions:

- *What criteria should be used to determine “effective” reliability standards?*
- *How should “best practices” be incorporated into developing reliability standards?*
- *What process should the Commission use in evaluating reliability standards?*
- *What are the implications for the Electricity Reliability Organization (ERO) if a reliability standard is remanded?*
- *What process should be used by the ERO for handling remanded reliability standards?*
- *How are entities such as distribution providers, load serving entities, generator owners, generator operators, etc. covered by the reliability standards approved by the Commission?*

Good morning, I am Gerry Cauley, Director of Standards for the North American Electric Reliability Council. I appreciate the previous discussions regarding our reliability standards program, both informally with Commission staff and in the previous technical conference; and I look forward to answering your questions today.

By way of introduction, NERC currently has 91 standards in effect. These standards define acceptable performance with regard to the planning and operation of North American bulk power systems. The standards address real-time balancing of generation with demand to maintain frequency at 60 hertz; operating equipment within thermal, voltage and stability limits; operating to withstand the failure of any single facility and to avoid cascading failures following credible multiple contingency events; vegetation management in transmission rights-of-way; cyber security protection; voice and data communications; relay protection for both generators and transmission equipment; system modeling and analysis; under frequency load shedding; emergency planning including system black start and restoration; and personnel training and certification.

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We are constantly evolving our standards by adding new requirements and improving those we have. We are currently managing more than 15 separate projects involving more than 80 new standards. Two examples include new requirements for GPS-synchronized data and event recorders to monitor disturbances, and setting distance relays so they do not inadvertently trip transmission lines under temporary transient currents and voltages.

The process we use to develop reliability standards is accredited by the American National Standards Institute. What does ANSI accreditation mean? It simply means there are three essential requirements for approving a standard:

1. The proposal to develop a standard must be publicly noticed so that all affected parties can participate if they choose;
2. The draft standard must be posted for public comment for 45 days and each comment must be given due consideration; and
3. The standard must be voted on through an open, fair, and balanced process.

Can a consensus-based process result in technically sound standards? The answer is an unequivocal yes. The drafting teams that prepare the standards and respond to stakeholder comments are the best subject matter experts in the industry. For example, the drafting team that is bringing our latest vegetation management standard to ballot next month has more than a dozen experts, each with 15 to 35 years experience as certified arborists and forestry professionals. The drafting team bringing to ballot next quarter the most comprehensive set of cyber security standards ever in the industry is comprised of information technology and cyber security professionals who collectively have several hundred person-years of experience protecting cyber assets. Our standards committee publicly solicits nominations and appoints drafting teams based on expertise, experience and credentials, and diversity of views.

Is it a timely process that is responsive to needs of the public, industry, and regulators while also providing the highest quality technical expertise and fair consideration of all minority views? Emphatically yes. If necessary, we can approve an urgent action standard with a single 30-day posting and a 30-day ballot period. A straightforward standard or change to an existing standard can be completed in four months or less.

However, we should not oversimplify the technical complexity of most standards and the need for careful and expert deliberation of how we can best achieve a stated reliability objective, including what the possible unintended consequences might be to changing how we design, plan, and operate the grid. We should expect that sometimes approving a technically complex or comprehensive standard, even a high priority one, can take 12–15 months. When a standard takes longer than that, and some have, then the issue is one of resource constraints and priorities, and not a limitation of the process.

Is an open, consensus-based standards development process the fastest way to develop a standard? No, I can write a standard faster. But then questions might be raised about whether the process was sufficiently open and inclusive.

I'd like to turn now to answering the specific questions raised by the Commission.

What criteria should be used to determine “effective” reliability standards?

Reliability standards should be judged by legislative criteria, which state that standards must be just, reasonable, not unduly discriminatory or preferential, and in the public interest. It is incumbent upon NERC to clearly demonstrate to the Commission that these criteria have been met when each standard is filed, including the initial Version 0 standards, and that is our plan.

NERC’s standards development process provides for active involvement of all parties affected by the standards, both the asset owners and operators, and the users who benefit from a reliable grid. NERC balances stakeholder interests through the nine segments in the voting body. This open, inclusive, balanced, and transparent process ensures that the resulting standard is just, reasonable, and non-discriminatory. Each objection to a standard is addressed in a public process and the resolution is documented so that the Commission may review the final outcomes.

It is imperative that reliability standards be enforceable. Ultimately this means each standard must be defensible in a legal setting. NERC will achieve this criterion by delivering standards that state the performance obligations in objective and unambiguous terms and by clearly identifying the responsible parties.

In this regard, we recognize that some of the existing standards require improvement because the Version 0 standards were intended to simply translate and clarify the historical operating policies and planning standards. We will be proposing a work plan with our ERO application to address these improvements. I believe that all of the existing Version 0 standards are enforceable today except those that require an operator or owner to meet regionally stated criteria, when those regional criteria are not part of a NERC standard or have not been filed.

How should “best practices” be incorporated into developing reliability standards?

Reliability standards should progressively evolve to improve reliability. However, mandatory and legally enforceable standards should not be confused with best practices. NERC works through several complementary programs, including the reliability readiness audits, to guide the industry toward reliability excellence and best practices. Some of the best practices identified in these reviews should and will over time evolve to become standards. Our goal is to strike an appropriate balance to achieve continually improving mandatory standards that are truly essential for grid reliability, while encouraging innovation and best practices that exceed those standards.

What process should the Commission use in evaluating reliability standards?

NERC intends to provide the Commission with sufficient information to evaluate the standards. A feature of the ANSI-accredited process is that it requires documentation of the development of the standards, including all comments and dissenting views. We expect that the Commission will make our proposed standard and the supporting documentation available for public comment. Because NERC’s process is open and inclusive, we expect any comments submitted during the Commission’s review to reiterate objections that were already addressed, although perhaps not to the satisfaction of the commenter. If someone were to submit a new comment that was not provided during the development of the standard, I would question why that person did not join the public debate leading to the standard. The Commission should consider NERC’s documentation and any objections in making a determination whether a standard meets the statutory tests. NERC will stand ready to provide any additional information needed to aid the Commission’s decision making.

What are the implications for the Electricity Reliability Organization (ERO) if a reliability standard is remanded?

The legislation clearly grants the Commission the authority to remand a standard or to issue a directive for a standard. We intend to support and to be responsive to that authority, although our goal would be to have no remands or directives. If we are putting the Commission or any provincial regulatory authority in the position of needing to direct or remand a standard, then we are not doing our job as well as we would like. NERC plans to review its annual standards work plan with the Commission (and the provinces) so that we clearly communicate what we are doing and what we believe to be the priorities for new standards, and to help us better understand in advance what the Commission's needs and expectations are with regard to standards. If the Commission, or a provincial regulator, does remand a standard to NERC or direct development of a standard, our plan is to do so through our standards process. I would expect that the importance placed on the standard by the remand or directive would be excellent motivation to develop an appropriate standard in a timely manner.

How are entities such as distribution providers, load serving entities, generator owners, generator operators, etc. covered by the reliability standards approved by the Commission?

NERC's existing reliability standards already apply to nearly all of the functional model entities, including distribution providers, load-serving entities, generator owners and operators, marketers, and others. What is new under the legislation is the notion that the standards must be enforceable for all owners, operators, and 'users' of the bulk power system. We feel there is a need to clarify the meaning of 'user' as a direct user, an entity that transacts business on the bulk power system, such as by taking transmission service or buying or selling wholesale power. We feel such a definition, combined with NERC's functional model will serve to clearly identify the entities that must meet the standards.

With its application, NERC will be developing a list of registered entities that are responsible for meeting the standards. This list will identify to the Commission and to Canadian regulatory authorities, as well as the affected entities themselves, who we intend to hold accountable for meeting the standards. The Version 0 standards became effective on April 1, 2005 with approximately 200 entities listed by name as actively monitored in the compliance program. As we develop the ERO application, I expect the list of entities obligated to meet the standards will grow to 500 entities or more.

Thank you for this opportunity to discuss our reliability standards program and I look forward to your questions.