

Organization and Programs

Open Distribution

Copyright © January 2018 North American Transmission Forum. Not for sale or commercial use. All rights reserved.

Table of Contents

Organization and Programs.....	1
Preface	3
History of the NATF	3
NATF Members.....	6
Vision, Mission, and Guiding Principles	6
Member Obligations.....	7
NATF Policies	7
Leveraging the Internet.....	7
Governance	8
NATF Programs	8
For More Information	11

Preface

This document explains the history of the North American Transmission Forum, its vision, mission, guiding principles, member obligations, and the NATF's organization and programs. Membership in the NATF is open to any organization that owns, operates, or controls at least 50 circuit miles of integrated (network) transmission facilities at 100 kV or above, operates a "24/7" transmission control center with NERC-certified transmission or reliability operators, or has an open access transmission tariff or equivalent on file with a regulatory authority.

The NATF is built on the principle that the open and candid exchange of information among its members is the key to improving the reliability of the transmission systems in the U.S. and Canada. Members recognize the operation of each member affects the operations of them all.

The NATF relies on the diverse expertise and wisdom of its members and is an independent nonprofit corporation. NATF members agree to maintain the confidentiality of the NATF's discussions and information, follow antitrust compliance requirements, and adhere to the standards of conduct as required in the members' filed transmission tariffs.



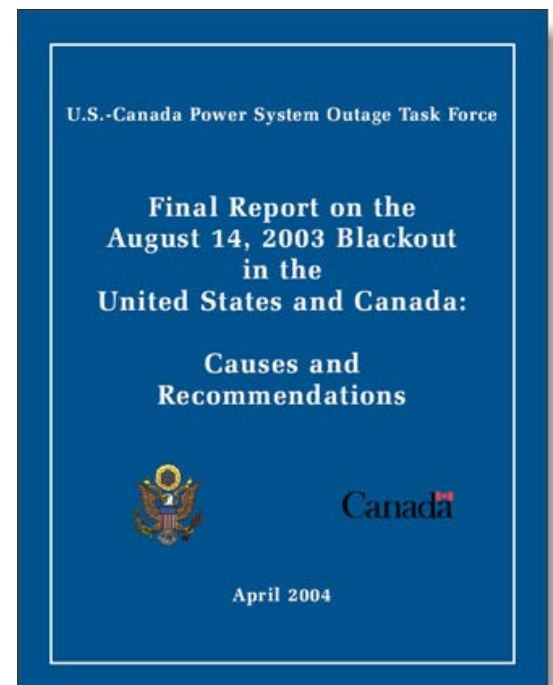
History of the NATF

The 2003 Blackout

Shortly after the August 2003 blackout unraveled the northeastern U.S. and southeastern Canadian portions of the Eastern Interconnection, several major transmission owners and operators, including American Transmission Company, TVA, Hydro One, Oncor, AEP, and Southern Company, met to discuss ways to improve reliability. They understood the effects the blackout had on the health and welfare of the citizens of both countries, as well as their economies—and it was obvious events of the scale and magnitude like the one in 2003 had to be prevented.

The 2005 Energy Policy Act and the ERO

The 2003 blackout appeared to be the tipping point for the U.S. government as well. Beginning in the mid-1990's, NERC had been proposing legislation to the U.S. Congress to establish an audited, self-regulating organization, later called the Electric Reliability Organization, that would be



able to enforce NERC’s reliability standards. Despite wide industry consensus that this legislation was necessary, it languished for several years. Two years after the blackout, Congress approved the legislation as a part of the much broader 2005 Energy Policy Act, which, among other things, created the ERO. NERC was selected as the ERO in the U.S. by FERC later that year, and recognized by the Canadian provincial regulatory authorities through separate agreements.

The transmission owners and operators knew NERC was created to develop reliability standards and, as the ERO, would soon be able to enforce those standards. But more than compliance was needed to “raise the bar,” so to speak, to achieve operational excellence of the transmission system. The question was how to do that, and the answer was found in the nuclear power industry.

The Model: INPO

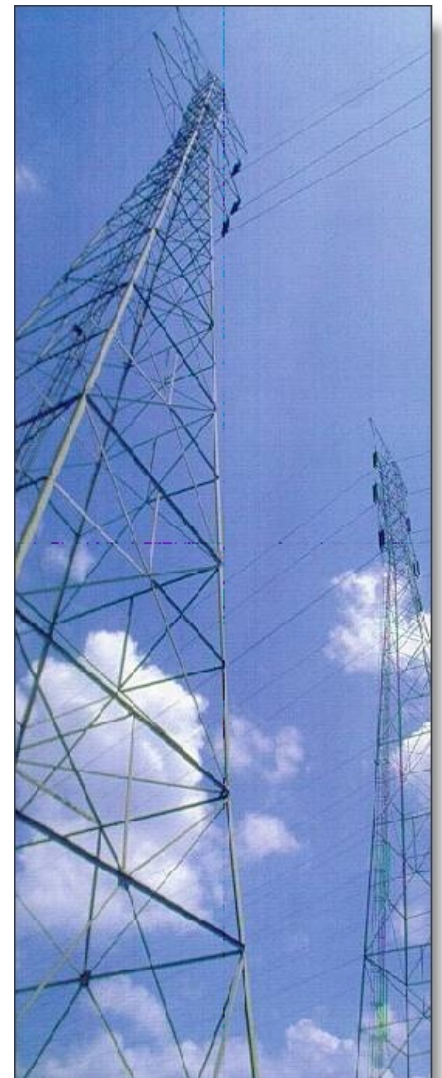
The Nuclear Regulatory Commission was created in 1974 and established mandatory rules for reactor operation. But in 1979, the Three Mile Island nuclear plant suffered an accident that destroyed the reactor’s core, and it quickly became apparent to the nuclear plant owners that rules alone do not promote operational excellence. They needed to foster a sense of commitment, unity, and candor among themselves, recognizing that every nuclear plant owner held in its hands the collective fate of its peers.

Later that year, the nuclear plant owners created a new organization, the Institute of Nuclear Power Operations, to promote excellence in the operation of nuclear generating plants. Through INPO’s formative years, it tried different models, missions, core values, and procedures until it found the winning combination that resulted in a stellar safety and reliability record for the nuclear power industry. Indeed, the U.S. nuclear plant safety record has been exemplary ever since INPO’s creation.

* * *

The transmission owners and operators visited the INPO staff in Atlanta shortly after the 2003 blackout to better understand how INPO achieves operational excellence. INPO’s success depends on five principles, or “core values:” 1.) a sense of “community” among the nuclear generation owners—that “we’re in this together,” 2.) absolute commitment from the top executives—including the CEO—of each nuclear-owning organization, 3.) comprehensive performance evaluations by INPO staff and the nuclear companies’ peers, 4.) peer reviews by the nuclear top executives during which their companies are ranked-ordered side by side, and 5.) confidentiality.

That fifth principle—*confidentiality*—literally wraps around the other principles. When INPO was first formed, it publicly published its



performance reviews, believing, quite logically, that public disclosure and scrutiny would exert sufficient pressure for excellence. But INPO found that didn't work because interviews with nuclear plant staff were never completely candid as long as everyone knew the questions, answers, conclusions, and recommendations would be publicly posted. So INPO decided to conduct its interviews privately, provide its conclusions and recommendations directly and confidentially to the organization's CEO, and share the interview scores with the CEOs of all the nuclear generation plants. The peer relationships helped get things get done; problems got fixed and plant performance improved.

It appeared from these meetings with the INPO staff that the INPO model might work for the North American Transmission Forum.

Initial Years

Others joined the original group of transmission owners and operators, and in 2006 sixteen organizations petitioned the NERC board of trustees to create the Transmission Owners and Operators Forum within NERC. The group's purpose was to "...improve the reliability and security of the bulk power system by facilitating the pursuit of operational excellence through a forum where transmission owners and operators can identify and exchange information on best practices for reliable operations, evaluate their own performances against those best practices, disseminate lessons learned from disturbances and near misses, and facilitate the utilization of such information in a timely manner, among other things."

Recognizing that the transmission system in the U.S. and Canada is owned and operated by vastly different kinds and sizes of organizations, some unbundled, some vertically integrated, some operating in markets, and some not, the first members knew the group needed to start slowly and build confidence and a "sense of community" to be successful.

Membership and activities grew rapidly, as subject-matter experts began writing practices and sharing a vast array of information ranging from system operating events to effective ways to comply with reliability standards to the members' own procedures and programs.

In 2009, members decided to become independent from NERC and January 1, 2010, began operating as the North American Transmission Forum, Inc., a nonprofit 501(c)(6) organization.

NATF Members

NATF transmission owners and operators represents about 80% of the transmission circuit miles at 200 kV and above in the U.S. and Canada. Over 6000 individuals participate in NATF activities.

Organizations that meet any of the following requirements may join the NATF:

1. Own or operate at least 50 circuit miles of integrated network transmission facilities at 100 kV or above, or
2. Operate a “24/7” transmission control center with NERC-certified transmission or reliability operators, or
3. Have an open access transmission tariff or equivalent on file with a regulatory authority.

NATF members include investor-owned, Canadian provincial, U.S. federal, regional transmission organizations, state, and cooperative utilities.



Vision, Mission, and Guiding Principles

The NATF’s vision and mission describe how it sees the world and why the NATF exists. The vision explains the NATF’s long-term projections and how it will measure success, while its mission articulates “this is what we as a group are trying to achieve.”

The NATF’s guiding principles are the keys to meeting its mission and realizing its vision.

The NATF uses its vision, mission, and guiding principles to describe itself to others, and to decide which activities to undertake or revise or discontinue.

Vision

The NATF envisions **continuously improving** the reliability and resiliency of the electric transmission system.

Mission

The NATF’s mission is **to promote excellence** in the reliable and resilient operation of the electric transmission system.

Guiding Principles

These guiding principles give the NATF the ability (expertise, will, and critical mass) to not only identify but proactively address key reliability, security, and resiliency issues.

Community. Members recognize the interconnected electrical grid requires active member collaboration. Working together, members represent an especially agile and impactful community that propels higher levels of reliability, security, and resiliency.

Confidentiality. Various confidential programs and venues promote open, candid intra-membership dialogue. Member-specific and other sensitive information is rigorously protected, with external sharing of carefully selected information, as needed and through established protocols, to advance NATF impact.

Candor. Direct, objective performance feedback is delivered as a membership norm. Candid, constructive peer challenge promotes continuous improvement by highlighting and addressing vulnerabilities, risks, and performance shortfalls.

Commitment. Members' senior leaders demonstrate ongoing commitment to the NATF's mission of promoting reliability excellence. Leaders reinforce the member engagement and behaviors needed to foster positive change.

Member Obligations

To maintain the vision and mission of the NATF, while upholding the NATF's core values, members obligate themselves to actively participate in the NATF by:

- **Participating** in regular web meetings and surveys, and **offering ideas and suggestions** to other NATF members
- **Sharing** information about transmission system events, internal processes and programs, and metrics
- **Volunteering** for peer reviews and **servicing** on peer review teams
- **Writing** new practices, **reviewing** current practices to keep them current, and **incorporating** these practices into their transmission operations

NATF Policies

As a condition of their initial and continuing membership, NATF applicants must formally agree to abide by the NATF's policies on confidentiality, antitrust compliance, standards of conduct, and to not sue other NATF members on actions arising from NATF activities.

Leveraging the Internet

The NATF holds few physical meetings. Instead, our practices groups comprising subject-matter experts hold monthly web meetings. These are typically one to two hours, and include specific topics and "open

“mike” sessions where members can bring up whatever topic they want to discuss. The NATF’s private website provides members instant access to information, and allows them to upload documents and reports for easy sharing. The NATF also conducts online surveys for its members and practices groups.

Governance

The North American Transmission Forum is governed by its members whose primary representatives meet four times each year as a “deliberative assembly,” the most basic of all organizations. The NATF’s board of directors, who are chosen from among the primary representatives, carry out the NATF’s fiduciary responsibilities, but the members decide on what the NATF does.

NATF Programs

The NATF’s activities are centered on six integrated programs:

1. Peer Reviews
2. Assistance
3. Training
4. Practices
5. Reliability Initiatives
6. Knowledge Management

1. Peer Reviews

NATF review teams, comprising the members’ own subject-matter experts, conduct periodic, confidential evaluations of the NATF member organizations (which we refer to as the “host”). Each review consists of three to four days of interviews and observations, followed by a report to the host member’s executives and staff. Best practices are brought back to the NATF practice group, and specific recommendations are provided to the host.

The peer review team members usually bring more information back to their own organizations after the review because of the discussions among themselves during the interviews. The team members often exchange their own practices and programs with one another during the week they spend together, and build new personal relationships in the process.

NATF peer reviews are not compliance audits, and the NATF does not provide NERC or any other organization with the results of these reviews. However, several NATF members report that they are better prepared for compliance audits following the NATF peer review.

2. Assistance

Assistance visits are similar to peer reviews, but are narrower in scope and include more granular steps to help guide member improvements. The program is tailored to individual member needs, to promote operational excellence and continuous improvement.

Assistance teams visit member organizations to work with host peers on a particular issue or topic and draft a report of their findings and recommendations. Through its extensive network of subject-matter experts, the NATF can provide support for whatever areas are needed.

3. Training

The goal of this new program is to offer membership-wide training on topics that may be a better fit for the NATF to provide rather than individual members.

4. Practices

NERC establishes reliability standards to maintain the integrity of the transmission system. But compliance with reliability standards does not necessarily result in the operational excellence the NATF members are seeking. The NATF members raise the bar for themselves and achieve operational excellence by capturing and sharing their own experiences, diverse wisdom, and “ways of doing things” in a set of constantly evolving practices. These practices do not compete with NERC reliability standards. Instead, they complement the standards by providing guidance on the best ways to comply with—and exceed—the standards to achieve excellent performance.

The NATF develops practices in those areas that the NATF members agree are of the highest priority. Currently, these practices include:

- Compliance
- Equipment Performance and Maintenance
- Human Performance
- Modeling
- Operator Training
- Security
- System Operations
- System Protection
- Vegetation Management

The NATF is ideally suited for developing practices because it brings considerable and diverse expertise to the table, its membership is voluntary yet committed to the NATF’s guiding principles, and the NATF

has no obligations to provide its deliberations, reports, practices, and so forth to utility regulators. The NATF can raise the bar of excellence even further by agreeing to implement its own superior practices and evaluate the effectiveness of those practices in its peer reviews.

5. Reliability Initiatives

The Reliability Initiatives Program leverages the NATF's subject-matter experts, often in a project-like format, to pursue activities to close gaps, address risks, or otherwise improve the reliability of the electric transmission system.

Biased for action, the Reliability Initiatives Program coordinates, both inside and outside the NATF membership, tasks and projects related to established or emerging reliability topics, often across multiple disciplines. For example, our resilience initiative spans security, modeling, operator tools, training, manufacturers, etc.

NATF members are uniquely positioned to identify transmission system reliability risks and help focus industry resources on the most important reliability topics.

6. Knowledge Management

The NATF's Knowledge Management Program supports the exchange and management of operating experience and reliability data to help member participants learn from each other. Secure tools—including databases, surveys, and a private collaborative website—and regular working group meetings are used to gather, analyze, and communicate a variety of member, industry, and other reliability data and information to enable focused performance improvement.

Overarching goals of the Knowledge Management Program include:

- Promoting effective and efficient knowledge transfer across the membership
- Identifying, prioritizing, summarizing, and communicating timely and actionable reliability information to members regarding risks, vulnerabilities, events, adverse trends, lessons learned, and superior practices
- Developing and communicating metrics for member reliability performance



To help the NATF measure reliability improvements, our metrics and benchmarking efforts define the kinds of transmission equipment performance information that should be tracked and analyzed.

Metrics topics and activities include 1) comparative performance data, such as transmission outages rates and availability; protection system misoperation rates; and equipment performance and availability; 2) program effectiveness; 3) member engagement/participation; and 4) transmission costs. The program includes identification, development, and maintenance of tools that provide a snapshot of current performance information and comparisons over time.

To supplement peer benchmarking, the NATF created a self-serve metrics database that enables members to use transmission outage data and company profile information to compare individual company performance results against their peers in the NATF.

Information sharing underlies all the NATF activities but is a particular focus in the Knowledge Management Program. For example, NATF members:

- Discuss their own “lessons learned” and root cause analyses of operating events at NATF meetings, and post summaries and in-depth analysis on the NATF’s private website.
- Receive alerts from the Electricity Sector Information and Analysis Center (ESISAC), and all NERC alerts.
- Survey other members on a vast array of topics to collect timely and valuable feedback. The NATF staff helps members refine and distribute surveys, and all members have access to summary results.

The NATF’s website provides up-to-date contact information for the NATF’s 6000 subject-matter experts for quick one-on-one discussions.

For More Information

Contact the NATF by e-mail at info@natf.net.