

ITOMS

INTERNATIONAL TRANSMISSION OPERATIONS & MAINTENANCE STUDY

ITOMS - The premier global innovation & best practice learning and sharing forum for TSOs

Started in 1994, ITOMS is an industry-sponsored consortium of leading international Transmission companies created to assess service level and cost performance / productivity across each major Transmission function to identify and share industry best practices. Each program cycle, the global utility steering group selects new topics to include in the program to address evolving industry challenges.

MEMBER BENEFITS



FINDING INNOVATIVE IMPLEMENTATION SUCCESSSES

Leverage peer members' experience with pilots and implementations



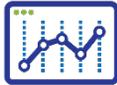
VALIDATION OF IMPROVEMENT INITIATIVES

Quantify the impact of specific performance improvement strategies



WORK DELIVERY - PRODUCTIVITY AND PERFORMANCE

Compare internal groups to global Benchmarks to identify and grow your own centers-of-excellence



ASSET LIFE CYCLE PLANS

Facilitate maintenance enhancements, moving from historical time-based activities to diagnostic condition-based or risk-based maintenance programs



REGULATORY SUPPORT

Supplement regulatory submissions with validated & globally accepted benchmarks to reduce excessive mandatory compliance activities and costs

INDUSTRY LEADERSHIP

Created in 1994 by 9 global transmission organizations, the ITOMS membership roll currently consists of over 30 industry leading organizations.

Program Leadership is by a 5-member Utility Steering Committee providing governance of study scope and schedule.



Since the program inception, UMS Group has provided program management, analysis, facilitation and operational expertise in support of the program.

ENERGINET
Eltransmission



الشركة العمانية لنقل الكهرباء ش.م.ع.م
OMAN ELECTRICITY TRANSMISSION COMPANY S.A.O.C

transelec



ITOMS provides a world-wide forum for top performers to learn from leading organizations that have experienced, addressed and successfully mastered specific operational challenges. Examples of regional concerns and achievements that can benefit everyone globally include:

EUROPE

- Leading innovations in digitalization and touchless Substations / IoT
- Innovative replacement methods and pioneering alternative designs to address aging assets

NORTH AMERICA

- Leveraging catastrophic event experiences such as wildfires for innovative asset assessments and development of risk mitigation strategies

SOUTH AMERICA

- Managing in a fully contestable market – i.e., competing for asset Ownership as well as Construction, Operations, and Maintenance
- Managing and measuring performance against non-traditional metrics



ASIA

- Leveraging massive capital construction projects and UHV voltages to drive asset innovations
- Key advances in the use of robotics in substations

MIDDLE EAST

- Developing risk mitigation strategies for assets in highly corrosive and erosive environments

AUSTRALIA

- Developing effective catastrophic event risk mitigation strategies
- Mastering advances in digital line inspection techs / aerial platforms
- World leading experience in addressing growth in DERs and Grid Scale Storage

INNOVATIONS: During each program cycle, members share key issues, insights and strategies, innovative designs, new assets, tools, enhanced maintenance practices, and approaches for cost reduction and productivity improvement.

For example, assessments of catastrophic asset failures and other significant events such as:

- MVT explosive events
- Protection failure caused system outages
- Conductor splice failures
- Renewables influenced stability issues
- Typhoon / hurricane response

provided insights to root cause analysis and disaster response/relief strategies.



In addition, members routinely initiate informal 'peer-to-peer' surveys to gain valuable insights into specific topical issues or new technologies.

RESULTS: In addition to comprehensive reports on performance, reliability, risk and best practices, members have access to a powerful analytic platform for self-guided analyses and insight development.

An interactive simulation model allows users to run scenario analyses on performance results by adjusting costs, outages, staffing levels, or asset counts.



The Reliability Dashboard provides drill-down capabilities to gain insights into performance and risk; users can filter results by asset type, outage cause, time, and can modify peer group for regional or similar company comparisons (i.e. size, voltage levels, ownership type, regulatory model, etc.).

PEER EXCHANGE HIGHLIGHT: PROGRAM CONFERENCE

A key tenet of ITOMS is idea and experience sharing among the consortium members. While sharing opportunities abound through the full cycle, the pinnacle is the Bi-annual Best Practices Conference at the end of each study cycle. The member-to-member sharing event, which ONLY member organizations attend, thus creates a 'Safe Space' for open dialogue.

ITOMS CONFERENCE - KUALA LUMPUR, MALAYSIA

- 79 Attendees
- 31 Global Organizations
- 70+ Presentations
- Breakout Sessions
- Technical Tour – TNB Research Center
- 2 Social Events – Welcome Reception and Awards Banquet
- Peer Group Business Session, Charting Future Program Direction



PREVIOUS CONFERENCE LOCATIONS

2002 Reykjavik, Iceland • 2004 San Diego, US • 2006 Lisbon, Portugal • 2008 Vancouver, Canada • 2010 Christchurch, New Zealand • 2012 Chattanooga, US • 2014 Prague, Czech Republic • 2016 Richmond, US
Next - Brussels (Moved to Feb 2023 due to COVID)

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“We leveraged the ITOMS exchange of knowledge and peer contacts to develop new ideas and proofs of concepts in areas such as: Patrol & Inspect innovations, substation digitalization and IoT, and risk-based vegetation management.”

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“We used practices presented by ITOMS top performers to convince the regulator to accept a change in our protection testing frequency.”

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“Collecting data for ITOMS provided us with the unexpected benefit of a gap analysis of our data systems. Clearly, we didn't know what we didn't know.”

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“ITOMS is Our channel to address Shareholder & Regulator performance expectations on reducing Energy –Not-Served & improving efficiencies.”