

Substation Best Practices Consortium

MISSION: To create and facilitate a utility led community of industry professionals dedicated to exchanging ideas, leading edge practices and collaborating to solve issues in the rapidly changing industry.

The Substation Best Practices Consortium began in 2013 with a two-day forum dedicated to sharing practices and ways to drive performance improvement in substation inspection. The following year focused on sharing around Substation Maintenance. Its success gave rise to the Consortium in its current form which expanded to include Asset Management, Technology, Operational Analytics, Workforce Management and Safety.

TECHNOLOGY

Members leverage our well-developed view of current and upcoming solutions. Identifying the best products and keys to successful implementation leads to huge savings in both cost and effort.

ASSET MANAGEMENT

Combining participant data with global experience to identify meaningful differences. Establish global standards that can be leveraged to demonstrate a proactive, holistic approach to AM.

MAINTENANCE PRACTICES

A detailed view into innovative maintenance practices including the implementation of condition based and predictive maintenance strategies.

WORKFORCE MANAGEMENT

With the rapid advancements in the utility space, the quantity and qualifications of your personnel will likely change. In depth research and collaboration will enable a more effective work force of the future.

OPERATIONAL ANALYTICS

Expedite data collection, validation, and evaluation to accelerate learning and improvement of current practices.

SAFETY

Processes and practices that improve Personnel, Equipment and Environmental Safety.

CONSORTIUM MEMBERS



General Member Benefits



ANNUAL REPORT & CONFERENCE: A multi-day event with leading-edge presentations, document learnings / gains made over past year, set discovery priorities and goals for coming year, networking with industry leading innovators, etc.

BEST PRACTICE INTEREST GROUPS: Each year two interest groups are proposed from the Steering Group Members. They will meet to discuss the most pressing issues, identify leading practices across the industry landscape, work to define standards for the industry and different strategies to address them.

BENCHMARKING AND SURVEYS: UMS Group will lead the participants in benchmarking activities that are linked to tangible, actionable improvements. These efforts will be designed with the participants and approved by the Steering Committee.

TECHNOLOGY LEADERBOARDS: The consortium will focus, through the quarterly interest groups, on defining technology leaders across the spectrum of hardware, software, implementation and support for all the relevant use cases.

QUARTERLY WEBINARS: Quarterly meetings to present best practices, innovations and new technology and upcoming benchmarking/study opportunities. These will also facilitate Tech Truth® sessions allowing utilities to discuss key vendors in detail.

ACCESS TO WEB PORTAL: A Web Portal will be made available to all participants, providing access to: Industry Research & Analysis, Secure Confidentiality Hub, Program Calendars, Working Group Collaboration and maturity models, Model agreements and Technology Leaderboard/Vendor reviews.

OPTIONAL COMPONENTS:

Opt-in projects approved by the Steering Committee will be open to all Research Projects; Joint Development Projects; New Technology & Tools; Benchmarking, Analysis & Performance Metrics.

Past Interest Groups

ADVANCED ANALYTICS FOR TRANSFORMERS

- Algorithm based on detectable acetylene, moisture, dielectric strength, and cooling performance
- Analyze transformer load curves, identifies load spikes, correlates sensor data, and calculates transformer LOL based on IEEE C57.91-2011
- 100+ Transformers, 1 year of data with 1 minute resolution – 210 million rows of data for ambient temperature, top oil temperature, winding oil temperature and load

ELECTRONIC TAILBOARD APP

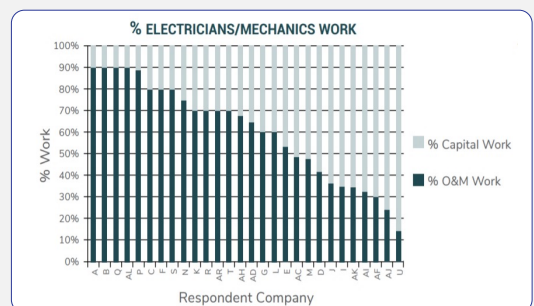
- iPads with custom developed App
- Automatically uploaded to a database and can be accessed remotely
- All entries are time-stamped with pre-fill job details and tasks for multi-day jobs
- Provides Access to Safe Work Practices and Safe Operating Procedures

SF₆ BEST PRACTICES

- Key drivers of emission reduction including Gas and equipment alternatives and monitoring solutions
- Analysis of upcoming legislative issues and reduction targets
- Maintenance practices for GIS and Non-GIS assets: Time based vs. Condition based strategies, Typical Tasks

DRIVING PRODUCTIVITY AND EFFICIENCY

- Tracks work, switching and delays (e.g., travel, jobsite, paperwork, depot, safety mtgs, etc.)
- Separately measure productivity (total time including delays vs standard) and efficiency (actual wrench time vs standard)
- Decompose all work into units, determine resources needed for each unit, set target time for each unit
- Prep trucks, material, pole delivery at night, and bundle specialized tasks



UMS Group serves as Substation Best Practices Consortium program manager and facilitator, leveraging 30+ years' experience organizing industry sharing and best practices consortia and globally recognized electric T&D experts.

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