

## AT A GLANCE

- **Concrete outcomes:** Scored self-assessment, survey results, Equipment Reliability (ER) program design, and prioritized Asset Performance Management (APM) requirements
- **Whole-organization alignment:** Executives, engineering, maintenance, operations, and craft in one conversation
- **Multiple formats:** From a 2-hour seminar to a 2-day working session
- **Industry good practice:** International Organization for Standardization (ISO) 55000, Institute of Nuclear Power Operations (INPO) AP-913, and Electric Power Research Institute (EPRI) guidance
- **Led by Cutsforth reliability experts:** 600+ combined years of reliability experience

## The road to a managed reliability program

Strategy | Assessment | Planning | Implementation | Improvement

**Reliability Workshop** Facilitated session that aligns your teams and prioritizes gaps and opportunities

A Reliability Workshop is your entry point to Cutsforth Reliability Services if you need to start, refresh, or elevate your reliability strategy and program. Each workshop educates your leadership and practitioners on industry good practice for Asset Management (AM) and ER, builds sponsorship for change, and produces your own view of your organization's strengths, gaps, and priorities. The results give you the information needed to scope a site-specific ER and APM program assessment.

## When does a Reliability Workshop make sense?

A workshop fits when your reliability program is starting, changing hands, or due for a reset.

- Have you recently stepped into a reliability leadership role?
- Have you recently acquired a facility, or been acquired?
- Has your reliability leadership team turned over?
- Do you need executive sponsorship before your ER or APM program can move forward?
- Do engineering, operations, and maintenance define reliability differently?
- Do you need a shared view of strengths, gaps, and priorities before you scope a program assessment?
- Are you weighing APM software or digital technology, and unsure which capabilities come first?
- Is it time to review and refresh your current program?

## Multiple Workshop Options, Catered to Your Needs

We do not run a single, fixed workshop. We offer a variety of formats, so you can start at the level that fits where you are today: a 2-hour seminar for a mixed audience, an executive session, a guided self-assessment, a working session for the people who run your ER program, sessions for your workforce, or a day on APM software requirements. After you meet with our team and share your concerns and goals, we work with you to define the most effective next step. The table below outlines some of the options available.

| Workshop | Audience | Duration and format | Goal |
|---|---|---|---|
| **From Reliability to Intelligence (seminar)** | Mixed: leadership, engineering, maintenance, operations | About 2 hours; conference or on-site | Give your audience a common picture of the path from basic reliability to a more managed program across people, process, and technology. |
| **ER and Digital Transformation Technology Workshop (guided self-assessment)** | Leadership, management, engineering, operations, maintenance, ER stakeholders | 1.5 days on-site; day 2 with a subset of your team | Share good practice, build sponsorship and alignment, and identify your current strengths and highest-value opportunities as the basis for a prioritized roadmap. |
| **Leadership Level-of-Awareness (LOA) session** | Executives and senior leaders | 2–4 hours | Secure executive sponsorship with case studies, return on investment (ROI), and a 3–5-year journey. |
| **ER Process and Program Management workshop** | Technical leaders, ER and maintenance managers | 2 days, plus about 2 days supporting the roadmap presentation | Design your ER program: roles, governance, metrics, and plant health meetings. |
| **Workforce LOA sessions** | Craft, technicians, operators | About 2 hours each | Build a shared vocabulary and buy-in among the people who do the work. |
| **ER Software Tools (APM) implementation support workshop** | ER, information technology (IT), and engineering leads | 1 day | Decide which APM capabilities your program needs first. |

## Workshop objectives

Depending on the format, a workshop works toward these objectives:

- Educate your organization on the breadth of ER program and APM scope, goals, and objectives.
- Raise awareness of industry good practices, your current ER and APM improvement activities, and digital transformation technologies.
- Establish consistent ER definitions among engineering, operations, maintenance, and work management leadership.
- Perform a high-level self-assessment to identify internal strengths and opportunities for improvement.
- Improve organizational buy-in and sponsorship for initiating improvements and technology applications.
- Capture key issues in implementing ER and APM improvements.
- Define and prioritize improvement opportunities.
- Provide the information needed to scope your site-specific ER and APM program assessments.

## Typical workshop agenda

The 2-hour seminar moves through these modules. We trim them to fit your time slot.

| Module | Topics |
|---|---|
| **Why Reliability Now?** | Industry trends and changes impacting maintenance and reliability teams |
| **Asset Management and the ER Process** | ISO 55000, ER process definition, six-step good-practice process |
| **Managing Equipment Reliability** | Excellence Matrix, component health reports, inspection matrix, risk grid, ER Index, plant health meetings, EFOR improvement journeys |
| **APM Software Survey** | Six APM modules scored 1–10 by participants |
| **The Journey** | Five-phase roadmap from workshop to continuous improvement |
| **Condition-Based Maintenance (CBM)** | CBM process, condition monitoring technologies, component ownership, vibration example |
| **M&D Centers and APR** | Typical M&D Center, how APR works, monitoring with APR |
| **Continuous On-Line Monitoring (COLM) Maturity Levels** | Levels 1–4, limitations of Level 1, Duke Energy SmartGen case |
| **Digital Technology Survey** | Five technology areas scored 1–10 |
| **Diagnostics** | Process vs. dynamic sensors, failure modes and severity, Integrated Diagnostic Models (IDMs), Bayesian diagnostic reasoning |
| **Roadmap and Close** | Excellence Matrix, digital transformation, survey results, Q&A |

## Workshop surveys

Participants score each item from 1 (improvements add no value) to 10 (improvements add large value). Averages by stakeholder group show where your organization sees the most value.

| APM software survey (six modules) | Digital technology survey (five areas) |
|---|---|
| • Master Equipment List and Asset Criticality Management<br>• System and Component (Asset) Health Monitoring<br>• Preventive Maintenance (PM) Program Management<br>• Reliability Analysis and Maintenance Basis Management<br>• Equipment Risk Monitoring<br>• Long-Term Asset Planning and Management | • COLM sensors<br>• M&D Center software applications<br>• Integration of existing databases<br>• Handheld and mobile computer applications<br>• Advanced diagnostics, prognostics, and artificial intelligence (AI) |

## Deliverables

- **ER self-assessment “spider chart”:** your current performance vs. good practice by process area
- **ER Excellence Matrix scoring:** element-level self-assessment (73 elements in five categories)
- **Process and technology value survey results:** averaged scores for APM modules and digital technologies by stakeholder group
- **Barriers and issues list:** prioritized list captured during the workshop
- **Workshop summary report and recommendations:** findings, priorities, and recommended next steps

## How every engagement runs

Each workshop follows the same path from scoping to results. Workshop delivery follows the format and agenda of the workshop you select.

STEP 1
### Strategy and tailoring
A working session with your sponsor to confirm objectives, attendees, plant data, and agenda.
REMOTE OR ON-SITE

STEP 2
### Workshop delivery
We facilitate the selected workshop on-site.
ON-SITE

STEP 3
### Results report
For scored workshops: we analyze results and present a summary report and recommendations to your sponsor.
REMOTE

OPTIONAL
### Consulting hours
Support for steering committee set-up, an initial ER and digital technology roadmap, M&D Center improvements, sensor gap analysis, or business cases.
AS REQUIRED

## What we need from you

- Provide a meeting room, projector, and attendance of the agreed stakeholders for the full session.
- Nominate a sponsor and a subset team for day 2.
- Provide the basic plant performance data we request in step 1 (for example, EFOR, availability, and top maintenance costs), if applicable.

## The Cutsforth Reliability Services Team

| Consulting Services | System Implementation | Monitoring & Diagnostic Services |
|---|---|---|

Cutsforth is one of the few companies that combines deep reliability consulting experience with multi-physics condition monitoring system expertise. Our reliability services team has decades of hands-on, plant-floor experience in equipment reliability and asset performance management.

We help industrial organizations define, plan, and implement ER and AM programs, establish M&D Centers, and apply continuous online monitoring. Our approach is consistent with ISO 55000 and with the good-practice ER process in INPO AP-913 and EPRI guidance.

### CONSULTING AND PROGRAM SERVICES

- ER and AM program definition, planning, and implementation
- Asset criticality analysis (ACA), sensor gap analysis, and master equipment list foundational data services
- M&D Center assessment, set-up, and deployment

### TECHNOLOGY AND MONITORING

- InsightCM condition monitoring software
- Multi-physics monitoring systems, including vibration, electrical signature analysis, electromagnetic interference monitoring, thermography, and more
- Monitoring and Diagnostic services with industry-veteran subject-matter experts in condition monitoring

## Start with a scoping conversation

We begin with your sponsor, then recommend the workshop, or sequence of workshops, that fits your current state, appetite for change, and timeframe.

**Request a Reliability Workshop scoping conversation**

Contact your Cutsforth representative or visit cutsforth.com.