Better manage your assets

Establishing asset management best practices offers numerous tangible and intangible benefits to asset-intensive organizations, but implementing a successful program can be a daunting task.
Optimizing asset value

Today’s asset management challenges
In asset-intensive industries e.g. utilities, minimizing downtime and optimizing performance over the asset’s lifecycle is one of the keys to business success. Many organizations struggle to balance the need for maximum asset value with business, financial and operational objectives. There are many reasons why this happens:
• The lack of a clearly articulated asset management policy, strategy, and plan;
• Difficulty quantifying the value of proposed work and understanding the risk of not performing it;
• Difficulty evaluating risk (environmental, economic, social, political);
• The constant stress of “fire-fighting,” leaving no time for planning;
• Suboptimal performance of assets despite increased asset spending;
• Lack of a single “source of truth” regarding asset inventory, condition, status, and function;
• Poor data quality regarding assets;
• Inconsistent operational risk assessments;
• Competition for resources, making comprehensive long-term investment planning difficult.

Asset-intensive utilities are under pressure with increasing aging infrastructure and to control annual rate increases. Massive investment will be needed to renew and upgrade their aging infrastructure. Active utilities are working towards modernizing electric grid to enhance grid reliability and resiliency. However, utilities are faced with a moderating and even declining demand, partly due to the slowing economy and changing consumer behavior, influenced by smart home requirements and a greater appreciation for the environment. State and federal regulators that approve rate increase requests from utilities are asking for better integration of all aspects of utility operations while being tough and highly scrutinizing on O&M budgets. As a result of this economic, political and financial constraints, utilities are focusing on a project-by-project perspective, resulting in less emphasis on long-term planning and management strategy.

International standardization
Over the past decade, the collaborative effort of hundreds of participants, across multiple industries, from 28 countries, has identified universal best practices for asset management. These recognized practices from the Institute of Asset Management (IAM) and Society of Maintenance & Reliability Professionals (SMRP) create a foundation which is utilized by ABB.
How ABB can help

ABB incorporates a comprehensive, risk-based approach that ensures a balance between risk, cost, and performance for the lifecycle of assets, and provides guidance for doing “the right work, on the right asset, at the right time.” ABB’s focus is to enable clients to improve the maturity and performance of their asset management practices.

Effective asset management is more than just managing assets – it’s a holistic and fully-integrated business model.

The Asset Management Consulting Practice has a thorough and aligned approach which focuses on better management of assets from a total lifecycle perspective. ABB works collaboratively with clients to build new capabilities and a deeper organizational understanding of asset management.

ABB’s Power Consulting group brings deep experience and a focus on asset management strategy and processes, combined with technical engineering, and understanding of transmission and distribution assets from 135 years of designing and building electric utility equipment. ABB’s depth of resources, knowledge, and experience has helped utility clients worldwide to enhance their asset management programs, using industry best practices as a foundation.

ABB’s asset management team members are leaders in understanding asset management within generation, transmission, and distribution organizations which include:

- Development and implementation of Asset Health Index (AHI) programs that are used by leading utilities globally to optimize their maintenance and asset investment programs
- Development and implementation of asset-related risk assessment and management programs, including the development of asset risk registers and the assessment of asset criticality, the probability of failure, and consequence of failure
- Development and implementation of capital and operations and maintenance (O&M) budget prioritization and optimization programs

A key differentiator of ABB’s asset management consulting team is our combination of transmission and distribution asset management expertise backed by in-depth technical experience and subject matter expertise.
ABB Offering

ABB’s Asset Management Consulting Practice offers tailored solutions to create success in your asset management journey.

Focus on people, processes and systems.

Led by ABB’s experienced consultants and following a proven methodology, these tailored solutions include:

- **Transformational Consulting**: Performing a broad assessment of an organization’s AM performance capabilities and tailoring an initiative to address identified needs
- **Performance management systems**: Supporting client to identify goals and objectives, targeted Key Performance Measures, and performance review system
- **Business process design**: Facilitating development of integrated business process uniting key AM components of Engineering, Procurement, Operations, and Maintenance
- **Work Management**: Performing training and support of AM work execution to include identification, prioritization, planning, scheduling, and execution of work
- **Reliability Engineering**: Train and facilitate the development of a reliability engineering function
- **MRO – Materials Management**: Support client to establish materials management best practices in support of AM operations
- **Reliability Centered Maintenance Study (RCM)**: Study to identify potential failure components on complex, high value system and create solutions to mitigate failure probabilities
- **Failure Mode and Effect Analysis Study (FMEA)**: Study to identify the failure components of asset types and identify operation and maintenance activities to mitigate failures
- **Root Cause Failure Analysis Study (RCFA)**: Study to identify the key contributing causes of any type of failure incident and develop action to mitigate the chance of recurrence
- **CapEx Portfolio Management**: Facilitation of client efforts to optimize capital and expense budgeting and spending

The solutions can be tailored to meet the individual requirements that suit your needs. Each solution delivers:

- In-depth training in the topic area
- Quick value, through a hands-on focus on your resources and data
- Ongoing value through skills enhancement and a roadmap for your business

The ABB Maturity Assessment

Conducting a maturity assessment is the first step in understanding the existing maturity level of your organization relative to the Asset Management industry benchmark.

ABB’s assessment process is based on the requirements of the recognized best practices and industry standards. Our team conducts detailed interviews, reviews documented processes and procedures and records findings for traceability.

Experienced with implementing asset management systems, from strategic planning through execution, the ABB Asset Management Consulting delivers quantified measures and helps prioritize recommendations for action planning. Using a recognized audit approach, ABB professionals will clarify the maturity level of your asset management practices, identify shortcomings and opportunities to improve and assist in developing a roadmap to close the gaps.
Benefits
Establishing AM best practices offers numerous potential, quantifiable improvements, including opportunities to reduce capital and maintenance costs, increase performance and availability, reduce equipment failures or unplanned outages and reduce overall risk exposure. Asset management maturity improves communications, promotes common goals and ensures consistently-applied risk assessments. Other benefits, while more difficult to measure, are equally important, such as improved reputation, customer satisfaction, and stakeholder support.

Let ABB guide you on your asset management journey
Implementing an effective asset management program takes time, resources, commitment and a culture that is forward-thinking with vision. The benefits can be realized and the effects are real. Following the path of the ISO standard allows an organization to achieve short-term goals without jeopardizing long-term vision. This journey can transform a business.

Top 5 benefits of asset management

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifecycle cost reduction</td>
<td>68%</td>
</tr>
<tr>
<td>Identifying and managing risk</td>
<td>66%</td>
</tr>
<tr>
<td>Evidence-based asset management decisions</td>
<td>58%</td>
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<tr>
<td>Optimum asset maintenance approach</td>
<td>57%</td>
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<tr>
<td>Changing company culture</td>
<td>52%</td>
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