Asset Management Services for Transmission and Distribution
Expert Services for Utility Systems and Equipment
PERFORMANCE FOCUSED ASSET MANAGEMENT

ASSET MANAGEMENT PROGRAMS for equipment assess long-term asset degradation, (not routine defect management), and provide a means to quantify remaining asset life. Asset Condition Assessment (ACA) and resulting Risk Assessment (RA) processes are used to determine and support needs for capital and maintenance expenditures.

PERFORMANCE FOCUSED ASSET MANAGEMENT utilizes a total asset life cycle cost concept, which allows utilities to plan optimal operational and maintenance strategies. These strategies then facilitate cost-effective infrastructure investments, which result in manageable business risks, favourable regulatory treatment, and a high level of customer satisfaction. The immediate operational and financial benefits include:

- A customized utility-specific approach
- Better risk management of aging assets
- Improved asset knowledge
- Facilitated long-term investment planning, based on optimized total life-cycle cost
- Risk-based prioritized list of assets “flagged-for-action”
- Support for rate submission

What is Asset Management?

ASSET CONDITION ASSESSMENT (ACA) AND RISK ASSESSMENT PROCESS STEPS
ISO 55000 is an international Asset Management standard that has replaced PAS 55. Certification under ISO 55000 demonstrates that a company employs sound Asset Management practices.

ISO 55000 Standard

Managing the Organisation

Asset Management

Asset management system

Asset portfolio

Concentric activity of an organization to realize value from assets

Set of interrelated or interacting elements to establish AM policy. All objectives and processes to achieve those objectives

Assets that are within the scope of the asset management system

RELATED SERVICES

Kinectrics Inc. has extensive practical experience in providing the following services to utilities:

- Asset Management Training includes a multi-module course that provides an overview of basic Asset Management concepts and describes methodology used in ACA, Associated Risk Assessment and Capital, and developing Capital and Maintenance Plans.
- Investment Prioritization using the PROSORT tool.
- Rate Application Preparation, which involves assisting utilities with formulating key messages, developing direct evidence exhibits, preparing the required supporting documentation, and responding to interrogatives.
- Performance Metrics development in conjunction with utilities; SMEs.
- Assessment of ISO 55000 compliance in partnership with accredited certifiers.

RECENT PROJECTS

Kinectrics has completed Asset Condition and Risk Assessment projects for a number of large, medium and small utilities in both the USA and Canada. The work covered all major Transmission and Distribution assets, including power transformers, breakers, station-serviced equipment, overhead lines and their components, and underground cables.

Prioritization methodology using the PROSORT tool was implemented in several utilities in Canada and the USA.

STRATEGY FOCUSED ASSET MANAGEMENT

THE INVESTMENT PRIORITIZATION PROCESS provides a methodology for establishing a transparent relationship between corporate level Business Values (BV) and corresponding associated Consequence Indicators (CIs) and, Resultant Total Risk Scores (TRS).

TRS are used to optimize risk vs. investment ratios for individual asset categories that can then be prioritized across all categories to create a complete Business Plan.

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Minor</th>
<th>Moderate</th>
<th>Major</th>
<th>Severe</th>
<th>Worst Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Likely (&gt;95%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unacceptable Risk Zone</td>
</tr>
<tr>
<td>Likely (65 to 95%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium (25 to 65%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unlikely (5 to 25%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote (&lt;5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BUSINESS VALUES

Kinectrics’ PROSORT tool can be used to facilitate the prioritization process.

PERFORMANCE METRICS enable organizations to assess the effectiveness (achievement of intended result) and efficiency (prudent investment) of expenditures for selected asset categories.

It also monitors systematic accomplishment reporting and is used to support business planning and benchmarking activities.

THE ASSET MANAGEMENT PLAN and / or DISTRIBUTION SYSTEM PLAN documents policy, strategy, objectives and targets, and integrates them with the corresponding work required for each asset category.

The resultant capital and maintenance expenditures are then optimized and prioritized using an investment Prioritization Process to form a Business Plan typically covering 5 or 10 years into the future.