

The Siemens logo, consisting of the word "SIEMENS" in a bold, teal, sans-serif font.

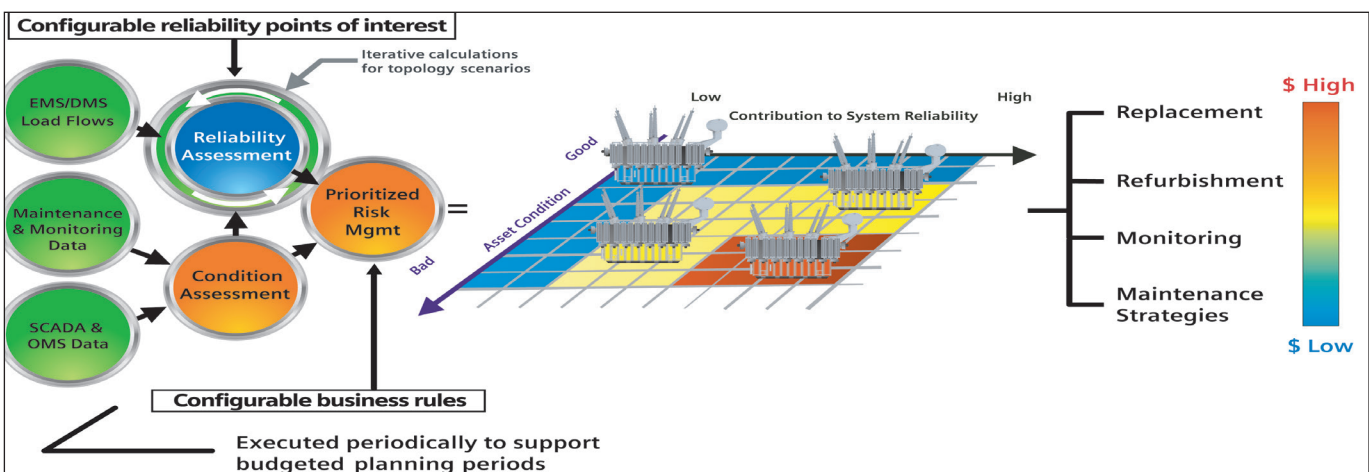
Ingenuity for life

ARMA

Asset Risk Management Analysis

Achieving the Smart Grid vision requires the integration of sensors, data management and analysis to turn sensor data into useful knowledge, and then an overlay of software applications to turn knowledge into actionable information. If applied to every asset on the grid without some method of prioritization, implementing a Smart Grid strategy would quickly become cost prohibitive. Utilizing knowledge management tools like an Asset Risk Mitigation Analysis (ARMA) study enable Smart Grid technologies to be applied at optimized cost.

Siemens developed the ARMA analysis technique to provide both the data management and analysis needed to prioritize asset management strategies based upon asset condition and contribution to overall grid reliability. ARMA supports the key goal of the Smart Grid by increasing visibility and transparency between various departments within the utility to yield a common consensus on where Smart Grid technology should be applied and how to support optimization of the cost of its deployment.



Product description

ARMA is a consulting service that objectively evaluates your asset risk profile and defines specific strategies to mitigate measured risks. The ARMA analysis technique combines the network consulting expertise and field service experience of Siemens. The ARMA study is generated by customer planning, maintenance and field test data. The data is used to develop metrics to rank condition and system reliability contribution of the asset type in question (e.g., transformers). Based on selected system reference points, an established reliability analysis is performed and is then merged with condition assessment metrics to generate the study's results.

Customer benefits include

- Objective assessment of each asset in terms of physical condition and individual contribution to system reliability
- Recommended maintenance strategies for each asset based on the results of the analysis
- Defined strategies for the pooling of spare units and critical parts
- Means to evaluate efficiency in adopting Smart Grid technology and related capital expenditures

Features

Unlike traditional asset condition assessment service offerings, ARMA analyzes asset condition as well as asset contribution to system reliability. The analysis of both variables ensures that the study's results incorporate the important metric of asset prioritization. The analysis can also include one or more of the following variables: relative cost of generation, cost impact of transmission asset reliability or revenue impact of transmission asset reliability. Inclusion of these variables provides additional resolution in objectively assessing asset contribution to business performance.

Data analysis

ARMA is a process, not an event. Customers can update the analysis either internally or with the help of Siemens for annual budget preparation for Smart Grid technology deployment, thereby allowing dynamic assessment and prioritization to take place. This information can then be used to optimize budgetary requirements.

The ARMA study generates recommended maintenance strategies and objectives. These recommendations can then be used to aid in the establishment of performance metrics for Smart Grid technologies associated with asset condition and reliability. The metrics can also be used to support analysis of maintenance program effectiveness or performance improvement initiatives.



Because Siemens understands the complete energy conversion chain, we're able to transform today's grid into a living infrastructure that is smart enough to respond quickly, flexibly and comprehensively to real-time energy needs.

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