

# Strategic Asset Management Planning

**T**he electric utility industry is presently facing significant financial pressure as capital spending rises with requirements to upgrade or replace aging infrastructure, modernize the grid, reconfigure the power generation portfolio and meet evolving environmental regulations.

Meanwhile, electric demand has moderated due to slow population growth, energy efficiency, and changes in customer's attitudes. All this means that major investment decisions must be taken in a difficult context where investments must be fully optimized.

## The Industry Concerns

Electric utilities remain a hugely capital-intensive sector. The strategic allocation of available capital and access to new sources of financing will become increasingly important in the coming decades.

### MASSIVE INVESTMENT

Massive investment will be needed to replace existing generation capacity, renew and upgrade aging network infrastructure as well as transform today's networks into tomorrow's smart grids, all while taking into account environmental factors.

As a result, capital expenditures in the U.S. over the next 20 years are expected to total well over \$3 trillion. The bulk of these expenditures will go towards environmental compliance, investment in transmission and distribution infrastructure, new generation capacity and introduction of advanced technologies to the overall power system.

### MODERATING DEMAND

The demand for electricity appears to be moderating and potentially even declining in the U.S. and most of the developed world, part due to a slower economy, but also due to real changes in consumer attitudes, stricter building and appliance efficiency standards, conservation program implementation, a focus on sustainability and corporate social responsibility, as well as an emphasis on demand management.

### INNOVATIVE REGULATORY POLICY

Regulated electric utilities look to state or federal regulators to approve rate increases so they can recover operating and capital investment costs. In response to lower sales volumes, higher costs and requirements for increased energy efficiency programs, utilities are filing a greater number requests for rate increase. With the inevitable regulatory lag and consumer response, public utilities and their regulators are adopting novel regulatory practices to supplement the traditional cost of service (COS) approach and work together toward mutually acceptable solutions.

A solution exists to help the decision makers: **InfraModex®**. It is a unique and innovative software tool that optimizes your investments, quantifies your risks and significantly increases the probability of achieving your goals based on your specific decision criteria and tolerance for risk. This tool can also generate powerful arguments to justify before the regulator the required investments sums.



## KEY BENEFITS

### For senior management:

- Validate that annual infrastructure investment amounts are sufficient to assure sustainability
- Identifies the required investments to maintain or achieve new targets in service levels
- Decision-making is based on combinatorial criteria versus personal judgment
- Strong arguments available to justify before the regulator the required investments sums
- Compile an expert knowledge base from several key employees

### For asset managers and project engineers:

- Measure impact of current annual investments on service levels
- Identify the projects that are the most relevant to be fulfilled in the short term
- Help develop a consistent rationale to justify the required sums relating to network in order to maintain expected service levels
- Standardizes decision making and communication between stakeholders

### For treasury officials:

- Identifies clearly the necessary annual investments to ensure assets sustainability
- Allows implementing better borrowing strategies
- Assess impacts on the utility's long term debt load

## The CGI Solution

We have established an exclusive partnership with *Solutions Modex* to implement **InfraModex®**, a leading strategic asset management solution. Combined with our 25 years of utilities experience, and supported by 6,000 utility experts worldwide, CGI applies best practices in Risk Management and Financial Analysis to the Integrated Strategic Asset Management Planning process.

**InfraModex®** uses a rigorous financial analysis and risk management methodology that has been proven effective for over a decade. Using unique algorithms and mathematical techniques, it will simulate probable degradation of the network assets over the analysis horizon you choose and estimate what interventions will be required to ensure assets sustainability. **The CGI approach is not to replace the decision maker but rather to assist him with a very powerful tool.**

### Financial Analysis

- Assessment of your intervention options for asset life cycles
- Assessment of your financial requirements based on desired service levels

### Risk Management

- Assessment of the probability of achieving your financial goals
- Assessment of the probability of achieving your service level goals

### Integrated Asset Management Planning

- Impact on budgets
- Impact on service levels

**This CGI solution** will allow you to optimize your investments at minimal cost. In today's economic context, asset managers must ensure that every dollar invested is optimally invested. With this solution, you will be able to:

- Simplify a complex and risky undertaking
- Integrate inspection, maintenance and investment policies
- Simulate the future based on your experts' knowledge
- Assess the short, medium and long term budgets required based on targeted service levels
- Assess potential service levels based on delegated budgets
- Assess the consequences of administrative decisions



### KEY FEATURES

- Global approach for asset management
- Optimizes your investments for period as long as 200 years
- Allow assessment on intervention options for the entire asset life cycle
- Unlimited number of assets can be simulated
- Corporate directive and current practice are modelled in easy to build decision trees (Drag and drop)
- Reveals the state of degradation of all assets for the total period of a specific scenario
- Quantifies the risk associates with different scenarios
- Multiple scenarios calculated in few hours instead of months
- Personalized reports
- Cloud-based tool, easy to install and easy to use
- Database-agnostic

