Business Technology Strategy for an Energy Management Company

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ABSTRACT

This paper focuses on the development of a business technology strategy for an energy management company. EnDis manages the distribution of electric power to a specific geographic region, and is a regional transmission organization (RTO). The primary mission of EnDis is reliability and security. The case describes the process of developing a technology strategy for the company recognizing the unique mission the company has in maintaining electric power for their customers.

Keywords: EnDis, Energy Management Company, Regional Transmission Organization, Reliability and Security, Technology Strategy

BACKGROUND

EnDis has the primary responsibility for the safe and reliable operation of a regional electrical transmission system, the creation and operation of a robust, competitive, and non-discriminatory electric power market, and to ensure that a member or group of members shall not have undue influence over the operation of the electric power market.

As the electric energy industry evolves through the regulatory restructuring process at both the federal and state levels, EnDis supports a growing number of stakeholders, states and industry regulators as a solutions-provider for the complex, inter-related, social, economic and technological challenges that lie ahead.


EnDis has successfully navigated this industry transition by employing an incremental approach that has been technologically-enabled. EnDis’s approach has provided clear market rules and transparent information to all stakeholders and, subsequently, has unleashed the “power of information” to the wholesale energy markets. Timely and transparent information aids in price discovery, enhances EnDis’s operational reliability and promotes longer-
term infrastructure investment. The role that technology has played in this success cannot be overstated.

Over the last 10 years, EnDis has also worked to influence and transform the electric industry from a cost-of-service regulatory environment to the promotion and adoption of EnDis-style markets. These efforts have been successful and the company is now recognized as the world leader in the industry. The efforts have served to attract new customers and promote new methods for the efficient production, trading and consumption of electricity.

At this moment, the EnDis market is poised to substantially increase both in megawatt capacity and in geographic reach. This increase in footprint offers EnDis’s stakeholders and EnDis the potential for real economies of scale. Equally, the application of advanced technologies allows for large-scale system operations that heretofore were humanly impossible. Operationally, technology affords EnDis the opportunity to reliably control a larger region without a commensurate growth in human capital.

With this considerable increase in scale comes complexity. In order to address this complexity, EnDis has undertaken efforts to explore and incorporate advanced technologies into its business processes. Further, it initiated an IT strategic planning effort with respect to current and future technology needs. This planning effort recognized a sea change in the way technology supports the EnDis community. The technology strategy effort describes a new, expanded role for technology designed explicitly to support the EnDis vision and mission.

EnDis’s achievements have been possible by EnDis’s investment in technology. But rationality dictates that the methods and enabling technologies that have permitted success undergo fundamental review and redesign, where applicable, to accommodate the new business demands.

For example, the historic “hierarchical” control center concept whereby EnDis operates today will need to address and accommodate the real-time challenges introduced by very large inter-regional operations. Additionally, new dispatcher skill sets, work flows and advanced tools for decision-support will be a necessity. The very processes that have enabled the operational excellence need to be reexamined and retooled in light of advanced technology and sophisticated tools of today to meet the needs of customers, stakeholders and organization.

This strategy details the technology investments necessary to be responsive to customers’ service and cost expectations. Moreover, the strategic technology plan documents a “roadmap” to the future. The resulting roadmap will guide the prioritization process as well as the daily decisions of management and staff as the company embarks on a multi-year path to the next season.

Finally, this business technology strategy promotes the adoption of a “living” business planning process in which technology planning is tightly coupled with existing (and future) forecasting and budgeting cycles. The business technology strategy represents the current work by the EnDis to develop a multi-year IT strategic plan that is integrated and cohesive with existing and foreseeable EnDis needs. Moreover, this plan is intended to be the basis for an ongoing business process in which EnDis’s IT direction is continuously monitored, refined and incorporated into company and divisional work plans.

The importance of proper alignment in the strategic planning process (from both the IT organization and line-of-business operations) is paramount. Throughout the planning process, the team has works closely with company leadership and looks to the corporate vision and mission statements to construct and refine the strategy.

EnDis will strive to be the electric industry leader—today and tomorrow—in reliable operations and efficient wholesale markets. It will:

- Ensure the safety, reliability and security of the bulk electric power system
- Create and operate robust, competitive and non-discriminatory electric power markets
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