



ENMAX

POWER DISTRIBUTOR MEETS NEW E-BILLING REQUIREMENTS WITH SAP FOR UTILITIES

QUICK FACTS

“With SAP for Utilities, the billing group has produced files totaling almost a billion rows of data since July 2006, with an overall error rate of less than .001%.”

Bruce Chrétien, Director of Regulated Revenue Services, ENMAX Power Corporation

Company

- Name: ENMAX Corporation
- Location: Calgary, Alberta, Canada
- Industry: Utilities
- Services: Electricity generation, transmission, and delivery
- Revenue: CAD 1.7 billion (€1.18 billion)
- Employees: 1,200
- Web site: www.enmax.com

Challenges and Opportunities

- Maintain position as a significant player in a deregulated provincial energy market
- Manage smooth upgrade of billing procedures across a broad spectrum of stakeholders
- Remain nimble in the face of rapidly changing regulations

Objectives

- Accommodate fundamental changes in billing requirements
- Seamlessly support 500,000 customers

SAP® Solutions and Services

- SAP for Utilities solutions
- Business information warehouse functionality in the SAP NetWeaver® Business Intelligence component
- SAP® Consulting services
- SAP Education organization

Implementation Highlights

- 2005: Began formal system design and development
- 2006: Responded with speed and precision to new requirements for joint integration testing with successful go-live in July
- 2007: Ran successfully with 1 billion rows of data in 10,000 tariff bill files

Why SAP

- 90% of requirements satisfied out of the box
- Proven expertise with all aspects of enterprise resource planning
- Flexibility to interface among 17 legacy modules and 28 new transactions

Benefits

- Lower error rates in billing
- Better forecasting
- Scalable to hundreds of thousands of daily intermediate documents (IDocs)

Existing Environment

- Homegrown software for customer enrollment and management of meter data and meter inventory
- Settlement-based legacy billing software
- PeopleSoft order management and accounting systems



ENMAX Corporation is an energy distribution, supply, and service company that operates as a wholly owned subsidiary of the City of Calgary. In 2006 the company brought the complex billing processes of the ENMAX Power Corporation division into compliance with major changes in Alberta billing regulations through an implementation of the SAP for Utilities solutions and the business information warehousing functionality in the SAP NetWeaver® Business Intelligence component. In that year net corporate earnings at ENMAX reached CAD 30.1 million (€20.5 million), shareholder equity CAD 1.7 billion (€1.18 billion), and return on shareholder equity 10.5%. With SAP for Utilities, the ENMAX billing cycle has been reduced from hours to minutes, and billing errors are a tiny fraction of a percent across 10,000 tariff billing files.

Providing Power in a Volatile Market

ENMAX is a vertically integrated player in a deregulated market also served by about 200 other companies. In this volatile market, the company has learned to balance the risks of generating energy through supply contracts, wind power, and run-of-river projects with transmission, distribution, retail sales, and customer service.

Through its ENMAX Power Corporation division, ENMAX builds, owns, and maintains the electrical distribution and transmission system serving the Calgary area, as well as providing load settlement and other services in outlying areas. ENMAX Power Services provides engineering, procurement, construction, and maintenance services, including four-party utility trenching in cooperation with Alberta developers, and manufacturing and upkeep of regional light rail transit.

Addressing Changes in Regulatory Processes

In 1995 the Alberta Energy and Utilities Board (EUB) began restructuring the provincial utility industry with the creation of an open-access, competitive power pool. Since 1996 the City of Calgary Electric System, now ENMAX, has bought electricity from this pool.

Further EUB requirements in 2001 called for municipal distributors to offer residential, farm, and small-business customers a choice among the competitors in the power pool. Starting in January 2004, ENMAX Power Corporation, previously regulated by the City of Calgary, became subject to EUB regulatory oversight for its distribution tariff (DT) filings. Also in 2004, the EUB began development of the Alberta Tariff Billing Code (TBC) for electricity market participants. This meant a fundamental restructuring of the billing processes of ENMAX Power Corporation. Through

a request for proposals involving close to 600 requirements, SAP successfully introduced SAP for Utilities as the optimal response to the challenge.

Defining the Tariff Billing Project

The EUB's Alberta TBC was issued in the fall of 2004. At that time ENMAX Power was using a DT billing protocol based on load settlement results. The protocol was rate-ready, meaning that retailers calculated end-customer bills based on the data from meter readings and the published DT, transmission, and other rates. But the new billing code outlined meter-cycle-based billing in a bill-ready protocol, in which retailers were to be provided with all the charges needed to assemble the customer bill, along with enough information to disclose wire owner DT charges and align DT charges with consumption.



“We had a lot on the line with this project, and SAP certainly did not let us down.”

Bruce Chrétien
Director of Regulated Revenue Services
ENMAX Power Corporation

Applying the SAP® Solution

The SAP® project implementation was designed to ensure that ENMAX Power met the new requirements, including generation and propagation of a TBC-compliant DT file.

“We’re very proud of the reliability, accuracy, and flexibility SAP for Utilities has helped us provide to our retailers.”

Bruce Chrétien, Director of Regulated Revenue Services, ENMAX Power Corporation

The new regulations significantly increased the direct impact of billing data generated by wire owners on end-customer invoices. Important goals for the SAP project, nicknamed Bill-e, included standardizing the format and content of wire-owner wholesale invoice billing using electronic business transactions and transmission of daily tariff bill files (TBFs).

Bill-e was thus a complex organism, with many internal and external dependencies that constantly changed the landscape and added and subtracted resources. SAP consultants provided much of the necessary project management and organizational change expertise.

The now-complete new system receives data, creates estimates, calculates bills, and generates a TBF in full compliance with the Alberta TBC. Retailer invoicing, accounts receivable, and collections continue under the legacy financial sys-

tem, and the load settlement module functions as before.

The original implementation plan for SAP for Utilities to power the revised billing model called for 12 months of work. As that work came to a successful end in

December 2005, however, the EUB issued a new order for joint integration testing with other players in the market, and the go-live was pushed out another six months. During that time, the ENMAX team stepped into a leadership role in the industry. With the expertise gained in that integrated testing, the ENMAX team was ready for full peer-to-peer cooperation with SAP Consulting during the year of sustainment work that followed.

Assessing Bill-e

The posted goals for the Bill-e project were:

- Meeting the legislated deadline for the new billing structure
- Changing the billing methodology from settlement-based to meter-cycle based
- Maintaining the quality of data within specified performance metrics
- Producing a complete distribution tariff file for delivery to retailers starting July 1, 2006

The first DT file in the new TBF format was actually sent on schedule July 12, 2006.

Among the 1 million data conversions essential to the success of the project were the following:

- Records for over 440,000 connection objects, business partners, premises, contract accounts, and installations
- Over 350,000 initial meter readings, historical meter readings, and device records
- Over 5,000 customer profiles

Interfaces were designed and developed for 17 legacy modules and 28 new transactions, and 40 new reports from the SAP business information warehouse were integrated with 10 legacy reports. A total of 68 new staff roles were generated, including 10 business users on a new DT billing team, 31 technical users on a back-office sustainment team, and 17 security experts on an authorization management team. The project reviewed and revised over 250 processes, and created and documented over 160 new ones. With the new resources and streamlined procedures in place, the entire business process at ENMAX is simpler and more cost-effective.

The integrated view into energy generation, transmission, and delivery history clearly improved demand forecasting at ENMAX. And the firm made early use of the scalability to large record volumes built into SAP for Utilities. Bruce Chrétien, director of regulated revenue

services at ENMAX Power, summarizes the outcome this way: "We're really pleased with the results. We're very proud of the reliability, accuracy, and flexibility SAP for Utilities has helped us provide to our retailers."

Training for Success

Key to positive results in this multi-faceted implementation was a detailed learning strategy, concentrated on retailer training workshops and formal classroom training. The training by the SAP Education organization was both role-based, so that students worked on functions specific to their day-to-day activities, and scenario-based, so that they walked through the simplified processes as applied to situations they were likely to encounter. Finally, the team created additional simulations and context-sensitive help through the integration of the SAP Productivity Pak application by RWD, a provider of soft-

ware for business transformation with headquarters in Baltimore, Maryland. These functions gave end users performance support and completed the in-depth process documentation essential to smooth knowledge transfer and full project success.

"It's been a great first year," says Chrétien. "In fact, we had our most successful statistics ever this past July. We had a lot on the line with this project, and SAP certainly did not let us down."

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