

International Utility Company Uses Real Time Field Reporting and Sales Analytics

Comisión Federal de Electricidad

CLIENT PROFILE

Industry: Energy

Company: Comisión Federal de Electricidad (CFE)

Employees: 1000

Revenue: \$1000M USD

BUSINESS

The Comisión Federal de Electricidad (CFE) is the state-owned electric utility of Mexico.

CHALLENGE

Client needed a system to organize information for each of its business units and to generate a report for price quotes.

SOLUTION

ED's Front Office Management System generated a unified view of CFE's critical business information using visual elements like charts and graphs.

BENEFIT

ED has reduced IT cost by providing a more efficient data management system with increased efficiency and accuracy.

Business

The state-owned electric utility of Mexico.

The Federal Electricity Commission (CFE) is a company created and owned by the Mexican government. It generates, distributes and markets electrical power for almost 35.3 million customers. This figure represents almost 100 million people. The CFE incorporates more than a million new customers annually.

The infrastructure to generate electric power is made up of 209 generating plants, having an installed capacity of 52,515 megawatts (MW). 22.67% of its installed capacity stems from 22 plants which were built using private capital by Productores Independientes de Energía (PIE).

The CFE creates electric power using various technologies and various primary energy sources. It has thermoelectric, hydroelectric, coal-fired, geothermal and wind powered plants and facilities, as well as one nuclear power plant.

In order to take the power from its generating plants to the household of each one of its customers, the CFE has more than 756,000 km of power lines that transmit and distribute electric power. Electricity reaches almost 190,000 communities (of these, 190,732 are not cities, while 3,667 are). Also, 97.60 % of the population uses electricity.

The CFE generates electricity for 35.3 million customers and adds more than 1 million new customers annually.

The CFE is also the government agency in charge of planning the national electrical system. This plan is set forth in the Works and Investment Program of The Electrical Sector (POISE), which describes the evolution of the electrical market, as well as the expansion of the generation and transmission capacity, in order to satisfy the demand for electricity in the next ten years. This plan is annually updated.

CFE's commitment is to offer excellent service, and as it guarantees high quality standards in all its processes, it rivals the best electrical companies in the world. The CFE is a decentralized government agency, duly incorporated and which controls its own assets.

Challenge

Organize a large amount of customer information.

The CFE needs an effective system to accurately maintain information for each of its UNITS and to automatically generate reports for its pricing offers. The CFE has had been providing offers to its customers manually, an extremely difficult process. There were always last minute hurdles in handling data. Users were also unable to adequately report data to CENACE. Due to manual data handling, human error increased and could not be effectively remediated. With CFE's old data management system, it would take a minimum of three days to obtain analytic data for the CFE's modeling tool.

Solution

Deploy better data management

ED provided data management solution to all CFE power UNITS:

- Elevation Direct, as a part of bid submission system, calculated the generation of power in capacity (MW) with the information sent by power generators (SIGOP) and then calculates its corresponding offer price (\$/MWh).
 - Prepares offer templates in CENACE (distributor) standard format for various technologies and populates the Day Ahead data (Capacity in MW and Offer Price in \$/MWh) for Bid submission
 - Helps users to track the power generation which avoids manual errors on power and price calculation.
 - Information on UNITS (Generators) for different regions are maintained and managed based on technologies like Ciclo combinado, Turbogas, Eolica, Fotovoltaica, and Hydroelectrica.
 - Front Office system provides information at a glance for power generation of UNITS in a visual format using charts and graphs based on various categorization like Region, Technology and Management.
 - System interconnects with SIGOP through API services to obtain availability data (expected output capacity of a UNIT)
 - Fuel prices from Energeticos are uploaded periodically into the system for offer price calculations.
 - Information on awards sent by CENACE are maintained in Front Office System for further modeling and forecasting.
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Benefit

Reduced IT cost.

Elevation Direct has dramatically reduced IT costs at CFE by developing and deploying a new data management system designed to manage a tremendous amount of data. This new Front Office System has resulted in increased efficiency and accuracy with fewer manual errors. The new system allows CFE to make better use information by being able to visualize sales data with charts and graphs. The new Front Office System also allows CFE to more effectively model and forecast future use and future need which has improved customer service and satisfaction.

ELEVATION DIRECT



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