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Final Copy of Case Study

LOCATION:
Madrid, Spain

ORGANIZATION:
The Maltese National Electricity and Water Utilities and IBM

YEAR:
2011

ORGANIZATION URL:
<http://www.ibm.com/es>

STATUS:
Laureate

PROJECT NAME:
Smart Grid Implementation in Malta

CATEGORY:
Environment

PROJECT OVERVIEW

The Maltese National Electricity and Water Utilities -- Enemalta Corporation (EMC) and Water Services Corporation (WSC) -- have selected IBM for a 70 million euro, five-year agreement to design and deliver a nationwide Smart Grid implementation. Working with IBM, Enemalta will transform key utility processes through the implementation of an integrated utility business solution. The solution is designed to improve operational efficiency and customer service levels by introducing smart meters that allow clients to better manage consumption. Smart metering also enables restructuring of the billing process, improved customer relationship management and the introduction of e-services that further empower clients to serve their own customers. The project is the first step in establishing an end-to-end electricity and water smart utility system. When complete, the multi-phased engagement is expected to completely transform the relationship between Maltese consumers and utilities suppliers, while enabling more efficient consumption of energy and water. IBM will replace all 250,000 analog electricity meters with new smart electronic devices. IBM will also integrate water meters and advanced IT applications, enabling remote monitoring, management, meter readings and meter suspensions.

SOCIETAL BENEFITS

Estimated accounts will be eliminated and customers will pay only for what they actually use. The solution allows customers to switch to a pre-pay service, similar to mobile phone pre-payment. Commercial losses will be reduced and technical losses will be more easily identified through monitoring of electricity and water grids. Remote management of electricity supply.

PROJECT BENEFIT EXAMPLE

Known for its dry sunny weather, knights and long architectural history, this Mediterranean archipelago is about to become known for something else: it's the world's first "smart grid" country. Malta's electricity and water systems are inexorably intertwined. Malta depends entirely on foreign fuel oil for the



production of all of its electricity and for more than half of its water supply, which filters through an energy-intensive desalination process. The new smart grid, integrating both water and power systems, will be able to identify water leaks and electricity losses in the grid, allowing the utilities to more intelligently plan their investments in the network and reduce inefficiency. 250,000 interactive meters will monitor electricity usage in quasi-realtime, set variable rates, and reward customers who consume less energy and water. By addressing the issues of water and power as a system, the Maltese government can provide citizens with better information to make smarter decisions about how and when they use power — and the country can begin the task of replacing carbon-intensive fuel oil with renewable energy for the future. Quotes: "This agreement will not just transform Enemalta's metering operations but will help us introduce new back-office applications to provide an unprecedented customer relations service," said Enemalta's CEO Ing. Karl Camilleri. "With the right infrastructure in place to distribute electricity on the national grid we are looking at ways to both optimize current operations, as well as open up potentially new untapped markets in the way we conduct our business operations." "The implementation of an advanced automated meter management system will permit the Corporation to further improve its water loss management initiatives," said WSC CEO Ing. Marc Muscat. "This agreement results from a comprehensive process to select a Smart Grid system that provides clear benefits to the Maltese community," said Guido Bartels, General Manager Global Energy & Utilities Industry at IBM. "We see the Smart Grid as a critical enabler for economic growth on a global scale and it's inspiring to see Malta take such a strong leadership position."

IS THIS PROJECT AN INNOVATION, BEST PRACTICE?

Yes