

SIEMENS

# WAFI Dubai – energy optimization without compromise

More comfort and lower costs with Demand Flow from Siemens

“Having had an excellent partnership with Siemens for many years, we have great confidence in the team’s sustainable solutions. Without doubt, our decision in favor of the Demand Flow technology was the right one.”

Ian Kitching,  
General Manager, WAFI

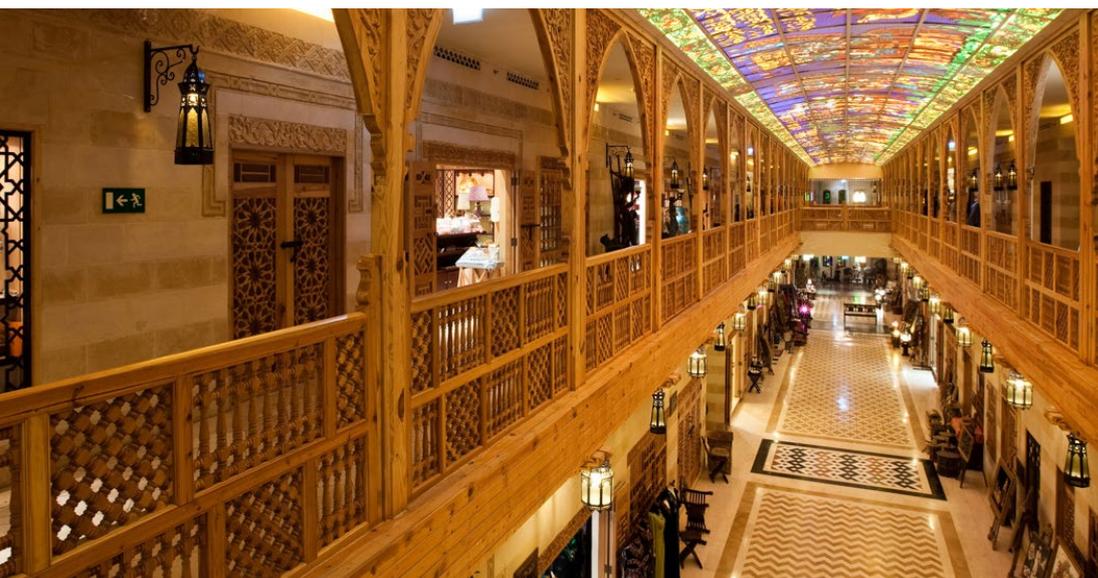
## The customer

WAFI City is a gigantic, luxurious shopping, entertainment and leisure complex in Dubai. It includes an upscale shopping mall with over 350 stores and 30 restaurants, a 5-star luxury hotel and an underground market featuring magnificent Arabian architecture. WAFI is the flagship of the MKM Commercial Holdings LLC Group for mixed used buildings. Opened in 1991, it houses one of the first malls in Dubai.

## The challenge

Because of steadily increasing energy prices, WAFI’s executive management wanted to make operations as efficient as possible and save energy costs. The goal was to optimize the performance of the HVAC system without compromising comfort and safety. The customer also wanted to be able to monitor the performance of the chiller plant over the Internet from anywhere in the world. Another

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challenge was data preparation. Energy data first had to be collected and evaluated anew. Without this step, it would not have been possible to perform professional calculations.

#### The solution

Cooperation between WAFI and Siemens began in 1989. Because of this long and positive partnership, MKM Commercial Holdings LLC Group decided in favor of the Demand Flow™ solution from Siemens for its energy optimization project. As a holistic approach for optimizing the entire chilled water system, Demand Flow's specialized algorithms can deliver chilled water system efficiencies to any existing building automation system. The project specifications were very demanding.

Siemens guaranteed yearly savings of 17 percent as well as a payback period of 2.5 years. Implementation of Demand Flow was completed in July 2014. Since then, General Manager Ian Kitching and his team have reported impressive results.

For example 30 percent savings on utility costs. In addition, they enjoy together with the occupants the improved cooling and humidity standards.

Supported by the Demand Flow solution from Siemens, the customer can expect guaranteed annual savings of US\$439,000. In addition, the performance of the entire chilled water system has been improved and its operation has been made easier. The web-based service platform Navigator from Siemens is used for system access. Navigator handles data acquisition, outputs energy profiles and displays detailed information about equipment operating parameters. The data is collected and aggregated by Desigo™ Insight.

Lowering the overall energy consumption has allowed WAFI Dubai to meet its medium-term goal of reducing the primary energy costs and associated expenses. In addition, the project saves 1,800 Mt of CO<sub>2</sub> emissions every year.

#### Highlights

- Guaranteed annual cost savings of at least US\$439,000
- Payback period of 2.5 years
- Average of 30 percent savings on utility costs (from August 2014 to April 2015)
- Increased comfort
- Control from anywhere via the Internet
- Easier operation thanks to a user-friendly interface