



# Waterfront Market

*Energy Efficiency, United Arab Emirates*

## | The challenge

Waterfront Market (WFM) is owned and managed by Ithra Dubai who is committed to ongoing operational improvement and reducing our impact on the environment.

Successfully fusing the traditional Emirati souq and the multicultural spirit of Dubai in a modern purpose-built facility, the Waterfront Market is one of Dubai's leading shopping destinations and a premier fresh food marketplace which welcomes more than 800,000 visitors per month. It is the regional trading hub for seafood, with over 100 tons of seafood traded nightly for the local, regional and international consumption.

Waterfront Market selected Enova as a preferred partner to improve the energy efficiency of its 120,000 square meters facilities through a retrofit project.

## | Enova's solution

Enova conducted a detailed audit of the facilities in May 2019 to identify the most cost-effective Energy and Water Conservation Measures. As a result, Enova was able to guarantee 21.1% annual energy savings, with a Return on Investment of 1.1 years.

The implemented Energy and Water Conservation Measures include:

- Injection of refrigerant additive for the compressors of the cold storage plant and ice maker plant compressors, and the split and package unit
- Installation of Variable Frequency Drives (VFDs) on selected Air Handling Units and optimization of Air Handling Units and Fresh Air Handling Units
- Installation of VFDs on cold storage plant compressors



Dubai, United Arab Emirates



### Contract

Date: 2019

Type: EPC

Sector: Electricity and water utilities

**120,000 sqm**  
facilities

**14**  
Energy Conservation Measures implemented

**21%**  
guaranteed annual energy savings

**3,108,666 AED**  
guaranteed energy savings per year

- Replacement of conventional lighting with LED on the service floor and in the basement
- Rectification of airflow mechanism to mitigate cooling wastage, enhancement of the Indoor Air Quality (IAQ) in the mall and mitigation of the odor issue
- Automatic closure system fitted on selected doors
- Optimization of Reverse Osmosis plant
- BMS upgrade and connection to Hubgrade, Enova's hypervision platform for live energy monitoring
- Optimization of existing Computerized Maintenance Management System
- Installation of water reducers on wash basins, ablution taps, shattaff and showers

This was the first project where Enova implemented Hubgrade's in-house automatic fault-detection tool, which analyzes and checks every fresh batch of new data received. This helps us identify drifts and issues related to energy efficiency and systems operations immediately.

## | Benefits

Enova began the Measurement & Verification period in June 2020, after completing the implementation of the Energy and Water Conservation Measures.

The energy reduction plan yielded significant savings during the first year alone:

- 25% energy cost reduction
- 19 % electricity cost reduction
- 45% water cost reduction

Any savings achieved above the guaranteed target are shared between Waterfront Market and Enova.

Waterfront Market does not only benefit from being positioned as an example in delivering low carbon footprint infrastructure, but can also communicate on financial, environmental and social KPIs, in line with the UAE Energy Strategy 2050.

"The partnership with Enova delivered substantial operational cost savings for WFM and intrinsically advanced and reinforced amongst their B2B and B2C business Ithra's key value of sustainability."

**Mohammad Al Madani**  
Waterfront Market Centre Manager



**4,634,691 kWh**  
electricity savings  
the first year



**3,758,372 AED**  
saved the first year



**160,091 m<sup>3</sup>**  
water savings the  
first year