

City Centre Al Shindagha Dubai | United Arab Emirates



City Centre Al Shindagha



CONTRACT SCOPE

Site: 32,197 sqm Built-up area
24,500 sqm Leasable Area (GLA)
Over 6.6 million visitors in 2016
3 water-cooled chillers
850 TR capacity each
3 cooling towers
Primary and secondary loops

CONTRACT DATA

Contract type:
BEES – Reliability

ACTIVITY SECTOR

Retail

EXPERTISE

Energy & Facilities Management

The challenge

Enova has been providing Energy and Facilities Management services to City Centre Al Shindagha since its opening in 2016, including the operation of its HVAC system. The shopping mall is not connected to a district cooling network and relies on the chiller plant for the production of all the chilled water. Enova's mission consists of delivering the right temperature all year round at the lowest energy consumption possible, which is a focal point for both the visitors' experience and the client's expectations.

Enova's solution

Building Energy Efficiency Services (BEES) – Reliability

Enova took over the full operation and maintenance of the 2,550 TR chiller plant from the contractor in April 2016. A complete overhaul of its condensers was undertaken to perform all required maintenance works early on and ensure the chillers function optimally.

Enova also proceeded to connect City Centre Al Shindagha to Hubgrade, our smart monitoring centre for energy management. By leveraging and analysing real-time data, our team of analysts are able to identify potential areas of optimization and implement energy conservation measures that will generate long-term savings.

With the coordination of the Hubgrade team and site operations, Enova set out to reduce the chiller plant's energy consumption by implementing the following:

1. Enhancement of the chiller sequencing and control strategies enhancement.

Commercial Use ONLY

Update: 2018

Contacts:
Ahlan@enova-me.com

Created by:
Business Development &
Marketing Department

Enova
Current contract: ●

HSE & CSR

All HSE & CSR issues are dealt with as a matter of priority. The company is accredited with the international standards (Quality Management, Environmental, Health & Safety, Energy, and Asset management) and has also been awarded the Corporate Social Responsibility (CSR) Label five years in a row. Enova was the first Energy Services Company (ESCO) accredited in the region.



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2. Implementation of a dynamically varying setpoint, based on weather conditions, to optimize cooling towers VFD operation
3. Optimization of the cooling towers' dynamic setpoint, based on outside temperature and humidity.
4. Optimization of the chilled water setpoint.
5. Identification and replacement of faulty valves.

The benefits

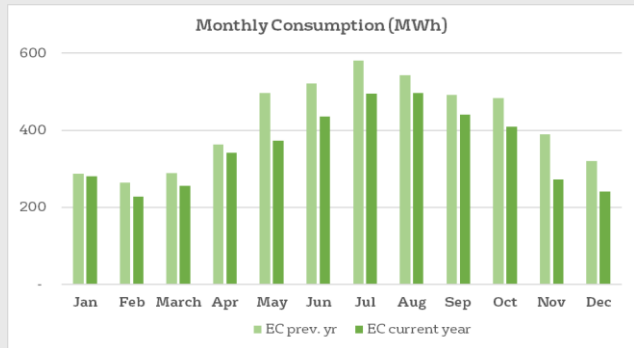
With the implementation of these energy conservation measures, along with a sound Operation & Maintenance regime, Enova has achieved more than 14% energy savings on the chiller plant, equivalent to circa AED 300,000 per year.

The mall management has full visibility on the results and the performance of on-site teams via its connection to Hubgrade.

14.4 %
in energy savings

AED 300,000
saved per year

AED 46,000
in capital
investment costs



Savings equivalents



12,922
tree seedlings
grown for 10 years



107
vehicles off the road
for one year



1,154
barrels of oil
consumption avoided