



## | 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

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 analyzing 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.
2. Implementation of a dynamically varying setpoint, based on weather conditions, to optimize cooling towers VFD operation.



Dubai, United Arab Emirates



### Contract

Date: 2016

Type: Energy &  
Facilities Management  
Sector: Retail

**24,500 sqm**  
Gross Leasable Area

**3**  
water-cooled chillers

**850 TR**  
capacity per chiller

**3**  
cooling towers

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.

## | 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.



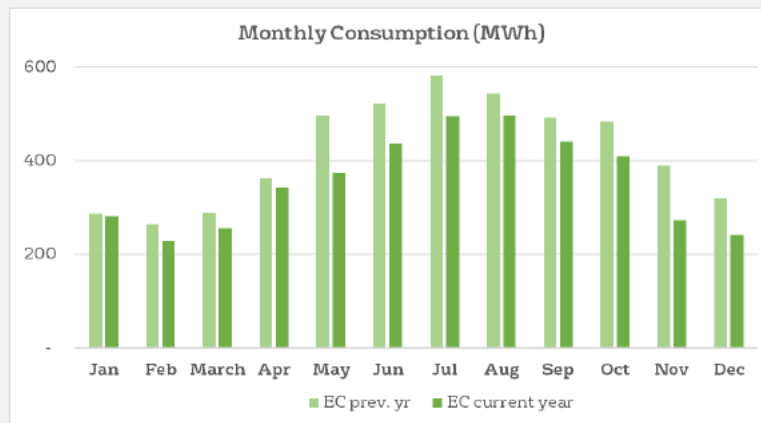
**14.4%**  
in energy savings



**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 taken off the  
road for one year



**1,154**

barrels of oil  
consumption avoided