

Ras Al Khaimah Municipality

Energy Performance Contract, United Arab Emirates

| The challenge

In 2018, the Energy Efficiency and Renewables Office of Ras Al Khaimah Municipality (RAK Municipality) launched the Ras Al Khaimah Energy Efficiency and Renewables Strategy 2040. This long-term strategy for sustainability targets respectively 30% and 20% energy and water savings along with the adoption of renewable energy sources to the extent of 20% of total energy sources by 2040.

The same year, RAK Municipality awarded the first Energy Performance Contract to Enova for the retrofit of four Municipality buildings.

| Enova's solution

In March 2018, Enova carried out a preliminary energy audit of the Municipality's main headquarters, two Health Department buildings - including a laboratory - and a slaughterhouse, to estimate the potential energy and water savings. Combined, the buildings occupy an area exceeding 10,000 sqm.

Once shortlisted, a detailed energy audit was conducted to define precisely the Energy Conservation Measures (ECMs) to be implemented and confirm the savings potential of the project. The ECMs identified focused on 5 aspects:

- Reducing the buildings' cooling load by optimizing the building envelope
- Improving the efficiency of existing AC equipment or replacing them with more efficient systems
- Scheduling AC equipment and control the indoor building temperature to guarantee the equipment's optimal operation
- Replacing conventional lighting with LED lights and installing occupancy sensors
- Reducing the entire site's water consumption by optimizing the water fixtures



Ras Al Khaimah, United Arab Emirates



Contract

Date: 2018

Type: EPC

Sector: Public

1st

Energy Performance Contract
in the Government of Ras Al Khaimah

10,000 sqm
combined area

31.3%
Guaranteed energy and water
savings

12
Energy Conservation Measures
implemented

Enova's complete turnkey solution includes the supply, implementation, testing and commissioning of the ECMs, the Measurement & Verification process to ensure the guaranteed savings are achieved, and the operation and maintenance of the retrofitted equipment during the guaranteed period.

| Benefits

The installation, testing and commissioning of the Energy Conservation Measures was successfully completed by March 2019. The Measurement & Verification is currently ongoing and delivered through Hubgrade, Enova's smart monitoring platform, located at our Head Office in Dubai.

The project will deliver guaranteed total savings of more than 4 gigawatt-hours of electricity over the contract duration and save more than 8 million imperial gallons of water.



**4,156,407 kWh
guaranteed
electricity savings**



**8,318,262 IG
guaranteed water
savings**



**3,309 tons of CO₂
emissions avoided**