

FACT SHEET:

IRENA HEADQUARTERS IN MASDAR CITY

The International Renewable Energy Agency (IRENA) moved to its new Masdar City headquarters in March 2015. The 32,000 m² complex consists of three interconnected buildings, which work together to conserve energy and water and create shared space.

The headquarters complex is a model of sustainable development in IRENA's host country, the United Arab Emirates. The new, permanent location enables IRENA to lead by example, operating from a building that is a symbol of environmentally conscious design and development and one of the most sustainable in the region.



BUILDING FACTS

- » A 1,000 m² solar photovoltaic rooftop system will produce 305,000 kWh of electricity annually. In addition, the solar hot water system will be equivalent to 27,850 kWh. Altogether, the renewable energy systems output of the building will cover more than 10% of the building energy demand.
- » The complex received Four Pearls, the highest rating from Estidama — a UAE certification system measuring energy, water and carbon efficiency. As the UAE's first Four Pearl structure, IRENA's HQ is one of the most advanced buildings in the country as well as one of the most sustainable of any international organisation worldwide.
- » Thanks to passive design and smart energy-management systems, the complex demands 42% less energy than global energy-efficiency standards and 64% less than typical buildings in Abu Dhabi.
- » The complex uses roughly 50% less water than typical buildings in Abu Dhabi.
- » Thanks to an efficient envelope, the building is twice as airtight as Estidama requires, reducing overall energy use.
- » Solar water heaters supply 75% of the building's hot water demand.
- » The air conditioning system recovers 75% of the energy released through air exhaust, using this to cool incoming fresh air.
- » Up to 95% of energy generated from lowering elevators is harnessed and reused throughout the building.
- » Building construction made use of Abu Dhabi's green supply chain, incorporating low-carbon, locally sourced, sustainable materials including recycled steel and recycled-content aluminum and cement.
- » Adjacent, shaded parking spaces include 26 charging stations for electric vehicles.