

## Energy transition readiness profile

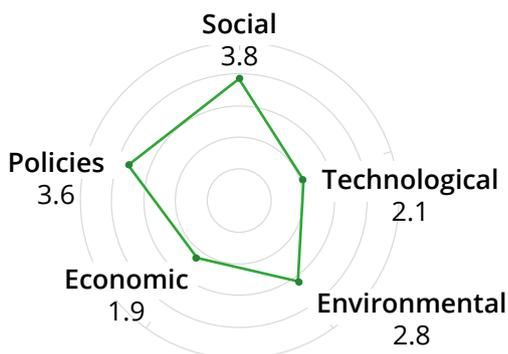
### Dubai | United Arab Emirates

Population 9.7m	Land area 71 ('000 sq.km)	Industrial sector 46.8 (% of GDP)	GDP per capita \$43,103
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#### KEY FOCUS AREAS

- + Integrate decarbonisation into planning process of new infrastructure.
- + Invest in upcoming tech such as H2 and CCS for oil & gas production.
- + Build more green public transport and encourage uptake of EVs.
- + Establish an enabling environment for energy transition-related PPP.

#### STEEP SCORE



#### STRENGTHS

- 1 The National Energy Strategy 2050, launched in 2017, aims to provide sustainable, efficient and renewable energy.
- 2 Higher solar potential and a significant increase in solar energy installed capacity in the last four years.
- 3 Presence of skilled talent in energy sector and its supply chain.

#### CHALLENGES

- 1 Major oil producer and exporter.
- 2 Intensive use of natural gas and petroleum for energy consumption across all sectors leading to high carbon emissions.
- 3 Reduced oil revenues owing to economic slowdown may hamper investment in energy transition and economic diversification projects.

#### TRANSITION SCOREBOARD

	<b>SOCIAL</b>	<ul style="list-style-type: none"> <li>Information flow</li> <li>Standard of living</li> <li>Energy access</li> </ul>
	<b>TECHNOLOGICAL</b>	<ul style="list-style-type: none"> <li>Innovation ability</li> <li>Smart grid</li> <li>Clean electricity capacity</li> </ul>
	<b>ENVIRONMENTAL</b>	<ul style="list-style-type: none"> <li>Air quality</li> <li>Renewable potential</li> <li>Climate impact</li> </ul>
	<b>ECONOMIC</b>	<ul style="list-style-type: none"> <li>Fossil fuel independence</li> <li>Green econ potential</li> <li>Financing capability</li> </ul>
	<b>POLICIES</b>	<ul style="list-style-type: none"> <li>Institutional quality</li> <li>Decarbonisation pledges</li> <li>Regulatory</li> </ul>



Dubai's Clean Energy Strategy, launched in 2015, aims to produce 75 per cent of its energy from clean sources by 2050. It focuses on five key aspects: infrastructure, legislation, funding, human resource capabilities and increasing the renewable share in energy mix. An AED 100 billion (EUR 22 billion) Dubai Green Fund provides low-interest loans to support clean energy projects. Dubai aims to advance the city's transition to clean energy on both the supply and demand sides. The key focus of the supply side is higher renewable energy generation and reduced power and water losses, and demand side

targets include a 30 per cent reduction in energy and water use by 2030 through efficiency and conservation programmes. Dubai's Roads and Transport Authority (RTA) aims for a zero-emission public transport system by 2050 that focuses on clean mobility, green infrastructure and circular economy. RTA plan includes an increase in electric and hydrogen-powered vehicles, an energy-efficient streetlight project due to be completed by 2035 and recycling its own waste. To achieve all this, Dubai will need to attract more foreign investment and encourage public-private partnerships.

### TECHNOLOGICAL

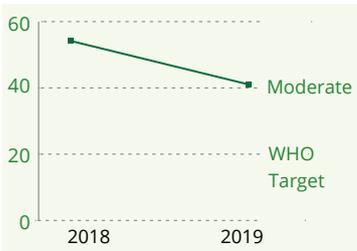


**9% Renewable energy share**  
(National avg. 0.3%)

- Dubai aims to reduce its dependence on natural gas and increase its renewable energy share through solar and nuclear power by 2030. Dubai's Clean Energy Strategy targets an energy mix comprised of solar (25%), nuclear (7%), clean coal (7%) and gas (61%).
- The city's Mohammed Bin Rashid Al Maktoum Solar Park will invest AED 50 billion (EUR 11 billion) in 5GW of installed capacity by 2030. Yet, to meet the Clean Energy Strategy 2050 targets, the city will need 42GW of renewable energy. The planned hydroelectric power station at Hatta will use specialised turbines powered by solar energy from the city's Solar Park. In May 2021, DEWA in partnership with Siemens Energy launched a green hydrogen production unit at the solar park.
- Dubai will have the Arab Gulf's first coal-fired power plant, due to start in 2023. Funded in part by China, and by the Dubai government, the Hassyan plant will start at 600MW and increase to 2.4GW.

### ENVIRONMENTAL

Air pollution: **PM2.5**



- Dubai Municipality launched Dubai Air Quality Strategy 2017-2021 that aims to reduce air emissions and achieve national air quality target of 90 per cent clean air days by 2021. The Municipality also launched smart air quality stations to monitor air pollution.
- The Strategy is a collaboration between government and private sectors to reduce air emissions. DEWA reduced its emissions by installing emission-reduction technologies in the power plants, improving equipment efficiency, increasing solar power plant capacity and launching an energy and water saving programme. Industrial facilities are being retrofitted with low-emission technologies and petrol stations installed vapor recovery systems.
- In 2019 Dubai pledged to C40 Clean Air Cities Declaration to implement substantive clean air policies by 2025 to identify and tackle key sources of air pollution.

### ECONOMIC



**Green trade score**

**10/100**



**Green employment score**

**56.2/100**

- The city's transition to green energy paves the opportunity for green jobs. Dubai aims to build human resources capabilities through global training programmes in the field of clean energy in cooperation with international organisations and institutes such as International Renewable Energy Agency (IRENA).
- Dubai's green economy is supported by its goals to create a more efficient and seamless environment, through the introduction of public Wi-Fi and electric car charging stations, as well as smart parking, live traffic monitoring and smart power grids, and the roll out of blockchain in business ledgers, billing and consumption services.
- Dubai is a member of UN's Climate Ambition Alliance: Net Zero 2050 initiative, launched in 2020. Moreover, UAE could become the first petrostate to announce its 2050 net-zero target by 2021.

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