

HEADLINES:

Renewable energy goals fuel Oman's new wave of investments

TEASER:

The country is navigating the road to net zero, with new projects aimed at boosting clean energy targets and reducing greenhouse gas emissions.

Oman made major strides in the latest Regulatory Indicators for Sustainable Energy (RISE) ranking, which is affiliated with the World Bank.

The Sultanate was ranked first in [RISE](#) among Gulf Co-operation Council (GCC) and Middle East and North Africa (MENA) states, and sixth globally. RISE scores reflect a snapshot of a country's policies and regulations in the energy sector, organised by the three pillars of sustainable energy. In the General Level of Sustainable Energy Regulation index, Oman secured the second spot among GCC states, fifth among MENA countries, and 38th at the global level. The index covers 140 countries.

"The Authority for Public Services Regulation said that one of the most important factors that contributed to Oman's accessing these high rankings is the attention that the government and relevant authorities accorded to developing sustainable energy spheres and providing necessary enablers through approved plans to implement the transition to alternative energy and diversify its sources," according to the [Oman News Agency](#).

Market liberalisation (through bilateral sales and spot market), adopting a national strategy for an orderly transition to zero neutrality (in carbon emissions), and establishing the Oman Sustainability Centre all helped boost Oman's performance in the ranking.

POWERING SEZAD

While regulatory efficiencies improve, the Sultanate is also boosting its electricity capacity in key industrial areas. The Special Economic Zone at Duqm (SEZAD) is quickly emerging as a renewable energy hub in Oman. Duqm has allocated 250 square kilometres (sq km) for solar and wind farms, which will produce green hydrogen and green ammonia. The projects will be for domestic use and exports with two licences already granted. One of the projects is at the stage of implementing an initial 300-megawatt (MW) plant while the other is at the stage of detailed studies for a much larger capacity, according to [Dr Ali Masoud al Sunaidy](#), chairman of Public Authority for Special Economic Zones and Free Zones.

Green Hydrogen and Chemicals Company (GHC), a joint venture between the UK unit of Indian renewable energy company ACME Group and Norway-based Scatec ASA, is developing Oman's first

green energy venture in SEZAD. Phase 1 targets the production of 100,000 metric tonnes per annum of green ammonia, with output anticipated to grow 12-fold to around 1.2 million metric tonnes annually in the second phase.

“We are now revisiting the master plan to create large enough new corridors throughout the SEZ at Duqm that will allow the transport of electricity (electrons) into the city, and vice versa pipe corridors that will allow the flexibility of transferring green hydrogen (molecules) if produced at the concession areas around Duqm,” [Dr Sunaidy](#) said, adding that this green hydrogen can also be brought into the industrial zone near the Port area for local industrial consumption or to be converted into green ammonia for export.

Another project aims to cut greenhouse gas (GHG) emissions by 53,000 tonnes per year. The Petroleum Development Oman launched the OMR 87 million Rima Water Treatment Plant, which uses natural technology and green solutions to preserve the environment.

Spread across a 25 sq km area, Rima Water Treatment Plant uses a gravitational oil and water separation and natural biological treatment process, an emerging breakthrough technology that is the first of its kind to be used in Oman. Apart from reducing Oman’s carbon footprint, it also creates a desert oasis for local wildlife.

Prior to the project’s launch, 60% of the associated water produced at Rima was used for water flooding to maximise recovery, with the remaining 40% being pumped into a deep reservoir in an expensive and energy-intensive operation.

“This has now been replaced by a more environmentally friendly and sustainable solution, capable of processing up to 65,000 cubic metres of associated water a day and reducing high-energy consumption by 10 MW,” the company said.

CAPACITY EXPANSION

Oman is also expanding its electricity capacity in SEZAD. The Centralized Utilities Company ([Marafiq](#)), a company owned by the OQ Group, has boosted power production at SEZAD with the launch of a new gas-powered power plant, in collaboration with Rural Areas Electricity Company (Tanweer).

The new gas-powered plant is crucial to meeting the rising demand for electricity in the Zone, especially with rapid population and development growth. The gas-powered plant consists of four mobile gas turbines with a production capacity of 80 MW, which is sufficient to meet Tanweer’s power requirement in covering the needs of the Special Economic Zone at Duqm over the next five years, Al Farsi added.

The project will also help cut GHG emissions as it will replace diesel power production, which reduces annual emissions of carbon dioxide to 90,000 tonnes, equivalent to the emissions of about 20,000 cars.

“(Marafiq) carried out last year the soft commissioning of the Integrated Power and Water Plant that

supplies power and water to [Duqm Refinery](#) and Oman Tank Terminal Company (OTTCO). In addition, the Company, through its potable water production plant, provided 9,000 cubic metres of potable water per day for residential and commercial purposes,” said Eng. Abdullah Saif Al Farsi, director general of Operations and Maintenance at Marafiq.

(END)