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The Rural Areas Electricity Company (Tanweer) -- member of Nama Group -- hopes to award contracts before the end of this year for the development of around 200 megawatts (MW) of solar and diesel based hybrid power capacity to meet the growing electricity requirements of Omani communities that fall outside of the coverage of the nation"s two main grids.

According to Tanweer CEO Saleh Nasser al Rumhi (pictured), as many as 11 hybrid projects, offering up to 200 MW of combined solar and diesel capacity, are envisioned for implementation at key locations across the company"s sprawling and geographically diverse licence area.

"We are currently finalising a Request for Proposals (RfP) inviting interested developers to submit detailed proposals for these 11 hybrid projects. Hopefully, by the end of this year, we will award contracts for Power Purchase Agreements (PPA) with the successful bidders," he stated.

Speaking at the annual media briefing hosted by Nama Group earlier this week, Al Rumhi noted that developer interest in Tanweer"s hybridisation programme is expected to be strong. As many as 95 local and international firms had responded to an Expression of Interest (EoI) issued by the company seeking to assess the strength of investor interest in the programme.

Almost all of RAECO"s electricity output comes from diesel-based generation -- a trend that the company is looking to change to either 100 per cent renewables based small-scale capacity or a combination of solar photovoltaic and conventional diesel-power hybrids.

Of the 11 sites identified by Tanweer for the establishment of hybrid power plants, five are located in Dhofar Governorate, two in Al Wusta, two in South Al Sharqiyah, and one each in Al Dhahirah and Musandam governorates.

While solar will account for around 80 MW of the 200 MW hybrid capacity planned for development under the programme, the rest will be based on diesel-power generation. Significantly, Tanweer is also studying the potential for Compressed Natural Gas (CNG) -- a cost-competitive and low-carbon alternative to diesel -- in the hybrid schemes in the future. Opportunities for energy storage will be explored as well, according to the official.

Tanweer says its pursuit of renewables is inspired by the success of its maiden hybrid project -- a 307kW Solar PV plant that came into operation at Al Mazyona in Dhofar Governorate in 2015. The facility, operated by Bahwan Astonfield Solar Energy Company, was built with an investment of around $1 million.

Global endeavours towards achieving sustainable development and ecological balance necessitate a focus on

utilising renewable energy sources, such as solar and wind energy, to produce and store electrical power. This drive is one of the main factors associated with the establishment of a hybrid power plant by the Sustainable Energy Research Centre at Sultan Qaboos University (SQU).

According to a statement, the station is considered an important project as it seeks to conduct experiments related to energy security and efficiency, while also minimising costs and reducing environmentally harmful emissions.

"The hybrid power plant is equipped with state-of-the-art equipment and devices, including a smart micro-grid system, electrochemical hydrogen fuel cells that operate through a methanol fuel reformer, and a deionised water system, in addition to providing cutting-edge laboratories for electrochemical experimentations and a methanol storage room," read the statement.

The plant also includes a diesel generator, a wind turbine, and both ground-mounted and rooftop photovoltaic systems, while continuing efforts are being made to ensure the plant has the necessary equipment to achieve its primary objectives.