

## Saudi Arabia's Renewable Energy Sector in a Glance

The National Renewable Energy Program (NREP) is a strategic initiative under H.M. Custodian of the Two Holy Mosques King Salman bin Abdul Aziz which aims to serve the goals of Vision 2030 and the National Transition Program 2020 by maximizing the potential of renewable energy in the Kingdom.

To meet the goals of NREP, The Renewable Energy Project Development Office (REPDO) within the Ministry of Energy (formerly Ministry of Energy, Industry and Mineral Resources) was established in 2017 with the goal of producing 30 percent of the Kingdom's allocated renewable energy pipeline. This includes 9.5GW of renewable energy by 2023 and 58GW over the next decade, with 40GW of that development going to solar photovoltaic (PV) assets, and the remaining allocated for wind energy and concentrated solar power. REPDO works in collaboration with the Kingdom's energy sector stakeholders including the King Abdallah City for Atomic and Renewable Energy (KACARE), The Electricity and Co-Generation Regulatory Authority (ECRA), and the Saudi Electricity Company (SEC). The Kingdom's Public Investment Fund (PIF) was tasked with managing the remaining 70 percent of the Kingdom's allocated renewable energy pipeline, amounting to an estimated 200GW.

As part of Round One of the National Renewable Energy Program, REPDO awarded its first 300MW Independent Power Project (IPP) solar PV project in Sakaka in 2018 to renewable energy developer ACWA Power through a 25-year Power Purchase Agreement of 2.342 cents/kWh with the Saudi Power Procurement Company (SPPC). Located in the city of Al Jouf, the project generated a private sector capital investment of \$302 million leading to the creation of more than 400 clean energy jobs. Subsequently, California-based NEXTracker partnered with ACWA Power to supply the project with its advanced single-axis tracker technology and its advanced data connectivity technology.

In January of 2019, REPDO awarded the Kingdom's first utility-scale wind power project, *Dumat Al Jandal onshore wind farm project*, to a consortium led by EDF Energies Nouvelles and Abu Dhabi Future Energy Company (Masdar). The \$500 million project was awarded based on the levelized cost of energy of \$1.99 cents/kWh, registering a new record-low price for a project of this type in Europe, Middle East and Africa. When completed, the wind farm will have an installed capacity of 400MW, enough to power up to 70,000 Saudi households and is expected to create almost 1,000 jobs during construction and operation. The project, which will be financed by Saudi and international banks, will commence commercial operations in the first quarter of 2022.

In March of 2019, the Ministry of Energy announced the Kingdom's plans to build a 2,600MW solar project in the holy city of Makkah. A contract for 600MW will be tendered in 2019 with the project set to be developed in two phases. The initial phase will be developed after a bidding process through the ministry and the remainder will be developed by the Public Investment Fund (PIF) and its partners.

Recently, REPDO issued RFPs for Round Two of the Kingdom's National Renewable Energy Program. Smaller projects were grouped into category A and larger projects into category B.

- Category A projects are: Medina solar PV IPP (50MW); Rafha solar PV IPP (45MW); Mahd al-Dahab solar PV IPP (20MW).

- Category B projects are: Qurayyat solar PV independent power project IPP (200MW); Al-Faisaliah solar PV IPP (600MW); Rabigh solar PV IPP (300MW); Jeddah solar PV IPP (300MW).

Qualified companies from both categories will proceed as either managing members, technical members, or under a newly created category of 'local managing members'. This new category will encourage greater local and international partnerships during the forming of bidding consortiums. Category A projects require consortium members to partner with at least one local managing member. Furthermore, projects within Round Two will carry a minimum requirement of 17 percent local content as calculated by the mechanisms defined by the Local Content & Government Procurement Authority (LCGPA), which aims to increase the value-added contribution of products and services in the national economy.

While all the projects will be procured along broadly similar lines, they have been split into two groups for financing requirements. For category A projects, the IPPs will be financed through "corporate finance procured on the balance sheets of the successful bidders' consortium members and/or through the raising of limited or non-recourse debt facilities". For the remaining four category B schemes, the IPPs will be financed through the raising of limited or non-recourse debt facilities. Each project will be developed under a build, own and operate model, with the winning bidder for each project to sign a 25-year power-purchase agreement with the Kingdom's off taker. The successful bidding group will form a special purpose vehicle to operate each plant and will own 100 per cent of the asset.

The projects being tendered within Round Two represent the first half of REPDO's 2019 project development pipeline. A further six projects will be tendered by the last quarter of the year and will constitute Round Three of the NREP.

With these projects, NREP has primarily focused on promoting the localization of content.

***Short-term localization targets include the following:***

**Solar**

- Inverter Assembly
- Module

**Wind**

- Rotor Blades
- Nacelle Electrical
- Hub Assembly
- Rotor Blades

***Medium-term localization targets include the following:***

**Solar**

- Cells

**Wind**

- Nacelle Housing

***Long-term localization targets include the following:***

**Solar**

- Polysilicon
- Wafer

**Wind**

- Drivetrain Gearbox
- Drivetrain Others: Rotor bearings, break system and main shaft
- Nacelle Electrical: Power converter, transformers, fiber-optic cables

*Additionally, the Kingdom offers the following incentives for foreign investors into the Kingdom's renewable energy market:*

**Duty Exemption:** Exempts manufacturers with an industrial license from the duty on raw material and finished products not produced domestically.

**Low Land Rate:** Provides manufacturers with plot spaces with the required basic infrastructure for a low price of \$0.8 cent/square meter.

**Favorable Loan Terms:** Offers 12-year loan financing at up to 75% of CAPEX with upfront fees of 6-8% & semi-annual fees of 1.5-2.5% of outstanding amounts.

**Training and Salary Grants\*:** For Saudi hires only.