Ease of doing Solar classification

Achiever

Electricity Consumption in kWh/capita (2020) | Average PVout in kWh/kwp/day (2020) | Cumulative Solar Capacity in MW (2021)
6761.1 | 5.2 | 137.6

Getting Electricity Score (2020) | NDC Target by 2030 in % | Human Development Index (2021)
87.1 | 7.0 | 0.8

Renewable Energy Generation by Source

2015
2016
2017
2018
2019
2020

211.5

Performance against 7 Drivers

Energy Imperatives
Technological Feasibility
Macroconomy
Financing
Policy Enablers
Market Maturity
Infrastructure

CO₂ Emissions vs Electricity share from Renewables

Investment or production tax credits?
No

Public investment, loans, grants, capital subsidies or rebates?
No

Fiscal Incentives & Public Financing for Renewables (2020)

Support for Renewables (2020)

Feed-in-Tariffs for renewable energy supply to the grid?
No

Net metering/Gross metering policies and regulations?
No

Renewable Energy Certificates?
No

Renewable Purchase Obligation?
No
Country's regional performance and characteristics

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100.0% | 0.04% | 102.3%
93.2% | 2.5% | 47.3%
100.0% | 13.4% | 109.9%

Areas of Strength
Macroeconomy
Technological Feasibility

Areas of Improvement
Energy Imperatives
Financing

Key Insights

Drivers | Insights
--- | ---
Macro-economy
Policy enablers

- The Sultanate of Oman is a high-income status country with GDP per capita (PPP) of USD 37,676. Oil and gas sector is the dominant contributor to the economy.  
- Due to COVID-19 pandemic, the GDP (Real) had declined by 2.8% in 2020, but the economy has bounced back by growing at 2% in 2021.  
- In 2021, agriculture contributed 2.38% to the GDP while 52.2% share came from the industry and 50.67% from the service sector.  

Policy enablers

- The country is determined to reduce their absolute GHG emissions by 7% relative to a business-as-usual (BAU) scenario by 2030.  
- The country is planning to expand its electricity-generation capacities through RE independent power projects (IPP) and has planned to derive at least 30% of electricity from RE by 2030.  
- SAHIM is a renewable initiative taken up by Oman’s Authority of Public Services Regulation.  

Technological Feasibility

- Oman receives high levels of solar irradiation (GHI) of 6.3 kWh/m²/day and specific yield of 5.2 kWh/kWp/day indicating a strong technical feasibility for solar in the country.  
- Oman’s energy supply is entirely generated by nationally produced natural gas and oil products.  
- Oman’s state-owned Rural Electricity Company (Tanweer) tendered 11 solar-diesel-storage hybrid projects (in 2019) with a combined capacity of 146 MW for non-interconnected areas.  

Market Maturity

- The Authority for Electricity Regulation Oman is responsible for regulating the electricity and related water sector in Oman.  
- The Oman Power and Water Procurement Company (OPWP) is the sole buyer of power and water for all IPP/IWPP projects within Oman.  
- Muscat Electric Distribution Company SAOC, Majan Electric Company SAOC, Mazoon Electric Company SAOC and Dhofar Energy Company are the electricity distribution companies operating in Oman.  

Infrastructure

- The Oman Electricity Transmission Company SAOC (OETC) owns and operates the 132 kV, 220 kV and 400 kV interconnected transmission systems.  
- The transmission grid network of Dhofar operates at 132 kV level with 8 grid stations and 520 km length of power circuit lines.  
- The transmission system is interconnected with the transmission system of UAE (Abu Dhabi Transco) at Mahdah (Al Wasil) grid station through a 220kV interconnector.  
- Oman has achieved 99.99% of network reliability with an interruption time of 0.95 min.  

Financing

- The Asian Infrastructure Investment Bank (AIIB) approved a USD 60 Mn loan to increase Oman’s renewable power generation capacity and reduce the country’s dependence on gas and other fossil fuels for electricity generation.  
- AIIB has approved financing of up to USD 60 Mn for the Ibrib 500 MW Solar PV Independent Power Plant Project.  

Energy Imperatives

- In 2020, the per capita electricity consumption stood at 6.76 MWh, which is almost twice in comparison to the global average of 3.31 MWh.  
- The total installed capacity of Solar PV witnessed a CAGR of 102.3% between 2017-2021 reaching to 137.59 MW in 2021 from 8.2 MW levels in 2017.  
- The demand of electricity in Oman in 2021 stood at 34.21 TWh with no change observed from the 2020 levels.  
- Oman is dominated by gas based thermal power station comprising 99.2% and rest 0.88 % is from renewables.