Equatorial Guinea

Ease of doing Solar classification

<table>
<thead>
<tr>
<th>Potential</th>
<th>Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity Consumption</td>
<td></td>
</tr>
<tr>
<td>in kWh/capita (2020)</td>
<td>805.4</td>
</tr>
<tr>
<td>Average PVOut in kWh/kWp/day (2020)</td>
<td>3.7</td>
</tr>
<tr>
<td>Cumulative Solar Capacity in MW (2021)</td>
<td>0.1</td>
</tr>
<tr>
<td>Getting Electricity Score (2020)</td>
<td>54.3</td>
</tr>
<tr>
<td>NDC Target by 2030 in % (base year 2019)</td>
<td>35.0</td>
</tr>
<tr>
<td>Human Development Index (2021)</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Renewable Energy Generation by Source

<table>
<thead>
<tr>
<th>Year</th>
<th>Non Solar (GWh)</th>
<th>Solar (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>127.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2016</td>
<td>127.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2017</td>
<td>127.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2018</td>
<td>127.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2019</td>
<td>127.0</td>
<td>0.0</td>
</tr>
<tr>
<td>2020</td>
<td>127.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Non Solar RE includes Wind and Hydro;

CO₂ Emissions vs Electricity share from Renewables

<table>
<thead>
<tr>
<th>Year</th>
<th>CO₂ Emissions (tonnes per capita)</th>
<th>Share of Electricity from Renewables (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>36.2</td>
<td>5.2</td>
</tr>
<tr>
<td>2017</td>
<td>34.6</td>
<td>5.4</td>
</tr>
<tr>
<td>2018</td>
<td>32.8</td>
<td>4.0</td>
</tr>
<tr>
<td>2019</td>
<td>32.1</td>
<td>3.0</td>
</tr>
<tr>
<td>2020</td>
<td>34.8</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Fiscal Incentives & Public Financing for Renewables (2020)

- Investment or production tax credits?
  - No
- Public investment, loans, grants, capital subsidies or rebates?
  - No

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

Non-Solar RE: Wind, Hydro, Biomass, Geothermal & Marine;
Non-RE: Coal, Natural Gas, Nuclear, Oil, etc.;
Other Solar: Utility Scale Solar, Rooftop etc.;
Data not available for other Solar RE segments;
Country's regional performance and characteristics

Access to Electricity (2020)
- 66.7%
- 55.0%
- 91.6%

Share of Solar in Generation Mix (2019)
- 0.0%
- 0.2%
- 0.5%

Solar Capacity CAGR (2017-2021)
- 0.0%
- 0.0%
- 15.0%
- 43.2%

Areas of Strength
- Market Maturity
- Technological Feasibility

Areas of Improvement
- Energy Imperatives
- Financing

Key Insights

Drivers | Insights
--- | ---
Macro-economy
- Equatorial Guinea is an upper middle-income country with GDP per capita (PPP) of USD 16,080 in 2021.
- GDP (Real) declined at an annual rate of 3.5% in 2021, however, it is estimated to increase by 6.1% in 2022.
- Inflation rate in the country declined to 2.1% in 2021 from 4.8% levels in 2020.
- The budget deficit in the country reduced to 1% of GDP in 2021 from 1.7% levels in 2020.

Policy enablers
- The National Investment Plan REDD+ 2020 proposes a green economy model that aims to protect the forest and contribute to sustainable development in the country.
- Ministry of Mines, Industry and Energy (MMIE) is responsible for framing policies related to generation, transmission, and distribution of electricity.
- Equatorial Guinea has developed plans to ensure national resource management compatible with economic development.

Technological Feasibility
- Equatorial Guinea receives moderate levels of solar irradiation of 4.3 kWh/m²/day and specific yield of 3.7 kWh/kWp/day indicating a moderate technical feasibility for solar in the country.
- Equatorial Guinea has installed a self-sufficient solar microgrid system with 5 MW solar modules for a reliable power supply in the country.

Market Maturity
- As of 2020, 66.7% population in Equatorial Guinea had access to electricity.
- Electricity Energy Regulatory Agency is the energy regulator in the country.
- The Electricity sector is managed by Electricity Company of Equatorial Guinea (SEGESA) having several subsidiaries-SEGESA Generation, SEGESA Transmission and SEGESA Commercial.
- On a regional level, the country is a member of the Central Africa Power Pool.

Infrastructure
- SEGESA operates the country's two electricity transmission networks, which comprise approximately 80 miles of high voltage lines.
- The project 'Sustainable Energy for All' focuses on increasing reliability in power supply in regions where hydropower technologies will be located and increasing availability where the grid cannot be extended.

Financing
- In Equatorial Guinea, the World Bank has shown keen interest in providing financial support across agriculture, law, health, mining, and energy.
- In Equatorial Guinea, the UNDP has shown keen interest in promoting small-scale hydropower in Bioko and other clean energy solutions for remote islands.

Energy Imperatives
- The total installed capacity in the country stood at 553.8 MW as of 2019.
- In 2020, the per capita electricity consumption stood at 0.81 MWh which is significantly lower in comparison to the global average of 3.31 MWh.
- The price of electricity in the country was 17 US Cents/kWh as of 2019.