### Zambia

**Ease of doing Solar classification**

<table>
<thead>
<tr>
<th>Influencer</th>
<th>Electricity Consumption in kWh/capita (2020)</th>
<th>Average PVout in kWh/kwp/day (2020)</th>
<th>Cumulative Solar Capacity in MW (2021)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>869.2</td>
<td>4.8</td>
<td>96.4</td>
</tr>
</tbody>
</table>

**Getting Electricity Score (2020)**

- 62.1

**NDC Target by 2030 in % (base year 2010)**

- 25.0

**Human Development Index (2021)**

- 0.6

### 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>13037.2</td>
<td>0.1</td>
</tr>
<tr>
<td>2016</td>
<td>11026.6</td>
<td>0.2</td>
</tr>
<tr>
<td>2017</td>
<td>12472.9</td>
<td>0.2</td>
</tr>
<tr>
<td>2018</td>
<td>13695.6</td>
<td>1.3</td>
</tr>
<tr>
<td>2019</td>
<td>12334.6</td>
<td>14.3</td>
</tr>
<tr>
<td>2020</td>
<td>12795.0</td>
<td>163.1</td>
</tr>
</tbody>
</table>

*Non Solar RE includes Wind and Hydro;*

### Performance against 7 Drivers

- Market Maturity
- Technological Feasibility
- Financing
- Infrastructure
- Policy Enablers
- Energy Imperatives
- Macroeconomy

### 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>0.3</td>
<td>87.5</td>
</tr>
<tr>
<td>2017</td>
<td>0.3</td>
<td>86.1</td>
</tr>
<tr>
<td>2018</td>
<td>0.4</td>
<td>86.0</td>
</tr>
<tr>
<td>2019</td>
<td>0.4</td>
<td>86.0</td>
</tr>
<tr>
<td>2020</td>
<td>0.4</td>
<td>86.0</td>
</tr>
</tbody>
</table>

### International Finance received for Clean Energy (Million US Dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,791.2</td>
<td>109.5</td>
<td>170.3</td>
<td>54.1</td>
<td>78.6</td>
</tr>
</tbody>
</table>

### Installed Capacity by Source (2019)

- Total Installed Capacity (MW): 2,981.3
  - Non-Solar RE: 2,441.8
  - Non-RE: 443.1
  - Solar RE: 96.4

### Support for Renewables (2020)

- Feed-in-Tariffs for renewable energy supply to the grid? **Yes**
- 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

Drivers

- Zambia is a lower middle-income country with a GDP per capita (PPP) of USD 3,556 in 2021.
- GDP (Real) grew at an annual rate of 4.3% in 2021 and it is estimated to grow by another 3.1% in 2022.
- The inflation rate in the country increased to 22.1% in 2021 from 15.7% levels in 2020.
- The fiscal deficit narrowed down from 13.2% in 2020 to 8.4% levels in 2021 despite a surge in COVID-19-related spending and revenue shortfalls.

Insights

- The Ministry of Energy is responsible for framing energy policies and development of renewable energy sources in Zambia.
- Ministry of Green Economy and Environment is responsible for formulating and reviewing policies that promote investment towards low carbon, resource-efficient, and socially inclusive interventions.
- The National Energy Policy 2019 aims for an optimal energy resource utilization to meet Zambia’s domestic and non-domestic needs at the lowest cost and to establish Zambia as a net exporter of energy.
- Zambia receives very high levels of solar irradiation of 5.9 kWh/m²/day and a specific yield of 4.8 kWh/kWp/day indicating a very strong technical feasibility for solar in the country.
- The UN Environment program is currently active in Zambia and is working on the introduction of electric light duty vehicles.
- 44.5% population in Zambia had access to electricity as of 2020.
- ZESCO Limited is a vertically integrated electricity utility responsible for the generation, transmission, and distribution of electricity in Zambia.
- The Energy Regulation Board (ERB) is a statutory body responsible for regulating the energy sector in Zambia.
- Zambia is a member of the Southern African Power Pool (SAPP), which aims to be a fully integrated, competitive energy market and a provider of sustainable energy solutions in the region.
- ZESCO consists of 56,000 km of distribution network with 3,779 km of 66 kV, 8,922 km of 33 kV, 23,667 km of 11 V, and 19,713 km of 400 V.
- ‘Tanzania – Zambia Interconnector project’ links the Tanzanian grid to Zambia’s grid and includes a 620 km of 400 kV double circuit transmission line.
- The Distribution and Customer Services Directorate of Zambia aims at providing continuous and reliable service to over one million customers providing a 24/7 platform for the customer to report faults and other non-fault-related complaints.
- The AfDB-GCF framework includes technical assistance which seeks to support the Government of Zambia in its efforts to catalyze private investment for small-scale RE projects.
- The Government of Zambia received financing from the AfDB through the Sustainable Energy Fund for Africa (SEFA) and the Green Climate Fund (GCF) towards the RE Financing Framework.
- In 2018, the AfDB approved a USD 50 Mn for financing small-scale RE projects in Zambia to diversify Zambia’s energy generation which is heavily reliant on hydroelectricity.
- In 2020, Zambia’s per capita electricity consumption stood at 0.87 MWh, which is significantly lower in comparison to the global average of 3.31 MWh.
- The total installed capacity in the country stood at 2,981.3 MW in 2019.
- The total installed capacity of Solar PV witnessed a CAGR of 465.9% between 2017-2021 reaching 96.424 MW in 2021 from 0.094 MW levels in 2017.
- The price of electricity in the country stood at 4.70 US Cents/kWh in 2019.