Invest in Energy in Sierra Leone

Sierra Leone has attracted world class companies in the renewable energy sector including:
Sierra Leone has good access to natural resources necessary for energy production such as access to viable wind speeds and sunshine for renewable wind and solar projects. The country is also well positioned to support hydro-electric power with high rainfall levels at 2500mm/year.

Global renewable energy capacity grew by more than 45% in 2020 led by a massive 90% increase in wind capacity.  
Sierra Leone has adopted a new energy strategy to support the necessary demand for electricity.

Access to electricity is at 15% in Sierra Leone, providing a largely untapped opportunity.

Sierra Leone offers investment opportunities in several segments of the energy industry including wind energy, solar energy, hydro and bioenergy.

Sierra Leone is also seeking infrastructure investment to support hydro-electric power with high rainfall levels at 2500mm/year.

Several steps have been taken to improve the country's energy infrastructure network. In 2020, Sierra Leone completed energy interconnection with Côte d'Ivoire, Liberia and Guinea, with more to follow, giving access to the West Africa Power Pool.

Sierra Leone offers a vibrant and eager workforce, expected to reach over 3 million persons by 2024.

Sierra Leone is also very cost-effective, having some of the lowest costs of labour when compared to other West African locations.

Sierra Leone is very cost-effective, having some of the lowest costs of labour when compared to other West African locations.

Sierra Leone has strong macro-economic fundamentals and its economy is expected to rebound strongly post-COVID.

Sierra Leone is one of the most peaceful and politically stable countries in Africa.
Reason 1: Strong market demand for energy

Global Outlook

The global renewable energy market capacity witnessed a 45% growth in 2020, led by a massive 90% growth in wind capacity and 23% growth in solar.\(^1\)

Renewable energy is expected to account for 90% of total global power capacity increases in both 2021 and 2022.\(^1\)

Promising outlook for Sierra Leone

Only
\[
\begin{align*}
15\% & \quad \text{of total population} \\
\end{align*}
\]

and about
\[
\begin{align*}
2.5\% & \quad \text{of rural population} \\
\end{align*}
\]

currently have access to electricity.\(^2\)

Sierra Leone seeks to increase installed capacity from the current 100MW to 350MW by 2023, to meet both domestic demand, and for export within the subregion.\(^2\)

Electricity generation presents an opportunity for investors as independent power producers to the Electricity Distribution and Supply Authority for commercial and residential consumption.\(^2\)

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1 IEA, Global renewable energy market update report, 2020 – link
2 ITA, Sierra Leone Country Commercial Guide, 2021 – link
Reason 2: Diverse Sector Opportunities

01 Wind energy

Wind farms are possible at certain locations including along the coastline, offshore and at some mountainous locations in the country.

With low wind speed turbines there is now greater opportunity to supply rural areas, particularly in the North.

02 Solar Energy

Approximately 1460 kWh/m of solar radiation can be expected annually in Sierra Leone.

Electrification opportunities exist for increasing network interconnections, generation projects and mini-grid development.

03 Hydropower

Hydropower is a major energy source that could be exploited for electricity generation, with some of the high rainfall rates globally at 2500 mm/yr.

The government is seeking feasibility studies to be developed for approximately 6 hydropower projects.

04 Bioenergy

Biomass is the largest energy source in Sierra Leone.

Considerable potential to produce bio-fuels from energy crops such as maize and cassava.

Energy production from municipal waste including biogas projects as well as methane gas from landfills.

05 Energy Transmission & Distribution

Improving energy infrastructure is a long-term objective of the new energy strategy.

Including developing the rural backbone grid to connect the remaining non-electrified major localities, off grid supply and distributed energy options for smaller and scattered dwellings.

Reason 3: Natural Resources for Energy Production

Solar Irradiation
Average daily solar irradiation in Sierra Leone against other African locations in kilowatts per square metre, 2021.

<table>
<thead>
<tr>
<th>Location</th>
<th>Solar Irradiation (kW/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabon</td>
<td>3.9</td>
</tr>
<tr>
<td>Liberia</td>
<td>4.2</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>4.3</td>
</tr>
<tr>
<td>The Gambia</td>
<td>4.6</td>
</tr>
<tr>
<td>Kenya</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Source: Global Solar Atlas, 2021

Wind Power
Average wind speed in Sierra Leone against other African locations in metres per second, 2021.

<table>
<thead>
<tr>
<th>Location</th>
<th>Wind Speed (m/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabon</td>
<td>4.1</td>
</tr>
<tr>
<td>Liberia</td>
<td>4.3</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>4.5</td>
</tr>
<tr>
<td>The Gambia</td>
<td>4.5</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Source: Global Wind Atlas, 2021 (data shown is an average of speeds recorded onshore and up to 200km offshore)
The official public road network totals about **11,000km** (8,000km classified in the National Road System and approximately 3,000km of local networks and unclassified roads and tracks.)

The Port of Freetown, with the Queen Elizabeth II Quay, is the country’s most important gateway for trade and commerce.

Current electricity capacity is at 15%, with an estimated demand of **1,500MW**.

The ambition of Sierra Leone is to meet demand through expansion of **production**, **transmission** and **distribution** infrastructure.

The Port of Freetown, with the Queen Elizabeth II Quay, is the country’s most important gateway for trade and commerce.

There are two smaller ports in **Nitti**, used exclusively for the export of **Rutile and bauxite**; and the **Pepel port**, used for the export of **iron ore**.

Source: Wavteq based on SLIEPA
Reason 5: Skilled and Cost-Effective Workforce

Sierra Leone is expected to have a forecasted labor force of **3m** persons by 2024. 1

Sierra Leone has approximately **1.3m** students in secondary education and **660,000** students in Tertiary education. 2

The minimum monthly wage rate was changed in 2014 to **500,000 Sierra Leonean Leones** per month or **USD $48** as of 2021.

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1: International Labour Organization: ILOSTAT Database, 2020 – [link](#)
2: UNESCO, Institute for Statistics, 2021 - [link](#)
Reason 5: Skilled and Cost-Effective Workforce—
Sierra Leone is highly competitive in salaries among its African peers

Sierra Leone is between 50-70% more cost effective than its peers in professions such as wind turbine technicians and engineers.

### Annual Salaries for Wind Turbine Technicians (in $)

<table>
<thead>
<tr>
<th>Country</th>
<th>Salary</th>
<th>Additional Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morocco</td>
<td>5,431</td>
<td></td>
</tr>
<tr>
<td>Angola</td>
<td>5,354</td>
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</tr>
<tr>
<td>Kenya</td>
<td>5,065</td>
<td></td>
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<tr>
<td>Sierra Leone</td>
<td>4,325</td>
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<tr>
<td>Uganda</td>
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<tr>
<td>Mozambique</td>
<td>9,213</td>
<td></td>
</tr>
<tr>
<td>Liberia</td>
<td>5,431</td>
<td></td>
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<tr>
<td>The Gambia</td>
<td>7,005</td>
<td></td>
</tr>
</tbody>
</table>

### Annual Salaries for Engineers (in $)

<table>
<thead>
<tr>
<th>Country</th>
<th>Salary</th>
<th>Additional Pay</th>
</tr>
</thead>
<tbody>
<tr>
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<td>15,818</td>
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<td>Angola</td>
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<td>Kenya</td>
<td>9,213</td>
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<td>Sierra Leone</td>
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<tr>
<td>Mozambique</td>
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<tr>
<td>Liberia</td>
<td>9,462</td>
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<tr>
<td>Uganda</td>
<td>9,001</td>
<td></td>
</tr>
<tr>
<td>The Gambia</td>
<td>8,079</td>
<td></td>
</tr>
</tbody>
</table>

Source: fDi Intelligence based on Willis Towers Watson Global Remuneration Planning Report 2018/19, iMercer and national statistics
Reason 6: Stable business climate—Sierra Leone has strong underlying fundamentals

Peaceful & Politically Stable country
Sierra Leone is one of the safest countries in Africa ranking 46 in the Global Peace Index out of 163 countries indexed. The country also has a high degree of political stability.

Strong macro-economic fundamentals
Sierra Leone's economy is expected to rebound strongly from the COVID-19 pandemic with a forecasted GDP growth rate of 3% for FY 21-22 which is largely attributable to the government's Quick Action Economic Response Program (QAERP) and easing down of pandemic-related restrictions.

Ease of doing business
Setting up a business in Sierra Leone is simple, taking an average of five procedures, or eight days to set up your new business operation.

Source: Wavteq based on SLIEPA, Vision of Humanity, World Bank Group, United Nations, UNCTAD,
Case Study: Sierra Leone XX

Project Background

Description:
Impact:

Project Specifications

SLIEPA TO ADD OR PROVIDE INVESTOR CASE STUDY IN THE ENERGY SECTOR
Sierra Leone has something for everyone, and provides a unique blend of cultures, dance, food, people and acceptance.

Sierra Leone is a safe and friendly location with many activities to do within the city of Freetown and the surrounding provincial areas.

Government Health Expenditure amounts to 16% of The Sierra Leone total GDP, among the highest in West Africa.¹

33% of the government budget is spent on education.¹

Average annual temperatures of 27°C.²

1 World Bank Group, data indicators, 2018 – link
2 World Bank Group. Climate Knowledge Portal 2020 - link

Explore the countries famous heritage sites such as Bunce island, the Old Fourah Bay College and the Sierra Leone National Museum.

Visit Tacugama Chimpanzee Sanctuary and witness Sierra Leone’s national animal, the Chimpanzee in the wild.

Take a trip to Gola Rainforest National Park a catalyst for sustainability and environmental protection in Sierra Leone.

Relax on one of Sierra Leone’s plentiful beaches such as River No.2, Tokeh, Lakka and Bureh.

Experience local food, culture in Freetown with many bars, cultural activity and craft centers and guided city tours there is something for everyone.
Attractive Government incentives in energy

Example incentives include

- Income tax exemptions
- Import duty exemptions
- Goods and services tax exemptions.
- Incentives for special economic zone investors

Sierra Leone’s Income Tax Act 2000 and the multiple Finance Acts enacted since 2010 contain various incentives to encourage private sector investment and promote the inflow of foreign capital and technology into Sierra Leone.

Additional incentives are provided to SEZs, including three-year corporate tax holidays and expedited government services including customs, immigration and registration.
Sierra Leone have introduced a range of new energy policies and regulations including:

IPA TO PROVIDE FURTHER INFORMATION ON NEW ENERGY POLICY/REGULATIONS
50MW PV Solar Project

25MW located at Makarie Gbanti Chiefdom in the north along the 161 Transmission line. The other 25MW will be distributed between four Cities 12MW for Bo and Kenema, 10MW for Kono and 3MW for Portloko.

Expansion of the Bumbuna Hydro-electric Power Plant

Hydro power project located at Yeben and Bumbuna upstream and north of Bumbuna Town. This project is designed with a reservoir that will produce 80MW of firm power year round.

25MW Betmai Hydroelectric Power

5 MW will support the Bo/Kenema axis and the other 15MW will be distributed around the country based on demand and network availability. The developer and Government seek financing interests for this project.

180MW Mano River Project

A 180MW hydro power project opportunity that will support the Mano River Union Energy needs. The project is in an inception phase but will benefit from an experienced developer to engage with the four Governments on the inception of a project preparatory process.
Get in Touch

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IPA TO ADD CONTACT INFORMATION AND SOCIAL MEDIA CHANNELS.