

# GHANA

Ghana targets universal access to energy in the upcoming years: as electrification rates have grown significantly recently, the demand has risen, opening opportunities in the transmission and distribution sectors to modernize and extend the electrical grid.



## NATIONAL CONTEXT

<b>Ease of doing business index</b>		<b>Global competitiveness index</b> <i>(World rank)</i>	<b>Population</b>	<b>31,072,945 inhabitants</b>
World rank <b>118<sup>th</sup></b>	Sub-Saharan rank <b>13<sup>th</sup></b>		<b>Human Development Index</b>	<b>0.611</b>
		<b>111<sup>st</sup></b>	<b>GDP</b> <i>(annualized average rate growth between 2010 and 2020)</i>	<b>7.8%</b>

## ELECTRIFICATION RATE



**94%**

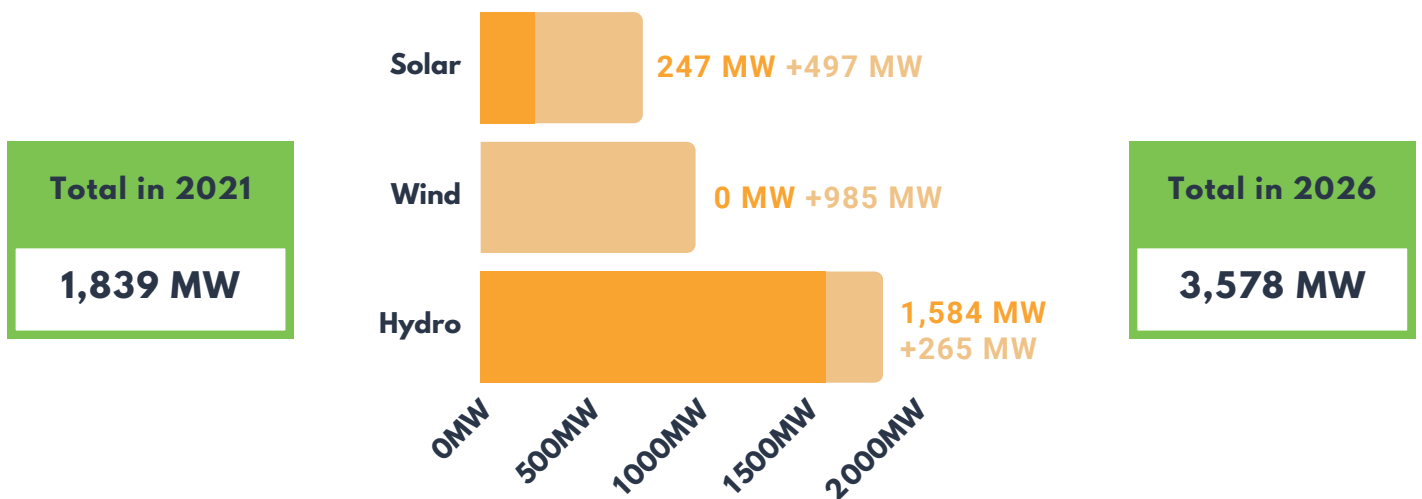


**70%**



**84%**

## RENEWABLE ENERGY INSTALLED CAPACITY AND PROJECTIONS 2026



## REGULATORY FRAMEWORK

- ▶ Ghana counts a significant number of **market incentives** and public funding programs to encourage the growth of the renewable energy installed capacity
- ▶ The National Energy Policy has sufficient mechanisms in order to achieve electrification targets in the medium term

Data gathered with the support of Minsait. Full references available in the published report - June 2022

# OPPORTUNITIES

## Mini-Grids & Off-grids



There are limited ongoing mini and off grid projects in Ghana compared to other sub-Saharan African countries, as **electrification rates are already high**.



## Smart Grids

Ghana's electric grid uses old technology, not having incorporated new digital technologies extensively, yet **with considerable drivers for its development**.

## Energy Storage



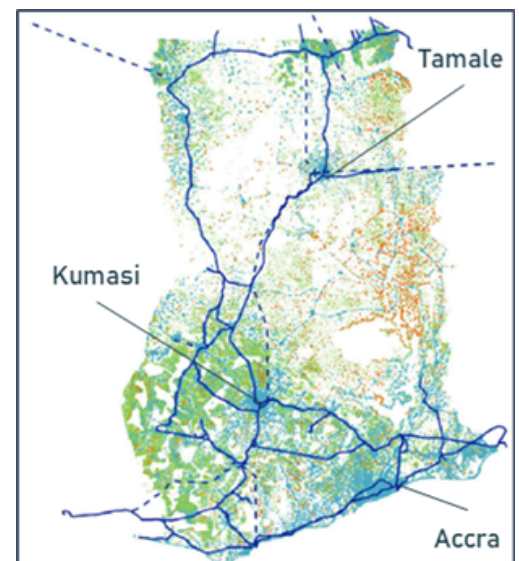
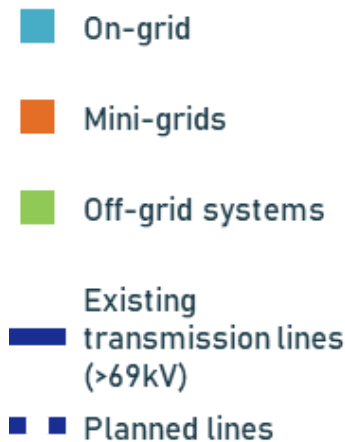
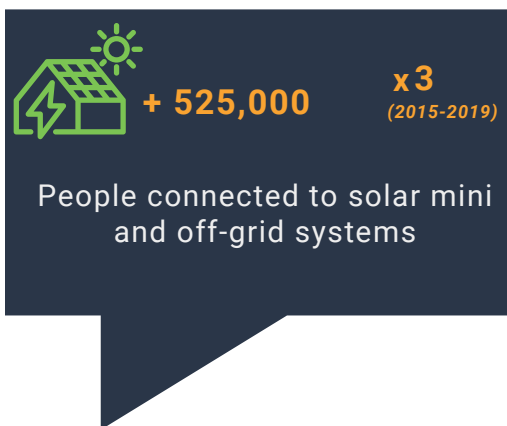
Despite having little activity in energy storage, several projects have been announced recently, and **energy storage-related regulatory framework development is expected for the coming years**.



## Electrical Equipment

Electrical equipment related to renewable energies is mainly focused on solar, and in particular in Solar Lighting, yet there is a need to import more electrical equipment to **modernize the existing electrical equipment**.

### Ghana planned electricity connections by 2030



## RESEARCH & DEVELOPMENT

- ▶ Ghana stands out in terms of R&D in **specific technologies**, battery energy storage systems (with some innovative projects such as Huawei, the largest BESS company in Africa), in wind, and some bioenergy projects

## KEY STAKEHOLDERS

- ▶ The main stakeholders are still public, yet the **RE market tends to liberalize**
- ▶ Private companies are mainly focused on solar (installers, distributors and EPCs)