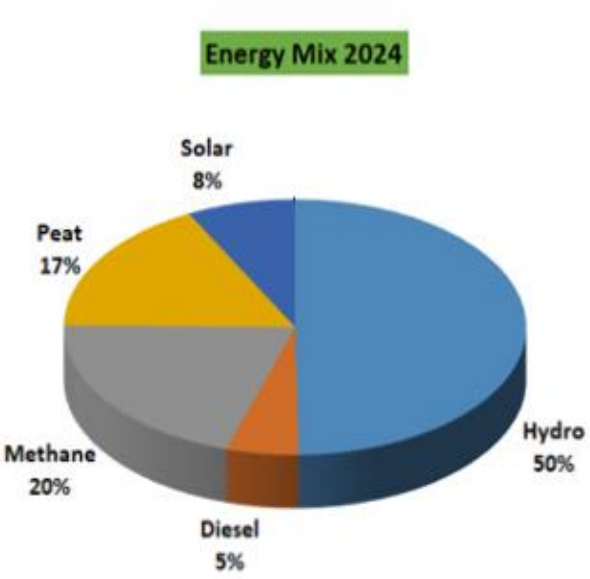
Capital	Kigali
Population	13,246,394
Official Language	English French Swahili
GDP (2023)	USD 4.3 bn
GDP Per Capita (2023)	USD 994



Source: REG,2024

August 2024, the cumulative connectivity rate in Rwanda is 80.1% of Rwandan households including 56.2% connected to the national grid and 23.9% accessing through off-grid systems (mainly solar) [1].

In the second quarter of 2024, Rwanda produced a total of 365.934 GWh of electricity from various energy sources. Domestic power plants accounted for 81.3% of this electricity generation, while Regional Shared plants contributed 11.6%, and 7.1% was sourced through imports. This represents a 16.4% increase in total electricity generation in comparison to the same period in 2023 [2]. The private sector is being encouraged to play an increasing role in the energy sector with target of 60% of Renewable energy source by 2030 in Rwanda

Currently, the total installed capacity to generate electricity in Rwanda is 332.6 MW from different power plants. As of end

Energy Private Developers (EPD) is a registered professional association in Rwanda, contributing to Renewable energy adoption, As one of the five associations composing the cluster of Industry under the Private Sector Federation (PSF) of Rwanda. EPD services to its members include Capacity Building, Renewable Energy awareness campaigns, Access to Finance facilitation, Trade Missions & B2B, Advocacy, Conferences and Exhibitions, Energy sector coordination, Energy Sector Research Projects, and Empowering Women in Renewable Energy, [3].

Investment Opportunity in Rwanda energy sector, different energy sub-sectors

Hydro-Power subsector Rwanda's major Rivers countrywide have proven potential for electric hydropower generation. Thus, opportunities exist in micro, small and shared regional hydropower projects. Where in the second quarter of 2024, Rwanda's electricity generation came from a range of sources, with hydro providing the largest share at 49.44%. 37 hydropower plants are grid connected and account to 109.7MW. They include national and shared regional power plant [1].

Solar subsector

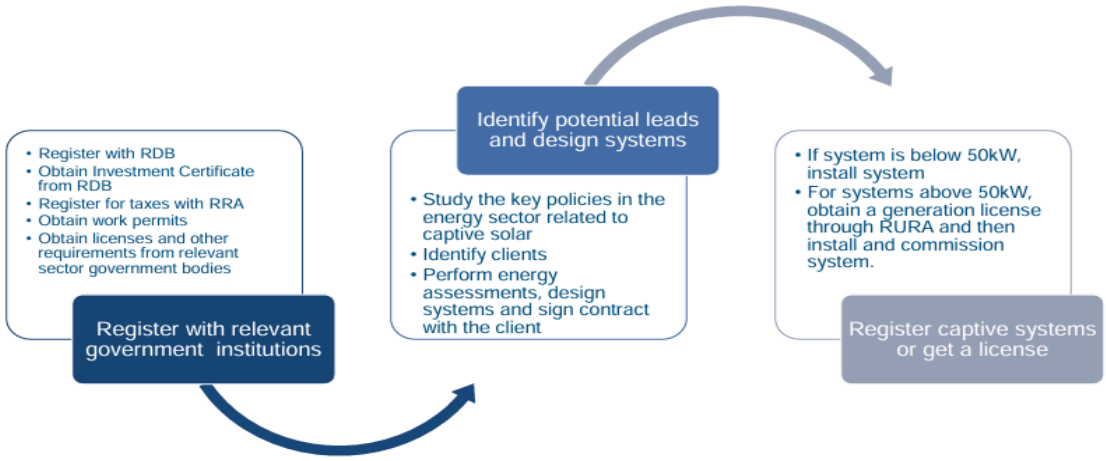
Rwanda is located in East Africa at approximately two degrees below the equator. It is generally characterized by Savannah climate and its geographical location endows it with sufficient solar radiation intensity approximately equal to **5kWh/m2/day** and peak sun hours of approximately **5 hours per day**. Rwanda has High solar irradiance, with **1890kWh/per sqm** in the eastern provinces.

Rwanda's Total on-grid installed solar energy is 12.08 MW. Households far away from the planned national grid coverage are encouraged to use Solar Photovoltaic (PVs) to reduce the cost of access to electricity. Gigawatt global has developed the first biggest utility-scale; grid-connected, IPP and commercial solar field in East Africa; the 8.5MW. 43.8% of Rwandans are in off-grid areas [4].

Mini-Grid and C&I Sub-Sector

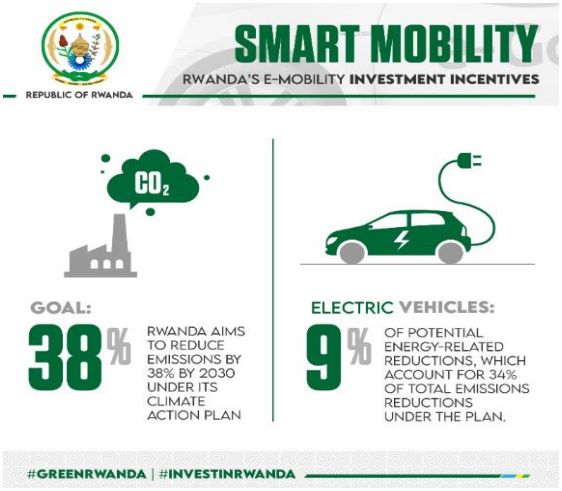
The country has already engaged private sector participation into solar solutions as a lighting substitute for remote areas. Currently, over 258,414 households have benefited access to electricity with the solar energy through Independent Power Producers [5]. 11 mini-grid companies reporting to EDCL generated electricity and connected to more than 6,482 households. 6 of the 11 companies use solar PV technology while 5 use hydropower and among the 11 operational companies 9 are EPD members. All business models, including direct purchase, PPAs, and Lease-To-Own are currently allowed to be implemented in Rwanda. However, PPAs will sometimes involve gov't intervention [6].

Procedures to Start new Solar Mini-grid in Rwanda



Source: [6]

E-Mobility Sub-Sector



[7]

To become a carbon neutral and climate resilient economy by 2050, Rwanda has prioritized the transition to e-mobility for both public and private vehicles. Rwanda is implementing a range of initiatives to promote sustainable mobility in both cities and rural areas.

20% by 2030 Rwanda's goal for the percentage of all buses transitioned to electric, which would avoid 72,000 tons of carbon dioxide equivalent [8]

Clean Cooking Sub-Sector

The GoR has set a goal to reduce the number of households using wood and other biomass fuels from 83% in 2017 to 42% by 2024. It hopes to achieve universal clean cooking access by 2030. Under the Nationally Determined Contribution (NDC) framework, the GoR have also committed to disseminating modern efficient cook stoves to 80% of the rural population and 50% of the urban population by 2030 [9].

Productive use of Renewable Energy (PURE) Sub-Sector

Increasing productivity in the agriculture sector is widely recognized as a key accelerator of socio-economic development in Rwanda and machine-powered irrigation is critical for improving yields,

This will achieve over 6% annual growth under NST2, Productivity will increase by more than 50%, driven by an 85% expansion in irrigated land from 71,000 ha to 131,000 ha [10].

Methane Gas sub-Sector

Methane Gas Resources is found in the Lake Kivu, **Shema Power Lake Kivu Ltd**, signed a 25-year power purchase agreement (PPA) with the Rwanda Energy Group (REG) for a 56 MW net power output from methane gas. Plant located at Nyamyumba sector in Rubavu District. Currently the power plant is generating 37.5 MW and will soon reach its full capacity [11].

Liquified Petroleum Gases (LPG) Sub-sector

The latest value from 2022 is 0.99 thousand barrels per day, an increase from 0.96 thousand barrels per day in 2021. In comparison, the world average is 55.66 thousand barrels per day, based on data from 191 countries. Historically, the average for Rwanda from 1980 to 2022 is 0.28 thousand barrels per day. The minimum value, 0 thousand barrels per day, was reached in 1980 while the maximum of 0.99 thousand barrels per day was recorded in 2022 [12].

Energy Female Inclusion

- The National Strategy for Transformation (NST) indicates that the energy sector is among the priority sectors for country's economic development with the potential to contribute significantly to job creation and productive employment.
- However, the energy sector is still among the most male dominated sectors in Rwanda, with low number of females in the workforce (5%).
- Energy is a critical enabler in reaching development goals. However, the benefits of increased access to modern and cleaner energy services often fail to accrue evenly to men and women.
- Energy Private Developers Association (EPD) recognize the need to prioritize policy action in energy sector to meet Sustainable Development Goals (SDGs). Where committed to catalyzing positive gender inclusivity in Rwanda's energy sector especially in EPD-members, 88% are in progress of female inclusion and encouraging Women to join Energy based Science and technical schools.

Rwanda Policy Frame work and Incentives for investors in Energy Sector

- **Seven-year corporate income tax holiday,** for export investment and projects over $50 million in tourism, health, manufacturing, ICT an energy once generated 25MW and above
- **Zero Corporate Income Tax,** for companies planning to relocate headquarters to Rwanda.
- **Preferential corporate income tax rate of 15%,** for investment in priority sectors or exporting at least 50% of the produced, in energy, transport affordable housing, ICT and financial services
- **Accelerated depreciation rate of 50%** for the first year in key priority sectors, e.g. energy and transport [13].

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