Rwanda Energy Sector Overview

The Government of Rwanda, under its latest Economic Development and Poverty Reduction Strategy, envisions transitioning from a developing country to a middle-income country by 2020. But Rwanda’s ability to achieve this ambitious goal is constrained by challenges in the power sector. As a result, Rwanda’s government is working to target 100 percent access to electricity by 2020.

Although Rwanda is endowed with a number of natural resources, including hydro, solar, and methane gas, and has plans to generate 563 megawatts (MW) of electric power from these sources, it currently only has about 186 MW of installed generation capacity to serve a population of more than 10.5 million people.

The majority of its existing capacity comes from hydropower (approximately 59%) and thermal generation (approximately 40%). Most of the generation projects in Rwanda are the result of public-private partnerships between the government and independent power producers.

A law repealing the previous utility (the Energy, Water and Sanitation Authority) paved the way for the creation of a new corporate entity, incorporated in July 2014, with all shares held by the Government of Rwanda-- The Rwanda Energy Group Limited and its two subsidiaries, EUCL and EDCL, were entrusted with energy development and utility service delivery, while the Water and Sanitation Corporation has the mandate to develop and operate water and sanitation infrastructure and deliver related services in the country.

Since 2008, the power supply has grown by only 10 percent, while annual peak demand has grown from approximately 50 MW to 87.9 MW in 2013. Future demand is projected to reach 470 MW. Rwanda is also part of the Eastern Africa Power Pool, and has plans to import up to 30 MW from Kenya in 2017.

Based on current data, Rwanda’s national electrification rate has reached 24.5% (1.5% off-grid, 23% on-grid). As many as seven million people still lack access to electricity.

Despite high resource potential and opportunities for cross-border export, Rwanda’s power sector faces significant challenges, including a constrained transmission system. The annual consumption of electricity
per capita is among the lowest in Africa, with approximately half of consumers using an average of less than 20 kWh per month.

The Ministry of Infrastructure (MININFRA) leads the country’s national energy policy. In an effort to reach the 100 percent access target, MININFRA developed a Rural Electrification Strategy, which was approved by Cabinet in April, 2016. This strategy revised the target of providing 70 percent access to electricity by June 2018 with on-grid connections, to a target of 22 percent of households gaining access to a Tier 1 energy service (as defined in the SE4ALL Multi-Tier Framework) and 48 percent of households gaining access to on-grid or at least Tier 2 energy service.

Residential tariffs were increased in 2015, and Rwanda plans to re-introduce a time-of-use tariff for industrial customers in order to attract more private sector investment.

Sources:


http://www.rdb.rw/rdb/energy.html

Sustainable Energy for All Rapid Assessment and Gap Analysis, 2014

Rural Electrification Strategy,

Power Africa Support

Power Africa is supporting Rwanda’s energy development strategy through wide-ranging technical assistance, in cooperation with the World Bank Group, the African Development Bank, the Government of Sweden, the Government of Norway, the Government of Canada, the UK Department for International Development, the Government of Japan, and other development partners, by:

- assisting with the development of new policies and procedures that will facilitate private-sector led IPP investments in geothermal, solar, wind, hydro, and other projects
- providing transaction assistance to projects attempting to reach financial close
- assisting with the planning, operation, and maintenance of generation, transmission, and distribution systems
- supporting access to off-grid electricity

Projects which either have or currently receive support from Power Africa in Rwanda include:

<table>
<thead>
<tr>
<th>Name</th>
<th>MW</th>
<th>Transaction Type</th>
<th>Timeline</th>
<th>Power Africa Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gigawatt Global</td>
<td>8.5</td>
<td>Solar</td>
<td>Began operations in 2015</td>
<td>Africa Clean Energy Finance Initiative early stage support allowed project to be negotiated and commissioned in slightly over one year’s time; helped build government capacity and increased private sector interest in additional projects</td>
</tr>
<tr>
<td>Contour</td>
<td>26</td>
<td>Methane</td>
<td>Inaugurated</td>
<td>Embassy support for US company</td>
</tr>
</tbody>
</table>
Global Kivuwatt | gas to power | 2016

### About Power Africa

Power Africa is a multi-partner initiative launched by President Obama in 2013. Power Africa’s goals are to increase electricity access in sub-Saharan Africa by adding more than 30,000 megawatts of cleaner, more efficient electricity generation capacity and 60 million new home and business connections.

Power Africa works with public and private sector partners to remove barriers that impede sustainable energy development in sub-Saharan Africa and to unlock the substantial wind, solar, hydropower, natural gas, biomass, and geothermal resources on the continent.

### Mobilizing Partnerships & Investments

Power Africa draws on the combined expertise and abilities of 12 U.S. Government agencies, the World Bank Group, the African Development Bank, the Government of Sweden, the Government of Norway, the Government of Canada, the UK Department for International Development, the Government of Japan, the International Renewable Energy Agency, African governments, and private sector partners.

Power Africa’s “Toolbox” approach offers a range of resources to advance key projects on the electricity grid and, through the Beyond the Grid sub-initiative, in places where the national grid doesn’t reach.

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