

Purpose, Planning and Progress: Recent Developments in Ghana's Energy Sector

West Africa holds a multitude of extremes when it comes to delivering reliable electricity to its citizens. According to 2014 World Bank statistics, the situation ranges from relatively stable energy availability in places like Cape Verde (where 90.2% of the population has access to electricity) to a dire need in places such as Liberia (where just 9.1% of the population had access to electricity in 2014). Despite these challenges, the vast potential of the region's energy sector continues to attract investors and keeps stakeholders committed to achieving their energy goals.

Supporting the region's efforts to develop a reliable power grid is the West African Power Pool (WAPP), a consortium of national electricity companies from fourteen West African nations. In addition to creating a common market for energy among the national electricity companies, WAPP also supports the development of renewable energy projects throughout the region.

In the Republic of Ghana, 78.3% of the population had access to electricity in 2014. While this represents a significantly more stable situation than the energy crisis in nearby countries like Liberia and Niger (14.3%), there is still work to be done before the entire population is served with reliable electricity. However, Ghana has in recent years demonstrated the potential impact of ambitious strategies and smart investments, as the nation made progress on a number of new energy projects.

Ambitious Goals and Leadership

Ghana's efforts to reach universal energy access have been guided by committed leadership since the release of its 2010 National Energy Policy. In addition to its goal to supply universal energy access by 2020, Ghana's energy strategy also called for a commitment to energy efficient practices in both residential and industrial applications as well as the introduction of more renewable energy sources to the country's power grid. In 2016 comments, then-Ghanaian Vice President Kwesi Amissah-Arthur confirmed the nation's commitment to its 2020 benchmark.

According to Power Africa, despite an installed generation capacity of over 4,000MW, availability of electricity in Ghana rarely exceeds 2,400MW due to a variety of reasons including failing infrastructure and inadequate resources. To solve this problem, the Ghanaian government and organisations like Power Africa and WAPP have worked on a number of new projects throughout the country.

Wind, Sun and Water

Since announcing the National Energy Policy in 2010, Ghana has embarked on a variety of different energy projects to support the country's national grid:

- A joint development project of ENGIE and eleQtra, the Ada wind power project will contribute 50MW to the region surrounding Accra, the Ghanaian capital. Additionally, the Winneba wind project will contribute 48MW to the national grid. In June 2017, the Winneba project won \$7 million through Access Power's Access Co-Development Facility Platform.
- Focusing on developing renewable energy in off-grid communities, Ghana's Ministry of Energy committed \$230 million in 2014 to deploy hundreds of thousands of solar systems throughout the country. Ghana has issued multiple grants of \$100,000 to solar companies working to deploy systems in underserved regions across the nation.
- In May 2017, General Electric announced the construction of the Bridge Power project in Tema, Ghana, an effort that is expected to add 400MW to the national grid. Funded by the EPL Consortium of GE, Sage, and Endeavor Energy, the Bridge Power project consists of gas turbines with purpose-built GE steam turbines. Once completed, the project is expected to contribute 17% of Ghana's long-term energy needs.

National Progress, Regional Promise

Ghana's notable progress over the last decade demonstrates both the successful efforts of organisations like WAPP as well as the potential for other nations in the region to take similar steps.

The benefits of Ghanaian energy projects have not just stayed within the country's borders; with the development of the Ghana-Burkina Faso Power Interconnection, Ghana will deliver 100MW of electricity per day to Burkina Faso. Connecting the Ghanaian city of Bolgatanga with Ouagadougou, the capital of Burkina Faso, the new 225kva transmission line was financed by the World Bank, European Investment Bank, French Development Agency, and the governments of Ghana and Burkina Faso.