

## Ghanian Energy Strategy

Ghana is well endowed with renewable energy resources which are yet to be fully exploited. These include biomass, hydropower potentials, wind potentials along the coast and high solar irradiation. Renewable energy currently contributes 1% to the energy mix. The aim is to achieve 10% renewable in the mix by 2020.

Ghana has a vibrant power generation terrain with players from both the public and private sectors. Reforms in the power sector in the 1980s gradually removed barriers and created a level playing field for the participation of independent power producers in an area which had previously only involved public sector participants.

As the Ministry responsible for energy policy formulation, implementation, monitoring and evaluation as well as supervision and co-ordination of Ghana's energy sector agencies, the country remains committed in working together to realise its mission.

The renewable energy Act (Act 832), passed in 2011, seeks to create the enabling environment for attracting private sector investment in the renewable energy sector to ensure the achievement of the 10% policy target. A renewable energy master plan is currently under development.

Various strategies, programs and projects are being pursued towards achievement of the policy target.

These include:

- a) Planned and structured deployment of utility scale renewable energy projects to be sourced through competitive bidding. As a first round. Government has successfully launched a competitive tender for procurement of a 20MW solar plant for supply of electricity to the Electricity Company of Ghana under an independent power producer arrangement. The Bui Power Authority has also concluded a 50MW solar plan tender process.
- b) Mainstreaming renewable energy mini-grids into the National Electrification Scheme (NES) to provide clean and sustainable electricity in mainly island and lakeside communities.
- c) Studies to update existing data on small hydro potentials.
- d) A number of sustainable energy and productive use of energy initiatives with special focus on small- scale irrigation in agriculture and food processing are also being pursued.

The National roadmap to integrate nuclear power into Ghana's energy mix has been developed and accepted by the International Atomic Energy Agency (IAEA). Basic data on plant sites have been completed, awaiting field data acquisition and feasibility studies.

The petroleum industry is typically categorized into three segments; Upstream, Midstream and Downstream. For the purposes of regulation in Ghana, the industry is divided into Upstream and downstream subsectors which cover activities from the exploration and

production of petroleum through refining, storage, transportation, to the marketing of petroleum products.

Upstream activities include pre-licensing, licensing, exploration and appraisal, field development and production, disposal and decommissioning. Ghana has four sedimentary basins that are considered to have high prospects for the discovery of oil and gas.

They are Western (Tano- Cape Three Points) Basin, Central (Saltpond) Basin, Eastern (Accra –Keta) Basin which are all offshore and are fairly well explored and the Voltaian Basin which is onshore and has seen little exploration.

In 2007, the jubilee Field became Ghana's first major commercial discovery. In less than a decade of First Oil from the Jubilee Field, significant strides have been made in the Upstream Subsector with twenty five (25) discoveries made since 2007. Ghana currently has three offshore producing fields, Jubilee, Tweneboa, Enyera and Ntomme (TEN) and Sankofa and Gye Nyame Field. However first Gas from the Sankofa and Gye Nyame Field is scheduled to come on stream in the third quarter of 2018.

The Ministry of Energy has worked closely with relevant stakeholders over the years to create an enabling legal and regulatory regime aimed at ensuring transparent, accountable and prudent management of Ghana's petroleum resources. Critical Legislation in place include: the GNPC Law 1983(PNDCL64), Income Tax Act 2015 (Act 896), Petroleum Revenue Management Act, 2011 (Act 815) as amended, Petroleum Commission Act 2011(Act 821), Local Content and Local Participation Regulations 2013, (LI 2204), Petroleum (Exploration and Production) Act, 2016 (Act 919), Petroleum (Exploration and Production) (Measurement) Regulations, 2016 (LI 2246) and Petroleum Commission (Fee and Charges) Regulations, 2015 (LI2221).