

# Ghana's Renewable Energy Projects and Energy Efficiency Measures towards achieving SDG 7 goals

By






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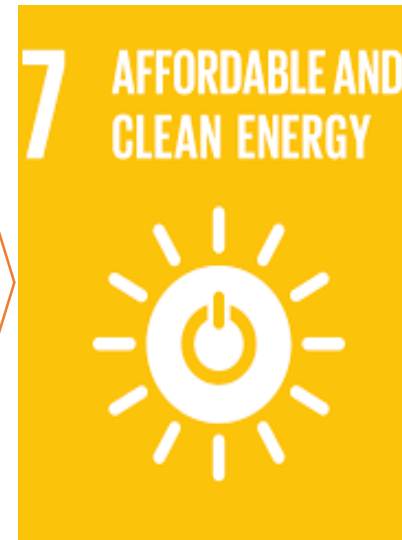
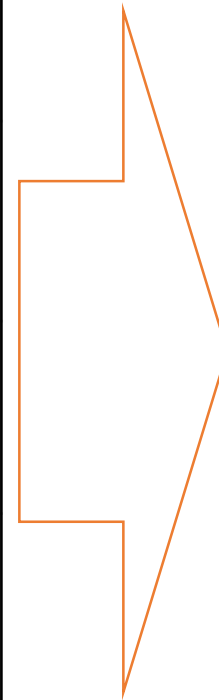
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# Monitoring SDG 7

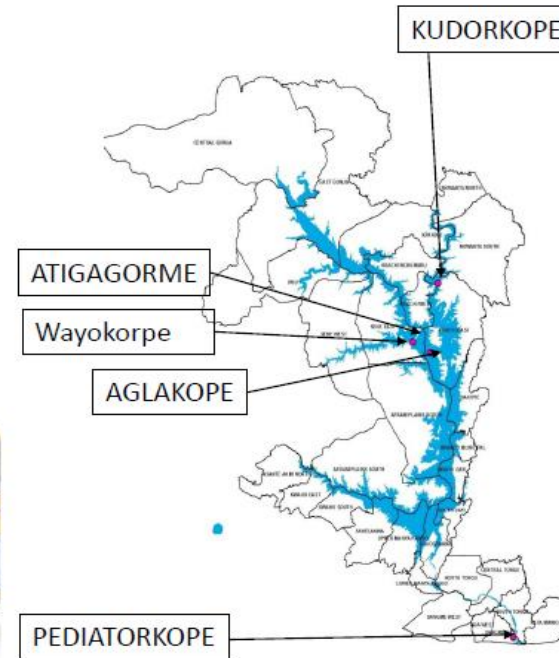
		2010	2018/19	2030
Electricity Access Rate		~70%	84.5%	>90%
Population without Access to Electricity		7.4 million	4.4 million	
Access to Clean Cooking (Improved Cook stoves)			>0.8 million	2 million
Access to Clean Cooking (LPG)		18%	25%	50%
Penetration of Modern RE		0.1%	1.8%	10%



# Programs/Projects to support Access to Clean Energy Tech.

## □ Mini Grid Development

- There over 2,000 island and lakeside communities
- 5 island off-grid communities electrified serving over 6,000 inhabitants.



## □ Solar Lantern Promotion Program (SLAPP) From 2013-2020

- to replace kerosene lanterns in off-grid rural households.
- Target is **2 million** solar lanterns in off-grid rural homes

# Programs/Projects to support Access to Clean Energy Tech.

- ❑ National Rooftop Solar Programme (NRSP) *From 2016 - 2030*
  - Support the installation of **200,000 solar rooftop systems**
  - Focus of support is towards rural off-grid communities
- ❑ Scaling Up Renewable Energy Program (SREP) *From 2020 - 2023*
  - **55** RE based Mini-grids for island and lakeside communities
  - **33,000** Stand-Alone Solar Home Systems for off-grid areas
  - **15,000** solar PV based **Net Metering** with Battery Storage for households and SMEs



- ❑ LPG – Cylinder Circulation Programme
  - Pilot Cylinder Recirculation Model (CRM) to begin in Obuasi (Ashanti) and Kwaebibire (Eastern) by the end of 2019.
  - 5 LPG marketing Companies licensed by the National Petroleum Authority (NPA) under the Cylinder Recirculation Model.

- ❑ EE Projects
  - Introduction of efficient appliances that support off-grid use
  - Switch from CFL to LED



# Programs/Projects to support Access to Clean Energy Tech.

## ❑ Mini-Hydro Project From 2013-2020

- 40kW mini-hydro Tsatsadu Falls, VR completed. Developed by Bui Power Authority in collaboration with IN-SHP, China under UNDP-RETT Project
- 60MW Pwalugu multi-purpose mini-hydro dam under development by VRA
- BPA considering mini-hydro development along the western rivers



## ❑ Improved Cook stoves production and dissemination with the private sector (Clean Cooking Alliance)

- > 800,000 improved cookstoves deployed since 2012.



Gyapa/Holy Cook stove/Toyola



## ❑ Solar irrigation Application

- UNDP/EC - 78 smallholder farmers supported in Tamalugu, Nakpanduri, Datoyili and Fooshegu, NR
- Green Climate funding to scale up
- GIDA key partner



# Financial Facilities to support Access to Clean Energy Technologies

- ❑ Sustainable Use of Natural Resources and Energy Finance (SUNREF) Programme by French Development Agency *From 2019 - 2022*
  - A green credit facility to support RE&EE projects.
  
- ❑ KfW Green Credit line Facility: *From 2019/20*
  - A green credit facility to support RE projects below SUNREF targets.
  
- ❑ Renewable Energy & Climate Adaptation Technologies (REACT) Household Solar Programme: *From 2019 - 2022*
  - The UK Government funding through Department for International Development (DFID)
  - **50,000** solar home systems in rural off-grid areas in Ghana
  - Targets private sector financing; Interest Free Loans, grants, Technical Assistance
  
- ❑ Regional Off-Grid Electrification Project (ROGEP): *From 2020 - 2023*
  - Implemented by ECREEE
  - Credit line facility to support off-grid deployment of Solar Home System
  - Grants for entrepreneurship technical & financial support

# Challenges

- Over capacity of power plants in the midst of HIGH tariffs
- Low level of awareness on the benefits of RE and EE (including cook stoves)
- High cost of energy in remote off-grid communities vis-à-vis their ability to pay
- Accessibility to unserved communities

