



# DJIBOUTI

## OBJECTIVES

- mid 2019, the Minister of Energy announced a target of 100% RE by 2020 [link](#)

## TOTAL PV INSTALLED

LARGE SCALE	0 MWp
C&I	0 MWp
MG	0 MWp
SHS & RESIDENTIAL	0 MWp

source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.151	\$0.252	\$0.162
MAX.	\$0.308	\$0.308	\$0.230

[source](#)

## POLICY / REGULATION

N/A

## ELECTRIFICATION RATE

- 42% of the population has access to electricity [link](#)
- 54% in urban areas, 1% in rural areas [link](#)

## NOTEWORTHY DEVELOPMENTS

- Grand Bara 300 MWp project to be built in 2 phases of 30 MWp and 270 MWwp [link](#)
- Phase 1 to be built by Engie [link](#)



# EGYPT

## OBJECTIVES

- 20% RE in energy mix by 2022 and 42% by 2035 [link](#)

## TOTAL PV / CSP INSTALLED

LARGE SCALE		1,720 MWp (PV) + 20 Mwe (CSP)
C&I		38.5 MWp
MG		0.1 MWp
SHS & RESIDENTIAL		4.89 MWp

source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.024	\$0.042	\$0.046
MAX.	\$0.093	\$0.102	\$0.102

source

## POLICY / REGULATION

- 2% customs duties for all equipment and machinery for RE [link](#)
- 30% deduction of the net taxable profits, free land for RE [link](#)
- FiT in place between 2014 and 2018 [link](#)
- net-metering with some requirements up to 20MW [link](#)

## ELECTRIFICATION RATE

- 100% of the population has access to electricity [link](#)

## NOTEWORTHY DEVELOPMENTS

- AMEA Power increased Kom Ombo Project from to 200 to 500 MW [link](#)
- multiple C&I projects being undertaken among others installations at 65 NAC buildings for 18MW total [link](#)
- agriculture industry also starting solar projects, for ex. 17.5 MWp project for Dakahlia Group [link](#)



# EQUATORIAL GUINEA

## OBJECTIVES

- no official RE program

## TOTAL PV INSTALLED

LARGE SCALE	0 MWp
C&I	0 MWp
MG	5 MWp
SHS & RESIDENTIAL	0 MWp

source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

RESIDENTIAL      COMMERCIAL      INDUSTRIAL

MIN.

data could not be verified

MAX.

## POLICY / REGULATION

- no tax incentives
- state can authorize reduced rates or total VAT exemption depending on the nature of activities of investors [link](#)
- no FiT

## ELECTRIFICATION RATE

- 67% of the population has access to electricity [link](#)

## NOTEWORTHY DEVELOPMENTS

- n/a





## OBJECTIVES

- 15% RE in energy mix by 2020 and 50% by 2030 [link](#)

## TOTAL PV INSTALLED



source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

RESIDENTIAL      COMMERCIAL      INDUSTRIAL

MIN.

data could not be verified

MAX.

## POLICY / REGULATION

- no specific incentives for the energy sector
- no FiT

## ELECTRIFICATION RATE

- 48.2% of the population has access to electricity [link](#)
- target to reach 15% of rural access to electricity by 2020, 100% by 2030 [link](#)
- electrifying 50 villages per year

## NOTEWORTHY DEVELOPMENTS

- more than 70 MW large scale projects initiated by the Ministry of Energy and Mines [link](#)



## OBJECTIVES

- reduce dependency on electricity imports [link](#)
- RE to represent 40% of energy mix by 2020 [link](#)

## TOTAL PV INSTALLED

LARGE SCALE	0 MWp
C&I	0 MWp
MG	0 MWp
SHS & RESIDENTIAL	0 MWp

source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.071	\$0.157	\$0.063
MAX.	\$0.117	\$0.325	\$0.319

[source](#)

## POLICY / REGULATION

- no tax exemption for PV [link](#)

## ELECTRIFICATION RATE

- 81% of the population has access to electricity [link](#)
- goal is to reach universal access by 2022 [link](#)

## NOTEWORTHY DEVELOPMENTS

- 10 MWp Lavumisa project finishing construction [link](#)
- Swaziland Electricity Company developing new 40 MWp project [link](#)
- King Mswati III international airport soon getting 850 kWp [link](#)



## OBJECTIVES

- increase generating capacity by 25 000 MW by 2030: 22 000 MW of hydro; 1,000 MW of geothermal; and 2,000 MW of wind [link](#)
  - mitigating GHG emissions by 64% by 2030 [link](#)

## TOTAL PV INSTALLED

LARGE SCALE	0 MWp
C&I	0 MWp
MG	0.4 MWp
SHS & RESIDENTIAL	0.1 MWp

source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.007	\$0.035	\$0.016
MAX.	\$0.040	\$0.035	\$0.026

[source](#)

## POLICY / REGULATION

- PV and off-grid lighting exempt from import duty [link](#)
- PV and off-grid lighting subject to VAT [link](#)
- new set of laws governing off-grid generators & distributors [link](#)
- no FiT (evaluation conducted in 2015) [link](#)

## ELECTRIFICATION RATE

- 40% of the population has access to electricity [link](#)
- goal is to provide electricity access to all by 2025, with 35% off-grid and 65% grid [link](#)
  - reach 96% grid connections by 2030 [link](#)

## NOTEWORTHY DEVELOPMENTS

- 1,330 MWp at different stages of development through Scaling Solar Program [link](#)
- 62 MG under construction and/or development throughout the country [link](#)
- 10 universities to get 10 MW each [link](#)



## SHS ARE NO LONGER BASIC LIGHTING SYSTEMS

Solar Home Systems (SHS) are inextricably linked with Africa and vice versa. These ingenious systems have changed the lives of millions of Africans, allowing them to get access to basic services and comfort even though they live in remote areas that are not served by the national grid.

Contrarily to grid electricity, SHS and their accompanying appliances function on DC (direct current) and are therefore often considered as providing sub-par electricity quality and service.

While this might have been true in the early days of SHS, significant progress has been made on improving the quality of the components and service, but also on the diversification of applications and appliances that can be connected to SHS systems. SHS manufacturers are nowadays offering a wide spectrum of products ranging from 5W to 1kW and providing power to a wide range of needs across the continent.

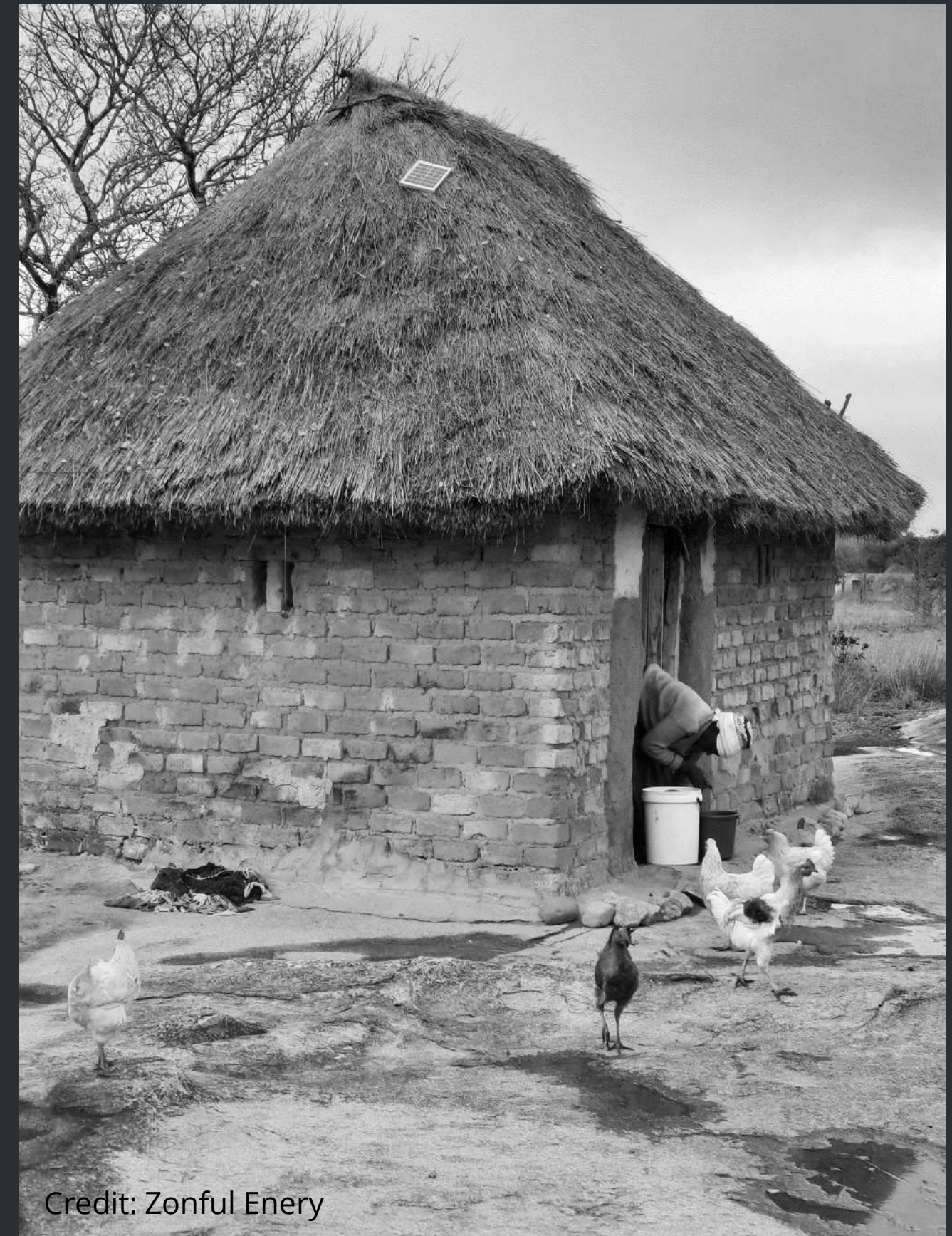
One of the best examples of this evolution are the solutions which can be provided to healthcare facilities. It is estimated that the continent counts around 100,000 healthcare facilities. About half of these are located in rural areas, providing primary health services which include maternity and vaccination.



# SEGMENT REVIEW: SHS

For these 2 life-essential medical activities, SHS can actually provide the perfect solution both technically and commercially. Complete kits including lights, vaccine fridges, medical equipment, and communication devices, all functioning on DC power, can now be connected to a simple 300W SHS system and cost less than \$1,000. An equivalent AC-based system, for exactly the same final use, costs between 3 and 5 times more. In times of COVID pandemic, everybody understands the importance of basic power supply in the most remote medical facilities. Yet funds are limited and it is a challenge to equip all African medical centers in very short time.

It is our hope however that decision-makers reading this article will understand that they could be equipping up to 5 times more facilities with the same budgets if they were to make the SHS choice for primary healthcare facilities electrification.



Credit: Zonful Eneary





# GABON

## OBJECTIVES

- 80% RE in national energy mix by 2020 [link](#)

## TOTAL PV INSTALLED

LARGE SCALE	0 MWp
C&I	0.2 MWp
MG	0 MWp
SHS & RESIDENTIAL	0 MWp

source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.105	\$0.163	\$0.163
MAX.	\$0.260	\$0.280	\$0.203

[source](#)

## POLICY / REGULATION

- all PV components are subject to regular import duties and VAT [link](#)

## ELECTRIFICATION RATE

- 86% of the population has access to electricity [link](#)
- targets to provide electricity for 85% of rural areas by 2025 [link](#)

## NOTEWORTHY DEVELOPMENTS

- AUSAR Energy finishing construction of 8 MG for 2.8MW total capacity [link](#)



# GAMBIA

## OBJECTIVES

- give access to electricity to 30% of the rural population by 2030 by relying on off-grid electrification solutions such as domestic installations and mini-grids [link](#)

## TOTAL PV INSTALLED

LARGE SCALE	0 MWp
C&I	0.6 MWp
MG	0 MWp
SHS & RESIDENTIAL	0 MWp

source [AFSIA](#) [IRENA](#)

## CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.173	\$0.173	\$0.173
MAX.	\$0.198	\$0.198	\$0.198

[source](#)

## POLICY / REGULATION

- investment enterprise within priority categories is granted import VAT waiver [link](#)
- research conducted on the benefits of FiT and net-metering but no policy in place [link](#)

## ELECTRIFICATION RATE

- 48% of the population has access to electricity [link](#)
- 69% in urban areas and 16% in rural areas [link](#)

## NOTEWORTHY DEVELOPMENTS

- government developing the 150 MW / 1500 MWh Soma project [link](#)
- UNDP World Bank and EIB developing 30+ MW of large scale project [link](#)