



CENTRAL AFRICAN REPUBLIC

OBJECTIVES

- no specific objectives

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.	\$0.130	\$0.061	\$0.061
MAX.	\$0.324	\$0.085	\$0.085

source

POLICY / REGULATION

- n/a

ELECTRIFICATION RATE

- 14% of the population has access to electricity, almost exclusively in capital city [link](#)
- target to connect 50% of the population by 2030 [link](#)

NOTEWORTHY DEVELOPMENTS

- n/a



CHAD

OBJECTIVES

- the share of renewable energies to be increased to 20% of the energy mix by 2030 [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.	\$0.158	\$0.160	\$0.160
MAX.	\$0.382	\$0.401	\$0.380

source

POLICY / REGULATION

- all RE materials and equipment exempt from VAT [link](#)

ELECTRIFICATION RATE

- 8% of the population has access to electricity [link](#)
- increase of electricity coverage to 53% by 2030, with 20% electrification rate in rural areas [link](#)

NOTEWORTHY DEVELOPMENTS

- AMEA Power to build 120 MWp project [link](#)
- Aldwich progressing with Djermaya 60 MWp project [link](#)
- More developers announcing total of 800 MW developments
- UNDP to equip 150 health centers with solar [link](#)



COMOROS

OBJECTIVES

- WB supporting “ComorSol” strategy for the island’s utility company [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.	\$0.300	\$0.300	\$0.300
MAX.	\$0.345	\$0.325	\$0.325

[source](#)

POLICY / REGULATION

- all PV components exempted from import duty and taxes, including the single administrative fee [link](#)
- no net-metering and no FiT

ELECTRIFICATION RATE

- WB estimates 82% of the population has access to electricity [link](#)
- AfDB estimates only 8% of the population is serviced in the 3 islands [link](#)
 - target of 100% electrification by 2033 [link](#)

NOTEWORTHY DEVELOPMENTS

- n/a

SEGMENT REVIEW: LARGE-SCALE

Credit: Scatec Solar



SEVERAL AFRICAN NATIONS ON PATH TO JOINING THE GIGAWATT CLUB

To date, close to 700 GW of PV has been installed worldwide. Some countries adopted solar sooner than others and already rely on large solar installed capacities after almost 15 years of installations being commissioned. Other countries were slower to embrace solar and be able to enjoy its benefits but they are rapidly catching up.

Overall, 37 countries across the world have already installed more than 1 GW of solar. The Gigawatt Club is the unofficial name of the group of countries that have passed the 1 GW mark.

Out of these 37, only 2 African countries are members of the Club (South Africa and Egypt). This is very little, but it may soon change as different African countries have developed a growing appetite for solar recently.

South Africa and Egypt, which are already in the Gigawatt Club, will continue their solar journey and add sizable capacities to their grid: South Africa is in the process of relaunching its very successful REIPPP program of the early 2010s and Egypt continues building on the great success of both government-led projects such as Benban and decentralized projects fueled by FiT. And based on government and private developers' announcements, a group of 9 additional African countries could soon enter the Gigawatt Club.

One of the most expected countries is Algeria, with a 4 GW pipeline that has been announced

SEGMENT REVIEW: LARGE-SCALE

for several years. With new institutions and officials in place, it is reasonable to expect that this plan (or part thereof) will finally be moving forward and will see the gas-rich country move very quickly with massive projects. The latest official announcements have however reduced the initial ambition to 1,000 MWp for 2021.

Neighboring Morocco, which has put in place a more transparent and efficient tender and development process over the years, has plans to add almost 2 GW of new projects in the coming years and has just entered a crucial stage of the Noor PV II – Phase 1 400 MW tender.

But what is maybe even more interesting is to see the ambitions and actions of countries that might not necessarily be the first in mind as “solar champions”. These countries include Zimbabwe, Zambia, DRC, Angola, Namibia, Ethiopia and Botswana.



SEGMENT REVIEW: LARGE-SCALE

The motivation behind these ambitions differs from country to country.

Solar in Zimbabwe, for example, is mostly driven by the private sector which has been struggling for years with erratic power supply and grid shutdowns. The time has finally come for private players to take their faith into their own hands and several industrial groups are now planning sizable projects which will serve both their own consumption and the grid.

Ethiopia and Botswana on the other hand have followed a more traditional approach of international tenders and should reap the benefits of this approach through bottom-low tariffs, albeit after a relatively lengthy tendering process.

Zambia, DRC, and Angola have so far followed the opposite route: in these countries, the government has awarded private developers direct contracts for significant capacities without going through a tender. This approach has the benefit of speed but also involves significant project development and financing challenges. While close to 400 MW is already under construction in Angola, many industry specialists will keep a close eye on the 1 GW and 600 MW contracts that have been signed in DRC and Zambia respectively.

Finally, an international initiative will see Namibia and Botswana develop 5 GW of solar PV and CSP. This initiative is meant for both domestic consumption and export, and should see a group of 12 other countries join down the road.

SEGMENT REVIEW: LARGE-SCALE

This positive trend could be accelerated even further thanks to two specific developments of the solar industry. These two developments are global, but they will express most of their positive impact in African nations.

The first development is the reduction in storage costs. Many grids in Africa are considered “weak” and have a limit as to the solar capacity they can absorb at any point across the national infrastructure (in most cases maximum 30MW). But by coupling solar and storage technologies, the technical limitation could be bypassed and significantly more solar capacity could be added and connected to the grid, thereby providing more electricity to consumers who are reached by the grid. West Africa is leading the charge in such large-scale solar+storage projects.

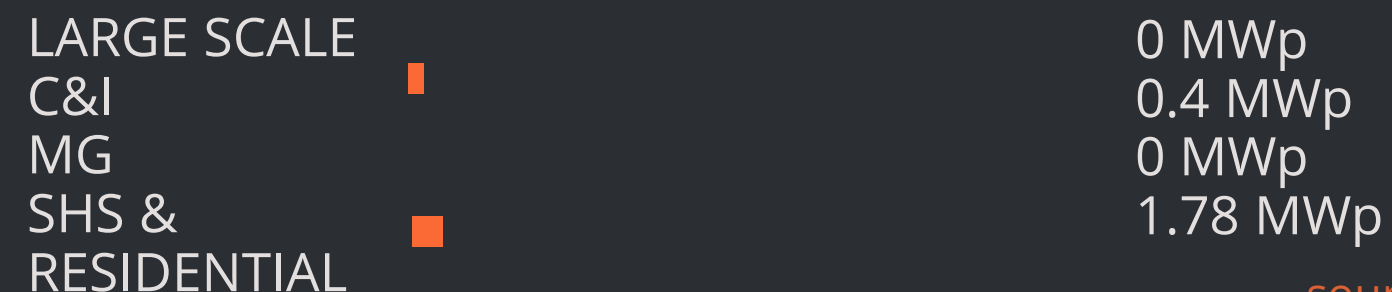
The second potential game-changer is hydrogen. Hydrogen holds many promises for a cleaner global future and “green hydrogen” (produced from renewable sources) is of course the most logical choice to make, as opposed to its “brown” and “blue” alternatives. Africa is ideally positioned thanks to its excellent irradiation to play a pivotal role in the global hydrogen market and also to have its local industry grow and develop on the backbone of a stable and local energy resource. All global energy leaders, and by extension solar companies, are already eyeing privileged partnerships in Africa’s sunniest regions. The future should tell us soon if the continent will become a global hub for production and export of solar-based green hydrogen.



OBJECTIVES

- target to generate 42% of its electricity from renewable energy by 2030, non-hydro representing 16% [link](#)

TOTAL PV INSTALLED



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

CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.046	\$0.165	\$0.108
MAX.	\$0.187	\$0.193	\$0.232

[source](#)

POLICY / REGULATION

- reduced VAT on PV components from 18% to 9% [link](#)
- no FiT
- no net-metering

ELECTRIFICATION RATE

- 64% of the population has access to electricity [link](#)
- 92% of urban population and 38% of rural population currently connected to the grid [link](#)

NOTEWORTHY DEVELOPMENTS

- 2x30 MW tender through IFC Scaling Solar [link](#)
- Dekel Agri-Vision considering a 30 MWp hybrid plant [link](#)



DEMOCRATIC REPUBLIC OF CONGO

OBJECTIVES

- no official RE or solar objectives

TOTAL PV INSTALLED

LARGE SCALE
C&I
MG
SHS &
RESIDENTIAL



0 MWp
0.7 MWp
2.4 MWp
0 MWp

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

CURRENT TARIFF GRID ELECTRICITY

	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
MIN.	\$0.027	\$0.110	\$0.044
MAX.	\$0.087	\$0.150	\$0.098

source

POLICY / REGULATION

- exemption of import duty and VAT for generation equipment, but unclear if this applies to solar generation as well [link](#)
- by end of 2019, most solar off-grid companies were still paying import duties and VAT amounting to 35% [link](#)

ELECTRIFICATION RATE

- 8.7% of the population has access to electricity [link](#)
 - target to electrify 65% by 2025

NOTEWORTHY DEVELOPMENTS

- Kinshasa Solar City to bring 1 GW of PV in 2 phases [link](#)
- Other projects announced totaling 580 MW
- Eranove to build 3 MGs in Bumba, Isiro and Gemena for total \$110M [link](#)