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AFRICA SOLAR OUTLOOK 2026

A country-by-country review of the status of solar energy in Africa

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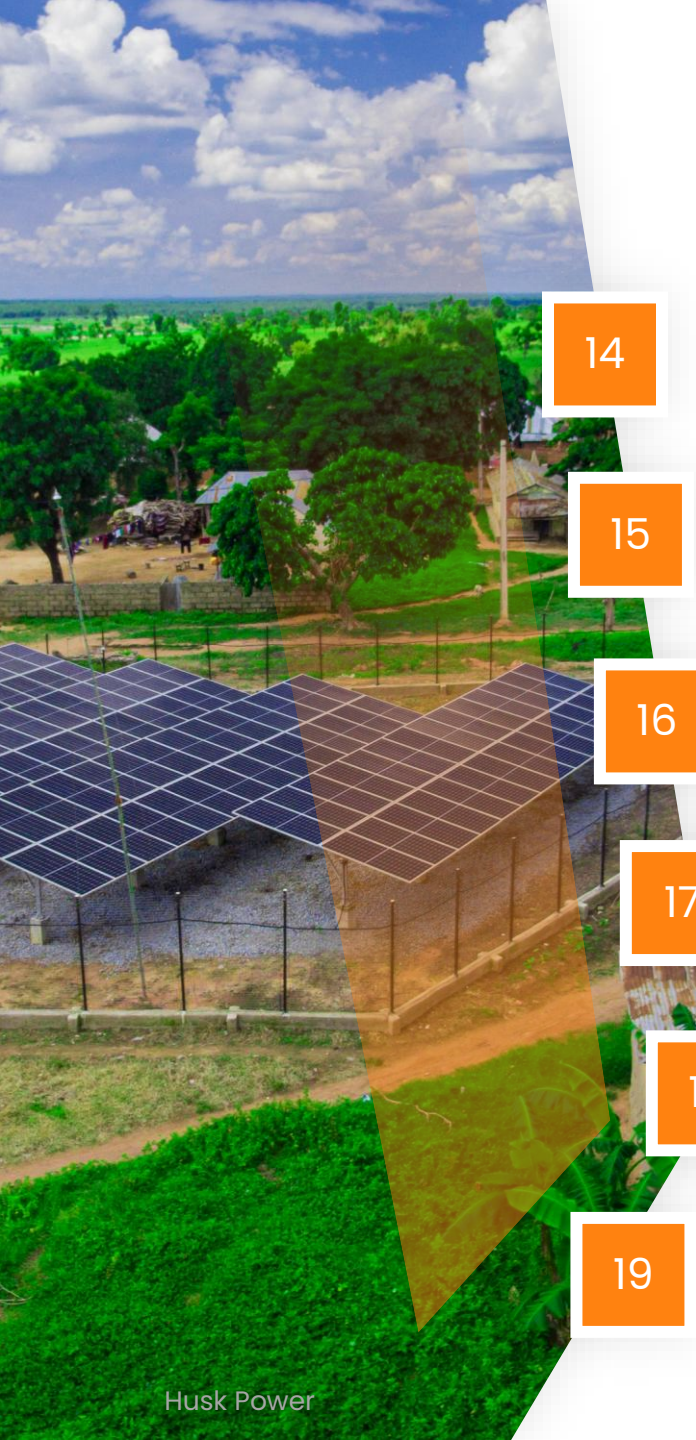

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Words of gratitude

It is with great pleasure that I present the sixth edition of the **Africa Solar Outlook**, AFSIA's flagship annual publication. In a sector where information is abundant but time is limited, accessing reliable, relevant, and actionable insights remains a challenge for many professionals. The **Africa Solar Outlook** is designed precisely to respond to this need, offering a concise and pragmatic overview of the realities shaping the solar sector across the African continent. At the same time, for readers wishing to explore specific topics in greater depth, the report includes a curated selection of short articles addressing key trends and developments influencing the industry. In this regard, the **Africa Solar Outlook** continues to serve as a unique and valuable reference throughout the year for anyone seeking to stay informed about solar markets in Africa.

As with every edition, we remain fully aware that this report and the data it contains are not flawless. Nevertheless, we are committed to continuously improving its accuracy and depth through the systematic collection, validation, and cross-checking of thousands of data points and information sources throughout the year. In a context where official and verifiable data is often scarce, particularly across African markets, this report draws on nearly a decade of dedicated research and data gathering. It is today one of the most comprehensive and credible sources of solar market intelligence available to our industry, and this achievement is the result of the sustained efforts of many contributors.

Words of gratitude

I would like to extend my sincere congratulations to Aline Uwimana for the outstanding work delivered once again this year. Producing the **Africa Solar Outlook** requires patience, rigor, and persistence, combining long periods of independent research with extensive verification and validation processes. As deadlines approach, this effort evolves into a collective undertaking involving close collaboration with the wider AFSIA team and external partners. Over the years, Aline has demonstrated exceptional ability in managing this complex process, and this sixth edition further confirms her role in delivering one of the industry's most authoritative reference reports.

I would also like to acknowledge Bill Mwumvaneza, who has continued to strengthen our market intelligence efforts. His attention to detail and rapid adaptation to the demanding timeline of this report have been instrumental, and I am confident that his contribution will further enhance the quality and scope of AFSIA's analytical work going forward.

This edition also reflects the invaluable contribution of our peer reviewers. A growing network of experts generously dedicated their time to reviewing, validating, and, where necessary, correcting country-level information. Their commitment and professionalism play a crucial role in ensuring the credibility and relevance of this publication, and I would like to express my sincere appreciation for their support.

Finally, I wish to express my deepest gratitude to our partners. Their generous support enables us to uphold the high standards of quality and accessibility that define the **Africa Solar Outlook**. Beyond supporting the publication, our partners have also shared valuable insights into emerging trends and opportunities shaping Africa's solar industry. JA Solar, Echosys Invest, Odyssey, CrossBoundary Energy, World of Sun and Wind Power, SAPVIA, Intersolar Africa, ZARENA : thank you for your continued commitment to advancing solar energy across Africa alongside us.

John van Zuylen
CEO, AFSIA

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Getting the most out of this report

Solar energy in Africa holds significant social and economic potential and continues to inspire professionals around the world. As a result, a growing volume of content is published regularly on solar and renewable energy across the continent. However, navigating this wealth of information or finding the time to review it all can often be challenging.

Each year, the **Africa Solar Outlook** report by AFSIA seeks to address this challenge by offering a distinctive format and perspective on solar energy in Africa. The report is structured around **four core themes**, which can be read as a single narrative or consulted selectively depending on time constraints and areas of interest.

First, the report presents a series of topical articles that reflect on the most significant developments of the past year while highlighting key trends to monitor going forward. These articles are not intended to serve as scientific analyses of the sector, but rather to share observations based on the developments and patterns that stood out over the course of the year. Where possible, these insights are supported by data drawn from our projects database, which now includes **40,000+ projects** at various stages of development.

The Africa Solar Outlook also features a collection of concise country profiles covering every nation on the continent. These vignettes allow readers to quickly extract critical information throughout the year in response to specific needs. This section provides fast access to verified and sourced data, helping readers understand the solar landscape in individual countries and identify potential business opportunities.

In addition, summary tables enable quick comparisons of country performance across several key drivers shaping solar development in Africa.

Finally, several AFSIA partners shares their perspectives through thought-provoking opinion articles, drawing on years of hands-on experience in the field.

The information presented in this report is based on publicly available sources as well as numerous discussions with industry stakeholders. AFSIA recognizes that some solar developments across Africa may not always be captured. Nevertheless, we firmly believe that this report offers the most comprehensive overview of the solar sector on the continent, underpinned by data collection efforts spanning more than a decade and continuously cross-checked and updated on a daily basis.

That said, even the most comprehensive report remains a snapshot in time, while the solar industry continues to evolve rapidly. For access to continuously updated information throughout the year, we encourage readers to consider becoming AFSIA members. Membership provides access to our full suite of online platforms, including the industry's most extensive databases, updated daily. Members also benefit from additional support services from the AFSIA team, including tailored research and introductions to potential partners and clients. For further details on membership, please feel free to contact our team to request a demo. Should you identify any inaccuracies in this report, we would appreciate you reaching out to Aline, our Market Intelligence Manager, so they can be addressed.

This year, we are pleased to once again make the full report freely available, thanks to the generous support of our partners. We strongly believe that transparent and reliable information is essential to accelerating the growth of solar energy and electricity access across Africa. Our conviction is that accurate information leads to better decision-making; better decision-making enables stronger project development; and stronger projects ultimately expand electricity access for millions across the continent. We therefore hope this report contributes meaningfully to the continued advancement of the solar industry in Africa. The support of our partners is crucial in making this publication accessible to all, and we would like to extend our sincere gratitude to them.

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Solar continues to grow at impressive rate across the globe

The world had added between 544 and 660 GW of solar in 2025, once again the most it has ever added in history

As mentioned in our previous reports, no official figures exist for global PV installations unfortunately. But a comparison of various sources can help us identify a range of potential capacities and define a reasonably acceptable figure for each year.

Here is an overview of the various sources we have taken into account:

Organization	2025 GW estimate	Source
Ember	626	link
Bloomberg NEF	655	link
SolarPower Europe	655	link
IEA	580 - 650	link
Rystad	544	link
Wood McKenzie	577	link
InfoLink	660	link
Range / average	**544-660 / 618**	

Installed capacity increased by 23% YoY

In 2025, an estimated 618 GWp were added globally. This marks another record year for solar capacity additions. As in previous years, it is remarkable to note that the past year of solar installations has represented an addition of roughly 30% of all historically installed solar capacity. This has been the case for the past 5 years. As a result, the global total installed capacity has almost tripled since 2021 and almost quadrupled since 2020!

Solar has once again experienced a solid growth in 2025, albeit lower than the 2 previous years. In 2025, the growth rate was 23% (618 GWp vs. 503 GWp), while it is was 44% in 2024 (503 GWp vs. 350 GWp) and 46% in 2023 (350 GWp vs. 240 GWp).

World	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual Installed	71.9	94.9	94.2	101.3	126	191	240	350	503	618
y-o-y Growth	51%	32%	-1%	8%	24%	52%	26%	46%	44%	23%
Cumulative	300	395	489	590	716	907	1,147	1,497	2,000	2,618
Growth vs History	32%	32%	24%	21%	21%	27%	26%	31%	34%	31%

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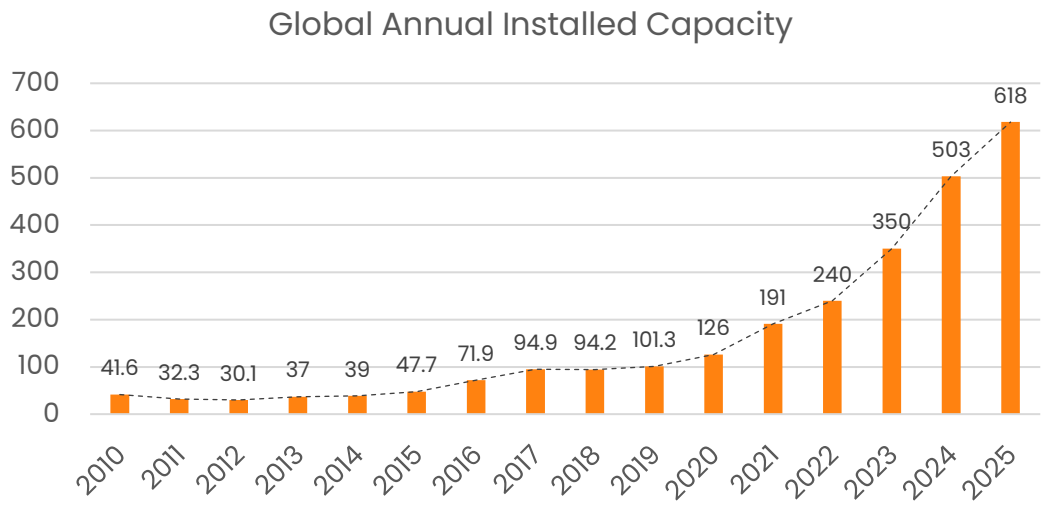
Slower growth, but maybe on track to meet 2030 targets

2025 may have seen a lower growth rate than in previous years, but the industry remains on an exponential growth trajectory identified in previous reports.



For many years, all industry experts have agreed that not enough was being done to achieve the 2030 targets. However, 2025 may represent a turning point as the exponential growth of renewables and solar in particular seems to generate some divergent opinions about leading industry voices.

In its most recent digital story called "Renewables Recap 2025: The Good, the Bad and the Ugly" IRENA highlights that we are still falling short if the world is to reach the 11.2 TW of renewables required by 2030. IRENA identifies that global renewables are currently growing at an annual rate of 15%, and if this rate is maintained over the next 4 years, that would take us to a total capacity of only 10.3 TW by 2030, leaving a gap of 0.9 TW.

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Slower growth, but maybe on track to meet 2030 targets

On the other hand, energy think tank Ember's analysis is a lot more positive about our ability to reach the 2030 target. Based on capacity additions of the last 3-5 years, Ember believes that there is a reasonable hope of meeting the objective of tripling renewable capacity between 2023 and 2030. This growth of solar, combined with the even steeper growth curve of storage, could significantly redefine the global energy landscape. Ember specifically estimates that global solar capacity will reach between 7 and 8 TWp by 2030. And if this is achieved, it means solar power would represent 25% of all power generated by 2030. Given the growth of the most recent years, Ember calculated that it would only require a modest 6% CAGR of solar over the period 2026-2030 to reach the projected necessary installed capacity.

But while 6% CAGR today sounds even more achievable than 1 year ago, some major (non-solar) challenges remain. Adding significant solar capacities will have a non-neglectable impact on power systems and grids. In many parts of the world, these will require important upgrades to absorb all the solar power expected to be added. BESS solutions can greatly soften this impact, but grid upgrades are inevitable. These upgrades are relatively costly and lengthy and it remains to be seen if they can be performed on time to meet target in various parts of the globe.

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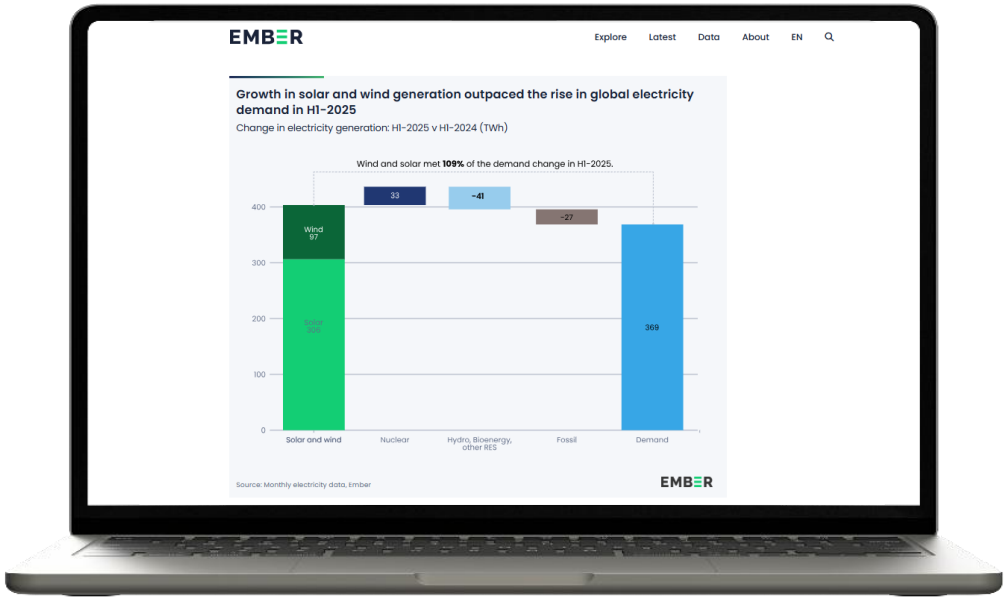
Renewables overtook coal in the global power generation mix for the first time in 2025, solar's domination further confirmed

In yet another cutting-edge analysis in October 2025, energy think tank Ember identified ground-breaking facts about global solar and wind performance.

During the first half of 2025, it appears that solar and wind have grown faster than the global electricity demand. Over the first 6 months of 2025, solar and wind have generated and additional 403 TWh of power (compared to same period in 2024) while electricity demand has only grown by 369 TWh over the same period of time. Solar and wind growth has therefore represented 109% of the global electricity demand growth



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Renewables overtook coal in the global power generation mix for the first time in 2025, solar's domination further confirmed

As **Małgorzata Wiatros-Motyka,** Senior Electricity Analyst, Ember puts it

"*We are seeing the first signs of a crucial turning point. Solar and wind are now growing fast enough to meet the world's growing appetite for electricity. This marks the beginning of a shift where clean power is keeping pace with demand growth. As costs of technologies continue to fall, now is the perfect moment to embrace the economic, social and health benefits that come with increased solar, wind and batteries.*"

More importantly, renewables also contributed more than coal to the global energy mix for the first time ever in 2025 H1. Renewables grew by 363 TWh (+7.7%) to reach 5,072 TWh, while coal generation fell by 31 TWh to 4,896 TWh. As a result, renewables' share of global electricity rose to 34.3% (from 32.7%), while coal's share fell to 33.1% (from 34.2%). This was made possible through a strong rise in solar (+306 TWh) and to a lesser extent wind (+97 TWh) while other renewables have slightly decreased. At the same time, coal also slightly decreased by -0.6%. The immediate result that that CO2 emissions from the power sector have not increased in this period.

Another noteworthy fact is that contrarily to popular belief, fossil generation fell in China and India, but grew in the EU and the US. Ember estimates that the decrease in India may be temporary, while in China it signals a more structural shift in the power generation mix.

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What may be expected for the years to come?

As highlighted in several AFSIA reports and events over the past 18 months, the major change in the solar industry is driven by … storage solutions. The new technological developments and price points of storage solutions are pushing back the boundaries of viable solar projects, almost totally deleting the intermittent aspect of solar while remaining cost-competitive with other traditional power generation technologies. Africa is now home to several astonishing projects that were long considered as impossible (baseload PV+BESS project at copper mine in DRC and 100 MWp/290MWh project in Mauritius at $0.07/kWh).

This trend is unlikely to change and it is reasonable to believe that PV+BESS will soon be the cheapest power generation option anywhere in the world.

As a result, we may reasonably expect annual solar capacities to soon surpass 1 TWp/year.

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Thriving to provide the most accurate data about solar in Africa

Since its very early days, AFSIA has been focusing on data about solar in Africa as we believe that good business and policy decisions can only be made based on good data. In more mature markets, institutions are in place to collect correct and independent data, and make it available to the public and professionals. However, in many African countries, such institutions are simply missing or do not yet have the bandwidth to collect and report on solar. This is why AFSIA has humbly embarked on this mission in 2019 with the hope to provide the clearest possible picture of the reality and evolution of solar in Africa.

But data collection, particularly for such a vast and diversified region as Africa, is a daunting and never-ending task. Since 2019, the AFSIA team has relentlessly been searching for and collecting every available piece of information about solar projects of all types in Africa. This is what is called a “bottom-up” approach, in which we have collected information at the lowest possible level of detail and then add each piece of information to build a global picture.

At the end of 2025, based on this bottom-up approach, we managed to identify and monitor 42,000+ different projects individually. AFSIA believes this is the most-comprehensive dataset in the African solar industry. The 2025 total represents an increase of approximately 40% more projects identified compared to end of 2024. And from a capacity point of view, these projects represent a total of 296 GWp, out of which 23.4 GWp are in operation (26% increase of MWp in operation compared to 2024).

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Annual Installed (AFSIA)	1.0	0.9	1.7	2.2	.2	1.8	2.0	2.5	3.7	2.4
y-o-y Growth	194%	-11%	89%	31%	-45%	47%	14%	25%	46%	-36%
Unassigned to Year										2.4
Total Cumulative	**2.5**	**3.4**	**5.1**	**7.3**	**8.5**	**10.3**	**12.4**	**14.9**	**18.6**	**23.4**
Growth vs History	66%	35%	49%	43%	17%	21%	20%	21%	25%	26%
% of global capacity	1.4%	0.9%	1.8%	2.2%	1.0%	0.9%	0.8%	0.7%	0.7%	0.4%

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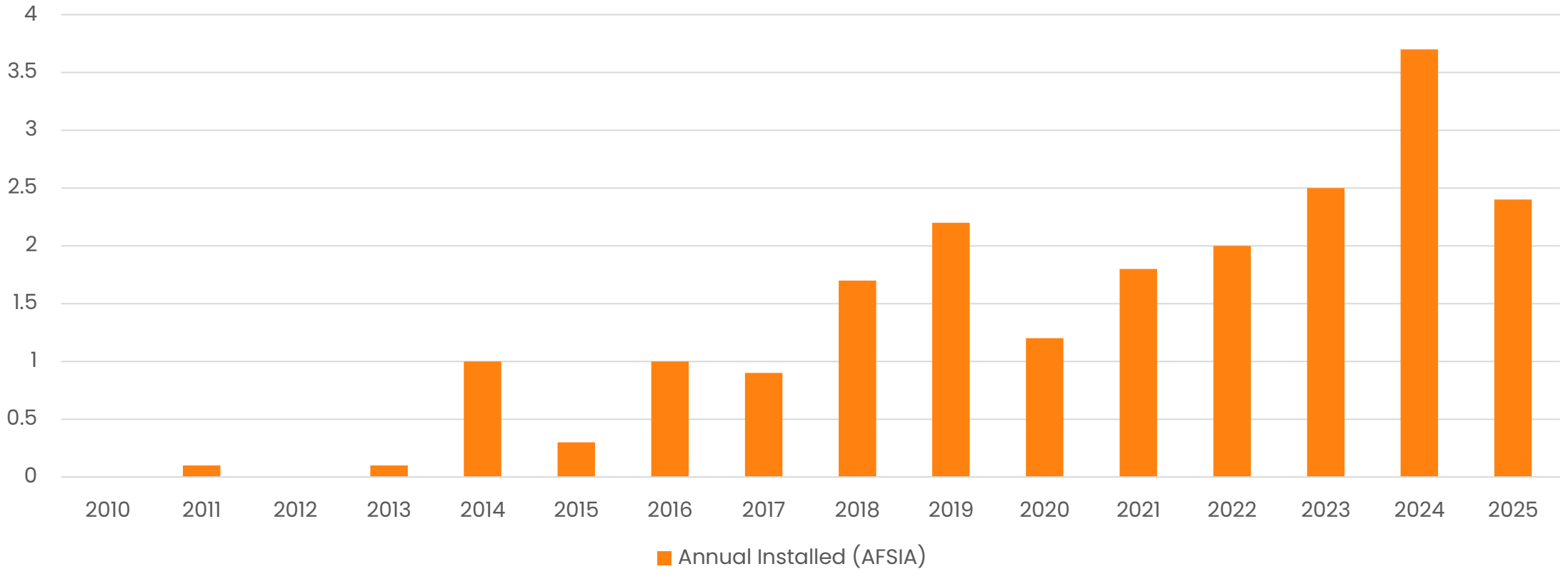
Africa Annual Installed Capacity



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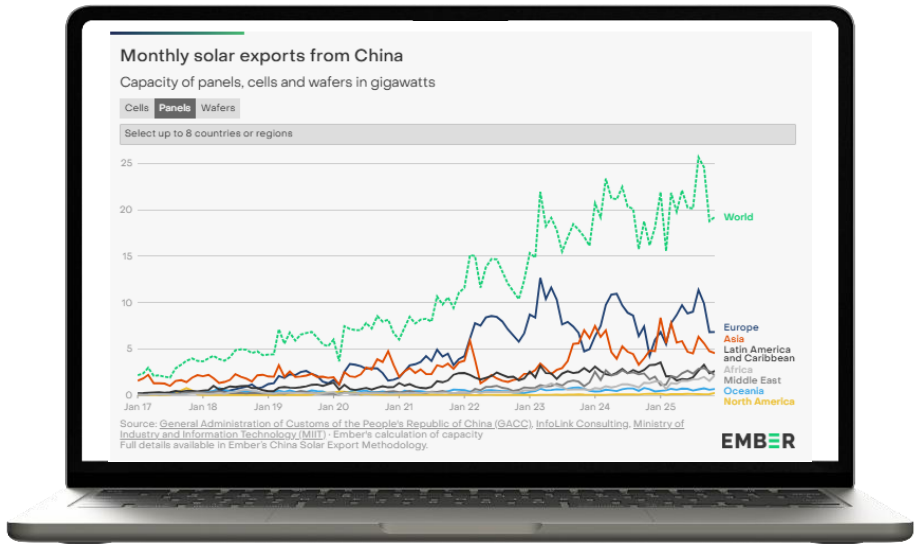
Knowing what we don't know

But for many years, AFSIA's approach has had 1 major shortfall: our data is only based on what we have been able to identify. And we have always been aware that many projects, especially the smaller ones, were yet to be identified, and hence were not captured in our database nor in the figures that we presented every year. This approach, however limited and likely reducing the real size of solar in Africa, was selected for lack of a better alternative at that point in time.

This year however, a new and very interesting source of information has become available thanks to energy think tank Ember. Ember has managed to collect solar export data from China since 2017. These export figures are available month by month and are labeled in USD value. By applying an evolutive average cost per Wp, Ember was able to estimate how many MWp were shipped to any country of the world, month by month, since 2017. China is of course not the only country exporting solar, but it is arguably the most important one (representing roughly 90% of the market).

Hence, the Chinese export figures provide a pretty accurate picture of how much solar must be present in any given country with a relatively small margin of error. This approach can then be considered as a "top-down", as it provides the total volume of solar in a specific country, but without providing the granular detail of where nor for which use these panels are being installed.



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New data fundamentally change the picture of solar in Africa

When cross-checking both this bottom-up and top-down approaches, albeit with their respective limitations, we manage to obtain a very different picture of solar in Africa than what has been portrayed in the past. For many years, most industry analysts (including AFSIA) appear to have very much underestimated the scale of solar in Africa. At the end of 2025, AFSIA has uniquely identified 23.4 GWp worth of operational projects in Africa. However, Chinese export data indicate that 58.1 GWp have been exported to African nations since 2017. Extrapolating for export before 2017 (official data not available before 2017) adds another 10% of capacity, bringing the likely total capacity installed in Africa to 63.9 GWp. This means that solar may in fact be 2.75x more prevalent in Africa than most professionals may believe (including AFSIA pre-2025)!

imported (Ember)	0.3	0.3	2.4	0.5	2.4	1.2	3.8	2.8	2.5	3.0	4.2	9.3	12.7	16.1
annual installed (AFSIA)	0.0	0.1	0.0	0.1	1.0	0.3	1.0	0.9	1.7	2.2	1.2	1.8	2.0	2.4
unassigned to year (AFSIA)														2.4
unidentified C&I and resi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.1	0.6	1.3	1.2	2.1	11.4
annual installed	0.0	0.3	0.0	0.3	2.4	0.5	2.4	1.2	3.8	2.8	2.5	3.0	4.2	16.1
total cumulative	0.0	0.3	0.3	0.7	4.1	4.9	8.3	9.5	13.4	16.2	18.7	21.7	25.9	63.9
y-o-y growth		1013%	2%	105%	488%	21%	69%	14%	40%	21%	15%	16%	19%	34%
growth vs history		833%	0%	74%	346%	12%	49%	14%	40%	21%	15%	16%	19%	34%
% of global capacity	0.0%	0.8%	0.0%	0.7%	6.2%	1.0%	3.3%	1.3%	4.1%	2.8%	2.0%	1.6%	1.7%	2.6%

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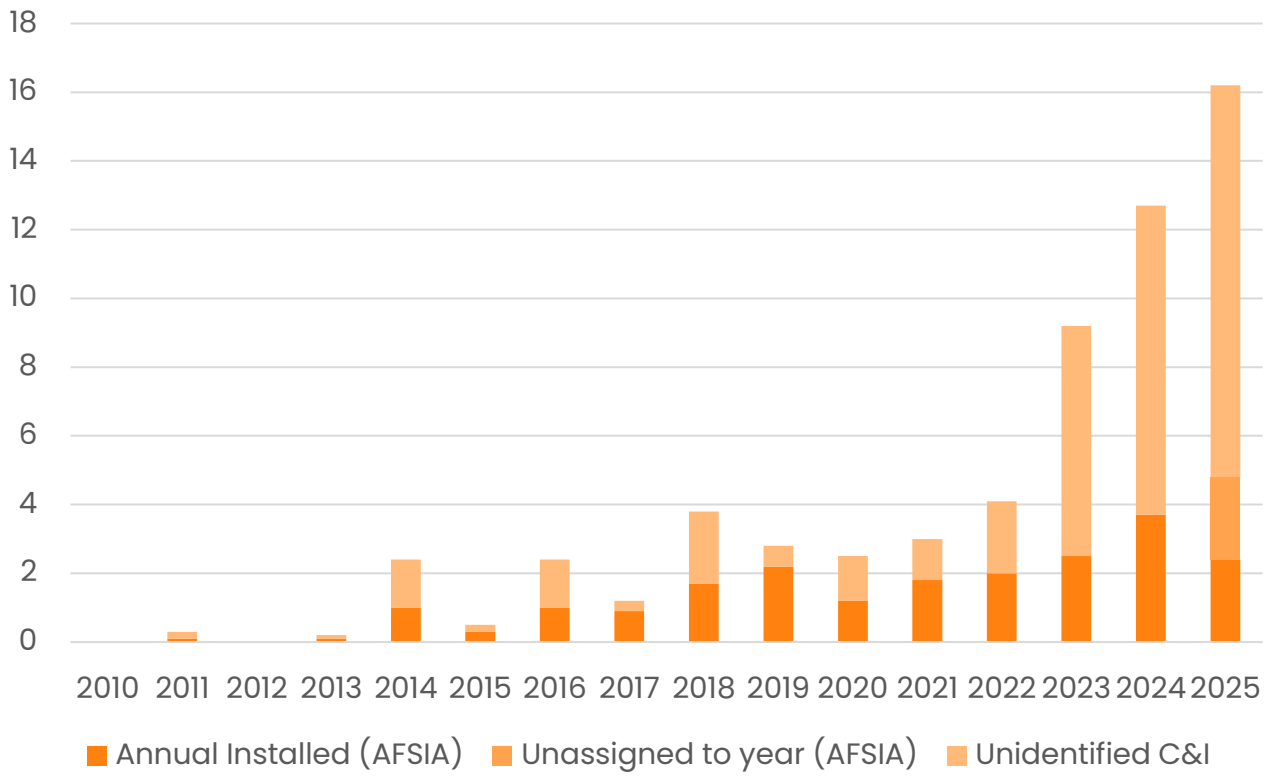
Africa Annual Installed Capacity



These new figures illustrate that Africa, while still representing a minor fraction of the global solar business, is actually 3 to 4 times more important than the narrative may have conveyed over the years (from 0.7% to 2.6% of global capacity in 2023-2025).

In a further section of this report, we will also highlight that Africa is the region of the world with the fastest growth. It is therefore not surprising that the major global manufacturers have now set their eyes on Africa as the next growth market, several of them even establishing manufacturing facilities on the continent.

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Impact on weight of segments

Taking this new volume into consideration, some assumptions must be made to assign this additional solar capacity to specific countries and specific segments, in order to give the most accurate possible picture of solar.

Export data is luckily broken down by country, so it is easy to assign precise volumes to each African country.

However, when it comes to the final use of these panels, and which segments they are being used in, AFSIA made the following assumptions:

- All utility-scale are documented officially, and no utility-scale project goes below the radar. Hence, it is very unlikely that a utility-scale project would be missing in the AFSIA database
- Mini-grids are most often government-led programs, and these are also documented officially. Hence it is very unlikely that mini-grid projects would be missing in the AFSIA database.
- SHS and PUE systems have been consistently reported on GOGLA over the years, and it is assumed that the volumes mentioned are fairly accurate.

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Impact on weight of segments

- Even if some mini-grids, SHS, and PUE applications may have been missed, their overall weight in MWp compared to other solar applications (utility-scale, C&I and residential) is actually marginal and any reporting error would actually not make for a big difference in the overall picture

- All the "unidentified" solar must be found in the C&I an residential segments

- Based on numerous conversations and interviews with C&I and residential installers across Africa, it is assumed that this unidentified capacity should be split 85/15 between C&I and residential respectively to provide a fairly accurate estimate

As a result, you may expect to see some important changes in the country vignettes in the second part of this report. Specifically, in the section "Total PV installed", the figures for operational C&I and residential installations will rise sharply. For ease of understanding, a distinction will be made between the MWp uniquely identified by AFSIA and those added through the unidentified imports.

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Africa grows faster that any other region in 2025

Despite the caveats identified earlier, the Chinese export data can help us identify global and regional trends. It can also help us compare Africa "apple to apple" with other regions. And in 2025, this analysis identifies Africa as the globe's fastest growing region for solar.

	2017	2018	2019	2020	2021	2022	2023	2024	2025	Grand Total
China	52,780	44,260	30,220	48,750	53,130	87,410	216,880	277,170	312,500	**1,123,100**
Africa	1,199.5	3,828.4	2,845.8	2,487.8	3,025.1	4,166.2	9,255.5	12,670.0	14,794.3	**54,272.8**
Asia	19,056.5	22,413.1	26,104.8	33,138.1	33,389.8	29,088.7	47,283.3	60,575.9	59,080.0	**330,130.0**
Europe	2,528.9	7,588.9	23,160.1	29,499.3	43,280.3	84,940.3	101,433.4	96,524.4	84,324.4	**473,230.0**
Latin America and Caribbean	4,140.4	3,320.7	2,964.1	3,018.8	4,026.2	8,033.0	13,788.8	27,174.9	21,939.5	**158,840.2**
Middle East	1,970.2	3,320.7	2,964.1	3,018.8	4,026.2	8,033.0	13,788.8	27,174.9	21,939.5	**86,236.2**
North America	2,289.3	335.7	982.2	2,201.3	654.8	434.5	629.1	1,155.4	1,216.2	**9,898.3**
Oceania	2,036.6	5,010.9	4,644.8	4,379.8	4,908.8	4,932.4	7,431.2	6,887.0	6,224.4	**46,456.0**
Grand Total	**86,001.4**	**96,161.4**	**101,455.9**	**133,370.8**	**158,464.5**	**243,167.1**	**426,139.1**	**514,406.3**	**522,997.2**	**2,282,163.5**

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The above table presents a combination of solar installations in China as well as official Chinese PV export data to all regions of the world (excluding China of course) between 2017 and 2025. Figures for 2025 are still estimates and/or partial as the latest official figures have not been published at the time of compiling this report. The total indicates 2.3 TWp of solar, to which an approximate 10% should be added to account for panels produced in other countries than China, bringing the total to 2.5-2.6 TWp globally.

Next to confirming that China hosts almost 50% of all global solar capacity, this table also helps us identify trends. The below table computes the annual growth rates per region:

Growth Rate	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR since 2021
China		-16%	-32%	61%	9%	65%	148%	28%	13%	56%
Africa		219%	-26%	-13%	22%	38%	122%	37%	17%	49%
Asia		18%	16%	27%	1%	-13%	63%	28%	-2%	15%
Europe		200%	205%	27%	47%	96%	19%	-5%	-13%	18%
Latin America and Caribbean		127%	12%	-6%	61%	51%	22%	10%	-29%	9%
Middle East		69%	-11%	2%	33%	100%	72%	97%	-19%	53%
North America		-85%	193%	124%	-70%	-34%	45%	84%	5%	17%
Oceania		146%	-7%	-6%	12%	0%	51%	-7%	-10%	6%
Grand Total		**12%**	**6%**	**31%**	**19%**	**53%**	**75%**	**21%**	**2%**	**35%**

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From this table, we can truly track the massive fluctuations of global growth over the past few years. Europe experienced solid growth in the period 2018-2022, but this growth has now drastically reduced and the European solar market even started to experience a negative growth recently.

Over the same period, North America has experienced alternate waves of strong growth and shrinking and appears to be somewhat stable in 2025.

But the most notable element from this table is undoubtedly the performance of Africa. Between 2019 and 2022, Africa was positioned among the least growing regions of the world. 2023 gave the continent a major boost, pushed by the power crisis in South Africa, and brought the region to the 2nd fastest growing region that year (+122%). This performance was then further sustained in 2024 and 2025, albeit with more moderate growth rates (+37% and +17% respectively). And when zooming in on 2025, it appears that only 3 regions have increased their imports compared to 2024: China, Africa and the Middle East. And among those 3, Africa has grown the most with a 17% increase.

Zooming out a little bit and widening the analysis over the entire post-COVID period, Africa also performs extremely well with an honorable 3rd best compounded growth rate, very closely behind China and the Middle East.

Over the past decade, Africa has repetitively been presented as one of the least attractive solar regions, representing a mere 0.5% to 1% of the market. But with the latest info collected, this perception is quickly changing. First, it appears that Africa represented a much bigger market share, but this simply was not properly tracked and measured (and a lot still needs to be done to obtain accurate data). But more importantly, Africa now appears to be experiencing one of the fastest growths on the globe and therefore becoming a key market to tap into for all types of industry stakeholders. The next few years will show is this growth is only temporary or is based on strong foundations that make solar the unavoidable way forward to electrify the African continent.

John van Zuylen
CEO, AFSIA

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Storage supports the growth of solar in Africa

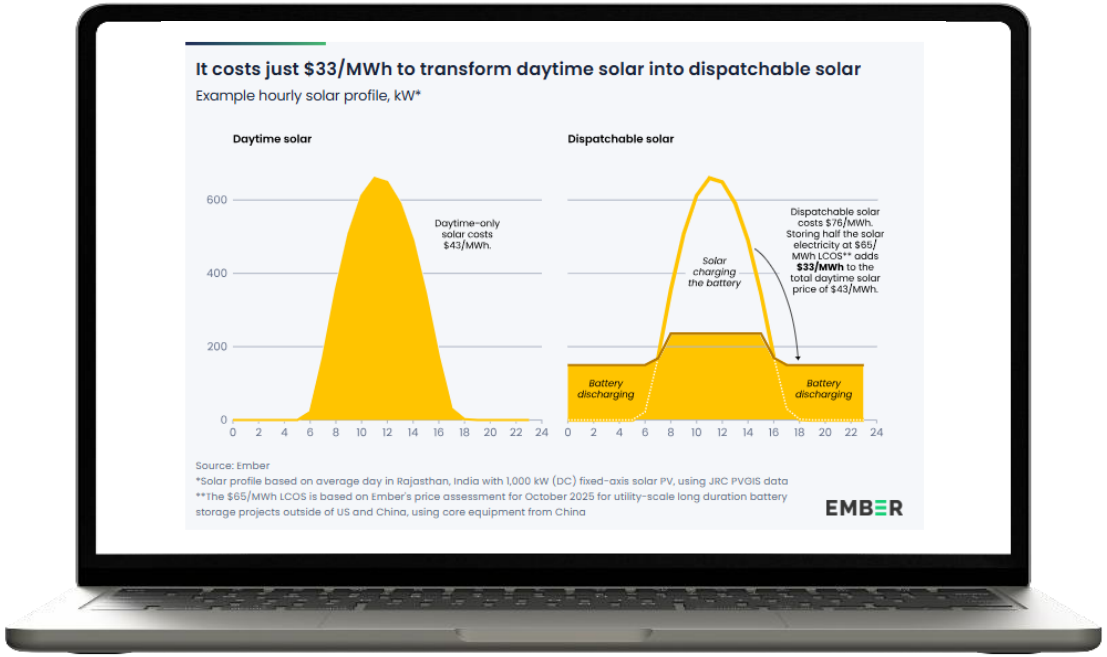
In last year's report we already identified how storage was experiencing a hockey stick growth curve in Africa, with 3, 10 and 11-fold annual increases. This growth was mainly due to a sustained cost reduction, combined with technology improvements making the solutions more flexible and longer-lasting.

Real 2025 $/kWh	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pack	79	61	57	42	36	34	33	37	36
Cell	187	157	132	123	119	132	111	78	76
Total	266	218	189	165	155	166	144	115	112
YoY %		-18%	-13%	-13%	-6%	7%	-13%	-20%	-3%

CAGR = -10%

This ever-decreasing price of storage has game-changing implications for a region like Africa with a dire need for stable and baseload power. Indeed, solar has for long been one of the cheapest and most versatile sources of power, but its intermittency and the fact that it is produced only during the day have limited its use in the African energy mix.

But at an affordable cost, storage can help solar overcome these limitations and become the main contributor in the African power generation scene (more so than in many other regions of the world, thanks to the excellent solar irradiation of the continent). Energy think tank Ember provided an excellent demonstration of this by analyzing the latest cost storage and identifying how much it would cost to transform “daytime solar” to “fully dispatchable solar” thanks to storage. The answer is “it costs just $33/MWh to transform daytime solar into dispatchable solar”



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The analysis looked at such a scenario in Rajasthan, a sunny region of India, but many countries in Africa enjoy similar solar irradiation.

Based on this analysis, it now costs only $33/MWh to make solar dispatchable (e.g: this is the cost of storing excess solar electricity and releasing it when needed later during the evening, night or early morning).

Adding the cost of generating the solar electricity in Rajasthan, evaluated at $43/MWh, it brings around-the-clock solar energy at a total cost of only $76/MWh, which is already competitive with other forms of firm generation in many markets and for example cheaper than a new gas power plant, especially if the country relies on expensive LNG imports.

The Ember study concludes:

Cheap batteries do not just complement solar — they unlock its full potential. Solar is no longer just cheap daytime electricity; with storage, it becomes dispatchable, anytime electricity. Together, solar and batteries are on track to meet much of the world's energy demand growth over the next decade.

John van Zuylen
CEO, AFSIA

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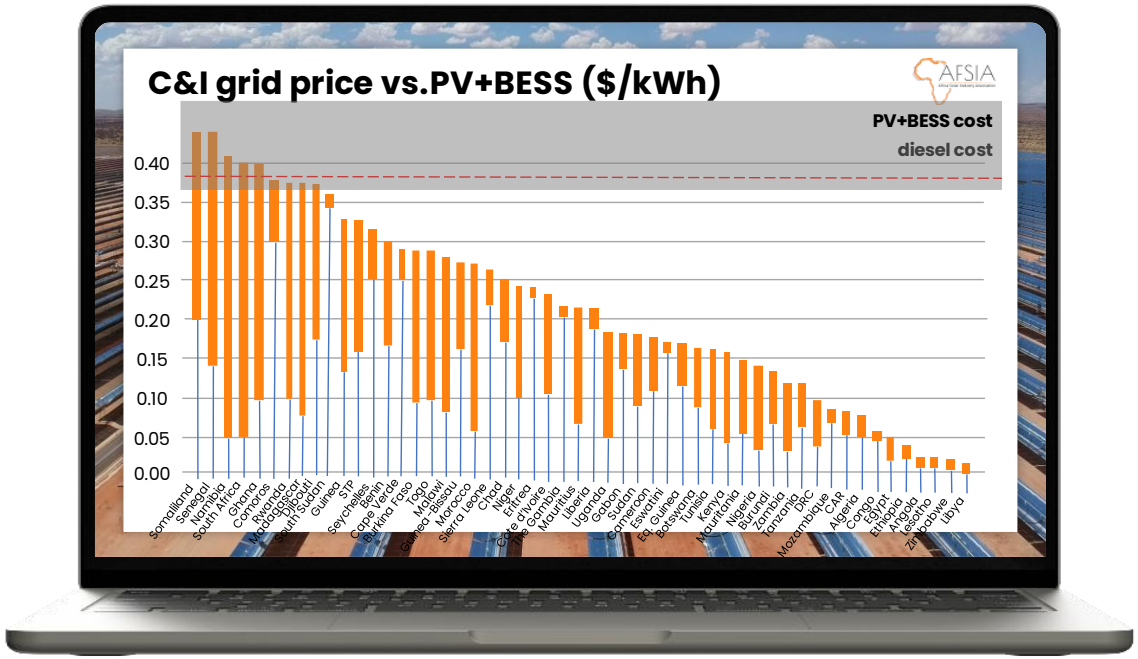
A similar analysis about the evolution of storage prices and its growing attractiveness was conducted by AFSIA for one industry event dedicated to storage in late 2025. In this case, AFSIA analyzed the attractiveness of PV+BESS for C&I electricity consumers in Africa. And the cost/benefit evolution is self-explanatory.

The graph above plots the ranges of electricity prices for C&I customers across each African country (orange bars). The grey area identifies the cost range of PV+BESS around 2021. At that time, PV+BESS was still significantly more expensive than most grid tariffs, but also than diesel-generated electricity.



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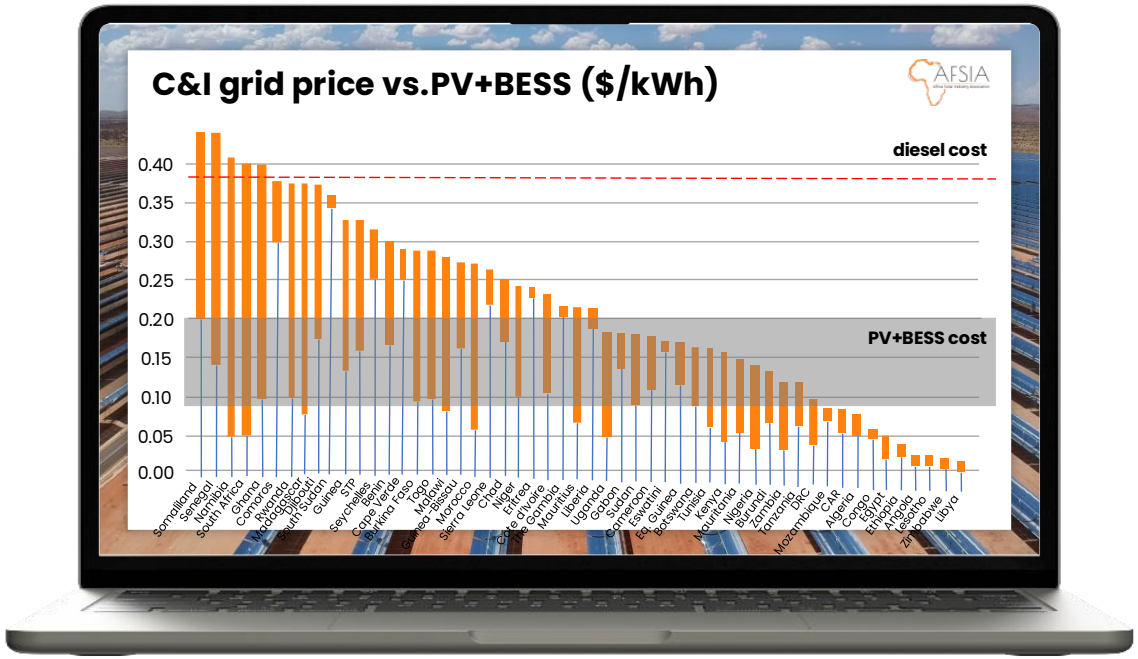
Fast-forward to 2025, grid tariffs have not fundamentally changed in USD terms (and if they have, they have increased). But solar generation combined with storage has significantly decreased. Taking into this new cost of storage, the grey range has moved down to somewhere between $0.07 and $0.20 (taking into imperfect load curves and solar electricity consumption). At this price point, PV+BESS has become extremely competitive with C&I grid prices, let alone diesel generators, as depicted in the graph below:

Moreover, the above graph does not even take into account grid outages which would force the end-users to either use diesel generators or simply pause their business activity (causing losses). In reality, PV+BESS may already be more competitive than the grid in almost all African countries. And there all reason to believe that this trend and the adoption of PV+BESS is going to accelerate over the next few years, as grid prices are invariably increasing over time, while PV+BESS continues its downward slope.



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Peter Wamalwa

Digital Business Manager Africa, JA Solar

JA SOLAR

JA Solar's BESS Solution: Revolutionizing On/Off-Grid C&I Microgrids

In an era where energy reliability and sustainability are paramount for commercial and industrial (C&I) operations, JA Solar Technology Co., Ltd. introduces its advanced Battery Energy Storage System (BESS) solution tailored for on/off-grid C&I microgrids. This integrated PV-storage-generator system addresses key pain points in energy management, offering a robust framework for businesses facing unreliable power supplies. By combining solar photovoltaic (PV) generation, energy storage, and backup generators, the solution ensures seamless power delivery, cost savings, and environmental benefits.

The challenges in C&I energy landscapes are multifaceted. Unreliable grids and frequent load-shedding lead to costly downtime, disrupting business operations and productivity. Volatile electricity prices, coupled with the reliance on polluting diesel backups, make cost control unpredictable and environmentally harmful. Additionally, solar generation often mismatches demand patterns, resulting in low self-consumption rates and high energy waste through curtailment. These issues not only inflate operational expenses but also hinder sustainable practices.

JA Solar's BESS solution counters these challenges with innovative features. It supports both AC and DC coupling, allowing multi-parallel Power Conversion Systems (PCS) up to 3MW. This enables a seamless transition from grid-connected to island mode in ≤20ms using PQ/VF control modes, guaranteeing uninterrupted supply to critical loads during grid failures. The site Energy Management System (EMS) intelligently coordinates PV arrays, storage units, and generators to optimize energy dispatch. This reduces diesel dependence while maintaining continuous power for essential operations. Furthermore, the system's black start capability facilitates autonomous power restoration and energy reconstruction, ensuring quick recovery from outages.

The benefits are tangible and multifaceted. The integrated PV-storage-generator approach enhances power reliability and system stability, mitigating the impacts of grid failures and load shedding. Energy storage enables peak-valley arbitrage, allowing users to store low-cost energy during off-peak hours and use it during high-demand periods, reducing electricity costs by 6%-12% and minimizing reliance on expensive backup power. By regulating renewable energy fluctuations, the system boosts self-consumption and curtails waste, promoting efficient use of solar resources.

Delving into the advantages, safety stands out as a core pillar. JA Solar implements comprehensive cell screening with multi-dimensional battery cell selection and testing protocols. Multi-layer protection integrates electrical, structural, and explosion-proof safeguards, including a three-level fire protection design. The company boasts zero safety incidents, underscoring a proven track record of no accidents. For cost efficiency, the solution offers an integrated control for PV-storage-generator systems that optimizes overall energy costs. It features low auxiliary energy consumption, high system-wide efficiency, and a modular design that streamlines operation and maintenance.

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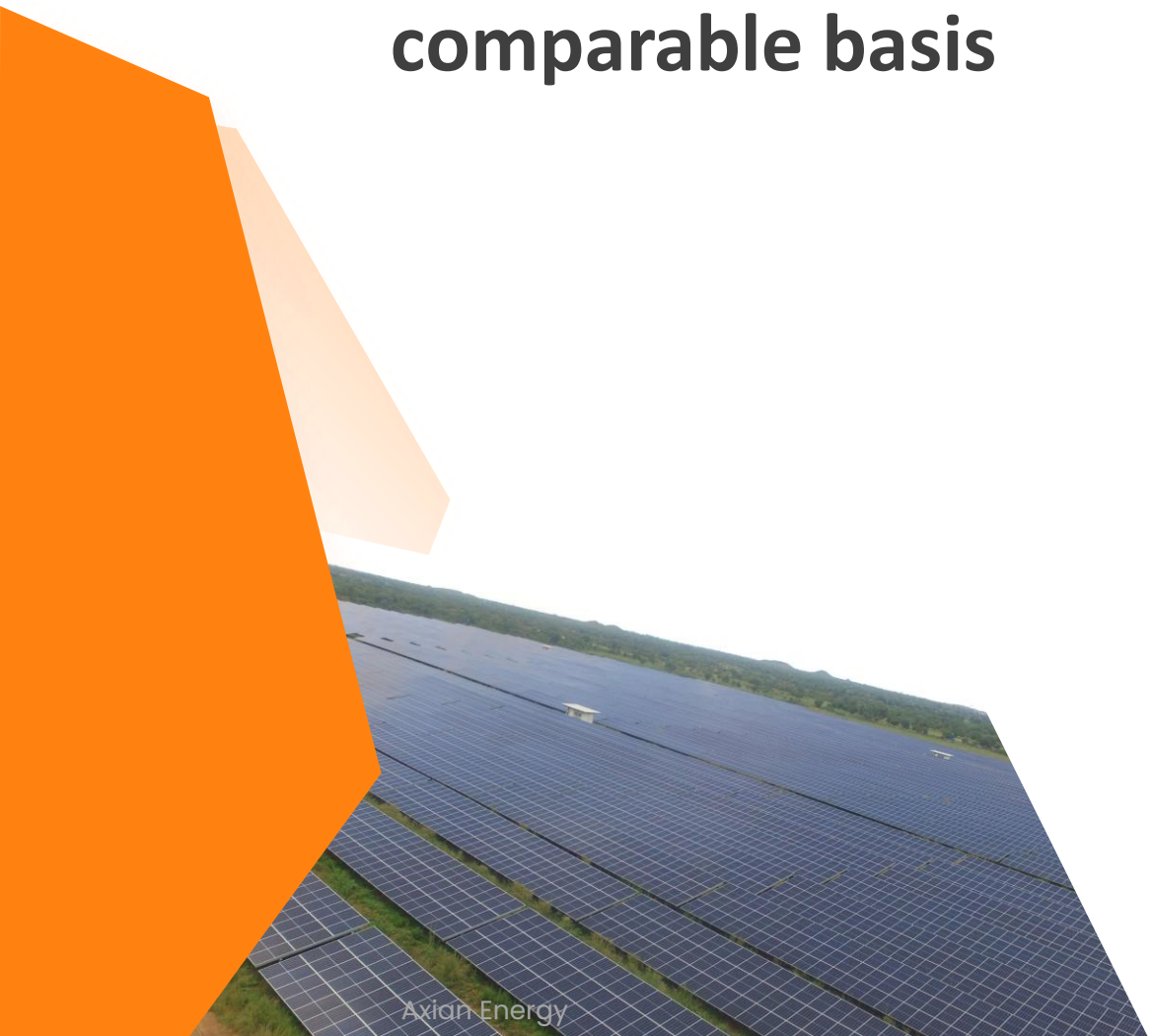
Reliability is equally emphasized. The system supports seamless grid-connected/off-grid transitions and black-start capabilities. It exhibits strong environmental adaptability and immunity to interference, aided by an isolated transformer. JA Solar provides one-stop service and full lifecycle intelligent operations and maintenance (O&M) support, ensuring long-term performance.

The technical specifications highlight a range of models: JAP-100kW, JAP-150kW, JAP-250kW, JAG-500kW, and JAG-1000kW. On the AC side, nominal powers range from 100kW to 1000kW, with corresponding nominal currents from 144A to 1445A. All models share a nominal voltage of 400V (3W+N+PE), a voltage range of 320-460V, and a nominal frequency of 50/60Hz. Power factor is adjustable from 1.0 leading to 1.0 lagging, with overload capacity at 110% long-term and 120% for 1 minute. On/off-grid switching is supported in 20ms, and isolation transformers vary slightly: 270/400V for JAP-100kW, and 315/400V for the others.

PV integration is optional, with MPPT trackers numbering 2 for the smaller models, up to 16 for JAG-1000kW. MPPT rated powers span 150kWp to 1200kWp. Batteries use 3.2V/280Ah LFP cells in configurations from 1P240S to 10P240S, with cluster counts from 1 to 10. Nominal energies range from 215kWh to 2150kWh, all with a max C-rate of 0.5P at 25°C.

Basic parameters include IP54 protection level across all models. Maximum off-grid parallel quantities are 6 for most, dropping to 3 for JAG-1000kW. All operate up to 2000m altitude (with derating above), use intelligent air cooling, and support EMS communication via RS485 and TCP/IP. Fire suppression systems employ Aerosol for smaller models and HFC-227ea for larger ones. Notably, the number of MPPT trackers and battery clusters is customizable to suit specific project needs.
JA Solar's BESS solution exemplifies a forward-thinking approach to C&I microgrids, blending reliability, efficiency, and safety. For inquiries, contact africa@jasolar.com or visit www.jasolar.africa. This innovation not only stabilizes energy supply but also drives economic and ecological advantages, positioning businesses for a resilient future.

Assessing national solar performance on a comparable basis



In the solar sector, performance is most often assessed using absolute metrics: higher installed capacity is equated with stronger performance. While useful, this approach tends to produce a repetitive narrative that consistently highlights the same large or more advanced markets. However, Africa is characterized by significant diversity in country size, population, economic structure, and power-sector maturity. As a result, national starting points in the solar transition vary widely, making comparisons based solely on installed megawatts inherently limited.

Assessing national solar performance on a comparable basis

For the third consecutive year, the Africa Solar Outlook therefore applies a complementary, relative framework to assess national solar performance. By examining indicators such as installed capacity in relation to population, country size, or existing power generation, this approach places solar development in its proper national context. The resulting rankings differ markedly from those based on absolute figures alone, offering greater visibility to countries that are achieving tangible solar progress relative to their scale, while moderating the prominence of larger markets whose performance may appear less significant when viewed proportionally.

We will look at 3 specific relative metrics:

1. "Wp/capita" (already mentioned in 2025 report)
2. "solar % in the overall generation mix" (already mentioned in 2025 report)

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Wp/capita (AFSIA data)

Ranking 2025	Country	Population 2025 (31 Dec)	MWp 2025	Wp/Capita	Movement vs. 2024
1	South Africa	65,103,183	13114.57	201.44	+1
2	Seychelles	133,903	23.36	174.44	-1
3	Mauritius	1,266,740	169.21	133.58	-
4	Namibia	3,122,815	390.84	125.16	-
5	Cape Verde	528,503	40.89	77.37	-
6	Tunisia	12,382,923	903.46	72.96	+8
7	Botswana	2,582,115	170.67	66.10	+12
8	Morocco	38,598,310	1216.30	31.51	-1
9	Mauritania	5,385,601	169.04	31.39	-1
10	Egypt	119,217,492	3369.38	28.26	-4
11	Eswatini (formerly Swaziland)	1,262,917	28.93	22.91	+2
12	Senegal	19,142,433	378.31	19.76	-2
13	Zambia	22,206,135	392.67	17.68	-2
14	Comoros	890,771	12.97	14.56	+14
15	Lesotho	2,376,064	30.38	12.78	-3
16	Zimbabwe	17,107,668	208.97	12.21	+7
17	Kenya	58,071,206	622.39	10.72	+4
18	Angola	39,602,046	419.79	10.60	-3
19	Burkina Faso	24,330,732	257.07	10.57	-1
20	The Gambia	2,852,342	27.70	9.71	-4
21	Algeria	47,734,166	461.68	9.67	-4
22	Togo	9,822,599	83.52	8.50	-2
23	Central African Republic	5,602,026	43.61	7.78	-1
24	Mali	25,551,050	172.95	6.77	+1
25	Eritrea	3,643,677	24.17	6.63	+11
26	Sierra Leone	8,906,330	56.86	6.38	+6
27	Malawi	22,489,709	141.42	6.29	-3

Wp/capita (AFSIA data)

Ranking 2025	Country	Population 2025 (31 Dec)	MWp 2025	Wp/Capita	Movement vs. 2024
28	Ghana	35,375,189	192.47	5.44	-1
29	Sao Tome and Principe	242,566	1.28	5.27	-3
30	South Sudan	12,307,775	59.36	4.82	+5
31	Gabon	2,619,549	11.62	4.44	-2
32	Mozambique	36,113,746	154.99	4.29	-2
33	Somalia	19,965,478	85.64	4.29	-2
34	Sudan	52,446,879	190.75	3.64	+10
35	Chad	21,271,325	75.65	3.56	+16
36	Madagascar	33,119,151	107.05	3.23	-2
37	Benin	14,986,592	48.39	3.23	-4
38	Niger	28,347,486	82.16	2.90	+2
39	Equatorial Guinea	1,960,823	5.21	2.66	+13
40	Djibouti	1,191,463	3.15	2.65	-31
41	Guinea	15,266,884	35.83	2.35	-3
42	Cameroon	30,247,871	70.18	2.32	-5
43	Uganda	52,050,973	112.37	2.16	-4
44	Nigeria	239,910,392	488.41	2.04	-1
45	Cote d'Ivoire	33,091,726	64.27	1.94	-3
46	Rwanda	14,727,783	23.76	1.61	-5
47	Libya	7,497,050	9.47	1.26	+6
48	Liberia	5,788,768	5.25	0.91	+1
49	Burundi	14,554,811	12.52	0.86	-2
50	Guinea-Bissau	2,273,118	1.85	0.81	-5
51	Republic of the Congo	6,558,560	4.58	0.70	-5
52	Tanzania	71,517,935	38.05	0.53	-4
53	Democratic Republic of the Congo	114,565,332	51.59	0.45	+1
54	Ethiopia	137,130,638	40.05	0.29	-4

In the Wp/capita ranking, we notice that

- The Top 5 remains almost unchanged this year, with South Africa, Seychelles, Mauritius, Namibia, and Cape Verde all retaining their positions among the leading performers.
- The cut-off rate for the Top 5 remains stable, standing at 77 Wp/capita, unchanged from last year.
- A shift at the top of the ranking is observed this year. South Africa takes the number one position from Seychelles, driven by a significant increase in its Wp/capita to 201 Wp/capita, up from 145 Wp/capita last year. Seychelles remains close behind in second place with 174 Wp/capita.
- Chad records the largest jump in this year's ranking, climbing 16 positions, mainly following the commissioning of the 50 MW solar power plant in N'Djamena.
- Other notable rising stars of 2025 include Comoros, Equatorial Guinea, and Botswana, which moved up 14, 13, and 12 positions respectively.

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Wp/capita (AFSIA data adjusted using Chinese export data)

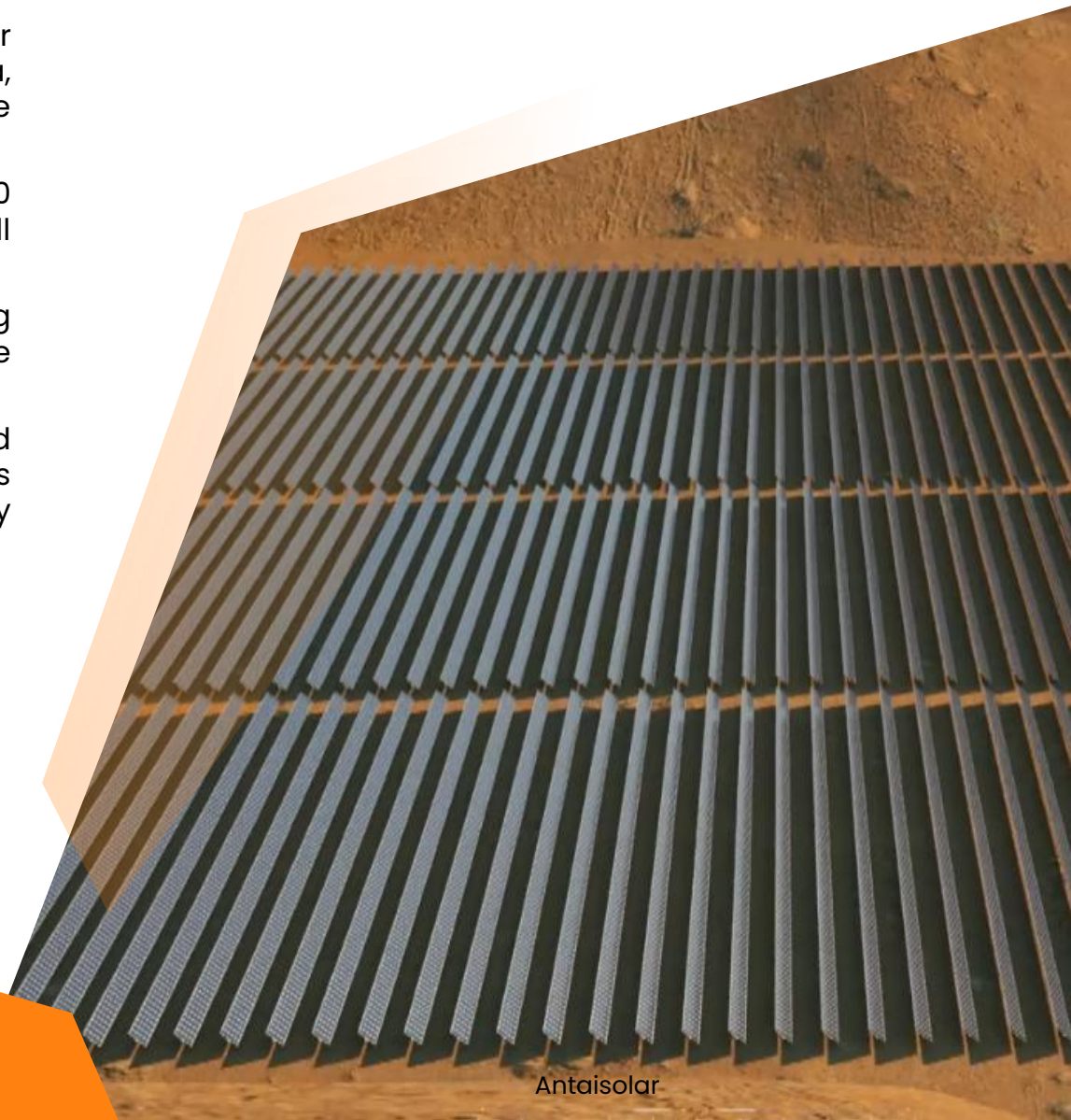
Ranking 2025	Country	Population 2025 (31 Dec)	MWp 2025	Wp/Capita	Movement vs. 2024
1	Namibia	3,122,815	1439.64	461.01	+3
2	South Africa	65,103,183	19151.83	294.18	-
3	Seychelles	133,903	31.83	237.67	-2
4	Mauritius	1,266,740	296.44	234.02	-1
5	Tunisia	12,382,923	2233.79	180.39	+9
6	Djibouti	1,191,463	163.83	137.50	+3
7	Morocco	38,598,310	4225.06	109.46	-
8	Senegal	19,142,433	2052.24	107.21	+2
9	Cape Verde	528,503	48.03	90.87	-4
10	Botswana	2,582,115	170.67	66.10	+9
11	Togo	9,822,599	616.83	62.80	+9
12	Egypt	119,217,492	7443.04	62.43	-6
13	Mauritania	5,385,601	314.10	58.32	-5
14	Algeria	47,734,166	2356.39	49.36	+3
15	Comoros	890,771	42.87	48.13	+13
16	Kenya	58,071,206	2434.05	41.91	+5
17	Sierra Leone	8,906,330	350.07	39.31	+15
18	Zambia	22,206,135	830.36	37.39	-7
19	The Gambia	2,852,342	92.90	32.57	-3
20	Zimbabwe	17,107,668	543.63	31.78	+3
21	Benin	14,986,592	410.73	27.41	+12
22	Cameroon	30,247,871	827.17	27.35	+15
23	Mozambique	36,113,746	972.14	26.92	+7
24	Ghana	35,375,189	944.03	26.69	+3
25	Eritrea	3,643,677	85.54	23.48	+11
26	Eswatini (formerly Swaziland)	1,262,917	28.93	22.91	-13
27	Liberia	5,788,768	126.33	21.82	+22

Wp/capita (AFSIA data adjusted using Chinese export data)

Ranking 2025	Country	Population 2025 (31 Dec)	MWp 2025	Wp/Capita	Movement vs. 2024
28	Sudan	52,446,879	1074.39	20.49	+16
29	Nigeria	239,910,392	4814.45	20.07	+14
30	Cote d'Ivoire	33,091,726	658.65	19.90	+12
31	Guinea	15,266,884	283.50	18.57	+7
32	Tanzania	71,517,935	1317.62	18.42	+16
33	Madagascar	33,119,151	564.21	17.04	+1
34	Burkina Faso	24,330,732	365.50	15.02	-16
35	Mali	25,551,050	331.20	12.96	-10
36	Lesotho	2,376,064	30.38	12.78	-24
37	Somalia	19,965,478	242.72	12.16	-6
38	Sao Tome and Principe	242,566	2.89	11.91	-12
39	Malawi	22,489,709	259.39	11.53	-15
40	Gabon	2,619,549	28.74	10.97	-11
41	Chad	21,271,325	231.98	10.91	+10
42	Angola	39,602,046	419.79	10.60	-27
43	Democratic Republic of Congo	114,565,332	1126.82	9.84	+11
44	Central African Republic (CAR)	5,602,026	51.42	9.18	-22
45	Uganda	52,050,973	451.80	8.68	-6
46	Libya	7,497,050	60.76	8.10	+7
47	Republic of Congo	6,558,560	34.98	5.33	-1
48	South Sudan	12,307,775	59.36	4.82	-13
49	Niger	28,347,486	127.66	4.50	-9
50	Equatorial Guinea	1,960,823	8.80	4.49	+2
51	Guinea-Bissau	2,273,118	9.92	4.36	-6
52	Rwanda	14,727,783	39.53	2.68	-11
53	Burundi	14,554,811	27.02	1.86	-6
54	Ethiopia	137,130,638	184.91	1.35	-4

Following the integration of the additional Chinese export data source to refine installed solar capacity estimates, the Wp/capita ranking has been updated. This revised view leads to several notable changes, which are:

- The Top 5 sees a notable change this year, with Tunisia joining the group for the first time in the past three years, alongside Namibia, South Africa, Seychelles, and Mauritius. This entry is also largely driven by the commissioning of the 120 MWp Kairouan Solar PV plant
- The cut-off rate for the Top 5 increases sharply in 2025, reaching 180 Wp/capita, compared to 77 Wp/capita last year, reflecting a higher overall level of identified installed capacity
- A change at the top of the ranking is observed this year, with Namibia taking the number one position, overtaking South Africa, now ranked #2, while Seychelles moves to #3
- Outside the leading group, several countries record significant upward movements, with Liberia, Sudan, and Tanzania emerging as the rising stars of 2025, climbing 22, 16, and 16 positions respectively, followed closely by Cameroon and Sierra Leone, each advancing by 15 positions.



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Solar contribution in electricity mix

The share of solar in the overall electricity mix remains a particularly relevant metric, as installed solar capacity does not translate into electricity production in the same way as other generation technologies such as hydro, coal, gas, or nuclear. Comparing installed capacities across technologies therefore provides a distorted picture of their respective contributions. For instance, while 1 MW of hydropower can generate around 5,000 MWh of electricity per year depending strongly on site-specific conditions, 1 MW of solar capacity in Africa produces on average approximately 1,500 MWh annually, with significant variation from one country to another. Expressing contributions in terms of electricity generated (MWh or GWh), rather than installed megawatts, therefore allows for a more meaningful like-for-like comparison.

This indicator is also essential from a policy perspective. Many African governments have publicly committed, often within the framework of their COP engagements, to achieving a defined share of renewable energy and/or solar within their national electricity mix. Without a clear estimate of how much electricity solar actually produces in a given country, it is not possible to meaningfully track progress toward these objectives.

As in previous editions, this analysis relies on the comprehensive electricity generation database of the African Energy Commission (AFREC), an institution of the African Union, to assess overall national electricity figures. To reflect actual electricity consumption more accurately, the methodology focuses on total available electricity, rather than gross production alone. Total available electricity is calculated by taking gross national electricity production, adding imported electricity, and subtracting exported electricity. This approach ensures that countries with significant cross-border electricity exchanges are assessed on the basis of electricity effectively available for domestic use.

For solar generation, AFSIA continues to rely on its latest database of installed solar capacities in each country, combined with average national solar yield assumptions to estimate annual solar electricity generation in GWh. In line with the approach used for total available electricity, a corresponding adjustment is applied in cases where solar-generated electricity is exported. Taken together, these assumptions provide AFSIA's best approximation of the share of solar in national electricity consumption and allow for a consistent comparison of relative performance across countries.

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Solar % in power generation mix (AFSIA data)

Ranking 2025	Country	Available 2023 GWh	Solar gene-ration (GWh)	Solar % in energy mix	Movement vs. 2024
1	Central African Republic	185	70	37.3%	-
2	Chad	402	148	36.7%	+36
3	Somalia	489	158	32.4%	+1
4	Sierra Leone	456	82	18.1%	+5
5	Namibia	4,099	762	17.7%	-2
6	Mauritania	1,774	296	16.7%	-4
7	Comoros	110	18	16.5%	+13
8	South Sudan	713	95	13.3%	+2
9	Burkina Faso	3,491	411	11.8%	-1
10	Malawi	2,162	240	11.0%	-5
11	South Africa	203,483	22,762	10.7%	+2
12	Eritrea	421	45	10.6%	+9
13	Cape Verde	659	70	10.5%	-6
14	Kenya	13,116	1,151	8.8%	+1
15	Niger	1,795	152	8.5%	-1
16	Madagascar	2,525	193	7.6%	+1
17	Mauritius	3,265	245	7.5%	-6
18	Senegal	8,334	605	7.3%	-6
19	Tunisia	23,772	1,581	6.6%	+23
20	Botswana	4,695	324	6.6%	+20
21	Seychelles	613	40	6.5%	-2
22	Togo	1,978	121	6.1%	-6
23	Lesotho	952	56	5.9%	-5
24	Morocco	45,398	2,250	4.9%	-2
25	Angola	15,830	672	4.2%	-
26	Burundi	461	18	3.9%	+3
27	The Gambia	1,122	42	3.7%	-21

Solar % in power generation mix (AFSIA data)

Ranking 2025	Country	Available 2023 GWh	Solar gene-ration (GWh)	Solar % in energy mix	Movement vs. 2024
28	Zimbabwe	10,506	366	3.4%	+4
29	Mali	7,911	303	3.4%	-5
30	Zambia	23,660	668	3.3%	-2
31	Benin	2,078	63	3.0%	-1
32	Egypt	227,820	6,570	2.9%	-9
33	Uganda	5,738	174	2.8%	-6
34	Eswatini (formerly Swaziland)	1,631	42	2.6%	-
35	Rwanda	1,264	31	2.4%	-9
36	Guinea	3,273	61	1.9%	-3
37	Sudan	20,345	353	1.7%	+4
38	Nigeria	49,052	757	1.5%	-3
39	Ghana	27,021	289	1.2%	-8
40	Cameroon	9,038	105	1.2%	-1
41	Sao Tome and Principe	118	1	1.1%	-4
42	Guinea-Bissau	293	3	0.9%	-6
43	Algeria	93,186	877	0.9%	-
44	Mozambique	17,191	240	0.8%	-
45	Cote d'Ivoire	12,787	96	0.7%	-
46	Djibouti	825	5	0.7%	+5
47	Tanzania	11,538	67	0.5%	-1
48	Democratic Republic of the Congo	16,387	85	0.5%	+1
49	Equatorial Guinea	1,580	7	0.4%	+4
50	Ethiopia	15,985	74	0.4%	-2
51	Liberia	2,168	7	0.3%	-4
52	Republic of the Congo	2,785	6	0.2%	-2
53	Gabon	9,693	15	0.2%	-1
54	Libya	37,172	18	0.0%	-

In this ranking we observe:

- African countries continue to demonstrate strong performance in terms of solar penetration in their electricity mix, with 23 countries now generating 5% or more of the electricity they consume from solar
- The upper end of the ranking continues to deepen, with 7 countries already exceeding 15% solar penetration, and 13 countries reaching more than 10% of solar in their total electricity consumption
- The Top 3 records notable changes this year, with the Central African Republic retaining the leading position, albeit with a slight decrease in its solar share, while Chad and Somalia emerge as newcomers, ranking 2nd and 3rd respectively
- The largest upward movement in this year's ranking is observed in Chad. Following the commissioning of a 50 MW solar plant in N'Djamena, the country climbs 36 positions, securing 2nd place overall
- Tunisia records the second biggest improvement of 2025, rising 23 positions to reach 19th place, largely driven by the commissioning of the 120 MWp Kairouan Solar PV plant
- Other countries showing notable progress in this year's ranking include Comoros, Botswana, and Eritrea

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Solar % in power generation mix (AFSIA data adjusted using Chinese export data)

Ranking 2025	Country	Available 2023 GWh	Solar gene-ration (GWh)	Solar % in energy mix	Movement vs. 2024
1	Somalia	489	706	144.4%	+3
2	Chad	402	454	112.9%	+36
3	Central African Republic	185	145	77.5%	-2
4	Namibia	4,099	2,853	66.4%	-1
5	Comoros	110	64	58.5%	+15
6	Togo	1,978	924	46.7%	+10
7	Madagascar	2,525	1,017	40.3%	+10
8	Senegal	8,334	3,284	39.4%	+4
9	Eritrea	421	161	38.3%	+12
10	Kenya	13,116	4,505	34.3%	+5
11	Djibouti	825	281	34.0%	+40
12	Mauritania	1,774	558	31.5%	-10
13	Benin	2,078	535	25.7%	+17
14	Malawi	2,162	550	25.3%	-9
15	Burkina Faso	3,491	685	19.6%	-7
16	Tanzania	11,538	2,305	19.0%	+30
17	Sierra Leone	456	82	18.1%	-8
18	Tunisia	23,772	4,120	17.3%	+24
19	Morocco	45,398	7,870	17.2%	+3
20	South Africa	203,483	35,410	16.6%	-7
21	Niger	1,795	287	16.0%	-7
22	Guinea	3,273	513	15.7%	+11
23	Cape Verde	659	100	15.2%	-16
24	South Sudan	713	108	15.1%	-14
25	Nigeria	49,052	7,465	14.5%	+10
26	Mauritius	3,265	460	14.1%	+15
27	Cameroon	9,038	1,241	13.7%	+12

Solar % in power generation mix (AFSIA data adjusted using Chinese export data)

Ranking 2025	Country	Available 2023 GWh	Solar gene-ration (GWh)	Solar % in energy mix	Movement vs. 2024
28	The Gambia	1,122	148	13.1%	-22
29	Seychelles	613	74	12.0%	-10
30	Burundi	461	53	11.5%	-1
31	Democratic Republic of the Congo	16,387	1,862	11.3%	+18
32	Uganda	5,738	700	11.2%	-5
33	Sudan	20,345	1,986	9.8%	+8
34	Zimbabwe	10,506	978	9.0%	-2
35	Mali	7,911	751	8.3%	-11
36	Liberia	2,168	178	8.2%	+11
37	Zambia	23,660	1,545	7.7%	+9
38	Cote d'Ivoire	12,787	990	7.2%	+7
39	Egypt	227,820	16,098	7.0%	-16
40	Botswana	4,695	336	6.8%	-
41	Lesotho	952	64	6.6%	-23
42	Ghana	27,021	1,423	5.8%	-11
43	Mozambique	17,191	1,576	5.5%	+1
44	Algeria	93,186	4,689	4.9%	-1
45	Angola	15,830	745	4.7%	-20
46	Rwanda	1,264	59	4.7%	-20
47	Guinea-Bissau	293	13	4.5%	-11
48	Sao Tome and Principe	118	4	3.8%	-11
49	Eswatini (formerly Swaziland)	1,631	43	2.7%	-15
50	Ethiopia	15,985	340	1.9%	-2
51	Republic of the Congo	2,785	44	1.5%	-1
52	Equatorial Guinea	1,580	18	1.1%	+1
53	Gabon	9,693	39	0.4%	-1
54	Libya	37,172	116	0.3%	-

Building on the updated capacity assessment introduced above with the introduction of a new data source, the analysis of solar generation has also been revisited, resulting in several notable shifts:

- The composition of the top three changes significantly. While the Central African Republic remains among the leading performers, it moves from first to third place. Chad consolidates its strong position in second place, while Somalia now takes the top spot, rising from third place under the previous data set.

- The overall level of solar penetration appears markedly higher, with 14 countries now exceeding the 25% threshold and 32 countries producing more than 10% of their electricity from solar, highlighting a broader and deeper contribution of solar across the continent.

- Djibouti records the largest upward movement in the ranking, climbing 40 positions to reach 11th place. Chad follows as the second strongest mover, advancing 36 spots to second place, supported by the commissioning of GSU's 50 MW solar plant in N'Djamena. Tunisia also posts a notable rise, moving up 24 positions following the commissioning of its 120 MWp solar power plant in Kairouan.

- Additional upward shifts are observed in Tanzania, the Democratic Republic of Congo, Benin, Mauritius, and Comoros, reflecting an involvement of solar in their respective electricity mixes.

- While reading you may have noticed Somalia and Chad show solar penetration exceeding **100%**. This is likely caused by two factors may be taken into account: AFREC's national electricity data may underestimate total solar generation by accounting for the on-grid values and dismissing the off-grid ones, while our estimates based on Chinese solar panel export data could slightly overestimate the installed capacity, as not all recorded exported panels may have been used solely for local electricity generation. These figures should be interpreted as indicating very high solar contribution, rather than literal excess production.

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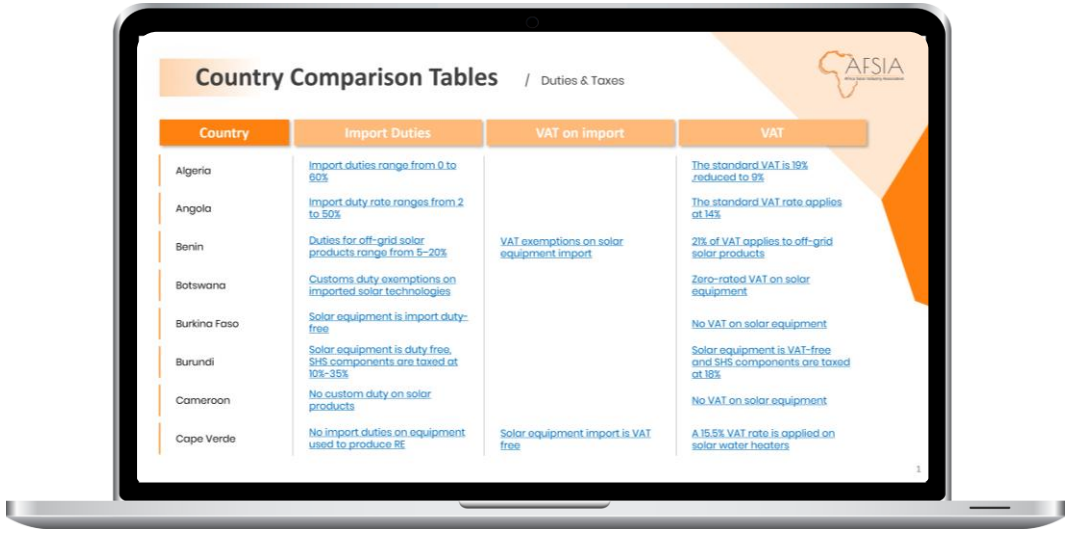
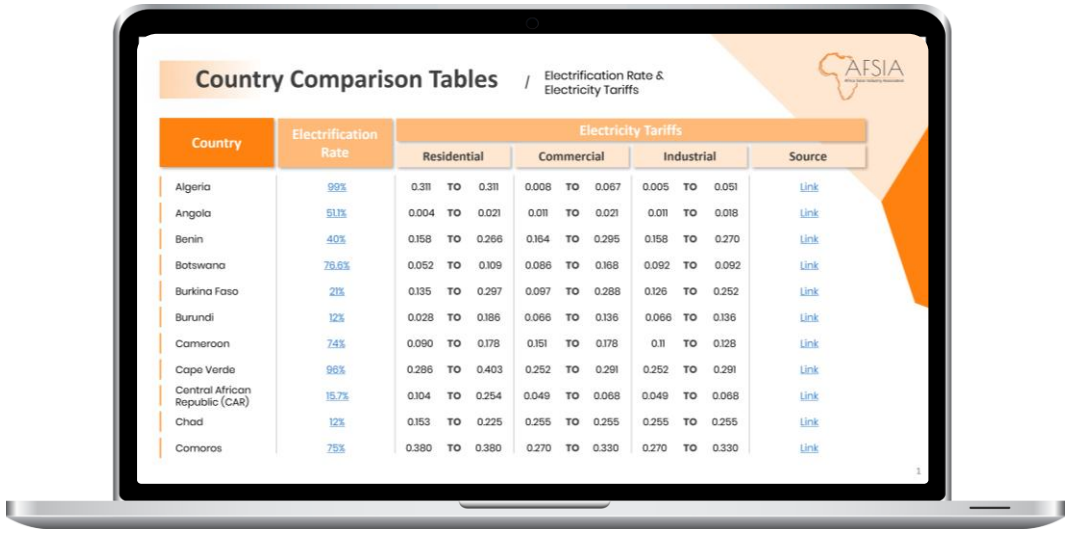
Country Comparison Tables



Country	Import Duties	VAT on import	VAT
Algeria	Import duties range from 0 to 60%		The standard VAT is 19% reduced to 9%
Angola	Import duty rate ranges from 2 to 50%		The standard VAT rate applies at 14%
Benin	Duties for off-grid solar products range from 5-20%	VAT exemptions on solar equipment import	21% of VAT applies to off-grid solar products
Botswana	Customs duty exemptions on imported solar technologies		Zero-rated VAT on solar equipment
Burkina Faso	Solar equipment is import duty-free		No VAT on solar equipment
Burundi	Solar equipment is duty free, SHS components are taxed at 10%-35%		Solar equipment is VAT-free and SHS components are taxed at 18%
Cameroon	No custom duty on solar products		No VAT on solar equipment
Cape Verde	No import duties on equipment used to produce RE	Solar equipment import is VAT free	A 15.5% VAT rate is applied on solar water heaters



Country	Electrification Rate	Electricity Tariffs									Source
		Residential			Commercial			Industrial			
Algeria	99%	0.311	TO	0.311	0.008	TO	0.067	0.005	TO	0.051	Link
Angola	51.1%	0.004	TO	0.021	0.011	TO	0.021	0.011	TO	0.018	Link
Benin	40%	0.158	TO	0.266	0.164	TO	0.295	0.158	TO	0.270	Link
Botswana	76.6%	0.052	TO	0.109	0.086	TO	0.168	0.092	TO	0.092	Link
Burkina Faso	21%	0.135	TO	0.297	0.097	TO	0.288	0.126	TO	0.252	Link
Burundi	12%	0.028	TO	0.186	0.066	TO	0.136	0.066	TO	0.136	Link
Cameroon	74%	0.090	TO	0.178	0.151	TO	0.178	0.11	TO	0.128	Link
Cape Verde	96%	0.286	TO	0.403	0.252	TO	0.291	0.252	TO	0.291	Link
Central African Republic (CAR)	15.7%	0.104	TO	0.254	0.049	TO	0.068	0.049	TO	0.068	Link
Chad	12%	0.153	TO	0.225	0.255	TO	0.255	0.255	TO	0.255	Link
Comoros	75%	0.380	TO	0.380	0.270	TO	0.330	0.270	TO	0.330	Link

If you want to compare how countries perform in relation to their neighbors, the **summary tables** are exactly what you need!

They give a quick, easy-to-navigate overview of the key information for each country about:

- Electrification rate
- Electricity tariffs
- Import duties
- VAT on import
- VAT
- Availability or absence of special policy (FiT, net-metering, wheeling)



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Efficient Capital Deployment for C&I Solar Projects in Africa

Africa's commercial and industrial (C&I) solar market could save businesses billions in energy and business interruption costs – yet its growth is still well below potential. While solar photovoltaic (PV) systems offer undeniable cost advantages over diesel generators and grid electricity, the industry's growth is constrained by a critical challenge: access to affordable, timely capital. For project developers, securing financing is not just about availability – it's about aligning funding with the unique dynamics of C&I clients and risks of African markets. Without tailored solutions, the potential of C&I solar to drive economic and environmental progress across the continent will remain untapped.

The Capital Challenge

Timing Mismatch: Slow Decisions, Fast Execution

C&I clients often take months – or even years – to commit to a solar project. Yet, once a contract is signed, they demand rapid execution. This creates a funding gap: developers need capital certainty the moment they commit to building, but traditional financing processes are rarely agile enough to keep pace. For example, two of Afrigreen's clients, Odasco in Morocco and Empower in Nigeria, secured commercial agreements with Orange Maroc and Justrite Ltd, respectively, before even initiating debt funding discussions. The deciding factor for these developers? The speed of due diligence and execution offered by Afrigreen – a rare commodity in African financial markets.

Long-Term Returns in Uncertain Markets

Solar C&I projects promise attractive returns, but these materialize over 10 to 20 years – a long timeline considering the political and economic instability in many African countries. Financial markets and private investors hesitate to commit to long-term financing, leaving developers facing a mismatch between contract tenors and terms of the financing sources.

Market Size still Too Small

Despite its potential, the C&I solar market in Africa remains fragmented and relatively small. Major financial hubs like Lagos, Abidjan, Nairobi, and Casablanca lack specialized financing products for solar projects. Instead, banks treat C&I solar as a corporate lending exercise, demanding parent company guarantees or collaterals – requirements that many local developers cannot meet.

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Keys to Efficient Capital Deployment

Availability and Timing: Funds When They Matter

For C&I projects, capital certainty is non-negotiable. Developers must either raise funds in advance or secure firm commitments from financial partners before breaking ground. Delays in funding can derail projects, especially when equipment lead times – often months for imports from Asia – are factored in.

Some developers are turning to inventory financing and trade financing to pre-stock critical equipment like PV modules, inverters, and batteries. In 2025, Afrigreen pioneered these solutions for players like SolarX and westa.solar, reducing the lag between contract signature and project initiation.

Size Matters: Flexible Financing for Modest Investments

Most C&I projects range from a few hundred kilowatts to a few megawatts, translating to investments of $1 million or less. Efficient capital deployment requires financing mechanisms that can mobilize modest amounts repeatedly – despite different clients / counterparties, scaling with the pace of business development.

Reducing the Cost of Capital: The Power of Leverage

Equity is expensive in Africa, with investors demanding double-digit returns to offset perceived risks. To remain competitive and offer energy prices below 10 cts$/kWh, developers need debt financing at single-digit interest rates, with leverage ratios of 70% or higher. This structure improves returns on investment and avoids costly shareholder dilution.

Currency Dilemma: USD vs. Local Currency Funding

Developers face a tough choice. USD or EUR funding is cheaper and long-term but can expose projects to foreign exchange risks when power purchase agreements (PPAs) are denominated in local currency. This is a major issue in countries like Nigeria and Egypt, where currency volatility has been extremely challenging in recent years. Local currency funding is more expensive but eliminates FX exposure, provided the cost is sustainable and revenues are indexed to local inflation.

Afrigreen's local currency financing in Nigeria with Watt Renewables, westa.solar, and Empower proved that such funding can work, enabling developers to offer competitive energy prices without bearing FX risks.

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A Bright Future, If Funded Right

The C&I solar market in Africa is poised for growth – especially when associated with storage - but its success hinges on one critical factor: efficient capital deployment. By addressing the challenges of timing, cost, and currency, stakeholders can harness the full potential of solar energy and make it one of the pillars of Africa's electricity networks. The tools and strategies exist – what's needed now is to implement them on a large scale.

Country Comparison Tables / Duties & Taxes

Country	Import Duties	VAT on import	VAT
Algeria	customs duty rate of 5% on products for the manufacture of solar panels		The standard VAT is 19% ,reduced to 9%
Angola	Import duty rate ranges from 2 to 50%		The standard VAT rate applies at 14%
Benin	Duties for off-grid solar products range from 5-20%	VAT exemptions on solar equipment import	21% of VAT applies to off-grid solar products
Botswana	Customs duty exemptions on imported solar technologies		Zero-rated VAT on solar equipment
Burkina Faso	Solar equipment is import duty-free		No VAT on solar equipment
Burundi	Solar equipment is duty free, SHS components are taxed at 10%-35%		Solar equipment is VAT-free and SHS components are taxed at 18%
Cameroon	No custom duty on solar products		No VAT on solar equipment
Cape Verde	No import duties on equipment used to produce renewable energy	Solar equipment import is VAT free	A 15.5% VAT rate is applied on solar water heaters

Country Comparison Tables / Duties & Taxes

Country	Import Duties	VAT on import	VAT
Central African Republic (CAR)	Customs duty ranges from 5% to 20%		The standard VAT rate is 19%
Chad	Import duties are waived for solar energy products	Imported RE equipment is exempt from VAT	Equipment for RE projects are VAT exempt
Comoros	Renewable equipment is exempt from both import duties and VAT		
Democratic Republic of the Congo	Import duty is waived on solar equipment	No VAT on imports of solar equipment	16% VAT applies to off-grid solar products
Djibouti	Renewable energy equipment is import duty-free		The standard VAT rate on goods and services is 10%
Egypt	2% customs duty on equipment used for RE production		5% VAT applies to solar plant equipment
Equatorial Guinea	Standard customs duty ranges from 5% to 30%		Prevailing VAT rate is 15%, with a reduced rate of 5%
Eritrea	Solar panels and renewable energy equipment are duty-free		5-12% sales tax applies on goods and services

Country Comparison Tables / Duties & Taxes

Country	Import Duties	VAT on import	VAT
Eswatini (formerly Swaziland)	Solar panels are subject to a 0% import duty		VAT is 15% on most goods and services
Ethiopia	Off-grid solar products are Import duty free		VAT exemption on off-grid solar products
Gabon	Import duty exemptions for solar equipment		5% VAT on RE generation equipment
Ghana	Import tax exemption for solar and RE equipment		Solar equipment is VAT exempt
Guinea	Import of solar panels is taxed at a 5% rate		Equipment for production of RE is VAT exempt
Guinea-Bissau	Exempted import duty on RE equipment		The standard VAT is 19% , with a reduced rate of 10%
Ivory Coast/Cote d'Ivoire	Renewable energy equipment is exempt from import duties		Equipment for production of solar energy is VAT exempt
Kenya	Solar products are exempt from import duty		16% VAT is levied on solar products

Country Comparison Tables / Duties & Taxes

Country	Import Duties	VAT on import	VAT
Lesotho	Import duties range between 0-30%		A reduced VAT rate of 5% applies on renewable energy equipment
Liberia	No import tariffs on off-grid solar products		The new standard VAT is 18%
Libya	No general customs duties on imports; most goods pay a 5% service fee plus 0.5% minor import charges		Solar equipment is VAT-exempt
Madagascar	Import duty waived for RE equipment (policy may change in 2026)	No VAT on imported RE equipment	Solar equipment is VAT-exempt
Malawi	Import duty exemption for solar products		Solar products are levied at a rate of 16.5%
Mali	Solar equipment is customs duty-free		Off-grid solar products are VAT-free
Mauritania	Customs duties and VAT exemption on import of equipment used for RE power generation	Green hydrogen equipment imports are VAT-exempt	Local goods are subject to a 16% VAT rate
Mauritius	PV systems are exempted from customs duty	Most imported goods are subject to a 15% VAT	No VAT for renewable energy systems

Country Comparison Tables / Duties & Taxes

Country	Import Duties	VAT on import	VAT
Morocco	Solar panels have a 10% import duty, rising to 25% in 2026		A reduced VAT rate of 10% for solar equipment
Mozambique	7.5% import duty applies on solar products		The standard VAT is 16% , but solar panel materials for rural electrification exempt until the end of 2025
Namibia	Import duties exemption on RE equipment		15% VAT is levied on most goods
Niger	Import duty exemption for RE products		VAT exemption for RE products
Nigeria	5% Import duties and 5% VAT on imported solar components		Solar panels are VAT exempt
Republic of the Congo	The SNE 2025 commits to fully exempting customs duties and VAT on imported RE equipment		The standard VAT is 18.9%
Rwanda	No customs duty on solar equipment		Solar equipment is VAT exempt
Sao Tome and Principe	Solar components are exempt from customs duty		The standard VAT is 15%, reduced to 7.5%

Country Comparison Tables / Duties & Taxes

Country	Import Duties	VAT on import	VAT
Senegal	3% duty on solar panels, 27% on batteries		RE equipment are VAT exempt
Seychelles	PV systems are duty-free	Imported goods for RE generation are VAT free	
Sierra Leone	Duty-free import of renewable energy products		VAT exemption on a case-by-case basis for RE equipment
Somalia	Solar equipment eligible for duty-free import		The standard VAT is 5%
Somaliland	100% exemption for solar panels		5% Standard VAT applies on goods and services
South Africa	10% import duty on solar panels	The standard VAT on imported solar panels is 15%	VAT on solar panels range between 15-16%
South Sudan	0%-25% duties on solar products		Solar products are exempt from VAT
Sudan	PV components exempt from import duties		Zero VAT on PV system components

Country Comparison Tables / Duties & Taxes

Country	Import Duties	VAT on import	VAT
Tanzania	Solar components are duty-free		VAT exemption for solar components
The Gambia	https://www.zhengbackpack.com/gambia-import-tax/		Import VAT is charged at a rate of 15%
Togo	Non-CIZO licensees faces 5-20% of import duty		Solar products face a VAT rate of 18%
Tunisia	Import duty rate of 30% on solar panels		Standard VAT of 19%, with reduced rates of 13% and 7%
Uganda	No import duty on solar equipment	VAT free imports of specialized solar equipment	Zero VAT rate on solar equipment
Zambia	Import duty exemption for solar PV products		Solar products are VAT-free
Zimbabwe	Solar equipment is exempt from import duty		A 15% VAT rate on solar equipment

Country Comparison Tables / Electrification Rate & Electricity Tariffs

Country	Electrification Rate	Electricity Tariffs								
		Residential			Commercial			Industrial			Source
Algeria	99%	0.009	TO	0.062	0.009	TO	0.067	0.005	TO	0.051	Link
Angola	46%	0.004	TO	0.021	0.011	TO	0.021	0.011	TO	0.018	Link
Benin	40%	0.158	TO	0.266	0.164	TO	0.295	0.158	TO	0.270	Link
Botswana	76.6%	0.052	TO	0.109	0.086	TO	0.168	0.092	TO	0.092	Link
Burkina Faso	34.2%	0.135	TO	0.297	0.097	TO	0.288	0.126	TO	0.252	Link
Burundi	12%	0.028	TO	0.186	0.066	TO	0.136	0.066	TO	0.136	Link
Cameroon	74%	0.090	TO	0.178	0.151	TO	0.178	0.11	TO	0.128	Link
Cape Verde	96%	0.286	TO	0.403	0.252	TO	0.291	0.252	TO	0.291	Link
Central African Republic (CAR)	15.7%	0.104	TO	0.254	0.049	TO	0.068	0.049	TO	0.068	Link
Chad	12%	0.153	TO	0.225	0.255	TO	0.255	0.255	TO	0.255	Link
Comoros	75%	0.380	TO	0.380	0.270	TO	0.330	0.270	TO	0.330	Link

Country Comparison Tables / Electrification Rate & Electricity Tariffs

Country	Electrification Rate	Electricity Tariffs							
		Residential			Commercial			Industrial			Source
Democratic Republic of the Congo	21%	0.039	TO	0.087	0.095	TO	0.098	0.044	TO	0.057	Link
Djibouti	65%	0.150	TO	0.310	0.235	TO	0.375	0.185	TO	0.230	Link
Egypt	100%	0.014	TO	0.048	0.018	TO	0.049	0.034	TO	0.037	Link
Equatorial Guinea	66.9%	0.099	TO	0.099	0.126	TO	0.153	0.108	TO	0.126	Link
Eritrea	53%	0.240	TO	0.240	0.240	TO	0.240	0.240	TO	0.240	Link
Eswatini (formerly Swaziland)	88%	0.089	TO	0.328	0.177	TO	0.177	0.177	TO	0.177	Link
Ethiopia	55.4%	0.005	TO	0.033	0.032	TO	0.032	0.016	TO	0.020	Link
Gabon	93%	0.094	TO	0.2028	0.129	TO	0.162	0.129	TO	0.162	Link
Ghana	89%	0.071	TO	0.212	0.113	TO	0.216	0.172	TO	0.452	Link
Guinea	53%	0.012	TO	0.05	0.129	TO	0.306	0.201	TO	0.281	Link
Guinea-Bissau	33%	0.230	TO	0.441	0.232	TO	0.29	0.184	TO	0.23	Link

Country Comparison Tables / Electrification Rate & Electricity Tariffs

Country	Electrification Rate	Electricity Tariffs								
		Residential			Commercial			Industrial			Source
Ivory Coast/Cote d'Ivoire	71%	0.046	TO	0.222	0.109	TO	0.235	0.106	TO	0.154	Link
Kenya	75%	0.095	TO	0.145	0.052	TO	0.148	0.044	TO	0.105	Link
Lesotho	53%	0.056	TO	0.125	0.02	TO	0.022	0.02	TO	0.022	Link
Liberia	32.7%	0.150	TO	0.240	0.190	TO	0.220	0.190	TO	0.220	Link
Libya	73.2%	0.004	TO	0.006	0.008	TO	0.012	0.006	TO	0.008	Link
Madagascar	36%	0.151	TO	0.755	0.093	TO	0.376	0.070	TO	0.229	Link
Malawi	25.9 %	0.037	TO	0.09	0.125	TO	0.147	0.05	TO	0.163	Link
Mali	53%	0.106	TO	0.275	0.139	TO	0.239	0.123	TO	0.239	Link
Mauritania	55%	0.061	TO	0.148	0.148	TO	0.148	0.054	TO	0.148	Link
Mauritius	100%	0.048	TO	0.193	0.065	TO	0.220	0.065	TO	0.119	Link
Morocco	100%	0.099	TO	0.247	0.056	TO	0.226	0.057	TO	0.272	Link

Country Comparison Tables / Electrification Rate & Electricity Tariffs

Country	Electrification Rate	Electricity Tariffs							
		Residential			Commercial			Industrial			Source
Mozambique	40%	0.096	TO	0.143	0.076	TO	0.076	0.075	TO	0.075	Link
Namibia	59.4%	0.08	TO	0.189	0.168	TO	0.273	0.052	TO	0.431	Link
Niger	20.1%	0.107	TO	0.246	0.173	TO	0.246	0.101	TO	0.246	Link
Nigeria	61.2%	0.003	TO	0.145	0.031	TO	0.145	0.031	TO	0.145	Link
Republic of the Congo	32%	0.056	TO	0.088	0.052	TO	0.052	0.046	TO	0.046	Link
Rwanda	84.6 %	0.061	TO	0.255	0.076	TO	0.25 9	0.067	TO	0.121	Link
Sao Tome and Principe	84%	0.078	TO	0.18	0.18	TO	0.33	0.161	TO	0.161	Link
Senegal	84%	0.164	TO	0.307	0.165	TO	0.447	0.129	TO	0.26	Link
Seychelles	100%	0.128	TO	0.333	0.297	TO	0.436	0.296	TO	0.36	Link
Sierra Leone	36%	0.105	TO	0.264	0.265	TO	0.276	0.248	TO	0.293	Link
Somalia	49%	0.45 0	TO	1.00	0.450	TO	1.00	0.450	TO	1.00	Link

Country Comparison Tables / Electrification Rate & Electricity Tariffs

Country	Electrification Rate	Electricity Tariffs							
		Residential			Commercial			Industrial			Source
Somaliland	50.3%	0.200	TO	0.500	0.200	TO	0.500	0.200	TO	0.500	Link
South Africa	94.7%	0.075	TO	0.498	0.063	TO	0.419	0.054	TO	0.388	Link
South Sudan	15%	0.271	TO	0.285	0.320	TO	0.320	0.348	TO	0.348	Link
Sudan	66%	0.068	TO	0.128	0.077	TO	0.153	0.085	TO	0.085	Link
Tanzania	48.3%	0.08	TO	0.10	0.08	TO	0.10	0.06	TO	0.08	Link
The Gambia	75%	0.18	TO	0.188	0.194	TO	0.194	0.207	TO	0.207	Link
Togo	70%	0.108	TO	0.261	0.133	TO	0.257	0.09	TO	0.22	Link
Tunisia	100%	0.026	TO	0.119	0.055	TO	0.157	0.061	TO	0.1334	Link
Uganda	57%	0.07	TO	0.212	0.078	TO	0.182	0.052	TO	0.12	Link
Zambia	54%	0.032	TO	0.176	0.028	TO	0.117	0.028	TO	0.073	Link
Zimbabwe	62%	0.05	TO	0.25	0.06	TO	0.23	0.06	TO	0.23	Link

Country Vignettes Explained

OBJECTIVES

This section contains information on the objectives of a country to include renewable energy in its energy mix. Targets are set for the next 5 years, 10 years or maybe more. These objectives are only the targets officially announced by the country and do not constitute a guarantee of future solar development. It may be interesting to compare these various announcements with actual solar that has been developed a few years later.

POLICY / REGULATION

Lists all applicable rules in terms of duties, taxes, exemptions, net-metering, wheeling, feed-in tariffs or any special government program that supports or restricts the deployment of solar or renewables in general in a country.

ELECTRIFICATION RATE

This shows the percentage of people in each country that has access to the grid and/or electricity. It also highlights electrification rate objectives in the near future. Please keep in mind that different countries count “electrification” differently. In some countries it means “connected to the grid”, in some other it means “has access to lighting, even through SHS”.

Country Vignettes Explained

TOTAL PV INSTALLED

Displays figures of the currently installed solar capacity by segment. The data primarily reflects projects identified and verified by AFSIA and recorded in the AFSIA Projects Database. In addition, for this edition, data identified by EMBER has been incorporated for selected segments, including residential and part of the commercial segment

CURRENT TARIFF GRID ELECTRICITY

Represents the tariff charged to different types of consumers classified by residential, commercial, and industrial depending on their electricity consumption. This tariff provides the range between the minimum and the maximum $/kWh charged per category in this country. The prices shown are exclusive of VAT.

NOTEWORTHY DEVELOPMENTS

Identifies bigger projects/programs that are either under development, construction, tendering or any other phase of development and which are expected to significantly contribute to the solar opportunity in a given country.

Key Institutions

This section gives you direct links to the nation's key electricity institutions including the Ministry, the regulator, the national utility company and the rural electrification agency if any.

Table of Contents (Country links)

Algeria

Objectives

- Add 22 GW of renewable energy capacity by 2030 link
- Install 13.5 GW of solar PV and 2 GW of CSP by 2030 link
- Reach 30% RE share in the energy mix, equating to 15 GW by 2035 link

Policy / Regulation

- Reduced customs duty rate of 5% on the products for the manufacture of solar panels link
- The standard VAT is 19%, reduced to 9% link
- FiT applies to solar plants of 1 MW and above link
- No net metering policy in place link

Electrification Rate

- 99% of the population has access to electricity link

Total PV Installed

363.00 MWp PV+

Utility-scale	25 MWe CSP
C&I	1622.07 MWp
MG	1.95 MWp
SHS	23.06 MWp
Residential	284.21 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.009	$ 0.009	$ 0.005
MAX	$ 0.062	$ 0.067	$ 0.051

Noteworthy Developments

- Sonelgaz re-launched the tender for three PV projects totaling 520 MW link
- 200 MW under construction at Gara Djebilet mining site link
- Sonatrach and VNG AG to co-develop 50 MW green hydrogen plant link
- The country is set to commission 400 MW solar under its 3,200 renewable energy flagship program link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Angola

Objectives

- Boost renewable energy production to 73% of installed capacity (including hydropower) by 2027 and 94% of installed capacity by 2050 link
- Grow the electricity sector's installed capacity to 10 GW by 2027 and 33 GW by 2050 link

Policy / Regulation

- Import duty rate ranges from 2 to 50% link
- The standard VAT rate applies at 14% link
- Net metering and FiT policies apply to projects with a capacity of 10 MW or more link

Electrification Rate

- 46% of the population has access to electricity link
- 44% in urban and less than 10% in rural areas link

Total PV Installed

Utility-scale	394.05 MWp
C&I	2.11 MWp
MG	25.03 MWp
SHS	0 MWp
Residential	0 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.004	$ 0.011	$ 0.011
MAX	$ 0.021	$ 0.021	$ 0.018

Noteworthy Developments

- EXIM Bank financing two 600 MW projects link
- AMEA Power developing a 150 MW solar project link
- Construction started on the 35 MWp Quilemba solar by TotalEnergies, Sonangol and Greentech link
- Masdar developing the 150 MW Quipungo solar power project link
- MCA developing 256 MW of solar in the Eastern province link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Benin

Objectives

- Reach 150 MW of solar power generation by 2026 link
- Make renewable energy the main power source by 2030 link
- Attain 30% of renewable energy share in the electricity mix by 2030 link

Policy / Regulation

- Duties for off-grid solar products range from 5–20% link
- 21% of VAT applies to off-grid solar products link
- VAT exemptions on solar equipment import link
- Net metering is prohibited link , FiT is not in place link

Electrification Rate

- Total electrification rate stands at 40% link
- Targets 100% of electricity access by 2030 link

Total PV Installed

Utility-scale	27.25 MWp
C&I	316.42 MWp
MG	3.81 MWp
SHS	8.90 MWp
Residential	54.35 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.158	$ 0.164	$ 0.158
MAX	$ 0.266	$ 0.295	$ 0.270

Noteworthy Developments

- Axian launched 4 solar projects totaling 50 MWac link
- EXIM Bank supporting the installation of 750 rooftop solar systems link
- Govt developing a 300 MW solar plant and 100 MW rooftop solar at the GDIZ link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Botswana

Objectives

- Boost RE to 50% of its mix by 2030 link
- Install 200 MW of CSP by 2026 link
- Add 8 GW of solar power by 2030 link

Policy / Regulation

- Customs duty relief for imported solar technologies link
- Zero-rated VAT on solar equipment link
- Feed-in Tariff is not yet in effect link , Net metering exists link
- Permit required for C&I systems between 100 KW and 1 MW link

Electrification Rate

- 76.6% of the population is electrified link
- Universal electricity access targeted by 2030 link

Total PV Installed

Utility-scale	150.10 MWp
C&I	20.53 MWp
MG	0.01 MWp
SHS	0.03 MWp
Residential	0 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.052	$ 0.086	$ 0.092
MAX	$ 0.109	$ 0.168	$ 0.092

Noteworthy Developments

- AAAS Energy developing 250 MW+400 MWh data center campus link
- A 1.5 GW solar tender has been announced by the Government link
- Solarcentury developing a 100 MW Lotsane Solar link
- Government signed deal to develop a 500 MW solar PV project link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

ODYSSEY

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solutions@odysseyenergysolutions.com

ODYSSEY PROCUREMENT

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Maxime Eon

VP of Revenue, Odyssey Energy Solutions

ODYSSEY

Accelerating energy deployment and security through adaptive procurement and deployment in Sub-Saharan Africa

In Sub-Saharan Africa, reliable energy for businesses is the foundation for sustainable economic activity, operational continuity, and growth. For industrial parks, health and manufacturing facilities, logistics hubs, data centres, and large distributed energy projects, dependable power directly influences productivity, competitiveness, and long-term viability. Despite the technological maturity of renewable energy solutions, deployment across these mid- to large-scale businesses remains uneven and slow relative to the urgency of demand.

The missing link is not technology, but how complex energy solutions are procured, coordinated, and scaled across fragmented markets. In the coming year, organizations that close this gap by enabling faster, smarter deployment of capital and systems will define the next chapter of commercial and industrial energy resilience in Africa.

The procurement and deployment gap

Traditional procurement models for energy systems assume stable processes, predictable capital flows, and long planning horizons. In the real world of Sub-Saharan Africa's security and operating landscape, these assumptions often do not hold. Remote outposts and logistics bottlenecks frequently delay or derail mission-critical energy infrastructure.

At the same time, clean energy companies, particularly distributed renewable energy (DRE) developers and solar EPCs face fragmentation across the supply chain. They must source high-quality equipment, secure favorable terms, manage logistics and performance, and coordinate with financiers to sustain their pipelines. Each step represents a potential bottleneck that can slow deployment and reduce operational effectiveness.

This gap between potential and execution is more than a commercial problem; it is an operational vulnerability. Customers require power systems that can be installed quickly, maintained reliably, and integrated into broader mission sets.

These challenges are being compounded by growing volatility in global energy supply chains. Rising raw material costs, particularly for copper and aluminium, are driving shorter equipment price-validity windows and increasing the risk of cost overruns when procurement decisions are delayed. At the same time, shifts in export policies from major manufacturing hubs are expected to push solar and battery prices higher and introduce periods of supply uncertainty.

For deployments in fragile and time-sensitive environments, this reinforces the need to move procurement upstream in project planning, align financing with timelines, and treat access to equipment and working capital as integral to operational readiness.

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Rethinking procurement for operational readiness

Addressing this challenge requires rethinking procurement and financing as an integrated capability, not a series of isolated transactions. This means aligning equipment acquisition, supply chain management, performance tracking, and capital flows around a unified set of operational outcomes.

Adaptive procurement solutions prioritize:

- Best-in-class equipment sourced through aggregated supply chains with competitive terms
- Coordination among developers, suppliers, and financial partners to accelerate each stage of project delivery
- Performance tracking and analytics tools that support real-time operational decision-making
- Modular, scalable deployment models that reduce lead times and logistical friction

When procurement is designed around operational needs, the result is faster deployment and greater resilience in the face of uncertainty.

The Odyssey procurement platform: a unified approach to deployment

Odyssey Energy Solutions exemplifies this adaptive procurement philosophy. Rather than requiring solar companies to manage dozens of contracts across multiple banks and OEMs, Odyssey provides an integrated platform that brings together developers, equipment suppliers, and financiers to streamline the full lifecycle of distributed energy projects.

At its core, the platform addresses multiple bottlenecks simultaneously:

- **Procurement-as-a-service:** Aggregating equipment demand and negotiating terms with OEMs and distributors to deliver equipment at competitive prices with embedded credit, repayable in-line with project milestones
- **Supply-chain support:** From warehousing to logistics and import coordination, reducing delays from order to field deployment
- **Performance analytics:** Digital tools that enable portfolio management, technical monitoring, and outcomes-based financing models such as results-based finance (RBF)

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- **Platform scale:** With thousands of developers connected globally and over $3 billion in energy project deployment facilitated, Odyssey increases the speed at which systems move from planning to operation

This holistic model shifts the emphasis away from fragmented procurement toward deployment that is faster, more predictable, and aligned with on-the-ground realities.

Odyssey's 2026 plan: scaling across Sub-Saharan Africa

The Odyssey platform has supported some of the most ambitious electrification initiatives on the continent, including Nigeria's Distributed Access through Renewable Energy Scale-up (DARES) programme and Zambia's Renewable Energy Feed-in Tariff (REFiT).

In 2026, Odyssey is doubling down on its commitment to Sub-Saharan Africa by deploying additional capital and expanding platform reach across the region. By scaling its procurement and deployment capabilities, Odyssey aims to:

- Enable more developers and integrators to access high-quality equipment and supply-chain support
- Support complex initiatives such as national mini-grids and productive-use electrification programs
- Shorten lead times from project approval to energization

Our goal is to remove systemic barriers that slow implementation, enabling governments, solar companies, and partners to reliably deliver power to the communities and businesses that depend on it.

Looking Ahead

As Sub-Saharan Africa approaches 2026, energy security will increasingly be defined by the ability to deliver solutions that are fast, reliable, and operationally integrated. Adaptive procurement, aligned financing, and unified deployment models, such as those championed by Odyssey Energy Solutions, will be central to closing the gap between intent and impact.

In this new era, procurement is the engine that drives operational readiness.

Burkina Faso

Objectives

- Achieve a 50% share of renewable energy in the national energy mix by 2030 link
- National solar target of approximately 1,000 MW of capacity by 2030 link

Policy / Regulation

- Solar equipment is import duty-free link
- No VAT for solar equipment link
- No FiT provision in place link
- No formal net metering mechanism currently exists link

Electrification Rate

- National access to electricity stands at 34.2% link
- Plans to achieve 90% of electricity access by 2030 link

Total PV Installed

Utility-scale	230.70 MWp
C&I	112.03 MWp
MG	1.15 MWp
SHS	5.35 MWp
Residential	16.26 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.135	$ 0.097	$ 0.126
MAX	$ 0.297	$ 0.288	$ 0.252

Noteworthy Developments

- Gutami developing 150 MWp solar + 40 MWh BESS link
- Tenders have been reopened for the 75 MWp/75 MWh Konéan project and the 45 MWp/45 MWh Kouritenga project link
- Agreement signed for the construction of the 50 MWp Komsilga Solar link
- SEFA backing the development of 18 MW Dedougou Solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Burundi

Objectives

- No national renewable energy targets were identified

Policy / Regulation

- Solar equipment is duty free, SHS components are taxed at 10%-35% link
- Solar equipment is VAT-free and SHS components are taxed at 18% link
- Authorization required for generation systems >500 kW link
- No net metering link and no FiT policies in place link

Electrification Rate

- 12% of the population is electrified link
- Targets universal electricity access by 2030 link

Total PV Installed

Utility-scale	8.67 MWp
C&I	14.95 MWp
MG	0.61 MWp
SHS	0.62 MWp
Residential	2.18 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.028	$ 0.066	$ 0.066
MAX	$ 0.186	$ 0.136	$ 0.136

Noteworthy Developments

- Government committed to expand the 7.5 MW Mubuga solar link
- 65,000 homes to benefit from the Soleil-Nyakiriza off-grid project link
- SOLAR23 to power 316 health centers via Soleil-Nyakiriza Project link
- Multiplex Partners to electrify 45 health centers and 256

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Cameroon

Objectives

- Achieve 25% of renewable energy, excluding large hydro by 2035 link
- Solar in the energy mix to reach 250 MW by 2030 link
- Increase installed generation capacity to 3 GW, with 10% sourced from RE by 2030 link
- Connect an additional 8 million people to the grid by 2030 link

Policy / Regulation

- No custom duty on solar products link
- No VAT on solar equipment link
- IPPs requires licenses to generate electricity link
- Net metering and FiT policies in place link

Electrification Rate

- Total electrification rate stands at 74% link
- 94% in urban and 25% in rural areas link
- Seeks to achieve 100% electricity access by 2030 link

Total PV Installed

Utility-scale	37.37 MWp
C&I	646.43 MWp
MG	14.33 MWp
SHS	15.50 MWp
Residential	113.55 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.090	$ 0.151	$ 0.110
MAX	$ 0.178	$ 0.178	$ 0.128

Noteworthy Developments

- Work started to expand Maroua and Guider solar plants to 64.4 MWp link
- The Govt. plans to deliver 6 solar mini-plants totaling 7.2 MWp link
- 35 MW Dang solar Plant under development by Afreenergy link
- Government launched the construction on 87 new mini-grids, advancing its goal to commission 1,000 rural solar plants link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

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Cape Verde

Objectives

- Raise the share of renewable energy in the energy mix to 30% by 2026, 50% by 2030 and over 80% by 2040 link
- Reach 100% of RE penetration by 2050 link
- Achieve over 160 MW of new solar projects by 2030 link

Policy / Regulation

- No import duties on equipment used to produce renewable energy link
- Solar equipment import is VAT free link
- A 15.5% VAT rate is applied on solar water heaters link
- Net metering available link , FiT in place link

Electrification Rate

- 96% of the population is electrified link
- Aims for universal electricity coverage by 2026 link

Total PV Installed

Utility-scale	39.82 MWp
C&I	6.85 MWp
MG	0.29 MWp
SHS	0 MWp
Residential	1.07 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.286	$ 0.252	$ 0.252
MAX	$ 0.403	$ 0.291	$ 0.291

Noteworthy Developments

- Palmarejo solar plant to be expanded to 10 MW link
- Tender launched for 10 MW solar in Cidade da Praia link
- WinPower developing 26 MWh BESS across 3 islands link
- Africa Investment Contracting developing a 15 MW solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Central African Republic

Objectives

- Provide reliable electricity services to 1 million people by 2027 link
- Expand renewable energy to promote a sustainable, climate-resilient green economy by 2028 link

Policy / Regulation

- Customs duty ranges from 5% to 20% link
- The standard VAT rate is 19% link
- A withholding tax rate of 15% link
- No net metering and FiT available link

Electrification Rate

- National electrification rate stands at 15.7% link
- Aims to increase the electricity access to 50% by 2030 link

Total PV Installed

Utility-scale	40.00 MWp
C&I	9.17 MWp
MG	1.08 MWp
SHS	0 MWp
Residential	1.17 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.104	$ 0.049	$ 0.049
MAX	$ 0.258	$ 0.068	$ 0.068

Noteworthy Developments

- Government launched a 60 MW solar plant to boost electricity supply link
- World Bank supporting installation of 5 MGs totaling 10 MW link
- World Bank financing 15 MWp expansion for Danzi Solar Farm link
- Global South Utilities began 50 MW/10 MWh solar plant construction link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Chad

Objectives

- Achieve 30% of renewable energy in the mix by 2030 link
- Deliver 886 MW of total new installed power capacity by 2030 link
- Solar energy planned to contribute 520 MW of the overall capacity link

Policy / Regulation

- Import duties are waived for solar energy products link
- Equipment for RE projects is VAT exempt link
- Imported RE equipment are exempt from VAT link
- No established net metering policy link , no FiT link

Electrification Rate

- 12% of the population has access to electricity link
- Targeting 90% of electricity access by 2030 link

Total PV Installed

Utility-scale	63.00 MWp
C&I	134.07 MWp
MG	11.31 MWp
SHS	0.15 MWp
Residential	23.45 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.153	$ 0.225	$ 0.225
MAX	$ 0.225	$ 0.225	$ 0.225

Noteworthy Developments

- Axian Energy to develop 100 MW + 50 MWh project in N'Djamena link
- 60 MW Gaoui solar plant under development by AMEA Power link
- Elsewedy electric building the 36 MW D'jermaya solar link
- 120 MW is under development by Convalt Energy in N'Djamena link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Comoros

Objectives

- Reach 45% of RE in the energy mix by 2030 link
- Raise the RE share in the energy mix to 33 MW by 2030 link
- Achieve 55% renewable electricity generation by 2033 link

Policy / Regulation

- Renewable energy equipment is exempt from both import duties and VAT link
- No Feed-in Tariff (FIT) legislation in place link
- No formal net metering policy link

Electrification Rate

- 75% of the population is electrified link
- Plans to achieve universal electricity access by 2030 link

Total PV Installed

Utility-scale	12.56 MWp
C&I	25.63 MWp
MG	0.18 MWp
SHS	0.03 MWp
Residential	4.49 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.423	$ 0.309	$ 0.309
MAX	$ 0.423	$ 0.377	$ 0.377

Noteworthy Developments

- 5 MW Mitsamiouli solar under development by Innovent Group link
- Government plans to build 1 MW of solar in Mwali link
- World Bank supporting 3 solar PV plants of 9 MW Solar + 19 MWh BESS link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Democratic Republic Of Congo

Objectives

- Mobilize USD 20 billion in private investment by 2030 for power production, transport, distribution and renewable energies link
- Raise the renewable energy capacity to 42.7 MW through solar, wind and hydroelectric energy by 2030 link

Policy / Regulation

- Import duty is waived on solar equipment link
- No VAT on imports of solar equipment link
- 16% VAT applies to off-grid solar products link
- No net metering policy in place link
- Feed-In Tariff currently unavailable link

Electrification Rate

- 21% of the population has access to electricity link
- Aims to reach 62% of electricity access by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	943.28 MWp
MG	12.84 MWp
SHS	9.42 MWp
Residential	161.28 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.039	$ 0.095	$ 0.044
MAX	$ 0.087	$ 0.098	$ 0.057

Noteworthy Developments

- 233 MWp + 526 MWh Kamoa Copper plant under construction by CBE link
- Soleos Energy is building a 200 MW solar plant link
- AFC and SkyPower to develop 200 MW (Phase 1 of 1 GW) link
- 100 MW solar plant under development by Gigawatt Global link
- Sun Africa launched a 4000 MW renewable energy project

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Gracia Munganga

Project Development Director,
CrossBoundary Energy

CrossBoundary Energy

Solar Power is reshaping mining investment and operations in the DRC

Copper is at the center of the global energy transition. As the world shifts to electric transportation, expands power grids, and builds more digital infrastructure, the need for copper surges, and the mining sector is expanding with it. As the sector grows, so does the need for reliable, affordable, and increasingly clean energy. But this has historically been a challenge in regions like DRC, which form a vital part of the copper supply chain. In 2024, DRC produced an impressive 3.3 million tonnes of copper, about 11% of the world's total output.

To expand its mining footprint and increase investment, the DRC requires stable electricity supply. The electricity deficit in the DRC is estimated at around 2.7 GW. Power outages, unreliable grids, and dependence on drought-prone hydropower put mines in the region at risk of power outages. When supply falters, these mines often turn to expensive diesel or heavy-fuel-oil generators to continue production. This reliance not only increases costs but also leaves operations exposed to volatile fuel prices and fragile supply chains.

The good news is that solar PV and Battery Energy Storage Systems (BESS) are changing the game. Solar power is now one of the cheapest energy sources available. In Sub-Saharan Africa, solar module prices dropped from US$0.27 to US$0.09 per watt between 2022 and 2024. Battery storage technology has also seen dramatic price drops—down 97% since 1991, and 40% just between 2023 and 2024.

These decreases in costs, accompanied by increasingly sophisticated technology, have unlocked a game-changing advancement that can address one of mining companies' largest hesitations toward renewables like solar power: intermittency.

A current example of this transformation is the establishment of a large-scale solar PV/BESS facility at the Kamoa-Kakula Mining Complex, a project that is redefining what's possible with renewable energy in mining. The Kamoa-Kakula Mining Complex is Africa's largest copper mine. In late 2025, the mine received about 110 MW additional A current example of this transformation is the establishment of a large-scale solar PV/BESS facility at the Kamoa-Kakula Mining Complex, a project that is redefining what's possible with renewable energy in mining. The Kamoa-Kakula Mining Complex is Africa's largest copper mine. In late 2025, the mine received about 110 MW additional electrical capacity, mainly from a rehabilitated hydropower facility. But with plans to ramp up production, its power needs are projected to soar to approximately 347 MW by the end of 2028.

The Kamoa-Kakula Solar/BESS Baseload Project is set to deliver a reliable, 30 MW baseload solution for the mine—24/7, dispatchable, and generated by the sun.

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The project, currently under construction, will use a 233 MWp solar photovoltaic (PV) plant, oversized to charge a massive 526 MWh battery storage facility. The result is constant, dispatchable baseload power, available around the clock without relying on the grid or fossil fuels.

The mining company will buy this power directly from CrossBoundary Energy as it would from a traditional utility, but with the benefit of on-site, green electricity. This model is cost-effective and shields the mine from global energy price volatility and supply chain vulnerabilities.

There's also a big environmental upside. By switching to this solar and battery solution, the mining complex expects to cut its carbon footprint by roughly 78,750 tonnes per year, cementing its status as one of Africa's lowest-carbon copper producers.

New solar innovations, like those deployed through Kamoa-Kakula Solar/BESS Baseload Project, are proof that renewable baseload power isn't just a vision for the future—it is happening now. Falling renewables costs, the solar resources in Africa, and advances in battery technology mean that mines can finally break free from unreliable grids and expensive diesel.

For investors, this shift is crucial. Mines with stable, affordable, and green energy are more likely to attract sustained investment, deliver reliable returns, and comply with increasing global environmental standards.

As global copper demand accelerates, the DRC's ability to secure clean, affordable, and reliable power will define its future. The Kamoa-Kakula Solar/BESS Baseload Project shows that with the right technology and investment, renewable energy like solar PV can deliver the stability, cost savings, and sustainability that modern mining demands.

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Republic Of The Congo

Objectives

- Renewable energy share to exceed 60% of installed capacity by 2035 link
- Achieve 2,697 MW of renewable energy capacity by 2030 link
- Increase the generation capacity to 1.5 GW by 2030 with a strong focus on renewable sources link

Policy / Regulation

- The SNE 2025 commits to fully exempting customs duties and VAT on imported RE equipment link
- The standard VAT is 18.9% link
- No net metering, no FiT available link
- WHT general rate stands at 20% link

Electrification Rate

- 32% of the population is electrified link
- 39% in urban and 1% in rural areas link
- Aiming for an electrification rate of 81% by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	26.17 MWp
MG	3.40 MWp
SHS	0.85 MWp
Residential	4.56 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.056	$ 0.052	$ 0.046
MAX	$ 0.088	$ 0.052	$ 0.046

Noteworthy Developments

- 65 MW Ignie solar plant under development by Tinda energy link
- AMEA Power is developing a 50 MW solar project link
- Govt in partnership with Bboxx, plans to provide SHSs to 10,000 homes link
- 257 mini-grids are being developed under the PEZor Rural Electrification Program with UNDP support link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Djibouti

Objectives

- Achieve 100% of renewable energy in the electricity mix by 2035 link
- Reduce national carbon emissions by 40% by 2030 link
- Increase the energy generation and distribution of cleaner, more affordable energy by 2027 link

Policy / Regulation

- Renewable energy equipment is import duty-free link
- The standard VAT rate on goods and services is 10% link
- The standard rate of the WHT is 15% link
- No net metering, no FiT link

Electrification Rate

- Total electrification rate stands at 65% link
- Seeks to achieve universal access to electricity by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	139.57 MWp
MG	0.17 MWp
SHS	0 MWp
Residential	24.10 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.150	$ 0.235	$ 0.185
MAX	$ 0.310	$ 0.375	$ 0.230

Noteworthy Developments

- AMEA Power constructing 25 MW Grand Bara solar project link
- Deal signed with Egypt to develop a 276.5 MW solar project link
- Elsewedy to develop a 23 MW solar+storage plant in Doraleh port link
- EIB supporting construction of 12 MW Doraleh desalination

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Egypt

Objectives

- Increase renewable share to 42% by 2030 and 60% by 2040 link
- Expand renewable energy capacity to 21 GW by 2030 link
- Reach 31.6 GW of renewable capacity by 2035 link
- Boost Solar's share in the electricity mix to over 26% by 2030, with 21.3% from PV and 5.52% from CSP link

Policy / Regulation

- 2% customs duty on equipment used for RE production link
- A 5% VAT applies to solar plant equipment link
- Functional net metering scheme link
- FiT available for 20-50 MW solar projects link
- Wheeling regulation in place link

Electrification Rate

- The population has full electricity access link

Total PV Installed

Utility-scale	2850.11 MWp PV + 20 MWe CSP
C&I	3856.86 MWp
MG	0.14 MWp
SHS	4.89 MWp
Residential	611.05 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.014	$ 0.018	$ 0.034
MAX	$ 0.048	$ 0.049	$ 0.037

Noteworthy Developments

- Scatec constructing 1 GW solar + 200 MWh BESS Obelisk project link
- Scatec to build 1.1 GW and 200 MWh BESS solar plant for Egyptalum link
- Masdar developing 1.2 GW solar plants with 720 MWh storage link
- 3.1 GW green hydrogen project under development in South

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Equatorial Guinea

Objectives

- Reach 30% of renewable energy in the energy mix by 2030 link

Policy / Regulation

- Standard customs duty ranges from 5% to 30% link
- Prevailing VAT rate is 15%, with a reduced rate of 5% link
- Net metering policy still under development link
- No Feed-In Tariff Policy link

Electrification Rate

- 66.9% of the population has access to electricity link
- Target to raise the electricity access to 80% by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	3.05 MWp
MG	5.14 MWp
SHS	0.07 MWp
Residential	0.54 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.099	$ 0.126	$ 0.108
MAX	$ 0.099	$ 0.153	$ 0.126

Noteworthy Developments

- Atlas Renewable Energy is developing a 50 MW solar Power plant link
- The government is developing 20 MW solar via the Green electrification project link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Eritrea

Objectives

- Renewable energy to contribute 20% of electricity by 2030 link
- Deploy 50 MW of on-grid solar PV by 2030 link
- Introduce 15 MW of hybrid mini-grid capacity by 2030 link

Policy / Regulation

- Solar panels and renewable energy equipment are duty-free link
- 5-12% sales tax applies on goods and services link
- No net metering scheme link , no FiT in place link

Electrification Rate

- The national electrification access rate stands at 53% link
- Coverage is at 76% in urban and 10% in rural areas link

Total PV Installed

Utility-scale	0 MWp
C&I	60.06 MWp
MG	2.25 MWp
SHS	0.03 MWp
Residential	9.20 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.016	$ 0.016	$ 0.016
MAX	$ 0.016	$ 0.016	$ 0.016

Noteworthy Developments

- China Energy Group building the 25 MW+30 MWh Dekemhare solar link
- AfDB funding the rollout of mini-grids projects totaling 12 MW link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Eswatini

Objectives

- Achieve 50% of renewable energy in the power mix by 2030 link
- Reach a total centralized power capacity of 681 MW including 250 MW of solar PV and 165 MW of wind by 2034 link
- Install 61 MW decentralized capacity by 2034 link

Policy / Regulation

- Solar panels are subject to a 0% import duty link
- VAT is 15% on most goods and services link
- Net metering operates as net-billing under the SSEG framework link
- Feed-in Tariff is currently under consultation link

Electrification Rate

- Total electrification rate stands at 88% link
- Plans to reach universal electricity access by 2030 link

Total PV Installed

Utility-scale	10.00 MWp
C&I	10.83 MWp
MG	0.07 MWp
SHS	0.03 MWp
Residential	0 MWP

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.089	$ 0.177	$ 0.177
MAX	$ 0.328	$ 0.177	$ 0.177

Noteworthy Developments

- ESERA-led solar IPP to deliver 75 MW solar PV supply program link
- Frazium Energy building the 100 MW Edwaleni solar plant link
- ASCENT Eswatini to electrify 50,000 households with on and off-grid systems link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Ethiopia

Objectives

- Add 6.4 GW of generation capacity by 2027 link
- Expand renewable energy capacity to 13 GW by 2028 link
- Achieve 100% electricity access from renewable energy sources by 2030 link
- Increase its installed electricity generation capacity to 19 GW by 2030 link
- Reach 25% non-hydro renewable energy generation by 2030 link

Policy / Regulation

- Off-grid solar products are Import duty free link
- VAT exemption on off-grid solar products link
- No Net metering link , no FiT in place link

Electrification Rate

- 55.4% of the population is electrified link
- Targets 96.2% urban and 72.3% rural access by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	125.65 MWp
MG	10.94 MWp
SHS	26.59 MWp
Residential	21.73 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.005	$ 0.032	$ 0.016
MAX	$ 0.033	$ 0.032	$ 0.020

Noteworthy Developments

- ISA and NTPC to develop 400 MW solar plant link
- Tender launched for 2 solar PV plants totaling 225 MW link
- HFSE initiative to solarize 300 remote clinics link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Gabon

Objectives

- Increase the renewable energy share in its electricity mix up to 80% by 2030 link

Policy / Regulation

- Import duty exemptions for solar equipment link
- 5% VAT on RE generation equipment link
- No FiT policy in place link , net metering available link
- Solar projects requires necessary licenses from ARSE link

Electrification Rate

- 93% of the population has access to electricity link
- Targets for universal access to electricity by 2035 link

Total PV Installed

Utility-scale	11.00 MWp
C&I	14.74 MWp
MG	0.40 MWp
SHS	0.03 MWp
Residential	2.57 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.094	$ 0.129	$ 0.129
MAX	$ 0.228	$ 0.162	$ 0.162

Noteworthy Developments

- The government is advancing a 50 MW solar project in Mounana link
- AMEA is developing a 50 MW solar power station in Oyem link
- Solen SA is building 109 MW solar in Ayémé link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Ghana

Objectives

- Boost the renewable energy generation to 10% by 2030 link
- Install 120 MW distributed renewable energy by 2030 link
- Increase the solar PV capacity to 850 MW by 2030 link
- Reach 50% of renewable energy generation by 2060 link

Policy / Regulation

- Import tax exemption for solar and RE equipment link
- Solar equipment is VAT exempt link
- Net metering and FiT policies are available link
- Licenses are needed to develop RE projects for private use link

Electrification Rate

- The national electrification access rate stands at 89% link
- Target of reaching 99% of electrification rate by 2030 link

Total PV Installed

- Utility-scale 112.00 MWp
- C&I 707.36 MWp
- MG 2.55 MWp
- SHS 2.38 MWp
- Residential 112.73 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.071	$ 0.113	$ 0.172
MAX	$ 0.212	$ 0.216	$ 0.452

Noteworthy Developments

- First Sky Group is planning a 200 MW solar plant link
- Govt to construct 35 MGs and provide 1,450 SHS link
- BPA to expand Bui reservoir floating solar to 65 MW link
- NCEP to deploy 4,000 rooftop solar systems totaling 137 MW link
- SFI has started Phase I construction of the 200 MWp Norbert Anku Solar Park link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

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GHANA ENERGY TRANSITION & INVESTMENT SUMMIT

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Kempinski Gold Coast Hotel, Accra Ghana

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Guinea

Objectives

- Achieve a 30% renewable energy share in the energy mix by 2030 link
- Raise the renewable energy share to 70% with the installation of 1,086 MW solar and 791 MW hydro energy by 2030 link

Policy / Regulation

- Import of solar panels is taxed at a 5% rate link
- Equipment for production of RE is VAT exempt link
- No net metering and FiT available link

Electrification Rate

- 53% of the population is electrified link
- Aiming for universal electricity access by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	244.82 MWp
MG	0.32 MWp
SHS	1.20 MWp
Residential	37.15 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.012	$ 0.129	$ 0.201
MAX	$ 0.050	$ 0.306	$ 0.281

Noteworthy Developments

- ISA and NTPC planning a solar project of 800 MW link
- CleanPower generation developing 2*42 MW solar plants link
- The government approved the construction of the 40 MW Khoumagueli solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Guinea Bissau

Objectives

- Scale up renewable energy to 75% of the generation mix by 2030 link
- Reach 50% renewables in the national grid and 80% in isolated systems by 2030 link
- Raise the installed renewable energy capacity to 90 MW by 2030 link

Policy / Regulation

- Exempted import duty on RE equipment link
- The standard VAT is 19% , with a reduced rate of 10% link
- No net metering and FiT in place link

Electrification Rate

- 33% of the population is electrified link
- Aims to raise the electricity access to 80% by 2030 link
- Aims to raise the electricity access to 80% by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	7.31 MWp
MG	1.13 MWp
SHS	0.27 MWp
Residential	1.21 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.230	$ 0.232	$ 0.184
MAX	$ 0.441	$ 0.290	$ 0.230

Noteworthy Developments

- Plans are in place for several solar PV power projects, including a 20 MW plant in Bissau (Cumere) and 10 MW in Bafata projects link
- AIC Green Energy to develop a 10 MW solar plant link
- The government is developing mini-grids on the islands to supply electricity to 1,200 households link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Ivory Coast/Cote D'ivoire

Objectives

- Reach 45% renewable energy in the energy mix by 2030 link
- Add 2,570 MW of new capacity under the 2026-2030 Emergency Energy Plan, including 925 MW from solar link
- Generate approximately 1,686 MW from solar power and other renewable energy by 2040 link

Policy / Regulation

- Renewable energy equipment is exempt from import duties link
- Equipment for production of solar energy is VAT exempt link
- Feed-In Tariff Scheme not available link
- Net metering policy is in place link

Electrification Rate

- 71% of the population has access to electricity link
- Aims to achieve universal access by 2030 link

Total PV Installed

Utility-scale	37.50 MWp
C&I	526.77 MWp
MG	0.39 MWp
SHS	4.84 MWp
Residential	89.16 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.046	$ 0.109	$ 0.106
MAX	$ 0.222	$ 0.235	$ 0.154

Noteworthy Developments

- Tender launched for two 100 MW solar + 33 MWh hybrid plants link
- Tongon Solaire to build 52 MWp solar plant in M'Bengué link
- AMEA Power begun construction on the 50 MW Bondoukou project link
- 20 MW Laboa Solar Plant under development by Infinity Power link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Kenya

Objectives

- Achieve 100% of renewable electricity by 2030 link
- Attain an installed capacity of 15,000 MW by 2030 link
- Increasing renewable power generation to 5,952MW by 2030 link
- Reach 807 MW of solar capacity by 2030 link
- Expand the energy capacity to 100 GW by 2040 link

Policy / Regulation

- Solar products are exempt from import duty link
- 16% VAT is levied on solar products link
- Net Metering has been gazetted, but not yet implemented link
- FiT applies to RE projects, except solar and wind projects link

Electrification Rate

- 75% of the population is electrified link
- Targeting universal electricity access by 2030 link

Total PV Installed

Utility-scale	220.60 MWp
C&I	1823.27 MWp
MG	44.66 MWp
SHS	70.58 MWp
Residential	271.75 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.095	$ 0.052	$ 0.044
MAX	$ 0.145	$ 0.148	$ 0.105

Noteworthy Developments

- The government launched a tender for two 40 MW solar projects link
- AFD backing the 42.5 MW Seven Forks Solar Hybrid Project link
- 195 MW Kaptagat Solar under development by Tarita Green Energy link
- 8 MW solar project in development in Lodwar link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

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Johan Smit

Managing Director, World Of Sun And Wind Power

WORLD OF SUN & WIND POWER

Powering the Continent: The 2026 Roadmap for Regional Solar Distribution

As we move into 2026, the African solar landscape is witnessing a historic surge. At **World of Sun & Wind Power**, we are matching this momentum by shifting how we distribute renewable energy technology. Our regional expansion is about more than logistics; it is about bringing the power of the sun closer to project sites and bridging the infrastructure gap that often slows the transition to clean energy.

With over **1,000+ 4.9-star customer reviews on Google**, our reputation is built on excellent turnaround times and a specialized supply chain that serves installers, resellers, home owners and high-scale commercial projects.

Strategic Branch Expansion: Bridging the Gap

To meet the rising demand for reliable energy, we have strategically expanded our footprint across key economic hubs:

- **South Africa:** Our **Rosebank Headquarters**, **Crown Mines Main Branch**, and our coastal branches in **Cape Town** and **Durban** .
- **Zambia & Zimbabwe:** Local branches in **Lusaka** and **Harare** allow for immediate local stock access.
- **2026 Global Growth:** We are currently preparing to extend our footprint into **Kenya** and **Pakistan**, ensuring that distance is no longer a barrier.

Strategic Partnership: Redefining Power with MEGATRON®

Our partnership with Megatron Group Of Companies (Pty) Ltd is redefining how homes, businesses, and industry professionals power up. Founded on collaborative innovation, this relationship involves working closely with expert manufacturers to build technology tailored to the specific demands of the African energy market, ensuring our clients have immediate access to cutting-edge energy solutions.

AFSIA
Africa Solar Industry Association

AFSIA
Africa Solar Industry Association

1. Megatron AI Hybrid Inverters
The new generation of Megatron AI inverters brings a level of intelligence unseen in solar hardware. Designed to adapt to the unpredictable nature of African power grids,
It's intelligence that quietly does the work in the background — yet makes a noticeable difference up front.

- **AI-Driven Load Management:** Unlike traditional systems that rely on manual timers, the Megatron AI observes consumption patterns. It automatically focuses on essential circuits when solar production is low and seamlessly supports non-essential loads as production increases.
- **Advanced Voltage Shielding (AVS)**: Protects appliances from harsh grid surges and dips.
- **UPS-Level Switching**: 10ms transfer time prevents interruptions.
- **Commercial Scalability:** Up to 9 units can be connected in parallel, allowing for large scale systems up to 45kW.

2. Megatron 5.1kWh Ultra Slim Lithium Battery (MEG-BATT-1)
A high-efficiency storage solution that combines a sleek design with industrial performance:

- **95% Usable Capacity:** Offers a 95% DOD, providing 4.86kWh of usable energy.
- **Exceptional Lifecycle:** Rated for 6,000 cycles at 80% DOD (approx. 10 years)
- **High Power Throughput:** Supports 1C/1C continual charge and discharge for heavy loads and rapid recharging.
- **Power**: Supports 1C/1C charge/discharge for heavy loads.

3. Megatron Vertical Stack High-Voltage System
Engineered for high-demand environments, this system is a premier offering for commercial and industrial (C&I) clients. The high-voltage architecture reduces energy loss during conversion, while the vertical stack configuration provides massive storage capacity within a minimal physical footprint.

4. Megatron High-Efficiency Solar Panels
Optimized for the African sun and various climate conditions, these panels are designed to maintain high performance and serve as the reliable first link to ensure maximum yield and durability.

AFSIA
Africa Solar Industry Association

Direct-to-Manufacturer Sourcing: Globally Trusted, Locally Stocked

In the solar industry, time is the most expensive variable. By maintaining local stock of trusted brands at our branches, we eliminate international shipping delays. This "local-first" approach supports large-scale projects and residential installations with equal speed. Our cross-border network ensures rapid delivery across South Africa, Zambia, Zimbabwe, and soon Kenya and Pakistan.

Our Competitive Edge: Technical Value

What sets **World of Sun & Wind Power** apart is our commitment to technical excellence beyond just supply. Our edge is built on:

- **Collaborative R&D:** We work alongside expert-level manufacturers to ensure the highest quality and best pricing for our clients.
- **In-house Technical Advice:** We ensure full system compatibility between inverters, batteries, and panels, translating complex concepts into actionable advice.
- **Empowerment Culture:** We believe in growth through mentorship and cross-skilling, ensuring our staff are as advanced as the technology we distribute.

AFSIA
Africa Solar Industry Association

Powering the Future of Africa

As the continent continues to pave the way toward a bright solar future, World of Sun & Wind Power remains dedicated to driving economic development and universal electrification. By shortening the distance between a sunbeam and a powered home or business, we are helping Africa achieve its potential as the world’s "sun continent".

Through our localized distribution and our cornerstone partnership with Megatron, we are not just supplying components; we are building a more resilient and sustainable Africa, one project at a time.

Lesotho

Objectives

- Increase the share of renewable energy in fuel mix to 100% by 2030 link
- Install 224 MW solar capacity by 2030 link
- Deploy a 600 MWh Battery Energy Storage by 2030 link

Policy / Regulation

- Import duties range between 0-30% link
- A reduced VAT rate of 5% applies on renewable energy equipment link
- No net metering, no Feed-in Tariff link

Electrification Rate

- 53% of the population has access to electricity link
- Aspiring to achieve universal access by 2030 link

Total PV Installed

Utility-scale	30.00 MWp
C&I	0.14 MWp
MG	0.21 MWp
SHS	0.03 MWp
Residential	0 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.056	$ 0.020	$ 0.020
MAX	$ 0.125	$ 0.022	$ 0.022

Noteworthy Developments

- 50 MW phase 2 Ramarothole solar park under development link
- 100 MW project under development by Astra Energy link
- 10 mini-grids under development to provide electricity to 30,000 people and clinics with World Bank support link
- Deploying 4,400 MGs connections and 3,402 SHS via the Renewable Lesotho Programme link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Liberia

Objectives

- Increase renewable energy share to at least 75% by 2030 link
- Bringing total installed capacity to 266MW, including 238MW of renewable by 2030 link
- 19% of total electricity to come from renewables excluding large hydropower link
- Deploy 60 MW of on-grid solar PV by 2030 link

Policy / Regulation

- No import tariffs on off-grid solar products link
- The new standard VAT is 18% link
- WHT Rate is averaged at 15 % link
- New net metering policy in place link , No FiT available link

Electrification Rate

- 32.7% of the population is electrified link
- Targeting 75% electricity access by 2030 link

Total PV Installed

Utility-scale	0 MWp
C&I	106.55 MWp
MG	0.05 MWp
SHS	0 MWp
Residential	18.16 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.150	$ 0.190	$ 0.190
MAX	$ 0.240	$ 0.220	$ 0.220

Noteworthy Developments

- Tender launched for 70 MW solar projects with 60 MWh battery storage across two sites link
- 24 MW/10 MWh storage project under development by Scatec link
- Mount Coffee 60 MW Solar Plant-Phase 1 under construction link
- BGFA supporting the development of 30 MGs across the

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Libya

Objectives

- Expand the share of renewable energy in the electricity mix to 19% in the energy mix by 2030 with cumulative capacity of 2,600 MW link
- Increase the contribution of renewable energy to 20% by 2035, with a cumulative capacity of 4,000 MW link

Policy / Regulation

- No general customs duties on imports; most goods pay a 5% service fee plus 0.5% minor import charges link
- There is no VAT in the country link
- No net metering link , Feed-in tariff applicable link

Electrification Rate

- Total electrification rate stands at 73.2% link

Total PV Installed

Utility-scale	1.14 MWp
C&I	43.93 MWp
MG	0 MWp
SHS	0 MWp
Residential	7.69 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.004	$ 0.008	$ 0.006
MAX	$ 0.006	$ 0.012	$ 0.008

Noteworthy Developments

- 500 MW Sadada project under development by TotalEnergies link
- AG Energy to develop a 200 MW solar plant in Ghadames link
- 1500 MW project under development by PowerChina and EDF link
- 99 MW solar plant under construction in Al Kufra link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Madagascar

Objectives

- Grow renewable energy capacity to 893 MW by 2030, with 560 MW from solar by 2028 link
- Increase the share of renewable energy to at least 85% by 2030, including a 5% contribution from solar link

Policy / Regulation

- Import duty waived for RE equipment (policy may change in 2026) link
- No VAT on imported RE equipment link
- Solar equipment is VAT-exempt link
- No net metering policy in place link , FiT is available link

Electrification Rate

- 36% % of the population has access to electricity link
- Aims to raise electricity access to 80% by 2030 link

Total PV Installed

Utility-scale	68.20 MWp
C&I	415.42 MWp
MG	7.88 MWp
SHS	4.13 MWp
Residential	68.57 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.151	$ 0.093	$ 0.070
MAX	$ 0.755	$ 0.376	$ 0.229

Noteworthy Developments

- GSU secured agreements to develop a 50 MW solar plant and a 25 MWh battery energy storage system (BESS) link
- Dera Energy building 32 MW solar projects across the country link
- Axian is developing a 20 MW solar project with 14 MWh of storage
- Two solar PV projects totaling 210 MW are planned in

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Malawi

Objectives

- 848 MW of additional generation capacity by 2030, with 714 MW from the private sector link
- Expand the current renewable energy share from 90% to 96% by 2030 link
- Achieve 1.5 GW of power generation by 2030 link

Policy / Regulation

- Import duty exemption for solar products link
- Solar products are levied at a rate of 16.5% link
- Established net metering link, FiT scheme available link

Electrification Rate

- 25.9% of the population is electrified link
- 63% in urban areas and 19.7% in rural areas link
- Targets 70% electricity access by 2030 link

Total PV Installed

Utility-scale	129.30 MWp
C&I	104.57 MWp
MG	0.49 MWp
SHS	7.34 MWp
Residential	17.70 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.037	$ 0.125	$ 0.050
MAX	$ 0.090	$ 0.147	$ 0.163

Noteworthy Developments

- ISA and NTP plan to co-develop a 100 MW solar plant link
- 50 MW solar project under development by AMEA Power link
- EGENCO building 50 MW Salima solar park link
- Voltalia is developing a 55 MW solar plant with a 10 MWh battery storage system link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Mali

Objectives

- Boost the renewable energy share in the power mix to 39% by 2030, and add 1 GW of RE capacity link
- Raise rural electrification to 66.64% by 2030 with off-grid systems link
- Reach 60% renewable energy in the energy mix by 2040, excluding medium and large hydro link

Policy / Regulation

- Solar equipment is customs duty-free link
- Off-grid solar products are VAT-free link
- Net metering available link
- FiT has not yet been implemented link

Electrification Rate

- 53% of the population has access to electricity link
- Seeks to achieve 87% electricity access by 2030 link

Total PV Installed

Utility-scale	51.05 MWp
C&I	244.59 MWp
MG	9.94 MWp
SHS	1.87 MWp
Residential	23.74 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.106	$ 0.139	$ 0.123
MAX	$ 0.275	$ 0.239	$ 0.239

Noteworthy Developments

- A 50 MW solar project is under development by ISA and NTPC link
- Allied Gold launched a 32 MW solar + 30 MWh BESS project for it's Sadiola Mine link
- Novawind developing a 200 MW solar project link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Mauritania

Objectives

- 50% of electricity to be generated from renewable sources by 2030 link
- Increase the renewable energy in the generation mix to 70% by 2030 link
- Envisage achieving a 30% share of electricity generation from solar PV by 2030 link

Policy / Regulation

- Customs duties and VAT exemption on import of equipment used for RE power generation link
- Local goods are subject to a 16% VAT rate link
- Net metering is in place, but no FiT policy link

Electrification Rate

- 55% of the population has access to electricity link
- Targeting universal electrification by 2030 link

Total PV Installed

Utility-scale	84.30 MWp
C&I	171.93 MWp
MG	0.05 MWp
SHS	0.07 MWp
Residential	21.76 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.061	$ 0.148	$ 0.054
MAX	$ 0.148	$ 0.148	$ 0.148

Noteworthy Developments

- Iwa Green Energy to develop a 160 MW solar-wind hybrid project link
- AFD and the EU support the electrification of 20 villages link
- GreenGo Energy plans a green hydrogen project with 6.3 GW of solar capacity link
- The government secured a loan to develop 10 solar plants link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

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Africa's E-Mobility Revolution: Kenya in the Driver's Seat

Africa is witnessing a rapid transformation in transportation, with electric mobility (e-mobility) emerging as a key solution to urbanization, air pollution, and energy security challenges. Across the continent, electric vehicles (EVs) are being adopted at an accelerating pace, driven by government support, entrepreneurial innovation, and rising consumer demand for cleaner and more affordable transport.

At the forefront of this transformation is Kenya, which has positioned itself as a hub for e-mobility innovation in East Africa. The country's rapid adoption of electric two- and three-wheelers, combined with a dynamic startup ecosystem and supportive policies, has made Kenya a continental leader in sustainable transport solutions.

Africa's E-Mobility Market

The African e-mobility market is expanding quickly, projected to grow from $2.8 billion in 2023 to $7 billion by 2028. Investment in the sector is significant, with African startups raising $2.21 billion in 2024 alone. Mobility-focused startups have led the way, securing $178.6 million in the first quarter of the year.

Regional trends show distinct patterns: East Africa, led by Kenya, focuses on electrifying commercial vehicles, particularly two- and three-wheelers. Southern Africa, primarily South Africa, emphasizes EV manufacturing but faces energy infrastructure challenges. In West Africa, countries like Nigeria are forming strategic partnerships for local EV assembly and industry development.

Kenya's E-Mobility Ecosystem

Kenya's e-mobility growth is fueled by a renewable energy grid with over 90% of power from renewables, strong government support, and a thriving startup ecosystem. EV registrations soared from just 65 vehicles in 2018 to 4,047 by 2023.

The two-wheeler segment, dominated by electric motorcycles or e-bodas remains the driving force of Kenya's e-mobility market. This is largely due to their affordability and their crucial role in both urban and rural transport, providing a reliable means of daily commuting for millions of Kenyans.

AFSIA
Africa Solar Industry Association

Kenya’s E-Mobility Ecosystem

Several innovative startups are leading this transformation. ARC Ride is expanding its battery-swapping network with a $10 million financing facility, aiming to deploy 600 cabinets and 25,000 batteries across the country. BasiGo is scaling its electric bus operations in East Africa after raising $42 million in 2024, while Spiro has partnered with US-based Ace Green Recycling to tackle the critical issue of battery recycling. Meanwhile, Watu is contributing to Kenya’s e-bike boom, offering efficient and accessible solutions for urban mobility. Together, these companies are creating a dynamic ecosystem that is shaping the future of e-mobility in Kenya.

Infrastructure and Investment

Investment in Kenya’s e-mobility sector is driving critical infrastructure development. The government plans to install 10,000 public charging stations by 2030, supported by a budget of 6 billion Kenyan shillings (~€39.5 million). The rollout prioritizes major cities and transport corridors, with charging stations planned every 25 kilometers along key motorways. Kenya Power has already installed 45 fast-charging stations across six counties.

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Policy and Regulation

Supportive government policies have been pivotal. The Draft National E-Mobility Policy (March 2024) outlines Kenya's vision to lead in Africa, promoting local manufacturing, comprehensive charging infrastructure, and a sustainable transport system. Fiscal incentives, including excise duty exemptions, reduced import duties, and VAT exemptions on EVs, batteries, and charging equipment, make adoption more affordable.

The government also leads by example, with plans to electrify its vehicle fleet, including police vehicles, at a rate of 1,000 vehicles per year. These measures place Kenya alongside other progressive African countries, such as Ethiopia, which banned non-electric vehicle imports in early 2024, and Rwanda, which has pledged to electrify 20% of its bus fleet by 2030.

Emerging Trends

Battery swapping has become a dominant solution for commercial two-wheelers, helping overcome charging infrastructure limitations. Local manufacturing and assembly are expected to grow under government incentives. Kenya's high renewable energy share ensures that EV adoption translates into genuine carbon reductions.

Conclusion

Kenya's e-mobility sector is at a pivotal moment. Forward-thinking policies, a vibrant startup ecosystem, and strong investor interest have created fertile ground for rapid growth. By electrifying its two-wheeler fleet, building a robust battery-swapping network, and scaling public transport electrification, Kenya offers a blueprint for sustainable urban mobility. Its progress demonstrates that clean, affordable, and efficient transportation is not only feasible but can also drive economic opportunity and environmental sustainability across Africa.

Mauritius

Objectives

- Deploy an additional 100 MW of electricity generation capacity by 2026 link
- Reach 40% share of renewable energy in the electricity mix by 2030 link
- Raise the renewable energy share to 60% by 2035 link

Policy / Regulation

- PV Systems are exempted from Customs duty link
- No VAT for renewable energy systems link
- 2 MW capacity cap for net metering link
- Feed-in tariff policy exists link

Electrification Rate

- 100% of the population has access to electricity link

Total PV Installed

Utility-scale	152.68 MWp
C&I	122.65 MWp
MG	0 MWp
SHS	0.03 MWp
Residential	19.09 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.048	$ 0.065	$ 0.065
MAX	$ 0.193	$ 0.220	$ 0.119

Noteworthy Developments

- Qair secured funding for 60 MW solar link
- ISA and NTPC to develop 30 MW floating solar project link
- Ecoasis Energy constructing 2 MW solar in Moka City link
- ADFD and IRENA supporting deployment of 10,000 rooftop PV systems across the country link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Morocco

Objectives

- Generate 52% of electricity from renewable sources by 2030 link
- Solar energy to account for 20% of total electricity production by 2030 link
- Reach 2.1 GW of combined solar PV and CSP capacity by 2030 link
- Increase the share of renewable energy capacity to 80% by 2050 link

Policy / Regulation

- Solar panels have a 10% import duty, rising to 25% in 2026 link
- A reduced VAT rate of 10% for solar equipment link
- Net metering scheme is in place link , FiT is available link

Electrification Rate

- The entire population has access to electricity link

Total PV Installed

Utility-scale	353.86 MWp PV + 534 MWe CSP
C&I	2870.02 MWp
MG	0 MWp
SHS	15.86 MWp
Residential	451.31 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.099	$ 0.056	$ 0.057
MAX	$ 0.247	$ 0.226	$ 0.272

Noteworthy Developments

- Sound Energy and Gaia energy developing 270 MW of solar link
- ONEE launched a nationwide 1,600 MWh BESS project link
- Qair building a 48 MWp solar power plant in Tiznit link
- GreenPower Morocco developing 10 plants totaling 587 MWp
- ACWA Power to build Noor Midelt 2 & 3 with 400 MW solar

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Mozambique

Objectives

- Generate 62% of its electricity from renewable energy by 2030 link
- Install 1 GW of solar capacity by 2030 and 7.5 GW by 2050 link
- Solar and wind to contribute 20% of the electricity mix by 2040, with 266 MW solar and 40 MW wind installed by 2030 link

Policy / Regulation

- 7.5% import duty applies on solar products link
- The standard VAT is 16% , but solar panel materials for rural electrification exempt until the end of 2025 link
- Net metering available link , FiT available link

Electrification Rate

- 40% of the population is electrified link
- Aspiring to achieve universal access by 2030 link

Total PV Installed

Utility-scale	126.00 MWp
C&I	715.36 MWp
MG	3.75 MWp
SHS	4.55 MWp
Residential	122.57 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.096	$ 0.076	$ 0.075
MAX	$ 0.143	$ 0.076	$ 0.075

Noteworthy Developments

- Hydroland is developing 100 MW floating solar project link
- 95 MW Chibuto solar Plant under development by Sal Energia link
- GET. Invest Mozambique supporting two 48 MWp solar plants with 18 MWh storage each and a 120 MWh storage plant link
- 400 MWac solar under development at Cahora Bassa Hydroelectric Plant by HCB link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Namibia

Objectives

- Expand the renewable energy share from 30% to 70% by 2030 link
- Reach 900 MW of power capacity by 2030 link
- Add 1 GW of solar capacity by 2030 link

Policy / Regulation

- Import duty exemption for renewable energy equipment link
- 15% VAT is levied on most goods link
- Wheeling framework is available link
- Net metering established link , FiT exists link

Electrification Rate

- 59.4% of the population has access to electricity link
- Aiming for 70% of electricity access by 2030 link

Total PV Installed

Utility-scale	290.11 MWp
C&I	961.95 MWp
MG	0.26 MWp
SHS	0 MWp
Residential	157.32 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.080	$ 0.068	$ 0.052
MAX	$ 0.189	$ 0.273	$ 0.431

Noteworthy Developments

- Govt approved 3 GW solar for Green hydrogen production link
- Nampower launched tender for 6*20 MW solar PV projects link
- Nampower begun construction of 100 MW Sores Gaib solar station link
- Oshakati Premier Electric launched a 5 MW solar Plant link
- Hopsol constructing phase 2 of the otjiwarongo solar Plant link
- The government launched the 25MW Khan Solar PV Plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Niger

Objectives

- Reach 30% of renewable energy generation by 2030 link
- Install 50 MW of solar by 2026 and 240 MW by 2030 link

Policy / Regulation

- Import duties and VAT exemption for RE products link
- No net metering, FiT available link
- The WHT rate ranges between 2% and 20% link

Electrification Rate

- Total electrification stands at 20.1% link
- Aspiring to achieve 60% access to power by 2030 link

Total PV Installed

Utility-scale	55.90 MWp
C&I	40.78 MWp
MG	1.15 MWp
SHS	0 MWp
Residential	6.83 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.107	$ 0.173	$ 0.101
MAX	$ 0.246	$ 0.246	$ 0.246

Noteworthy Developments

- NIGELEC launched tender for a 20 MW solar Plant in Maradi link
- ISA and NTPC developing a 50 MW solar plant link
- Investment being raised for three RE projects totaling 298 MW link
- Government partnering with AfDB to boost the energy sector, with a focus on renewables link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Nigeria

Objectives

- Reach 30% of renewable energy generation by 2030 link
- Increase the RE share in the energy mix to 50% by 2030 link
- Add 5 GW of renewable energy by 2030 link
- Deploy a 277 GW power system by 2060 link

Policy / Regulation

- 5% Import duties and 5% VAT on imported solar components link
- Solar panels are VAT exempt link
- Net metering framework currently in draft link , FiT available link
- Wheeling regulations in place for projects above 1 MW link

Electrification Rate

- 61.2% of the population is electrified link
- Planning for universal access by 2030 link

Total PV Installed

Utility-scale	12.80 MWp
C&I	3970.16 MWp
MG	94.00 MWp
SHS	88.57 MWp
Residential	648.91 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.003	$ 0.031	$ 0.031
MAX	$ 0.145	$ 0.145	$ 0.145

Noteworthy Developments

- Granville Energy and MESL signed MOU for 1 GW floating solar link
- Govt to develop 19 solar projects of 100 MW each across 19 states link
- 20 MW solar under development in Challawa Industrial Area link
- Konexa secured funds for a 50 MW solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Africa’s Solar Manufacturing Moment: Building Industrial Capacity for a Clean Energy Future

Africa’s solar sector has expanded rapidly over the past decade, driven by declining technology costs, rising electricity demand, and persistent supply gaps across national grids. While deployment has accelerated, the continent has remained heavily dependent on imported photovoltaic (PV) modules and components. In 2025, this dynamic began to shift more visibly. A growing number of governments and private investors moved beyond solar installation toward local manufacturing, positioning it as a strategic pillar of Africa’s energy transition and industrial development agenda.

For many years, Africa’s participation in the solar value chain was largely confined to project development, installation, and operations. Manufacturing, particularly of PV modules and cells, remained concentrated outside the continent. This reliance exposed African markets to currency volatility, global supply-chain disruptions, and limited domestic value creation. Recent announcements and investments, however, indicate a deliberate effort to anchor more of the solar value chain locally.

Nigeria has emerged as a focal point of this shift. In 2025, a major public-private partnership was established to develop a 1 GW solar panel manufacturing facility, reflecting a clear national ambition to reduce import dependence and strengthen industrial capacity. The project combines public procurement commitments with private sector expertise, ensuring both demand certainty and technology transfer. By targeting progressive increases in local content over the initial years of operation, the initiative aims to stimulate domestic supply chains while supporting national electrification programs.

Nigeria's manufacturing push extends beyond a single project. Additional plans announced during the year include a 1.2 GW solar module assembly plant linked to off-grid and grid-connected generation initiatives, as well as the construction of an 800 MW PV panel factory by a domestic manufacturer. Together, these developments signal a coordinated effort to scale local production capacity, create skilled employment, and position Nigeria as a regional hub for solar manufacturing in West Africa.

Southern Africa has also shown renewed interest in domestic production. Zimbabwe announced plans to establish a local solar panel manufacturing plant as part of a broader strategy to attract foreign investment into renewable energy and clean technologies. While the project remains at an early stage, it reflects growing recognition among policymakers that solar manufacturing can support energy security while contributing to industrialization and export potential within the region.

In East Africa, manufacturing activity has taken a different but complementary form. In Kenya, a large-scale manufacturing facility focused on solar-related products and systems was inaugurated in 2025. While not yet producing conventional PV panels, the facility represents an important step toward localization of solar technology production and refurbishment. By shortening supply chains and improving responsiveness to regional demand, such investments support the fast-growing off-grid and distributed energy markets that dominate much of East Africa's solar landscape.

North Africa has continued to leverage its industrial base and strategic location to attract large-scale solar manufacturing investments. In Egypt, multiple announcements in 2025 confirmed the development of integrated solar manufacturing complexes combining cell and module production, with future plans to localize upstream processes such as wafers and silicon components. These projects are designed not only to serve domestic demand but also to target export markets across Africa, the Middle East, and Europe, reinforcing Egypt's role as a manufacturing gateway.

Ethiopia stands out for its progress in upstream manufacturing. In 2025, a solar cell production facility commenced operations with plans to scale output significantly in the coming years. This development positions Ethiopia among a small group of African countries participating beyond module assembly, signaling early movement toward deeper integration into the global solar value chain.

Despite this momentum, challenges remain. African solar manufacturing largely focuses on assembly rather than full vertical integration, where capital requirements, energy intensity, and technological barriers are higher. Competing with established global manufacturers on cost will require scale, policy consistency, affordable finance, and reliable infrastructure. Nevertheless, local manufacturing does not need to replace imports entirely to deliver value. Even partial localization can improve supply-chain resilience, reduce foreign exchange exposure, and retain more economic value within national economies.

The developments of 2025 suggest that local solar manufacturing in Africa is moving from ambition to implementation. By aligning energy policy with industrial strategy and leveraging public-private partnerships, African countries are laying the groundwork for a more resilient and inclusive solar economy. As deployment continues to accelerate, manufacturing has the potential to become a defining pillar of Africa's clean energy future, powering not only electricity systems, but also jobs, skills, and long-term economic growth.

Rwanda

Objectives

- Reach 100% of renewable energy in the mix by 2050 link
- 50 MW solar capacity to be added (2029–2035) link
- Install 1.5 GW of new solar capacity by 2050 link

Policy / Regulation

- No customs duty on solar equipment link
- Solar equipment is VAT exempt link
- Net metering not yet formally established link , No FiT policy available link
- Licensing not required for ≤100 kWp solar projects link

Electrification Rate

- 84.6% of population has access to electricity link
- Targeting universal access by 2029 link

Total PV Installed

Utility-scale	8.80 MWp
C&I	19.96 MWp
MG	0.77 MWp
SHS	7.64 MWp
Residential	2.37 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.061	$ 0.076	$ 0.067
MAX	$ 0.255	$ 0.259	$ 0.121

Noteworthy Developments

- Government launched a 60 MW PV+60 MWh of storage in Bugesera link
- Government exploring the development of a 30 MW solar power plant link
- MINIFRA announced plans to develop a 200 MW solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Sao Tome & Principe

Objectives

- Increase the solar PV capacity to 18 MWp by 2030 link
- Raise the share of RE to 50% in the energy mix by 2035 link
- Achieve 72% of its total installed electricity capacity from renewable energy by 2050, including nearly 47 MW of solar PV link

Policy / Regulation

- Solar components are exempt from customs duty link
- The standard VAT is 15%, reduced to 7.5% link
- No net metering and FiT regulations available link
- The withholding tax rate ranges between 10-15% link

Electrification Rate

- Current electricity access rates stands at 84% link
- Aiming for universal access to electricity by 2030 link

Total PV Installed

Utility-scale	1.09 MWp
C&I	1.56 MWp
MG	0 MWp
SHS	0 MWp
Residential	0.24 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.078	$ 0.180	$ 0.161
MAX	$ 0.180	$ 0.330	$ 0.161

Noteworthy Developments

- Release by Scatec signed deal for an 11 MW solar Plant link
- Site being prepared for a 20 MWp solar project in Água Casada link
- 3 MWp + 2-4 MWh project under development on principe island link
- Officially joined the African Minigrid Program and pilot started link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Senegal

Objectives

- Achieve 40% renewable energy in the energy mix by 2030 link
- Install 50 MW of Concentrated Solar Power by 2030 link
- Add 100 MW of solar PV by 2030 link
- Bring electricity to 200,000 households, electrify 600 health clinics and 200 schools by 2030 link

Policy / Regulation

- 3% import duty for solar panels, 27% on batteries link
- RE equipment are VAT exempt link
- Net metering and FiT policies available link
- Mini-grids under 50 kW do not require a licence link

Electrification Rate

- 84% of the population has access to electricity link
- Targets universal access by 2029 link

Total PV Installed

Utility-scale	307.50 MWp
C&I	1481.04 MWp
MG	8.98 MWp
SHS	3.63 MWp
Residential	251.09 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.164	$ 0.165	$ 0.129
MAX	$ 0.307	$ 0.447	$ 0.260

Noteworthy Developments

- 300 MW solar desalination plant in development by ACWA Power link
- SENELEC and CNTIC to develop 2*50 MW+90 MWh plants link
- Construction underway for the 60 MW + 72 MWh NEA Kolda project link
- Infinity Power developing a 40 MW/160 MWh BESS project link
- JUWI developing a 20 MW+11 MWh plant for Eramet Group link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Seychelles

Objectives

- Increase the share of renewables to 25% by 2030 link
- long-term goal of reaching 100% renewable energy by 2050 link

Policy / Regulation

- PV systems are duty-free link
- Imported goods for RE generation are VAT free link
- FiT policy not yet established link
- Net metering framework is in place link

Electrification Rate

- 100% of the population has access to electricity link

Total PV Installed

Utility-scale	12.26 MWp
C&I	13.84 MWp
MG	4.30 MWp
SHS	0.16 MWp
Residential	1.27 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.128	$ 0.296	$ 0.296
MAX	$ 0.333	$ 0.360	$ 0.360

Noteworthy Developments

- The government launched Seychelles Renewable Energy Acceleration Program (REAP) to attract private investment and power a sustainable future link
- Qair started the construction on the 5.8 MW Seysun Lagoon floating solar project link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Sierra Leone

Objectives

- Raise the share of RE to 35% by 2030 link
- Increase renewable energy share to 51% by 2050 link
- Boost generation capacity to 1 GW by 2035, with 55% hydro, 30% thermal, and 15% solar link
- Reach 932 MW Solar PV deployment by 2040 and 1.97 GW by 2050 link

Policy / Regulation

- Duty-free import of renewable energy products link
- VAT exemption on a case-by-case basis for RE equipment link
- FiT not yet established link
- No net metering policy in place link

Electrification Rate

- Total electrification rate stands at 36% link
- 21% in urban and 15% in rural areas link
- Targeting 78% of electricity coverage by 2030 link

Total PV Installed

Utility-scale	31.00 MWp
C&I	260.78 MWp
MG	11.09 MWp
SHS	3.22 MWp
Residential	43.98 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.105	$ 0.265	$ 0.248
MAX	$ 0.264	$ 0.276	$ 0.293

Noteworthy Developments

- Release by Scatec secured a 40 MW solar Project link
- World Bank to finance the 52 MWp + 21 MWh RESPITE project link
- Construction underway on the 15 MW Macoth Solar Plant link
- A 23.8 MW+13.8 MWh hybrid plant under development by FG Gold and CrossBoundary link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Somalia

Objectives

- Expand renewable capacity to 392 megawatts by 2030 link
- A 30% rise in off-grid generation by 2030 link
- Generate at least 50 % of the country's energy from solar power by 2028 link

Policy / Regulation

- Solar equipment eligible for duty-free import link
- The standard VAT is 5% link
- Feed-in Tariff (FiT) is not available link
- No net metering scheme in place link

Electrification Rate

- 49% of the population is electrified link
- 77% in urban and 31% in rural areas link

Total PV Installed

Utility-scale	64.40 MWp
C&I	144.65 MWp
MG	2.18 MWp
SHS	7.93 MWp
Residential	23.56 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.45	$ 0.45	$ 0.45
MAX	$ 1.00	$ 1.00	$ 1.00

Noteworthy Developments

- Gov't t issued tenders for two projects totaling 67 MW + 196 MWh link
- MoEWR launched tender for a 10 MW + 20 MWh project link
- Tender has been launched for an 8 MW + 20 MWh project in Borama link
- MoEWR issued a tender for solar + Storage at 28 education facilities link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Somaliland

Objectives

- 25% of national energy generation will come from renewable sources by 2027 link
- Achieve universal, affordable energy access by 2030, prioritizing local and renewable sources link

Policy / Regulation

- 100% exemption for solar panels link
- 5% Standard VAT applies on goods and services link
- No net metering, No Feed-in Tariff link

Electrification Rate

- The overall electricity access rate is estimated at 50.3% link

Total PV Installed

Utility-scale	19.88 MWp
C&I	2.87 MWp
MG	8.35 MWp
SHS	10 MWp
Residential	0 MWp

Source AFSIA GOGLA

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.200	$ 0.200	$ 0.200
MAX	$ 0.500	$ 0.500	$ 0.500

Noteworthy Developments

- The Government launched a tender for a 12 MWp + 36 MWh project link
- Tender launched for hybrid/off-grid solar PV + BESS installations at 29 education facilities in Sahil link
- The govt is developing solar systems + storage solutions for 150 health centers and 215 educational facilities link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

South Africa

Objectives

- Add 39 GW of renewable energy, with the IPP programme by 2030 link
- Renewables are set to provide 41% of grid electricity by 2030 link
- Reach 29.5 GW of new capacity, including 6 GW of solar, by 2030 link
- Expand generation capacity to 105 GW by 2039, including 25 GW of Solar PV by 2039 link

Policy / Regulation

- 10% import duty on solar panels link
- The standard VAT on imported solar panels is 15% link
- VAT on solar panels range between 15-16% link
- FiT replaced by a competitive bidding process link
- Net metering exists link , wheeling available link

Electrification Rate

- Total electrification rate stands at 94.7% link
- Targets universal electricity access by 2030 link

Total PV Installed

	3554.69 MWp PV + 600 MWe CSP
• Utility-scale	
• C&I	12744.24 MWp
• MG	1.30 MWp
• SHS	0.74 MWp
• Residential	2248.97 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.075	$ 0.063	$ 0.054
MAX	$ 0.498	$ 0.419	$ 0.388

Noteworthy Developments

- 75 MW Du Plessis Dam Solar PV2 park under construction by Mulilo link
- NOA closed financing of the 349 MW Khauta South project link
- Scatec won bid for the 846 MW solar Kroonstad PV Cluster link
- AMEA constructing the 120 MW klerksdorp solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

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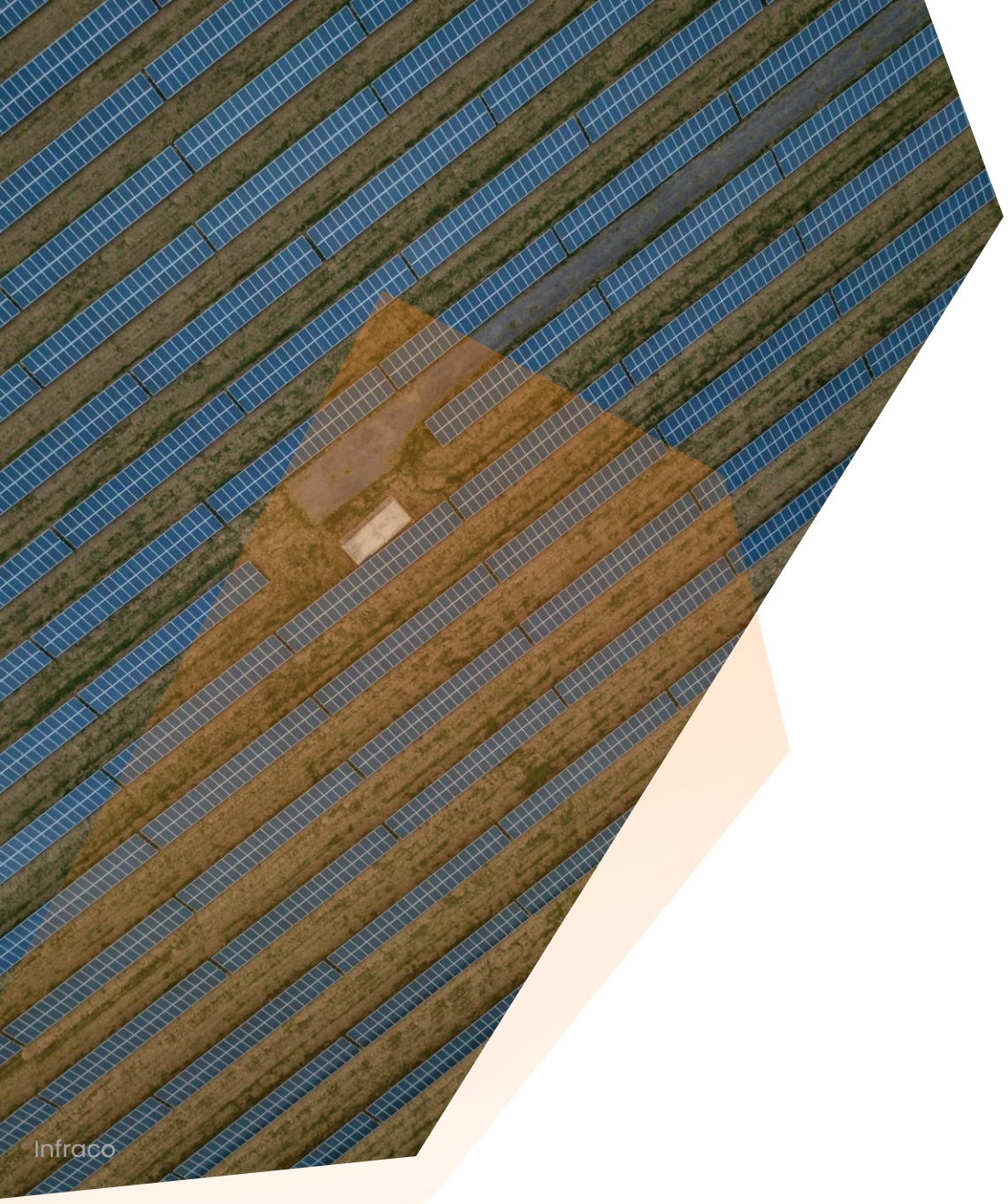

key developments in South Africa 2026

SAPVIA identifies two key developments for South Africa's energy sector in 2026: the operationalisation of the South African Wholesale Electricity Market (SAWEM) and the accelerating deployment of Battery Energy Storage Systems (BESS). While SAWEM restructures the commercial landscape for power trading, BESS offers the technical versatility to firm up intermittent renewables across the entire grid.

SAWEM

The scheduled 1st of April 2026 launch of the SAWEM signifies a pivotal transition from Eskom's traditional single-buyer model to a competitive multi-party platform. While the National Transmission Company South Africa (NTCSA) secured its Market Operator license in late 2025, full operational autonomy remains subject to resolving conflict-of-interest concerns regarding its status as an Eskom subsidiary. Beginning in January 2026, the Electricity Market Advisory Forum (EMAF) will lead the technical review of the Market Rules and Code. While SAWEM introduces vital new pathways for energy trading and offtaker aggregation, its initial phase will be modest; legacy bilateral PPAs will largely remain unchanged. Ultimately, the market's success in driving new capacity will hinge on its ability to provide the pricing transparency and liquidity required for bankable merchant structures.

BESS

In our view and backed by our recent research and global and domestic developments, the defining development for 2026 is the rapid scaling of BESS in tandem with solar and other renewable energy projects. Driven by record-low global capital costs, the investment case for BESS has fundamentally changed. As of late 2025, utility-scale BESS costs hit a benchmark of $125/kWh, translating to a levelised cost of just $65/MWh. This shift moves BESS from a niche 'premium' solution to a mainstream, cost-competitive component across all market segments.

As an example: at utility scale, the Battery Energy Storage Independent Power Producer Procurement Programme (BESIPPPP) is facilitating South Africa's inaugural wave of utility-scale storage projects. Key projects like the **Oasis cluster** (257 MW / 1,028 MWh) and the **Mogobe BESS** (103 MW / 412 MWh) are on track for commercial operation by late 2026.

These facilities will assume the critical grid services such as frequency regulation, reserves, and congestion management that were traditionally the sole domain of thermal power plants. Another project that is expected to reach commercial operation in 2026 is the **Mulilo Total Hydra Storage Project** (216 MW solar / 497-500 MWh BESS), which is located near De Aar in the Northern Cape, procured under the Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP). This hybrid facility will provide 75 MW of dispatchable power from 5 a.m. to 9: 30 p.m. daily, a 16.5-hour dispatch window targeting peak demand periods. These projects demonstrate the momentum shift from intermittent to dispatchable renewable energy supply with grid ancillary services.

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BESS

Furthermore, solar-plus-BESS offers commercial and industrial (C&I) customers near complete energy independence. By storing excess daytime power, businesses can avoid expensive peak-hour tariffs, eliminate demand charges, and remain operational during load shedding or power outages. Given the current trajectory of Eskom's price hikes, shortened payback periods have made the business case for storage increasingly undeniable and an essential investment for 2026.

The South African grid has traditionally relied on massive thermal facilities concentrated in Mpumalanga for both power and stability. However, BESS is emerging as a critical game-changer by providing more than just energy, it delivers firm capacity and essential grid ancillary services directly from the provinces where renewable resources are most abundant. This geographical diversification is vital for supporting national grid expansion. Therefore, BESS elevates solar PV from a supplementary resource to a primary driver of a modern energy landscape. For SAPVIA, the rise of these projects signals that the renewable sector has achieved a new level of maturity, transitioning from variable generation to dispatchable solutions that underpin long-term grid stability.

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South Sudan

Objectives

- Install about 2,729.5 MW of renewable energy capacity by 2030, with a particular focus on hydropower link
- Deploy grid-connected solar PV to complement hydropower and reduce reliance on diesel link

Policy / Regulation

- 0-25% Import duty applies on solar products link
- Solar products are VAT exempt link
- 4% withholding tax applies to solar products (Financial Act 2024/2025) link
- No net metering or feed-in tariff (FiT) policies are in place link

Electrification Rate

- 15% of the population has access to electricity link
- Plans to raise electricity access to 50% by 2030 link

Total PV Installed

Utility-scale	50.00 MWp
C&I	9.27 MWp
MG	0.09 MWp
SHS	0 MWp
Residential	0 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.273	$ 0.32	$ 0.348
MAX	$ 0.285	$ 0.32	$ 0.348

Noteworthy Developments

- Construction underway for the 20 MW+35 MWh Nesithu Solar Plant link
- EIF and FinnFund backing solar-hybrid installations across 413 telecom sites link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Sudan

Objectives

- Increase the share of renewables to 20% by 2035 link
- Deploy 10 GW of renewable energy capacity by 2030, focusing on solar, wind, and hydro sources link
- Install 2,190 MW of grid-connected solar and 50 MW of solar thermal energy by 2035 link

Policy / Regulation

- PV components exempt from import duties link
- Zero VAT on PV system components link
- No net metering, but FiT is available link
- A permit is required before starting a solar project link

Electrification Rate

- 66% of the population is electrified link

Total PV Installed

Utility-scale	10.00 MWp
C&I	819.85 MWp
MG	0 MWp
SHS	0 MWp
Residential	132.55 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.068	$ 0.077	$ 0.085
MAX	$ 0.128	$ 0.153	$ 0.085

Noteworthy Developments

- The government plans to build a 100 MW solar farm in Dongola link
- MIMAH supporting the solarization of 100 Health facilities nationwide link
- Abu Dhabi Fund to finance deployment of 500 MW through multiple solar project link
- To deploy 500 RE systems through the ASCENT program link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Tanzania

Objectives

- Achieve 75% renewable energy by 2030 link
- Deploy 2,463 MW from solar, wind, gas, and geothermal by 2030 link
- Reach 1340 MW of solar power in the generation mix by 2038 link

Policy / Regulation

- Solar components are duty-free link
- VAT exemption for solar components link
- Feed-in tariff applies to SPPS projects up to 10 MW link
- Net metering policy is available link

Electrification Rate

- 48.3% of the population has access to electricity link
- Aims to increase electricity connectivity to 75% by 2030 link

Total PV Installed

Utility-scale	6.00 MWp
C&I	1105.19 MWp
MG	2.39 MWp
SHS	12.09 MWp
Residential	191.94 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.08	$ 0.08	$ 0.06
MAX	$ 0.10	$ 0.10	$ 0.08

Noteworthy Developments

- TANESCO launched a 100 MW EPC Tender link
- ZECO issued a tender for an 18 MW solar facility link
- AG Energies to begin construction of a 20 MWp solar plant link
- Tender launched for a 40 MWh BESS project by ZESCO link
- AFD backing Phase 1 of 150 MW Kishapu solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

The Gambia

Objectives

- Generate 50% of its power supply from renewable energy by 2030 link
- The government intends to build 13 solar PV farms totaling 250 MW by 2050 link

Policy / Regulation

- Solar panels are duty-free or with a 0% to 5% tariff link
- Import VAT is charged at a rate of 15% link
- Net metering applies to renewable energy projects between 20-100 KW link
- Feed-In Tariff system exists link

Electrification Rate

- The national electrification rate stands at 75% link
- Aims for universal access by 2026 link

Total PV Installed

Utility-scale	23.00 MWp
C&I	59.88 MWp
MG	0.24 MWp
SHS	0 MWp
Residential	9.78 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.180	$ 0.194	$ 0.207
MAX	$ 0.188	$ 0.194	$ 0.207

Noteworthy Developments

- Tender issued for Soma's first 50 MW of 150 MW solar link
- Camco backing a 25 MW solar plant led by Neo Themis link
- Africa Investment Contracting is building a 5 MW solar plant link
- EU and EIB supporting the solarization of 1000 schools and 100 health centers link

Key Electricity Institutions

Ministry	Utility Company
Regulator	Rural Electrification Agency

Togo

Objectives

- Install 200 MW of renewable energy capacity by 2030 link
- Renewables to account for 63% of installed capacity by 2030 link
- Reach 50% of RE in the energy mix by 2030 link
- Expand storage capacity to 156 MWh by 2030 link

Policy / Regulation

- Non-CIZO licensees faces 5-20% of import duty link
- Solar products face a VAT rate of 18% link
- Net metering is in place but not FiT link

Electrification Rate

- 70% of the population has access to electricity link
- Electricity coverage is 90% in urban areas link
- Aiming for universal access to electricity by 2030 link

Total PV Installed

Utility-scale	70.00 MWp
C&I	459.80 MWp
MG	0.99 MWp
SHS	6.04 MWp
Residential	80.00 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.108	$ 0.133	$ 0.090
MAX	$ 0.261	$ 0.257	$ 0.220

Noteworthy Developments

- AfDB supporting the 62 MWp Sokode Solar plant link
- AFD and GEAPP backing the development of a 55 MW BESS Project link
- TBEA begun the construction of the 25 MWp + 40 MWh Dapaong solar plant link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Tunisia

Objectives

- Develop 1.7 GW of RE capacity by 2027 link
- Generate 35% of electricity from RE by 2030, and 50% by 2035 link
- Install 8.53 GW of RE capacity by 2035 link
- Increase the solar capacity to 1.7 GW by 2030 link

Policy / Regulation

- Import duty rate of 30% on solar panels link
- The standard VAT is 19% , with reduced to 13% and 7% link
- Net metering exists link , FiT is available link

Electrification Rate

- Total electrification rate stands at 100% link

Total PV Installed

Utility-scale	178.80 MWp
C&I	1215.62 MWp
MG	0 MWp
SHS	1.81 MWp
Residential	199.55 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.026	$ 0.055	$ 0.061
MAX	$ 0.119	$ 0.157	$ 0.134

Noteworthy Developments

- Scatec developing the 120 MW Sidi Bouzid II solar plant, alongside two 60 MW projects currently under construction link
- Licenses granted to build solar projects totaling 500 MW link
- EBRD reviewing a loan for Quair's 100 MW Solar Plant link
- Government launched tender for 2*100 MW solar plants

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Uganda

Objectives

- Add 3,200 MW renewable electricity generation capacity by 2030 link
- ETP targets 94% biomass-to-renewables transition by 2030 link
- Reach 52 GW by 2040 through renewable energy and nuclear link
- Increase generation capacity to 15,420 MW by 2030 and 52,481 MW by 2040 link

Policy / Regulation

- No import duty on solar equipment link
- Zero VAT rate on solar equipment link
- VAT free imports of specialized solar equipment link
- Net metering for systems up to 500 KW link , FiT exists link

Electrification Rate

- 57% of the population is electrified link
- Targets universal electricity access by by 2030 link

Total PV Installed

Utility-scale	74.00 MWp
C&I	309.24 MWp
MG	4.42 MWp
SHS	13.22 MWp
Residential	50.91 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.070	$ 0.078	$ 0.052
MAX	$ 0.212	$ 0.182	$ 0.120

Noteworthy Developments

- TotalEnergies launched a tender for 2*20 MW solar plants link
- Energy America to develop 100 MWp+250 MWh of storage link
- 24 MWp project under construction by AMEA Power link
- TotalEnergies developing 120 MW across six sites link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Zambia

Objectives

- Enhance the share of non hydro renewable energy in the energy-generation mix to 33 % by 2030 link
- Increase country's installed generation capacity to 10,000 MW by 2030, primarily through renewable energy sources link
- Develop 3,000 MW of solar capacity by 2030 link
- At least 200 solar mini-grids operational by 2030 link

Policy / Regulation

- Import duty exemption for solar PV products link
- Solar products are VAT-free link
- FiT applies to projects of up to 20 MW link
- Net metering regulation is available link

Electrification Rate

- National electricity access has reached 53.6% link
- Access rates of 80.3% in urban and 34% in rural areas link
- Aims to achieve universal access to electricity by 2030 link

Total PV Installed

Utility-scale	333.04 MWp
C&I	412.38 MWp
MG	3.34 MWp
SHS	15.94 MWp
Residential	65.65 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.032	$ 0.028	$ 0.028
MAX	$ 0.176	$ 0.117	$ 0.073

Noteworthy Developments

- Genvision to develop 300 MW + 800 MWh project link
- Amsons Group and Exergy Africa to develop 1000 MW solar link
- The govt launched construction of the 100 MW chirundu solar plant link
- Maamba Energy is planning to add 100 MW to the national grid link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

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Accelerating electricity access in Zambia: ascent Zambia and the shift toward results-based electrification

Zambia's pursuit of universal electricity access has entered a critical phase, characterized by a shift from infrastructure expansion to results-based, inclusive energy delivery. The Accelerating Sustainable and Clean Energy Transformation in Zambia (ASCENT Zambia) programme, implemented by the Rural Electrification Authority (REA) in partnership with ZESCO Limited, represents one of the most significant recent developments in the country's energy sector. This article examines ASCENT Zambia with particular focus on the K300 last-mile electricity connection subsidy, highlighting its role in addressing affordability, equity, and access gaps in rural and peri-urban communities.

Introduction

Despite steady progress in electricity generation and grid expansion, access to electricity in Zambia remains uneven. National electrification stands at approximately 53.6%, while rural electrification remains significantly lower, at about 34%. Over seven million Zambians, predominantly in rural areas continue to live without electricity. These disparities underscore the need for policy interventions that go beyond infrastructure provision to directly address affordability and access barriers. ASCENT Zambia responds to this challenge by prioritizing results-based electrification and inclusive energy access.

Overview of ASCENT Zambia

ASCENT Zambia, short for Accelerating Sustainable and Clean Energy Transformation in Zambia, is a national access programme designed to deliver modern energy services to last-mile communities and support Zambia's rural transformation. The programme is implemented by REA in collaboration with ZESCO Limited and is backed by the World Bank and the Government of Zambia.

Unlike traditional electrification programmes, ASCENT Zambia adopts a comprehensive approach that integrates decentralized renewable energy solutions, Unlike traditional electrification programmes, ASCENT Zambia adopts a comprehensive approach that integrates decentralized renewable energy solutions, grid extension and densification, and institutional strengthening. The programme targets rural and peri-urban districts across all provinces, with priority given to areas with the lowest electrification rates. Its overarching objective is to contribute to Zambia's long-term goal of achieving 100% universal access to electricity.

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The k300 Last-mile Electricity Connection Subsidy

A flagship intervention under ASCENT Zambia is the K300 last-mile electricity connection subsidy. Launched by REA in partnership with ZESCO Limited, the subsidy reduces the cost of a standard single-phase electricity connection from approximately K4,846 to K300 for eligible households and businesses located within 30 meters of existing electricity infrastructure.

During its initial phase in 2026, the programme aims to facilitate 100,000 new on-grid electricity connections. To ensure equitable national coverage, each province has been allocated 10,000 subsidized connections. The programme explicitly prioritizes women-headed households and female-led enterprises, reflecting a deliberate effort to mainstream gender inclusion within national energy policy.

This intervention represents a decisive shift in Zambia's electrification strategy. By directly addressing the affordability constraint, the subsidy transforms latent grid proximity into actual access, enabling households and small enterprises to connect to existing networks that were previously financially out of reach.

Results Areas and Development Impact ASCENT Zambia is structured around clearly defined results areas. These include the deployment of decentralized renewable energy solutions such as solar mini-grids, solar home systems, clean cooking technologies, and electrification of public facilities, as well as on-grid expansion through densification and extension. In addition, the programme focuses on strengthening national energy access systems, including updates to the Rural Electrification Master Plan, digital monitoring and reporting, and the promotion of productive uses of energy.

The anticipated development impact is substantial. ASCENT Zambia is expected to provide new or improved electricity access to approximately 1.64 million Zambians, reduce greenhouse gas emissions by an estimated 7 million tonnes, and mobilize at least USD 119 million in private capital. By enabling productive uses of energy among households, SMEs, and farmers, the programme contributes to income generation, service delivery, and local economic development.

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Conclusion

ASCENT Zambia marks a critical evolution in the country's approach to electrification, shifting emphasis from infrastructure deployment to measurable access outcomes. The K300 last-mile connection subsidy exemplifies how targeted affordability mechanisms can unlock the developmental value of existing electricity systems. As implementation progresses, ASCENT Zambia offers a replicable model for inclusive, results-driven energy access that aligns national development objectives with global sustainability commitments.

Zimbabwe

Objectives

- Reach 2,640 MW of renewable energy capacity by 2030 link
- Add 1 575 MW of solar, 275 MW of bioenergy, 150 MW of small hydropower, and 100 MW of wind link
- 3.1M households electrified and 70% clean-cooking access by 2030 link

Policy / Regulation

- Solar equipment is exempt from import duty link
- A 15% VAT rate on solar equipment link
- Net metering exists for systems up to 5 MW link , No FiT in place link
- License required for generation below 100 KW link

Electrification Rate

- National electricity access rate stands at 62% link
- Access rates of 83% in urban and 27% in rural areas link
- Targets to attain universal electricity access by 2030 link

Total PV Installed

Utility-scale	66.86 MWp
C&I	423.91 MWp
MG	1.58 MWp
SHS	1.08 MWp
Residential	50.20 MWp

Source AFSIA GOGLA EMBER

Current Tariff Grid Electricity

Source	Residential	Commercial	Industrial
MIN	$ 0.05	$ 0.06	$ 0.06
MAX	$ 0.25	$ 0.23	$ 0.23

Noteworthy Developments

- Energywise developing 100 MW Runde River solar park link
- Infraco developing the 30 MW Vungu solar plant link
- Prospect Lithium Zimbabwe constructing 70 MW solar plant link
- Afreximbank funding the 1 GW Kariba floating solar project link

Key Electricity Institutions

- Ministry
- Regulator
- Utility Company
- Rural Electrification Agency

Special Appreciation to Our Valued Peer Reviewers

At the heart of AFSIA's mission is the dedication to creating networks and knowledge-sharing platforms that allow solar stakeholders to quickly connect with partners and access vital information, supporting more effective and efficient business decisions.

AFSIA extends sincere gratitude to the outstanding experts across the continent who generously contributed their time and knowledge to review and enhance the information presented in this year's report. Their insights have been instrumental in ensuring accuracy and depth.

We are proud to spotlight these distinguished individuals and warmly encourage you to reach out to them directly for further expert guidance on specific countries.

Once again, thank you for your invaluable contributions. Your expertise is not only essential to this report but also a cornerstone of AFSIA's mission to advance a sustainable future through solar energy.

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KYA-Energy Group – CEO & Founder

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ZARENA – Strategy & Implementation Lead

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Presenting the team and new members

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