



## Powering Africa through cleaner energy

The Bank remains committed to help steer Africa's energy sector towards a sustainable, inclusive, and green pathway. In Cabo Verde, the Cabeólica wind energy project will help diversify the country's energy grid and reduce reliance on expensive thermal energy sources.

# Chapter 1

## Light up and power Africa

**A**ccess to reliable, affordable, and sustainable energy is vital for economic growth and all aspects of human development. Africa's increase in access to energy over the last decade has helped businesses to create jobs, hospitals to function, new livelihoods to emerge, and children to study. It has transformed millions of lives, and the Bank is proud to have contributed substantially.

### Progress on energy access slows; Covid-19 is a major factor

Despite strong progress in many regions, access to energy across Africa has grown more slowly in recent years. The proportion of Africa's population with access to electricity has increased only marginally since 2017, levelling off in 2020 at 54% even as generation capacity continued to grow—the latest data show Africa reaching 255 GW in installed electricity capacity in 2019, up from 220 GW in 2018. Access to clean cooking solutions has also fallen since 2016 and stood at just 27% in 2020. Progress must accelerate dramatically for Africa to achieve the sustainable development goals for energy.

*“More electricity is being generated, but transmission and distribution have stagnated. And access to energy is levelling off”*

In 2020, Covid-19 was a major factor in the disruption of progress. Resources were reprioritised for health and other pressing needs and the public health measures needed to contain the virus suppressed activity and household incomes, rendering electricity connections unaffordable for many. The pandemic also slowed the delivery of energy infrastructure projects, including those of the Bank, because of supply chain disruptions.

Despite the disruptions, the prospects of Africa's energy sector rebounding to its prior trend are good. A recent survey shows that African energy market participants remain confident in the sector, with more than a third reporting that they are very likely to increase their investments on the continent in the next three years. The prospects for Africa's renewable energy market are especially strong, and the economic changes caused by Covid-19 are likely to boost the demand for renewables in the coming years.

### Better regulations to reduce network losses and improve affordability

Even as Africa's electricity generation capacity continues to rise, access is not increasing at the same rate. During 2009–2018, the

annual growth rate of installed electricity capacity averaged 5.7%, but the electrification rate expanded by only an average of 3.3%. During the same period, Africa's population increased by an average of 2.6% per year.

One reason for the discrepancy is a lack of investment in transmission and distribution capacity, which the Bank seeks to boost through public interventions and public-private partnerships. It appears that the unbundling and liberalisation of the power sector has helped to accelerate investment in generation capacity, but is falling behind in transmission and distribution, leading to an imbalance in investments.

*“Over a third of participants in Africa's energy markets plan to increase their investments in the next three years”*

Another factor is inefficiencies in transmission and distribution systems. These are proving difficult to address. The Bank's *Electricity Regulatory Index (ERI) for Africa 2020* noted that 10 of the 36 countries assessed had not developed action plans to reduce technical and commercial network losses. Countries with action plans faced persistent challenges in implementing them. The ERI recommended that regulatory authorities develop comprehensive performance frameworks for monitoring utility companies and publish performance data to promote accountability. Amongst the most improved performers in the 2020 ERI were Angola, which expanded the staffing of its regulator and introduced a regulatory framework for renewable energy, and Ethiopia, which over the prior year had updated and finalised key regulatory instruments, including its quality of service standards (Figure 1).

Covid-19 adds a new challenge, with many African households struggling to afford electricity. The ERI highlights how, in response to rising domestic demand resulting from lockdowns to control Covid-19 during 2020, regulators across Africa worked with governments and utility companies to implement tariff relief

**Table 1 Africa needs to accelerate universal access to energy (Level 1)**

INDICATOR	ALL AFRICAN COUNTRIES		ADF COUNTRIES		TRANSITION STATES	
	Baseline 2015	Latest 2020	Baseline 2015	Latest 2020	Baseline 2015	Latest 2020
➤ Share of population with access to electricity (% population)	42	54	24	42	22	32
➤ Total installed electricity capacity (GW)	168	220	31	41	13	16
➤ Installed renewable capacity (GW)	33	46	20	24	8	9
➤ Share of population with access to clean cooking solutions (% population)	32	27	10	9	9	9
➤ Electricity losses through transmission, distribution and collection (%)	15.0	17.1	16.8	15.6	15.4	14.7

➤➤ Improvement over baseline   ➤➤ Deterioration

schemes to alleviate the hardship on consumers. The ERI therefore recommends that regulatory authorities ensure that when utility companies set prices, they regularly consider any rise in customers’ vulnerability.

**Energy: One of the Bank’s growing priorities**

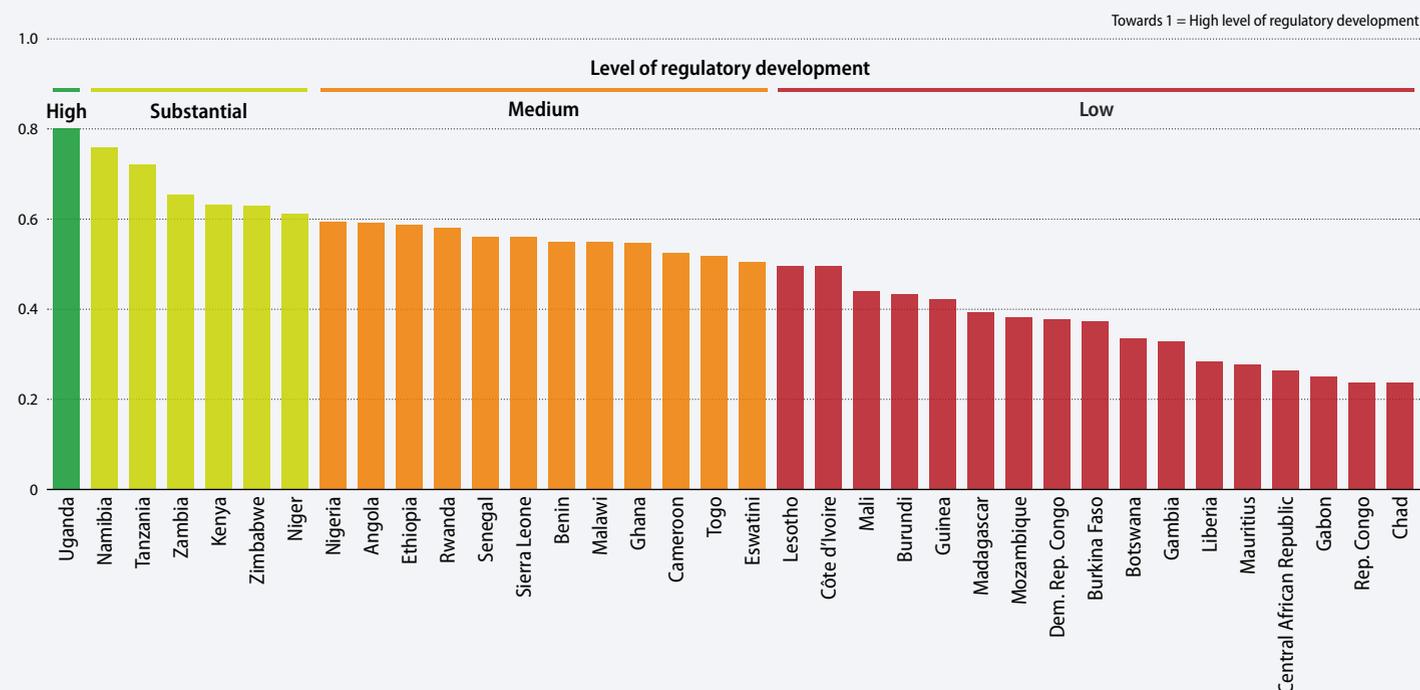
Under its New Deal on Energy for Africa, launched in 2016, the Bank made expanding access to energy a central priority. The New Deal aims to unify initiatives to expand energy access and to mobilise more financing for energy infrastructure by stimulating public-private partnerships. Its overarching goal is universal access to energy across

Africa by 2025. The Bank has also launched landmark transformative initiatives, such as the Desert to Power initiative, to seize the Sahel’s potential to produce solar energy.

In 2020, our projects helped to deliver 175 km of **new or rehabilitated power transmission lines**, compared to 69 km in 2015. We enabled an additional 260 000 **people to be connected to power systems**—almost all of whom lived in low-income ADF countries, and more than half of whom were women—compared to 73 000 in 2015. An example of our work on expanding energy transmission and access is our support for the construction of a high-voltage line between the Inga hydropower stations and

**Figure 1 Many African countries’ electricity regulatory frameworks are at a low level of development**

Electricity Regulatory Index, 2020



Source: African Development Bank

Table 2 Light Up and Power Africa indicators (Level 2)<sup>1</sup>

INDICATOR	ALL AFRICAN COUNTRIES			ADF COUNTRIES		TRANSITION STATES	
	Baseline 2015	Actual 2020	Target 2020	Baseline 2015	Actual 2020	Baseline 2015	Actual 2020
➔ New renewable power capacity installed (MW)	24	101	560	20	46	4	16
➔ People with new electricity connections (thousands)	73	260	2400	73	256	36	67
➔ —of whom women	36	131	1200	36	130	16	34
➔ People provided with clean cooking access (thousands)	-	2	3200	-	2	-	-
➔ —of whom women	-	1	1600	-	1	-	-
➔ New or improved power transmission lines (km)	69	175	576	69	84	18	4
➔ Emissions reduction in energy (thousand tons CO <sub>2</sub> )	17	1636	1800	10	1531	1	-
⤵ New total power capacity installed (MW)	490	202	880	80	51	4	16
⤵ New or improved power distribution lines (km)	875	327	3520	875	294	381	294

➔ Achieved less than 95% of 2020 target ⤵ Achieved less than the baseline

<sup>1</sup> Level 2 indicators capture the Bank's development impact and contribution in African countries, presenting them as average annual outputs and intermediary outcomes from completed operations over a three-year period (2018–2020). The results are prorated to reflect the level of the Bank's financial support as a proportion of total project costs.

Kinshasa (277 km across the lifetime of the project). Over 2009–2018, this transmission line increased the volume of energy reaching the city from Inga eightfold, from 445 GWh to 3533 GWh (see also Box 1).

While we delivered some successful projects in 2020, the year proved exceptionally challenging for the Bank's energy portfolio. On all but one indicator (the indicator on emissions reductions), our 2020 results fell below our 2019 results, and in some cases below the 2015 baseline. For example, although in 2020 our projects produced 202 MW in new installed power capacity and 327 km in new or improved power distribution lines, these outcomes were lower than those achieved in 2015.

This trend may be attributed to the declining share of energy projects in the Bank's active portfolio: they were 24% in 2019, down from 30% in 2015. This is partly due to the completion of large legacy projects, such as Angola Power Sector Reform Program.

Our Climate Change Action Plan, guides our efforts to mainstream climate change and green growth into our energy operations, enhancing climate resilience and increasing the use of low-carbon technologies. In clean energy, the **new renewable power capacity installed** through our projects totalled 101 MW in 2020.

An example of our work to support renewable energy generation is the NOOR Ouarzazate II and III solar power plants in Morocco, which we are co-financing with other multilateral development banks, donors, and financial institutions. Commissioned in 2018, the two plants have a combined gross capacity of 350 MW and supply power to 1.2 million Moroccans. The entire NOOR Ouarzazate complex targets a capacity of 580 MW and by completion, will be one of the world's largest concentrated solar power plants. With a reported 99% of Morocco's population already having access to electricity, the main impact of this project will not be to increase access but to reduce the country's reliance on fossil fuels and help it move towards meeting its climate change commitments.

### Box 1 Stories from beneficiaries: The CIPREL IV Power Expansion Project, Côte d'Ivoire



The Bank provided a €50 million loan to co-finance the CIPREL IV Power Expansion Project. The project aims to help Côte d'Ivoire meet its growing demand for reliable and affordable energy by adding 222 MW in generation capacity. The project promoted private sector participation in the plant's operation and reduced the plant's environmental footprint. The additional energy has helped create new enterprises and jobs, and improved living standards and the delivery of social services.

Kouadio Antoine, a resident of Abidjan's Deux Plateaux district since 2003, noted that supply of electricity is more regular and more accessible. "In this neighbourhood, life used to be difficult. I would not say we had reliable electricity. Reliable electricity allows you to work anytime, use the computer, have a freezer, etc. Now, our district is well lit and we can go out at night and return home at any time, without worrying, without danger."

### Supporting the energy sector to respond to challenges in 2020

In 2020, the Bank supported African countries to recover from the disruption of Covid-19 and take advantage of opportunities in the energy sector. So that energy projects could move forward with as little disruption as possible, we put in place liquidity facilities and budget support, and we have been working with other international institutions to mobilise additional finance for Africa's energy sector.



#### *Our Covid-19 Response Facility reduced electricity bills for SMEs and vulnerable households*

Several of the budget support operations that we approved in 2020—for example, those of Cameroon, Côte d'Ivoire, Gabon, and Mozambique—supported the deferral of payment or the reduction of electricity bills for small and medium enterprises (SMEs) or vulnerable households. We also supported several countries as they responded to the challenges posed by Covid-19, among other things by setting up the \$50 million Covid-19 Off-Grid Recovery Platform, anchored by a \$20 million Sustainable Energy Fund for Africa (SEFA) concessional loan. This platform aims to add 200 000 new off-grid connections and reduce emissions by over 40 000 tCO<sub>2</sub>eq annually

by promoting solar home systems, green mini-grids, and other decentralised renewable energy solutions.



#### *We secured \$90 million in new donor commitments for the Sustainable Energy Fund for Africa*

In addition, our efforts to expand sustainable energy solutions were boosted by new donor commitments of \$90 million for SEFA following SEFA's conversion into a special fund at the end of 2019. This will increase SEFA's focus on green mini-grids and green baseload and energy efficiency, while widening the offer of catalytic finance instruments in Africa's fast-changing energy market. It will also provide critical financing for flagship initiatives, such as the Bank's Desert to Power initiative, designed to seize the Sahel's potential to produce solar energy. SEFA approved a large Desert to Power technical assistance program for the G5 Sahel countries in 2020.

The Bank is more committed than ever to supporting African countries to capitalise on these opportunities, and in 2021 we will work to help the continent get back on track to securing universal access to energy by 2025. ■

