

NEW!

ONLINE TOOLS
& RESOURCES



RECHARGING WITH
RENEWABLES

**THE POWER OF PARTNERSHIP:
OUR MODEL AT WORK**

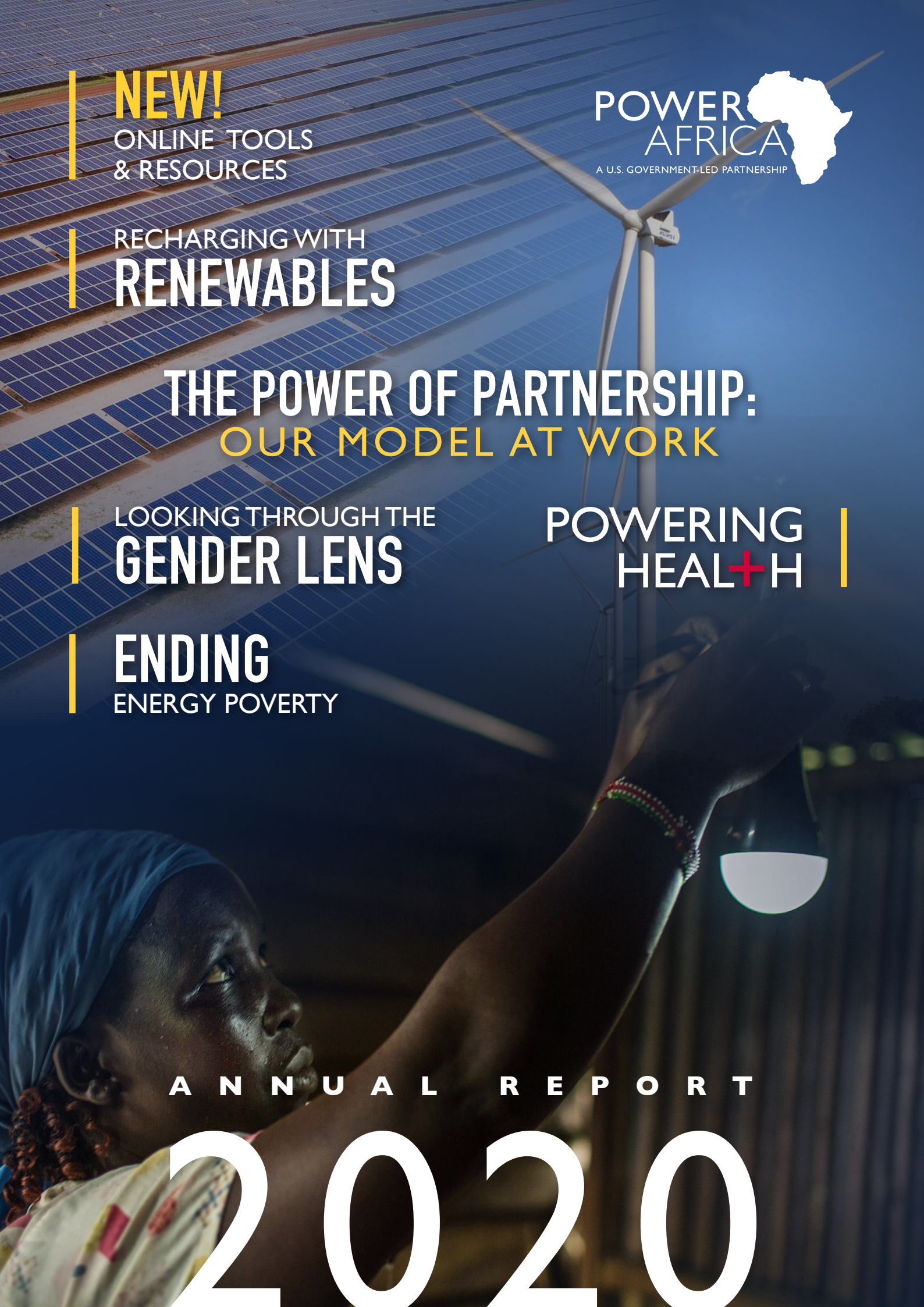
LOOKING THROUGH THE
GENDER LENS

**POWERING
HEALTH**

ENDING
ENERGY POVERTY

A N N U A L R E P O R T

2020



2020 HIGHLIGHTS

ADVANCING POWER GENERATION & ACCESS: THE POWER AFRICA MODEL AT WORK

- Malawi's first competitive tender yields 60 MW of clean solar energy
- Senegal's first utility-scale wind farm pumps 159 MW of renewable electricity into the grid
- Angola's planned 343 km transmission line will integrate regional grids into a national grid
- Mozambique to boost electricity access through 420 MW power plant & 560 km transmission line



PROMOTING RENEWABLE ENERGY & REACHING BEYOND THE GRID

- \$315M mobilized for off-grid renewable energy projects
- \$1.2M for mini-grids to light up rural Madagascar, bring electricity to 28,000 people
- Delivering energy innovations to refugee communities in Uganda & Kenya



ELECTRIFYING HEALTH FACILITIES: COVID-19 RESPONSE & RECOVERY

- Keeping lights on at 800+ health facilities via ongoing utility strengthening initiatives
- \$5.7M to bolster the energy sector's role in COVID-19 response & recovery
- \$2.6M to off-grid solar companies providing electricity to 275 health facilities
- Innovative financing & geospatial data power health response



SUPPORTING INNOVATIVE FINANCE & U.S. INVESTMENT

- Catalyzing 30X return on \$1.3M grant to renewable energy fund
- \$91.5M EXIM loan guarantee to U.S. company will produce clean power for 440,000 people in Senegal & create 500 jobs in 14 U.S. states



GET THE **FULL STORY**

This Annual Report is a snapshot of Power Africa highlights from the past year. But we have so much more to share. On most stories, you will find a QR code that will either give you an extended version of the article on our blog or take you to an additional resource. Simply scan the QR code with your smartphone or click on the QR code if viewing the document online to get the full story.

UPDATED: POWER AFRICA TOOLBOX

RESOURCES TO BUILD
AFRICA'S ENERGY FUTURE

Fully updated in 2020, the
Power Africa Toolbox includes:

- 111 Finance Tools
- 31 Transaction Assistance Tools
- 9 Policy & Regulatory Tools
- 35 Capacity Building Tools
- 29 Information Resource Tools



NEW

[Usaid.gov/PowerAfrica/Toolbox](https://www.usaid.gov/PowerAfrica/Toolbox)

RE:CHARGING

A MESSAGE FROM POWER AFRICA
COORDINATOR **MARK CARRATO**

At the end of a long and challenging year, we are taking a moment to reflect, reconnect and recharge. Our priority was to develop and deploy a COVID-19 response and recovery plan focused on electrifying health facilities, while continuing to support our energy access goals. We reconfirmed that Power Africa's mission – to double access to electricity in sub-Saharan Africa by 2030 – provides a critical foundation to advance human and economic potential. Without access to electricity, health facilities cannot provide adequate care and the hard work of economic recovery cannot begin.

This annual report demonstrates that the Power Africa partnership model works. Since our launch in 2013, more than 88 million people in sub-Saharan Africa have first-time electricity access. Significant work remains, with a staggering 580 million, or nearly two-thirds of the population, still without electricity, and the economic effects of COVID-19 yet to be fully realized. Alongside our more than 170 partners, we will continue to reinforce transmission networks, revitalize utilities, increase public and private sector investment and advance renewable energy projects across the continent.

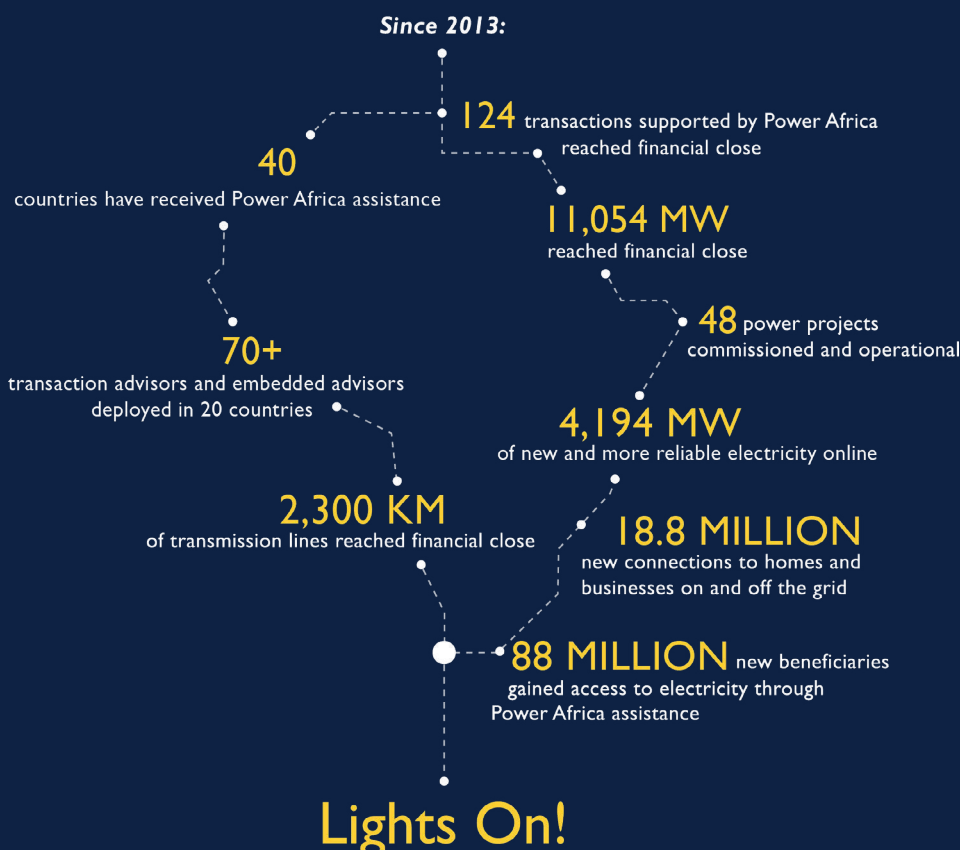
We will continue to electrify health facilities. The \$2.6 million in grants we awarded to solar companies this year is turning lights on and powering life-saving equipment in about 300 clinics. We will expand our work with the over 100 U.S. companies we already support on the ground, companies like U.S.-based OffGridBox that are not only electrifying health clinics, but also creating jobs and improving lives by hiring and training female entrepreneurs to operate and maintain their systems. We will also advance clean and reliable energy solutions. One project that holds great promise would bring large-scale solar to the southern Africa region – a potential game-changer that can create jobs, power economic recovery and inject low-cost renewable energy into the Southern African Power Pool.

As a U.S. Government-wide initiative, Power Africa brings the resources, talent, and expertise of 12 agencies to our partnership with African governments, development partners, and private sector leaders. Together we are driving investment, strengthening the sector, and ending energy poverty.

To more Lights On in 2021!



POWER AFRICA BY THE NUMBERS



FINANCIALLY CLOSED MW BY TECHNOLOGY



WIND
2,446 MW



HYDRO
1,572 MW



SOLAR
1,978 MW



GEOTHERMAL
241 MW

80% of Power Africa's 124 financially closed transactions, and more than half of the associated megawatts, are based on renewable energy.



GAS
4,360 MW



LIQUID FUELS
316 MW



BIOMASS
139 MW

Cumulative data through September 2020

COVID-19 RESPONSE AND RECOVERY: ELECTRIFYING HEALTH FACILITIES

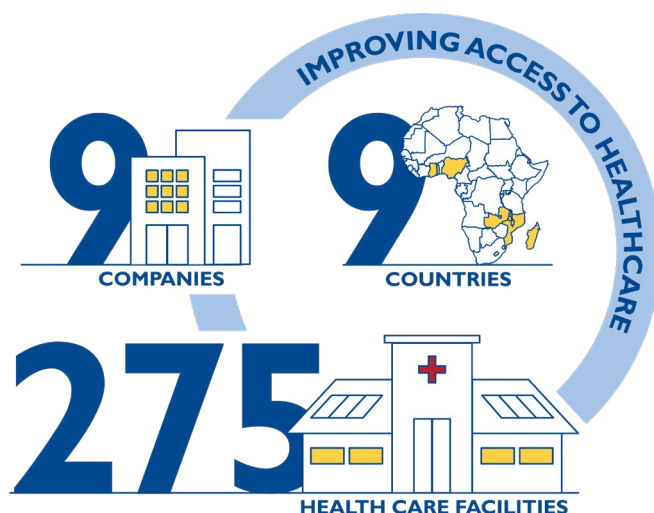
Efficient health services and effective responses to health crises — like COVID-19 — depend on reliable access to electricity.

In sub-Saharan Africa, only 40 percent of all health facilities have access to electricity, and of those with access, only 34 percent of hospitals and 28 percent of health facilities have reliable access.¹

Power Africa's COVID-19 response and recovery efforts are focused on leveraging and directing our core work strengthening the generation, transmission and distribution of power to essential services. Through our partners across sub-Saharan Africa, **Power Africa has connected or kept lights on in more than 800 health facilities**, ensuring a reliable supply of energy to clinics, hospitals, COVID-19 testing centers, isolation quarters, and cold storage services.

Power Africa moved quickly to reprioritize funds and has thus far **redirected more than \$5.7 million** to support the financial viability of sub-Saharan Africa's off-grid energy sector; to assist regulators and utilities struggling with the unfolding impact of the pandemic; and to assess power loads for hospitals, clinics and critical care facilities.

In September 2020, **Power Africa provided \$2.6 million in health facility electrification grants** to solar companies. Nine companies will provide off-grid electricity to 275 health facilities across sub-Saharan Africa, improving access to health care. Through these grants USAID is investing in a set of pilot projects that demonstrate how health facility electrification can be delivered in a commercially sustainable manner, with strong private sector involvement.



Catalytic grant financing demonstrates the Power Africa model in action. We use a modest amount of public funding to de-risk the transaction, thus opening the door for private investment.

¹ World Bank, 2019



A mini-grid is an off-grid electricity distribution network involving small-scale electricity generation.
PHOTO: Henri Fraise Fils & Cie

Reaching Beyond the Grid: **EXPANDING MINI-GRIDS IN MADAGASCAR**



Across sub-Saharan Africa, there are rural and remote communities that traditional power lines may never reach. Power Africa's **Beyond the Grid** sub-initiative focuses on off-grid solutions, like solar home systems and mini-grids, to electrify such hard-to-reach places. Since 2014, Power Africa has partnered with over 40 investors and practitioners who committed more than \$1 billion to off-grid and small-scale solutions.

In rural Madagascar, only five percent of the population has electricity access. However, private mini-grid developers often struggle to enter and grow in the market because they lack sufficient financing.

To bridge this gap, **Power Africa awarded \$1.2 million in grants to mini-grid developers** to implement new projects and expand existing mini-grids to new customers. This funding will help light up more than 5,200 rural households and businesses, and bring electricity to approximately 28,000 people.

In addition to lighting, solar mini-grids can power carpentry tools, agricultural processing equipment, and cold storage for food and medicine. Such productive use of electricity provides a foundation for sustainable economic development by increasing incomes and improving the welfare of communities.

INNOVATIVE FINANCING MODELS

ATTRACTING
PRIVATE,
PATIENT CAPITAL

This year, Power Africa and our partners deployed catalytic, first-of-kind financing models to stimulate and attract energy sector investment.

In Mali, a **\$1 million blended finance package** will help Energy+, a Malian-owned and -managed off-grid solar distributor, expand its sales and service geography and its pay-as-you-go offerings. Our partners at the U.S. African Development Foundation (USADF) provided grant funding and technical support; the Netherlands-based development organization, Cordaid, provided debt; and the private off-grid financing firm, VentureBuilder, provided equity.

U.S.-based Power Africa partner CrossBoundary Energy (CBE) announced the successful exit of a series I fund for distributed renewable energy, on time and with a 15 percent net rate of return.

Power Africa's initial \$1.3 million repayable grant catalyzed 30 times that amount, and with the exit, CBE returned the initial investment plus five percent to the U.S. Treasury. CBE's success demonstrates the increasing demand for investment opportunities in renewable energy and the market viability of renewable technologies, as well as the critical leadership of the U.S. Government in de-risking early investment.

In Kenya, a **two-year, \$500,000 Power Africa contribution helped launch the Kenya Pension Fund Investment Consortium (KEPFIC)**. KEPFIC will leverage transaction advisory services from a network of experienced investors, including Power Africa partners, to accelerate the influx of private capital into Kenya's energy sector investment, creating a model for other countries to follow.

CATALYZING INVESTMENT IN RENEWABLE ENERGY

To drive private investment in renewable energy and energy efficiency, the African Development Bank (AfDB) launched the Sustainable Energy Fund for Africa (SEFA) in 2011 to provide grants for technical assistance to catalyze project development. Late last year, SEFA donors (including the United States, Denmark, Germany, Italy, Norway, Spain, Sweden, and the Nordic Development Fund) widened the scope of instruments available to the fund to include concessional equity and debt finance, and, in December 2020, launched the SEFA Special Fund. **Through Power Africa, the United States committed \$20 million to SEFA since 2014** to remove market barriers, build a more robust pipeline of projects and reduce the risk-return profile of individual investments in renewable energy.

POWER AFRICA
MOBILIZED
\$315M

FOR OFF-GRID
RENEWABLE ENERGY
PROJECTS IN 2020



The Power Africa Model at Work: DRIVING INVESTMENT IN RENEWABLE ENERGY



FINANCIAL CLOSE
June 2019



LIGHTS ON
EST. April 2021



GENERATION CAPACITY
60 MW

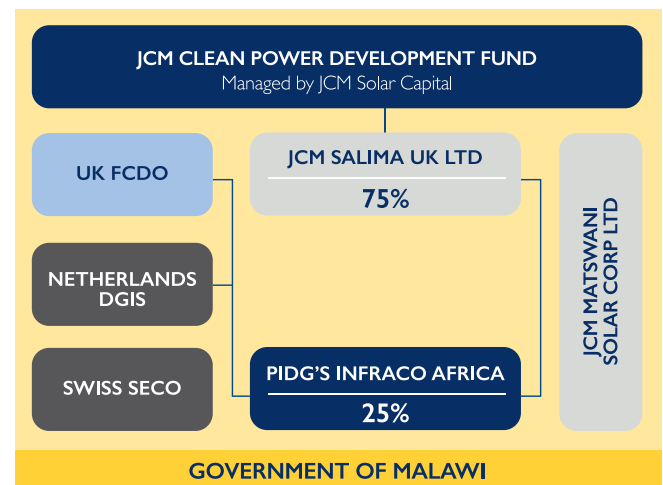
The Salima Solar project in Malawi brings together Power Africa's public and private sector partners to drive a first-of-kind renewable power project.

Malawi has one of the lowest electrification rates in sub-Saharan Africa. Its 365 MW of installed capacity provides electricity to less than 10 percent of the population. To diversify energy supply and advance its goal of 30 percent on-grid electricity access by 2030, the Government of Malawi sought to open its energy sector to private and foreign direct investment. The United States made that investment through Power Africa interagency partner the Millennium Challenge Corporation (MCC), which leveled the playing field for independent power producers (IPPs) that do not have financial backing from a central government.

The MCC Malawi Compact ended in September 2018, and Power Africa continues to support the energy sector in Malawi through technical assistance to the Government of Malawi and the national electricity company, ESCOM. This support resulted in the country's first-ever open, transparent and competitive tender in the power sector. Twenty-one international companies submitted bids to develop new solar power projects. Introducing competition into the process helped drive down the tariff prices – between \$0.08 and \$0.09 per kilowatt – and allowed the Government of Malawi to sign a long-term power purchase agreement (PPA) at a favorable rate.

One of the awarded bids, the Salima Solar Project, reached financial close in June 2019 and will produce 60 MW of clean energy for Malawi's grid, providing much-needed electricity to help combat energy poverty.

The Salima Solar Project sets Malawi on a path to diversify its generation mix, making renewable technologies competitive and opening its doors for future private investment in the energy sector.



PROJECT FINANCIERS		U.S. GOVERNMENT SUPPORT	
InfraCo Africa	\$6.5M	MCC	\$350M Compact (2011-2018)
World Bank MIGA	\$58.58M loan guarantee	STATE	Diplomatic support
JCM Solar Capital	\$11.4M equity	USAID	Partner coordination grid study, transaction advisory, capacity building at ESCOM
Dutch FMO	\$8.2M equity		

- DEVELOPMENT PARTNER
- PRIVATE SECTOR PARTNER
- U.S. GOVERNMENT PARTNER
- OTHER PRIVATE SECTOR COMPANY
- AFRICAN GOVERNMENT
- OTHER DEVELOPMENT AGENCY



The Power Africa Model at Work: PAVING THE WAY TO INCREASED ELECTRICITY ACCESS

FINANCIAL CLOSE
EST. April 2021

GENERATION CAPACITY
450 MW

TRANSMISSION LINES
560 KM

COMPLETION OF THE TRANSMISSION LINES
EST. end 2023

In Mozambique, two projects demonstrate how the Power Africa model convenes business, U.S. Government, development finance, and African government partners to advance access to electricity.

To boost Mozambique’s electricity generation capacity, a consortium co-led by Power Africa partner Globeleq is working with the Government of Mozambique to develop a 450 MW gas-fired power plant. **Central Térmica de Temane (CTT) will use domestic gas supply to increase power generation in a country that faces one of the lowest electrification rates in the world.**

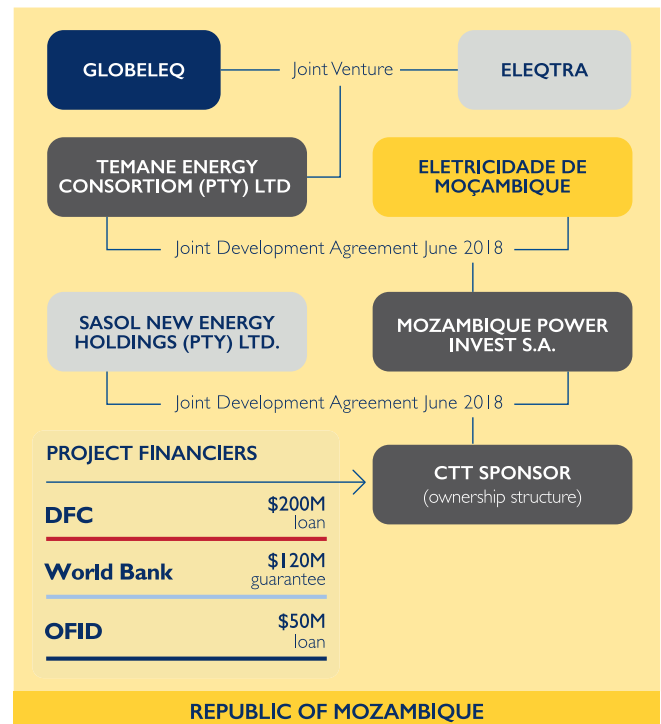
The U.S. International Development Finance Corporation (DFC) and the OPEC Fund for International Development (OFID) approved loans of \$200 million and \$50 million, respectively, for development, construction, and operation of CTT. The International Finance Corporation is expected to provide the balance of the required debt financing. The World Bank supported project financing through a \$120 million loan guarantee.

To ensure that the electricity produced at CTT reaches homes, businesses and industrial facilities, **Power Africa is also supporting the development of the \$246 million Temane Transmission Project (TTP).** TTP is the first phase of the Mozambique Integrated Transmission Backbone System, and will include a 560 km, 400 kV transmission line connecting power plants in the north with population centers in the south, including 1.2 million residents in the capital city, Maputo.

The first tranche of investments came in August 2019 when several development banks pledged their support. Construction of the transmission line and substations will be completed in 2023.

These projects represent substantial investment that will strengthen resilience in the face of natural disasters and connect Mozambique to cross-border power trade opportunities with its neighbors in Southern Africa and East Africa.

Central Térmica de Temane



- DEVELOPMENT PARTNER
- PRIVATE SECTOR PARTNER
- U.S. GOVERNMENT PARTNER
- OTHER PRIVATE SECTOR COMPANY
- AFRICAN GOVERNMENT
- OTHER DEVELOPMENT AGENCY



The Power Africa Model at Work: **BUILDING CRITICAL ENERGY INFRASTRUCTURE**



TRANSMISSION LINES
343 KM



COMPLETION
December 2024



TOTAL FUNDING
\$530 M

Collaboration between Power Africa, the African Development Bank (AfDB), and the Government of the Republic of Angola will help integrate the country’s regional grids into a national grid, lower energy costs and open opportunities for cross-border energy trade.

For decades, Angola’s national electricity grid has suffered from major supply gaps. The absence of an interconnection between the northern, central, and southern regions of Angola causes regional power shortages and unreliable service. These “grid islands” also contribute to Angola’s relatively low electrification rates of approximately 43 percent in most cities and less than 10 percent in rural areas.

To support the Government of Angola’s goal of 60 percent electrification by 2025, **the \$530 million Energy Sector Efficiency and Expansion Program funded by the AfDB will connect Angola’s national power grid for the first time.** This interconnection project will bring lower-cost power to southern provinces – a boost for economic and social development in the region, and an opportunity for the government to replace less-efficient and more expensive diesel-powered generation facilities with cleaner hydropower.

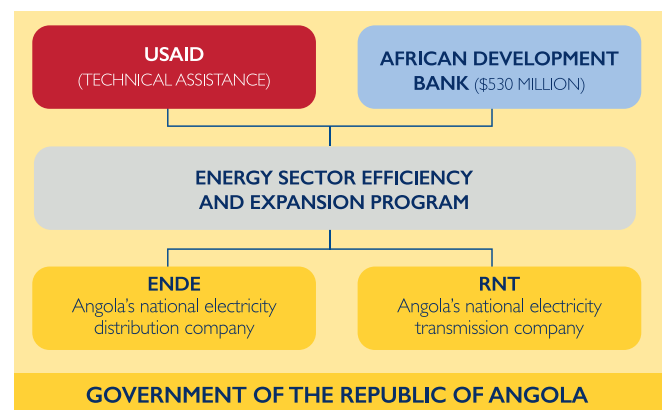
Through USAID, Power Africa is providing technical assistance to Angola’s electricity transmission and distribution companies to develop and construct a 343 km, 400 kV transmission line that will connect the nation’s three regional grids, and install 1.2 million pre-paid electricity meters for customers throughout the country. The pre-paid meters expand power access, reduce subsidies and increase future revenue collection, which the AfDB forecasts could triple to \$187 million annually in the residential segment alone.

The new transmission line will also increase electricity access in southern Angola and is a precursor to the Angola–Namibia interconnection project, which will eventually enable Angola to connect to the Southern African Power Pool for the first time, opening markets for cross-border trade and regional supply/demand balancing as identified in the *Power Africa Transmission Roadmap*.

The anticipated large tenders to support this work will create significant commercial opportunities, and Power Africa is working with the U.S. Department of Commerce’s Foreign Commercial Service and other interagency partners to ensure that U.S. companies are informed and able to participate.



Mapping out the procurement action plan with RNT during a training workshop in Luanda in November 2019. PHOTO: Power Africa



- DEVELOPMENT PARTNER
- PRIVATE SECTOR PARTNER
- U.S. GOVERNMENT PARTNER
- OTHER PRIVATE SECTOR COMPANY
- AFRICAN GOVERNMENT
- OTHER DEVELOPMENT AGENCY



The Power Africa Model at Work: PROPELLING UTILITY- SCALE WIND POWER



FINANCIAL CLOSE
July 2018



LIGHTS ON
December 2019



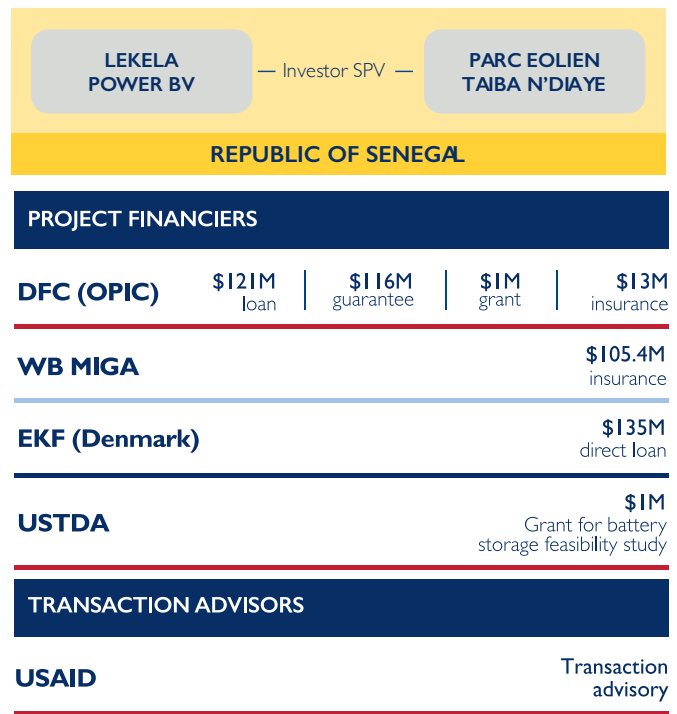
GENERATION CAPACITY
158.7 MW

Taiba N'Diaye, Senegal's first utility-scale wind farm, provides 15 percent of the country's electricity generation capacity from a renewable resource.

This Power Africa-supported project started producing cleaner electricity in December 2019, and is now pumping nearly 159 MW of cleaner energy into the national grid, lighting up homes and businesses across the country. The project developer, Lekela Power, plans to invest up to \$20 million in community development efforts over the wind farm's projected 20-year lifespan, which will be a big boost for those living near the project site.

Power Africa supported the Taiba N'Diaye transaction for three years with assistance to the developer on financing, insurance, negotiation, and land rights issues. Through Power Africa, the U.S. International Development Finance Corporation (DFC) provided financing and insurance to the project, and the U.S.–Africa Clean Energy Financing Facility provided grant funding for a series of engineering studies, environmental assessments, and technical assistance. The World Bank's Multilateral Investment Guarantee Agency (MIGA), a Power Africa partner, provided political risk insurance. The U.S. Trade and Development Agency (USTDA) is providing a grant to develop what is likely to be Senegal's largest grid-scale battery storage system to manage the variable energy generation from the wind farm and support more renewable energy on the Senegalese grid.

The Taiba N'Diaye Wind Farm illustrates the ability of Power Africa's partnerships to bring utility-scale renewables online and provide real economic benefits to local communities.



- DEVELOPMENT PARTNER
- PRIVATE SECTOR PARTNER
- U.S. GOVERNMENT PARTNER
- OTHER PRIVATE SECTOR COMPANY
- AFRICAN GOVERNMENT
- OTHER DEVELOPMENT AGENCY

“USTDA's support illustrates the vibrant, mutually beneficial partnership between the American and Senegalese people. U.S. financing for the Taiba N'Diaye wind farm is helping Senegal reduce energy costs, providing electricity for two million people and offsetting 300,000 tons of annual carbon emissions. We are excited to use battery storage technology to advance Senegal's clean energy mix and support Senegal's ambitious goals to increase its renewable energy capacity.”

- Tulinabo S. Mushingi, U.S. Ambassador to Senegal



Lekela Power built 32 km of roads to connect 36 villages and co-locate mango groves with the wind farm. PHOTO: USAID



CONNECTING KALANGALA: Powering Productivity & Improving Lives Beyond The Grid

Uganda’s Kalangala District is beyond the grid – comprising 84 islands – and home to roughly 75,000 residents, more than a quarter of whom live on Bugala Island.

For years, Bugala Island had unreliable power supply from diesel generators, making it nearly impossible to start or run an electricity-dependent business.

USAID helped convene private-sector partners and attracted \$20 million of commercial debt and investment that resulted in better access to the mainland via two ferries; a water treatment and distribution system that drastically reduced waterborne diseases; and a 1.6 MW solar/thermal hybrid mini-grid that provides 2,000 electricity connections to homes and businesses.

To increase the productive utilization of the mini-grid, **Power Africa trained more than 250 business owners and aspiring entrepreneurs to utilize electricity for better service provision, production, and commerce.** The Power Africa campaign resulted in more than 400 new electricity connections, and stimulated new industry services such as dairy production, steel welding, and fish processing.



Vianney Tugumisirize, manager of Island Best Dairy Farm, received Power Africa training on productive uses of electricity. PHOTO: Sab Horizons

“Before the [Power Africa] training, we were getting 150 liters of milk every day, but we could only sell 50 liters. A lot of milk was being wasted, and we had tremendous losses. Since the training, we acquired a new machine and are now making good quality yogurt.”

- Vianney Tugumisirize, manager, Island Best Dairy Farm

Critically, for the residents of Bugala Island, **access to electricity also prompted the development of a new health care facility** that utilizes modern diagnostic and treatment equipment for Bugala Island patients. Medicines and vaccines are now refrigerated, extending their shelf life and availability, and residents no longer have to travel to the mainland for health care. With the onset of the COVID-19 pandemic, the clinic has been a critical resource to help diagnose and treat residents, underscoring the importance of access to electricity in supporting essential services and saving lives.



Dr. Ssuubi Muwonge demonstrates modern diagnostic equipment at the Eunice Memorial Medical Center on Bugala Island. PHOTO: Sab Horizons

POWERING GENDER EQUALITY

APPLYING A GENDER LENS TO OFF-GRID INVESTMENTS

Power Africa promotes gender equality initiatives that create opportunities for women to be energy leaders, workers and empowered consumers. This year, Power Africa took a unique approach by encouraging investors to incorporate gender into their energy portfolios. Our advisors worked closely with two private sector firms, helping them apply a gender lens (investing for return while simultaneously considering the economic and social well-being of women and girls) that resulted in commitments to make **more than \$150 million in gender-informed investments:**

- Power Africa partner **responsAbility Investments AG** is piloting a gender-smart investing approach for one of their off-grid funds, and will utilize a Power Africa-developed roadmap and toolkit that includes a company assessment and benchmarking tool, gender-related performance indicators, and gender-inclusive human resource policies and practices.
- U.S.-based Social Investment Managers and Advisors (SIMA) is applying a gender lens to a fund that specializes in serving hard-to-reach off-grid energy customers. SIMA included a provision in all loan agreements that investees must develop strategies for advancing gender equity among employees and clients.

POWERING PREVENTION OF GENDER-BASED VIOLENCE

Globally, incidences of gender-based violence (GBV) increased significantly in the wake of the COVID-19 pandemic. Power Africa is dedicated to understanding the impact of GBV on the sector, and is building upon opportunities for the energy sector to combat GBV.

In Nigeria, **Power Africa identified GBV response clinics as essential services** and prioritized them for electrification. Alongside private sector partners, Power Africa supplied 110 solar home systems to GBV response centers and primary health care centers. In Kenya, Power Africa partner KenGen responded to the increase in GBV incidents by facilitating staff access to GBV resources such as GBV response centers, doctors and counselors.



Participants of the Young Women in African Power Leadership training program visiting the Cheikh Anta Diop solar plant in Merina Ndakar, Senegal. PHOTO: YALI RLC DAKAR



Mabano Yvette is an apprentice in the Women in Rwandan Energy (WIRE) initiative. PHOTO: WIRE

EMPOWERING WOMEN IN THE WORKFORCE

Power Africa's Young Women in African Power Leadership training program, in collaboration with the Young African Leaders Initiative (YALI), expanded to East and West Africa this year. Forty young women representing 17 West African countries participated in the first francophone training in Dakar, Senegal. In East Africa, 45 women representing six countries graduated from the program, which was conducted online due to COVID-19 travel restrictions. The program enhances leadership skills and builds energy sector knowledge. Power Africa also launched several apprenticeship programs to help women gain skills and build their professional networks as they forge careers in the sector. In Rwanda, 62 graduates benefited from three-month apprenticeships at 11 energy companies. In Kenya, 15 interns took on roles in Kenya's electricity transmission company, electric utilities, and the Geothermal Development Company.

“Power Africa’s support was instrumental in expanding our knowledge and capabilities on gender lens investing. The support directly led to the implementation of our first gender lens framework on a fund focused primarily in Africa and other emerging markets.”

- **Monya Bassingthwaighe, Senior Investment Officer, Climate Finance, responsAbility Investments AG**



CLICK OR SCAN THIS QR CODE TO DOWNLOAD
POWER AFRICA'S GENDER INCLUSION CHECKLIST

ACCELERATING ELECTRICITY CONNECTIONS THROUGH PUBLIC AWARENESS



What if a government brought electricity to a town but no one thought they could afford it?

Although power is available in Uganda, the electricity access rate has traditionally been low – only 24 percent. Many Ugandans were simply unable to pay the \$165-per-household grid connection fees and additional home wiring charges. Uganda’s Rural Electrification Agency (REA) developed its national Electricity Connections Policy (ECP) to quickly scale electrification by eliminating or significantly reducing these costs to make access more attainable. USAID and the Power Africa Uganda Electricity Supply Accelerator program embedded advisors in REA to provide resources and expertise to accelerate the procurement of thousands of poles, meters, and ready boards, and develop business systems to manage and track the hundreds of thousands of new connections made possible by the ECP. With logistics in place, REA still needed to convince ordinary Ugandans that electricity was affordable to get lights into communities, homes and businesses.

policy means electricity for all Ugandans. A television campaign and targeted advertisements in newspapers, radio, and on billboards reached every region of Uganda and boosted demand for electricity. In its first year, the ECP connected more than 200,000 homes and businesses – representing over **one million people** – as measured by the state-of-the-art national electrification tracking system developed with Power Africa assistance.

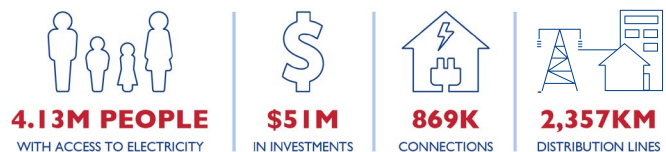


Mercy Achakalong runs a hair salon in Malaba, in Eastern Uganda. “When I saw the advert on TV, I saw an opportunity that I couldn’t miss. After I applied, we were connected in only a month. I thank the government and USAID for making it possible for me to get power.” PHOTO: Barnabas Mugabi/Power Africa Uganda Accelerator

To meet this public perception challenge, **Power Africa worked with REA to develop and deploy a public awareness campaign** with simple and effective messaging: The free connection



The Power Africa Uganda Accelerator Program closed on October 31, 2020. Since inception in 2017, the program delivered the following results:



SMART COMMUNITIES COALITION INNOVATION FUND

In July 2020, Power Africa and Mastercard established the SCC Innovation Fund, a multi-donor fund that will utilize the Smart Communities Coalition (SCC) network to deliver much needed energy access and other key services in forcibly displaced communities in Uganda and Kenya. In December, SCC selected four companies to receive awards in the inaugural grant window, and they will use innovative technologies – such as a solar-powered hatchery to support small-scale poultry farming, and a containerized solution for electricity, water and WiFi internet access – to introduce or scale up economic opportunities in camps, settlements, and host communities.



OffGridBox containerized solar energy and water purification solution outside a healthcare facility in rural Rwanda. PHOTO: OffGridBox

Knowledge is Power: **DATA-DRIVEN ELECTRICITY PLANNING**



African governments require reliable information and tools to pinpoint electricity access gaps and target national electrification programs. Specifically, they need to know how large, centralized power plants and smaller, decentralized solutions – such as private sector-led initiatives like mini-grids and solar home systems – can work in tandem to increase access to electricity.

In October, Power Africa awarded a \$1.5 million grant to the International Energy Agency to implement **Power Africa’s Data-Driven Electrification Planning Program**. Already underway, the program will improve data collection on electricity access in sub-Saharan Africa and enhance geospatial analysis to formulate more effective electricity access policies. Better electricity access tracking and analysis will help our African government partners drive more informed, focused and impactful electrification policies and programs.

HARNESSING GEOSPATIAL DATA FOR COVID-19 RELIEF

In response to the COVID-19 pandemic, Nigeria’s Lagos State Government imposed movement restrictions that would have a devastating impact on its informal trading sector; affecting nearly 65 percent of the local working population. To minimize negative effects on household income, Lagos State collaborated with Power Africa to equip vulnerable households with electricity through off-grid solar home system units.

Since lower-income settlements often lack formal addresses and are not listed in centralized databases, prioritizing and targeting relief efforts became difficult. **Power Africa assisted distribution efforts by using geospatial data** from 2,674 distinct areas to determine how vulnerable a particular household or community might be to COVID-19 based on population size, use of alternative energy sources and income.

Geospatial analysis optimized distribution logistics by minimizing the distance traveled between warehouses and recipients and enabled solar home system companies to distribute to multiple households in the same journey. This efficiency ensured that units reached households as quickly as possible and reduced the risk of COVID-19 transmission across communities.



One of the donated solar home systems. PHOTO: Tochukwu Mbachu



STRENGTHENING UTILITIES IN A TIME OF CRISIS

Tedzani III Control Room at Tedzani
Hydro Power Station, Malawi.
PHOTO: USAID

Power Africa works with electricity distribution utilities to improve operational efficiency and financial performance. These utilities supply power directly from the grid to homes and businesses. Their stability is vital to national energy sectors and economies.

The economic impacts of COVID-19 hit utilities hard. Even in normal times, most utilities in sub-Saharan Africa – whether state-owned or privatized – struggle to make ends meet. Ethiopia’s state-owned power distribution company, Ethiopian Electric Utility,

estimates that pre-COVID-19 deficits amounted to nearly \$100 million annually. In Nigeria, some privatized utilities lose as much as half of their allocated electricity supply due to technical faults, theft or customer non-payment.

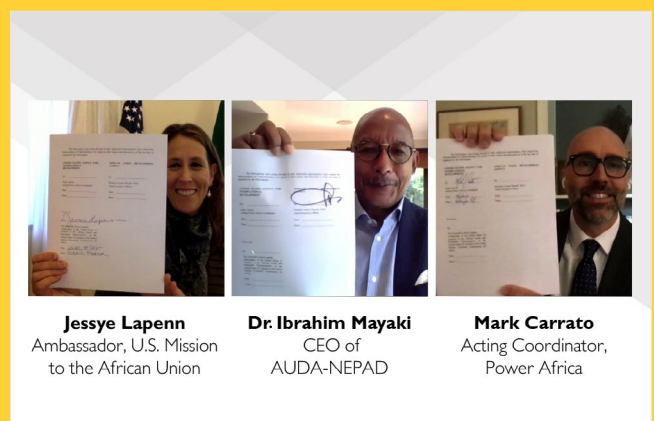
As COVID-19 took hold, Power Africa prioritized the **continued electrification of critical health facilities**, enabling hundreds of clinics and hospitals to keep their lights on. Power Africa’s embedded utility advisors worked with local counterparts to institute safer meter reading and payment options to protect the health of staff and customers; reduced energy and revenue losses through regular audits; improved technical planning through **data analytics**; and **enhanced customer service** and billing systems. Power Africa also continued to advance gender equality initiatives at 13 utilities in sub-Saharan Africa via USAID’s **Engendering Utilities program**.

With more efficient operations and improved finances, utilities are better positioned to help weather and recover from the effects of COVID-19. Healthier utilities help create stronger energy sectors and point the way toward a brighter future for sub-Saharan Africa.

CONTINUING OUR COMMITMENT TO END ENERGY POVERTY

In September, Power Africa joined U.S. Ambassador to the African Union, Jessye Lapenn, and Dr. Ibrahim Mayaki, CEO of the African Union Development Agency (AUDA-NEPAD), to renew our shared commitment to ending energy poverty on the continent.

AUDA-NEPAD was one of Power Africa’s first partners, and we are honored to continue the collaboration. The renewal of our Memorandum of Understanding will focus our efforts on a proposed large-scale solar initiative in Namibia and Botswana improving transmission networks to unlock cross-border power



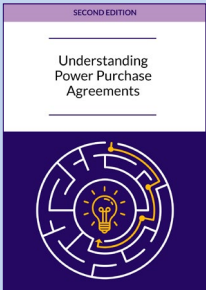
Jessye Lapenn
Ambassador, U.S. Mission
to the African Union

Dr. Ibrahim Mayaki
CEO of
AUDA-NEPAD

Mark Carrato
Acting Coordinator,
Power Africa

trade; technical assistance to advance renewable energy pilots in the Sahel region and beyond; battery storage opportunities; and attracting institutional and patient capital to Africa’s diverse energy sectors.

NEW RELEASES



UNDERSTANDING POWER PURCHASE AGREEMENTS: SECOND EDITION

Power Africa refreshed our popular guidebook, *Understanding Power Purchase Agreements*, with new guidance on emerging issues in African power markets, plus additional insight and case studies on PPA negotiations for small- and large-scale projects. Developed in collaboration with the U.S. Department of Commerce's Commercial Law Development Program and the African Development Bank's African Legal Support Facility, the *Understanding* book series helps build common understanding of best practices for successful power project development.

IN FRENCH & AMHARIC
MARCH 2021



OFF-GRID SOLAR MARKET ASSESSMENTS

Power Africa's Off-grid Solar Market Assessments outline the opportunities and risks associated with off-grid solar energy markets in 11 African countries. Geospatial analysis highlights potential areas for market expansion, and in-depth reporting covers relevant policies and regulations, market intelligence, access to finance, and gender mainstreaming.



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ENGAGING WITH U.S. COMPANIES

In 2017, the Chicago-based company Weldy Lamont, with Power Africa support, extended Ghana's electric grid to connect more than 67,000 rural households (335,000 people) as part of the Government of Ghana's Self-Help Electrification Program. This small U.S. firm took another giant leap in 2020 as it prepared to electrify rural communities throughout Senegal, enabled by a capacity-building training grant from USTDA and a loan financing guarantee of \$91.5 million from the U.S. EXIM Bank, both Power Africa partners. The project will provide power to 440,000 people via connections to independent solar mini-grids in more than 415 villages, and support 500 jobs in 14 U.S. states.

MEET OUR PARTNERS

U.S. GOVERNMENT AGENCY PARTNERS



DEVELOPMENT PARTNERS



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TO MEET OUR PRIVATE
SECTOR PARTNERS

Power Africa is a U.S. Government-led partnership that harnesses the collective resources of over 170 public and private sector partners to double access to electricity in sub-Saharan Africa. Since 2013, Power Africa-supported projects have added more than 11,000 megawatts (MW) of cleaner and more reliable electricity and more than 18 million new power connections for homes and businesses. Power Africa's goal is to add at least 30,000 MW and 60 million connections by 2030.

Follow our progress at usaid.gov/powerafrica.



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