



COMMEMORATING 10 YEARS OF POWER AFRICA





Ten Years of Powering People and Businesses

### WHAT DOES IT MEAN TO POWER AFRICA? -

Ten years ago, the United States made a pledge to the people of sub-Saharan Africa: To end energy poverty for millions by 2030. An ambitious promise to turn more lights on in homes and businesses. To electrify hospitals and rural clinics. To energize entrepreneurship and economic growth.

To Power Africa.



**Poverty** 

Ending energy poverty means expanding access to new or improved, cleaner, more reliable electricity - making it easier for people to power their lives and livelihoods. It means better conditions for nurses like Victoria Lahai at the Tobanda Community Health Center in rural Sierra Leone, where a new solar power system enables roundthe-clock medical care for the first time. "We can deliver babies safely," she says. "We can do everything."

With 14,300 megawatts (MW) of Power Africa-supported projects financially closed - including 7,600 MW already online - and more than 41.3 million new electricity connections, we have improved lives for nearly 200 million people and powered economies across sub-Saharan Africa.



We are strengthening and expanding grids to deliver more power to more people. Power Africa assistance supported the synchronization of 12 national grids in West Africa, allowing regional energy markets to exchange cleaner, more cost-effective electricity across borders. To reach remote communities and people living beyond the grid, we are promoting off-grid solutions like solar home systems and mini-grids to power homes, schools, health centers, and food producers.



Alongside African governments and in line with global market trends, Power Africa is accelerating a carbon-free future by prioritizing renewable resources like hydro, solar, and wind. Together, we work with public and private sector partners to attract and de-risk investment into utility-scale clean energy projects – like the Eldosol and Radiant solar projects in Kenya and Nkhotakota solar plant in Malawi – that help meet national decarbonization goals and global climate commitments.

Power Africa-supported renewable energy projects reduce or avoid over 10 million tons of carbon dioxide equivalent annually, the equivalent of removing over 2.2 million gas-powered cars from the road for one year.



Through a partnership model that encourages businesses to play a leading role, Power Africa is bolstering U.S. and African private sector innovation. We are connecting clean energy technology companies and research centers to opportunities where their products and solutions can increase access to reliable electricity.

We work with public and private sector leaders to design and implement energy transitions that identify, develop, and promote the equitable social and economic benefits from an economy powered by clean energy.

#### 2023 HIGHLIGHTS

Power Africa's work to bring cleaner, more reliable electricity to homes and businesses included significant new investments in regional programs and partnerships that further our pledge to improve energy access. In partnership with African governments, the global business community, and our development partners, we elevated clean energy technologies, strengthened local leadership, and advanced gender-equitable approaches to improve lives and power economies. Power Africa also delivered on the Biden-Harris Administration pledges and Just Energy Transition commitments set out at the 2022 U.S.-Africa Leaders Summit, including projects under the Partnership for Global Infrastructure and Investment.





from USAID to increase access to clean, reliable energy in East, Central, and Southern Africa

Directed \$13.8 million into regional clean energy initiatives as part of the President's Emergency Plan for Adaptation and Resilience



improved electricity access to

#### **33 MILLION PEOPLE**

through 6.7 million new on- and off-grid connections to homes and businesses

**Electrified** and digitally connected 227 HEALTH FACILITIES hrough the Health Electrification and Telecommunications Alliance





Extended 4.100 KM

of power lines across West Africa improving transmission and distribution structure to reach more people



#### Catalyzed \$1.05 billion in

financing for power projects, including \$362 million for off-grid energy solutions



Forged new partnerships and reinforced relationships with seven development partners and seven private sector partners





Launched **Growing Green** Jobs for Women

to equip 500 women and youth with skills needed to thrive in Nigeria's renewable energy industry



Unified 12 national power grids in West Africa to improve energy access through regional power trade



to explore deal opportunities in innovative clean energy technologies through the **U.S.-Africa Clean Tech Energy Network** 

"Now we are using the

solar panel and lights so

the big boats can see us

from a far distance," says

Abraham. "It's lifesaving

Productive use

of energy refers to

the use of energy in ways that contribute to productive

activities, such as powering

tools, machines, or devices that

enhance productivity and improve

people's lives. The goal is to

maximize the positive impact

of energy consumption on

economic and social

development.

for us on the sea."

### **LIGHTING THE WAY:** SOLAR INNOVATION BRIGHTENS FUTURES IN LIBERIA

Abraham Vahn navigates the challenging waters off the Liberian coast for a living. For 25 years, his life at sea – especially fishing at night – was fraught with risk because he lacked adequate lighting on his boat.

"I used a flashlight, but it was hard for the big boats to see us," says Abraham. "They can sometimes come very close and spoil our nets.'

Today, accessible solar-powered technologies have revolutionized Abraham's fishing experience.

"What that means is, the customers of these businesses - many of whom live beyond the grid – are able to use solar energy to run small businesses, preserve their agricultural produce, operate fishing boats at night, and mill their grains", says David Stonehill, Power Africa's Beyond the Grid Lead from 2019 to 2023. "They're able to earn higher incomes, and that in turn leads to more resilient households."

The grantees - EasySolar, EcoPower, Liberian Energy Network Two (LEN2) Liberia Engineering and Geo-Tech Consultants, and Sledi Green Energy - collaborated with local farmers' groups, fishing communities, small businesses, training institutions, and mobile network operators to establish community service providers, develop a franchisee program, and set up productive use of energy centers.

LEN2, a project of **Power Africa's first private sector partner in Liberia**, is scaling its solarpowered fishing light project by making solar-powered lights and communal cold storage available to fishing communities and individual fishers via pay-as-you-go financing. The solarrechargeable LED lights have built-in phone chargers, which also improves safety while fishing

> Beyond the immediate benefits at sea, these solar technologies have broader implications for Abraham's life. There is a newfound hope of extending this solar power to his modest home, where he lives with his wife and three children. The prospect of having a solarpowered home is a dream that Abraham is keen to realize – a stepping stone toward a brighter future.

> > Through nearly \$700,000 USAIDfunded grant program, Power Africa is working with five energy companies in Liberia to harness solar energy for productive use.

> > > PHOTO:

Fraser Schenck for Power Africa

A feasibility study funded by Power Africa partner the U.S. Trade and Development Agency (USTDA) laid the foundation for the development of 95 mini-grids: 80 dedicated to community use and 15 for commercial, industrial, and institutional clients. Implementation at several sites is underway.

DRIVING ENERGY ACCESS

Power Africa through USAID in collaboration with the Tony Blair Institute supported the implementation of Nigeria's ongoing National Mass Metering Program, by coordinating the procurement for six million meters, 50 percent of which are currently installed or financed.

Power Africa assisted the Benalya Group to secure more than \$100,000 to design and install solar greenhouses adapted to the Sahel climate.

**KENYA, SOMALIA, BURKINA** 

**FASO, MAURITANIA, MALAWI.** 

ZAMBIA. ZIMBABWE - Power Africa

agricultural cooperatives to help transform

small-scale agriculture and create direct

partner USADF is working with farmers and

benefits for farmers feeding their communities.

USADF's Off-Grid Energy Challenge delivered

<u>reliance on fossil fuels</u> and increase agricultural

renewable energy solutions that decrease

productivity, farmers' incomes, and food

security across the continent.

USAID, in collaboration with the Ministry of Energy and Natural Resources, launched a first-of-its-kind pilot project to bring solarpowered charging stations that produce drinking water from moisture in the air, internet, and e-mobility to remote areas.

A \$400,000 Power Africa grant program benefits women smallholder farmers by increasing affordable access to solar-powered equipment that improves their service reliability. In addition, a U.S. Department of Agriculture project established large-scale, solar-powered cold storage facilities to reduce food spoilage and waste, crucial for resilient agriculture in the face of climate change.

 Power Africa grantee Hydro Ingenierie Études Et Realisations built new transmission and distribution lines to deliver electricity from its 560-kilowatt hydropower mini-grid plant to light up 1,500 homes and businesses.

Female farmers are growing their businesses through productive use of energy programs and access to solar-powered water **pumping initiatives**. Plus, a public-private partnership facilitated by Power Africa will train up to 1,000 young agripreneurs annually to use agricultural appliances powered by renewable energy, which will add value to their harvests.

Power Africa supported the Ministry of Energy to launch Fonds Tinga, an initiative to reduce the cost for millions • of people to connect to the grid. The pilot phase in 2023 achieved nearly 40,000 new connections.

More than II million people will benefit from the \$391 million Millennium Challenge Corporation (MCC) Benin Power Compact (2017–2023), which is considered one of the largest U.S. investments in solar off-grid electrification in a single country to date. Already, MCC's public-private partnerships have delivered clean energy access to approximately 185,000 people through the sale of nearly 37,000 solar home systems. In addition, MCC and private companies are co-financing the construction of 55 solar mini-grids across rural Benin, estimated to benefit another 110,000 people.

2023 Highlights

Where We Work

POWER AFRICA ANNUAL REPORT 2023



### **POWERING HEALTH** AND DIGITAL CONNECTIVITY

digitally connect 10,000 health facilities by 2027.

Saharan Africa – and even on the edges of cities – health clinics connect nearly 600 health facilities, improving services for and doctors' offices operate without electricity. Millions of people seeking treatment may not get the vaccines, surgeries, or life-saving care they need because the lights are off and the The Alliance's unique and powerful model brings private medical equipment is lifeless.

the Health Electrification and Telecommunications Alliance (HETA) is addressing the serious need for reliable electricity and internet connectivity to power health income countries. facilities, enable modern medical services, and improve lives.

With \$47 million of USAID funding, Power Africa is leading This year, the Alliance leveraged commitments exceeding a \$150 million public-private partnership to power up and nearly \$11 million from 17 partners and electrified and digitally connected 227 health facilities. HETA also issued grants in Eswatini, the Democratic Republic of the Congo, In thousands of rural and remote communities across sub- Nigeria, and Tanzania that are expected to electrify or digitally more than 4 million people.

sector resources and innovation to achieve U.S. government priorities, including the Partnership for Global Infrastructure Launched at the U.S.-Africa Leaders Summit in late 2022, and Investment, the G7's flagship infrastructure initiative designed to attract major investors to meet the global demand for high quality infrastructure financing in low- and middle-

## POWERING HEALTH IS POWERING POTENTIAL IN SIERRA LEONE

Close your eyes and imagine a hospital without electricity. Doctors delivering babies in the dark. Pregnant women bringing their own flashlights or lanterns and buckets of water to the delivery room.

Through a public-private partnership, the USAID HealthGrid Sierra Leone initiative installed sustainable energy systems at 26 off-grid healthcare facilities, along with internet connections

Power Africa visited three clinics in Sierra Leone that now have clean, reliable electricity to serve 20,000 people with round-the-clock life-saving medical care. Meet the nurses and patients and see how HealthGrid became the spark for the

Watch the

video here 🔿

Health Electrification and Telecommunications Alliance.





# **ELECTRIFYING HEALTH FACILITIES** THROUGH THE POWER OF PARTNERSHIP



A Power Africa-supported study found that it will take at least \$2.6 billion to sustainably electrify health facilities in Nigeria, Sierra Leone, Malawi, Zambia, the Democratic Republic of the Congo, and Kenya. Alongside Sustainable Energy for All and other Power Africa partners, we are working to fast-track financing to electrify 35,000 health facilities in these countries and elsewhere through the **Energy Compact for Health Facility Electrification**.

Since its launch in 2021, this compact has secured commitments to electrify more than 29,000 clinics and medical centers, nearly 900 of which are already switched on. In 2023, the initiative released two tools that will help accelerate these efforts:

#### Powering Healthcare Hub

A one-stop-shop of data, best practices, support, progress tracking, and leadership for wide-scale deployment of clean and reliable energy solutions in healthcare facilities.

#### Rwanda Market Assessment and Roadmap

A culmination of Power Africa's two-year program with Sustainable Energy for All and EnGreen, this roadmap provides the Government of Rwanda with data on energy gaps in the healthcare sector and recommends sustainable models and investments to deliver reliable electricity service.

With Power Africa transaction support, Nigeria's Rural Electrification Agency commissioned mini-grid projects through the Nigeria Electrification Program, including 51 that power clinics and other health facilities.

#### **ENERGIZING CLINICS AND COMMUNITIES IN LESOTHO**

It's been nearly two years since OnePower Lesotho electrified seven off-grid healthcare facilities in the country thanks to a Power Africa grant. Since fulfilling its grant objectives, OnePower has secured additional funds and is developing mini-grids around the electrified clinics to supply clean energy to surrounding communities. Maria E. Brewer, the U.S. Ambassador to Lesotho, along with development organization Partners in Health, and community leaders visited the Tlhanyaku Healthcare Center in Mokhotlong, a facility located two hours from the nearest town to see firsthand the enhanced functioning of the facility, and learn about the potential to replicate OnePower's electrification approach.









### **POWERING EAST AFRICA**

Between 2018 and 2023, Power Africa invested over \$65 million of USAID funding to improve energy access in East Africa.



5,176
NEW ON-GRID CONNECTIONS



**FINANCIALLY** 

**CLOSED** 





79

Laws, policies, regulations, or standards to enhance energy sector governance formally adopted, or implemented



Host-government power sector strategic planning documents adopted, implemented, or revised



Competitive procurement processes for new generation capacity implemented



Women interns received training and capacity building support

### POWERING COMMUNITIES BEYOND THE GRID

Between 2018 and 2023, Power Africa supported over 7 million new off-grid energy connections and mobilized \$1.22 billion in funds for off-grid energy projects.



# 7 Million NEW OFF-GRID DIRECT CONNECTIONS



12 Million

NEW GRID AND OFF-GRID ANTICIPATED DIRECT CONNECTIONS AT FINANCIAL CLOSE



\$1.2 Billion
IN FUNDS LEVERAGED
FOR ENERGY PROJECTS



340
INSTITUTIONS
INTRODUCED FINANCIAL
PRODUCTS AND BEGAN
MARKETING TO
OFF-GRID COMPANIES



92,000

PRODUCTIVE-USE

OFF-GRID DEVICES OR

SYSTEMS SOLD



U.S. COMPANIES
PARTICIPATING IN POWER
AFRICA PROJECTS



AFRICAN
GOVERNMENTS
RECEIVING SUPPORT
TO IMPLEMENT
IMPROVEMENTS TO
THEIR FRAMEWORKS



PODE TO SECTION POLICIES AND REGULATIONS PROPOSED, ADOPTED, OR IMPLEMENTED



377

HEALTHCARE FACILITIES ELECTRIFIED ACROSS SUB-SAHARAN AFRICA



**FACILITIES** 

2 Million+
PEOPLE SERVED THROUGH
ELECTRIFIED HEALTHCARE

# CATALYZING INVESTMENT IN OFF-GRID ENERGY ACCESS



Through \$1 million in grants issued in 2020, Power Africa catalyzed over \$34 million in investments and access to capital for off-grid energy firms, fueling growth and energy access across sub-Saharan Africa. Four grantees leveraged funds to drive innovations and financing platforms, fostering sustainable energy solutions. For example, Power Africa partner Mirova SunFunder enabled an \$11.5 million investment in SunCulture, deploying over 8,000 solar water pumps in East Africa. Through unique initiatives, such as receivables-financing platforms and investment-readiness programs, these grantees are bolstering off-grid companies and amplifying energy access in the region.

### SECURING SUSTAINABLE FUTURES

d.light, a Power Africa partner, secured a \$30 million securitization facility from fellow partner, the Eastern and Southern African Trade and Development Bank Group, with the capacity to purchase up to \$125 million of customer receivables. This funding will boost d.light's securitized financing in Tanzania, scaling its pay-as-you-go personal finance service to make solar-powered household products more accessible to low-income families. Since 2020, d.light has raised \$490 million in securitized financing, supported by Power Africa through legal advice and transaction structuring. The initiative aims to expand energy access, create jobs, and reduce carbon emissions. d.light plans further expansion in sub-Saharan Africa, leveraging its distribution network in Tanzania's remote areas.

# POWERING KENYA'S REMOTE COMMUNITIES

Renewvia Energy, an Atlanta-based solar contractor and Power Africa partner, is expanding its impact in Africa. Starting with mini-grids in Kenya, Renewvia leveraged Power Africa's off-grid solar feasibility studies to deliver clean energy projects in remote communities. Through a \$4.2 million grant, Renewvia provided 14,000 new connections to households and businesses in rural Kenya. Another partner, PowerHive, also received a small grant to provide

# RECOGNIZING TEN YEARS OF COLLABORATION WITH THE TONY BLAIR INSTITUTE FOR GLOBAL CHANGE

The Power Africa Senior Advisors Group, an initiative supported by the Tony Blair Institute for Global Change (TBI), concluded in 2023 after almost ten remarkable years. Through this collaboration, TBI provided strategic advice, policy support, and technical assistance to African governments to promote more innovative and equitable power sector development.



6 Million Smart Meters Facilitated installation of six million smart electricity meters in Nigeria with additional support from the World Bank and the private sector.



Energy Transition Strategy Developed an energy transition strategy in collaboration with the Government of Mozambique that foresees investment in renewable technologies, electric vehicles, green hydrogen, energy sector digitalization, and workforce training programs.

approximately 1,200

new connections.



Synchronization of Electricity Grids

Advanced the synchronization of electricity grids in West Africa to deliver upto \$32 billion in trade benefits to ECOWAS countries in the next ten years.



Established an enabling environment for mini-grids in Senegal and secured a presidential decree that outlines a regulatory framework for future engagement.



# UNIFYING POWER GRIDS TO IMPROVE ENERGY ACCESS IN WEST AFRICA

# EXPLORING GRID-SCALE BATTERY STORAGE OPTIONS IN ZAMBIA

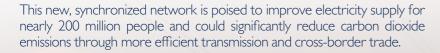


POWER AFRICA ANNUAL REPORT 2023

In July 2023, <u>I2 West African countries realized a landmark achievement by uniting their national power grids</u>. The electricity networks of Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Mauritania, Senegal, Sierra Leone, The Gambia, and Togo are now synchronized and function as a unified network. This synchronization enables a regional energy market where cleaner, more cost-effective energy can be exchanged across borders, reducing reliance on expensive, polluting sources and increasing access to reliable electricity for people and businesses.

Power Africa technical assistance contributed to this significant development, the culmination of nearly two decades of effort spearheaded by the Economic Community of West African States (ECOWAS).

Working alongside partners like the World Bank, The Tony Blair Insitute, and the European Union, Power Africa supported the integration of ECOWAS countries' electricity utilities with the West African Power Pool.



10 POWER AFRICA ANNUAL REPORT 2023



A U.S. Trade and Development Agency-funded feasibility study aims to enhance Zambia's energy infrastructure by integrating battery energy storage systems (BESS) with its power grid. This initiative, which aligns with Power Africa's mission and the G7's <u>Partnership for Global Infrastructure and Investment</u>, involves a grant to GreenCo Power Storage Limited, a Power Africa partner.

The study will assess the viability of a utility-scale BESS pilot and recommend options for a 400 megawatt-hour BESS portfolio that can bolster renewable energy trading in Southern Africa, significantly advancing the region's clean energy capabilities.

# PARTNERING TO EXTEND 4,100 KILOMETERS OF NEW POWER LINES

A strategic partnership between Power Africa and the African Development Bank through the <u>Desert to Power Initiative</u> will add **4,100 kilometers of power lines** to the West African electricity network. These distribution lines will be instrumental in realizing more than 375,000 connections in Burkina Faso, Niger, and Chad.

#### **BURKINA FASO**

Nearly 3,000 kilometers of distribution lines will power 215,000 new household connections. With co-financing and technical support from Power Africa, 1,300 kilometers of the distribution lines have reached financial close and will electrify 73,000 homes.

#### **NIGER**

More than 2,700 kilometers of distribution lines will provide 111,000 on-grid connections and 1,800 connections via minigrids to electrify schools, health centers, and small businesses in urban and rural areas. Power Africa co-financed the African Development Bank project and partnered with the International Renewable Energy Agency to provide training and technical assistance on gender mainstreaming and integrating variable renewable energy into the grid.

#### CHAD

Nearly 72 kilometers of distribution lines combined with 45,000 prepaid meters will reinforce the country's potential to increase energy access by connecting thousands of new consumers, homes, businesses, and community centers. Power Africa co-financed this work in collaboration with the African Development Fund and Green Climate Fund.



### INVESTING IN AFRICAN **CLIMATE LEADERSHIP**

At the Africa Climate Summit in September 2023, the U.S. government announced more than \$200 million in funding to expand access to renewable energy and support climate action in Africa. These activities will support communities across Africa to build resilience to climate impacts and sustainably grow their economies. The activities also support implementation of the President's Emergency Plan for Adaptation and Resilience, just energy transition partnerships, and global efforts to conserve critical carbon sinks. Highlights include:

\$100 **MILLION** 

direct loan from the U.S. International Development Finance Corporation (DFC) to Power Africa partner Mirova SunFunder's Gigaton fund for off-grid clean energy, enhancing solar energy access in sub-Saharan Africa.

\$50 **MILLION** 

in political risk insurance coverage from DFC to Greenlight Planet in Nigeria, supporting the distribution of cost-effective off-grid solar solutions and enhancing financial inclusion by extending renewable energy to under-electrified and unbanked rural communities.

\$40 **MILLION** 

in equity from DFC into the \$300 million Africa Renewable Energy Fund II (AREF II), a private equity fund focused on developing, building, and operating clean energy assets across sub-Saharan Africa. AREF II, the second African fund managed by a Power Africa partner, targets investments in renewable energy, including run-of-river hydropower, wind, and solar projects, as well as battery storage opportunities.

\$4.8 **MILLION** 

through Power Africa to advance South Africa's Just Energy Transition Implementation Plan, in partnership with the Departments of Energy, Commerce, and State.

\$6.3 **MILLION**  to the African Development Bank's Sustainable Energy Fund for Africa (SEFA). Through Power Africa, the United States has committed more than \$26 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.

\$1.4 **MILLION**  investment by USAID to support the Government of Kenya to develop its carbon market activation plan and regulatory and legal framework around carbon to ensure the integrity, transparency, and equity of the market.

# FINANCING BRIGHTER FUTURES

U.S.-based global bank and Power Africa partner Citi teamed solar equipment affordable, enhancing electricity access for up with solar home systems provider Sun King for a \$130 underserved Kenyan communities. The deal aims to make the deal with technical assistance.

low-income households. Several other Power Africa partners million sustainable securitization transaction to finance off-grid supporting this initiative include British International Investment, systems in Kenya. This innovative financial approach transforms the Norwegian development finance institution NORFUND, loans into tradable securities, supporting electrification in Standard Chartered, and Absa Bank. Power Africa supported

### **ADDING NEW CLEAN POWER TO THE GRID**





Power Africa is improving lives and powering economies in sub-Saharan Africa by increasing access to cleaner, more reliable energy. More than 80 percent of Power Africa-supported projects are based on renewable resources, helping African government partners cut energy-related emissions to meet decarbonization and climate goals.

#### **KENYA**

The Eldosol and Radiant solar projects (40 MW each) are now online and providing clean power to the national grid. Power Africa has supported both projects since 2016 with power purchase agreement negotiations, new grid codes, and technical assistance for grid integration.

#### **MALAWI**

Power Africa partner Serengeti Energy commissioned the 21 MW Nkhotakota solar plant in Malawi. This new renewable energy facility is delivering clean power to the grid and is part of Malawi's broader efforts to increase generation capacity and diversify its energy mix. Power Africa partner African Trade and Investment Development Insurance provided a \$64 million guarantee to cover latepayment risks from Malawi's national power utility.

#### **SOUTH AFRICA**

The Ngodwana Energy Project (25 MW) is Power Africa's first biomass project in South Africa. Using waste from a nearby paper processing facility, Ngodwana is connected to the national grid, providing much-needed renewable energy for the country. Power Africa provided training and technical and economic due diligence to the project developers.

# CREATING JOBS THROUGH SOLAR

In Nigeria, the U.S. African Development Foundation invested \$250,000 to support the completion of a new 100 MW Auto Solar Photovoltaic Manufacturing plant. The new factory has already created over 2,000 direct



### **EMPOWERING CHANGE**

USAID's New Gender Policy and Power Africa's Commitment to Women in Energy Advances a Clean Energy Future

In March 2023, USAID Administrator Samantha Power launched a new **USAID Gender Policy**, highlighting the significant role women play as energy consumers and in improving energy access. Power Africa champions this policy and works with our partners to improve gender equality in Africa's energy sector. Our activities aim to increase women's access to electricity, promote their participation and leadership in the energy sector workforce, advance gender-informed energy sector policies, and facilitate gender-smart investing to increase women's access to capital in the sector.

Significant initiatives include the Elevate Women's Solar Installation Certification Course in Nigeria, upskilling 30 women for Clean Energy Skills certification, and a two day training for 50 Gender Equality and Social Inclusion Champions. Power Africa supported the Energy Sector Women's Leadership Initiative to facilitate training for 250 women from Ghana, Nigeria, South Africa, and Ethiopia. The successful initiative was replicated in Asia and the Middle East. These efforts collectively contribute to developing a new generation of energy professionals and fostering an inclusive and diverse energy sector.



# SUPPORTING SOUTH AFRICA'S JUST ENERGY TRANSITION

Supporting Eskom's transmission

grid is one of the key priorities of the

South African government in the Just

here to deliver on that priority. U.S.

Development Agency help promote

prosperity for both of our nations.

agencies like the U.S. Trade and

increased trade that leads to

- U.S. Ambassador

Reuben E. Brigety II

to South Africa.

Energy Transition Implementation Plan, and [...] the U.S. government is

South Africa is committed to a just energy transition that reduces dependence on fossil fuels and builds a future of equitable, social, and economic benefits from clean energy. Through Power Africa, the United States is supporting the Government of South Africa and the vision and strategy outlined in its Just Energy Transition Implementation Plan. Alongside partners such as France, the United Kingdom, and the European Union, Power Africa works with local organizations, municipalities, government departments, and the private sector to prepare communities and workers for the transition away from coal. Power Africa's 2023 contributions to the Just Energy Transition Implementation Plan include:

A grant from the U.S. Trade and Development Agency to South Africa's state-owned electric utility, Eskom, to explore innovative technologies for enhancing power delivery. Eskom selected Power Africa partner POWER Engineers to provide technical assistance.

Technical assistance to enable three municipalities to identify 600 MW of renewable energy potential and to engage with prospective independent power producers and investors.

Training for more than 600 municipal officials on project finance for power projects, public-private partnerships, battery energy storage systems, and off-grid electrification.

Collaboration with technical and vocational colleges, the private sector, and local governments to upskill workers for the renewable energy economy. Twenty-five students from Nkangala College are engaged in an extended program that includes internships.

Leadership and skills training to position women-led efforts at the forefront of the just energy transition, including a collaboration with African Women in Energy and Power and the Wits Business School's African Energy Leadership Centre to deliver a certificate course for 32 women representing municipalities, Eskom, government departments, and non-governmental organizations.

Collaboration with the South Africa Energy and Water Sector Education Training Authority and the <u>United Nations</u> <u>Development Programme</u>, a new Power Africa partner, to provide women with technical and vocational training to participate in and benefit from emerging green economy job opportunities.

Advancement of a 25 MW solar power project in Cape Agulhas and other renewable energy initiatives in the Western Cape Province.

This collective work is unlocking the potential for more ambitious, more progressive investments in cleaner energy and projects in the region.





# GROWING GREEN JOBS FOR WOMEN IN NIGERIA



Like many countries in sub-Saharan Africa, Nigeria has a significant gender gap in science, technology, engineering, and mathematics occupations, including energy jobs. In 2023, Power Africa launched the **Growing Green Jobs for Women** initiative, with a goal to train approximately 500 women for successful careers in Nigeria's evolving energy sector. Central to this initiative is the creation of a gender-inclusive culture within the energy sector, aimed at dismantling barriers and expanding access to financial resources, paving the way for a more equitable and inclusive energy landscape.



## ADVANCING SENEGAL'S CLEAN ENERGY TRANSITION

Power Africa is collaborating with the Government of Senegal to execute an energy transition strategy. This strategy accelerates Senegal's gas-to-power transition, aiming to reduce carbon dioxide emissions by 30 percent initially, aligning with Senegal's pledge to cut greenhouse gas emissions by 23 percent and increase renewable energy to 30 percent of its energy mix by 2030. Power Africa's engagement has already facilitated nearly 470,000 new electricity connections.

ADDED

297mw

CLEAN POWER

GENERATION

CAPACITY

# CREATING A CLEAN ENERGY ECOSYSTEM

The U.S. Trade and Development Agency selected Power Africa partner AEG International to conduct a feasibility study to advance a clean energy transition in the Democratic Republic of the Congo. The study will explore the development of a solar farm, a battery energy storage system, and an electric vehicle charging station. This initiative aims to reduce reliance on diesel generators and foster a clean energy ecosystem for over one million residents in the city of Mbandaka. The study supports Power Africa's goals to increase energy access in sub-Saharan Africa and aligns with the Partnership for Global Infrastructure and Investment by focusing on implementing utility-scale solar and storage projects and introducing solar-powered electric tuk-tuks as an ecofriendly transport option.

### POWERING MEGA SOLAR

In 2023, the Mega Solar initiative,

a partnership between the governments of Botswana and Namibia, the World Bank, and the African Development Bank Group, made significant progress.



This initiative aims to develop up to five gigawatts of solar power by 2040, capitalizing on the abundant solar potential in Southern Africa. A key milestone was the initiation of the Mega Solar Regional Market Study by the African Development Bank Board. The study will analyze solar capacity and regional demand, guiding the development of solar generation facilities focused on electricity export.



# INAUGURATING BURUNDI'S FIRST UTILITY-SCALE SOLAR FIELD

As part of the U.S. government's engagement at the United

Nations' annual climate change conference, COP28, Power Africa

Guided by the goal to end energy poverty in sub-Saharan Africa, Power Africa is connecting U.S. and African cleantech energy companies and investors to market opportunities where project-ready technology can increase access to reliable electricity.

opportunities in Chad and The Gambia.

Through the U.S.-Africa Clean Tech Energy Network (CTEN), Power Africa engaged more than 100 U.S. companies in 2023, providing market intelligence, trade opportunities, transaction advisory services, and fundraising. For example, Power Africa connected four U.S. companies to an opportunity to bid on up to \$14 million in tenders for distributed energy and battery energy storage systems trade

**CONNECTING CLEAN TECH ENERGY** 

COMPANIES TO OPPORTUNITIES IN AFRICA

In collaboration with the U.S. Department of Commerce, CTEN hosted webinars focusing on market opportunities in African countries. The first webinar centered on Ethiopia; future sessions will look at prospects in Côte d'Ivoire, Ghana, Kenya, Nigeria, and Senegal.

Hear directly from the companies about their matchmaking experience, their work in the energy sector, and the next big thing in clean energy tech and what it will mean for Africa.

Watch the video here

pledged financial and technical support to the following initiatives that accelerate energy access in a carbon-free future:

its economic development.

#### \$85 MILLION TO EMPOWER SOUTHERN AFRICA

Empower Southern Africa, a five-year Power Africa initiative implemented by USAID, seeks to increase the availability of and access to affordable, reliable, sustainable, and clean energy in the region. This investment leverages funds from the African Development Bank and buy-ins from USAID missions in Southern Africa to provide targeted advisory services to connect homes, businesses, and institutions to electricity; reduce greenhouse gas emissions from the energy sector; and improve the regulatory environment for energy sector investment and innovation. The activity anticipates supporting up to three million new electricity connections over the next five years and avoiding 14 million tons of carbon dioxide equivalent.

In Burundi, President Évariste Ndayishimiye and Yosef Abramowitz, Chief Executive Officer of Gigawatt Global, officially

inaugurated the nation's first utility-scale solar field in May 2023. The 8.6 MW solar plant, which has been operational since

May 2021, is now a key contributor to the country's power grid, supplying 100 percent of the daytime electricity needs of

Gitega, the capital city, and accounting for more than 10 percent of Burundi's total electricity. President Ndayishimiye has

authorized Gigawatt Global to double the capacity of this solar installation, signaling a further commitment to renewable

energy in Burundi's future. This expansion is expected to enhance the nation's energy security and contribute substantially to

# \$2 MILLION TO ACUMEN'S HARDEST-TO-REACH INITIATIVE

**LEADING ON CLIMATE:** 

**POWER AFRICA AT COP28** 

This \$250 million initiative led by Power Africa partner Acumen aims to expand clean and affordable energy access in sub-Saharan Africa's most underserved markets. The project focuses on expanding access to renewable energy for vulnerable, remote communities at risk of being left behind in the clean energy transition and expects to reach at least 72 million people with solar-powered solutions in the next ten years while avoiding over five million tons of carbon dioxide emissions.



# CONVERTING FARM WASTE TO RENEWABLE ENERGY

A <u>U.S. Trade and Development Agency grant is advancing development of a 25 MW biomass power plant in Côte d'Ivoire</u> that will expand renewable energy capacity and provide additional revenue generation for farmers. The power plant will convert locally sourced cotton stalks – agricultural waste that, if not put to other productive use, is burned and produces air pollution – to provide sustainable energy and support the country's growing economy. The project aligns with the Partnership for Global Infrastructure and Investment by promoting access to renewable energy and providing economic benefits. The project also presents opportunities for U.S. companies to provide equipment and services.

# CAPTURING FLARED GAS TO POWER A CLEANER FUTURE

Nigeria's Gas Flare Commercialization Program aims to eliminate up to seven million metric tons of flared natural gas yearly by harnessing it for productive use, including electricity generation. Supported by Power Africa since 2017, Nigeria's Gas Flare Commercialization Program is essential for addressing methane emissions. This year, the Government of Nigeria issued 42 licenses to advance projects it estimates will capture over half of all gas flaring volumes in the country, a key milestone for the program and a critical step toward the country's climate and decarbonization commitments.

Power Africa and the U.S. Commercial Service invited ten U.S. companies to showcase their innovative solutions at the 2023 Enlit Africa conference in Cape Town, South Africa. Several firms inked deals with African private and public entities to improve access to clean energy technology, including solar, wind, and battery storage.





POWER AFRICA ANNUAL REPORT 2023 17



# PARTNERING FOR POWER:

PUBLIC-PRIVATE AGREEMENT BRINGS ELECTRICITY TO RURAL LIBERIA

Power Africa has long championed public-private partnerships (PPPs) as a way to advance energy sector development. In Liberia's Bong County, a <u>new and innovative PPP is lighting up rural homes, businesses, hospitals, and community centers.</u>



Over the past few years, Power Africa, through USAID's mission in Liberia, partnered with the Liberia Electricity Corporation to construct 77 kilometers of power lines and develop a PPP arrangement with a local energy firm to operate and manage the Bong County grid. This five-year partnership has already led to more than 500 new electricity connections and better service quality. Private sector participation in this deliberate approach can enable more efficient utility operations, reduce financial risk for governments, and improve user experience for families and businesses.





## SCALING E-MOBILITY IN EAST AFRICA

Read more here

Across sub-Saharan Africa, innovators, governments, and entrepreneurs are driving a transportation revolution. Electric vehicles hold the promise of cleaner, more affordable ways to travel and transport goods. Power Africa is advising funders on the exciting possibilities of e-mobility and helping these businesses meet investors' expectations.

East Africa is a hub for e-mobility innovation, with local companies creating business models that aim to fill gaps in transportation services without waiting for infrastructure and grid expansion to catch up. A few established companies have attracted large investments: Ampersand in **Rwanda obtained \$9** million in debt financing, and **Roam Electric** in Kenya received a \$10 million loan, both facilitated by Power Africa partner the **U.S. International Development** Finance Corporation. Such investments are likely to continue given e-mobility's potential to scale.

U.S. technology firms are deploying successful pilot projects and raising significant capital by focusing on specific aspects of the electric vehicle market. Collaboration between larger U.S. and global companies and African innovators will hasten electric vehicle adoption on the continent.

# EMPOWERING NIGERIA'S RENEWABLE ENERGY ENTREPRENEURS



In Nigeria, renewable energy entrepreneurs struggle to articulate the value of their business models, thus preventing them from securing investment to scale-up their ventures. Power Africa's <u>Investor Pitch Competition</u> has bridged this gap by empowering more than 60 off-grid companies with fundamental skills to present a clear and compelling value proposition to investors.

This six-week training takes participants through a mix of learning opportunities including lectures, coaching and mock investor pitches to develop skills, improve confidence, and prepare for investment pitches. Since inception in 2021, this initiative has raised \$9.9 million in capital.

In 2023, the competition featured a \$5,000 grant from Power Africa partner <u>All On</u> as prize money. Judges included representatives from Power Africa partners <u>Persistent Energy Capital</u> and <u>Rocky Mountain Institute</u>.



Watch the video here



# ADVANCING ANGOLA'S CLEAN ENERGY FUTURE

The Export-Import Bank of the United States (EXIM), a Power Africa partner, approved a direct loan of more than \$900 million for two solar power plants in Angola that will generate more than 500 MW of renewable energy. This project will enhance access to clean energy for Angolans, help the country meet its climate commitments, and support the export of U.S. solar technology. EXIM President Reta Jo Lewis emphasized the project's alignment with the Partnership for Global Infrastructure and Investment and its role in advancing EXIM's commitment to clean energy exports and supporting American jobs.

# COLLABORATING FOR ENERGY ADVANCEMENT

Key collaborations between Power Africa and the U.S. Department of Commerce's Commercial Law Development Program demonstrate our concerted efforts to enhance energy access and infrastructure in sub-Saharan Africa. In 2023, Power Africa hosted several workshops and trainings to advance transmission infrastructure, address financial modeling for energy projects, build public-private partnerships, and understand the contractual frameworks of power purchase agreements.

#### STRENGTHENING PARTNERSHIPS

Power Africa fortified our alliances with key global partners, underscoring a shared commitment to drive progress toward sustainable energy goals in sub-Saharan Africa. These agreements are milestones that deepen cooperation, expand energy access, and catalyze economic growth across the continent.



United Nations Development Programme South Africa became our 22nd Development Partner through a Memorandum of Understanding signed by Dr. Monde Muyangwa, USAID Assistant Administrator in the Bureau for Africa. This agreement supports South Africa's Just Energy Transition Implementation Plan, focusing on local skill development in renewable energy and empowerment of women and youth in the power sector.



Our refreshed partnership with the African Development Bank will propel clean energy and just energy transition initiatives.



We renewed our partnership with African Trade and Investment Development Insurance, providers of political and trade credit risk insurance products that are vital to doing business in Africa. Together, we will continue our commitment to developing 400 MW of new power generation.



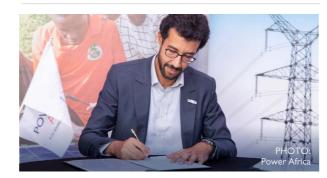
Power Africa welcomed **Rocky Mountain Institute** as a new partner through a memorandum of understanding to increase the successful implementation of locally led, distributed renewable energy projects by de-risking projects, supporting cost reductions, and facilitating access to finance for African renewable energy entrepreneurs and financial institutions across Power Africa's network.

The Republic of Korea renewed its green energy commitments in sub-Saharan Africa through a pledge to invest \$1 billion in power sector infrastructure, including 1,000 km of transmission lines by 2030.





We fortified our joint efforts with the **Government of** lapan to end energy poverty through development of an additional 500 km of transmission lines by 2030. Our renewed agreement draws on Japan's technical expertise in energy distribution and transmission.



Through a new agreement with long-time partner Africa 50, we will continue to drive financial inclusion a cross sub-Saharan Africa and facilitate cross-border trade of innovative clean technologies to promote a carbon-free future.

### **NEW PRIVATE SECTOR PARTNERS**

















### U.S. GOVERNMENT AGENCY PARTNERS

























### DEVELOPMENT PARTNERS















































### **NEW RESOURCES**

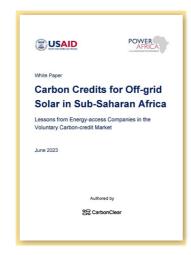


#### French edition of the Understanding Power Transmission Financing handbook

This handbook outlines options for accessing finance and creating opportunities for private participation in the development of transmission infrastructure to meet energy access and carbon reduction goals in sub-Saharan Africa.

White Paper: Carbon Credits for Off-grid Solar in Sub-Saharan Africa - Lessons from Energy-access Companies in the Voluntary Carbon-credit Market

Unlock the potential of carbon credits in off-grid solar ventures across sub-Saharan Africa. Discover effective strategies, explore real-world case studies, and learn how to navigate the challenges and opportunities in the voluntary carbon market.



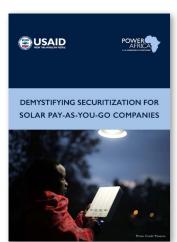


<u>Learning Paper: Helping Off-grid Companies</u> <u>Enhance Credit-risk Management Practices</u> <u>- From PAYGO 1.0 to PAYGO 2.0</u>

Dive into the evolution of credit-risk management in the renewable energy sector in Africa and discover key strategies for sustainable growth and investor appeal.

#### Financial Management Handbook for Off-grid Solar Companies -Lessons on Financial Management from Tailored Support

Master the art of financial management in the off-grid solar sector with our comprehensive handbook. Gain valuable lessons and strategies to enhance your company's sustainability and investment-readiness.





#### Demystifying Securitization for Off-grid Companies

Explore the world of off-balance-sheet securitization tailored for solar pay-as-you-go companies in sub-Saharan Africa with this informative paper. Unravel complex financial strategies, understand investor perspectives, and learn how to leverage these insights for business growth.





# 10<sup>TH</sup> ANNIVERSARY

**SPECIAL SECTION** 



The following is adapted from remarks delivered by USAID Administrator Samantha Power in June 2023 commemorating the

## 10<sup>TH</sup> ANNIVERSARY OF POWER AFRICA

most remote communities.

In a way, this commitment stems from our own history. In the Because of these efforts, health care workers are using 1930s – when about one in ten farms in the United States had access to electricity — our government created a new agency called the Rural Electrification Administration, the REA. The REA set out on a mission to bring electricity to rural America – town by town, business by business, home by home.

One day, the REA received a letter from a woman who was over a hundred years old. The REA had just extended electricity to her community. In all of her life, she wrote in this letter, she'd never felt like she'd been born too soon – until then. Until the power came on.

Now, she said, she wished she could get to see all the incredible our country. progress that electrification would unleash in her community how it would transform the way people connected with one And this hasn't come at the cost of pollution. In fact, in the another, how they treated each other when they were sick, past year alone, Power Africa has helped avoid almost cooled down in the heat, learned new information, grew and 8 million tons of carbon dioxide emissions. That's the stored and cooked food. She wanted to be there to see how equivalent to taking close to almost two million cars off the everything would change. But she knew she likely didn't have road for a year. Together, we've proven that we can extend many years left.

For her, the lights came on too late.

Still today, six hundred million people in sub-Saharan Africa - roughly half the population lack access to electricity. This population is among the youngest in the entire world – full of potential, full of creativity and ingenuity, ready to use electricity to power businesses, and pioneer new technologies, and improve livelihoods. For them, it is not too late – but only if we act fast. Indeed, faster.

When Power Africa launched a decade ago, many people argued – in fact, some today still argue – that in order to act fast, we needed to use the same technologies that we used to electrify the United States back in the 1930s: burning coal and other fossil fuels that we have since learned pollute our air the climate on the planet itself.

Power Africa set out to prove that cynicism wrong. And boy has it. We helped **connect green tech companies** and investors with leaders in African governments who had the determination and foresight to try a different approach. Together, we helped build a stronger, greener, more reliable energy grid through new solar stations, geothermal projects, and wind farms that stretch for kilometers.

**Ten years ago, President Barack Obama traveled** At the same time, we invested in the many African innovators to Cape Town, South Africa, to announce Power Africa, and entrepreneurs who are developing off-grid clean energy a new partnership to help bring an end to energy poverty in solutions – so that even communities for whom connection to sub-Saharan Africa and to extend green electricity to even the the grid remains inaccessible or unaffordable, can still get the power they need.

> refrigerators to store life-saving vaccines, computers to log health data, lights to illuminate surgeries that were once done by candlelight.

Farmers are using water pumps to keep crops alive when the rains don't come. Kids are continuing to read after the sun sets.

All told, Power Africa has helped deliver new or improved electricity to nearly 200 million people living and working in sub-Saharan Africa. That's more people than lived in the entire United States at the time when our own Rural Electrification Administration brought power across

power across the planet without harming the planet in

And now, we need to build on that momentum. Because the simple fact is that we're going to need to move faster to reach the true scale of what we need.

Government leaders need to keep taking down the regulatory obstacles and barriers to investment that are still slowing down new energy projects in many nations. And governments and investors from more developed nations – whose prosperity, we cannot forget, has been fueled in part by the dirty energy that we have used for decades - need to increase our investments in Africa's clean energy future.

Together, we'll build mass clean power generation projects and kilometers of transmission lines to get power to more people. harming the health of the people who breathe it, and changing And at the same time, we will work with local partners to find and invest in the smaller solar-powered systems that can be transformative for small- and medium-sized businesses. Those businesses can include solar water pumps or grain mills – so that electricity can improve livelihoods, generate economic growth, and boost resilience even beyond the grid.

> Across the continent, we're going to keep expanding our partnerships, learning from what hasn't worked, and building on what has.



# **RESIDENT OBAMA LAUNCHES POWER AFRICA**

2013

"A light where there is currently darkness; the energy needed to lift people out of poverty — that's what opportunity looks like."

- President Barack Obama, June 30, 2013



#### **TURNING LIGHTS ON IN COMMUNITIES BEYOND THE GRID**

Through Power Africa's Beyond the Grid initiative, families in remote areas have access to electricity for the first time. In addition to supplying affordable solar home systems that are lighting up thousands of households, off-grid solar companies train and employ sales agents and installation technicians, generating thousands of clean energy jobs across the continent.



#### 2015 **LIFE-CHANGING POWER**

Lucy Sakuda, her husband, and their seven children live in rural Kenya, 24 kilometers from the nearest power source. Simply charging their phones required a day's journey. Lucy's life transformed significantly after acquiring a solar home system. Her children can now study at night, and she no longer relies on kerosene lamps for cooking and lighting, which previously caused health issues due to smoke and chemicals.



2016

#### **EMPOWERING AFRICA'S FUTURE**

Built in the shape of the African continent, this utility scale solar farm is situated on land owned by Agahozo-Shalom Youth Village, a place of safety that supports vulnerable children.

Rwanda's Gigawatt Global Solar Field provides desperately needed clean electricity to the country's grid, while at the same time supporting students with solar power trainings. By leasing land for the solar facility, the Youth Village sustains its work and generates local employment.

# Sameer Halai for Power Africa



#### **ADVANCING CLEAN ENERGY IN SOUTH AFRICA**

The Karusa Wind Farm, developed by Power Africa partner Enel Green Power, pushes 147 MW of renewable energy into South Africa's electricity grid. Another partner, Vestas, manufactures the turbines for the project, the largest on the African continent. Israel Thothela, Plant Operations and Maintenance Manager, sees South Africa's clean energy transition as a way to alleviate poverty and create jobs, particularly in communities around power plants.

### 2023

#### HARNESSING ENERGY FOR PRODUCTIVE USE

Power Africa prioritizes productive uses of energy – such as powered devices that can be used in commerce, industry, and agriculture – as a pillar of our electrification initiatives. Solar-powered agricultural tools are empowering farming communities and improving livelihoods across the continent. Beatrice Deia from Nimba County, Liberia, displays part of her recent rice crop yield.



### 2013-2023

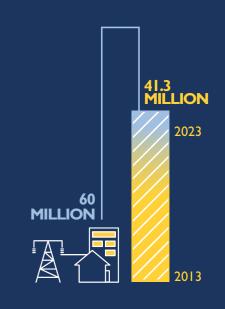
#### **INVESTING IN AFRICA'S POTENTIAL**

Catalyzing U.S. government and partner investments over the past ten years, Power Africa has leveraged nearly \$26 billion for 152 power projects across the continent for 14,300 megawatts of new electricity.

# **OUR PROGRESS**

Power Africa's goals include adding 30,000 MW of cleaner and more reliable electricity generation capacity and 60 million new energy connections for home and businesses.

14,300 MW\* 2023 30,000 MW Cumulative data through September 2023



# POWER AFRICA **MILESTONES**





2015 -2016

#### **Electrify Africa Act**

This bipartisan legislation passed both houses of Congress unanimously and became law in early 2016, institutionalizing Power Africa through legislation and signaling that expanding electricity access in sub-Saharan Africa is a long-term foreign policy priority of the U.S. government.

### Senegal's First Utility-Scale Wind Project 2019

The Power Africa-supported Taiba N'Diaye Wind Farm (159 MW) is helping Senegal meet its electrification goals and improving the livelihoods of local residents and their communities.

#### West Africa's First Solar-Hydro Hybrid Plant

Power Africa assistance helped to operationalize the first 50 MW of the 250 MW Bui Power Authority solar-hydro hybrid project, which doubled Ghana's grid-connected solar energy and is expected to cut greenhouse gas emissions by more than 47,000 tons per year.

### Stronger Utilities and Smarter Grids in Nigeria 2016 Power Africa technical assistance to four electricity distribution companies resulted in more

than \$160 million in additional revenue collection to strengthen the utilities and the sector. Power Africa is supporting national efforts to install 6.5 million smart meters to reduce energy consumption and enable better grid management.

#### **Angola's First Connected Power System**

Power Africa and African Development Bank are partnering with the Government of Angola to build critical transmission infrastructure that will improve access to electricity, strengthen the financial viability of the power sector, and connect Angola to regional markets.

-2024





sector and to assess power loads for hospitals, clinics, and critical care facilities. Ongoing investment in transmission infrastructure and modernization of distribution utilities helped African partners keep medical facilities, homes, and essential services electrified.

**Improving Livelihoods through Clean Energy** 

Power Africa sees renewable energy as the most promising approach to meet the energy needs of people who live beyond the reach of national grids. Power Africa prioritizes productive uses of energy as a pillar of our electrification initiatives.

### South Africa's Renewable Energy Future

In 2017, Power Africa provided financial and legal advisory support to unlock more than 2,300 MW of wind and solar potential through the Renewable Energy Independent Power Producer Program. These projects represent \$5 billion in investment that will create 61,000 jobs. Today, Power Africa is supporting the Just Energy Transition Partnership to facilitate a just energy transition that promotes equitable social and economic benefits of a renewable energy future.

#### **Ethiopia's First Competitively Procured Independent Power Producer**

2018

2021

2021

The 100 MW Metehara Solar project is Ethiopia's first competitively procured solar photovoltaic project. Power Africa provided advisory services for the procurement and development of the Metehara project, as well as funding for the development of the Power Purchase Agreement.

#### **Ethiopia's First Geothermal Lawand Private Public Partnership Geothermal Power Project**

The Corbetti Geothermal (570 MW) power project is the country's first privately financed, large-scale power project to harness geothermal resources developed under an independent power producer model. Power Africa assisted with the development of new laws and regulations to facilitate independent power producer investments, and advocated for strong and transparent regulatory frameworks.

#### **Uganda's First Regulatory Framework for Mini-Grids**

Power Africa and the Uganda Solar Energy Association identified nearly 700 sites that are better served by mini-grids than grid infrastructure expansion. The regulation will guide private sector investment and capitalize nearly \$200 million in funding from the European Union, a Power Africa partner.

#### **Largest Wind Farm in Africa**

Power Africa facilitated \$250 million in financing the Lake Turkana Wind Power Project (310 MW), provided technical assistance to modernize grid infrastructure to handle renewable energy, and supported a partial risk guarantee for the associated transmission line.

#### Second-Largest Wind Farm in Kenya

The Kipeto Wind Farm (100 MW) is comprised of 60 wind turbines supplied by Power Africa partner General Electric. Our technical, legal, and transaction advisory included grid modernization, a \$230 million debt facility, and critical wildlife studies that will benefit future wind power projects.

#### Malawi's First Competitively **Solicited Renewable Energy Projects**

Salima Solar (60 MW) provides clean electricity to help combat energy poverty. Golomoti Solar (20 MW) is the first of its scale in Southern Africa to include a battery energy storage system, delivering reliable, renewable electricity and strengthening the national grid. Power Africa provided transaction advisory services to integrate battery energy storage system functionality into the project's financial model. Power Africa developed a bankable financial model and assisted with optimizing Golomoti's storage capacities and the revenue structure of storage versus direct sales.

> Since 2013, Power Africa has delivered on-the-ground technical assistance in 42 countries

#### **Launch of Women in African Power**

Launched at the 2015 Africa World Economic Forum. Women in African Power Power provided established and emerging women leaders with a platform for networking, information exchange, and professional mentorship, and continues to provide African-based women's networks with organizational sustainability coaching.

One of the largest Global Development Alliances in USAID history, launched in 2022. Convened by Power Africa and USAID's global health program, the <u>Health Electrification and</u> Telecommunications Alliance leverages more than \$150 million to power and digitally connect 10,000

health facilities across sub-Saharan Africa.

Power Africa redirected funds to bolster the off-grid energy

# 2017 -2030

#### **COVER IMAGE CLOCKWISE FROM TOP LEFT:**

Fatmata Bayoh is a nurse at the Rogbere Community Health Center, one of 26 off-grid health facilities electrified through the USAID HealthGrid activity in Sierra Leone.

(See story on page 6)

Photo: Tolu Jethro Bade, Envizage Concepts for Power Africa

Asanda Mkhize facilitates a hands-on renewable energy skills development program for women pursuing clean energy careers. In collaboration with technical and vocational colleges, Power Africa supported 25 students in this extended program that includes internships. (See story on page 14) Photo: Power Africa

Abraham Vahn adjusts the solar-powered light on his fishing boat. He can afford this critical safety equipment thanks to a Power Africa grant that helped local off-grid energy companies make their products more available to people and entrepreneurs living beyond the grid. (See story on page 4) Photo: Fraser Schenck for Power Africa

Floating solar panels at West Africa's first solar-hydro hybrid power plant provide complementary electricity to a hydropower plant operated by Ghana's Bui Power Authority. Power Africa support helped to operationalize the first 50 MW phase of this 250 MW project. (See story on our blog) Photo: Power Africa

A U.S. government-led partnership, Power Africa harnesses the collective resources of the public and private sectors to double access to electricity in sub-Saharan Africa.

Follow our progress at usaid.gov/powerafrica

Subscribe to our newsletter and stay up to date.











