



Powering and Connecting Health in Africa

First Annual Report of the Health Electrification and Telecommunications Alliance

2022–2023



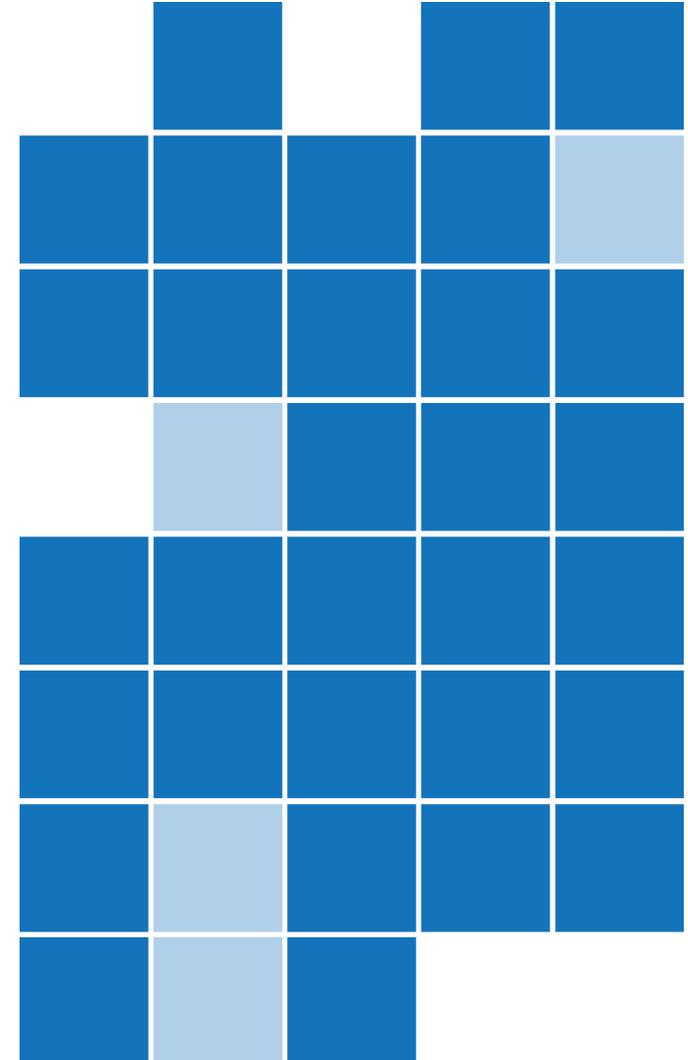
USAID
FROM THE AMERICAN PEOPLE





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HETA: AN OVERVIEW

In sub-Saharan Africa, some 100,000 health facilities lack access to reliable electricity. This threatens lives, causes equipment malfunctions, and limits internet connectivity for critical data and digital recordkeeping. Unfortunately, funding to meet the need has been sorely lacking, especially for ongoing maintenance of health electrification equipment after it is installed.

The Health Electrification and Telecommunications Alliance (HETA) is a USAID Global Development Alliance and Power Africa's flagship initiative to address these challenges. Our goal is to support 10,000 facilities with new or improved access to reliable electricity and digital connectivity—powered by renewables.

HETA's work is driven by a vision of resilience that sees energy access as essential infrastructure for strong health systems and healthy communities across sub-Saharan Africa.



HETA has three overarching goals:



Increase public, private, and social sector partnerships to implement health facility electrification and digital connectivity



Grow the quantity and diversity of resources, especially funding, for health facility electrification and digital connectivity



Design inclusive and sustainable business models to ensure operations and maintenance (O&M)—a longstanding challenge for renewable energy in the health sector

Our vision also looks beyond HETA's first five years, seeking to create the governance structures and funding base for an independent organization that can continue supporting energy access and digital inclusion for the health sector well into the future.



GOALS OF THE ALLIANCE

Health Electrification
and Telecommunications
Alliance (HETA)



VISION	MISSION	GOAL	PRIORITIES
<p>Resilient health systems powered by renewable energy in Africa</p>	<p>Create durable partnerships and business models for sustainable health facility electrification and digital connectivity</p>	<p>Reach 10,000 health facilities across the region in five years</p>	<p>Sustainability: Moving beyond traditional procurement models</p> <p>Scale: Mobilizing significant private capital and other co-funding</p>



REFLECTING ON HETA'S FIRST YEAR

HETA moved fast in our first 12 months and learned a lot along the way. We forged connections with more than 20 global and country partners, mobilizing leverage funds and expertise that are amplifying USAID's investment in HETA. This enabled us to deliver renewable energy and digital connectivity solutions for more than 200 health facilities in our first fiscal year.

The alliance is a White House-supported initiative and a USAID deliverable under the Partnership for Global Infrastructure and Investment (PGI). HETA formally launched at the 27th United Nations of the U.S.-Africa Leaders Summit. Our work is intersectional, standing at the nexus of energy access, health system resilience, and just climate transitions. Our approaches emphasize country priorities and private sector-led solutions for power and connectivity, customized for each health facility.

HETA is unique among Power Africa programs in our scope—10,000 health facilities—and in our close ties to global health priorities. This lets us tap into a diverse network of co-funders, implementing partners, thought leaders, and constituents from the public and private sectors—including USAID champions from many parts of the Agency. We're proud of our progress so far and we're delighted to shine a spotlight on a few of our partners in this report.

An annual report is a snapshot taken at one moment in time—in this case, where we were on September 30, 2023. As you read this, work is well underway for HETA's second year. We are deepening partner engagement, diversifying funding and other resources for our work, and empowering our partners to deliver at the highest levels of quality, scale and sustainability, with a focus on greater inclusion of youth and women. We look forward to sharing our results, scaling up proofs of concept, and solidifying our approaches to sustainable, market-driven innovations that deliver reliable, renewable energy and digital connectivity for health facilities across the region.



Joan Chahenza
HETA Project Director
Abt Global



Gina Cady
Technical Advisor for Health
Electrification
Power Africa



HETA BY THE NUMBERS

October 7, 2022 – September 30, 2023



USAID-funded programs in DRC, Eswatini, and Tanzania, plus a stand-alone HETA grant in Nigeria

Planning and partnership development in Guinea, Kenya, Malawi, Mozambique, Sierra Leone, Uganda, and Zambia

26 PARTNERS 

formalized through MOUs, grants, and other collaboration mechanisms

227 

HEALTH FACILITIES

with new or improved access to electricity and digital connectivity

\$10.7M 

LEVERAGE DOLLARS

committed, with \$803,000 mobilized as of September 30, 2023

1.9M 

PEOPLE

with access to HETA-supported facilities



October 7, 2022 – September 30, 2023

YEAR IN REVIEW





LAUNCHING AN ALLIANCE FOR HEALTH ELECTRIFICATION

HETA launched just a few weeks ahead of COP27 – the 27th United Nations Climate Conference. On November 12, 2022, leaders from Power Africa, Abt Global, bechtel.org, and other supporters were in Sharm El-Sheikh, Egypt, to introduce the alliance and commit to collective action toward HETA's goals.

As one of USAID's largest-ever Global Development Alliances, HETA's ambition is to unlock funding and build coalitions to ensure that health facilities across sub-Saharan Africa gain or improve their access to energy and digital connectivity—powered by renewable energy.

HETA is a priority for the U.S.-Africa Partnership, reflecting the intersectionality of our work at the nexus of health, energy, and climate change. Specifically, this alliance is designed to amplify the U.S. government's \$47 million investment by mobilizing at least \$100 million in investment and co-funding from the public, private, and social sectors to install reliable, renewable power and provide mobile network or internet access for 10,000 health facilities in Africa.

Abt is the lead integrator for HETA, with founding partners RESOLVE, bechtel.org (Bechtel's social enterprise), Orange, and a growing alliance of partners in the health, energy, and telecommunications sectors. These partners are the beating heart of HETA's work—delivering funds, equipment, technical assistance, and in-kind resources to design, install, and sustainably operate and maintain renewable energy systems for healthcare, linked to mobile or internet networks. They helped HETA initiate activities in 10 countries in our first year.



RESOLVE

bechtel.org





HETA's Theory of Change



COVID-19 emphasized the human cost of health electrification gaps, catalyzing rapid action. Long-standing challenges remained, however, especially in how to ensure sustained funding for operation and maintenance (O&M) of the energy systems, particularly where health system resources are already stretched thin. Meanwhile, a vibrant renewable energy sector in Africa and globally offers the promise of lasting change.

Our theory of change is inspired by these realities. Reliable electricity is crucial not only for essential health services, but also for ensuring we have the data and internet-enabled communication flows to prepare for and respond to new epidemics and climate-related changes in disease patterns—or even to prevent future pandemics.

Across sub-Saharan Africa, HETA looks to unlock significant funding and partnership networks that will transform these realities for thousands of health facilities and the communities they serve.



If HETA ...

- Develops multisectoral partnerships for HFE
- Mobilizes financing
- Co-creates and supports viable, inclusive business models for renewable energy



then ...

- Health facilities will have sustained, reliable access to clean energy and increased digital connectivity



then ...

- Health service delivery will be improved and greenhouse gas emissions will be reduced or avoided



and HETA will contribute to ...

- Improved health impact
- Sustained energy access



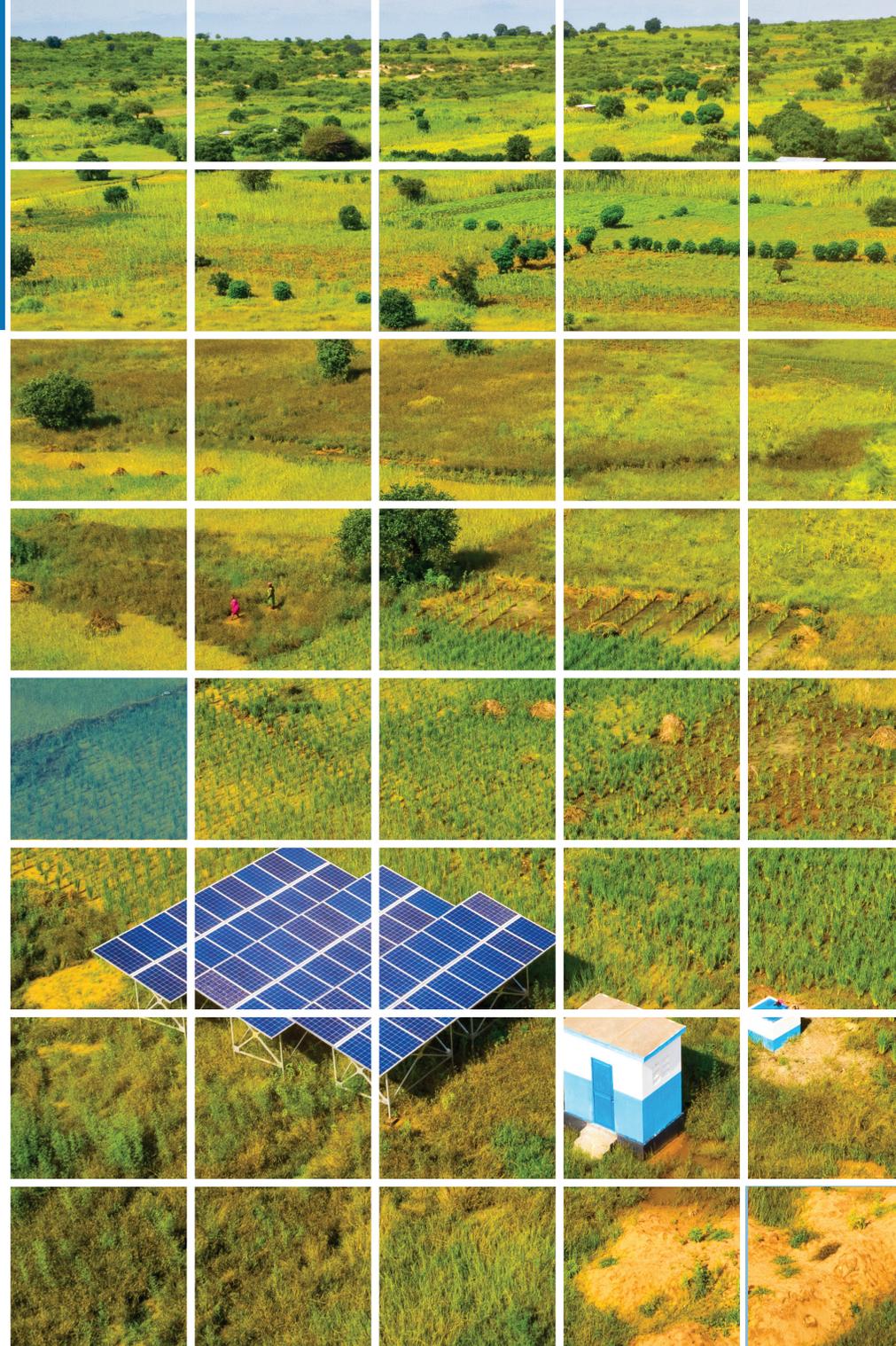
Unlocking Innovation

Achieving our vision at the speed required to reach HETA's 10,000-facility target requires a nimble approach. In February 2023, we issued an open call for concepts, seeking partners with market-based solutions for health electrification and connectivity—linked to O&M sustainability plans and revenue- or income-generating potential for health facilities and communities. We also sought concepts with the potential to benefit women's and youth participation in energy and telecommunications, two sectors where they are consistently underrepresented.

By September 30, 2023, HETA had received 34 concept notes, engaged 15 partners in co-creation activities to solidify the concepts, and awarded grants to the following partners:

- Maisha Meds and ZOLA Electric in Tanzania
- PIND Foundation in Nigeria's Niger Delta region
- The Luke Commission in Eswatini
- OffGridBox in Democratic Republic of the Congo

As the country highlights throughout this report show, our work with these and other partners is already having a measurable impact on health service delivery.





Engaging a Global Community

In our first year, in addition to launching country programs, we made it a priority to engage with other thought leaders. We partnered with Sustainable Energy for All (SEforALL) and the World Health Organization’s Health and Energy Platform of Action to convene roundtables with global health and climate finance actors. We also attended regional convenings such as Solar Power Africa, the Africa Energy Forum, and the Africa Climate Summit.



These mutually beneficial partnerships advance shared priority areas, including sustainable energy, health systems, ... digital connectivity, infrastructure, and finance.

— White House Fact Sheet: Biden-Harris Administration Delivers on Major Trade and Investment Deals Following the 2022 U.S.-Africa Leaders Summit, July 2023

ESIAFRICA
NEWS | KNOWLEDGE | POWER

LEADING SOUTH AFRICA'S NEW ERA OF ENERGY
With world record gas power technology

Capturing the hydrogen market

Energy in healthcare services

SCAN ME

How solar power can improve healthcare

As the COVID-19 pandemic hit, USAID was initially asked to help distribute ventilators and vaccines worldwide, to which they immediately replied: "But is there electricity for that?" Examining the issue, they realised a problem, especially in Africa, of power access to keep the vaccines cold. However, unique localised solutions are finding their way into the system.

When distributing vaccines, UNICEF estimates that 20% will go bad because there is no cold storage. "Power Africa is US Government partnership led by USAID, estimates that health programmes spend an estimated amount of \$100 million to power basic health services and cold storage for vaccines," said Cassi Shobert, a Senior Advisor at Power Africa.

Shobert was speaking to a panel discussion at Solar Power Africa on 'How solar power can improve the health of millions of people in Africa why Power Africa and USAID have joined forces with their health offices around energy. "It's our biggest intervention in Africa – our health offices work on malaria, TB, HIV/AIDS programmes and other, but the programmes don't pay attention to their energy profile."

"Our health programmes live on data, and we've had that everything stops when they're offline," he explained. USAID's Healthcare Electrification and Telecommunications Alliance (HETA) is all about "making the health system realise there are good solutions in energy," shared Shobert.

Opening up brand new markets HETA is exploring integration development of the various programmes USAID works on, and they are not the only ones. For example, at COP27 in Egypt, Ikea Foundation announced \$45 million for India's healthcare programmes. "We've got about \$1.5 billion from the private sector to electricity clinics in Africa. So good news is, there's a brand new market you might not have thought about. It's a big market with big needs," said Shobert.

So far, USAID through Power Africa has electrified nearly 2500 clinics across the continent, using grants to power clinics through energy as a service contracts. An off-grid developer bids for a two-year contract, using the clinic as an anchor client while looking for new off-takers to buy the excess power. The agency is trying out a variety of business models depending on the energy needs of the clinic and the potential for more off-takers in the area.

Using remote monitoring provides insight into power usage at the clinics, which can now track how much electricity the various donated equipment uses. "We don't talk about donating the [energy] equipment to the clinic because the clinic manager cannot handle that [data responsibility]. There has to be an energy operator close by to deal with it," explained Shobert.

Larger hospitals with a bigger energy footprint can sometimes have a multitude of equipment and generators supported by various entities, but "the idea is now to rationalise the power and make it greener".

Juan Chabarro, a HETA energy expert, says they are actively investigating the energy as a service model and moving away from traditional donor-resourced solar with no maintenance plan. "Long-term sustainability is the emphasis in the room – balancing the concerns of all partners, so healthcare workers aren't left with the responsibility of the energy aspect, but not their core mandate. We need an energy service company sharing on long-term, not it's not just about installation," she explained.

Thus, HETA is co-designing models for the private sector. "We want to take problems onboard and co-develop different business models to address different concerns. Chabarro adds it is important to note that interventions for for one to three businesses offer significantly more than for larger hospitals with a huge capital investment. For lower for freestanding facilities, the interventions HETA is looking at include evening solar PV projects and using excess electricity to encourage productive use of energy facilities and equipment in local communities.

For larger facilities, for four and upwards, that need 10 to 24 hours of power a day. "We have to think about how to bring in private sector capital. What is critical is risk mitigation measures," said Chabarro. HETA is in dialogue with the Multilateral Investment Guarantee Agency of the World Bank Group (MIGA) as a framework to meet the private sector would not have to directly take on public sector money to make the projects bankable.

PHAs will be key to setting up larger infrastructure projects and there are business models that set up an autonomous agency that then pays the



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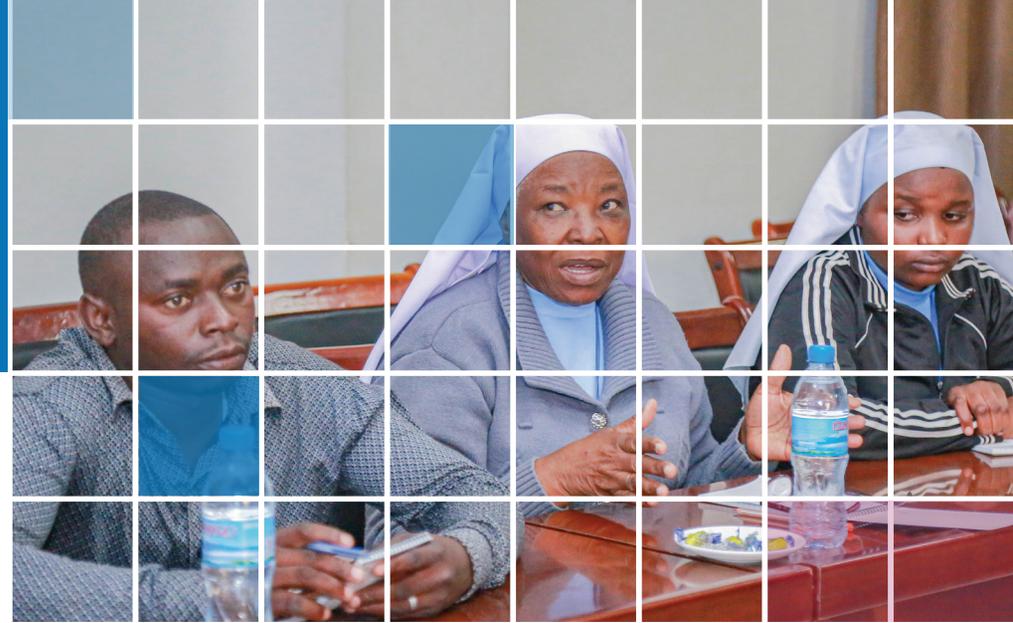
PARTNER SPOTLIGHT

bechtel.org

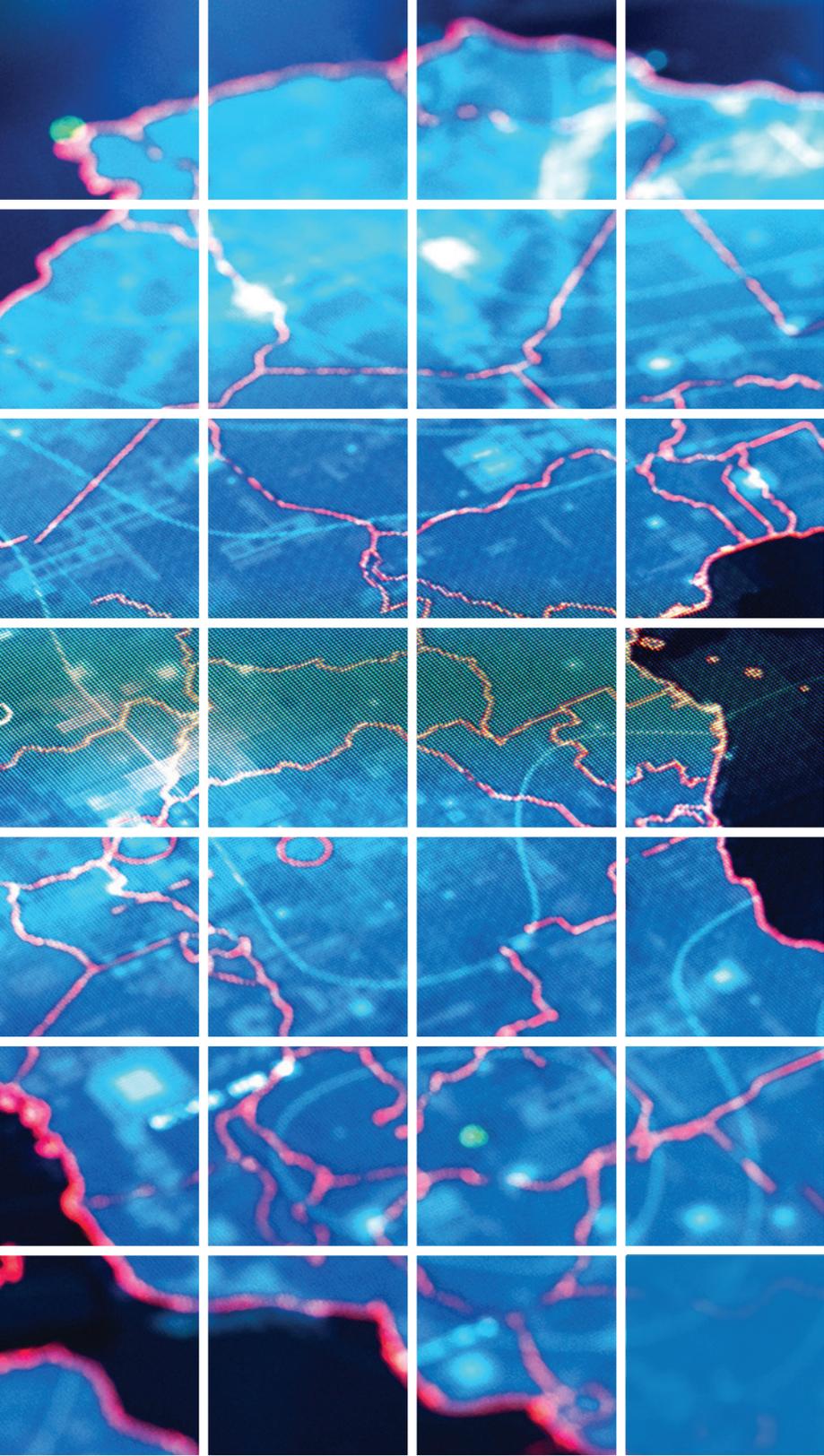
Bechtel is committed to building resilient and sustainable communities through infrastructure projects. Bechtel established bechtel.org in 2019 to improve the services infrastructure projects are intended to provide, such as health, education, and food security.

bechtel.org provides HETA with expertise in engineering, procurement, contract formation, and construction execution, including the development of quality assurance and health and safety programs. bechtel.org personnel also participate in collaborations and technical meetings with partners, industry experts, and host-country governments, and provide key perspectives as a member of the technical review team evaluating concept note submissions and other proposals, with about 40 installations underway as a result. bechtel.org also assists in the site selection process and helps prepare local teams and in-country partners for installation activities.

All these efforts focus on the sustainability of the overall systems, particularly the quality of components and installations, long-term O&M strategies, and revenue-generating or inclusive commercial models scalable to work across multiple countries, climates, and economic regions. bechtel.org also initiated and helped facilitate partnerships to support HETA in Tanzania, Nigeria, Eswatini, and Democratic Republic of the Congo.



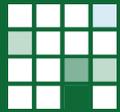
To solve the O&M challenge that has put so many installations and their intended impact at risk, bechtel.org has helped establish HETA's standards for quality and environmental safety and health, and our processes for installation and O&M.



October 7, 2022 – September 30, 2023

COUNTRY BY COUNTRY

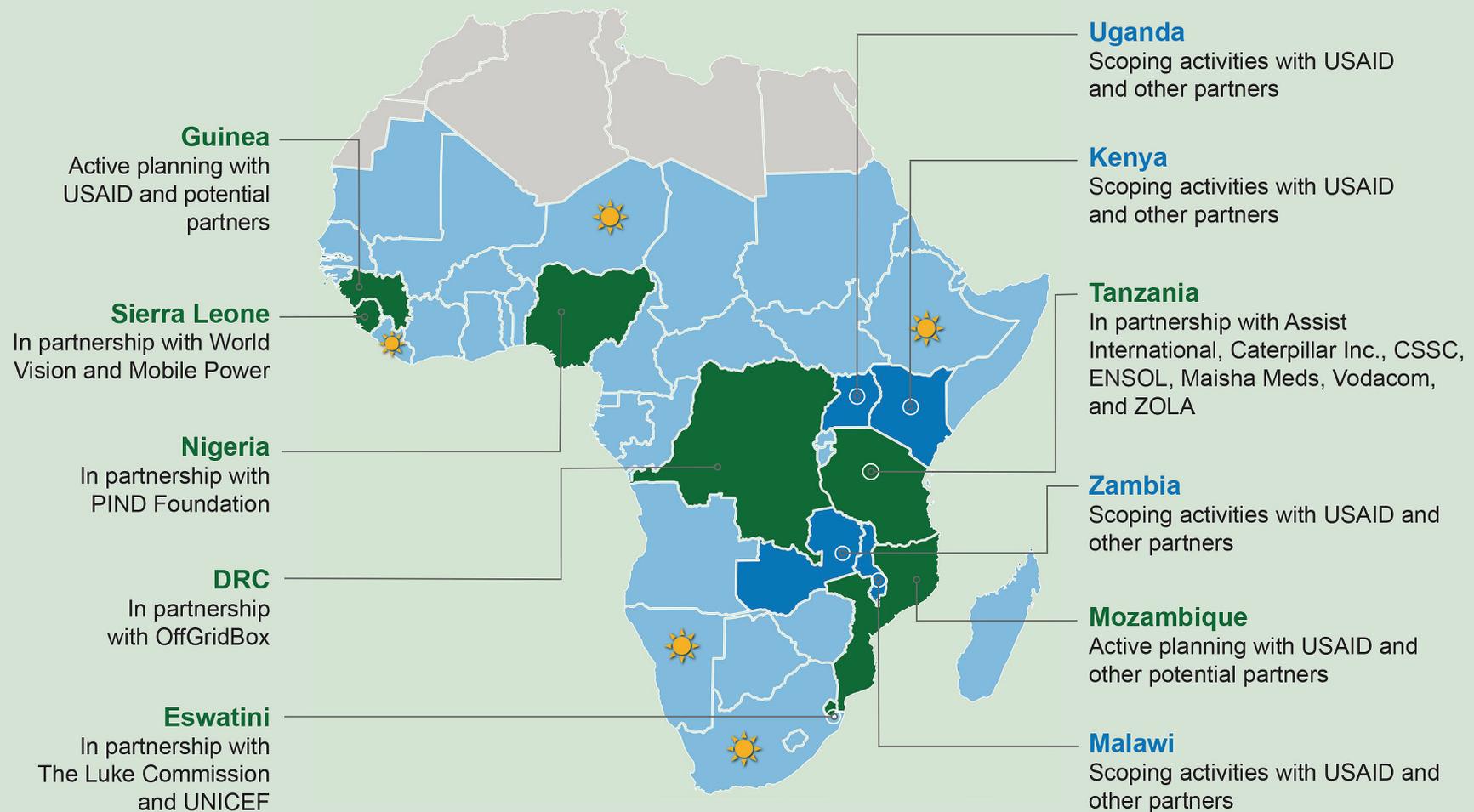


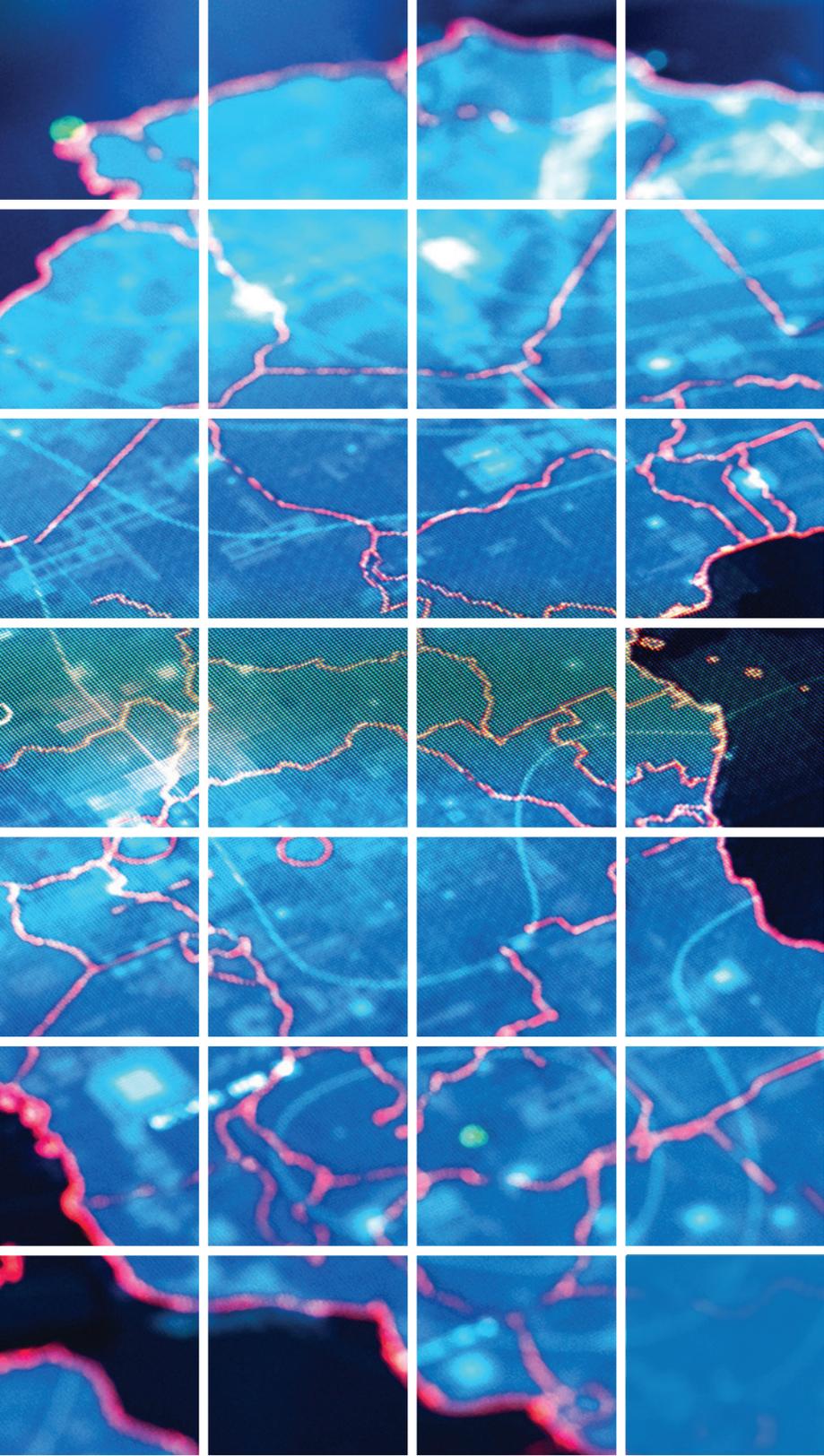


Country Progress

- Active HETA programs
- Planning phase
- Early interest

October 7, 2022 – September 30, 2023



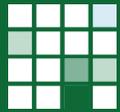


COUNTRY SNAPSHOT

As of September 30, 2023

TANZANIA





TANZANIA



HETA has been active in Tanzania since February 2023. Our work is optimizing USAID’s investments in the private health sector, complementing USAID’s PEPFAR funding and improving private healthcare providers’ ability to meet clients’ needs and support new service delivery models that make health services more convenient and comprehensive. With our partners, HETA is developing customized, locally led business models with built-in O&M plans so the energy and connectivity systems will continue supporting high-quality health service delivery and access to data well into the future. HETA will expand activities in subsequent years as we identify more needs and mobilize implementation resources.



USAID Mission Funding

We received **\$600,000 in co-funding** from USAID Tanzania (Office of Sustainable Development and Infrastructure budgets) for fiscal year 2023.



Facilities & People Reached

We reached **223 health facilities**, representing access to improved health services for the **1.9 million people in the facilities’ catchment areas**.



Local Partners & Leverage Resources

We formalized agreements with **7 partners** and mobilized **\$245,000 in leverage commitments**.



Project Highlights:

- Bundling Solar and Digital Solutions for Pharmacies
- Strategic Partnerships for Sustainable Health Electrification



Partner Spotlight:

- Maisha Meds
- ZOLA Electric
- Assist International

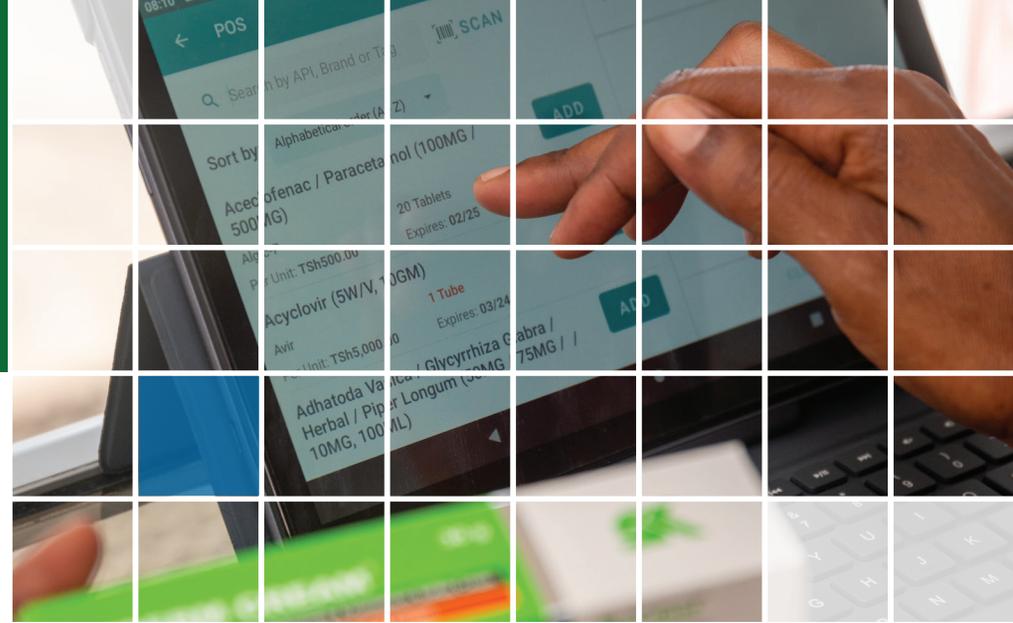


TANZANIA PROJECT HIGHLIGHT

Bundling Solar and Digital Solutions

HETA partnered with Maisha Meds and ZOLA Electric to expand energy access and digital solutions for rural and small-scale health facilities in Tanzania. ZOLA is an energy service provider specializing in solar home systems, which are perfectly sized to meet the energy needs of smaller pharmacies and drug shops. Maisha Meds sells a digital point-of-sale system, targeted at pharmacies and drug shops, to support improved stock management and financial recordkeeping.

Through these partners, HETA has rolled out a bundled solution to improve digital connectivity and energy access gaps at pharmacies and drug shops. HETA's grant partly subsidizes the cost of solar photovoltaic (solar PV) systems and digital connectivity devices, while ZOLA and Maisha Meds provide in-kind leverage contributions, and Maisha Meds trains health facility employees to use the software and conducts after-sale follow-up calls to offer technical support and ensure continued use of the system.

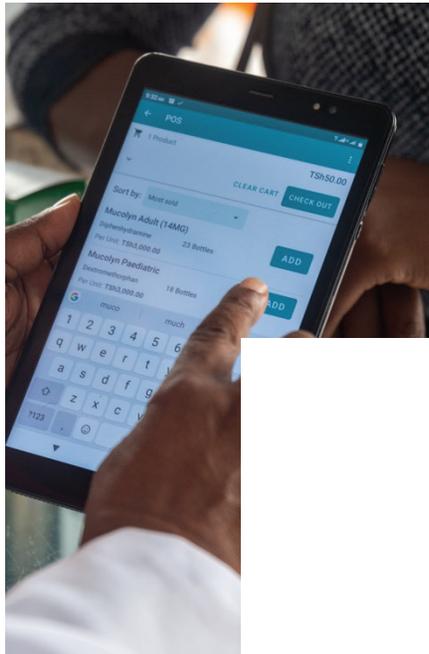
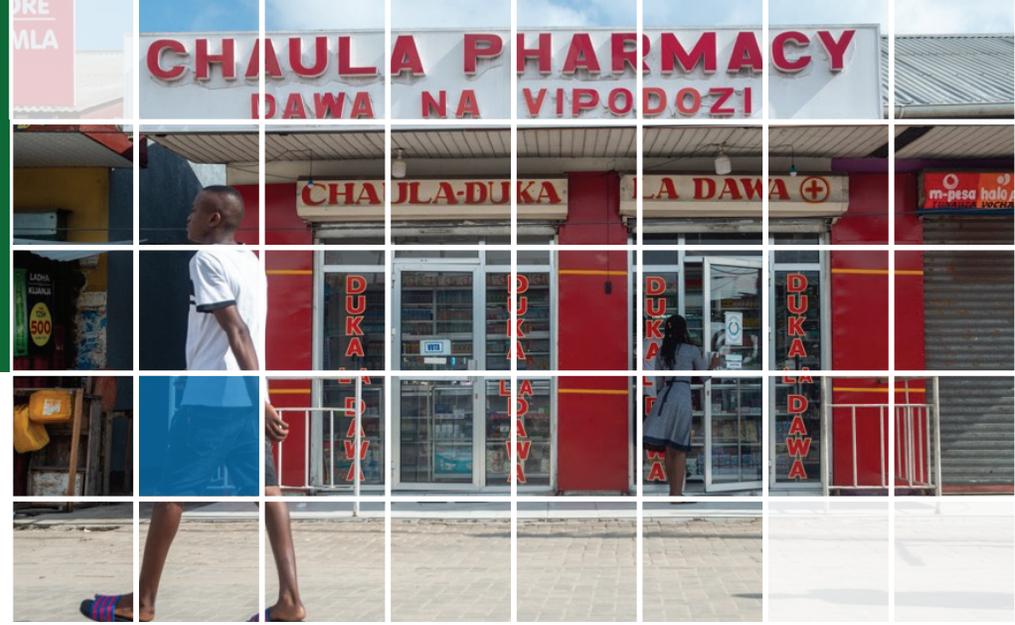


RESULTS

As of September 30, 2023, HETA had reached 223 facilities with solar PV and/or digital connectivity solutions. With a significant portion of pharmacies and drug shops owned or operated by women, our work directly supports women's economic empowerment through improved business operations and income, enabling them to stay open longer and provide more people with access to health commodities for malaria, HIV, and day-to-day healthcare needs. These HETA-supported health facilities have catchment areas with the potential to serve some 1.9 million people.



TANZANIA PROJECT HIGHLIGHT



Pharmacist Ella Chaula, owner of Chaula Pharmacy in Dar es Salaam, Tanzania, reports improved efficiency and ability to keep her business open as a result of HETA's support. She says that frequent electricity outages in Dar es Salaam had been a problem, but with the solar panel on her shop, she can stay open at night without worrying about power cuts. The ability to stay open during power outages, combined with time saved from the digitalization of her business management system, is increasing her sales while helping her offset the costs of electricity, saving her money to put back into her business.



TANZANIA PARTNER SPOTLIGHT

Maisha Meds

Founded in 2017, Maisha Meds has created the largest digital network of private pharmacies and clinics across Kenya, Nigeria, Uganda, and Tanzania through mobile software that delivers affordable care.

The Maisha Meds app has helped more than 2,800 businesses operate by making sales, managing inventory, and tracking clients; it also reimburses them for providing discounted care to clients for malaria, family planning, and HIV prevention.

Maisha Meds' work with HETA enables pharmacies to transition from pen and paper and digitize their operations—streamlining sales flow, payment tracking, and financial reporting. It also provides detailed information about stock levels and expiry dates, enhancing inventory management and waste prevention.

The system works both online and offline and periodically syncs data with a cloud-based server.



Together, our goal is to empower providers with the digital tools and connectivity they need to serve their patients. This includes installing energy hardware, such as solar panels and batteries, through a strategic partnership with ZOLA Electric, and providing the facilities with Maisha Meds tablets.

Maisha Meds' package includes training health facility staff to use the software after it is installed on a tablet, computer, or mobile phone. Through after-sale follow-up calls, Maisha Meds supports continuous use of the software and helps resolve any challenges that users might be experiencing.



TANZANIA PARTNER SPOTLIGHT

ZOLA

ZOLA Electric was born in and around the Serengeti in Tanzania in 2011, initially installing smart, connected devices (batteries and solar) that powered basic energy needs, such as lighting for rural communities. ZOLA's network combines the power of a family of products, all controlled by one operating system, VISION. Today, the network delivers reliable, affordable, and smart power to more than 2 million people and businesses across three continents.

With support from HETA, ZOLA aims to provide reliable energy access to about 300 accredited drug dispensing outlets, pharmacies, and smaller health facilities in Tanzania. The project involves a comprehensive sales approach, with Maisha Meds as the digital solutions partner, that includes partnerships with financial institutions and training sales agents and door-to-door sales and after-sales services.





TANZANIA PROJECT HIGHLIGHT

Strategic Partnerships for Sustainable Health Electrification

HETA has partnered with Christian Social Services Coalition (CSSC), Tanzania's largest faith-based network of private health facilities (965 in all, of which about one third lack reliable energy access) and a local energy service provider, ENSOL (Tanzania) LTD. The goal is to electrify an initial 24 health facilities in CSSC's network. This project involves dispensaries and health centers, with energy system sizes varying based on facility needs, typically from 2.2 kilowatt-peak (kWp) to 8.8 kWp.

Alliance member Caterpillar (through Assist International) is contributing leverage equivalent to \$40,000 for installation. HETA founding partner bechtel.org provides project management oversight for the installations. To ensure energy access improvements align with enhancements to digital connectivity, HETA is also working with Vodacom to conceptualize and deliver digital solutions.



Sustainability is a feature of HETA's partnerships. We are working with CSSC on a strategy to ensure long-term O&M services for HETA-supported facilities, including through the development of a new O&M Fund financed with contributions from CSSC facilities. And we are working with local engineering, procurement, and construction contractors, including ENSOL, and strengthening local capacity to carry out O&M activities at each facility.



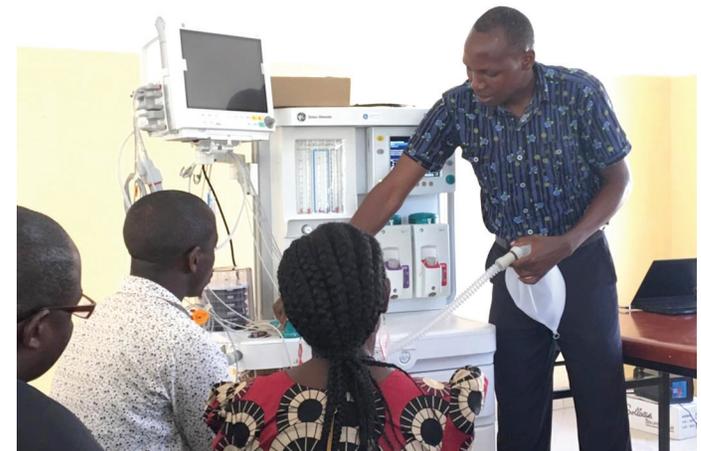
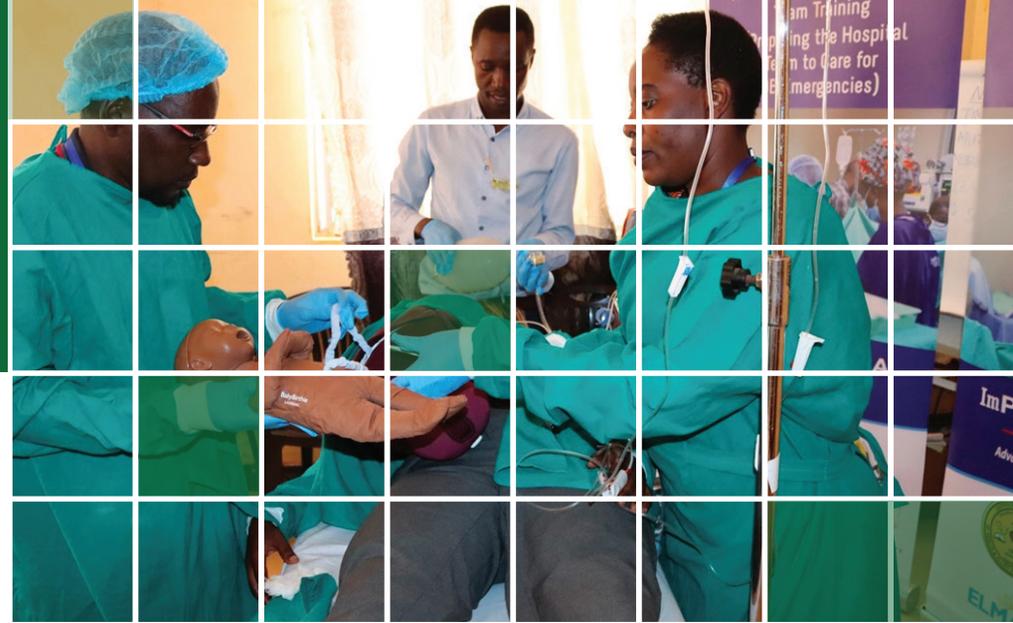
TANZANIA PARTNER SPOTLIGHT

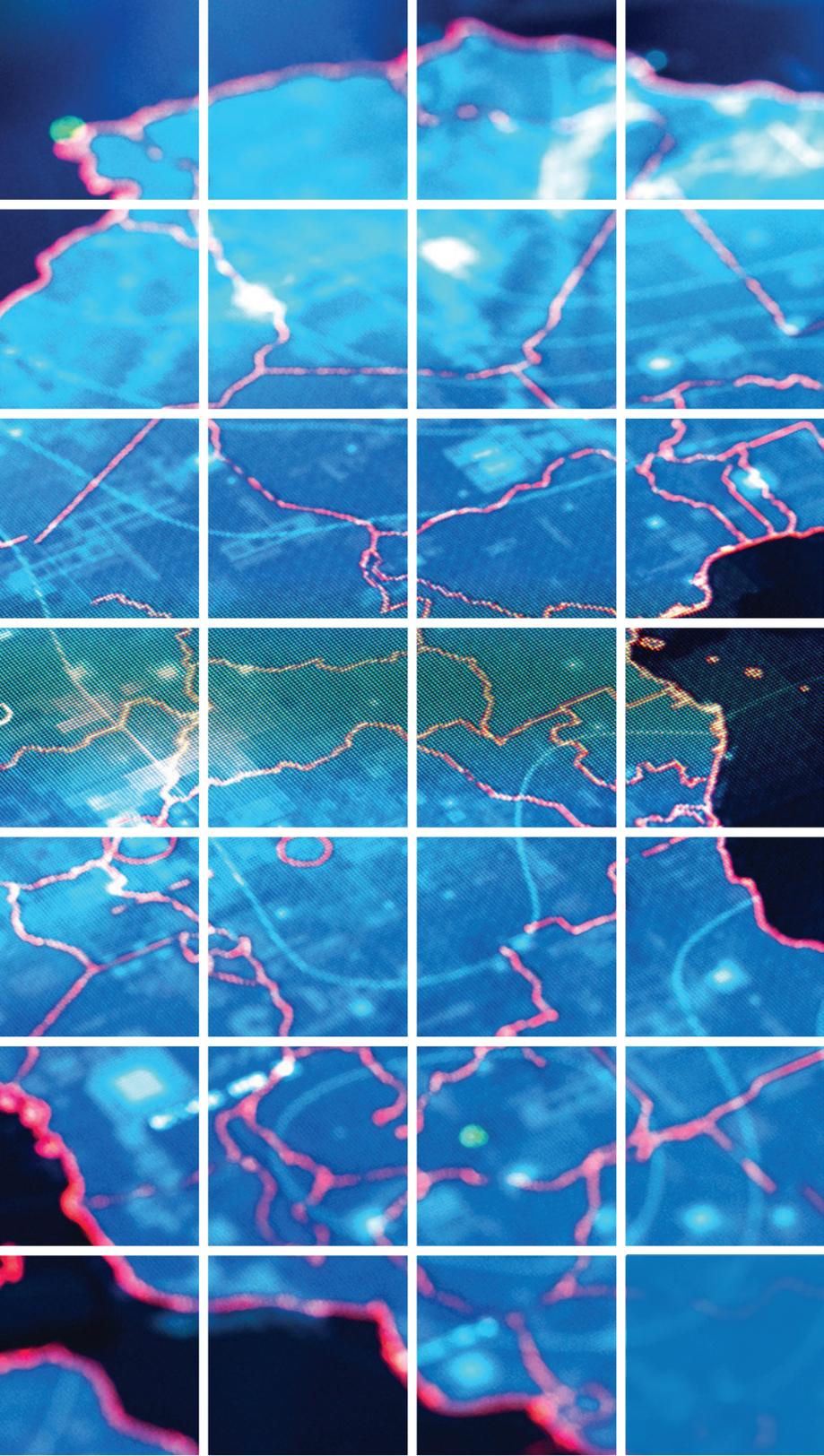


Assist International is a non-profit organization that partners with changemakers around the world to provide solutions that save lives and build resilient communities. Since its inception in 1990, Assist International has worked in 74 countries designing, managing, and implementing healthcare interventions as well as workforce development, renewable energy, and economic empowerment programs.

East Africa has been a primary focus for more than a decade, leading to deep roots and expertise across Ethiopia, Kenya, and Tanzania—exhibited through extensive medical oxygen programming, innovative health workforce development, biomedical engineering training programs, and, through HETA, electrification initiatives.

As a HETA partner in Tanzania (and potentially across sub-Saharan Africa), Assist International is partnering with Caterpillar Inc. to support health facility electrification, leveraging its record of success with infrastructure installation and health systems strengthening to ensure high-quality solar installations.

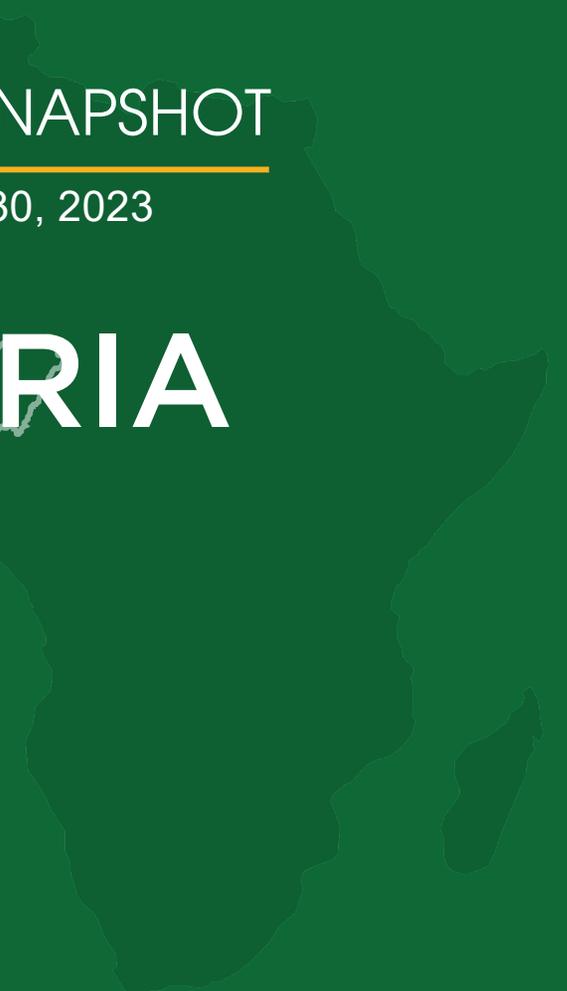




COUNTRY SNAPSHOT

As of September 30, 2023

NIGERIA

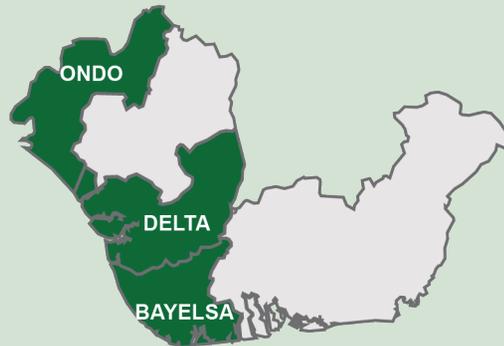




NIGERIA

Nigeria is a vibrant energy market and HETA used our call for concepts window to explore promising innovations. Through that process, we issued a stand-alone grant to PIND Foundation in July 2023 to electrify 12 facilities (4 of which were completed by September 30) in remote and last-mile communities of the Niger Delta region—amplifying the impact of PIND’s Access to Energy Project.

12 communities
in 3 states of
the Nigeria’s
Niger Delta
region



Project Highlight:

- Unlocking Off-Take for Healthcare and Productive Uses of Energy



USAID Mission Funding

We will conduct a scoping visit and co-creation workshop in early 2024 to determine a potential investment case for USAID mission co-funding.



Facilities & People Reached

We completed **4 health facilities**, representing **more than 14,000 people served** in the surrounding communities.



Local Partners & Leverage Resources

HETA has mobilized **\$435,000 in leverage resources** from PIND and local developers.



Partner Spotlight:

- PIND Foundation



NIGERIA PROJECT HIGHLIGHT

Unlocking Off-Take for Healthcare and Productive Uses of Energy

To boost access to energy for off-grid health facilities and support Nigeria's transition to renewable energy, HETA partnered with the Foundation for Partnership Initiatives in the Niger Delta (PIND). Together with PIND and their network of mini-grid developers, we are co-financing 20-foot containerized solar PV systems able to generate 15–20 kilowatts of electricity to power 12 remote and last-mile health centers and health posts.

The solution leverages the work of PIND's Access to Energy Project by establishing dedicated off-take arrangements that provide more affordable electricity for the health facilities. Electricity not used by the health facilities is available for commercial and industrial loads in the nearby communities. HETA's funding is matched two to one, with PIND and local developers funding two-thirds of the capital expenses for procurement and installation of the energy systems.



RESULTS

As of September 30, 2023, this project had electrified four health facilities and is on track to complete all 12 by the end of December. Our partnership provides sustainable, 24/7 access to electricity at subsidized costs, powering cold chain equipment and contributing to a range of results at the nexus of health service delivery, energy access, and climate mitigation:



Improved healthcare access for **14,000 people** in last-mile and coastal communities of the Niger Delta



Complementary electrical connections for **3,000 households and local businesses**



Reducing more than **2,000 tons of carbon emissions**



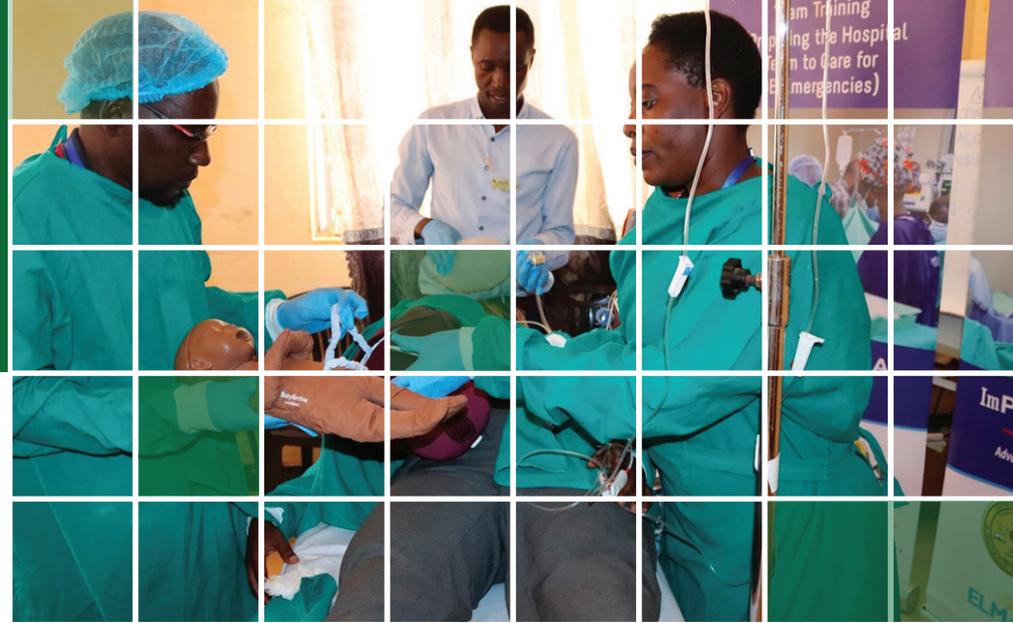
NIGERIA PARTNER SPOTLIGHT



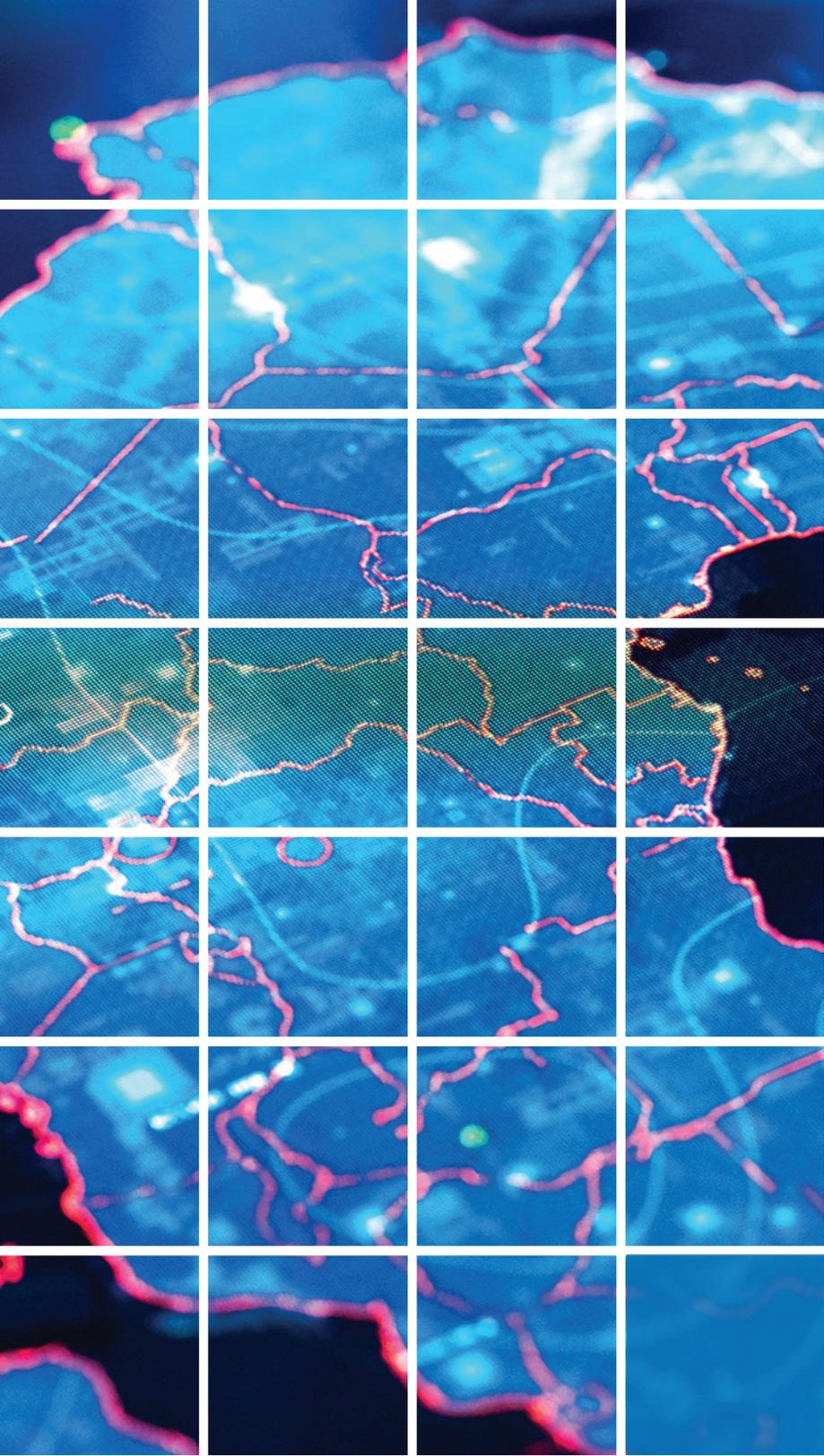
Established in 2010, the Foundation for Partnership Initiatives in the Niger Delta (PIND) is a non-profit organization that promotes peace and equitable economic growth in the Niger Delta region through strategic partnerships and collaborations.

HETA partnered with PIND for an initial six-month program, closing in December 2023, to deploy innovative power enterprise models that provide clean, sustainable electricity for 12 last-mile health facilities. The business model uses solar energy cabins that provide reliable, affordable solar power for health service delivery and for complementary business connections in the surrounding communities.

PIND works with local solar mini-grid developers and provides capacity strengthening support through the HETA funding. The private mini-grid companies operate and maintain the cabins through a commercial model in which non-healthcare customers pay service-reflective tariffs for electricity.



Each community intervention in this first phase is expected to benefit between 300 and 1,200 people accessing the local primary healthcare facility—giving thousands of people the potential to benefit from improved electrification in hard-to-reach coastal communities of the Niger Delta.

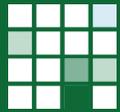


COUNTRY SNAPSHOT

As of September 30, 2023

ESWATINI





ESWATINI

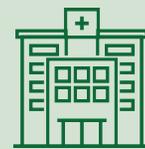


In Eswatini, the reliability of electricity is a concern despite a regionally high national electrification rate (85 percent, compared to 40 percent across Africa). This is because of frequent grid outages and heavy reliance on imported power from Eskom through the Southern African Power Pool. Solar energy solutions, coupled with battery backups and remote monitoring, can boost energy reliability for the health sector, while supporting the country’s broader goals for the transition to renewables. HETA has been active in Eswatini since February 2023, building on the successes of our partner, The Luke Commission, and their innovations in health electrification and remote monitoring of energy systems. We look forward to announcing several other exciting partnerships as we move into our second year.



USAID Mission Funding

We received **\$400,000** from USAID Southern Africa (Global Health Security and Diplomacy budgets).



Facilities & People Reached

We identified **32 health facilities** to be electrified in our second year. Data on catchment areas will be available in Year 2.



Local Partners & Leverage Resources

We formalized an agreement with **The Luke Commission** and mobilized **\$286,000 in leverage commitments**.



Project Highlight:

- Remote Monitoring for Context-Appropriate Energy Solutions



Partner Spotlight:

- The Luke Commission



ESWATINI

PROJECT HIGHLIGHT

Remote Monitoring for Context-Appropriate Energy Solutions

Eswatini has a robust grid network, but power outages and fluctuations affect health service delivery and can damage medical equipment. HETA has partnered with The Luke Commission, the Ministry of Health, and USAID to identify sites for containerized smart hubs. The hubs include rooftop solar panels that produce 30 to 40 kilowatt-hours (kWh) of electricity per day, along with 20 kWh batteries to support critical loads. When primary power goes out, these solar energy systems activate to power critical equipment at the health facility.

HETA also co-created an intervention with The Luke Commission to install 25 electricity usage data loggers in a sample of health facilities. The loggers provide valuable information about load profiles and downtime—a robust picture of the needs and performance of renewable energy systems that enables HETA and the Ministry of Health to analyze the reliability and sufficiency of energy for equipment relevant to the HIV response.



RESULTS

As of September 30, 2023, HETA, The Luke Commission, the Ministry of Health, and USAID had identified priority sites for the smart hubs in two regions of Eswatini. HETA is also finalizing agreements with other partners, including UNICEF, to support solar PV with battery storage and innovative O&M solutions for 32 additional facilities in Year 2.



ESWATINI PARTNER SPOTLIGHT



The Luke Commission (TLC) is a faith-based non-profit organization providing compassionate, comprehensive healthcare to the most vulnerable populations and innovating for the health and development of Eswatini.

HETA has partnered with TLC in Eswatini to understand energy consumption through wifi-enabled energy monitoring solutions in 25 health facilities and to improve energy access at five health facilities, including battery management and solar plus battery backup solutions.

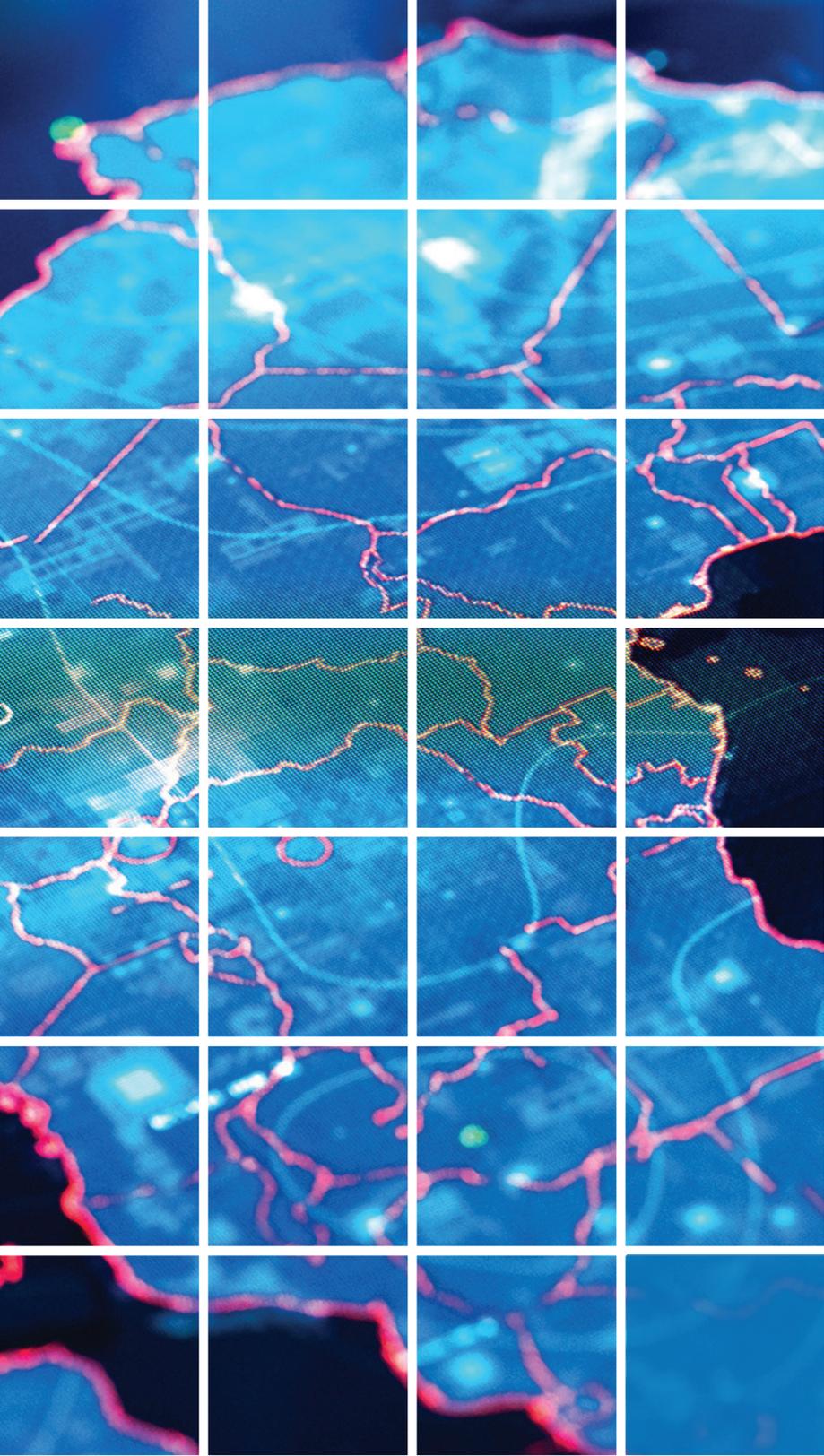
TLC was the first local implementing partner with USAID in Eswatini. TLC addresses HIV, TB, cervical cancer, and other diseases, such as COVID-19, in the context of meeting patients' comprehensive healthcare needs.

TLC uses a patient-centered approach to reach and serve rural and other vulnerable populations with dignity and respect.



In 2013, TLC began building The Miracle Campus on 160 acres of land in the center of Eswatini. To date, TLC has hosted more than 1.3 million patient visits, providing more than 7 million medical services.

TLC's on-site oxygen production plant is a massive consumer of power. TLC has worked diligently to quantify energy needs by configuring and monitoring energy monitors. TLC is also a leader in green energy production, with an active 400 kW solar array.

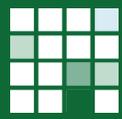


COUNTRY SNAPSHOT

As of September 30, 2023

DEMOCRATIC REPUBLIC OF CONGO





DEMOCRATIC REPUBLIC OF CONGO

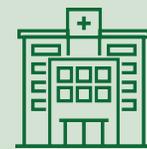


HETA's work in DRC began with a scoping visit in **April 2023** to understand the health electrification and digital connectivity landscape and identify potential models for USAID investment through HETA. Our priorities through September 30 were in-country scoping and planning visits, the launch of co-creation activities through HETA's call for concepts, and engagement of essential partners such as the Abt-led USAID Integrated Health Program, which works in nine of DRC's 26 provinces. Initially, HETA is focusing on two provinces in the Kasai region, Kasai-Oriental and Kasai-Central, which are USAID priorities. We hope to expand to other areas as leverage and other commitments materialize from private sector partners.



USAID Mission Funding

We received **\$760,000** from USAID DRC (PMI and Infrastructure budgets).



Facilities & People Reached

We identified **58 health facilities** and **182 community health worker sites** to be electrified. Data on catchment areas will be available in our second year.



Local Partners & Leverage Resources

We formalized an agreement with **OffGridBox** and mobilized **\$78,846 in leverage commitments**.



Project Highlight:

- Powering Clean Water and Improved Maternal and Child Healthcare



Partner Spotlight:

- OffGridBox



DEMOCRATIC REPUBLIC OF CONGO PROJECT HIGHLIGHT

Powering Clean Water and Improved Maternal and Child Healthcare

Through a grant from HETA, OffGridBox is providing stand-alone solar power modules that will deliver sustainable, 24/7 access to electricity for eight health facilities in North Kivu and the Kasai region, as well as a set of biomedical equipment and water purification technology. The OffGridBox™ system fits entirely inside a shipping container and includes all the hardware required to produce electricity and clean water.

OffGridBox is contributing an equivalent of about \$79,000 in in-kind leverage, which includes water purification units, project management support, and staff time.



RESULTS

Over 12 months, this partnership will make electricity more reliable and affordable for the participating health facilities, replace diesel generators with renewable energy solutions, improve access to health services, and provide access to safe drinking water for health facility clients and the surrounding communities.

OffGridBox is also working with the DRC-based Research Center For Humanitarian Aid, and the Renewable & Appropriate Energy Laboratory (RAEL) at UC Berkeley to carry out a randomized controlled trial based on a package of solar and medical equipment. This builds on a running energy research project, including 25 clinics that have been extensively monitored. The long-term goal is to electrify many more health facilities in DRC.



DEMOCRATIC REPUBLIC OF CONGO PARTNER SPOTLIGHT

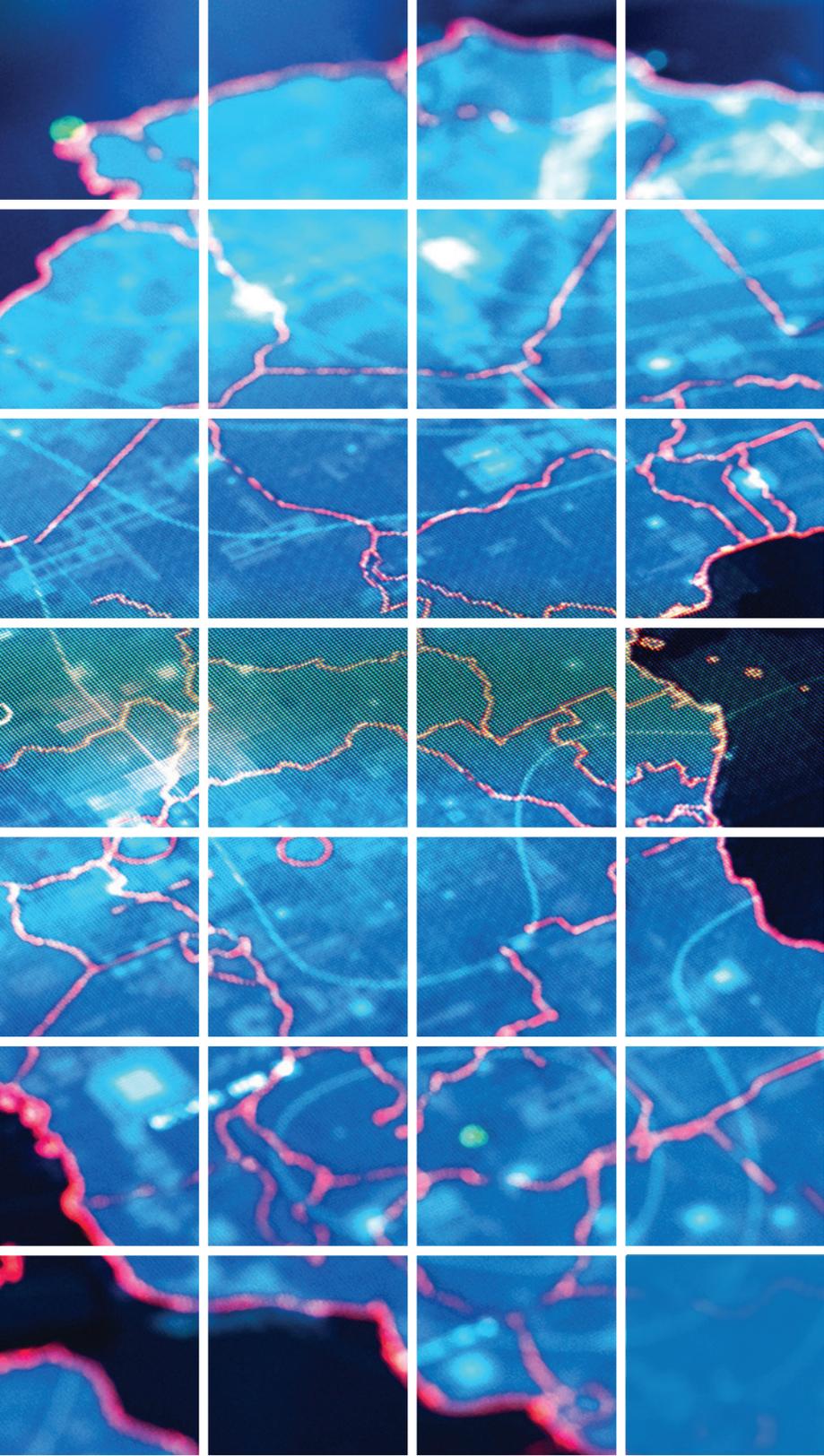


OffGridBox

OffGridBox was born from a desire to bring solar energy to communities in the most rapid way possible, enabling them to serve more needs. Their mission is to provide renewable energy and clean water to remote communities around the world. Their product includes modular and integrated solutions for solar power and safe water—from standalone 1.6 kWp solar PV modules and 1,200 liter per hour water ultrafiltration modules to 10 kWp containerized systems that include water purification.

The HETA grant is enabling OffGridBox to provide solar power modules for sustainable, 24/7 access to electricity at health facilities in North Kivu and the Kasāi region, combined with a package of biomedical equipment and water purification technology.



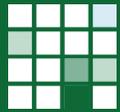


COUNTRY SNAPSHOT

As of September 30, 2023

SIERRA LEONE





SIERRA LEONE

Our work in Sierra Leone builds on experiences and lessons from HealthGrid, a predecessor program led by HETA founding partner RESOLVE with World Vision, Orange, and other contributors. HETA's work in 2023 focused on integrating learning from HealthGrid, co-creation activities to increase private sector engagement, and the development of sustainability strategies for O&M, especially in remote and rural health facilities. Sustained access to energy, digital connectivity, and water, sanitation, and hygiene (WASH) services are a priority for this effort, which will support the health system to meet the challenges of endemic malaria, maternal mortality, and workforce shortages—all exacerbated by inadequate and unreliable access to electricity.



USAID Mission Funding

We expect to receive initial funding of **\$1.35 million** from USAID Sierra Leone, complementing **\$350,000** from HETA's core funds.



Facilities & People Reached

We are working with USAID and the Ministry of Health to select **50–60 health facilities** to support in HETA's second year.



Local Partners & Leverage Resources

We expect to finalize partnerships with **World Vision, Mobile Power, and other partners** in 2024.



Partner Spotlight:

- RESOLVE
- Orange



SIERRA LEONE PARTNER SPOTLIGHT

RESOLVE

Created in 1977, RESOLVE is an independent, non-partisan NGO and a HETA founding partner. In 2021, RESOLVE launched HealthGrid Sierra Leone, a predecessor USAID Global Development Alliance formed in partnership with Orange Sierra Leone, World Vision, Dalan Development Consultants, Gavi – the Vaccine Alliance, and the Ministry of Health and Sanitation to provide solar power, internet, and, in some cases, WASH systems to off-grid health facilities while ensuring long-term maintenance of the systems.

Twenty-six health facilities in Sierra Leone have benefited from HealthGrid's operations. This success helped catalyze HETA's work. RESOLVE also supports HETA's work across sub-Saharan Africa in two important ways:

- By designing and testing strategies for long-term O&M support
- By facilitating visioning and strategy development exercises to help achieve HETA's longer-term vision of becoming an independent organization





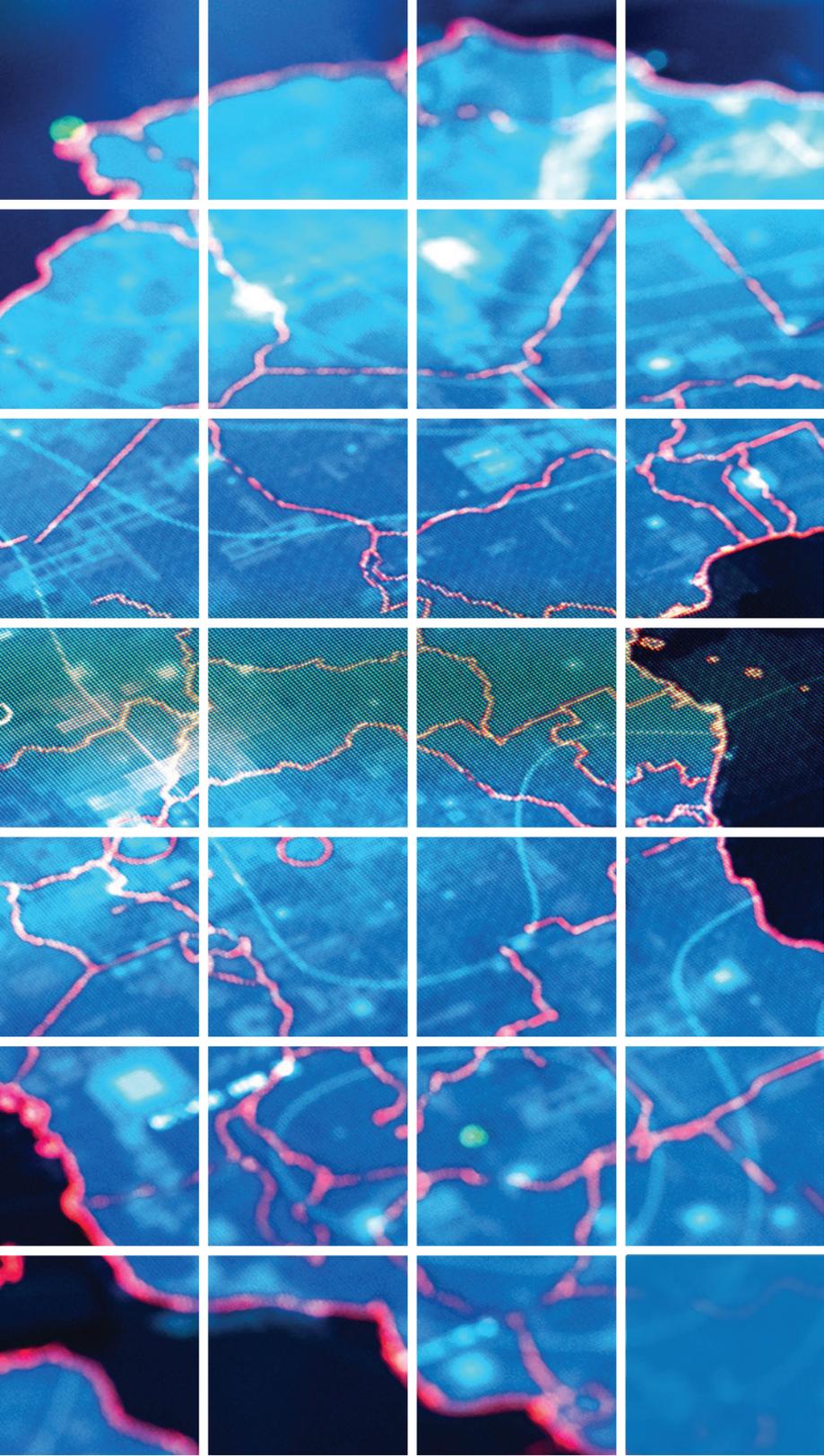
SIERRA LEONE PARTNER SPOTLIGHT



Orange Group is one of the world's leading telecommunications operators, present in 26 countries, including 18 in the Middle East and Africa.

Orange is a founding HETA partner and a co-creator of the HealthGrid methodology under a separate program funded by USAID Sierra Leone. In Sierra Leone, they support a holistic package of healthcare infrastructure that includes reliable solar PV solutions, mobile connectivity, and WASH systems. Orange also contributes to stakeholder engagement, needs assessment, and technical reviews for energy, digital connectivity, and water pumps at supported facilities, in coordination with other HETA partners in Sierra Leone and potentially in other countries where Orange affiliates are present.



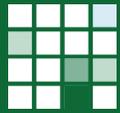


COUNTRY SNAPSHOT

As of September 30, 2023

MOZAMBIQUE





MOZAMBIQUE



Mozambique has the world’s eighth highest HIV prevalence. USAID invests in the national HIV response through the Abt-led USAID Efficiencies for Clinical HIV Outcomes (ECHO) project—and now through HETA. ECHO works in four provinces (Sofala, Manica, Tete, and Niassa), where energy access is a challenge for health service delivery. Up to 35 percent of health facilities in Manica, for example, do not have access to on-grid electricity; those that do report issues with reliability and quality. These gaps also hinder digital connectivity, limiting access to information to sustain HIV epidemic control, reducing supply chain visibility for antiretroviral drug distribution, and potentially weakening lab infrastructure.

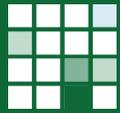
In our first year, HETA focused on forging partnerships, including with ECHO. As we move into our second year, HETA’s funding from USAID Mozambique will be complemented by leverage contributions from local and international partners. Initially, HETA will focus on ECHO-supported health facilities in Manica Province to align with and maximize the impact of USAID Mozambique’s PEPFAR investments.



USAID Mission Funding

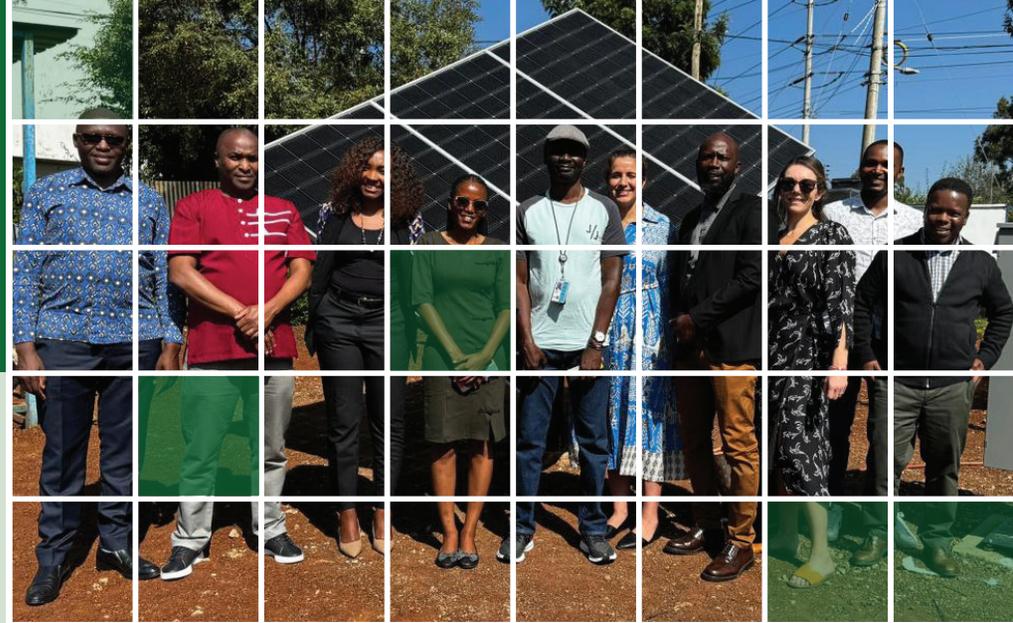
HETA’s expects to receive **\$250,000 in PEPFAR funding** from USAID Mozambique for our second year.

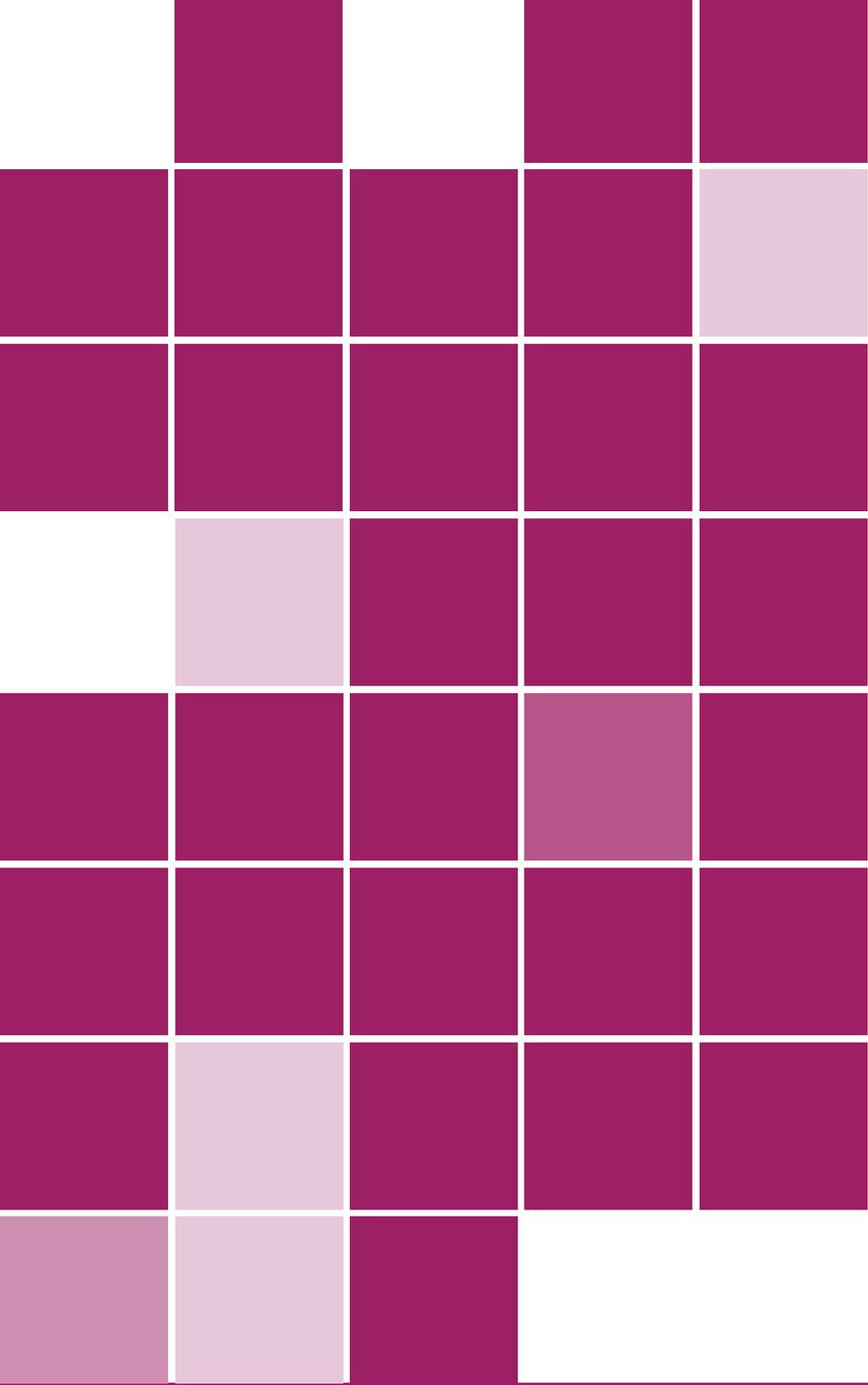




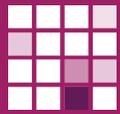
FORTHCOMING COUNTRY PROGRAMS

HETA is in talks with USAID missions, donors, and other potential partners in Guinea, Kenya, Malawi, Uganda, and Zambia. Nigeria also remains a priority for HETA; we expect to continue partnering with PIND and are finalizing other private sector partnerships to help us expand to new areas. During our second year, HETA will complete scoping trips and other activities in each country to formalize USAID co-funding commitments, solidify partnerships and mobilize leverage funds, and co-create bespoke health facility electrification and digital connectivity solutions that leverage private sector expertise and resources to power healthcare and contribute to broader health system resilience.





**BUILDING
MOMENTUM
TO ACHIEVE
HETA'S
VISION**



BUILDING MOMENTUM PROMISING DELIVERY MODELS

Our first year was rich in learning as we forged strong relationships with USAID and HETA partners, analyzed country health priorities to tailor our work for local realities, and rolled out promising operational models that deliver more than just equipment.

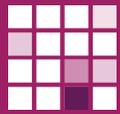
Our work across sub-Saharan Africa is already showing the value of moving beyond traditional procure-and-install models and toward lasting, commercially viable partnerships with energy and telecommunications partners. Most health facilities in sub-Saharan Africa are government owned and operated, and solar electrification has often been achieved through traditional grant- and donor-funded procurement approaches. Without budgets for long-term O&M, however, sustainability is a challenge. There is growing interest in “energy as a service” business models (in which payments are made for electricity supplied rather than equipment installed). It remains to be seen how energy as a service might be deployed in public facilities, given a lack of de-risking mechanisms, a lack of commercial business cases for private capital, and high transaction costs for structuring projects. HETA is working with stakeholders to structure a scalable model to address these constraints.

Another approach that HETA is deploying—one that could be more viable for public health facilities with limited budgets—looks at productive uses of energy. In this model, a solar energy system is oversized for the needs of the health facility, providing “excess” electricity that can be sold to



nearby business ventures. This generates revenue that the health facility can use to maintain the energy systems or reserve in an O&M fund for eventual replacement of batteries and other equipment. Where solar energy systems replace fossil fuel-powered electricity systems, there is also potential to certify and monetize the renewable energy credits, offering another option for revenue to partially offset the costs of O&M.

Further supporting sustainability, founding partner [bechtel.org](https://www.bechtel.org) is also supporting HETA to standardize our quality assurance toolkit, risk assessment and mitigation plan, and a standard package of energy solutions—with flexibility to customize by country—that will enable us to reach greater numbers of health facilities while ensuring high-quality implementation, strong and inclusive local capacity for O&M, and sustainable partnerships to power and connect healthcare.



BUILDING MOMENTUM ENGAGEMENT AND INCLUSION

Local engagement and empowerment are essential for HETA's long-term success. In our theory of change, we envision youth- and gender-inclusive implementation that extends to productive uses of energy in the health facilities we support—and in the communities they serve. In Tanzania, HETA's first year has shown how the right partnerships can enhance women's economic empowerment in the health sector as well.

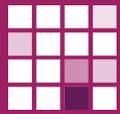
For our second year, we are exploring programs in Democratic Republic of the Congo, Sierra Leone, and across the region that will advance inclusion through partnership-driven training, capacity strengthening, and productive uses of energy for women-run businesses and community organizations. We are also committed to working with and supporting energy and telecommunications service providers to adopt policies that promote workforce equity, safeguard women and youth, and empower them with job skills and opportunities in these fast-growing sectors.



It is essential for gender to be integrated into energy policy and throughout all stages of the energy project cycle, from design to implementation and monitoring. ... As the world accelerates the shift to clean energy and decarbonization, women and girls must be fully engaged in the sector as decision-makers and agents of change for the transition to be just, equitable, and sustainable.

— Ellen Bomasang, Advancing Women's Representation and Leadership in the Energy Sector





BUILDING MOMENTUM COLLECTIVE ACTION TO POWER HEALTHCARE

HETA's target of 10,000 facilities, however ambitious, is still just one tenth of the estimated need in sub-Saharan Africa alone. This year, we also began designing "HETA 2.0"—our vision for a self-sustaining entity to carry our work forward beyond these first five years.

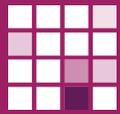
Working with Power Africa, our founding partners, and others, we are designing the governance structures and funding base for an independent organization that can continue supporting energy access and digital inclusion for healthcare, well into the future.

Partnerships power our shared work. Success requires a strong financial foundation and commitment from a vibrant network of partners who contribute ideas, expertise, and funds to each aspect of our work. To build toward this vision, we are working diligently to diversify HETA's funding—including through an innovative health impact bond that we hope to launch in early 2024. We look forward to working with many of you in the months and years to come.



Many Ways to Join Our Alliance

- Anchor or cornerstone partners that guide specific activities
- Funders that provide direct financial support or donate goods, materials, or pro bono services
- Alliance members who sign the original Memorandum of Understanding between Power Africa (USAID) and the HETA founding partners (Abt, RESOLVE, bechtel.org, and Orange)
- Enablers that contribute to HETA's work without contributing leverage, such as service providers
- Investors that provide private capital
- Grantees who implement work at HETA sites and providing leverage
- Constituents, including host-country government agencies, health facilities, and other "end users" that have a role in or receive benefits from HETA's work



READY TO JOIN THE ALLIANCE?



JOIN THE ALLIANCE

Support HETA's core work by signing on as a leverage partner to bring financial, technical, or other in-kind support to the alliance.

From there, we'll co-create specific partnership activities that fit your interests.



SUBMIT A CONCEPT

Become a co-creation partner by submitting a proposal to one of our concept windows that illustrates how you are ready to implement activities that advance HETA's goals—and your own—at the country level.



CO-FUND TARGETED WORK

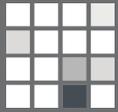
Maximize the resources available to HETA's implementation activities in specific countries by joining us as a co-funder.

Your matching dollars will multiply the leverage resources we're able to mobilize from other sources.



INVEST IN THE IMPACT FUND

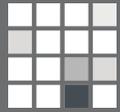
Buy into the shared vision via HETA's impact bond, an innovative financing vehicle that multiplies the impact of individual investors.



ACKNOWLEDGMENTS



This alliance is only possible because of the support from Power Africa and other champions across USAID, including the country missions that co-fund our work from their global health, HIV/AIDS, economic growth, and infrastructure budgets. As we reflect on our first year, we hold deep gratitude for the collective efforts of the whole HETA team, which includes our partners. We sincerely thank you for your contributions, and we are eager to continue our work together.



ACKNOWLEDGMENTS

HETA's USAID sponsors

- Power Africa
- USAID Global Health
- USAID Democratic Republic of Congo
- USAID Guinea and Sierra Leone
- USAID Mozambique
- USAID Tanzania
- USAID Southern Africa

HETA's founding team members

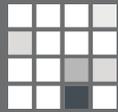
Power Africa

- Gina Cady, HETA agreement officer's representative (AOR)
- Habib Balde, HETA alternate AOR

Abt Global

- Joan Chahenza, HETA project director
- Godfrey Sanga, deputy project director and country director for Tanzania
- Lindiwe Dlamini, chief of party, Eswatini
- Michel Yalaza Bitundwa, chief of party, DRC
- Sheila Mapilele, implementation lead, Mozambique
- Manual Thomas, finance and contracts director
- Trust Mapfumo, monitoring, evaluation, research, and learning director

- Arun Asok, senior advisor for private capital and impact investing
- Belinda Nsuami, project management officer
- Brian Smith, former HETA project director
- Catherine Clarence, project management director
- Daniel Smith, senior graphic designer
- Ellen Bomasang, gender equality and social inclusion advisor
- Hamsini Balaji, private capital and impact investing analyst
- Heran Abiy, communications specialist
- Jaime L. Jarvis, communications lead
- Julie Collins, project management officer
- Kylie Graff, partnerships director
- Leland Smith, digital development advisor
- Marina Kosareva, senior graphic designer
- Matt Clark, strategic partnerships lead
- Rebecca Pogoda, project financial analyst
- Sean Callahan, project management director
- Tamsir Niang, project management analyst
- Zeshan Aziz, former project financial analyst



ACKNOWLEDGMENTS

RESOLVE

- Richard Schroeder, director of responsible growth
- Beth Weaver, senior mediator and director of RESOLVE's Healthy Communities Program
- Sheka Forna, Sierra Leone programs advisor and HealthGrid/HETA advisor
- Mason Hines, senior program manager

bechtel.org (Bechtel's social enterprise)

- Tam Nguyen, president
- Steven Shaul, global head of operations
- Frank Fernandez, project manager for HETA
- Prabesika (Sonica) Khatri, senior project development engineer

Orange

- Ralph Ankri, business development manager, Orange Middle East and Africa
- Fatmata Sarieu Zubairu, transverse project lead, Orange Sierra Leone Ltd.
- Guy Roland Bony, transformation and strategy director, Orange Sierra Leone Ltd.

Alliance members, partners, and service providers as of September 30, 2023

- Assist International
- Caterpillar, Inc.
- ENSOL (Tanzania) LTD
- GGGI
- Give Power
- Green Empowerment
- GSMA
- Maisha Meds
- Mobile Power
- OffGridBox
- Orange Cote d'Ivoire
- Orange DRC
- Orange Liberia
- PIND Foundation
- Pinsent Masons
- Project C.U.R.E.
- SEforALL
- TellCo Europe
- The Luke Commission
- Ukama
- Vodafone
- ZOLA Electric

Photos in this report are courtesy of Abt Global; Getty Images; HETA partners Assist International; CSSC (Jackson Malangalila), OffGridBox (via Salesforce and a still from an Uplink "Innovation Spotlight" video), RESOLVE (Sheka Forna), SEforALL (Diane Bondareff), and ZOLA Electric; Stefano Bianco/Kino Media Ltd. (Tanzania); Power Africa (via Tolu Jethro Bade, Envizage Concepts; NPSP/Tochukwu Mbachau; and a video, "Powering Health is Powering Potential"); and USAID in DRC and Mozambique (via Flickr/U.S. government works).



USAID
FROM THE AMERICAN PEOPLE



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