



managed by  **camco**  
CLEAN ENERGY



# REPP REPORT AND FINANCIAL STATEMENTS

2020-2021



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# REPP HIGHLIGHTS BY NUMBERS - ACTIVITIES SO FAR

Figures reflect the cumulative performance of all currently contracted projects as of 31 March 2021 unless otherwise stated.



## 17.4MW

capacity installed to date

## 153MW

total planned capacity by end of 2023



## ~641,000

people connected to clean energy for the first time

~1,071,000 expected to be connected by end of 2023



## 26,386 tCO<sub>2</sub>e

avoided to date

~505,000 tCO<sub>2</sub>e avoided in total by end of 2023



## £89.3m

mobilised from third parties as a result of REPP intervention

£328.1m mobilised by end of 2023



## 16

countries in Africa actively involved



## 7

technologies employed



## 7,144 JOBS



## £148m

total fund size

of which £37.3m has been committed and a further £47.8m is in documentation\*



## 28

contracted projects



## 2,156 JOBS

held by women

\* In documentation refers to transactions approved by REPP's investment committee but not yet formally contracted as of 31 March 2021.

! The forecasts provided in this report are forward-looking statements that necessarily involve known and unknown risks and accordingly are not guarantees of future performance and actual outcomes may differ.

## TRANSFORMATIONAL IMPACTS: IN-COUNTRY HIGHLIGHTS

REPP's transformational goal is to create a self-sustaining market for private investment in small-scale renewable energy in Sub-Saharan Africa, which will give millions of people first-time access to energy and plug a financing gap too large for public money to fill. It is working to achieve this by adjusting and reducing investor risk so that more commercial funds flow in the future. It does this by:

Creating a high volume of projects (which makes investors more comfortable) and crowding in significant market players as 'first movers'.

- Funding brought into REPP's investees from companies including Total, Toyota and Shell, increasing confidence in the private sector in Africa's small-scale and distributed renewable energy market.
- Djermaya project developed power purchase agreement (PPA) and independent power producer (IPP) agreements that will be replicated by other solar developers in Chad, increasing deal flow.
- First private mini-grid generation license granted in Kenya (Powerhive): making it easier for other developers to follow this process.



Adapting familiar financing structures to unfamiliar country contexts (ensuring investors see recognisable, secure deals in a nascent market).

- With PowerGen and Powerhive REPP pioneered a project finance model for mini-grids. CBEA, again with the support of REPP, made it open source to help scale the solar mini-grid sector.
- With Mwenga (Tanzania) REPP is innovating with a mezzanine loan where the interest rate varies based on the level of revenue from the local rural grid. With the support of REPP, Mwenga has also implemented a novel business model: a hybrid between IPP and off-grid model to sell power both locally and to the grid.
- Financing portfolios of solar rural mini-grids using non-recourse finance (which is typically used for large Independent Power Producer projects).
- REPP also uses convertible loans to finance project development activities, which are typically financed with equity.



Working with governments to create enabling environments for renewables investment.

- REPP-supported ARC Power in Rwanda is working with the regulator to streamline and speed up the process of mini-grid approvals.
- In Kenya, REPP has engaged with the regulator to inform the development of investor-friendly mini-grid regulations. In Nigeria, REPP is working with partners to do the same.
- Increasing productive use across the REPP portfolio means new jobs, enterprises and income generation in project communities. Linking renewable energy projects to job creation creates stronger government incentives to bear the burden of applying regulation and keeping tax incentives stable.



## ALIGNMENT WITH NATIONAL POLICY PRIORITIES



REPP is making a material and valuable contribution to the climate, energy and development priorities of the countries in which it has invested. By supporting the implementation of conditional Nationally Determined Contribution (NDC) targets, REPP is raising the ambition of climate action. Here are a few examples:

- The Malile solar hybridisation project supports the **President's Emergence Initiative for Madagascar (2018)** by helping to lower the cost of electricity and contributing to the country's NDC (2016) emissions reduction target.
- REPP investees in Sierra Leone are supporting the country's **flagship national mini-grid programme**. Through its investments, REPP will contribute to 20,500 tCO<sub>2</sub>e avoided per year, directly supporting the country's vision for low emission development (NDC 2016).
- 25MW Djermaya solar PV project is aligned with **Chad's Vision 2030**, which considers sustainable energy development as key for self-sufficiency and creating a diversified and competitive economy, and once operational is expected to avoid ~40,000 tCO<sub>2</sub>e per year in line with Chad's conditional GHG reduction targets (NDC 2017).
- The Marco Borero project is the first private solar PV project by an IPP in Kenya and supports the goals of the government's **"Big Four" agenda (2018)**, which considers infrastructure (including energy) as one of the nine enablers to achieve national development priorities.
- PAS Solar currently supplies over 500 businesses with clean electricity in Nigeria, in line with the **Nigeria Economic Sustainability Plan 2020**, which acknowledges the role of renewable energy in creating jobs and economic growth.
- The Ha Makebe project is Lesotho's first ever private mini-grid project and the first to receive a mini-grid concession, which sets a precedent for further sector development. It is well aligned with the **Lesotho Energy Policy 2015-2025 (2015)** which aims to increase private sector engagement in energy sector development, with a specific focus on renewable energy mini-grids.
- REPP's investments in Mubuga and Mpanda projects support **Burundian national development and climate action plans** which encourage private investment in renewable energy. Together with Virunga Power, REPP investees are expected to contribute to ~17,000 tCO<sub>2</sub>e avoided per year, directly supporting Burundi's conditional NDC (2018) target to cut emissions by 20% by 2030.



**Further reading:** In June 2021, REPP published its report, *Advancing national policy agendas through responsible investing*, which provides an in-depth analysis of how the programme's investments are aligned with the climate, energy and development priorities of the countries where it operates.

<https://repp.energy/wp-content/uploads/2021/05/Advancing-National-Policy-Agendas-Through-Responsible-Investing.pdf>



# SUSTAINABLE DEVELOPMENT GOALS

ALL 28 PROJECTS  
directly support:



12 PROJECTS  
also support:






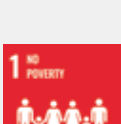








10 PROJECTS  
also support:



1 PROJECT  
also supports:



SDG	Relevance	Underlying targets*	REPP's contribution
		7.1, 7.2	<ul style="list-style-type: none"> <li>Supports energy access by investing in innovative decentralised renewable energy solutions, such as PAYG solar mini-grids and SHS, targeting off-grid communities.</li> <li>Improves reliability of electricity supply by investing in grid-connected renewable energy projects.</li> </ul>
		13.1, 13.2	<ul style="list-style-type: none"> <li>Directs climate finance towards renewable energy activities in line with the Paris Agreement and project countries' NDCs.</li> <li>Helps build a country's resilience towards climate change through investment in decentralised renewable energy systems.</li> </ul>
		5.5	<ul style="list-style-type: none"> <li>Supports women entrepreneurship by investing in women-owned or managed businesses.</li> <li>Works directly with investee companies to help them improve gender equality status in the company and project implementation through development of gender action plans.</li> </ul>
		17.3	<ul style="list-style-type: none"> <li>Mobilises private (and public) capital towards supporting sustainable development in developing countries.</li> </ul>
		1.4, 1.5	<ul style="list-style-type: none"> <li>Supports first-time access to clean and affordable energy services that improve livelihoods of people living in poverty and promote job opportunities.</li> <li>REPP-supported projects create decent jobs that respect labour rights and improve workers' skills.</li> <li>Helps build a country's resilience towards climate change through investment in decentralised renewable energy systems.</li> </ul>
		11.1	<ul style="list-style-type: none"> <li>Supports the provision of affordable, inclusive, sustainable and low-carbon energy services to communities through investment in on and off-grid renewable energy projects.</li> <li>Provides energy infrastructure and financing solutions to under-served communities.</li> </ul>
		3.4	<ul style="list-style-type: none"> <li>Promotes good health and wellbeing by supporting clean energy solutions that at least partially replace the use of fossil-fuel based energy sources -such as kerosene, candles and to some extent wood fuel - that are known to increase the risk of or to aggravate respiratory diseases.</li> </ul>
		8.4, 8.5	<ul style="list-style-type: none"> <li>Supports decent work conditions by requiring all REPP-supported projects and their developers establish a IFC Performance Standard-compliant environmental and social management system to ensure a high level of environmental and social integrity.</li> </ul>
		9.1	<ul style="list-style-type: none"> <li>REPP invests in the development of quality, reliable, sustainable and resilient infrastructure which supports economic development and human well-being, with a focus on affordable and equitable access for all.</li> </ul>

\* Further information about SDG targets can be found on page 60.

# WELCOME

World leaders will meet in Glasgow this November for what may well prove to be a defining moment in the global response to the climate emergency. Postponed by a year due to the pandemic, the UK-hosted COP26 climate summit will see nations come together to review the commitments they made as part of the Paris Agreement in 2015 and - it is hoped - strengthen their ambitions.

As countries prepare for the talks, they are also under mounting pressure to support the achievement of the UN's 17 Sustainable Development Goals (SDGs) - the seventh of which calls for universal access to modern energy services by 2030. For many emerging countries this presents the dual and often conflicting challenge of meeting electrification targets without further contributing to climate change. In Sub-Saharan Africa, where more than half of the population still lives without electricity, this problem is especially acute. As a continent, Africa certainly has enough solar, wind and hydro energy resources to power a low-carbon future; however, the current lack of renewable energy investment means countries in Africa are in danger of being locked into a fossil fuel-powered future.

Now in its fifth year of operation, the Renewable Energy Performance Platform (REPP) is addressing this problem head on by working to develop a thriving and dependable market for the region's small-scale and decentralised renewable energy sector. Under the direction of the Board, REPP's investment manager, Camco Clean Energy, provides flexible financing solutions and assistance to help developers bring viable projects to fruition, in the process demonstrating the bankability of those projects to attract other investors and increase clean energy activity as a whole.

COVID-19 has presented the sector with yet further challenges over the past year and several of the projects in the REPP portfolio have experienced delays as a result. REPP's investees have nonetheless shown tremendous determination to keep operating and in the main have made huge progress in the face of adversity. The number of people connected to electricity for the first time through REPP-supported off-grid projects, for example, grew by 170% to over 641,000. And in the on-grid space, three projects came online over the reporting period. The 7.5MW Mubuga project in Burundi is the country's first independent power project and has increased its installed capacity by approximately 10%. Another first, the Mwenga project became Tanzania's only operational wind farm, providing 2.4MW of clean power via 4,500 connections across 32 rural villages. And in Madagascar, the Malile project has started generating 2MW of solar capacity as part of a much bigger project to hybridise three heavy fuel oil plants that provide power to three of the island country's cities.

As the world looks set to ramp up its efforts on climate action and the SDGs, it is clear that the comprehensive and low-carbon electrification of Africa's growing and dispersed population is dependent on a mix of off-grid, on-grid and isolated/hybrid grid solutions. With REPP's diverse and expanding portfolio of projects - coupled with its flexibility, knowledge and networks - the platform is emerging as a pivotal enabler of Africa's low-carbon, climate-resilient and equitable energy future.

**REPP Board of Directors**





# A WORD FROM THE FUNDER



In November 2021, the UK will host the COP26 UN climate conference, a crucial moment to unite the world on a path to a zero-carbon economy as we build back better from COVID-19. As the UK Presidency, we have the privilege to bring the world together to accelerate action to reduce emissions, strengthen adaptation and scale up support.

The UK is leading the path on ambition, announcing in December 2020 the UK's Nationally Determined Contribution (NDC) of at least 68% emission reductions by 2030. We are also proud to have doubled our International Climate Finance commitment to GBP 11.6 billion. Limiting temperature increases to 1.5 degrees requires a step change in global action and we look forward to other governments coming forward with ambitious 2030 emissions reductions targets, consistent with reaching global net zero by the middle of the century.

A critical priority is accelerating the transition to clean energy in a way that supports the need for rapidly expanding access to clean, reliable and affordable energy services by all, especially in Sub-Saharan Africa where the global burden on energy access heavily sits. Lack of clean electric power stops school children from learning after dark, villagers from getting more income from agricultural produce and city-dwellers from running their own small businesses from home. Reduced security in livelihoods can have devastating impacts for poor families dealing with climate shocks and stresses, like floods and droughts.

Initiatives such as the UK-backed Renewable Energy Performance Platform (REPP) are therefore vital in marshalling the power of the private sector to help accelerate clean energy access in a range of Sub-Saharan African countries. It aims to do so by using public finance to incentivise entrepreneurs, principally energy project development companies, and local investors to take risks they would otherwise not take

and build their confidence in investing their own resources and know-how is particularly important.

REPP's flexible and innovative funding and technical advice has the potential to strengthen financial markets and local capability among local developers and financial institutions across Sub-Saharan Africa. In 2020, despite the challenges presented by the pandemic, REPP has flexed impressively to support local business partners, for example using interest and repayment moratoria to all existing investees and establishing a working capital facility to help keep partner companies afloat, ready to drive progress as the pandemic challenges ease.

REPP should feel rightly proud of its continued ability to deliver core activity well. Among many highlights, I was particularly pleased to see how UK-based Mobile Power is poised for rapid expansion across West Africa following the completion of a GBP 2 million Series A funding round, led by REPP. Mobile Power's innovative battery rental model is an excellent example of the outside-the-box thinking needed to provide affordable energy access to low-income communities in the region. I congratulate the REPP team and its investment manager Camco Clean Energy for this and many other examples contained in this report and look forward to seeing further progress over the coming year.

## Greg Hands

Minister for Energy, Clean Growth and Climate Change at the Department for Business, Energy and Industrial Strategy



📌 Find out more about the UK's International Climate Finance on page 48.



# A WORD FROM THE MANAGER

In August 2021, the world's top climatologists issued their starkest warning yet on the state of the climate, which has been dubbed a "code red for humanity". In their landmark report, the Intergovernmental Panel on Climate Change (IPCC) said that without a rapid and large-scale reduction in greenhouse gas emissions, it is almost certain that we will be unable to limit warming close to 1.5°C or even 2°C above pre-industrial levels. To understand the consequences of such a change, we only need to consider the increased prevalence and ferocity of the wildfires, droughts and flooding that we are witnessing today when the global temperature rise is estimated to be around 1.1°C.

But as desperate as all this sounds, the scientists have also given us hope that by responding appropriately, climate catastrophe can be averted.

The focus for world leaders when they meet for the COP26 climate summit in Glasgow this November must be two-fold: how to achieve net zero emissions as fast as it is possible to do so (without destabilising the world's economies and giving rise to a sea of unintended consequences), and how to ensure the world's most vulnerable countries are able to adapt to climate change.

Reducing emissions while enabling economic growth in Sub-Saharan Africa - one of the world's regions most susceptible to the impacts of climate change - has always been REPP's top priority. It is working towards this by financing the development and construction of new clean energy capacity, in the process displacing dirty fossil fuel-based energy sources and connecting hundreds of thousands of people to electricity for the first time.

But REPP is also helping people in Africa adapt to climate change by financing the construction of the African power system of the future - a cleaner, more decentralised system exploiting the benefits of a mix

of grid-connected, isolated and off-grid solutions across multiple renewable energy technologies. The net result is the establishment of a more reliable, relevant and resilient system that is less affected by climate change, and a thriving local and private energy sector.

Despite the many challenges from COVID-19, REPP-supported companies and projects have continued to deliver well in each of these areas over the reporting period. The rate of off-grid connections has rocketed, rising 170% YOY to bring the total number of people connected to electricity for the first time to over 640,000. The Mwenga wind project commissioned in July last year is providing 2.4MW of clean power across 32 rural villages connected to a private rural distribution network in Tanzania. And in the on-grid space, the Mubuga solar project and the Malile solar hybridisation project have added 7.5MW and 2MW to the national grids of Burundi and Madagascar, respectively. These projects provide clean and reliable electricity to the countries most in need.

REPP's accomplishments are only beginning, especially in terms of installed capacity and reducing emissions. To date, the programme has committed GBP 37.3m to clean energy projects and companies, with a further GBP 47.8m in documentation, and has leveraged a further GBP 89.3m from third parties. With more large-scale projects due to go online over the year ahead, REPP remains on track to successfully meeting its impact targets by 2023.

**Geoff Sinclair**  
**Managing Director**  
 Camco Clean Energy



# ABOUT REPP

The Renewable Energy Performance Platform (REPP) is a GBP 148 million climate finance facility set up in 2015 to simulate the growth of Africa's small-scale and distributed renewable energy market. Its primary purpose is to reduce greenhouse gas (GHG) emissions by demonstrating operational feasibility through flexible support to project developers.

REPP is managed by Camco Clean Energy, a climate and impact fund manager that develops and employs innovative financing tools and approaches to help developers access the necessary finance and expertise to implement their projects and grow.

Since 2016, REPP has been successfully mobilising the private sector's development of - and investment in - renewable energy projects across Sub-Saharan Africa. By developing markets that are both replicable and scalable by the wider private finance community, the programme is laying the foundations for the sector's rapid and far-reaching expansion.

The concept for REPP was developed by UN

Environment and the European Investment Bank (EIB) in response to the UN's Sustainable Energy for All initiative, which seeks to ensure universal energy access and double renewable energy's share in the global energy mix. It is funded by the UK's International Climate Finance (see page 48) through the Department for Business, Energy and Industrial Strategy (BEIS).

REPP's Board is responsible for the overall direction and strategy of the programme. Its members are:

- Ashufta Alam, Deputy Director Deputy Director Policy and Investments, International Climate Finance, BEIS (resigned 03/11/2020)
- Peter Coveliers, Head of Group Corporate Programmes and Institutional Business Development, European Investment Fund
- Daniel Farchy, Investment Officer, EIB
- Andrew Stalbaum, Team Leader, Private Finance and Innovation, BEIS (appointed 03/11/2020)
- Eric Usher, Head, UN Environment Finance Initiative

## WHY REPP?

Sub-Saharan Africa includes many of the least electrified countries on the planet, with nearly 600 million people across the region still living without access to electricity. Millions of people are being connected every year, however, and it is the aim of SDG 7 that all people are connected to modern energy services by 2030. At the same time, many countries' economies are growing quickly, resulting in further increased energy demand.

Bringing about universal energy access by 2030 would be an unprecedented humanitarian achievement; however, unless it is done without increasing greenhouse gas emissions, it is going to contribute significantly to climate change. This therefore makes the low-carbon electrification of all African countries not just an African imperative, but a global one.

Despite this, not nearly enough investment is making its way into supporting the growth of Sub-Saharan Africa's low-carbon energy transition, with the majority of funding instead still supporting centralised, fossil-fuel powered grid systems. This is not just bad news for our climate, but centralised grids are often not the best way of addressing Africa's energy access problems. This is particularly so in rural areas where connecting to the grid is usually slow and expensive.

Smaller, decentralised renewable energy solutions that harness the abundance of natural resources available in African countries are often much more appropriate for serving rural populations' needs. Off-grid technologies such as solar home systems and solar PV mini-grids and small, rural on-grid projects by independent power producers (IPPs)

have proven to be easier, faster and increasingly cheaper than rolling out the national grid and building very large power plants. Not only that, they typically provide a more reliable source of quality electricity, improve local air quality and, very importantly, support countries' national climate action targets set out in their Nationally Determined Contributions (NDCs).

Small and medium-scale on-grid technologies such as on-shore wind and run-of-river hydro also provide low-carbon solutions for bolstering existing central grids and increasing capacity, while also supporting countries' NDCs.

## ENABLING CHANGE

So why, despite all of the many advantages that decentralised renewable energy solutions have to offer, is investment continuing to fall short of what is needed to drive the sector to scale? Primarily, it is because:

- Developers rarely have the start-up capital to clear the first hurdles towards financial close;
- Developers often lack the necessary capabilities to successfully finance their projects;
- Both the perceived and actual front-end risks of renewable energy projects, including the uncertainty of the policy and regulatory environment, are a disincentive for investment; and
- Funding opportunities are typically limited to the largest and most bankable projects.

As a result, many feasible projects are going unrealised, making the need for intervention both clear and urgent. REPP is addressing this need directly by establishing a wide range of viable and effective financing models to help developers overcome barriers to finance – and making developers' projects attractive, thereby crowding in private investors.

As part of its mandate, REPP provides financing in the form of debt and equity to projects that are shown to be additional, meaning that its investments stimulate sectoral development that would otherwise lag or not occur. Through the projects it supports, REPP is transforming the scale of action to make communities and the environment more resilient to climate change. It does this by innovating within recognisable finance structures so that commercial investors receive better adjusted risks in this asset class and in Africa, meaning more funds will flow in this direction in future. Read how REPP is performing on page 18.



## HOW CAN REPP HELP?

REPP supports developers throughout the project development process all the way to construction, providing a broad range of financing services and support tailored to each developer's unique circumstances and needs. These include:



### **DEVELOPMENT AND GROWTH PHASE CAPITAL AND SUPPORT**

REPP provides loans for selected third-party development expenses (such as feasibility studies, environmental and social impact assessments, legal advice etc.), financial structuring support, general project guidance and, in selected cases, developer capital. It also provides convertibles loans to support the growth of start-ups in the sector. REPP also supports developers and investors with business planning, training, workshops and seminars, and facilitates learning and exchange between developers.



### **GAP FINANCING**

REPP helps to bring projects to financial close, and supports the growth of early-stage companies in the sector, by providing funding using a range of finance products, including equity, loans (junior, senior, bridging), and convertible notes.



### **ACCESS TO RISK MITIGATION INSTRUMENTS**

REPP helps projects and developers to access appropriate risk mitigation instruments provided by third-party providers. These instruments typically focus on risks that cannot be cost-effectively managed by the private sector - in particular, political, regulatory, currency and offtaker risk. REPP also works with governments and other stakeholders on regulatory improvements to reduce risk in the long-term.



### **ACCESS TO LONG-TERM CAPITAL**

REPP helps developers to structure project finances in the right way, and to secure finance from REPP partners and other sources of capital - both private and public. It also works with lenders and risk mitigation instrument providers to coordinate their approval and due diligence requirements so that the funding process is simplified for developers. REPP incentivises refinancing to crowd in other financiers post-construction which enables the platform to recycle its capital.

<sup>1</sup> REPP's partner concept relies on the development of partnerships and maintaining a regular communication and information exchange with financiers and risk mitigation solution providers to support its investees in advancing their projects. A full list of REPP partners can be found here: <https://repp.energy/about-repp/repps-partners/>.



## THE PROCESS: HOW REPP SELECTS AND SUPPORTS PROJECTS AND COMPANIES



### ORIGINATION & ELIGIBILITY

The REPP manager discusses project proposal with the company and an eligibility assessment is performed.



### PROPOSAL

REPP project team decides whether to progress eligible applications to REPP's Investment Committee (IC) for concept clearance. If the concept is approved at this stage a full proposal document is prepared and presented back to the IC.



### TERM SHEET

If the IC approves the proposal a term sheet is agreed.



### FINANCING DOCUMENTS

After successful completion of KYC and due diligence processes, documentation is prepared and agreed alongside a set of conditions precedent. Following final approval the documents are signed and, after completion of all conditions precedent, funds are disbursed as per agreed milestones.



### ONGOING SUPPORT AND MONITORING

Project team provides ongoing support on an as-needed basis, collects information for monitoring and evaluation purposes, and ensures adherence to REPP policies.

## ELIGIBILITY

REPP supports small and medium-sized private sector renewable energy projects and companies in Africa. Projects must be between 1MW\* and 25MW (up to 50MW for wind), and can be on- or off-grid, excluding corporate and industrial captive power projects.

### TECHNOLOGIES SUPPORTED:



#### SOLAR PV

incl. grid-connected, solar homes systems and battery-powered



#### MINI-GRIDS

(powered by renewable energy)



#### RUN-OF-RIVER HYDRO



#### WIND



#### GEO THERMAL



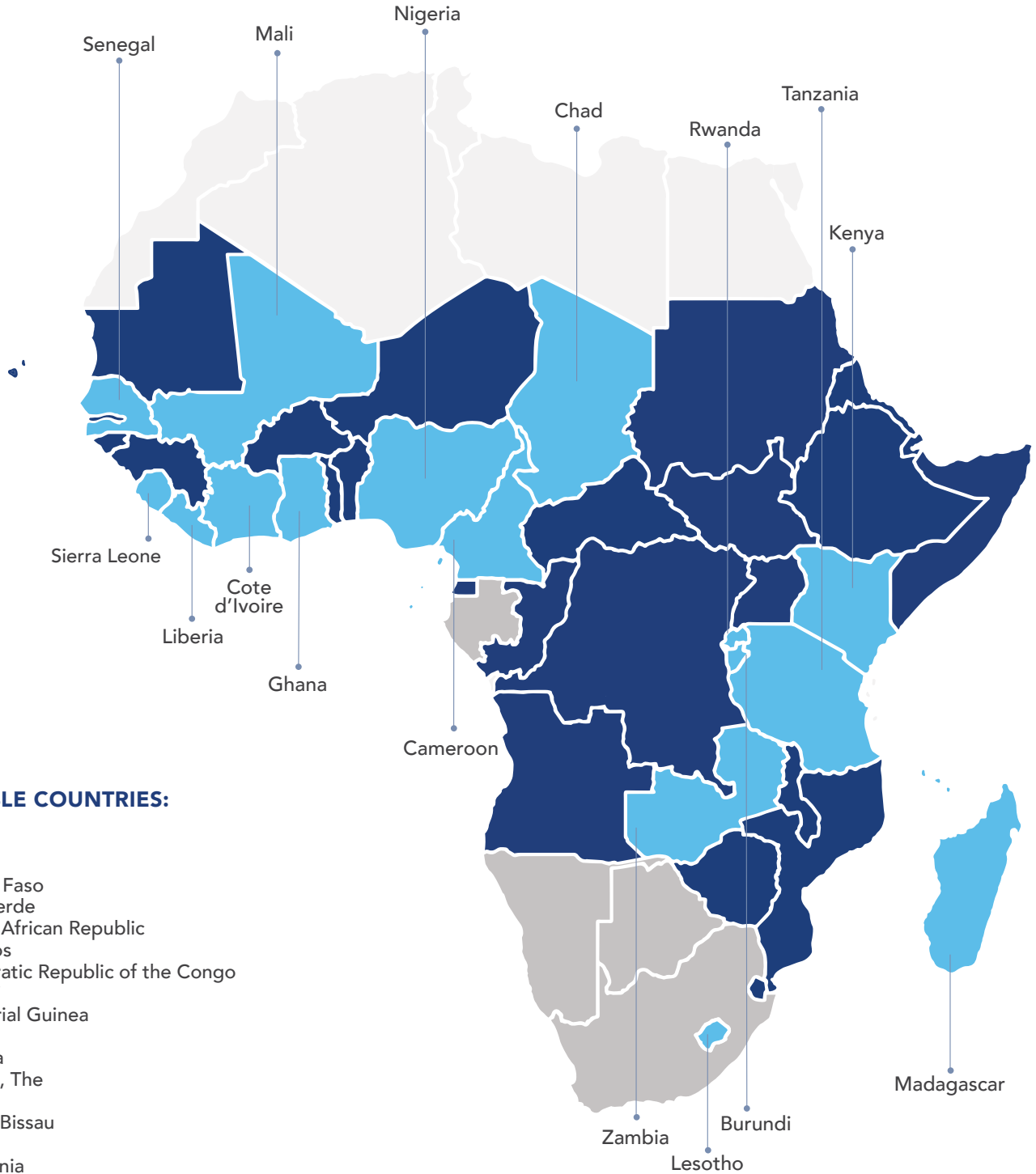
#### BIOMASS, BIOGAS & WASTE-TO-ENERGY

\* This may be bundled for smaller and off-grid programmes.



■ ELIGIBLE ■ ACTIVE

# COUNTRIES ELIGIBLE FOR REPP SUPPORT



## ELIGIBLE COUNTRIES:

- Angola
- Benin
- Burkina Faso
- Cabo Verde
- Central African Republic
- Comoros
- Democratic Republic of the Congo
- Djibouti
- Equatorial Guinea
- Eritrea
- Ethiopia
- Gambia, The
- Guinea
- Guinea-Bissau
- Malawi
- Mauritania
- Mozambique
- Niger
- Republic of the Congo
- Sao Tome and Principe
- Somalia
- South Sudan
- Sudan
- Swaziland
- Togo
- Uganda
- Zimbabwe



# OUR IMPACT

Since 2016, REPP has been working to unlock clean energy potential by supporting the development of a **vibrant, networked and viable market** for small and distributed renewable energy projects in Africa. This has been driven by REPP's belief that such a market is critical to achieving Sustainable Development Goal (SDG) 7 - ensuring access to affordable, reliable, sustainable and modern energy for all - and SDG 13 - taking urgent action to combat climate change and its impacts.

In the year to 31 March 2021, **more than 404,000 people were connected to clean electricity** for the first time through REPP-supported projects - representing a 170% rise year on year and bringing the total to over 641,000. This achievement is a direct result of REPP having invested in innovative distributed renewable energy solutions and new business models - such as solar PV-powered "batteries-as-a-service", solar home systems and pay-as-you-go mini-grids - which enable developers to deliver affordable, clean and low-carbon energy services to off-grid-communities. At the same time, REPP is contributing towards the implementation of national electrification priorities, which increasingly include the role of renewable energy technologies.

REPP's support for grid-connected projects is also helping to **improve the reliability of electricity supply** across Africa as these projects continue to come online. Currently, Malile (see page 31), Mubuga (see page 34) and Mwenga (see page 42) are between them contributing 13.1MW of the 17.4MW of clean energy being generated as a direct result of REPP's investments. Overall, REPP-supported projects are expected to result in 153MW of installed capacity by 2023.

REPP's financing of decentralised renewable energy activities results in the abatement of GHG emissions and assists in improving countries' resilience to climate change in line with the goals of the Paris Agreement. It has also supported the implementation of climate action priorities as set out in 15 host countries' **Nationally Determined Contributions** (NDCs) and national climate policies (see page 21 for more).

Mitigating GHG emissions is central to keeping the increase in the global average temperature to below 1.5°C and thereby limiting the negative impacts of climate change in the long term and minimising the costs of adaptation. Furthermore, **investing in the decentralisation and diversification of a country's energy mix** with renewable energy increases its energy security and resilience to climate-related disasters through greater ability to localise and buffer against disruptions of supply. Renewable energy solutions can also be used to hybridise single energy sources to further increase climate resilience against supply disruptions and climate variability (for examples, see Malile on page 31 and Mwenga on page 42).

Access to renewable energy **provides productive use of energy (PUE) opportunities** and works as a driver for alternative economic opportunities in project communities by enabling diversification of livelihoods away from climate-vulnerable activities. PUE also opens up opportunities for more climate-resilient agriculture, thereby increasing the adaptive capacity of project communities (see page 26 for more). Renewable energy also offers **multiple environmental and social co-benefits that contribute towards the achievement of different SDGs** at the community level. Off-grid renewables, for example, replace at least partially the use of kerosene and candles, and in some instances wood fuels too. This leads to improved lighting quality and reduces the amount of pollutants that are known to increase the risk of contracting and aggravating respiratory diseases, which supports SDG 3.

Similarly, the energy sector plays a key role in long-term national sustainable development strategies as an **enabler for inclusive socio-economic development**. First-time access to a reliable electricity supply **creates new opportunities for social and economic development** through extended working hours and reduced wastage of time and physical exertion. Electrified households are more likely to receive a bigger income from home-run microbusinesses than those without access, and enjoy the benefits of better information flows and entertainment via the internet and improved access to media. Beyond the home, clean energy solutions are improving the livelihoods

and prospects of entire communities by powering critical services such as schools, health clinics and water pumps. To date, **REPP-supported projects are providing electricity to 390 critical services.** These secondary benefits contribute towards the achievement of SDG 1.

Developing renewable energy projects also creates employment opportunities, both during construction and operation and across numerous skill sets, from engineering and construction to sales and customer services. REPP works with its investees to ensure all jobs created through the projects it supports provide **decent work, respects labour rights and improves skills** in line with REPP's Environmental and Social Policy and Procedures and the ambitions of SDG 8 (see page 28).

It is a race against time to develop a robust and viable market for renewables so that as many people and their communities as possible can enjoy these multiple benefits. But as outlined on page 13,

the sector faces a multitude of challenges that is preventing rapid growth. REPP is working directly to address this by seeking to **mobilise the private and public funding** necessary to grow the market.

By applying innovative climate funding solutions to overcome barriers to finance and demonstrating the bankability of projects, REPP is working to mobilise the private and public funding necessary to grow the nascent market. By 31 March 2021, **REPP's investments had brought about GBP 89 million additional funding** from third parties in line with SDG 17, and further supported successful project implementation by facilitating knowledge transfer and innovation through capacity building activities for its partners and investees. During 2020, REPP undertook extensive work with its partners - financiers and risk mitigation providers - to help progress projects and develop the market, thereby proving the efficacy of the REPP partner concept and a syndication strategy adopted for REPP at the start of the year.

## COVID-19 UPDATE

The far-reaching impacts of COVID-19 have been intensely felt on Africa's renewable energy sector, just as they have across all sectors worldwide. As REPP continues to take stock of how the pandemic has affected the facility's project portfolio, there remains considerable uncertainty as to how things will pan out over the rest of 2021 and beyond, although further disruption is inevitable.

Over the reporting period, travel restrictions continued to hinder sales, distribution and construction across the region as shipping delays impacted the procurement of goods. At the same time government permit processes necessary for operations slowed down as officials have focused on acute health and economic crises. The physical and psychological fallout from the pandemic has of course been experienced by every REPP-supported company.

Despite REPP investees' continued determination to do their work in the face of adversity, they have reported an average of between three to six months of construction delays due to the pandemic. Many investees, particularly those active in off-grid electrification, also reported slower progress in their fundraising activities, which has impacted negatively on their plans to scale up their operations.

To lessen the economic impact of COVID-19 and help ensure continued operations, REPP provided three-month interest and repayment moratoriums to all existing investees and set up a dedicated working capital facility for eligible companies. As of 31 March 2021, the total amount of assistance loans issued and interest waived was USD 925,000.

## MEASURING OUR IMPACT

REPP uses **key performance indicators** to measure each project's performance against set targets in accordance with the key performance indicator methods of the UK's International Climate Finance. Performance reporting is based on objective, self-reported data by REPP investees, including:

- total **installed capacity in megawatts (MW)** of clean energy generated by a project measured as rated power output when operational;
- annual net **amount of GHG mitigated** through project intervention, estimated relative to the assumed business-as-usual emissions scenario measured in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e);
- **number of people connected to clean energy** for the first time as a result of REPP intervention (relevant to off-grid projects only);
- total amount of REPP **funding committed** to projects in GBP million;
- volume of **finance mobilised** from third-party sources for climate change mitigation as a result of REPP intervention (in GBP million); and
- number of REPP-supported companies with **innovative business models**.

The above KPIs are aligned with the SDGs and their underlying targets, as well as IRIS and other impact accounting metrics from the Global Impact Investing Network, as presented in the table on page 24. In addition, the investees measure and self-report back to REPP on important **environmental and social parameters** identified in their ESIA's on a continuous basis, including but not limited to:

- **employment figures** by gender, skill level and nature of employment;
- occupational health and safety **incidents**;
- **training** events;
- **grievances** raised and addressed;
- stakeholder **consultations**;
- **waste management**; and
- mitigation measures undertaken.

Investees undergo an in-depth **annual review to verify the accuracy of their reported data** and the implementation status of their ESMS, as well as to check their compliance with local laws and regulations.





## HOW WE PLAN TO ACHIEVE OUR TARGETS

REPP's primary focus will continue to be **investing in small to medium-scale renewable energy projects** in Sub-Saharan Africa. REPP's manager and partners will carry on providing investees with **technical assistance** to mitigate risks, reach bankability and meet high environmental and social management standards.

REPP will continue its **capacity building** efforts to assist developers in successful project implementation, including the third REPP Academy, which was scheduled to take place virtually in October 2021. The annual training event will this year be aimed at mini-grid and isolated grid investees and developers in its advanced pipeline. The Academy will follow a masterclass and peer-to-peer learning framework that capitalises on knowledge exchange and case study-based learning opportunities, focusing on topics including financial structuring and fundraising, analysis of regulatory frameworks and navigation of regulatory uncertainty, demand stimulation and localisation of supply chains.



### ALIGNMENT WITH NATIONAL POLICY PRIORITIES

The successful implementation of national climate and sustainable development agendas is reliant on private sector engagement and multi-stakeholder partnerships. As countries review their Nationally Determined Contribution targets with a view to **raising their climate ambitions ahead of COP26** in November, decision makers will be looking at how best to leverage the contributions from both the public and the private sectors. Ensuring synergies between these efforts, particularly by helping developers and investors align their operations with national policy priorities, will be critical to mobilising the action required for achieving the goals of the Paris Agreement.

As well as directly supporting projects, businesses and markets in the countries in which it operates, REPP also seeks to **achieve transformational change by aligning with country climate, energy and sustainable development priorities**. Last year, REPP started mapping its existing portfolio against countries' needs and priorities as embodied in their NDCs, national climate policies, energy sector policies, strategies, action plans and long-term development agendas.

The insights gained through this ongoing exercise have and continue to inform REPP's investment approach, with the assessment of a project's or company's alignment with national policy priorities now integrated into decision making.

At the time of writing, REPP is preparing to publish its mapping work with the aim of encouraging other impact investors and fund managers to also consider how their operations can best support the implementation of national climate, energy and development priorities.

## PERFORMANCE OVERVIEW

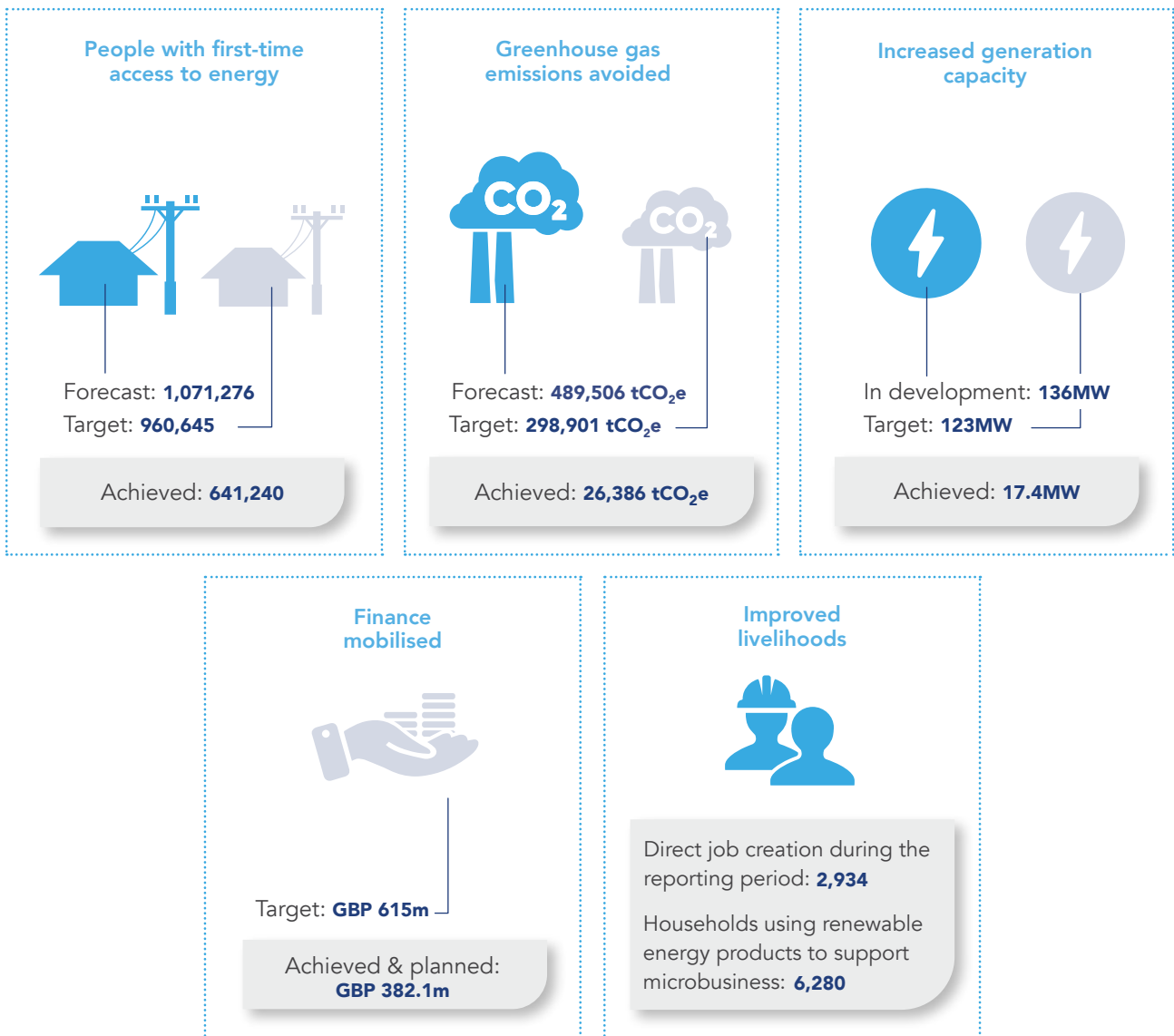
As of 31 March 2021, REPP had 28 contracted projects spanning 16 countries across Africa and employing seven technologies (SHS, solar PV mini-grids, solar PV-powered batteries, grid-connected solar PV, geothermal, run-of-river hydroelectric power and on-shore wind).

The following charts and infographics provide an at-a-glance overview of REPP’s core activities and accomplishments to date, including the programme’s impact in relation to the SDGs and NDCs. For a fuller picture of REPP’s overall impact refer to the table on page 24.



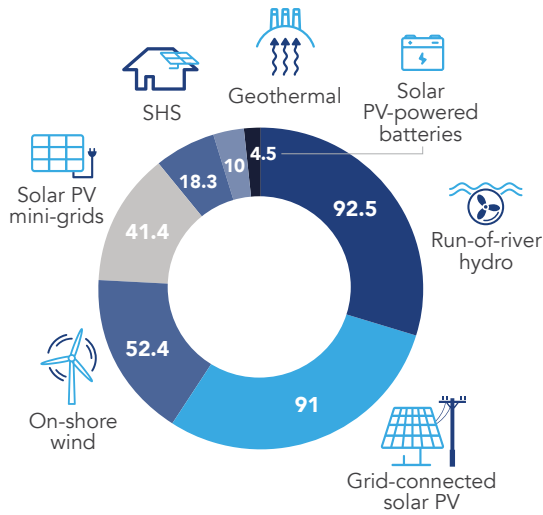
The charts presented in this section reflect the actual performance of all 12 operational projects as of 31 March 2021, the forecast cumulative performance of all projects with signed contracts in place by 31 March 2021, and the targets set for REPP. None of the figures have been risk-adjusted.

### PERFORMANCE AGAINST CORE KPIS FOR CONTRACTED PROJECTS



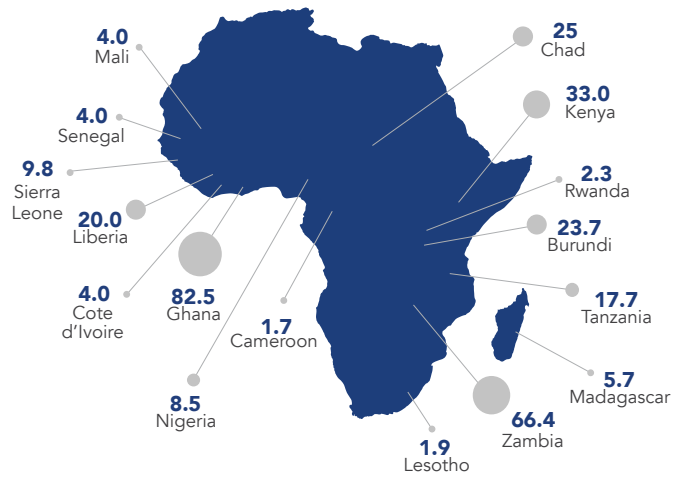
### CAPACITY BY TECH

In GBP m



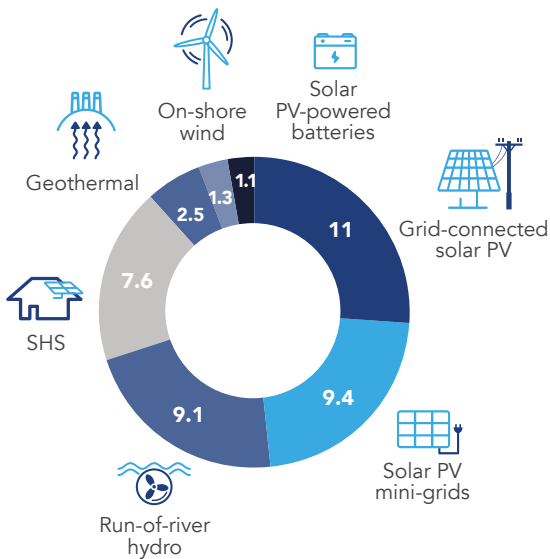
### CAPACITY BY COUNTRY

In MW



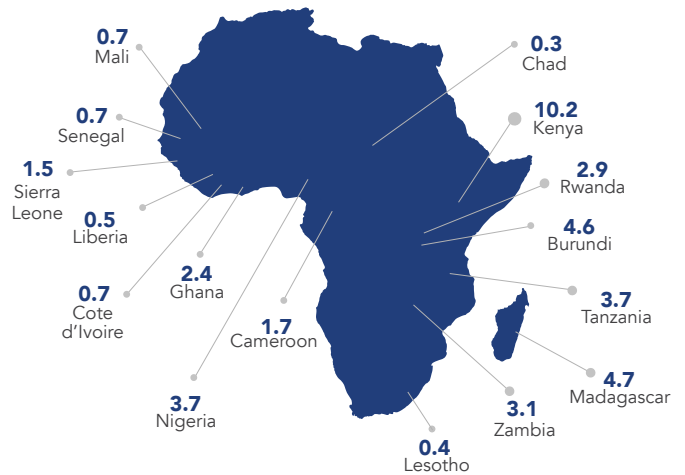
### COMMITTED SPEND BY TECH

In GBP m



### COMMITTED SPEND BY COUNTRY

In GBP m



### COMMITTED SPEND BY FINANCIAL STRUCTURE

Development phase capital

GBP 2.7m Committed

GBP 3.5m In documentation\*

Gap funding

GBP 34.6m

GBP 44.3m

\* In documentation refers to transactions approved by REPP's investment committee but not yet formally contracted as of 31 March 2021.



WHAT				
Focus area	Performance indicators	ALIGNMENT		
		SDG	SDG target	IRIS+
<b>Principles of governance</b>	Number of incidents of corruption reported in the past year	16	16.5	-
	Number of people trained on anti-corruption	16	16.5	-
	Number of incidents reported to hotline	16	16.5	-
	Number of ESIA/ESMSs conducted in a year	-	-	OI1254
<b>People</b>	Number of injuries	8	8.8	OI3757
	Number of fatalities	8	8.8	OI6525
<b>Prosperity</b>	Number of projects reaching financial close	13	7.1, 7.2	-
	REPP funding committed in USDm	13	13.a	OD5990
	Finance mobilised in USDm	17	17.3	-
	Direct job creation in each year	1, 8	1.2, 8.5	OI8869 OI9028 PI3687
	Skilled jobs created in each year	1, 8	1.2, 8.5	OI8869 OI9028 PI3687
	Number of women in the workforce	-	-	OI2444 OI16978
	Number of people with first-time access to clean energy	1, 3, 7, 11	1.4, 1.5, 3.4, 7.1, 7.2, 11.1	PI2822 PI2845
	Number of households using products to support business / microbusiness	1, 8	1.2, 8.5	PI2845
	Number of critical services supported*	1	1.4, 1.5	PI2822
	Investments aligned with 2X Challenge criteria (GBPm)	5	5.5	-
<b>Planet</b>	Installed renewable energy capacity in MW	17, 13	7.1, 7.2, 13.1	PD1602
	Greenhouse gases avoided cumulative (tCO <sub>2</sub> e)	13	13.2	PI2764
	Number of countries whose NDCs are supported	13	13.2	-
	Total amount (m <sup>3</sup> ) of waste generated and disposed of	-	-	OI6709
	Total amount of hazardous waste (m <sup>3</sup> )	12	12.4	OI1346
	Number of projects in ecologically sensitive areas	-	-	-
	Number of projects affecting IUCN Red List species	-	-	-
Number of projects in water-stressed areas	-	-	OI2799	

\* Refers to schools, clinics, hospitals, waterworks and water-pumping stations that have received electricity through the projects.  
MNT = Monitored. No target  
NR = Not reported previously

HOW MUCH								DATA RISK
ACHIEVED				FORECAST		TARGET		
2018	2019	2020	Q1/2021	2021	2022	2021	2023	
NR	NR	NR	0	-	-	MNT	MNT	The risk on reported impact is considered low as we report actual impact achieved.
NR	NR	NR	19	-	-	MNT	MNT	
NR	NR	NR	1	-	-	MNT	MNT	
NR	NR	NR	5	-	-	MNT	MNT	The data quality is considered high as most parameters are measured.
NR	NR	7	15	-	-	MNT	MNT	
NR	NR	2**	0	-	-	MNT	MNT	GHG emissions are calculated from kWh produced and sold and UNFCCC-approved country-specific grid emission factors. For SHS projects, figures are calculated based on sales and a conservative emission factor of 0.15 tCO <sub>2</sub> /SHS/year.
4	8	16	16	24	25	27	44	
12	24	47	48	51	51	110	172	
38	61	114	114	527	404	534	848	
594	1,512	2,104	2,934	-	-	MNT	MNT	
0	0	255	553	-	-	MNT	MNT	
-	278	501	1,377	-	-	MNT	MNT	
60,105	174,220	581,400	641,240	668,954	1,071,276	694,948	960,645	
-	-	6,280	6,280	-	-	MNT	MNT	
-	-	371	390	-	-	MNT	MNT	
-	-	18	18	-	-	MNT	MNT	
1	2	8	17	28	153	21	123	
2,021	5,958	22,053	26,386	50,456	489,506	55,766	298,091	
0	0	14	15	-	-	MNT	MNT	
NR	NR	21	TBC	-	-	MNT	MNT	
NR	NR	2	TBC	-	-	MNT	MNT	
NR	NR	NR	1	-	-	MNT	MNT	
NR	NR	NR	1	-	-	MNT	MNT	
NR	NR	NR	0	-	-	MNT	MNT	

\*\* In 2020, the overall occupational health and safety performance of investee companies was good. However, two employees of one of the investee companies were tragically killed in motorcycle accidents while at work. This prompted a further review of how occupational health and safety procedures and training to encourage the use of personal protective equipment and safe driving practices could be improved. The procedures in place were considered sufficient; however, the investee company has since improved the monitoring of driving practices through trackers, increased the frequency of regular health and safety training and appointed a dedicated field team to enforce all safety guidelines and policies.

## PRODUCTIVE USE OF ENERGY

The productive use of energy is a term typically used in rural contexts and refers to agricultural, commercial and industrial activities powered by electricity, heat and/or mechanical power to generate income and economic value through enhanced productivity. These activities are usually powered by mini-grids (solar, hydro and hybrid) and solar home systems, although the term is applicable to other sources of off-grid energy production as well.

Despite the significant potential of productive use of energy activities to increase economic and social prosperity, the prevalence of such activities are often hindered by a lack of technical knowledge and skills among potential users, insufficient infrastructure and the absence of financial means to acquire the relevant equipment. As a result, mini-grid developers and solar home system distributors are increasingly looking at new business models, specific services, training and partnerships to address these challenges.

### PRODUCTIVE USE OF ENERGY AND REPP

REPP has played a pivotal role in financing several early-stage off-grid companies working to develop innovative and clean energy productive use applications for their customers. To date, it has invested more than GBP 18 million in nine such companies in East and West Africa, which together are currently providing electricity to 6,280 micro and small businesses as well as powering 430 critical services, including schools, health clinics and water pumping stations.

### POWERHIVE'S KUKUPOA INITIATIVE

Through this initiative, the solar PV mini-grids company Powerhive has financed seven chicken brooders and built 25 brooder houses in partnership with a village community in Kisii County in Kenya which are providing livelihood opportunities for approx. 130 people, generating a new income stream of USD 150-250 per person, per month. Brooder owners are provided with continuous training and capex financing.

Powerhive also supplies energy to posho mills, a welding shop, a dispensary, hostels and village-wide internet, all of which provide further alternative economic opportunities that enhances the community's resilience to the impacts of climate change and hence increases its adaptive capacity. The company also provides financing for several electric appliances and good, including pressure cookers, posho mills, trikes and bikes, and hatcheries.





## ARC POWER'S SOLAR BUSINESS PARKS

In November 2020, British start-up and REPP investee ARC Power completed its first solar business park in Bugesera District, Rwanda. The park works on a 'plug-and-play' business model that allows local entrepreneurs to pay for the power they use, and the space they occupy, at an agreed rate. ARC Power also hires out the machinery, enabling its customers to get their businesses up and running without being faced with prohibitively expensive set-up costs.

The solar park currently provides round-the-clock affordable, reliable and clean electricity to a locally owned tailors, a milling station and a welding shop, with a small cinema planned to open soon. ARC Power plans to roll out up to 45 parks across Rwanda.



## RIFT VALLEY ENERGY'S PRIVATE DISTRIBUTION NETWORK

The private distribution network in Tanzania's Iringa region is powered by a 4MW hydro plant and a new 2.4MW wind farm, which was commissioned last year following a critical USD 1.2 million loan from REPP. This network currently has 5,100 customer connections, including two tea factories, a dairy farm, two sawmills, 40 primary and secondary schools as well as 44 village and ward offices. It also provides clean energy to dozens of small business workshops using more than 400 productive use of energy appliances, and eight water pumps, which supply 3,000 households with clean water.





## ENVIRONMENTAL AND SOCIAL SAFEGUARDS

REPP works closely with project companies to ensure a high level of environmental and social integrity. REPP's Environmental and Social Policy and Procedures are aligned with industry best practices, namely the **IFC Performance Standards** for Environmental and Social Sustainability, the **UN Global Compact Sustainability Principles** and the **EIB Environmental and Social Standards** covering stakeholder engagement and biodiversity and ecosystems.

All REPP-funded projects must establish an environmental and social management system (ESMS) in line with these standards. As part of the ESMS, the projects are required to undergo an environmental and social impact assessment (ESIA) to identify impacts, establish mitigation plans and ensure management through continuous measurement and reporting of impact. Abridged summaries of REPP's environmental and social, anti-corruption/integrity, and safeguarding policies can be found on page 59.



## PROMOTING GENDER EQUALITY

The full and equal participation of women in decision-making and leadership in both the public and private sector is crucial to addressing climate change, as well as achieving affordable clean energy for all.

In August 2019, REPP adopted its **Gender Mainstreaming Policy** which incentivises investee companies to integrate gender equality into their project design and operations by way of discounted pricing. To qualify for the discounts, an investee must:

- carry out a **gender equality analysis** on itself, its country/countries of operation and the targeted sector; and
- establish and implement an investee-specific **gender action plan** by identifying gender performance indicators and gender-disaggregated targets, against an established baseline.

REPP works with its investees and provides capacity building to establish gender action plans. Although several REPP investees have embarked on their gender equality journeys, so far only a handful have established and started implementing gender action plans.

One of the first of REPP's investees to establish a gender action plan was Virunga Power after it identified its gender baseline based on the UN Global Women's Empowerment Principles Gender Gap Analysis Tool in October 2019. The plan was finalised in July 2020 and contains 57 actions and targets across the areas of corporate, project construction and operation, and community.

Cameroon-based SHS company UpOwa - a company aligned with the international 2X Challenge criteria - became the latest investee to finalise its gender action plan in April 2021. upOwa's plan contains 19 actions and 36 indicators covering gender equality and inclusive values in the company's policies and procedures, gender awareness, gender compliance analysis, women as sales agents, women in management, women customers and integrated monitoring of gender dimensions.



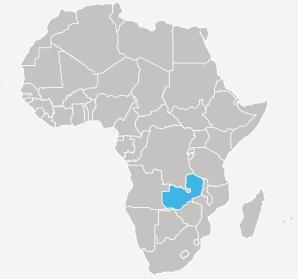
# FEATURED CASE STUDIES





# BWEENGWA

IN DEVELOPMENT



Location  
Southern Province,  
Zambia

## PROJECT SUMMARY

Ground-breaking plans to build a ~10MW geothermal plant in Zambia are progressing well after REPP approved a loan to finance the drilling of up to three additional slim wells for pre-feasibility resource definition.

Although geothermal power generation in Africa is currently focused on the Great Rift Valley in Kenya and Ethiopia, exploration suggests that the Kafue Trough in Zambia's Southern Province is also suitable for the technology. The difference is that, unlike Great Rift Valley projects where the heat source is magmatic, the heat source in Zambia is within crustal fault zones where deep circulating fluids are heated by the geothermal gradient and held in place by a cap rock. This type of geologic setting has been successfully exploited for power generation in Nevada, USA, and Anatolia, Turkey.

Developer Kalahari GeoEnergy Ltd had privately financed the drilling of 18 exploratory wells (thermal gradient holes and slim wells). Five of these have intersected a near-surface aquifer with temperatures of more than 100 degrees Celsius. This shallow aquifer is fed from a deeper ~150 degrees Celsius resource.

A portion of REPP's USD 3.2 million funding has been used to enable the company to drill and test a further four slim wells which have enabled the collation of additional data for reservoir modelling, and which are being used in a feasibility study that is expected to be completed by September 2021. The intention is to install a prototype power unit of up to 500kW at one of the new wells, although the ultimate objective is to develop a 10MW power plant.

Adding geothermal to Zambia's energy mix would allow for a renewable source of baseload capacity, and have a potentially transformative impact on the region by facilitating the expansion of geothermal energy generation both nationally and regionally.



### Country policy alignment

- Supports Zambia's conditional updated NDC (2020) target to reduce GHG by 47% by 2030.
- Contributes USD 3.2 million towards ~USD 35 billion cost of implementing conditional mitigation measures (NDC 2016; 2020).
- Supports diversification of energy mix, including through increased geothermal exploration, outlined as priority in National Energy Policy (2019).

## AT A GLANCE

Technology:  
Geothermal

Project type:  
Grid-connected



Offtaker:  
TBC

## KPIs\*



GHG emissions avoided:  
58,180 tCO<sub>2</sub>e per year



Planned capacity:  
10MW

\* Note: REPP is providing finance for drilling and part of the costs of establishing a prototype unit. KPIs refer to the plant once commercially operational.

## FUNDING STRUCTURE

Signed: 24 April 2020

Lending type: Convertible loan

REPP funding: up to USD 3.2 million

## SDGs



*"The convertible loan facility from REPP has enabled us to drill and test additional slim wells to determine the capacity of the reservoir. The addition of dispatchable, sustainable energy to the grid will be a positive step towards Zambia meeting its development targets, while the secondary uses of geothermal energy should attract investment into the district."*

Peter Vivian-Neal, CEO, Kalahari GeoEnergy Ltd

# MALILE

OPERATIONAL



## Location

Cities of Diego Suarez, Mahajanga and Toamasina, Madagascar

## PROJECT SUMMARY

Three large-scale heavy fuel oil (HFO) plants in Madagascar are set to be hybridised with solar PV thanks to a USD 6 million bridge loan from REPP to developer LIDERA Green Power PCC.

Currently, 75% of the country's power is generated from expensive and high-emission HFO and diesel plants, but the government is keen to reduce dependence on fossil fuels and shift towards more sustainable sources.

Under Lidera Green Power PCC's plans, 10MW, 12MW and 20MW of solar PV will be installed close to the existing HFO plants in the cities of Diego, Mahajanga and Toamasina, respectively. By doing so, the solar plants will be able to take advantage of the existing infrastructure, significantly reducing costs and the environmental impact of the development.

The project, which is the first large-scale PV hybridisation of HFO plants in Madagascar, will be carried out in two phases in order to meet deadlines set out by the Malagasy government. REPP is financing the first phase, which will deliver a total installed capacity of 5.7MW across the three sites, and unlock the second phase. The second phase of 36.3MW is planned for 2022.

REPP's bridge loan will enable the borrower to fund the engineering, procurement and construction costs for the first phase, which if successful will act as a proof of concept to encourage other lenders to support the development and construction of the second and larger phase.

Once the sites are operational, the owner of the HFO plants will purchase power from the PV projects and then on-sell to the national utility. The project is expected to deliver significant socio-economic benefits to Madagascar's economy and population by reducing the country's reliance on expensive HFO and providing job opportunities during the construction and operation of the plant.



### Country policy alignment

- REPP's investment in Malile represents a significant international contribution the conditional NDC target (2015) for a 14% reduction of GHG emissions by 2030.
- Supports President's Madagascar Emergence Initiative (2019) and will add 42MW solar generation capacity in line with New Energy Policy targets (NEP, 2015).

## AT A GLANCE

### Technology:

Grid-connected solar PV



### Project type:

Grid-connected

### Offtaker:

The HFO IPP will purchase the power and on-sell to the national utility, JIRAMA.

## KPIs - whole project



GHG emissions avoided: 63,597 tCO<sub>2</sub>e per year

**Achieved: data not available at time of publication**



Improves stability of grid supply



Planned capacity: 42MW  
**Achieved: 2MW**

## FUNDING STRUCTURE

**Signed:** 22 December 2020

**Lending type:** Bridge loan

**REPP funding:** USD 6 million

## SDGs

7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



17 PARTNERSHIPS FOR THE GOALS



*"As the first large-scale PV hybridisation of heavy fuel oil plants in Madagascar, the Malile project is truly ground-breaking and once fully operational will significantly support the country's GHG emission targets. REPP's support has been instrumental in getting the first phase off the ground and helping to prove the concept to further lenders."*

Richard Voisin, CEO, DERA Energy

# MARCO BORERO

IN CONSTRUCTION



Location  
Nyeri County, Kenya

## PROJECT SUMMARY

A USD 355,000 equity investment from REPP has breathed new life into a grid-connected solar PV plant in central Kenya that required additional equity to fund construction.

Although developer Marco Borero had earlier secured a USD 1.8 million senior debt offer from the French Development Agency's (AFD) SUNREF programme via the Co-operative Bank of Kenya to help fund construction of the 1.65MW (DC) plant, it had been unable to raise the final tranche of equity required to complete the financing package. This was due to the comparatively small size of both the project and the remaining funding amount required. REPP's equity participation brought much-needed comfort to lenders in order to complete the financing required to bring the project to fruition.

With REPP's funding, Marco Borero reached financial close on the project in September 2020, unlocking the senior debt facility to accelerate construction at the site in Nyeri County. Astonfield Solar, a Sub-Saharan solar EPC contractor, has been building the plant since June 2020, with approximately 50 construction jobs having been created through the project to date.

It had been hoped to reach commercial operation in Q1 2021, however the target date had to be pushed back due to COVID-19-related delays. The project is in the final stage of construction, and once completed will be among the first privately owned solar plants to reach operation in Kenya.

The project is also helping to build local capacity with the first-time developer, which has aspirations of developing a pipeline of renewable energy projects in the region.

## AT A GLANCE

### Technology:

Grid-connected solar PV



### Project type:

Grid-connected

### Offtaker:

Kenya Power and Lighting Company

## KPIs



GHG emissions avoided:  
1,929 tCO<sub>2</sub>e per year



Improves stability of grid supply



Planned capacity:  
1.65MW (DC)

## FUNDING STRUCTURE

**Signed:** 9 April 2020

**Lending type:** Equity

**REPP funding:** USD 355,000

## SDGs



### Country policy alignment

- Project contributes towards Kenya's target to reduce GHG emissions by 32%, including through increased renewable energy capacity, as per its Updated NDC (2020).
- Supports the implementation of the Vision 2030 and the Big 4 Agenda, which identify energy as an enabler for sustained economic growth.



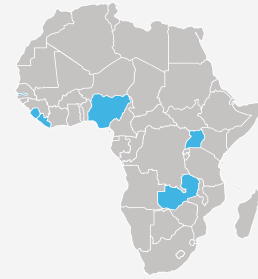
*"REPP came in at the right time, and I'm sure without them Marco Borero would have challenges meeting the project's COD deadline. When REPP came on board they not only injected fresh equity, but also a fresh management style due to their experience. Now we are able to achieve financial close together."*

Henry Maina Kanyua, Chairman, Marco Borero Company Limited



# MOBILE POWER

OPERATIONAL



## Location

Liberia, Nigeria, Sierra Leone, The Gambia, Uganda and Zambia

## PROJECT SUMMARY

A UK-based company providing affordable energy access to low-income communities in West Africa is set for rapid expansion following the completion of a GBP 2 million Series A funding round.

Mobile Power was established in 2013 to serve the needs of rural end-users in markets that are underserved by existing rural electrification models. Through the company's innovative rental model, customers rent smart 50Wh lithium-ion batteries at a low cost and in 24-hour increments. The "MOPO Batteries" are charged by solar-powered "MOPO Hubs". This provides a lower cost, lower carbon model than local alternatives, which include diesel generator-powered charging stations and battery-powered torches. MOPO Batteries are managed by "MOPO Agents" and are suitable for lighting and fans, as well as phone charging, radios and TVs thereby providing access to information, communications and entertainment.

Payments are made either in cash or using mobile money, making the service inclusive to those without mobile money or areas with a weak phone signal. Additionally, the product requires no consumer debt or long-term commitment, unlike many solutions.

Following the successful Series A funding round in December 2020, led by a GBP 1 million equity investment from REPP, Mobile Power has deployed MOPO Hubs at a rapid pace in West Africa, connecting over 44,600 people to clean electricity for the first time.

The company already had operations in Sierra Leone, which is among the world's poorest countries with 60% of the population living on less than USD 1.25 a day, as well as various partnership projects in Uganda, Zambia and Gambia. In 2020, it launched in Liberia and in 2021 entered the Nigerian market following the arrival of the first hubs.

In early 2021, Mobile Power announced that following a successful initial pilot for a new e-mobility platform it had purchased additional bikes for a larger pilot. The platform is based on the company's existing technology, manufacturing and operational experience, and provides battery rental for motorbikes, tuktuks, agricultural tricycles and other commercial applications.



### Country policy alignment

- Closely supports Sierra Leone's national policy priority of promoting renewable energy development in rural areas and its vision for low-emission development (NDC, 2016).
- In line with Sierra Leone's aims to develop energy sector to support increased productivity, wealth creation and improved quality of life (National Energy Strategic Plan, 2009).
- Supports Liberia's 2030 targets to reduce GHG emissions by 10% and increase the share of renewables-based electricity production to at least 30% (NDC, 2018).

## AT A GLANCE

### Technology:

Solar PV-powered batteries



### Project type:

Off-grid

### Offtaker:

Rural and peri-urban communities

## KPIs



GHG emissions avoided: 9,885 tCO<sub>2</sub>e per year  
**Achieved: 21 tCO<sub>2</sub>e (cumulative)**



People with first-time access to clean energy: 273,800  
**Achieved: 44,610**



Planned capacity: 4.5MW  
**Achieved: 0.15MW**

## FUNDING STRUCTURE

**Signed:** 10 December 2020

**Lending type:** Equity

**REPP funding:** GBP 1 million

## SDGs



"As a highly regarded energy access investor, REPP's participation in our Series A funding round was of strategic importance to us as we expand into new territories."

Chris Longbottom, CEO, Mobile Power





# MUBUGA

## PROJECT SUMMARY

An ambitious project to build a 7.5MW\* solar PV power plant in Burundi, one of the world's least electrified countries, has reached commercial operation.

Located in Mubuga in the Gitega Province, the project - which is the country's first grid-connected solar project by an independent power producer (IPP) - has added approximately 10% to Burundi's strained baseload generation capacity. It has also increased Burundi's resilience to climate change and improved its energy security by diversifying its energy mix to include solar, since the country currently relies largely on hydropower which is increasingly affected by droughts and imported diesel for gensets.

The project was developed as a public-private partnership between the Government of Burundi and developer Gigawatt Global, and is expected to pave the way for other renewable energy projects in the country.

Full construction of the plant got underway in January 2020 after the project had become the first REPP-supported grid-connected project to achieve financial close in 2019. Commercial operation finally began on 31 March 2021 following a series of delays due to COVID-19, and it is estimated that the plant is now supporting the electricity needs of approximately 90,000 people and businesses

through the improved stability of the local distribution network. Around 190 full time jobs were created during construction, of which around a half were held by women, and up to 25 long-term jobs during the ongoing operational phase.

Following construction of the main plant, Gigawatt has begun progressing plans to build an electrified community center as an energy hub alongside the project for the local community as part of a corporate social responsibility initiative. Once built, the energy hub will support economic growth and raise living standards among the local community by providing opportunities for productive uses of energy (e.g. tele-education, vaccine storage, milling etc.) as well as access to phone chargers, the internet and similar services charged at a nominal rate to support O&M costs.

REPP has supported the development of the Mubuga project since December 2016, culminating in a construction bridge loan (alongside Evolution II Fund, managed by Inspired Evolution Investment Management) and a subordinated term loan.

As the first of its kind in Burundi, the project has a strong demonstration impact, building capacity within government and strengthening political buy-in and support for small-scale utility renewables, thereby establishing a more viable market for renewable energy projects in the country.



*"The scale of impact the Mubuga project will have on ordinary people's lives and businesses cannot be overestimated, and in the process will mark the dawn of a new era for renewable energy in Burundi. REPP's support has made this possible. The project will be the model that will be followed by other foreign investors and will raise the image of Burundi for long-term investment by international financiers."*

*- Honourable Jean Jacques Nyenimigabu, former MP from Mubuga*



OPERATIONAL



Location  
Burundi



### Country policy alignment

- Strongly supports Burundi's vision for sustainable development, with the project being a priority initiative listed in the National Development Plan (2018).
- REPP's support for private investment in renewable energies aligns with the priorities of the National Strategy and Action Plan on Climate Change (NSAPCC 2012).



### AT A GLANCE

#### Technology:

Grid-connected solar PV



#### Project type:

Grid-connected

#### Offtaker:

REGIDESO

### KPIs



GHG emissions avoided:  
3,526 tCO<sub>2</sub>e per year



Improves stability of grid supply



Installed capacity:  
7.5MW\*

\* 8.67MWp DC

### SDGs



### FUNDING STRUCTURE

<b>Signed:</b> 7 December 2016	<b>Signed:</b> 17 December 2019	<b>Signed:</b> 17 December 2019
<b>Type:</b> Development finance	<b>Type:</b> Construction finance	<b>Type:</b> Subordinated term loan
<b>REPP funding:</b> Undisclosed	<b>REPP funding:</b> Undisclosed	<b>REPP funding:</b> Undisclosed

"The launch of Burundi's first grid-connected solar farm will light up the nation's energy system. It will strengthen the national grid supply and propel forward a promising future for the country in clean, green energy.

"Set to increase Burundi's power generation capacity by 10%, this pioneering project, backed by UK government funding, is a fantastic example of countries working together ahead of COP26. Investing in a green future benefits the economy and the planet."

- Greg Hands, UK Minister for Energy, Clean Growth and Climate Change



OPERATIONAL



Location  
Cote d'Ivoire, Ghana,  
Mali, Senegal

# PEG AFRICA

## PROJECT SUMMARY

PEG Africa is a leader in deploying and financing solar products to rural and peri-urban households and businesses in West Africa. The company focuses on providing embedded finance for useful and productive assets, such as solar home systems via its pay-as-you-go (PAYG) financing model. It commercially launched its first products in Ghana in 2015, and has since expanded into Cote d'Ivoire, Mali and Senegal.

In 2018, REPP participated in PEG's USD 5 million series C equity raise with an equity investment of USD 1.1 million.

In 2020, the company surpassed the 100,000-customer milestone and as of 31 March 2021 more than 700,000 people had been connected to electricity through its products, many of whom did not have access to electricity before. Nearly 400,000 of these people were connected following REPP's investments in the company.

In the same year, PEG Africa started selling productive use equipment such as solar-powered water pumps. REPP provided further support to the company in the course of the year with two investments: a convertible loan of USD 2 million and COVID-support of USD 600,000.

Solar homes system kits offer a raft of economic, environmental and health benefits for the region's rural communities, where off-grid households are currently spending USD 14 – USD 20 per month on kerosene, candles, batteries and phone charging. Through the asset-based financing scheme, PEG's customers – who lack formal banking services – make small incremental repayments via their mobile phones to acquire, use and finally own the solar system.



### Country policy alignment

- Project supports all countries' NDC targets to reduce GHG emissions by 2030 and increase use of renewables.
- It also contributes towards:
  - Cote d'Ivoire's goal of universal electrification (National Renewable Energy Action Plan, 2016) and the promotion of solar water pumps (NDC 2016)
  - Mali's 87% energy access by 2030 target (Mali SE4All Investment Plan 2019), Senegal's target for 81.6% electricity access in rural areas by 2023 (Priority Action Plan 2019-2023, 2018) and electrifying 4,356 localities through solar home systems (Updated NDC 2020).
  - Ghana's Renewable Energy Master Plan (2019) goals of adding 200MWp of distributed solar by 2030 and electrifying 1,000 off-grid communities through decentralised electrification options.

## AT A GLANCE

### Technology:

Solar home systems



### Project type:

Off-grid

### Offtaker:

Off-grid communities

## KPIs



GHG emissions avoided:  
12,750 tCO<sub>2</sub>e per year  
**Achieved: 18,541 tCO<sub>2</sub>e**  
(cumulative)



People with first-time access to clean energy: 425,000  
**Achieved: 392,255**



Planned capacity:  
4.25MW (DC)  
**Achieved: 2MW**

## FUNDING STRUCTURE

**Signed:** Various

**Lending type:** Various

**REPP funding:** USD 3.7 million

## SDGs



"PEG is delighted to have received an investment from REPP. The management team has deep experience in innovative financing approaches for energy, and we are looking forward to learning from them."

Hugh Whalan, Group CEO, PEG Africa

# SELECTED PROJECT UPDATES







# ARC POWER

Bugesera District, Rwanda

**OPERATIONAL**

## PROJECT SUMMARY

A two-phase project to build up to 100 mini-grids that will connect around 145,000 people in Rwanda to clean electricity for the first time. To date, two mini-grid generation systems serving six distribution networks and with a combined capacity of 0.07MW have been completed. A total of 7,030 people and 127 microbusinesses across seven villages have been connected to electricity provided through the networks. REPP increased its original investment of GBP 600,000 by a further GBP 300,000 in May 2020 to provide ARC Power with a runway ahead of a larger fundraise which has since started.

### AT A GLANCE

**Technology:**  
Solar PV mini-grids



**Project type:**  
Off-grid

**REPP funding:**  
GBP 900,000 convertible loan

### KPIs



GHG emissions avoided:  
Whole project: 4,928 tCO<sub>2</sub>e per year  
**Achieved:**  
35 tCO<sub>2</sub>e (cumulative)



People with first-time access to clean energy:  
Whole project: 145,000  
**Achieved: 7,030**



Planned capacity:  
Whole project: 2.24MW  
**Achieved: 0.07MW**

### SDGs



#### Country policy alignment:

Supports Rwanda's conditional NDC (2020) targets to reduce GHG emissions by 38% and install 68MW of solar PV mini-grids in rural areas by 2030.

In line with Rwanda's Energy Sector Strategic Plan (2018) target to electrify 1.5m households through off-grid solutions by 2024.



# BUFFALO ENERGY

Zambia

**IN DEVELOPMENT**

## PROJECT SUMMARY

A portfolio of six projects utilising a range of technologies with a combined generating capacity of over 100MW. To date, REPP's support has enabled developer Buffalo Energy Ltd to continue to grow its pipeline while also progressing its existing projects, including the procurement and management of a wind measurement campaign on a 50MW wind project, and the subsequent completion of the full feasibility study for that project. REPP's support has also facilitated the completion of various environmental and geotechnical studies on a 25MW solar project, and the environmental and topographical studies for a 5MW run-of-river hydro project.

### AT A GLANCE

**Technology:**  
Grid-connected solar PV, wind and mini-hydro



**Project type:**  
Grid-connected and off-grid

**REPP funding:**  
Corporate convertible loan. Amount undisclosed due to confidentiality

### KPIs



GHG emissions avoided:  
49,869 tCO<sub>2</sub>e per year



People with first-time access to clean energy: 2,700



Planned capacity:  
30MW\*

### SDGs



#### Country policy alignment:

Supports Zambia's NDC (2016) targets to reduce GHG emissions by 47% by 2030 and extend grid to non-electrified rural areas. Well-aligned with National Energy Policy (2019) objective of diversifying the energy mix.

\* Estimate of achieved capacity during REPP's support



# CBEA POWERGEN TANZANIA

Tanzania

OPERATIONAL

## PROJECT SUMMARY

This project centres round an innovative new funding vehicle established by CrossBoundary Energy Access (CBEA) in partnership with PowerGen Renewable Energy and supported with a USD 3 million loan from REPP. Through the vehicle, CBEA intends to purchase PowerGen's existing and future operating mini-grids in Tanzania, thereby providing funding to the developer to invest in new mini-grids. PowerGen will continue to provide long-term customer and asset management services to customers. This transaction sets the template for other transactions with CBEA in other countries. As of 31 March 2021, 932 homes and microbusinesses had been connected via eight mini-grids, providing electricity to approx. 4,175 people.

### AT A GLANCE

**Technology:**

Solar PV mini-grids



**Project type:**

Off-grid

**REPP funding:**

USD 3 million results-based senior loan

### KPIs



GHG emissions avoided: 2,321 tCO<sub>2</sub>e per year  
**Achieved: 58 tCO<sub>2</sub>e (cumulative)**



People with first-time access to clean energy: 39,725  
**Achieved: 4,175**



Planned capacity: 1.1MW  
**Achieved: 0.07MW**

### SDGs



**Country policy alignment:**

Supports Tanzania's NDC (2018) targets to reduce GHG emissions by up to 20% by 2030 and promote diversification of the energy system. Increased energy access will contribute to 70% by 2030 electrification target (SE4All Action Agenda 2015). Project's numerous productive use customers and social service providers support sustainable economic growth in rural communities, aligning with Tanzania's Development Vision 2025.



# DJERMAYA

Hadjer-Lamis Region  
Chad

IN DEVELOPMENT

## PROJECT SUMMARY

This large-scale solar PV project is aiming to significantly reduce Chad's total reliance on fossil fuel-powered energy and boost its generating capacity by 20%. The project is currently advancing towards financial close, with the site secured, a tariff agreed with the offtaker, a PPA signed and a put and call option agreement materially agreed. Technical reports have all been completed, financed by REPP's technical assistance, and an ESIA and livelihood restoration plan have also been established.

### AT A GLANCE

**Technology:**

Grid-connected solar PV



**Project type:**

Grid-connected

**REPP funding:**

EUR 380,000 development loan

### KPIs



GHG emissions avoided: 39,683 tCO<sub>2</sub>e per year



Improves stability of grid supply



Planned capacity: 25MW (AC)

### SDGs



**Country policy alignment:**

Supports conditional NDC (2017) target to reduce GHG emissions by 71% by 2030. Will help alleviate poverty and foster economic activity by providing lower cost power than fossil fuel-fired generation, thus contributing to Chad Vision 2030's target of becoming an emerging country. Priority project in the Emergency Plan for Access to Electricity 2021-2023 (2020).



# GVE NIGERIA

72 villages in rural Nigeria

**OPERATIONAL**

## PROJECT SUMMARY

This ambitious mini-grid project aims to connect over 73,500 people living off-grid to clean and reliable electricity for the first time, directly supporting Nigeria's high-priority target of universal energy access by 2030. Following REPP's support, four of the 72 sites have been completed, resulting in a 0.43MW increase in renewable generating capacity and the connection of 11,725 people to electricity for the first time. Commercial operation of up to eight sites is expected by the end of 2021.

### AT A GLANCE

**Technology:**

Solar PV mini-grids



**Project type:**

Off-grid

**REPP funding:**

USD 288,000 in development capital

### KPIs



GHG emissions avoided: 5,957 tCO<sub>2</sub>e per year  
**Achieved: 157 tCO<sub>2</sub>e (cumulative)**



People with first-time access to clean energy: 73,500  
**Achieved: 17,725**



Planned capacity: 2.72MW  
**Achieved: 0.43MW**

### SDGs



**Country policy alignment:**

Supports Nigeria's NDC (2017) conditional target to reduce GHG emissions by 45% by 2030. Project is strongly aligned with the Nigerian Government's 'new paradigm for rural electrification' – delivering energy access through a combination of centralised and decentralised approaches.



# HA MAKEBE

Lesotho

**OPERATIONAL**

## PROJECT SUMMARY

Lesotho's first ever private mini-grid has begun providing electricity to people for the first time. So far, eight households have been connected, with dozens more properties set to be onboarded on a rolling basis over the coming months. Completion of the pilot mini-grid will now pave the way for the development of a larger portfolio of up to 10 additional mini-grids which will ultimately provide electricity to around 25,000 people, and a number of health clinics.

### AT A GLANCE

**Technology:**

Solar PV mini-grids



**Project type:**

Off-grid

**REPP funding:**

LSL 7m loan

### KPIs



GHG emissions avoided: 166 tCO<sub>2</sub>e per year (pilot mini-grid)  
4,095 tCO<sub>2</sub>e per year (full project\*)



People with first-time access to clean energy: 1,075 (pilot mini-grid)  
24,957 (full project\*)



Planned capacity: 76kW plus battery storage (pilot mini-grid)  
1.87MW (full project\*)

### SDGs



**Country policy alignment:**

Supports Lesotho's conditional NDC (2017) target to reduce GHG emissions by 35% by 2030 and install 1MW of solar PV mini-grids in rural areas. Well-aligned with National Energy Policy (2015) aim to increase private sector engagement in energy sector development, especially renewable energy mini-grids.

\* REPP is considering funding the full project, but is not legally committed





# MIDDLE NZOIA AND GITUGI

Central and Western Kenya

**IN DEVELOPMENT**

## PROJECT SUMMARY

This project involves the construction of two run-of-river hydropower plants with a combined generating capacity of 15MW, which once built will improve the reliability of the Kenyan national grid and have far-reaching benefits for local communities. In July 2020, developer Virunga Power became one of the first REPP investees to establish a gender action plan. The plan contains 57 actions and targets across three main areas - namely, corporate, project construction and operation, and community.

### AT A GLANCE

<b>Technology:</b> Run-of-river hydro 	<b>Project type:</b> Grid-connected
	<b>REPP funding:</b> USD 751,000 in development capital

### KPIs

	GHG emissions avoided: 44,044 tCO <sub>2</sub> e per year
	Improves stability to grid supply
	Planned capacity: 15.07MW

### SDGs


**Country policy alignment:**  
Supports Kenya's Updated NDC (2020) target to abate GHG emissions by 32% by 2030 and National Energy Policy (2018) objective to develop small hydro. By developing energy infrastructure, Virunga Power is supporting the manufacturing and other development priorities outlined in the "Big Four" agenda (2018).



# MOUNT COFFEE

Montserrado County, Liberia

**IN DEVELOPMENT**

## PROJECT SUMMARY

This ground-breaking project by developer Gigawatt Global involves the construction of a 20MW solar farm that will increase Liberia's generation capacity by 15%. It will also increase the resilience of its electricity supply to climate change by complementing a nearby hydropower dam which experiences periods of significantly reduced productivity during the dry season due to low water levels, made worse by the increased prevalence of droughts. A REPP-funded ESIA was recently completed for the project and PPA negotiations are now underway.

### AT A GLANCE

<b>Technology:</b> Grid-connected solar PV 	<b>Project type:</b> Grid-connected
	<b>REPP funding:</b> USD 615,000 in development capital

### KPIs

	GHG emissions avoided: 17,520 tCO <sub>2</sub> e per year
	Improves stability to grid supply
	Planned capacity: 20MW

### SDGs


**Country policy alignment:**  
Supports Liberia's NDC (2018) targets to reduce GHG emissions by >10% and make renewable energy >75% of the energy mix, as outlined in the Rural Energy Strategy and Master Plan (2016). If successful, the project will be Liberia's first IPP, setting the model for private sector participation in the energy market development in line with the NDC and the National Policy and Response Strategy on Climate Change (2018).



# MWENGA

Mufindi District, Iringa region  
Tanzania

**OPERATIONAL**

## PROJECT SUMMARY

Tanzania's first ever wind farm achieved commercial operation in July 2020, providing much-needed energy security to a growing rural population, and supplying connected communities and businesses with sustainable green power. Completion of the works was made possible after a USD 1.2 million mezzanine loan from REPP concluded the financing arrangements for the project and improved its overall commercial viability.

### AT A GLANCE

<b>Technology:</b> On-shore wind 	<b>Project type:</b> Grid-connected
	<b>REPP funding:</b> USD 1.2 million mezzanine loan

### KPIs

	GHG emissions avoided: 3,526 tCO <sub>2</sub> e per year <b>Achieved:</b> 1,067 tCO <sub>2</sub> e (cumulative)
	Improves stability to grid supply
MW	Planned capacity: 2.4MW

### SDGs


**Country policy alignment:**  
Supports Tanzania's NDC (2015) targets to reduce GHG emissions by up to 20% by 2030 and promote rural electrification and diversification of energy system. Supports implementation of Tanzania's Vision 2025 and National Five-Year Development Plan 2016-21 (2016) through development of energy infrastructure and renewable energy capacity.



# PAS SOLAR NIGERIA

Northern and southern regions,  
Nigeria

**OPERATIONAL**

## PROJECT SUMMARY

PAS Solar provides affordable clean energy to off-grid communities in Nigeria. The company uses solar home system kits to provide energy on an energy-as-a-service basis, which means customers do not buy the kits but rather pay monthly fees for use of electricity generated. To date, PAS Solar has established around 4,400 connections for households and micro-enterprises, providing first time clean electricity to over 21,800 people as well as to over 60 critical services such as schools and primary health clinics.

### AT A GLANCE

<b>Technology:</b> Solar home systems 	<b>Project type:</b> Off-grid
	<b>REPP funding:</b> USD 2.2 million development loan; USD 1.6 million equity

### KPIs

	GHG emissions avoided: 1,560 tCO <sub>2</sub> e per year <b>Achieved:</b> 1,893 tCO <sub>2</sub> e (cumulative)
	People with first-time access to clean energy: 52,000 <b>Achieved: 21,870</b>
MW	Planned capacity: 0.52MW <b>Achieved: 0.2MWp</b>

### SDGs


**Country policy alignment:**  
Supports Nigeria's NDC (2017) conditional target to reduce GHG emissions by 45% by 2030. Project is strongly aligned with the Nigerian Government's 'new paradigm for rural electrification' – delivering energy access through a combination of centralised and decentralised approaches.



# POWERGEN


Benin, Kenya, Nigeria, Sierra Leone and Tanzania

**OPERATIONAL**




## PROJECT SUMMARY

Over 36,000 people across Kenya, Nigeria, Sierra Leone and Tanzania have so far been connected to electricity for the first time through this project following a successful eight-investor funding round in 2019, of which over 18,500 are a direct result of REPP's investment. Developer PowerGen Renewable Energy is also scaling up its productive use programmes, which include electric cooking, e-mobility and cold storage, to enhance the quality of life of its customers. REPP has been supporting the company since 2016; its USD 2 million equity investment during the latest fundraising was key to crowding-in additional funding from private investors.

### AT A GLANCE

<b>Technology:</b> Solar PV mini-grids	<b>Project type:</b> Off-grid
	<b>REPP funding:</b> USD 2 million in equity

### KPIs

-  GHG emissions avoided: 43,581 tCO<sub>2</sub>e per year  
**Achieved: 205 tCO<sub>2</sub>e (cumulative)**
-  People with first-time access to clean energy: 725,000  
**Achieved: 18,580**
-  Planned capacity: 19.9MW  
**Achieved: 0.34MW**

### SDGs

 1 NO POVERTY	 3 GOOD HEALTH AND WELL BEING	 5 GENDER EQUALITY	 7 AFFORDABLE AND CLEAN ENERGY
 8 DECENT WORK AND ECONOMIC GROWTH	 11 SUSTAINABLE CITIES AND COMMUNITIES	 13 CLIMATE ACTION	 17 PARTNERSHIPS FOR THE GOALS

**Country policy alignment:**  
Supports all NDC targets to reduce GHG emissions. Strongly aligned with Nigeria's aim to deliver energy access through a combination of centralised and decentralised approaches. Supports Kenya's goal of reaching universal energy access by 2022 (National Electrification Strategy 2018), Sierra Leone's 92% by 2030 electrification target (National Renewable Energy Action Plan, 2016) and Tanzania's 75% by 2030 (National SE4All Action Agenda 2015).



# POWERHIVE


Kisii and Nyamira counties Kenya

**OPERATIONAL**




## PROJECT SUMMARY

Over 23,500 people and microenterprises have so far been connected to electricity for the first time through 21 operational mini-grids, which have a combined generating capacity of 740KW. As well as providing clean energy suitable for productive use by local businesses, developer Powerhive has introduced a micro-financed poultry programme to customers and financing for electric pressure cookers to encourage less carbon-intensive cooking. Powerhive has also facilitated the roll out of electric mills, motorbikes and tuk-tuks across its sites. These economic opportunities support climate-resilient agricultural practices, enhancing livelihoods and increasing the overall resilience of the project community.

### AT A GLANCE

<b>Technology:</b> Solar PV mini-grids	<b>Project type:</b> Off-grid
	<b>REPP funding:</b> USD 3 million debt

### KPIs

-  GHG emissions avoided: 2,190 tCO<sub>2</sub>e per year  
**Achieved: 104 tCO<sub>2</sub>e (cumulative)**
-  People with first-time access to clean energy: 90,000  
**Achieved: 23,540**
-  Planned capacity: 1MW  
**Achieved: 0.74MW**

### SDGs

 1 NO POVERTY	 3 GOOD HEALTH AND WELL BEING	 7 AFFORDABLE AND CLEAN ENERGY	 8 DECENT WORK AND ECONOMIC GROWTH
 11 SUSTAINABLE CITIES AND COMMUNITIES	 13 CLIMATE ACTION	 17 PARTNERSHIPS FOR THE GOALS	

**Country policy alignment:**  
Supports Kenya's Updated NDC (2020) mitigation and adaptation goals, which focus on increasing solar-based generation, strengthening the resilience of energy systems and abating GHG emissions by 32% by 2030. Powerhive also contributes to Kenya's "Big Four" development agenda (2018) by fostering a wide range of productive use activities in its projects.





# RUPINGAZI

Embu County, Kenya

IN DEVELOPMENT




## PROJECT SUMMARY

Construction is continuing on this 6MW run-of-river hydro project, although progress has been hindered by COVID 19-related delays. Once completed, the plant is expected to improve the energy supply of over 175,000 people living in the foothills of Mount Kenya. Around 70 local jobs will be created at the height of the project's construction phase and a further five full-time positions during operation.

### AT A GLANCE

<b>Technology:</b> Run-of-river hydro	<b>Project type:</b> Grid-connected
	<b>REPP funding:</b> USD 970,000 development loan

### KPIs

	GHG emissions avoided: 17,534 tCO <sub>2</sub> e per year
	Improves stability to grid supply
	Planned capacity: 6MW

### SDGs

**Country policy alignment:**  
Supports Kenya's Updated NDC (2020) target to abate GHG emissions by 32% by 2030, and the vision and objectives of National Energy Policy (2018), which focus on providing adequate, reliable and affordable power, including by encouraging the development of small hydro. Supports manufacturing and other development priorities outlined in the "Big Four" agenda (2018).



# UPOWA


Cameroon

OPERATIONAL




## PROJECT SUMMARY

Over 117,000 people (against a target of 930,000) have so far been connected to electricity for the first time as a direct result of REPP's initial investment in this ambitious PAYG solar home systems initiative. Developer upOwa SAS has also connected 758 micro-businesses and 211 critical services such as schools, clinics, hospitals and water pumping stations. In October 2020, REPP increased its investment in the company with a EUR 500,000 convertible loan.

### AT A GLANCE

<b>Technology:</b> Solar home systems	<b>Project type:</b> Off-grid
	<b>REPP funding:</b> EUR 1.3 million equity (2019); EUR 500,000 convertible loan (2020)

### KPIs

	GHG emissions avoided: 9,473 tCO <sub>2</sub> e per year <b>Achieved: 4,269 tCO<sub>2</sub>e (cumulative)</b>
	People with first-time access to clean energy: 930,000 <b>Achieved: 117,455</b>
	Planned capacity: 1.73MW <b>Achieved: 0.28MW</b>

### SDGs

**Country policy alignment:**  
Supports Cameroon's NDC (2016) target to reduce GHG emissions by 32% by 2030 and make renewables 25% of energy mix by 2035. Renewable energy projects like upOwa are expected to have an important role in achieving universal electricity access, as outlined in Cameroon's Rural Electrification Master Plan (2016).





# VIRUNGA POWER


 Burundi, Kenya, Tanzania and Zambia

**IN DEVELOPMENT**




## PROJECT SUMMARY

Developer Virunga Power's 100MW portfolio of run-of-river hydroelectric power and rural distribution projects is expected to provide improved energy access for nearly three million people across four countries. The company operates a hydro-based mini-grid in Zambia and its first greenfield plant with 2.4MW capacity is expected to reach financial close in Kenya in late 2021.

### AT A GLANCE


<b>Technology:</b> Run-of-river hydro 	<b>Project type:</b> Grid-connected  <b>REPP funding:</b> USD 2.5 million convertible loan
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### KPIs

-  GHG emissions avoided: TBC
-  Improves stability to grid supply
-  Planned capacity: 100MW

### SDGs

-  7 AFFORDABLE AND CLEAN ENERGY
-  8 DECENT WORK AND ECONOMIC GROWTH
-  11 SUSTAINABLE CITIES AND COMMUNITIES
-  13 CLIMATE ACTION
-  17 PARTNERSHIPS FOR THE GOALS

**Country policy alignment:** 

Supports all countries' NDC targets to reduce GHG emissions by 2030. Contributes towards Burundi's 2040 national target of adding 238MW hydropower (Master Plan 2018) and Kenya's objective to develop small hydro (National Energy Policy, 2018), as well as Tanzania's objective to develop its energy infrastructure (Vision 2025) and Zambia's to diversify its energy mix (National Energy Policy, 2019).



# FINANCE IN FOCUS

## USING INNOVATIVE FINANCIAL STRUCTURING TO RESPOND TO THE CHALLENGES OF DECENTRALISED ENERGY PROJECTS – MWENGA AND MALILE

Decentralised renewable energy has a pivotal role in enabling countries in Sub-Saharan Africa to significantly increase power generation capacity and deliver energy access to rural communities, thereby delivering improved livelihoods and supporting economic growth. As REPP's investment manager, Camco Clean Energy works with distributed energy companies to help them build their businesses and generation and distribution assets through creative financing.

A key challenge currently hindering progress across the sector is linked to the fact that most decentralised projects are carried out under a structure whereby the company generating the electricity is also the one selling it on directly to households and businesses. The demand from these end-users is typically uncertain since they buy power when they need it, rather than signing a long-term purchase agreement, meaning cashflow is unpredictable. As a result, financiers (particularly lenders) need to be more flexible in their approach and have the confidence to do so.

A good example is the Mwenga project, a ground-breaking 2.4MW wind farm providing clean power to 4,500 rural homes and businesses connected to a private rural distribution network in Tanzania. In the face of uncertain demand from the network, the REPP team developed a structure with variable interest rates linked to demand. By providing a USD 1.2 million mezzanine loan from REPP with a base case interest rate relatively low compared to the risk-return profile of the project, developer Rift Valley Energy and its investors were able to meet their hurdle rate, thereby attracting further investment. As electricity demand increases, the interest rate increases proportionately via a step-up mechanism that was determined using an analysis of past demand and assuming a certain growth rate.

This relatively simple structure gives investors and the investee what they both seek: investment in a relatively new and untested structure, with a potential upside to reward the investor for the risk it takes.

Another challenge facing the sector is the need for more complex structures to enable the financing and construction of renewable energy technology to operate alongside existing fossil fuel power assets.

A case in point is the Malile project being developed by LIDERA Green Power PCC in Madagascar, which is hybridising three heavy fuel oil (HFO) plants that provide power to three cities with solar power via isolated grids. The financing structure involves the provision of a USD 6 million bridge loan at the holding company level. This funding is then on-lent to each special purpose vehicle that owns the PV assets, each of which has a rental agreement with the HFO operator. The solar plants sell the generated electricity to a local company which then on-sells it to the Malagasy utility, Jirama.

Unfortunately, there is no one-size-fits all solution when it comes to financial structuring to counter demand uncertainties and greening of decentralised power assets, which means that constant innovation is required for the decentralised energy sector to thrive. These two examples nonetheless show the potential that can be realised through creative financing and investor flexibility.



## VARIABLE INTEREST RATE LOAN

Borrower:	Mwenga Hydro Limited (part of Rift Valley Energy Group)
Lender:	Renewable Energy Performance Platform
Facility type:	Mezzanine loan
Amount:	USD 1.2 million
Tenor:	10 years
Interest rate:	Variable, with a floor
Location:	Tanzania
Use of funds:	Financing of construction and the costs and fees incurred with preparing the facility agreement and other security documents
Arranger:	Camco Clean Energy
Legal counsel:	Norton Rose Fulbright
Co-investors:	CRDB Bank PLC, Eastern and Southern African Trade and Development Bank

## SOLAR HYBRIDISATION STRUCTURE

Borrower:	LIDERA Green Power PCC
Lender:	Renewable Energy Performance Platform
Developer:	LIDERA Green Power PCC
Facility type:	Bridge loan
Amount:	USD 6 million
Tenor:	2 years
Interest rate:	Fixed
Location:	Madagascar
Arranger:	Camco Clean Energy
Legal counsel:	Trinity International LLP



# ABOUT THE UK'S INTERNATIONAL CLIMATE FINANCE

**UK International Climate Finance (ICF)** is the UK's primary instrument to help deliver on its international commitments under the Paris Climate Agreement, which include committing, with other developed countries, to deliver at least USD 100 billion in climate finance a year. It is one of the tools the UK is deploying to tackle climate change internationally and help secure successful outcomes at the COP26 UN climate conference in Glasgow this November.

## ENDING POVERTY THROUGH CLIMATE ACTION

ICF funding forms a core part of the UK's official development assistance (ODA) budget, which requires that the principal purpose is reducing global poverty. Every investment supports poverty reduction – both now and in the future – through a range of mechanisms, for example, by supporting developing countries to manage risk and build resilience to the impacts of climate change, take up low-carbon development at scale, manage natural resources sustainably and deliver first time energy access for many, supporting livelihoods and economic growth.

The UK government continues to support a global green and inclusive economic recovery from the COVID-19 pandemic through its ICF programmes that can drive investment into clean infrastructure projects and support clean growth and job creation that builds resilience to future shocks. Since June 2020, over **GBP 350 million** of international climate finance has been committed to supporting a green recovery across Africa, Asia and Latin America.

## UK ICF ACTIVITY AND RESULTS

To deliver its ICF objectives the Department for Business Energy and Industrial Strategy (BEIS):

- partners with multilateral institutions on carbon emission reductions or sequestration to mobilise finance at scale;
- works in partnership with national governments across Latin America, Sub-Saharan Africa and Asia including on tackling regulatory bottlenecks; and,
- marshalls the technical know-how and resources of private sector partners and civil society, especially in local markets.

UK ICF is focused on helping countries become more resilient; halting deforestation and preventing irreversible biodiversity loss; unlocking affordable and clean energy access; and building sustainable cities and transport systems. The ICF portfolio balances support for mitigation and adaptation work.

The ICF's results to date demonstrate the transformative impact that international climate action can have. From April 2011 to March 2021, UK ICF has:

- supported 88 million people to cope with the effects of climate change;
- reduced or avoided 180 million tonnes of greenhouse gas emissions, and
- mobilised GBP 5.2 billion of public finance and GBP 3.3 billion of private finance for climate change purposes in developing countries.

**The UK has committed to spending at least GBP 11.6 billion in ICF between 2021 and 2025.** This represents a doubling of the UK's commitment to spend at least GBP 5.8 billion on tackling climate change from 2016 to 2020, setting new ambition globally on climate finance, where significant investment globally is required to underpin the transition to clean energy.

## THE ROLE OF REPP WITHIN UK ICF

The UK government sees the mobilisation of private investment in climate action as crucial to meeting global climate targets, as public investment alone will not be sufficient to meet the investments needed to deliver the Paris Agreement and UN Sustainable Development goals. The UK is committed to working alongside private sector actors to promote the transformation necessary to unlock significantly greater finance flows from a diversity of sources.

UK support to REPP constitutes an important part of UK ICF's ambition of helping develop markets in a way that can be replicated and scaled up by the private sector. By working with private sector developers of renewable energy projects in Sub-Saharan Africa, REPP is enabling developers to draw in further private sector investment, helping projects to give communities access to clean energy supplies, avoid greenhouse gas emissions and build future markets.





# ABOUT CAMCO CLEAN ENERGY

Camco Clean Energy (Camco) is a climate and impact fund manager, leading the clean energy transition in emerging markets.. Camco's experienced team is based in offices in Accra, Helsinki, Johannesburg, London, Nairobi and Toronto and is united by its passion for funding the clean energy transition with a hands-on commercial approach.

Camco excels in fund formation, asset management and monitoring. It has managed several climate investment portfolios, including REPP, and is an accredited entity of the Green Climate Fund. The company combines:

- on-the-ground knowledge and origination capabilities;
- disciplined structuring, execution, portfolio and risk management;
- diligent fund and asset management;
- strong integrity, environmental and social safeguards, and active gender mainstreaming;
- considered and pragmatic monitoring and evaluation; and
- project development expertise.

Unlike many fund managers, Camco has direct experience with both project development and the creation of policy and regulatory frameworks. Its team places high value on its local presence and experience, which enhances its ability to deliver on fund management mandates.

Camco is a signatory to UN Global Compact and has adopted the highest standards of financial and ethical conduct through related policies and monitoring.



## ORIGINATION

The ability to originate, structure and advise on clean energy projects in emerging markets is one of Camco's strengths. The company has extensive origination and finance networks, supported by its regional presence and a team experienced in advice and structuring.



## FINANCE

Camco works with project developers and financiers to optimise capital structure, and its team has helped raise over USD360m of capital – both in debt and equity – for investment in renewable energy projects. The team has also supported the financing of projects with total capital investment of over USD15bn by building one of the world's largest clean development mechanism (CDM) portfolios.



## MANAGEMENT

The company has extensive experience managing investments in renewable energy projects and companies throughout their lifecycle. Its experience includes: portfolio reporting, analysis and management; loan management; active investment management and value-added board participation; and the design and implementation of robust monitoring, reporting, evaluation and verification systems.



# REPP'S AUDITED FINANCIAL STATEMENTS

## BALANCE SHEET

	AS AT 31 MARCH 2021 £	AS AT 31 MARCH 2020* £
<b>Fixed assets</b>		
Investments	20,036,310	11,351,047
	<u>20,036,310</u>	<u>11,351,047</u>
<b>Current assets</b>		
Debtors: amounts falling due within one year	822,469	213,546
Cash at bank and in hand	27,536,070	4,521,019
	<u>28,358,539</u>	<u>4,734,565</u>
Creditors: amounts falling due within one year	(51,445,057)	(17,936,008)
<b>Net current liabilities</b>	<u>(23,086,518)</u>	<u>(13,201,443)</u>
<b>Total assets less current liabilities</b>	<u>(3,050,208)</u>	<u>(1,850,396)</u>
<b>Net (liabilities)/assets</b>	<u>(3,050,208)</u>	<u>(1,850,396)</u>
<b>Capital and reserves</b>		
Profit and loss account	(3,050,208)	(1,850,396)
	<u>(3,050,208)</u>	<u>(1,850,396)</u>

\* Figures as at 31 March 2020 are restated, as per the audited accounts for the year ended 31 March 2021.



## STATEMENT OF CASH FLOWS

	PERIOD ENDED 31 MARCH 2021	PERIOD ENDED 31 MARCH 2020*
	£	£
<b>Cash flows from operating activities</b>		
(Loss) for the financial year	(1,199,812)	(1,846,368)
<b>Adjustments for:</b>		
Provision for impairment of fixed asset investment	2,138,833	2,200,966
Interest receivable	(718,538)	(374,940)
(Increase)/decrease in debtors	(318,654)	(47,780)
Increase/(decrease) in creditors	(4,859,810)	(2,252,529)
Net fair value losses/(gains) recognised in P&L	-	(312,903)
Corporation tax received/(paid)	(291,410)	1,141
Foreign exchange movement on intangible assets	1,200,193	(273,837)
<b>Net cash used in operating activities</b>	<b>(4,049,198)</b>	<b>(2,906,250)</b>
<b>Cash flows from investing activities</b>		
Issuance of long-term loans and other fixed asset investments	(11,305,751)	(8,586,496)
Repayment of long-term loans	-	462,063
Drawdown on government grants	38,370,000	8,000,000
<b>Net cash generated from/(used in) investing activities</b>	<b>27,064,249</b>	<b>(124,433)</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>	<b>23,015,051</b>	<b>(3,030,683)</b>
Cash and cash equivalents at beginning of year	4,521,019	7,551,702
<b>Cash and cash equivalents at the end of year</b>	<b>27,536,070</b>	<b>4,521,019</b>
<b>Cash and cash equivalents at the end of year comprise:</b>		
Cash at bank and in hand	27,536,070	4,521,019
	<b>27,536,070</b>	<b>4,521,019</b>

\* Figures as at 31 March 2020 are restated, as per the audited accounts for the year ended 31 March 2021.

## PROFIT AND LOSS

	PERIOD ENDED 31 MARCH 2021	PERIOD ENDED 31 MARCH 2020*
	£	£
Turnover	4,867,042	2,431,775
<b>Gross profit</b>	<b>4,867,042</b>	<b>2,431,775</b>
Administrative expenses	(4,838,988)	(2,981,918)
Impairment of investments	(2,256,862)	(2,200,966)
Fair value movements	-	312,903
<b>Operating loss</b>	<b>(2,228,808)</b>	<b>(2,438,206)</b>
Interest receivable and similar income	1,028,996	591,838
<b>Result before tax</b>	<b>(1,199,812)</b>	<b>(1,846,368)</b>
Tax on result	-	-
<b>Loss for the financial year</b>	<b>(1,199,812)</b>	<b>(1,846,368)</b>

\* Figures as at 31 March 2020 are restated, as per the audited accounts for the year ended 31 March 2021.





# GLOSSARY

**Avoided greenhouse gas (GHG) emissions** – the amount of emissions, in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), which would have been created to generate the same amount of electricity produced by a REPP-financed renewable energy project if fossil fuels had been used. It is calculated by multiplying the number of MWh generated (or forecast) by the project with the country's grid emissions factor, which is itself calculated as total tCO<sub>2</sub>e divided by total MWh generated.

**Climate finance** - local, national or transnational financing that is drawn from public, private and alternative sources of financing and which seeks to support mitigation and adaptation actions that will address climate change.

**Committed capital** - the total value of funding committed by REPP to contracted projects.

**Customer** – a single home or workplace that is served with electricity from an off-grid renewable energy project. For standalone systems, such as solar home systems, one installation equals one customer, whereas a mini-grid is connected to several customers. See also: New connections

**Decentralised energy** - energy that is generated away from the main grid and close to where it is used. Includes small-scale renewables such as solar, biomass, geothermal and wind.

**Energy access** – defined by the International Energy Agency as “a household having reliable and affordable access to both clean cooking facilities and to electricity, which is enough to supply a basic bundle of energy services initially, and then an increasing level of electricity over time to reach the regional average”.

**Environmental and Social Impact Assessment (ESIA)** – a process of predicting and assessing a project's potential environmental and social risks and impacts.

**Environmental and Social Management System (ESMS)** – a set of policies, procedures, tools and internal capacity to identify and manage a financial institution's exposure to the environmental and social risks of its clients/investees.

**Finance mobilised** - financial resources committed by third parties to a project being supported by REPP.

**Financial close** – for grid-connected projects, refers to the stage when all the conditions precedent of the financing agreements enabling the construction of the project have been fulfilled prior to the initial availability of funds. For off-grid projects, it is the stage when all of the conditions precedent related to the construction or operation phase of the project that is receiving REPP support are fulfilled.

**First-time energy access** - any person or business being connected to an electricity supply for the first time as a direct result of an off-grid renewable energy project. See also: New connections, Customer

**Independent power producer (IPP)** - a private entity that generates electricity for sale to utilities and end users.

**Installed capacity** – the rated power output, in MW, of a power plant or other electricity generator when operational. Also known as nameplate capacity and rated capacity.

**International Climate Finance (ICF)** - the UK government's commitment to building resilience and catalysing low carbon transition in developing countries. In September 2019, the UK's ICF was doubled from GBP 5.8 billion in the previous five years to at least GBP 11.6 billion from 2021-2025. See page 48 for more.

**Isolated grid** - a mini-grid with a capacity of over 1MW.

**Nationally Determined Contributions (NDCs)** -

NDCs embody efforts by countries to reduce national emissions and adapt to the impacts of climate change. The Paris Agreement requires each Party to prepare, communicate and maintain successive NDCs that it intends to achieve. The iterative nature of the NDCs is geared towards continuously increasing the level of ambition of global response to climate change.

**New connections** – the number of people connected to an off-grid renewable energy project. It is calculated as the number of customers served by the project multiplied by the average number of people per household, which is deemed to be five persons. See also: Customer

**Off-grid** - not connected to a centralised high voltage electricity grid.

**Photovoltaic (PV)** – a conversion of light into electricity using semiconducting materials, typically contained in solar panels.

**Power purchase agreement (PPA)** - a contract in which a purchaser agrees to purchase and a supplier agrees to supply electricity generated in the future, normally at a specified price for a defined period.

**Private finance** - financing from non-public sources, including private banks, private companies, private or company pension funds, insurance companies,

private savings, family money, entrepreneurs' own capital and sovereign wealth funds. It includes all types of funding such as equity, debt and guarantees.

**Public finance** - financing from official (i.e. government) sources.

**REPP partner** - any entity approved by the Board as such. A REPP partner can be a finance provider, risk mitigation provider or technical assistance provider. Risk mitigation instruments – instruments, typically in the form of guarantees or insurance, that transfer specific risks from one party to another.

**Run-of-river hydro** – a system of hydroelectric power generation through which running water is diverted from a river and guided along a channel, or "penstock" to a generating house, before being returned to the river downstream.

**Sustainable Development Goals (SDGs)** – a collection of 17 global goals adopted by all UN Member States in 2015 with a vision of ending poverty, protecting the planet and ensuring that all people enjoy peace and prosperity. The target year for achieving all SDGs is 2030.

**Technical assistance** – various types of non-financial assistance, including instruction, skills training, transmission of working knowledge, and other consulting services.



# FURTHER INFO

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## CONTACT INFORMATION

### REPP

[www.repp.energy](http://www.repp.energy)

[info@repp.energy](mailto:info@repp.energy)

### CAMCO CLEAN ENERGY (REPP fund manager)

Geoff Sinclair, MD

[info@camco.energy](mailto:info@camco.energy)

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## REPP COMPANY INFORMATION

**Directors:** A Alam (appointed 9 July 2020, resigned 3 November 2020), P U H Coveliers (appointed 1 December 2018), D J Farchy (appointed 1 November 2018), D Potter (appointed 3 July 2019), resigned 9 July 2020), A Stalbaum (appointed 3 November 2020), E P Usher (appointed 14 December 2015)

**Company secretary:** K V Upston-Hooper (appointed 20 November 2015)

**Registered number:** 09882930

**Registered address:** 28 St John's Square, London, EC1M 4DN, United Kingdom

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## ABOUT THIS REPORT

This report has been prepared by Camco Management Ltd on behalf of the Renewable Energy Performance Platform. The audited financial statements were prepared by independent auditors, Rawlinson & Hunter Audit LLP.



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## REPP POLICIES (ABRIDGED\*)

### Environmental and Social Policy and Procedures

REPP's Environmental and Social Policy and Procedures (the "REPP ESPP") is based on the International Finance Corporation (IFC) Performance Standards for Environmental and Social Sustainability and the European Investment Bank's (EIB) Environmental and Social Practices Handbook Standard No. 3 on Biodiversity and Ecosystems and Standard No. 10 on Stakeholder Engagement. All projects supported by REPP are expected to comply with the REPP ESPP, as well as host country legislation, the EIB's Transparency Policy and sustainability principles advocated by the UN Global Compact, of which the REPP Manager is a signatory.

### Anti-Corruption and Integrity Policy

REPP requires compliance, in letter and spirit, with best practice and relevant laws to prevent corruption, money laundering and the financing of terrorism including but not restricted to the UK Bribery Act 2010, the US Foreign Corrupt Practices Act and the UK Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017. The REPP Anti-Corruption and Integrity Policy stipulates that all those involved in the implementation of REPP should take all appropriate measures to prevent and combat fraud and corruption, money-laundering and the financing of terrorism, as well as recognising their duty to ensure that funding for REPP is used for the purposes for which it was given, without regard to political or other non-economic influences or considerations.

### Safeguarding Policy

This policy seeks to protect the rights and well-being of those implementing REPP transactions and all those impacted by REPP activities. The guiding principle of the REPP Safeguarding Policy is "do no harm". Recognising the historical imbalances that exist between different groups across society, special focus is placed on vulnerable and/ or disadvantaged groups. The policy takes into account IFC Performance Standard No. 4 on Community Health, Safety and Security, the EHS Guidelines of the World Bank, the Equator Principles and general principles of transparency, proportionality and accountability.

\* Full versions of these and other REPP policies can be found on the REPP website at <https://repp.energy>.

## SDG TARGETS: FURTHER INFORMATION

### SDG 1

Target 1.4: Ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

Target 1.5: Build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

### SDG 3

Target 3.4: Reduce by one third premature mortality from non-communicable diseases through prevention and treatment, and promote mental health and well-being.

### SDG 5

Target 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

### SDG 7

Target 7.1: Ensure universal access to affordable, reliable and modern energy services.

Target 7.2: Increase substantially the share of renewable energy in the global energy mix.

### SDG 8

Target 8.4: Improve progressively, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with sustainable consumption and production.

Target 8.5: Achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

### SDG 9

Target 9.1: Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

### SDG 11

Target 11.1: Ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums.

### SDG 13

Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Target 13.2: Integrate climate change measures into national policies, strategies and planning.

### SDG 17

Target 17.3: Mobilise additional financial resources for developing countries from multiple sources.

## IMAGE SOURCES

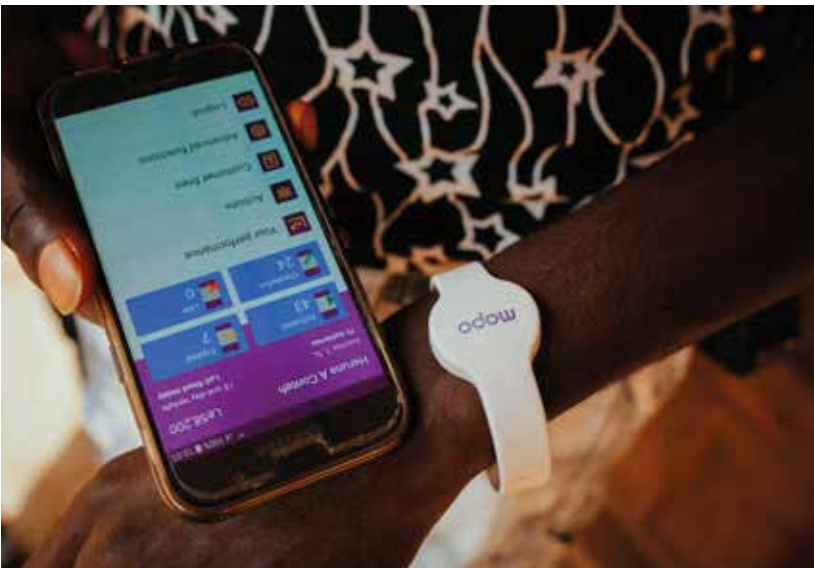
Front cover: (clockwise from top) Voltalia, Mobile Power, GVE Projects Ltd, Rift Valley Energy Group; P5: Voltalia; P9: (clockwise from top) GVE Projects Ltd, Smart Energies International, Voltalia; P13: (top to bottom) GVE Projects Ltd, Kalahari GeoEnergy Ltd, GVE Projects Ltd; P16: Rift Valley Energy Group; P20: GVE Projects Ltd, LIDERA Green Power; P26: Powerhive; P27: (top) ARC Power Ltd, (bottom) Rift Valley Energy Group; P29: (clockwise from top left) Rift Valley Energy Group, Voltalia, Kalahari GeoEnergy Ltd, Marco Borero; P30: Kalahari GeoEnergy Ltd; P31: LIDERA Green Power; P32: Marco Borero; P33: Mobile Power; P34-35: (all) Voltalia; P36: PEG Africa; P37: (clockwise from top left) ARC Power Ltd, GVE Projects Ltd, upOwa SAS, PAS Solar Limited; P38: (top) ARC Power Ltd, (bottom) Buffalo Energy Ltd; P39: (top) PowerGen Renewable Energy, (bottom) Smart Energies International; P40: (top) GVE Projects Ltd, (bottom) OnePower Lesotho; P41: (top) Virunga Power, (bottom) Gigawatt Global; P42: (top) Rift Valley Energy Group, (bottom) PAS Solar Limited; P43: (top) PowerGen Renewable Energy, (bottom) Powerhive; P44: (top) Multiconsult Group, (bottom) upOwa SAS; P45: (top) Virunga Power, (bottom) Multiconsult Group; P47: Kalahari GeoEnergy Ltd; P49: (top) GVE Projects Ltd, (bottom) OnePower Lesotho; P51: (clockwise from top) PEG Africa, upOwa SAS, GVE Projects Ltd; P55: (clockwise from top) Mobile Power, Kalahari GeoEnergy Ltd, GVE Projects Ltd, upOwa SAS; P57: GVE Projects Ltd; P61: (clockwise from top left) Mobile Power, upOwa SAS, upOwa SAS.

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This Report includes forward-looking statements that reflect the REPP's current views with respect to future events and financial performance. These views are based on a number of assumptions and are subject to various risks. Such forward-looking statements are not a guarantee of future performances and no assurance can be given that any future events will occur, that projections will be achieved or that REPP's assumptions will prove to be correct. Actual results may differ materially from those projected, and REPP does not undertake to review any such forward-looking statements to reflect future events or circumstances.

\* Camco Management Limited is authorised and regulated by the UK Financial Conduct Authority.. More information on Camco is available at [www.camco.energy](http://www.camco.energy). The registered details of Camco are: Registered in England No. 09902551, Registered Office 28 St John's Square, EC1M 4DN, London.





WITH THANKS TO:

REPP founders



REPP funders



REPP manager



A BRIGHTER FUTURE, TODAY

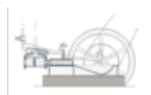
REPP partners



REPP developers



KLEEN HYDRO LIMITED



Marco Borero

