



managed by  **camco**  
CLEAN ENERGY



## REPP REPORT AND FINANCIAL STATEMENTS

2019-2020

# TABLE OF CONTENTS

## INTRODUCTION

REPP highlights ..... 3  
 Welcome ..... 6  
 A word from the funder ..... 8  
 A word from the manager ..... 9

## ABOUT REPP

What is REPP? ..... 10  
 Why REPP? ..... 10  
 How can REPP help? ..... 12  
 The process: How REPP selects and supports projects ..... 13  
 Eligibility ..... 14

## OUR IMPACT

Introduction ..... 16  
 COVID-19 update ..... 16  
 Measuring our impact ..... 18  
 How we plan to achieve our targets ..... 19  
 Alignment with national policy priorities ..... 19  
 Performance overview ..... 20  
 Environmental and social safeguards ..... 24  
 Incentivising gender equality ..... 24

## FEATURED CASE STUDIES ..... 25

## SELECTED PROJECT UPDATES ..... 33

## FINANCE IN FOCUS ..... 40

## ABOUT THE UK'S INTERNATIONAL CLIMATE FUND ..... 42

## ABOUT CAMCO CLEAN ENERGY ..... 44

## AUDITED FINANCIAL STATEMENTS ..... 46

## GLOSSARY ..... 50

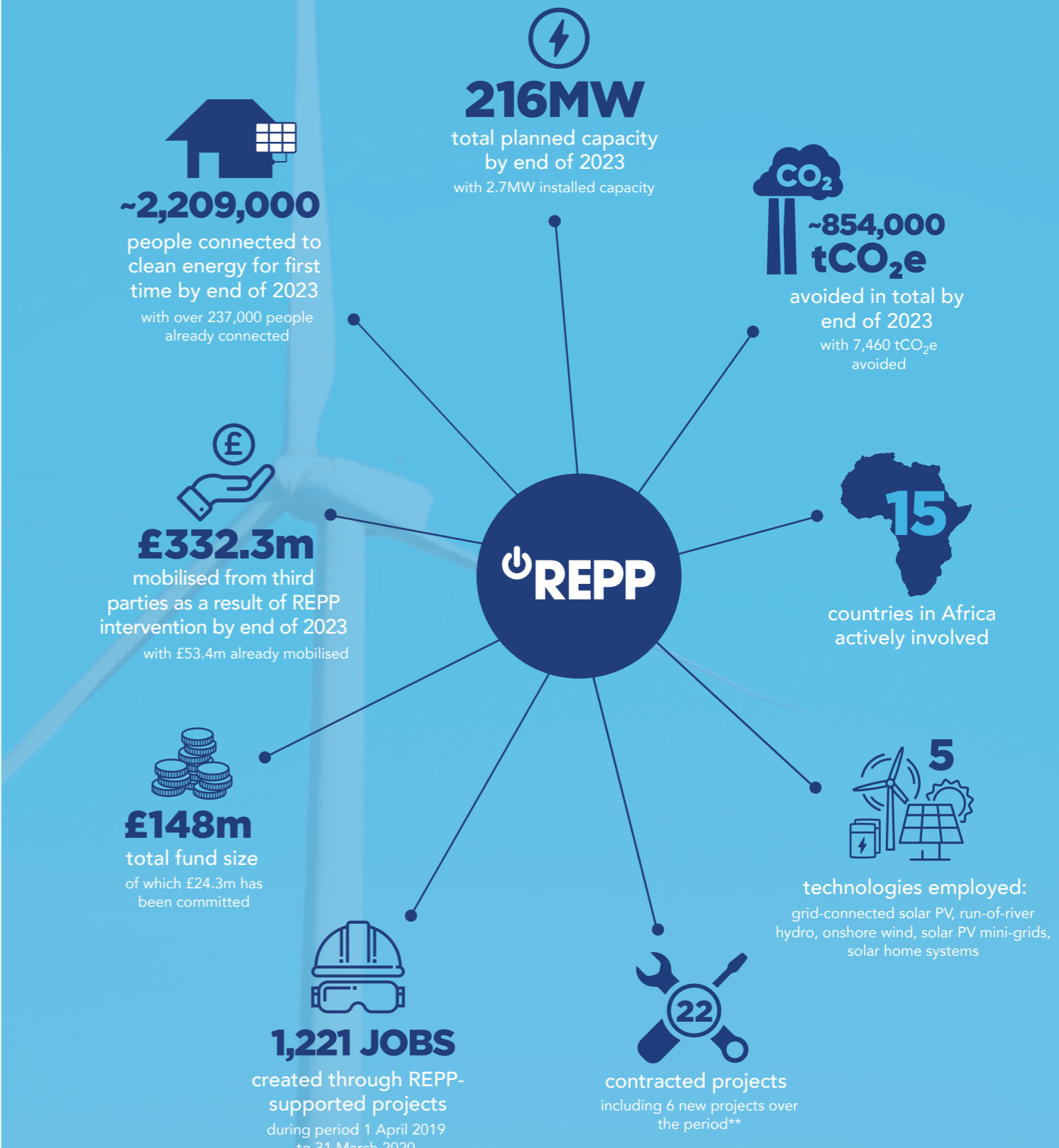
## FURTHER INFO ..... 52

Contact information ..... 52  
 Company information ..... 52  
 About this report ..... 52  
 REPP policies (abridged) ..... 53  
 SDG targets: further information ..... 54  
 Image sources ..... 54

## DISCLAIMER ..... 55

## REPP HIGHLIGHTS BY NUMBERS - ACTIVITIES SO FAR

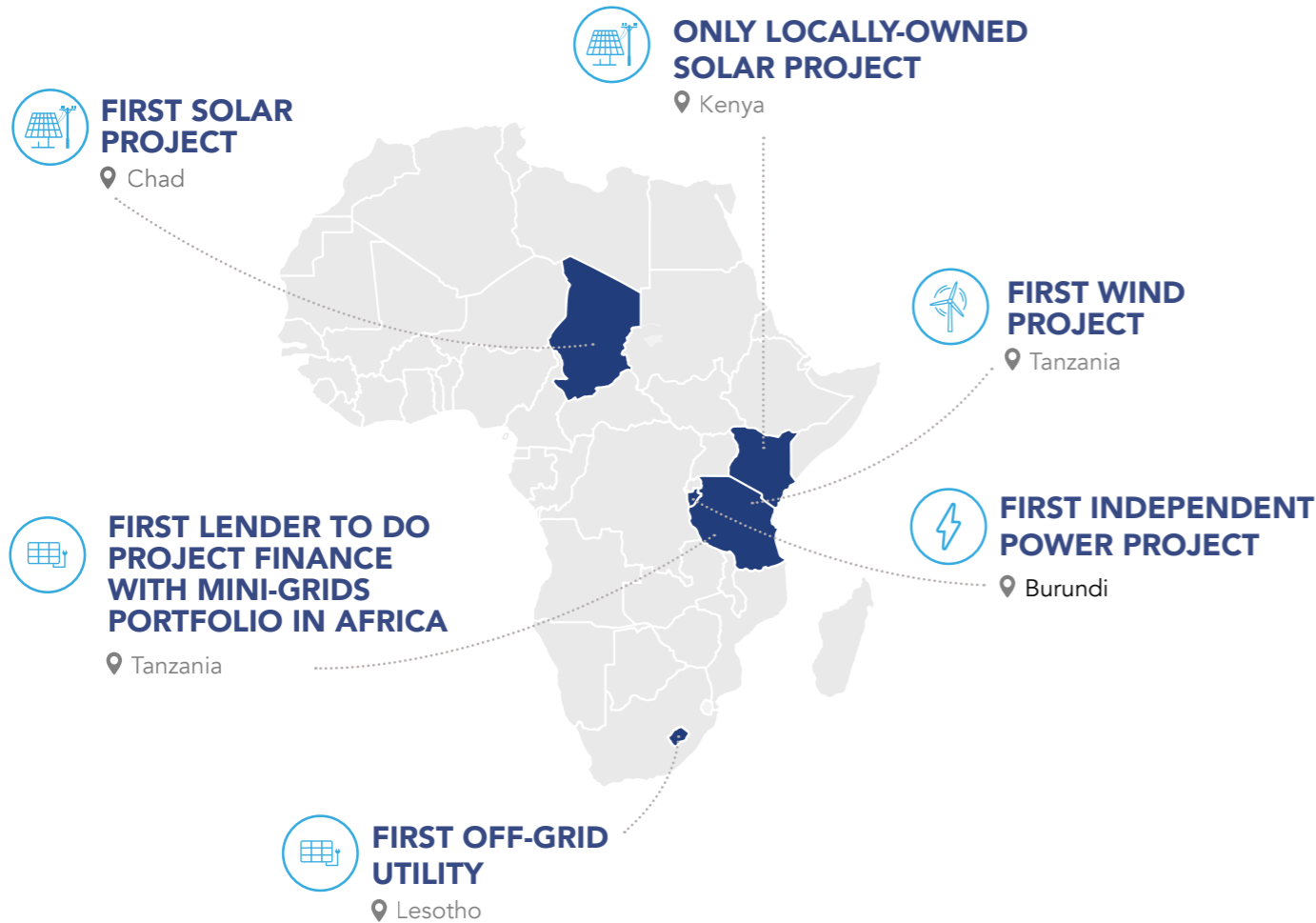
Figures reflect the cumulative performance of all currently contracted projects - where all conditions precedent have been met - as of 31 March 2020, unless otherwise stated.\*



\* The figures provided are forward-looking statements that necessarily involve known and unknown risks. They are not guarantees of future performance and have not been adjusted for the probability of being achieved; accordingly, actual outcomes are expected to be lower.

\*\* Four earlier projects were terminated.

## TRANSFORMATIONAL IMPACTS: IN-COUNTRY HIGHLIGHTS



## ALIGNMENT WITH NATIONAL POLICY PRIORITIES



REPP's work contributes towards the implementation of Nationally Determined Contributions (NDCs) in 14 countries and supports many other national policy priorities. Here are a few examples:

- Mwenga wind farm supports the implementation of Tanzania's Vision 2025 and the National Five-Year Development Plan 2016-21 (2016) through the development of energy infrastructure.
- Mubuga solar PV plant is a priority initiative listed in Burundi's National Development Plan (2018).
- Ha Makebe mini-grids project 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.
- ARC Power mini-grids project 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.
- GVE Nigeria is strongly aligned with the Nigerian Government's 'new paradigm for rural electrification' – delivering energy access through a combination of centralised and decentralised approaches.
- Powerhive contributes to the aims of Kenya's "Big Four" agenda (2018) by fostering a wide range of productive use activities (e.g. milling, brooding) in its projects.

## SUSTAINABLE DEVELOPMENT GOALS

**ALL 22 PROJECTS** directly support Sustainable Development Goals:



**11 PROJECTS** also support Sustainable Development Goals:



**5 PROJECTS** also support Sustainable Development Goal:



SDG	Relevance	Targets by 2030	REPP's contribution
7 AFFORDABLE AND CLEAN ENERGY		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 CLIMATE ACTION		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 country's resilience towards climate change through investment in decentralised renewable energy systems.</li> </ul>
17 PARTNERSHIPS FOR THE GOALS		17.3	<ul style="list-style-type: none"> <li>Mobilises private (and public) capital towards supporting sustainable development in developing countries.</li> </ul>
5 GENDER EQUALITY		5.5	<ul style="list-style-type: none"> <li>Supports women entrepreneurship by investing in several woman-owned or managed businesses.</li> <li>Works directly with investee companies to help them improve gender equality status in the company and project implementation.</li> </ul>
1 NO POVERTY		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 extreme 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 country's resilience towards climate change through investment in decentralised renewable energy systems.</li> </ul>
11 SUSTAINABLE CITIES AND COMMUNITIES		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>
8 DECENT WORK AND ECONOMIC GROWTH		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>
3 GOOD HEALTH AND WELL-BEING		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>

\* Further information about SDG targets can be found on page 54.

# WELCOME

In Africa, population growth and economic development has increased the demand for energy, which will only continue to grow in the decades ahead. The continent has an abundance of natural resources ready to revolutionise access to clean energy. But while some technologies are relatively easy to implement, they still require an enabling environment with the appropriate policies, regulation, governance and access to financial markets. In many countries in Africa, there remains limited investment available for small and medium-scale projects and so private sector developers find it difficult to secure the finance and expertise needed to get their projects off the ground.

The Sustainable Development Goals (SDGs) 7 and 13 aim to ensure access to affordable, reliable, sustainable and modern energy for all and to take urgent action to combat climate change. The 2015 Paris Agreement re-stated the commitment to mobilise USD100 billion climate finance a year from public and private sources, and established objectives for each country to reduce national emissions and adapt to the impacts of climate change, known as Nationally Determined Contributions (NDCs). Climate finance plays a crucial role in helping developing countries to mitigate and adapt to climate change and meet the objectives set out in the SDGs and the Paris Agreement.

The Renewable Energy Performance Platform (REPP) was developed with input from the UK Department for Business, Energy and Industrial Strategy (BEIS), UN Environment and the European Investment Bank,

in direct response to this challenge, with a clear mission to mobilise private investment for the growth of sub-Saharan Africa's clean energy industry. REPP's mandate is to provide flexible financing solutions and technical assistance to small and medium-sized clean energy project developers, mobilising the private sector to enable the development of viable projects, and increasing market activity as a whole.

In 2016, BEIS became the sole donor, committing £48m to the programme until 2019. In 2018, BEIS strengthened this commitment with an additional £100m for an extended period, to 2023.

After four years of operation and with the challenges of COVID-19 in early 2020, REPP has much to reflect on. The number of existing investments has now reached 22, spanning 15 countries across Africa, and employing five technologies. Highlights from REPP's activities this year include securing the first full repayment of a loan in Tanzania and completing the financial close of its first on-grid solar PV project in Burundi.

As we look to the year ahead, we will continue to seek out new clean energy investments and adapt the support offered to respond to this changing market. We will need to focus on supporting our investments through these turbulent times and mitigating the impacts of COVID-19 through tailored initiatives.

**REPP Board of Directors**



*Our children used to come home from school and do all of their homework before it got dark. Since ARC Power installed electricity here, our children can now do it in the evenings, allowing them to spend time playing outside after school. It has allowed them to be children."*

**Arthur Joash, ARC Power customer**



# A WORD FROM THE FUNDER



In early 2020, the world faced an unprecedented challenge in response to COVID-19. In recovering from the impact of the virus, how governments choose to rebuild their economies will have a profound effect on society's future sustainability, resilience and the wellbeing of individuals. Recovery from this immediate crisis presents opportunities to tackle head on climate change and promoting a green global economy. With the new dates for COP26 now agreed, we are working with international partners on an ambitious roadmap for global climate action between now and November 2021, when the UK will host this event. We remain committed to raising ambition in line with the Paris Agreement and taking the lead in building a clean, inclusive and resilient recovery.

Between 1990 and 2018 the UK had reduced its emissions by 43% whilst growing the economy by 75%, demonstrating that it is possible to decouple economic growth from greenhouse gas emissions. We want to encourage other countries to do the same.

More than half the world's 15 fastest growing economies are in Africa. Two-thirds of African economies are expanding faster than the global average. The UK will build partnerships for the future with African countries, cultivating joint prosperity, health, and economic and environmental sustainability. At the UK-Africa Investment Summit in London in January 2020, the Prime Minister announced that the UK government will no longer provide any new direct official development assistance, investment, export credit or trade promotion for thermal coal mining or coal power plants overseas. Instead, the UK is focusing on supporting the transition to lower- and zero-carbon alternatives.

We want to increase our support for solar, wind, hydro, and all the other carbon-free sources of energy that surround us. This process is already underway, because a whole host of British organisations are

already working with national governments and companies across Africa and around the world to increase renewable capacity.

UK International Climate Finance plays a crucial role in supporting developing countries to make their low-carbon transitions, and we have announced a doubling of our international climate finance – from £5.8 billion in the previous five years to at least £11.6 billion from 2021-2025 – to help developing countries reduce emissions and build resilience, ensuring that infrastructure expansion is sustainable, low carbon and climate resilient.

Through programmes like the Renewable Energy Performance Platform (REPP) in Africa, the UK seeks to mobilise private capital by reducing risks associated with low-carbon, climate resilient investments. We will continue to provide targeted action to help overcome developing country market barriers, broaden the range of financial instruments available to project developers, and lend to help projects get kick-started and demonstrate profitability.

I am pleased with the progress made by REPP so far, and with its economic recovery response to the challenges of COVID-19. This report showcases some fantastic examples of UK government-funded innovative work making a real difference; from the grid-connected initiatives set to deliver much-needed grid stability, to the smaller, decentralised mini-grid and solar home system projects that are transforming the energy landscape of rural Africa.

**Lord Callanan**  
**Parliamentary Under Secretary of State**  
 UK Department for Business, Energy and Industrial Strategy



# A WORD FROM THE MANAGER

In the year covered by this report, REPP focused on delivering on its expanded mandate. In this context, it's great to see the "firsts" that, without REPP's contribution, may not have happened or at least happened a lot more slowly. Highlighted on page 4, these include Burundi's first independent power plant, Tanzania's first windfarm and Lesotho's first off-grid utility.

REPP supports projects that contribute to the achievement of African countries' national objectives in relation to climate, development, and renewable energy. This year, we have significantly enhanced reporting to include an analysis of project and programme-level contributions to the achievement of national policy objectives. For most countries, sustainable development drives their interest in renewable energy and in that context we have also broadened our reporting against the Sustainable Development Goals.

Although first-of-a-kind projects break new ground, follow-up work is critical to drive transformational change. REPP has been very active in this respect, continuing to support investees with advice and further investments and setting up a new policy function that works to take lessons from our project-level experience and use them to drive policy and regulatory improvement.

Importantly, REPP has also sought to ensure that all parts of society participate in the benefits of renewable energy. Women are, almost universally, the primary purchasers and users of power in households in REPP's target markets. So, gender mainstreaming is not only right, it also makes commercial sense. This year, REPP increased its emphasis on gender equity with a new gender action plan, held several capacity-building events focused on gender mainstreaming, and issued a request for proposals directed at women-led or owned businesses and projects. We're

now expanding this approach with a broader focus on diversity and support of local developers.

These initiatives have served to support REPP's achievement of its targets, where it is significantly overperforming on many key performance indicators including new connections, third-party funds mobilised and planned addition to megawatt capacity by the end of 2023.

COVID-19 started to hit operations towards the end of this report's reporting period. REPP was quick to respond, rapidly establishing a comprehensive support programme including repayment and interest moratoria and a purpose-built working capital facility, providing much-needed support to the sector through this difficult time.

Achieving this kind of performance against REPP's objectives and responding so quickly to the impact of COVID-19 has only been possible because of the work of an amazing group of individuals. I would especially like to thank REPP's Board, Investment Committee and the whole Camco team for their hard work, grit and dedication to REPP's vision in difficult circumstances, and of course to the UK Government and the International Climate Finance team at BEIS for their ongoing support. With such a great team I am confident that REPP will continue to effect important change in achieving African countries' sustainable development goals.

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

# ABOUT REPP

The Renewable Energy Performance Platform (REPP) is a **£148m UK government-funded** programme supporting the development of Africa's small-scale and distributed renewable energy market. Its principle aim is to **reduce greenhouse gas (GHG) emissions** by demonstrating operational feasibility through flexible support to project developers.

The programme is managed by Camco Clean Energy, which develops and employs **innovative financing tools and approaches** to help developers access the necessary finance and expertise to implement their projects and stimulate growth.

Since 2016, REPP has been successfully **mobilising private sector** development of - and investment in - renewable energy projects in countries across Central, East, Southern and West Africa. In doing so, it is building the foundations to support - and speed up - the sector's continued and far-reaching expansion by developing markets that are both **replicable and scalable** by the wider private finance community.

REPP was originally conceived by UN Environment and the European Investment Bank (EIB) in 2015

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 42) 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:

- Peter Coveliers, Head of Group Corporate Programmes and Institutional Business Development, European Investment Fund
- Daniel Farchy, Investment Officer, EIB
- David Potter, Head of International Private Climate Finance, BEIS (resigned 09/07/2020)
- Eric Usher, Head, UN Environment Finance Initiative
- Ashufta Alam, Deputy Director Deputy Director Policy and Investments, International Climate Finance, BEIS (appointed 09/07/2020, resigned 03/11/2020)
- Andrew Stalbaum, Team Leader, Private Finance and Innovation, BEIS (appointed 03/11/2020)

## WHY REPP?

Nearly **600 million people in Central, East, Southern and West Africa do not have access to electricity**. Although millions are being connected each year, continuing challenges have meant little progress has been made to close the gap in real terms. At the same time, many countries are experiencing unprecedented economic growth resulting in increased energy demand. A prodigious and wide-scale increase in energy generation is therefore essential to both ensure continued economic development and universal energy access. But unless this happens without increasing GHG emissions, Africa's energy transformation is going to contribute significantly to climate change.

It is imperative that **Africa's energy revolution focuses on low-carbon solutions**. But despite this, investment continues to focus on centralised, fossil-fuel powered grid systems. Not only does this approach compound climate change, it can also be a less effective way of addressing Africa's energy access problems, particularly in rural areas where connecting to the grid tends to be slow and expensive.

In many instances, **smaller, decentralised renewable energy solutions** that harness the abundance of natural resources available in African countries are much more appropriate for serving rural populations' needs.

Off-grid technologies such as solar home systems and solar PV mini-grids are often **easier, faster, and increasingly cheaper** than extending the national grid, and typically provide a more reliable source of quality electricity. They also improve local air quality and support countries' national climate action targets set out in their Nationally Determined Contributions (NDCs).

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

## BREAKING DOWN THE BARRIERS

Decentralised renewable energy solutions offer many advantages, and although interest and investment are increasing, they are not yet at a level to drive the sector to scale. This is primarily because:

- Developers **rarely have the start-up capital** to clear the first hurdles towards financial close;
- Developers often **lack key expertise or capabilities** that they need to successfully finance their projects;
- The **front-end risks** of renewable energy projects – both real and perceived - are a disincentive for investment; and
- **Funding opportunities are typically limited** to the largest and most bankable projects.

Many **feasible projects are going unrealised** as a result, 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 to investors.

As part of its mandate, REPP will only invest in projects that are shown to be additional, in that the investment stimulates sectoral development that would otherwise lag or not occur.

Read how REPP is performing on page 20.



## 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:



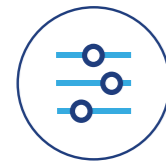
### DEVELOPMENT PHASE CAPITAL AND SUPPORT

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.



### TECHNICAL ASSISTANCE

REPP supports developers with business planning, training, workshops and seminars, and facilitates learning and exchange between developers.



### 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.



### GAP FINANCING

REPP helps to bring projects to financial close by providing funding using a range of finance products, from equity to senior debt.

## THE PROCESS: HOW REPP SELECTS AND SUPPORTS PROJECTS



### ORIGINATION & ELIGIBILITY

The REPP manager discusses project proposal with developer 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 with the developer.



### 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 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:

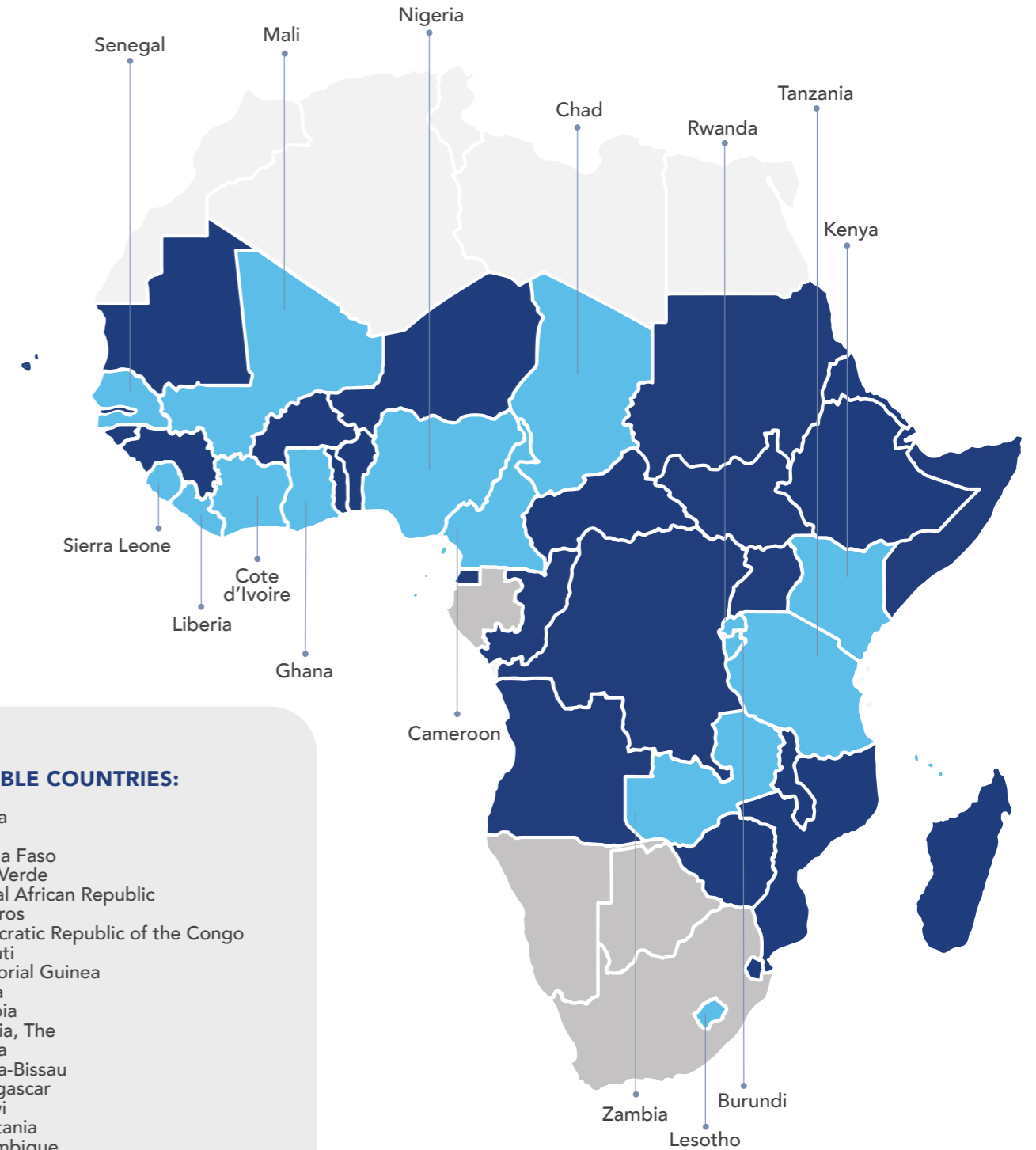
 <b> BIOGAS </b>	 <b> GRID-CONNECTED SOLAR PV </b>	 <b> RUN-OF-RIVER HYDRO </b>
 <b> BIOMASS </b>	 <b> MINI-GRIDS </b> (off-grid, powered by renewable energy)	 <b> WASTE-TO-ENERGY </b>
 <b> GEOTHERMAL </b>	 <b> SOLAR HOME SYSTEMS </b> (off-grid)	 <b> WIND </b>

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



## COUNTRIES ELIGIBLE FOR REPP SUPPORT

■ ELIGIBLE ■ ACTIVE



### 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
- Madagascar
- Malawi
- Mauritania
- Mozambique
- Niger
- Republic of the Congo
- Sao Tome and Principe
- Somalia
- South Sudan
- Sudan
- Swaziland
- Togo
- Uganda
- Zimbabwe



# OUR IMPACT

Despite significant progress made globally in electrification in recent years, close to 600 million people still live without access to electricity in West, Central, East and Southern Africa.<sup>1</sup> And for hundreds of millions that do have access, the supply is often unreliable or unaffordable.

In response to this, **REPP is working to stimulate the development of a vibrant, networked and viable market for small and distributed renewable energy projects in African countries.** Such a market is fundamental to ensuring access to affordable, reliable and sustainable energy for all and taking urgent climate action in line with the **Sustainable Development Goals (SDGs) 7 and 13**, respectively.

By investing in innovative distributed renewable energy solutions and new business models - such as solar home systems equipment and pay-as-you-go solar mini-grids - **REPP is enabling developers to provide first-time access to affordable, clean, inclusive, and low-carbon energy services to off-grid-communities.** As of 31 March 2020, more than 237,000 people had been connected to clean electricity as a direct result of REPP's funding. As African governments increasingly acknowledge the role of off-grid technologies in their national

electrification planning, REPP is contributing to the implementation of the national priorities. **REPP's support in grid-connected projects, with 216MW planned installed capacity, will also help to improve the reliability of electricity supply** across the four regions as these projects start to come online.

Financing renewable energy activities **results in the abatement of GHG emissions in line with the goals of the Paris Agreement** and supports the implementation of host countries' climate action priorities as set out in their Nationally Determined Contributions (NDCs) and national climate policies. Mitigating GHG emissions is essential for keeping the rise of global temperatures within acceptable limits and thereby limiting the negative impacts of climate change in the long term and minimising the associated costs of adaptation. **Furthermore, investing in decentralised renewable energy supply assists in building countries' resilience towards climate change.** REPP's funding is directly supporting 14 countries to mitigate emissions and adapt to the impacts of climate change, and to raise the level of ambition of the NDCs (see page 19).

At the customer level, renewable energy projects offer **multiple environmental and social co-benefits** contributing towards the achievement of different

SDGs. Off-grid renewables, for example, replace at least partially the use of kerosene and candles, and in some instances wood fuel as well. 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**.

The energy sector plays a key role in long-term national sustainable development strategies as an enabler for socio-economic development. **First-time access to sustainable modern energy creates new opportunities for social and economic development through extended working hours, and reduced wastage of time and physical exertion.** Households with electricity are more likely to receive a better income from microbusinesses than those without access, as well as to enjoy the benefits of improved information flows and entertainment. Beyond the home, **clean energy solutions are improving the livelihoods and prospects of entire communities**, by helping to power schools, health clinics and water pumps. These secondary benefits contribute towards the achievement of **SDG 1**.

Renewable energy projects also **create employment opportunities**, both during development and

operation and across numerous skill sets, from engineering and construction to sales and customer services. REPP works to ensure all jobs created through the projects it supports provide decent work, respect labour rights, and improve skills in line with REPP's Environmental and Social Policy and Procedures, and supporting the achievement of **SDG 8** (see page 24).

The rapid development of a robust and viable market for renewables is critical to ensuring these multiple benefits are made available to everyone soon. However, the sector is faced with multiple challenges, as explained on page 11. To address this, **REPP is working to mobilise the private and public funding necessary to grow the market** by applying innovative climate funding solutions to overcome historic barriers to finance and demonstrating the bankability of projects to crowd in other investors, as well as facilitating knowledge transfer and innovation through capacity building efforts to support successful project implementation. By the end of March 2020, **REPP funding had leveraged £53m in line with SDG 17.**

<sup>1</sup> <https://www.iea.org/reports/sdg7-data-and-projections/access-to-electricity>

## COVID-19 UPDATE

Like in many other sectors, REPP recognises that renewable energy companies have been badly impacted by the COVID-19 crisis. The virus has affected all areas of society, and alongside the financial hardships faced by many businesses, social, economic and gender inequalities have also intensified in many areas.

At the time of writing, travel restrictions are hindering sales and distribution in many African countries, shipping delays are continuing to have a knock-on effect on the procurement of goods, and government permit processes necessary for operations have slowed down as officials focus on acute health and economic crises.

To help ease the economic burden and ensure that operations continue, REPP is providing three-month interest and repayment moratoriums to all existing investees. In addition, REPP is making financial support available in the form of a streamlined working capital facility to companies and projects that fit within the programme's general investment mandate.



## 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:

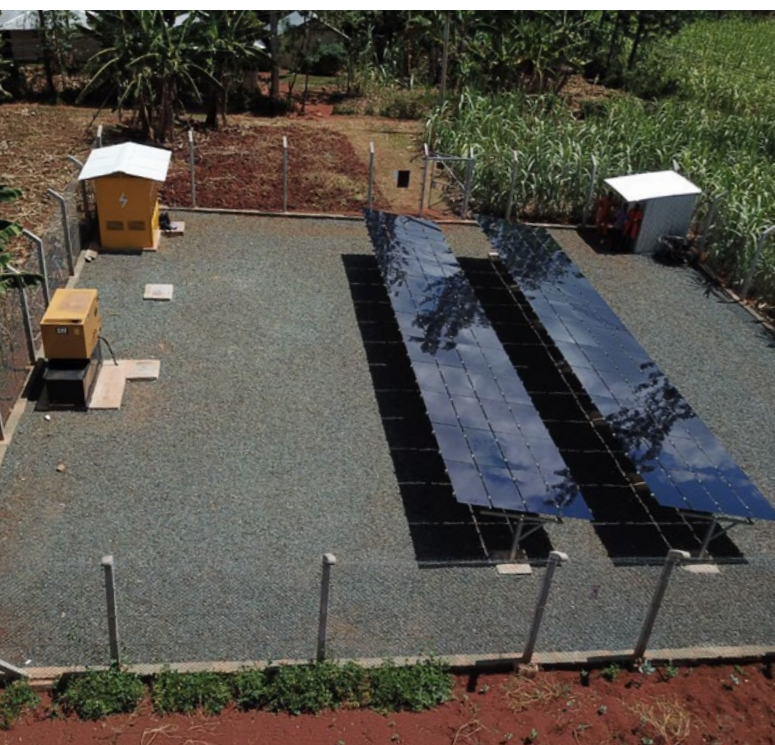
- total **installed capacity in megawatts (MW)** of clean energy generated by a project measured as rated power output when operational;
- annual net **amount of GHG** mitigated through project intervention, estimated relative to the assumed business-as-usual emissions scenario measured in tonnes of 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 £m; and
- volume of **finance mobilised** from third-party sources for climate change mitigation as a result of REPP intervention (in £m).

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 22.

In addition, the investees measure and self-report back to REPP on important **environmental and social parameters** identified in the ESIA 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 the ESMS, as well as to check their compliance with local laws and regulations.



## HOW WE PLAN TO ACHIEVE OUR TARGETS

**Investing in small to medium-scale renewable energy projects** in African countries will remain REPP's primary focus. Similarly, REPP's manager and partners will continue to provide project developers with **technical assistance** and to host capacity-building events to help them mitigate risk, reach bankability and establish high-quality environmental and social management systems (ESMSs).

REPP will continue its **capacity building** efforts to assist developers in successful project implementation. This includes the second **REPP Academy**, which is aimed at on-grid investee companies and planned to take place virtually in Q4 2020. The training event will focus on improving and building upon current business practices to successfully advance on-grid projects towards financial close.

### ALIGNMENT WITH NATIONAL POLICY PRIORITIES

Private sector engagement and multi-stakeholder partnerships are crucial to the successful implementation of the national climate and sustainable development agendas. There is a clear call from national governments for private investment flows towards national climate mitigation and adaptation actions, as well as the broader national development vision.

Although REPP directly supports projects, businesses and markets, it also seeks to **achieve transformational change by aligning with country climate, energy and sustainable development priorities**. To support this, REPP has mapped projects supported to date against country needs and priorities as embodied in their NDCs to the Paris Agreement, national climate policies, energy sector policies, strategies and action plans and long-term development agendas.

The assessment highlights strong alignment across multiple indicators. **REPP contributes directly to emission abatement and increased access to clean electricity, both of which are key to the mitigation priorities in most of the analysed NDCs**. REPP is currently supporting several **national priority investment projects**, including Mubuga in Burundi and Djermaya in Chad. REPP's off-grid investees are contributing to the achievement of host countries' national electrification targets, thus supporting the implementation of rural electrification strategies, national energy policies and NDCs. Most of REPP's mini-grid investees are supporting flagship national electrification programmes, including GVE and Powergen in Nigeria.

REPP's strong focus on gender mainstreaming across its operations is well aligned with many of the analysed NDCs and/or national policy documents, where gender equity is identified as a key cross-cutting issue. REPP contributes to the **strengthening of local capacities** – a crucial policy priority across the analysed countries – by supporting partnerships between international and local project developers, as well as local staff at operational and, in many cases, management levels.

# PERFORMANCE OVERVIEW

As of 31 March 2020, REPP had 22 contracted projects spanning 15 countries across Africa and employing five technologies (SHS, solar PV mini-grids, grid-connected solar PV, 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 22.



The following charts reflect the cumulative actual performance of all operational off-grid projects as of 31 March 2020, the forecasted cumulative performance of all 22 contracted projects at the end of the REPP mandate on 31 December 2023, and the targets set for REPP. They have not been risk-adjusted (see footnote on page 21).

## PERFORMANCE AGAINST CORE KPIS FOR CONTRACTED PROJECTS

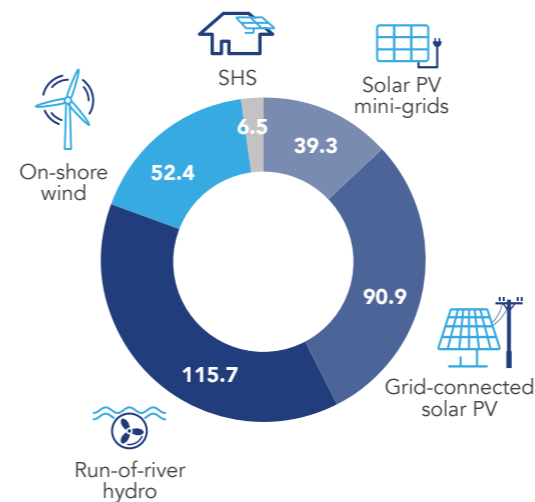
<p><b>People with first-time access to energy</b></p> <p>Forecast: <b>2,209,204</b> Target: <b>356,579</b></p> <p>Achieved so far: <b>237,048</b></p>	<p><b>Greenhouse gas emissions avoided</b></p> <p>Forecast: <b>852,492 tCO<sub>2</sub>e</b> Target: <b>528,936 tCO<sub>2</sub>e</b></p> <p>Achieved so far: <b>7,460 tCO<sub>2</sub>e</b></p>	<p><b>Increased generation capacity</b></p> <p>Forecast: <b>216MW</b> Target: <b>123MW</b></p> <p>Achieved so far: <b>2.74MW</b></p>
<p><b>Finance mobilised</b></p> <p>Forecast: <b>£332m</b> Target: <b>£615m</b></p> <p>Achieved so far: <b>£53m</b></p>	<p><b>Improved livelihoods</b></p> <p>Direct job creation: <b>1,221</b></p> <p>Number of households using renewable energy products to support their microbusiness: <b>6,086 (cumulative)</b></p>	



The charts below reflect the total contracted values for all current projects that had a signed contract with REPP in place by the end of 31 March 2020.\*

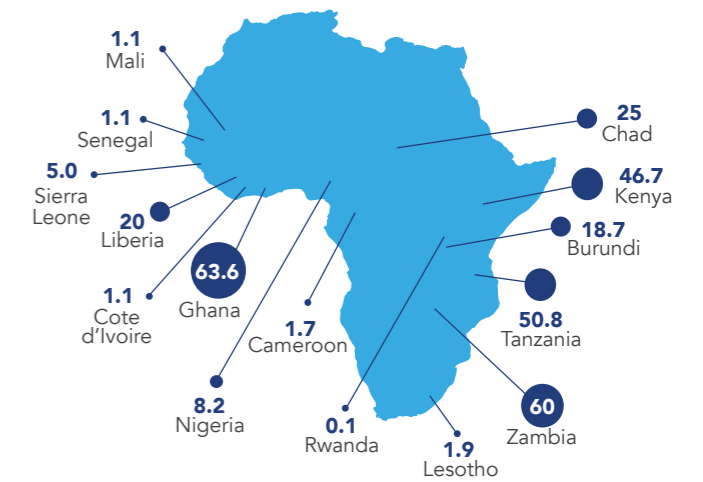
### CAPACITY BY TECH

In MW



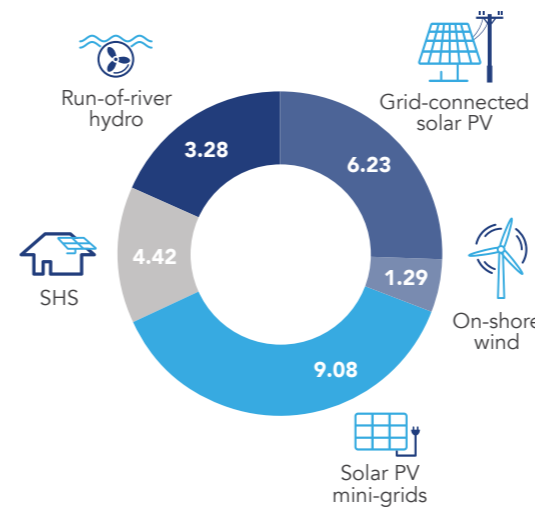
### CAPACITY BY COUNTRY

In MW



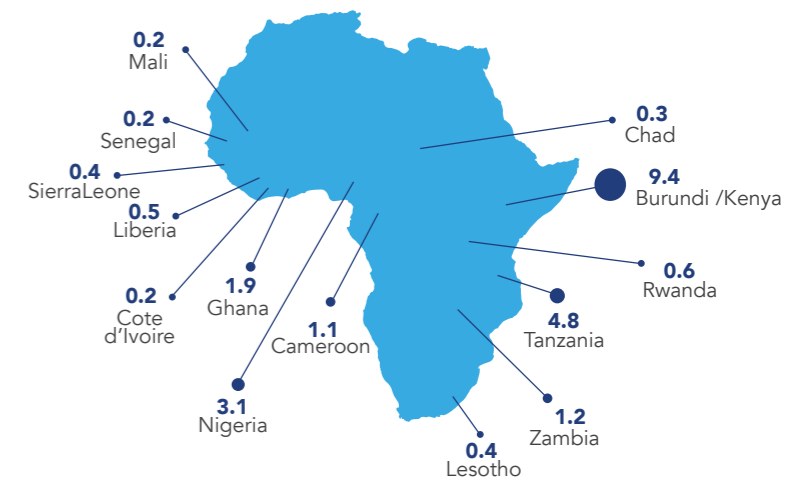
### COMMITTED SPEND BY TECH

In £m



### COMMITTED SPEND BY COUNTRY

In £m



### COMMITTED SPEND BY FINANCIAL STRUCTURE

Development phase capital

£2.9m

Gap funding

£21.4m

\* The figures provided are forward-looking statements that necessarily involve known and unknown risks. They are not guarantees of future performance and have not been adjusted for the probability of being achieved; accordingly, actual outcomes are expected to be lower.



The table below provides a summary of REPP's actual performance based on the eight operational off-grid projects and the forecasted performance of all 22 currently contracted projects against key performance targets at the end of each year. The forecasts are forward-looking statements that necessarily involve known and unknown risks. They are not guarantees of future performance and have not been adjusted for the probability of being achieved; accordingly, actual outcomes are expected to be lower.

WHAT				HOW MUCH														
Focus area	Performance indicators	Link to SDGs		Alignment with IRIS+	Achieved			Forecast					Target					Data quality
		Goal	Target		2018	2019	2020 (March)	2020	2021	2022	2023	Lifetime expected	2020	2021	2022	2023	Lifetime expected	
<b>ECONOMIC GROWTH</b>	Number of projects supported by REPP		7.1, 7.2, 13.1		19	20	22	N/A	N/A	N/A	N/A	N/A	36	44	52	60	-	High. Measured.
	Number of projects reaching financial close		7.1, 7.2, 13.1		4	8	11	20	24	25	25	N/A	18	27	35	44	60	High. Measured.
	REPP funding committed in £m		17.3	OD5990	12	22	24	N/A	N/A	N/A	N/A	N/A	57	80	102	125	57	High. Measured.
	Finance mobilised in £m		17.3		38	48	53	332	332	332	332	332	273.93	387.75	501.57	615.39	-	High. Measured.
<b>ENVIRONMENT AND CLIMATE CHANGE</b>	Direct job creation in each year		1.2, 8.5	OI8869 OI9028	594	1,366	1,221	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	High. Measured.
	Installed renewable energy capacity in MW		1.5, 7.1, 7.2, 8.4, 13.1	PD1602	0.5	2.4	2.7	18.3	107.4	141.8	216.0	302.0	15.3	20.7	71.6	122.5	275.2	High. Measured.
	Number of countries whose NDCs are supported		13.2		N/A	N/A	14	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	High. Measured.
<b>SOCIAL INCLUSION</b>	Greenhouse gas emissions avoided each year in tCO <sub>2</sub> e		13.1	PI2764	1,753	4,205	1,502	26,959	170,185	259,179	391,662	19,453,874	29,924	55,766	145,155	298,091	6,871,553	Medium to high. <sup>1</sup>
	Number of people with first-time access to clean energy		1.4, 1.5, 3.4, 7.1, 7.2, 11.1	PI2822	60,105	174,220	237,048	431,343	1,122,607	1,675,398	2,209,204	2,210,116	44,397	60,253	208,416	356,579	356,579	Medium to high. <sup>2</sup>
	Number of households using products to support business / microbusiness		1.2, 8.5		-	-	6,086	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	High. Measured.
	Number of critical services supported*		1.4, 1.5	PI2822	-	-	159	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	High. Measured.
	Number of women in the workforce from direct jobs created		5.5	OI2444 OI6978	-	278	342	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT
Investments with ≥25% women in senior management, investment committee or board (X2 criteria)		5.5	OI1571 OI8118 OI8709	-	-	4.8	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	MNT	High. Measured.

\* Refers to schools, clinics, hospitals, waterworks and water-pumping stations that have received electricity through the projects. MNT = Monitored. No Target

<sup>1</sup> Calculated from kWh produced and UNFCCC-approved country-specific grid emission factor. For SHS projects, calculated based on sales and a conservative emission factor of 0.15 tCO<sub>2</sub>/SHS/year.

<sup>2</sup> Calculated based on sales / customers and conservative average household size of five people.

## 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 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 53.

## INCENTIVISING GENDER EQUALITY

REPP believes that 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 (SDG 7).

Over the last year, REPP has further strengthened its focus on gender equality, starting with the adoption of its **Gender Mainstreaming Policy** in August 2019.

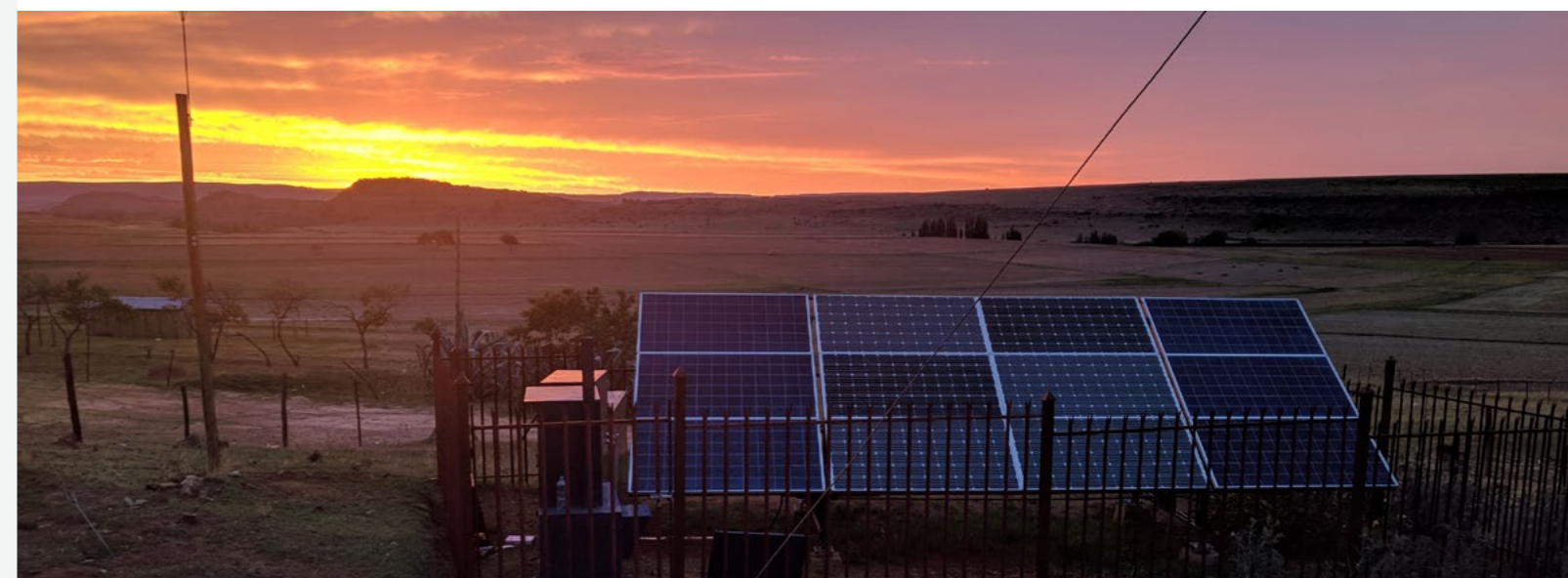
The policy incentivises investee companies to factor in gender equality considerations to their project design and operations by way of discounted interest rates. To qualify for the discounts, an investee must:

- 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.

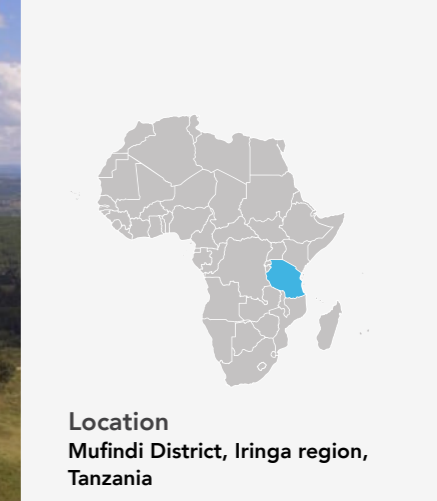
REPP also proactively seeks out projects that support women's interests. In late 2019, REPP issued a **gender-themed request for proposals** targeting renewable energy projects that were majority owned or managed by women. The call also targeted projects focused on promoting women's economic empowerment through enabling the productive use of energy for women as end users, and/or access to renewable energy finance for female entrepreneurs in African countries. The call generated considerable interest, resulting in 70 applications from 20 different countries.

To build awareness and capacity within the sector, REPP has hosted two webinars on how to integrate gender equality considerations in renewable energy project design and stakeholder engagements. Both webinars are available to view on the [Resource Centre on REPP's website](#), together with the [Gender Mainstreaming Toolkit](#), which is a free-to-use resource to help REPP investees and other renewable energy developers assess their gender baseline and establish a gender equality action plan.

# FEATURED CASE STUDIES



# MWENGA



## PROJECT SUMMARY

Tanzania's energy sector broke new ground this year as the country's first-ever wind farm was put into commission.

Final construction and tests on the 2.4MW wind farm in Mwenga, situated in the Mufindi District of Tanzania's Iringa region, were completed after a USD1.2m mezzanine loan from REPP concluded the financing arrangements for the project.

The three-turbine facility is now providing much-needed **energy security** to domestic and commercial customers of a **rapidly expanding private rural electricity distribution network**.

Developer Mwenga Hydro Ltd (a project company of the Rift Valley Energy Group) has been operating a nearby 4MW hydropower plant since 2012, providing power to state utility TANESCO and the rural network, managed by the developer's own licensed rural distribution company.

The network is the first private large-scale rural network in Tanzania and supports more than 4,500 connections across 32 villages. However, this is **expected to steadily increase** to more than 6,000 connections over the course of the next two years, including energy-intensive end users such as tea-processing companies and sawmills, and a rapidly growing SME sector.

To help meet this continually growing demand - and also to **counter the hydro plant's varying** output due to the region's seasonality of rainfall - the developer embarked on the construction of the complementary wind farm. This hybrid generation structure is now enabling the planned expansion of the rural network to continue, without which generation shortfalls would otherwise arise across the dry season.

Michael Gratwicke, Managing Director of Rift Valley Energy Group, said: "More and more small and medium sized industries are now establishing themselves within the Mwenga rural network area, so as to take advantage of the reliable and affordable electricity

services that are on offer, as well as to be nearer to their respective sources of raw materials.

"These businesses require a reliable and high-quality source of energy to power their industrial and agro-industrial activities, which in turn have an economic and developmental impact within the communities that surround them.

"The completion of the wind farm will ensure the continued availability of affordable clean power to all of our current and future customers."

He added: "The REPP facility has been critical to concluding the financial structure for the project and provides the project with the necessary risk reduction mechanisms to best manage the anticipated rapid evolution of our associated growing rural distribution markets."

Geoff Sinclair, Managing Director of Camco Clean Energy, REPP's investment manager, said: "Complementing the existing hydro plant with a wind farm is a smart move that will enable Rift Valley to greatly improve the quality and reliability of its rural grid network, which has already had a transformational impact on thousands of homes and businesses in Tanzania."

He added: "Wind energy has the potential to be a major contributor to the energy mix of many countries in Africa, but currently remains a mostly untapped resource. The success of the Mwenga project should have a strong demonstration effect and provide a replicable solution for complex power supply issues across the region."

The project has created approximately 50 temporary jobs during construction and a further six permanent jobs during operation, whilst directly supporting the rural electrification, climate mitigation and industrialisation targets of Tanzania, where nearly 8 million households currently lack access to electricity.



## AT A GLANCE

**Technology:** On-shore wind  
**Project type:** Grid-connected



**Offtaker:** Rural communities and semi-industrial clients

## KPIs

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

Improves stability of grid supply

Installed capacity: 2.4MW

## FUNDING STRUCTURE

**Signed:** 20 March 2020

**Type:** Mezzanine loan

**REPP funding:** USD1.2m

## 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. Also supports the implementation of Tanzania's Vision 2025 and the National Five-Year Development Plan 2016-21 (2016) through the development of energy infrastructure.

"We are happy to have the wind project completed here. It is good to have additional power from wind if it can make the power supply more reliable in the area."

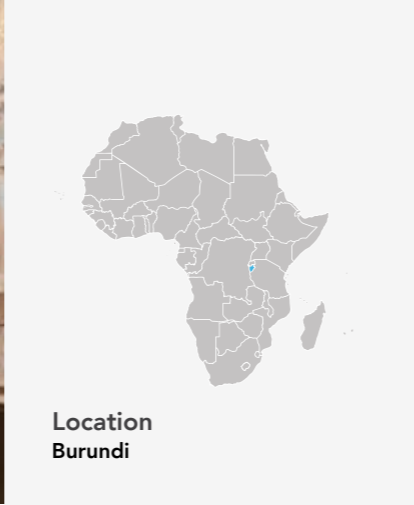
John Mutumonga, headmaster of nearby Usokami Secondary School

"The people in Usokami are happy with the turbines as they have made the village attractive to outside people, and are of an interest to everyone who comes to the village, as they have never been seen before in the country."

Otto Bell, wind plant supervisor



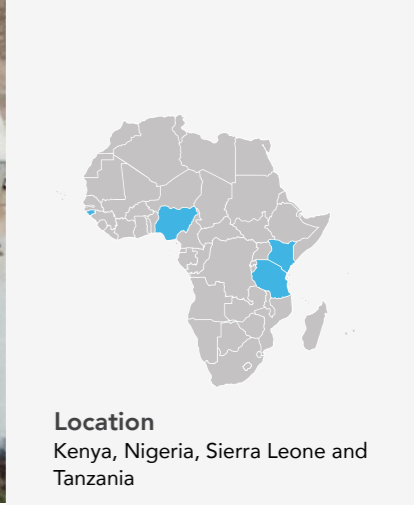
# MUBUGA



Location  
Burundi



# POWERGEN



Location  
Kenya, Nigeria, Sierra Leone and Tanzania

## PROJECT SUMMARY

Construction is underway on this ambitious project in Burundi to build a 7.5MW solar PV power plant that is expected to increase the country's baseload generation capacity by as much as 15%. Located near the Mubuga village, in the Gitega Province, the development will also be the **first grid-connected solar project by an independent power producer (IPP) in Burundi**. Developed as a public-private partnership between the Government of Burundi and Gigawatt Global Coöperatief, the project will pave the way for other renewable energy projects in the country.

Last year, the project became the **first REPP-supported grid-connected project to achieve full financial close**, with equity sponsorship from Gigawatt Global Coöperatief UA and Evolution II Fund, managed by Inspired Evolution Investment Management. Full construction began in January 2020. Despite the challenges posed by COVID-19, construction is progressing. It is estimated that the plant will supply the electricity needs of at least 87,600 people and businesses and provide around 150 part-time jobs during construction and up to 50 full-time jobs during the operational phase.

The developers also plan to construct a scalable mini-grid scheme alongside the project for the local community in Mubuga village as part of a corporate social responsibility initiative and will provide yearly support to the community to improve economic growth and living standards.


REPP has supported the development of the Mubuga project since December 2016. It has now agreed to provide additional funding for construction, via a construction bridge loan (alongside Evolution II Fund) 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 renewables, thereby establishing a more viable market for renewable energy projects in the country.






### Country policy alignment

REPP's investment in Mubuga supports Burundi's conditional NDC (2015) target to reduce GHG emissions by 20% by 2030. It also represents strong support for the country's vision for sustainable development, with the project being a priority initiative listed in the National Development Plan (2018).

## AT A GLANCE

<b>Technology:</b> Grid-connected solar PV	<b>Project type:</b> Grid-connected
	<b>Offtaker:</b> REGIDESO

### KPIs

	GHG emissions avoided: 2,072 tCO <sub>2</sub> e per year
	Improves stability of grid supply
	Installed capacity: 7.5MW

## FUNDING STRUCTURE

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

### SDGs

## PROJECT SUMMARY

Over 700,000 people are expected to be connected to electricity for the first time by 2024 under bold expansion plans by one Africa's leading micro-utilities.

PowerGen Renewable Energy (PowerGen) completed a successful Series B round in November 2019, which drew funding from eight investors, including USD2m in equity from REPP. The other seven were Shell's New Energies business, Omidyar Network, Acumen, EDFI ElectriFI, Sumitomo Corporation, DOB Equity, and Micro-grid Catalytic Capital Partners.

PowerGen is one of the **pioneers of the private utility sector in Africa**, delivering affordable, reliable and clean electricity to underserved Africans through solar PV mini-grids with battery storage. The company also prides itself on its ongoing customer support provided through dedicated maintenance and customer services.

To date, PowerGen has **connected over 14,000 people and businesses** across Kenya, Nigeria, Sierra Leone and Tanzania. Now the company is looking to scale up to a "critical mass" of 145,000 installations by 2024 that will enable it to accelerate its reach in future. Back in 2016, REPP provided a USD345,000 development loan and support that has helped the company position itself at the forefront of the off-grid sector in Tanzania and Kenya.

REPP's support during PowerGen's latest fundraise was **key to crowding-in additional funding** from private investors, enabling the company to reach its fundraising target.


The Series B capital raise will help PowerGen strengthen its position in its core markets and expand into Benin, Nigeria and Sierra Leone as the demand for electricity in Africa continues to grow.






### Country policy alignment

Project supports all countries' NDC targets to reduce GHG emissions by 2030. It is also strongly aligned with the Nigerian Government's 'new paradigm for rural electrification' – delivering energy access through a combination of centralised and decentralised approaches – as well as supporting Kenya's aims to reach universal energy access by 2022 (National Electrification Strategy 2018), Sierra Leone's national electrification target of 92% by 2030 (National Renewable Energy Action Plan, 2016) and Tanzania's target of 75% by 2035 (National Electrification Programme Prospectus, 2014).

## AT A GLANCE

<b>Technology:</b> Solar PV mini-grids	<b>Project type:</b> Off-grid
	<b>Offtaker:</b> Off-grid communities

### KPIs

	GHG emissions avoided: 43,581 tCO <sub>2</sub> e per year
	People with first-time access to clean energy: 725,000
	Installed capacity: 19.9MW

## FUNDING STRUCTURE

<b>Signed:</b> 17 January 2020
<b>Type:</b> Equity
<b>REPP funding:</b> USD2m

### SDGs

"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, senior adviser to the president and former MP from Mubuga

"REPP is one of PowerGen's longest-term partners and has a deep understanding of the mini-grid business from both a corporate and project finance perspective. We are thrilled to have them as an equity investor in PowerGen and to work together with their experienced team to continue building the private utility sector in Africa"

Sam Slaughter, CEO, PowerGen Renewable Energy



# GHANA CATHOLIC CHURCHES

## PROJECT SUMMARY

Over 900 properties owned by the Catholic Church of Ghana could be fitted with rooftop solar panels to provide clean and affordable electricity as part of a REPP-supported project.

UK-based Greenheart AAAi (Ghana) Limited (Greenheart AAAi) is now able to commence site surveys on cathedrals, churches, schools, hospitals and mission houses across five of the Ghanaian Catholic Church's 20 dioceses thanks to a USD290,000 development loan from REPP. The surveys will evaluate the suitability of the buildings for the solar PV panels and are expected to be finished by mid-2021.

Greenheart AAAi is one of three companies or consortiums to be awarded contracts by the Catholic Church of Ghana to supply and install solar PV rooftop systems on its 2,700 buildings. The overarching project is a demonstration of the Church's commitment to responding to Pope Francis' encyclical on safeguarding the environment. Following the initial assessment stage, an **additional USD1.42m long-term loan from REPP may be made available** to complement Greenheart AAAi's and its prospective project partner's costs of installing the panels.

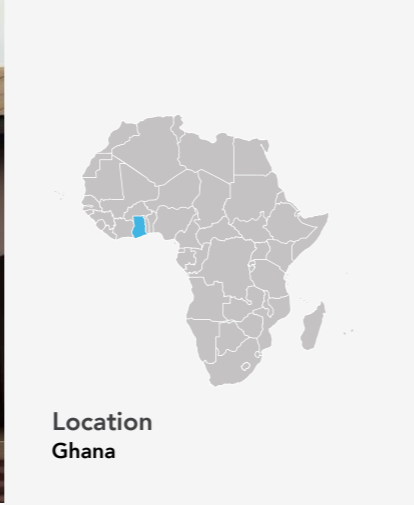
Around 40 jobs will be created during the construction phase of the project, and a further 20 during operation. Once installed, the panels are expected to have a combined generating capacity of 12.5MWp and will provide an alternative source of daytime power for air conditioners, lighting, water heaters and other appliances. The buildings will continue to rely on grid-supplied energy for night-time requirements and when daytime demand outstrips the rooftops' supply capacity.

Ghana has abundant solar energy potential that remains largely untapped with 98.6% of its electricity being generated by large hydropower and hydrocarbon-fired plants. Not only will the rooftop solar be an effective solution for reducing its rapidly rising electricity bills, which have more than doubled in two years, but the project will also help the country to meet its NDCs as part of the Paris Agreement. The project is expected to help establish a template for other, similar developments through the use of a hire purchase agreement.



### Country policy alignment

Supports Ghana's NDC (2015) target to reduce GHG emissions by 45% and increase use of renewables by 10% by 2030, as well as the Ghana Renewable Energy Master Plan (2019) target of adding 200MWp of distributed solar by the same year.



Location  
Ghana

## AT A GLANCE

<b>Technology:</b> Rooftop solar PV	<b>Offtaker:</b> Archdiocese of Accra; Diocese of Keta-Akatsi; Diocese of Donkorkrom; Diocese of Goaso; Diocese of Koforidua
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**Project type:**  
Supplementary off-grid

## KPIs

GHG emissions avoided: 13,688 tCO <sub>2</sub> e per year
Improves stability of grid supply
Installed capacity: 12.5MWp

## FUNDING STRUCTURE

**Signed:** 19 December 2019

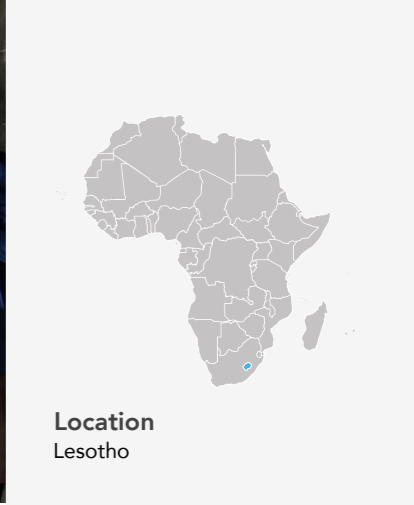
**Type:** Development capital; long-term loan

**REPP funding:** USD0.29m and USD1.42m, respectively

## SDGs



# HA MAKEBE



Location  
Lesotho

## PROJECT SUMMARY

Lesotho's first ever private mini-grid development has taken a major step forward after securing a 7m Lesotho loti convertible loan\* from REPP. REPP's investment follows a pioneering effort to secure Lesotho's inaugural mini-grid concession by Sotho Minigrad Portfolio, which is a special purpose vehicle owned by OnePower Lesotho (Pty) Ltd.

Construction of the pilot installation in Ha Makebe just north of the capital, Maseru, is underway and expected to be completed in December 2020. The funds will be made available in local currency, which is a **notable first for REPP** and would provide the developer with welcomed protection against fluctuating exchange rates. The successful completion of the mini-grid will pave the way for the development of a larger portfolio of up to 10 additional mini-grids. REPP has **expressed interest** in supporting the construction of this portfolio.

The pilot mini-grid and those of the planned larger portfolio are solar PV hybrids with battery storage and limited LPG backup generation. The hybrid nature of the design is to ensure 24-hour, year-round electricity supply, even during Lesotho's harsh winters. When fully operational, the mini-grids will provide low-cost, consistent, and very often first-time electricity access for up to an estimated 5,000 households, as well as small enterprises, schools, and health clinics. Approximately 185 part-time jobs are expected to be created during the project's construction phase and a further 15 full-time jobs during operation.

The project is closely aligned with the country's off-grid electrification plans as well as its NDC targets to increase energy access to 80% by 2030, while ramping up generating capacity from renewable resources. Completion of the mini-grids will demonstrate the technical and commercial viability of the project at scale, and will help to develop a **viable business model that can be replicated** in other rural, off-grid villages. In the process, the project will secure local funding, assist in building local capacity, develop local skills and contribute to socio-economic development.

\* Disbursement of loan subject to conditions precedent being met.



### 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. Ha Makebe is well aligned with Lesotho's National Energy Policy (2015) which aims to increase private sector engagement in energy sector development, especially renewable energy mini-grids.

## AT A GLANCE

<b>Technology:</b> Solar PV mini-grids with battery storage and LPG back-up generation	<b>Project type:</b> Off-grid
	<b>Offtaker:</b> Off-grid communities

## KPIs - Pilot phase

GHG emissions avoided: 166 tCO <sub>2</sub> e per year
People with first-time access to clean energy: 1,075
Installed capacity: 76kW plus battery storage

## KPIs - Full project

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

GHG emissions avoided: 43,581 tCO <sub>2</sub> e per year
People with first-time access to clean energy: 725,000
Installed capacity: 19.9MW

## FUNDING STRUCTURE

**Signed:** 2 October 2018  
Conditions precedent met on 30 March 2020

**Type:** Convertible loan

**REPP funding:** LSL 7m

## SDGs



"This is a great example of installing renewable energy right where the power is needed, embedding small-scale generation within the properties. By working with the Catholic Church of Ghana, we are able to deliver the benefits throughout a larger number of properties and the wider region. Having REPP alongside us enables the development and delivery of this exciting project, which will not only benefit the Catholic Church in Ghana, but also its congregation and the wider community."

David Eyre, Director, Greenheart AAAi (Ghana) Ltd

"OnePower is proud to partner with REPP to build the first mini-grid in Lesotho. REPP has provided invaluable support to this project and we look forward to our continued cooperation to bring clean and affordable electricity services to communities in sub-Saharan Africa."

Matt Orosz, CEO, OnePower Lesotho Ltd





# UPOWA



Location  
Cameroon

# SELECTED PROJECT UPDATES

## PROJECT SUMMARY

Over 900,000 people in Cameroon are expected to gain access to clean electricity for the first time by 2023 through the efforts of PAYG solar home systems (SHS) distributor, upOwa SAS.

As of the end of 2018, upOwa had installed more than 4,500 systems mainly across two central regions of the country, connecting over 20,000 people to clean energy. Now, thanks to a successful €2.5m capital raise – including €1.3m equity financing from REPP – the company is embarking on a **rapid expansion phase**, with ambitious plans to roll out a further 200,000+ systems across the country by the end of 2023.

Through the scheme, upOwa provides systems to off-grid households using a **lease-to-own model**. Customers pay a deposit and then make monthly payments on a mobile phone money platform with targeted repayment periods of 18-24 months. Customers can choose between a 6Wp lights and phone charging-only system, or a 10Wp system with a radio and a torch, or a 40Wp system that provides additional power for other appliances. Currently, upOwa is the only company implementing PAYG for SHS at scale in Cameroon – a country where just one in five rural homes is connected to the grid, and where there is a strong and **urgent need for off-grid solutions**. Despite low levels of energy access, more than 70% of homes in Cameroon have mobile phones, making the payment system broadly accessible.

Company leaders have set their sights on rapid growth, using the experience of its in-house technical teams and reputation for reliability and customer service to build capacity and scale up activities. The company's growth could **create over 650 local jobs** and will lead to nearly 9,500 tonnes of avoided GHG every year by 2023, directly supporting Cameroon's NDC target to cut emissions and make renewables 25% of the country's energy mix by 2035.


Other investors behind the project include French family business Colam, which committed €0.7m in equity financing alongside REPP's €1.3m. A further €0.5m of equity was raised mainly through convertible notes from existing shareholders, a further statement of their belief in the business, and also from partnering crowdfunding platforms Anaxago and LITA.






### Country policy alignment

Supports Cameroon's NDC (2015) 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.

## AT A GLANCE

<b>Technology:</b> Solar home systems	<b>Project type:</b> Off-grid
	<b>Offtaker:</b> Off-grid communities

## KPIs

 GHG emissions avoided: 9,473 tCO <sub>2</sub> e per year
 People with first-time access to clean energy: 930,479
 Installed capacity: 1.73MW

## FUNDING STRUCTURE

<b>Signed:</b> 10 September 2019
<b>Type:</b> Equity
<b>REPP funding:</b> EUR 1.3m

## SDGs



"In 2019, upOwa increased its market footprint in Cameroon at a fast pace and our series A2 is a crucial milestone that allows us to pursue this accelerating trend in 2020 onwards. REPP's participation in this equity round was a key enabler in the process, hence catalysing a swift growth of solar energy deployment in the country."

Kilien de Renty, CEO and co-founder, upOwa



## ARC POWER

Bugesera District, Rwanda

### PROJECT SUMMARY

A two-phase project to build up to 120 mini-grids that will connect around 145,000 people in Rwanda to clean electricity for the first time. So far, six mini-grids made up of two generation systems and six distribution networks serving seven villages have been installed, connecting 4,895 people.



## CBEA TANZANIA

Tanzania

### 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 USD3 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 2020, over 4,300 people had been connected to clean energy for the first time via eight mini-grids.

#### AT A GLANCE

**Technology:**  
Solar PV mini-grids

**Project type:**  
Off-grid



**REPP funding:**  
£600,000 convertible loan

#### KPIs



GHG emissions avoided:  
Phase 1: 263 tCO<sub>2</sub>e per year; whole project: 4,906 tCO<sub>2</sub>e per year



People with first-time access to clean energy: Phase 1: 5,625; whole project: 145,000



Installed capacity:  
Phase 1: 0.12MW; whole project: 2.24MW

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

#### AT A GLANCE

**Technology:**  
Solar PV mini-grids

**Project type:**  
Off-grid



**REPP funding:**  
USD3m results based senior loan

#### KPIs



GHG emissions avoided:  
2,628 tCO<sub>2</sub>e per year



People with first-time access to clean energy: 75,000



Installed capacity:  
1.2MW

#### 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. Project's numerous productive use customers and social service providers support sustainable economic growth in rural communities, which aligns with Tanzania's Development Vision 2025.



## BUFFALO ENERGY

Zambia

### PROJECT SUMMARY

A portfolio of eight projects utilising a range of technologies with a combined generating capacity of over 100MW. Once built, the projects will contribute significantly to both Zambia's energy diversification strategy, and its target of 51% energy access in rural areas by 2030.



## DJERMAYA

Hadjer-Lamis Region, Chad

### PROJECT SUMMARY

This large-scale solar 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 PCOA materially agreed. An ESIA and livelihood restoration plan have also been established.

#### AT A GLANCE

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

**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



Installed capacity:  
30MW\*

#### SDGs



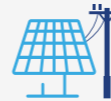
##### Country policy alignment:

Supports Zambia's NDC (2015) targets to reduce GHG emissions by 47% by 2030 and extend grid to non-electrified rural areas. The project is also well-aligned with the National Energy Policy's (2008) objective of diversifying the energy mix in the country.

#### 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



Installed capacity:  
25MW (AC)

#### SDGs



##### Country policy alignment:

Supports Chad's conditional NDC (2015) target to reduce GHG emissions by 71% by 2030. Project will help alleviate poverty and foster economic activity by providing lower cost power to the grid than fossil fuel-fired generation, thus contributing to Chad Vision 2030's (2017) target of becoming an emerging country.

\* Estimate of achieved capacity during REPP's support



## GAIA ENERGY GHANA

Agogo  
Ghana

### PROJECT SUMMARY

Once built, this 50MW wind farm will be among the biggest wind developments ever completed in Ghana and provide a viable business model for helping to scale up investment in its nascent wind industry. REPP's support provides financing for an inter-connection study, ESIA, road survey, topographical study, geotech and legal counsel.



## MIDDLE NZOIA AND GITUGI

Central and Western Kenya

### PROJECT SUMMARY

This project involves the construction of two run-of-river hydropower plants with a combined generating capacity of nearly 10MW, which once built will improve the reliability of the Kenyan national grid. Feasibility studies, ESMSs and ESIA's are now in place for both sites and permitting is nearly complete. Land acquisition agreements have been signed for Middle Nzoia and are in the process of being negotiated for Gitugi.

#### AT A GLANCE

**Technology:**  
On-shore wind



**Project type:**  
Grid-connected

**REPP funding:**  
USD450,000 in development capital

#### KPIs

GHG emissions avoided:  
74,000 tCO<sub>2</sub>e per year

Improves stability of grid supply

Installed capacity:  
50MW

#### SDGs



**Country policy alignment:**

Supports Ghana's NDC (2015) target to reduce GHG emissions by 45% and increase use of renewables by 10% by 2030, as well as the Ghana Renewable Energy Master Plan (2019) target of adding 325MWp of utility wind capacity by the same year.

#### AT A GLANCE

**Technology:**  
Run-of-river hydro



**Project type:**  
Greenfield, grid-connected

**REPP funding:**  
USD751,000 in development capital

#### KPIs

GHG emissions avoided:  
28,288 tCO<sub>2</sub>e per year

Improves stability to grid supply

Installed capacity:  
9.68MW

#### SDGs



**Country policy alignment:**

Supports Kenya's NDC (2015) target to abate GHG emissions by 30% by 2030 and the objectives of the National Energy Policy (2018), which includes the development of small hydro. By developing energy infrastructure, Virunga Power is supporting the manufacturing and other development priorities outlined in the "Big Four" agenda (2018).



## GVE NIGERIA

72 villages in rural  
Nigeria

### 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. ESIA's have so far been carried out on 24 of the planned sites thanks to REPP's support, with commercial operation expected to begin by the end of 2020.



## MOUNT COFFEE

Montserrado County,  
Liberia

### PROJECT SUMMARY

This ground-breaking project involves the construction of a 20MW solar farm that will increase Liberia's generation capacity by 15% and improve energy access for tens of thousands of people. The project by developer Gigawatt Global is the country's first development by an IPP.

#### AT A GLANCE

**Technology:**  
Solar PV mini-grids



**Project type:**  
Off-grid

**REPP funding:**  
USD288,000 in development capital

#### KPIs

GHG emissions avoided:  
5,957 tCO<sub>2</sub>e per year

People with first-time access to clean energy: 73,500

Installed capacity:  
2.72MW

#### SDGs

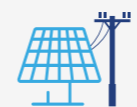


**Country policy alignment:**

Supports Nigeria's NDC (2015) target to reduce GHG emissions by 20% by 2030 and provide 13GW installed capacity from off-grid solar PV to support rural areas. 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.

#### AT A GLANCE

**Technology:**  
Grid-connected solar PV



**Project type:**  
Grid-connected

**REPP funding:**  
USD615,000 in development capital

#### KPIs

GHG emissions avoided:  
17,520 tCO<sub>2</sub>e per year

Improves stability to grid supply

Installed capacity:  
20MW

#### SDGs



**Country policy alignment:**

Supports Liberia's NDC (2015) 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 National Energy Policy.



## PAS SOLAR NIGERIA

Northern and Kano regions, Nigeria

### PROJECT SUMMARY

This far-reaching solar home systems project aims to connect around 52,000 people to clean electricity for the first time. It has connected nearly 19,000 people to date, directly helping Nigeria achieve its target to provide universal energy access by 2030.



## POWERHIVE

Kisii and Nyamira counties Kenya

### PROJECT SUMMARY

Over 16,000 people and microenterprises have so far been connected to electricity via this pioneering project's 17 operational mini-grids, with a combined generating capacity of 290KW. As well as providing clean energy suitable for productive use by local businesses, Powerhive has introduced a micro-financed poultry programme to customers, which co-finances 3,000 bird brooders and guarantees off takers. Powerhive has also introduced financing for electric pressure cookers to encourage less carbon-intensive cooking. Electric Posho mills and electric motorbikes and tuk-tuks are also being rolled out across their sites.

#### AT A GLANCE

**Technology:** Solar home systems  
**Project type:** Off-grid  
**REPP funding:** USD3.14m

#### KPIs

**GHG emissions avoided:** 1,560 tCO<sub>2</sub>e per year  
**People with first-time access to clean energy:** 52,000  
**Installed capacity:** 0.52MW

#### 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 Nigeria's NDC (2015) target to reduce GHG emissions by 20% by 2030 and provide 13GW installed capacity from off-grid solar PV to support rural areas. 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.

#### AT A GLANCE

**Technology:** Solar PV mini-grids  
**Project type:** Off-grid  
**REPP funding:** USD3m debt

#### KPIs

**GHG emissions avoided:** 2,190 tCO<sub>2</sub>e per year  
**People with first-time access to clean energy:** 90,000  
**Installed capacity:** 1MW

#### 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 NDC (2015) target to expand solar sector and abate GHG emissions by 30% by 2030, and increase resilience of energy system. Powerhive also contributes to the aims of Kenya's "Big Four" agenda (2018) by fostering a wide range of productive use activities (e.g. milling, brooding) in its projects.



## PEG AFRICA

Côte d'Ivoire, Ghana, Mali, Senegal

### PROJECT SUMMARY

This ambitious project aims to connect hundreds of thousands of people to electricity for the first time using an innovative financing scheme that enables customers to buy solar home systems on credit. As of the end of March 2020, developer PEG Africa Ltd had connected over 133,000 people as a direct result of REPP's involvement.



## VIRUNGA POWER

Burundi, Kenya, Tanzania and Zambia

### 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 come online in Kenya in late 2021.

#### AT A GLANCE

**Technology:** Solar home systems  
**Project type:** Off-grid  
**REPP funding:** USD1.1m equity

#### KPIs

**GHG emissions avoided:** 12,750 tCO<sub>2</sub>e per year  
**People with first-time access to clean energy:** 425,000  
**Installed capacity:** 4.3MW

#### Country policy alignment:

Project supports all countries' (except Senegal's) NDC targets to reduce GHG emissions by 2030 and increase use of renewables. It also contributes towards Cote d'Ivoire's target to provide universal energy access by 2020 (National Renewable Energy Action Plan, 2016), Mali's 70% energy access by 2030 target (New Energy Policy, 2015) and Senegal's target for 81.6% electricity access in rural areas by 2023 (Priority Action Plan 2019-2023, 2018). In Ghana, the project supports the Renewable Energy Master Plan (2019) target of adding 200MWp of distributed solar by 2030 and the Strategic National Energy Plan (2006) objective of 30% rural electrification by renewables by 2020.

#### AT A GLANCE

**Technology:** Run-of-river hydro  
**Project type:** Grid-connected  
**REPP funding:** USD2.5m debt

#### KPIs

**GHG emissions avoided:** TBC  
**Improves stability to grid supply**  
**Installed capacity:** 100MW

#### 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:** Project supports all countries' NDC targets to reduce GHG emissions by 2030. It contributes towards Burundi's 2040 national target of adding 238MW hydro (Master Plan 2018) and the objectives of Kenya's National Energy Policy (2018), which includes the development of small hydro, as well as Tanzania's Vision 2025 objective to develop its energy infrastructure and Zambia's National Energy Policy (2008) objective of diversifying the country's energy mix.



# FINANCE IN FOCUS

## BUILDING SCALABLE FINANCING MODELS FOR ENERGY ACCESS - POWERGEN/CROSBORDERY ENERGY ACCESS MINI-GRID FINANCE VEHICLE

Mini-grids can be an excellent way of providing power to the more than 600 million people without access to electricity in Africa. However, significant amounts of finance – both public and private – will need to be mobilised to fulfil their potential.

But mini-grids have different characteristics from the perspective of financiers. They are a combination of low voltage distribution, power generation and power retail, and are subject to several risks such as tariff regulation, grid encroachment and uncertainty over the amount and value of electricity that they will sell to consumers. They are utility-style assets that are unlikely to attract venture capital in the medium term but are also unsuited to either traditional Project Finance transactions or standard retail-style financing. New, innovative financing structures are needed to realise their potential.

REPP has been playing a leading role in developing financing structures for this asset class. In the last annual report, we highlighted an off balance sheet loan that REPP completed with Powerhive, and since then we have developed this structure further with PowerGen and CrossBoundary Energy Access.

In this structure, PowerGen develops and builds mini-grids and then transfers operational assets into an off balance sheet financing vehicle owned by CBEA, continuing to perform operations, maintenance and revenue collection in an insolvency remote structure. REPP has supported both parties, providing PowerGen with important expansion capital as a USD2 million anchor investor in their Series B equity round and mobilising equity from other investors such as Shell New Energies and Sumitomo, and providing a USD3 million senior secured debt facility to the CBEA off balance sheet vehicle.

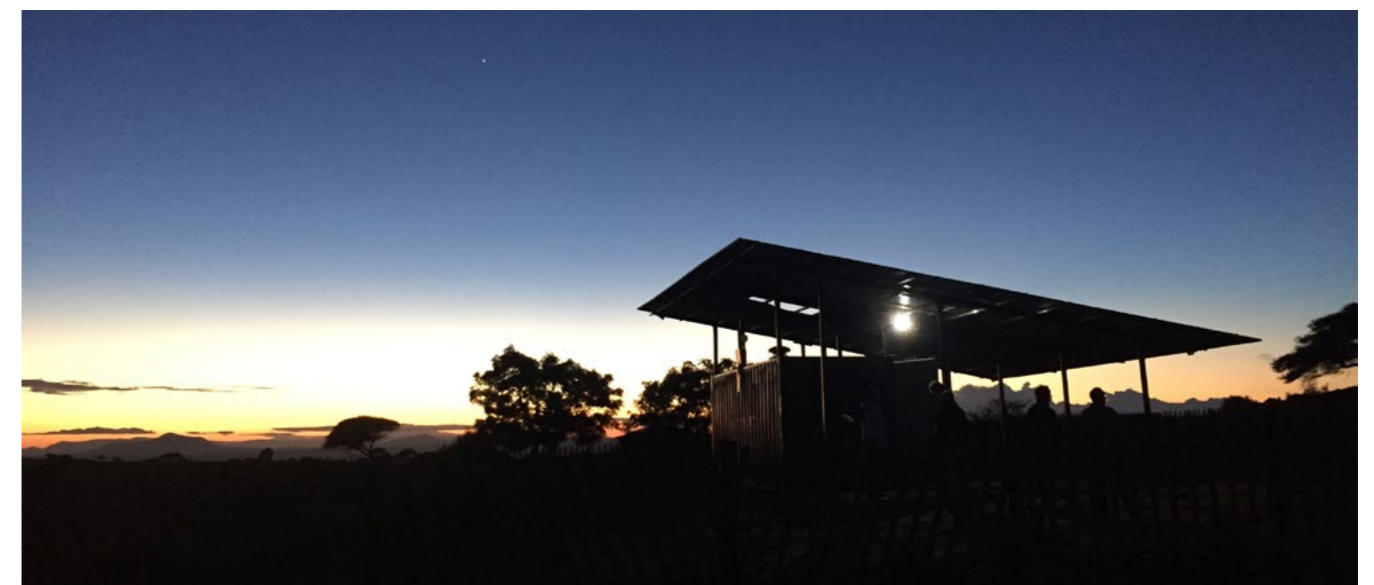
This approach has great potential to transform the market for financing mini-grids by adapting tried and tested financing structures that financial institutions are familiar with and use regularly. We are participating in a follow-on transaction with CBEA and are also thrilled that CBEA has also decided to publish a white paper, term sheets and project finance model for the structure, providing a truly transformational step to unlock the potential of distributed utilities to improve lives and constrain emissions growth.

### SERIES B EQUITY INVESTMENT

Investee:	PowerGen holding company
Investor:	Renewable Energy Performance Platform
Investment type:	Equity (Series B)
Amount:	USD2 million
Location:	Benin, DRC, Kenya, Nigeria, Sierra Leone, Tanzania
Use of funds:	Development of mini-grids and expansion into new markets
Pricing:	Not disclosed
Arranger:	Camco Clean Energy
Legal counsel:	Womble Bond Dickinson
Co-investors:	Shell New Energies, Sumitomo Corporation, Omidyar Network, Acumen, DoB Equity, MicroGrid Investment Accelerator, ElectriFI

### MINI-GRID ASSET VEHICLE SENIOR SECURED LOAN

Borrower:	CBEA – PowerGen Assets Tanzania Limited
Sponsor:	CrossBoundary Energy Access Holdings
Lender:	Renewable Energy Performance Platform
Developer:	Powergen Renewable Energy Ltd
Facility type:	Senior secured term loan
Amount:	USD3 million
Tenor:	12 years
Location:	Tanzania
Interest rate:	Not disclosed
Arranger:	Camco Clean Energy
Legal counsel:	Baker & McKenzie



# ABOUT THE UK'S INTERNATIONAL CLIMATE FINANCE

UK International Climate Finance (ICF) is the UK government's commitment to support developing countries to respond to climate change. The UK has committed to spend at least £5.8 billion of international climate finance between 2016 and 2021. This is the UK's contribution to the developed country goal of mobilising USD100 billion per year in climate finance by 2020, which underpins the Paris Agreement. This builds on the £3.87bn that the UK committed to climate activities between 2011 and 2015.

Between 2011 and 2020, we have supported 66 million people to cope with the effects of climate change; reduced or avoided 31 million tonnes of GHG emissions and mobilised £4.1 billion of public and £2.2 billion of private finance for climate change purposes in developing countries.

At the UN Climate Action Summit in September 2019, the Prime Minister announced that the UK will double its climate finance to at least £11.6 billion in the period 2021 to 2025 to help countries cut emissions, improve resilience and reduce deforestation. This has placed the UK amongst the world's leading providers of climate finance. The UK is playing a crucial role in addressing the global challenge of climate change.

## ENDING POVERTY THROUGH CLIMATE ACTION

A diverse portfolio of programmes is supported UK ICF, which is managed by three government departments: the Department for Business, Energy and Industrial Strategy (BEIS), the Foreign, Commonwealth and Development Office and the

Department for Environment, Food and Rural Affairs (DEFRA). It supports both mitigation and adaptation measures, reflecting the government's view that climate change is the biggest threat to the long-term eradication of global poverty, and that its impact will hit the poorest hardest.

Every investment supports the eradication of poverty - both now and in the future - by supporting developing countries to manage risk and build resilience to the impacts of climate change, take up low-carbon development at scale, and manage natural resources sustainably.

## TARGETED FINANCE

This requires transformational change, to be delivered through well-targeted finance, by helping to make infrastructure investments "climate smart" and by avoiding lock-in of high-carbon technologies. UK ICF is also being used to incentivise countries to reduce deforestation and promote sustainable land use.

Together, these powerful interventions demonstrate how low-carbon, climate-resilient development paths are viable and compatible with economic growth and poverty alleviation.

Over its lifetime, UK ICF is expected to achieve the following results:

- Support 110 million people to cope with effects of climate change.
- Give 41 million people improved access to clean energy.
- Reduce or avoid 750 million tonnes of CO<sub>2</sub>.
- Mobilise £12 billion of public finance and £6.8 billion of private finance.

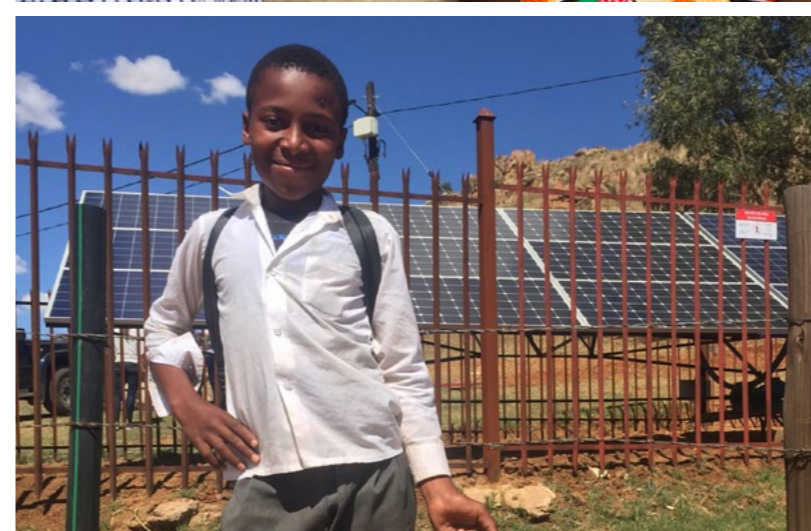
## INCENTIVISING THE PRIVATE SECTOR

The UK government sees the mobilisation of private investment in climate action as crucial to meeting global climate targets and is committed to working alongside the sector to promote the transformation necessary to align global finance flows.

This means using climate finance to help overcome the barriers that are preventing increased private investment. Using public money to catalyse private sector investment is an essential step in delivering

on the Paris Agreement and limiting global temperature rise.

UK ICF supports innovative approaches like REPP to 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, and avoiding GHG emissions.



# ABOUT CAMCO CLEAN ENERGY

Camco Clean Energy (Camco) is a UK FCA regulated fund manager that specialises in clean energy and climate finance.

Camco’s experienced team is based in offices in Accra, Helsinki, Johannesburg, London and Nairobi and is united by its passion for funding the clean energy transition with a hands-on commercial approach.

Camco works on fund formation and advisory, asset management, monitoring and evaluation, and has managed several climate investment portfolios, including REPP. The company combines:

- on-the-ground knowledge and origination;
- 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, and believes this enhances its ability to deliver on the REPP mandate.

In 2018, Camco became 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 renewable energy projects and investments throughout their lifecycle, including: portfolio reporting, analysis and management; loan management; active investment management and value-added board participation; and design and implementation of robust monitoring, reporting, evaluation and verification systems.



# REPP'S AUDITED FINANCIAL STATEMENTS

## BALANCE SHEET

	AS AT 31 MARCH 2020 £	AS AT 31 MARCH 2019 £
<b>Fixed assets</b>		
Investments	11,351,047	4,465,900
	<u>11,351,047</u>	<u>4,465,900</u>
<b>Current assets</b>		
Debtors: amounts falling due within one year	213,546	165,766
Cash at bank and in hand	4,521,019	7,551,702
	<u>4,734,565</u>	<u>7,717,468</u>
Creditors: amounts falling due within one year	(16,379,909)	(12,187,395)
<b>Net current liabilities</b>	<u>(11,654,344)</u>	<u>(4,469,927)</u>
<b>Total assets less current liabilities</b>	<u>(294,297)</u>	<u>(4,027)</u>
<b>Net (liabilities)/assets</b>	<u>(294,297)</u>	<u>(4,027)</u>
<b>Capital and reserves</b>	<u>(294,297)</u>	<u>(4,027)</u>
<b>Profit and loss account</b>	<u>(294,297)</u>	<u>(4,027)</u>

## STATEMENT OF CASH FLOWS

	PERIOD ENDED 31 MARCH 2020 £	PERIOD ENDED 31 MARCH 2019 £
<b>Cash flows from operating activities</b>		
(Loss) for the financial year	(290,629)	(4,027)
<b>Adjustments for:</b>		
Provision for impairment of fixed asset investment	2,200,966	37,477
Interest receivable	(347,940)	(220,599)
Taxation credit	290,269	(1,977)
(Increase)/decrease in debtors	(47,780)	12,633,161
Increase/(decrease) in creditors	3,901,103	(2,249,894)
Fair value gains recognised in P&L	(312,903)	-
Corporation tax received/(paid)	1,141	(4,026)
Foreign exchange movement on fixed asset investments	(273,837)	(56,496)
<b>Net cash generated from operating activities</b>	<u>5,093,750</u>	<u>10,133,619</u>
<b>Cash flows from investing activities</b>		
Issuance of long-term loans / other fixed asset investments	(8,586,496)	(3,093,603)
Repayment of long-term loans	462,063	-
<b>Net cash used in investing activities</b>	<u>(8,124,433)</u>	<u>(3,093,603)</u>
<b>Net (decrease)/increase in cash and cash equivalents</b>	<u>(3,030,683)</u>	<u>7,040,016</u>
Cash and cash equivalents at beginning of year	7,551,702	511,686
<b>Cash and cash equivalents at the end of year</b>	<u>4,521,019</u>	<u>7,551,702</u>
<b>Cash and cash equivalents at the end of year comprise:</b>		
Cash at bank and in hand	4,521,019	7,551,702
	<u>4,521,019</u>	<u>7,551,702</u>



## PROFIT AND LOSS

	PERIOD ENDED 31 MARCH 2020	PERIOD ENDED 31 MARCH 2019
	£	£
Turnover	4,278,143	1,792,298
<b>Gross profit</b>	<b>4,278,143</b>	<b>1,792,298</b>
Administrative expenses	(2,981,918)	(1,937,303)
Impairment of investments	(2,200,966)	(32,842)
Fair value movements	312,903	-
<b>Operating loss</b>	<b>(591,838)</b>	<b>(177,847)</b>
Interest receivable and similar income	591,838	171,843
<b>Result/(loss) before tax</b>	<b>-</b>	<b>6,004</b>
Tax on result/(loss)	(290,269)	1,977
<b>Loss for the financial year</b>	<b>(290,269)</b>	<b>(4,027)</b>



# 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 £5.8bn in the previous five years to at least £11.6bn from 2021-2025. See page 42 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

## CONTACT INFORMATION

### REPP

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### CAMCO (REPP fund manager)

**Geoff Sinclair, MD**  
[info@camco.energy](mailto:info@camco.energy)

## 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

## 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.

## 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 [www.repp.energy](http://www.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 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) Rift Valley Energy Group, GVE Projects Ltd, Powerhive, PAS Solar Limited; P7: ARC Power Ltd (both images); P11: (top to bottom) upOwa SAS, OnePower Lesotho, PAS Solar Limited; P14: OnePower Lesotho; P17: OnePower Lesotho (both images); P18: Power (left), OnePower Lesotho (right); P25: Rift Valley Energy Group (top left), upOwa SAS (top right and centre), OnePower Lesotho (bottom); P26-27: Rift Valley Energy Group (all); P28: Voltalia; P29: PowerGen Renewable Energy; P30: Greenheart AAAi; P31: OnePower Lesotho; P32: upOwa SAS; P33: (clockwise from top left) ARC Power Ltd, Powerhive, Virunga Power, PAS Solar Limited; P34: ARC Power Ltd (top), Buffalo Energy Ltd (bottom); P35: PowerGen Renewable Energy (top), Smart Energies International (bottom); P36: Ricardo Tomé, STRIX (top), GVE Projects Ltd (bottom); P37: Virunga Power (top), Gigawatt Global (bottom); P38: PAS Solar Limited (top), PEG Africa (bottom); P39: Powerhive (top), Virunga Power, (bottom); P41: PowerGen Renewable Energy; P43: (clockwise from top left) upOwa SAS, Filipe Canário (STRIX), upOwa SAS, OnePower Lesotho; P45: (clockwise from top) OnePower Lesotho, OnePower Lesotho, PAS Solar Limited; P49: (clockwise from top) PAS Solar Limited, Powerhive, OnePower Lesotho, GVE Project Ltd; P51: PEG Africa; P55: (clockwise from top left) PEG Africa, GVE Projects Ltd, OnePower Lesotho.

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WITH THANKS TO:

REPP founders



REPP manager



REPP partners



REPP developers



Centre régional de collaboration – Lomé  
Promotion de l'action contre le changement climatique

