REPP

managed by camco CLEAN ENERGY

REPP REPORT AND FINANCIAL STATEMENTS

2018-2019

TABLE OF CONTENTS

REPP HIGHLIGHTS BY NUMBERS - ACTIVITIES SO FAR

Figures reflect the cumulative performance of all currently contracted projects as of 31 March 2019, unless otherwise stated. None of the figures have been risk-adjusted.*

c.850,000
people connected to clean energy for first time by 2023**
with over 70,000 already connected as of 31 March 2019

224MW
total planned capacity by 2023**

c.430,000 tCO_2e
avoided on average each year by 2023***

£100m
additional funding committed to REPP
leading to £148m total fund size

REPP

13
countries in Africa actively involved

£22m
committed capital from REPP

20
contracted projects

6
technologies employed:
grid-connected solar PV, run-of-river hydro, onshore wind, biomass, solar PV mini-grids, solar home systems

SUSTAINABLE DEVELOPMENT GOALS

ALL 20 PROJECTS
directly support
Sustainable Development Goals:

6 OFF-GRID PROJECTS
also support
Sustainable Development Goals:

* 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.

** Cumulative performance of all currently contracted projects at the end of the REPP mandate on 31 December 2023.

*** Annual performance of all currently contracted projects at the end of the REPP mandate on 31 December 2023.

WELCOME

In 2015, world leaders made two landmark commitments that transformed international action on climate change and other societal challenges: adopting 17 Sustainable Development Goals (SDGs) at the UN General Assembly, the seventh of which targets universal access to modern energy services – and signing the Paris Agreement, a huge step towards limiting global temperature increases to "well below" 2°C.

Both agreements recognised the crucial role for the private sector in delivering the scale of investment in sustainable development required to meet these aims. The Renewable Energy Performance Platform (REPP) was created by UN Environment and the European Investment Bank (EIB) in direct response to this challenge, with a clear mission to mobilise private investment for the growth of Africa's renewable energy industry.

Africa has an abundance of natural resources ready to revolutionise access to clean energy – but the renewables market continues to struggle, with limited investment available for small and medium-scale projects in particular. Private sector developers find it difficult to secure the finance and expertise needed to get their projects off the ground, and far too few renewable energy projects are reaching fruition, even as the costs continue to come down.

REPP's mandate is to provide flexible financing solutions and assistance to small and medium-sized renewable energy project developers, mobilising the private sector to enable the development of viable projects, and increasing clean energy market activity as a whole.

After three years of operation, REPP has much to reflect on. The portfolio of investments has gone from strength to strength: since the publication of the inaugural public report in 2018 we have seen funded projects progress to reach commercial operation, connecting over 70,000 people to electricity for the first time, as well as providing jobs in the sector. As we look to the year ahead we anticipate seeing the financial close of grid-connected projects and many more new initiatives in the pipeline.

In light of these successes, we are delighted that the UK Department for Business, Energy and Industrial Strategy (BEIS) has increased its support for REPP – committing an additional £100m for an extended period, to 2023. In the hands of sector-leading expertise from investment manager Camco Clean Energy (Camco), REPP is now set to increase African electricity generating capacity by 275MW over the next 20 years, in the process connecting over 850,000 people to clean energy through off-grid projects alone, and avoiding over 6m tonnes of greenhouse gas emissions.

In 2019 - a year that has seen a huge rise in climate campaigning worldwide and some ambitious commitments made by governments and the private sector at the UN Climate Action Summit - we celebrate REPP's support continuing to make real impact in the clean energy revolution.

REPP Board of Directors

A WORD FROM THE FUNDER

Climate change is a global challenge that affects us all. No country will be spared from the impacts of global temperature increases, and the Intergovernmental Panel on Climate Change's (IPCC) Special Report on Global Warming of 1.5°C sets out that we are already facing serious challenges to the natural environment, food production and water resources.

The UK has set a target of net zero emissions, ending our contribution to climate change, and at COP26 in 2020 – which the UK has been nominated to host in partnership with Italy – we will encourage the highest possible ambition from other countries to go further and faster.

UK International Climate Finance (ICF) plays a crucial role in supporting developing countries to make their low-carbon transitions, and we are doubling our international climate finance – from £5.8bn in the previous five years to at least £11.6bn from 2021-2025 – to build the resilience of poor people and communities, ensure that infrastructure expansion in developing countries is low carbon and climate resilient, and halt deforestation.

Recognising that Paris Agreement targets cannot be met by governments and public money alone, our goal is to drive "clean and green" private investments at the scale and pace required to address climate change. Through programmes like REPP, we want to reduce costs and risk perceptions of low-carbon, climate-resilient investments by providing targeted support to help overcome developing country market barriers, broadening the range of financial instruments available, and lending with concessional or market-rate finance to help projects reach financial close and demonstrate profitability.

I am really pleased in the successes that REPP has demonstrated towards this aim so far, and this report showcases some fantastic examples of where our innovative work is making a difference: from the utility-style, 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.

I'm delighted on behalf of BEIS to have committed an additional £100m of ICF to this programme this year, allowing it to build on its successes and scale its impact even further.

Lord Duncan of Springbank
Parliamentary Under Secretary of State
UK Department for Business, Energy and Industrial Strategy

Department for Business, Energy & Industrial Strategy

UKaid from the British people

A WORD FROM THE MANAGER

REPP is helping to develop the markets needed to stimulate the economic development of African communities while decreasing greenhouse gas emissions. It continues to attract strong interest and dealflow because of its flexible, responsive design and its focus on small grid-connected and off-grid renewable energy.

Our focus this year has been on meeting this demand and continuing to develop REPP's offering while scaling up operations to manage the additional £100m committed to the programme in January.

Demand for REPP assistance has continued to exceed our expectations. During the reporting period, REPP considered 23 transactions representing over 500MW of installed capacity and committed a further US$22.4m.

We maintained a strong focus on additionality while seeking to ensure that developers and projects are commercially sustainable and represent acceptable risk to REPP and other investors. The team has also introduced enhanced operational procedures, boosted its governance, substantially improved donor, board, impact and SDG reporting, and increased our efforts to make sure that communities truly benefit from the promise of renewable energy.

REPP's transactions have increased in size and relative complexity. Having introduced direct equity and developer support during the year, REPP now offers a full range of financing products from equity to senior debt. We are also engaging more extensively with developers to assist them in overcoming the challenges that they face in moving their projects and businesses ahead, and are helping them to access the third-party financing that they need.

Although REPP has received increased funding, both the needs of REPP investees and the strong and increasing demand for REPP investment make it clear that the potential for renewable energy in African countries - and the associated investment opportunities - are many times more than what REPP can currently provide.

Mobilising third-party finance is therefore a key REPP focus, but it is complicated by the small size of many projects and the relative novelty of solar home system and mini-grid asset classes to traditional funders. In response to this, REPP has significantly increased its focus on helping to cultivate markets for these assets by developing financing structures that suit their characteristics and introducing streamlined financing structures that encourage third-party financiers while decreasing transaction costs. Some examples of this activity are profiled on pages 34-35 of this report.

REPP's progress in the areas touched on above, and through the projects outlined in this report, is a credit to the talent, dedication and hard work of the Camco team and the REPP investment committee and Board. With REPP's increased operational and financial capacity, we are now looking forward to building on the year's successes and scaling up the programme's impact over the 12 months ahead.

Geoff Sinclair
Managing Director
Camco Clean Energy

"We used to use torchlight to help us carry out deliveries at night, and that was a very bad situation. Having no proper lighting also meant we had to close the clinic by 5pm every day. Everything is so much better now thanks to getting the PEG Power system installed. With round-the-clock lighting we can offer much better and extended services to the community, and we also now have a refrigerator here to preserve drugs, as well as a respirator."

Margaret Osei – Senior Nurse, Brakwa Line Health Post, Ghana

ABOUT REPP

The Renewable Energy Performance Platform (REPP) is a UK government-funded programme aiming to assist the development of Africa's small-scale and distributed renewable energy market and reduce emissions by demonstrating operational feasibility through flexible support to project developers.

REPP is managed by Camco Clean Energy, which uses innovative financing tools and approaches to help developers overcome the barriers to finance that have been stifling progress and stimulate growth.

Today, the programme is successfully mobilising private sector development of - and investment in – renewable energy projects. At the same time it is laying the groundwork for the sector's continued expansion by developing markets that are both replicable and scalable by the wider private finance community across the region.

The concept for REPP was originally developed in 2015 by UN Environment and the European Investment Bank (EIB) in response to the UN's Sustainable Energy for All initiative, which seeks to ensure universal energy access and double renewable energy's share in the global energy mix. The UK government's Department for Business, Energy and Industrial Strategy (BEIS) initially committed £48m to the fund through the ICF (see page 36), which was extended to £148m earlier this year.

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
- Eric Usher, Head, UN Environment Finance Initiative

WHY REPP?

Over the next decade the number of new connections to electricity in Africa is expected to rise rapidly, bringing about a corresponding growth in energy consumption. Unless this energy transformation happens without increasing greenhouse gas emissions, it is going to contribute significantly to climate change.

Ensuring the low-carbon electrification of African countries is not just an African imperative, therefore, but a global one.

It is also an urgent one. Latest figures show that three in four households still do not have electricity in many African countries. For people living in these off-grid communities, the main sources of energy are wood, kerosene and diesel, with obvious environmental, economic and health implications.

Most attention and investment, however, is still being focused on centralised, fossil fuel-powered grid systems to solve the problem, where what is more often needed are small, decentralised renewable energy solutions. Small-scale hydro, wind and solar are much more appropriate for serving rural populations' needs – and harness the abundance of natural resources available in African countries.

These technologies are often easier, faster and increasingly cheaper than rolling out 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.

UNLOCKING THE POTENTIAL

Despite all the advantages of decentralised renewable energy in Africa, investment is falling short of what is needed 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 biggest and most bankable projects.

As a result, many feasible projects proposals are going unrealised, making the need for intervention both clear and urgent. REPP is addressing this need directly by establishing a wide range of viable and effective financing models to help developers overcome barriers to finance – and making developers' projects attractive to investors. Read how REPP is performing on page 15.

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.

ELIGIBILITY

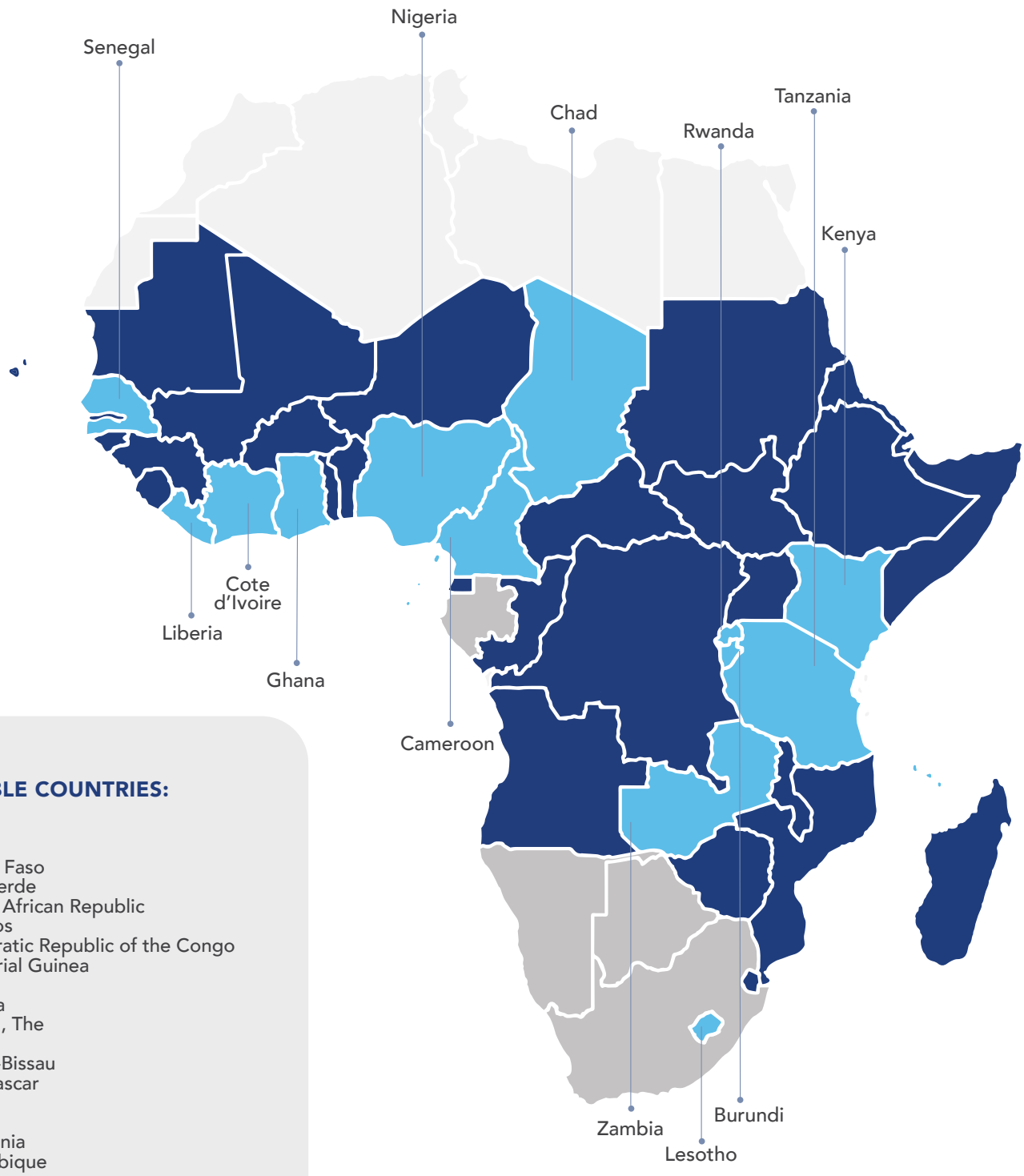
REPP supports small and medium-sized private sector renewable energy projects in Africa. Projects must be between 1MW* and 25MW (up to 50MW for wind), and can be on- or off-grid, excluding corporate and industrial captive power projects.

TECHNOLOGIES SUPPORTED:

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

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

COUNTRIES ELIGIBLE FOR REPP SUPPORT



ELIGIBLE COUNTRIES:

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

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.

OUR IMPACT

REPP is working to stimulate the development of a vibrant, networked and viable market for small and distributed renewable energy projects in African countries, in order to contribute towards SDG 7 – ensuring access to affordable, reliable, sustainable and modern energy for all, and SDG 13 – taking urgent action to combat climate change and its impacts.

By investing in small- to medium-scale renewable energy projects, REPP is helping host countries to lessen their long-term dependence on fossil fuels and hence make meaningful contributions to mitigating climate change and the implementation of Nationally Determined Contribution (NDC) targets under the Paris Agreement. Renewable energy projects have considerable untapped potential in the region and in many cases these projects offer several important environmental and social co-benefits, including first-time access to electricity, job or income generation, improvements to infrastructure, better lighting quality and the reduction of indoor air pollution.

Although the projects provide a clear demonstration of positive impact on people and planet, like any infrastructural projects of their type, they also run the risk of causing harm.

REPP is fully committed to minimising any potentially adverse environmental and social risks and impacts associated with the projects it supports – and in encouraging other project stakeholders to do the same. Specifically, REPP adheres to the IFC Performance Standards for Environmental and Social Sustainability and the UN Global Compact Sustainability Principles. It also follows the EIB Environmental and Social Practices Handbook's Standard No. 10 for Stakeholder Engagement and Standard No. 3 for Biodiversity and Ecosystems.

All REPP-funded projects must establish an environmental and social management system (ESMS) that is in accordance with these standards as well as regulations of the host country. 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.

On the ground this means working closely with project companies and their environmental and social experts and consultants, whose cooperation is critical to the proper functioning of REPP's environmental and social policies and procedures. It is fundamentally in developers' interests to apply these standards so that they can have a sustainable project and attract the best funders.

Projects that fail to meet this criteria, or which do not satisfactorily mitigate any negative impacts they may cause within a reasonable time limit, will not be supported by REPP.

Abridged summaries of REPP's environmental and social, anti-corruption/integrity, and safeguarding policies can be found on page 44.

MEASURING OUR IMPACT

REPP's manager, Camco Clean Energy, 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 ICF. Performance reporting is based on objective, self-reported data, 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 greenhouse gas emissions mitigated through project intervention, estimated relative to the assumed business-as-usual emissions scenario measured in tonnes of carbon dioxide equivalent (tCO_2e);
- number of people connected to clean energy for the first time as a result of REPP intervention (relevant to off-grid projects only); and,
- volume of finance mobilised from third-party sources for climate change mitigation as a result of REPP intervention (in £m).

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;
- grievances raised and addressed;
- waste management; and,
- mitigation measures undertaken.

Investees must also provide annual updates on the implementation status of the ESMS and demonstrate compliance with local environmental laws and regulations.

PERFORMANCE OVERVIEW

In the last year, REPP has contracted 10 new projects, doubling the number of active projects since the programme began to 20. In all, REPP-supported projects now span 13 countries across Africa and employ six technologies (solar home systems, solar photovoltaic (PV) mini-grids, grid-connected solar PV, run-of-river hydro power, onshore wind power and biomass-to-energy).

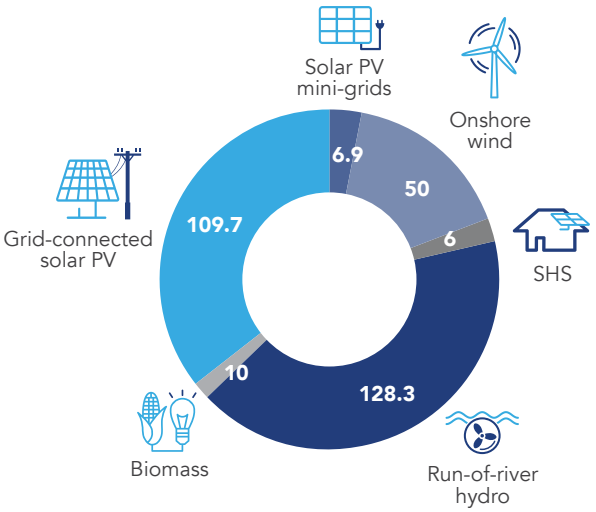
For a fuller picture of REPP's overall impact, however, it is helpful to look beyond these quantifiable performance indicators alone, and at the programme's impact in relation to the SDGs – in particular, SDG 7 and SDG 13 - and NDCs.

The charts overleaf provide an at-a-glance overview of REPP's core activities and accomplishments to date. Additional project-by-project information, including impacts on NDCs, is given in the next section, Project Case Studies, on page 20.

NOTE:
The following charts reflect the total contracted values for all current projects that had a signed contract with REPP in place by the end of 31 March 2019. They have not been risk-adjusted.*

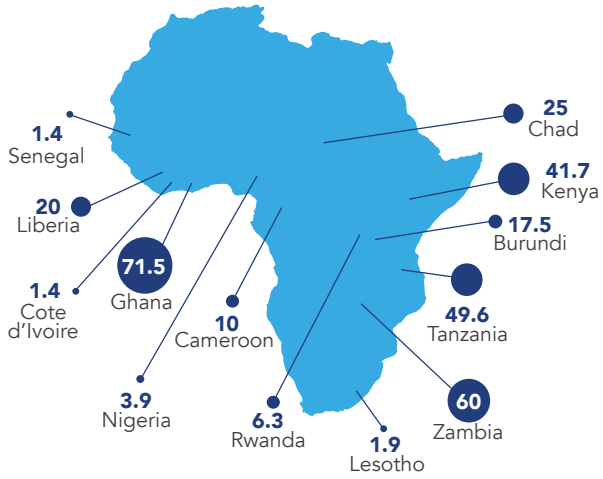
CAPACITY BY TECH

In MW



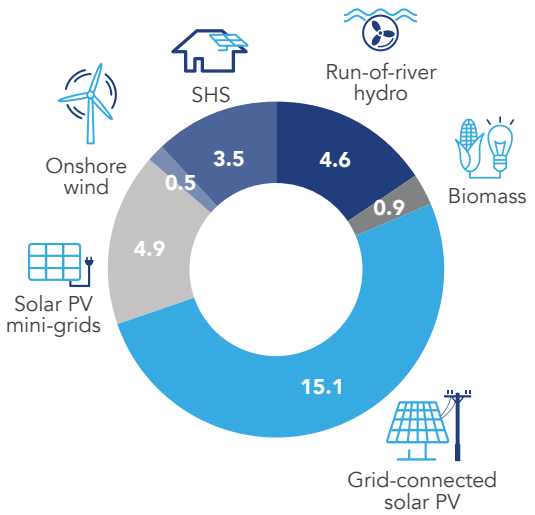
CAPACITY BY COUNTRY

In MW



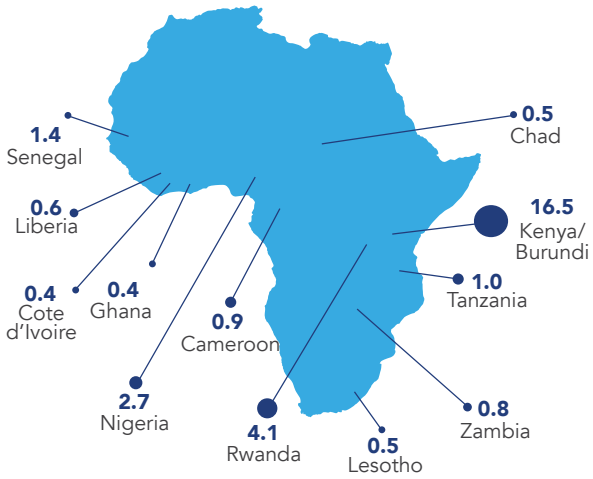
COMMITTED SPEND BY TECH

In US$m



COMMITTED SPEND BY COUNTRY

In US$m



COMMITTED SPEND BY FINANCIAL STRUCTURE

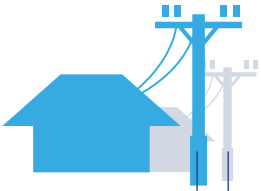
Development phase capital	Gap funding
US$7.78m	US$21.93m

* 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.

NOTE:
The charts below reflect the cumulative performance of all 20 contracted projects at the end of the REPP mandate on 31 December 2023 based on estimated commercial operation dates. They have not been risk-adjusted (see footnote on page 16).

PERFORMANCE AGAINST CORE KPIS FOR CONTRACTED PROJECTS

People with first-time access to electricity



Forecast: **852,708**

Target: **356,579**

Greenhouse gas emissions avoided

Forecast: **957,194 tCO_2e**

Target: **539,818 tCO_2e**

Increased generating capacity

Forecast: **224MW**

Target: **123MW**

NUMBER OF PROJECTS SUPPORTING SDGS

HOW WE PLAN TO ACHIEVE OUR TARGETS

REPP's primary focus will continue to be investing in small to medium-scale renewable energy projects in African countries. In addition, 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 ESMSs.

NOTE:
The table below is a summary of REPP's forecasted performance based on current contracted projects and their estimated commercial operation dates against key performance targets up until 2023 and beyond. Figures are also provided for actual achievements up until the end of 31 March 2019. The forecasts have not been risk-adjusted.*

	31 MARCH 2019	31 DECEMBER 2020
Number of projects supported by REPP		
Actual achieved	20	
Forecast	-	-
Target	27	36
Number of projects reaching financial close each year		
Actual achieved	1	
Forecast	6	6
Target	9	5
Installed capacity in MW (cumulative)		
Actual achieved	0.54	
Forecast	2.55	26.02
Target	4.36	15.26
Total avoided greenhouse gas emissions each year (tCO_2e)		
Actual achieved	1,459	
Forecast	7,084	42,402
Target	10,882	29,924
Number of people with first-time access to clean energy (cumulative)		
Actual achieved	70,499	
Forecast	235,183	531,592
Target	12,685	44,397
Finance mobilised from third parties as a result of REPP intervention in £m (cumulative)		
Actual achieved	11	
Forecast	382	382
Target	160	274
Total amount of REPP funding committed in £m (cumulative)		
Actual achieved	22	
Forecast	-	-
Target	35	57

* 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.

31 DECEMBER 2021	31 DECEMBER 2022	31 DECEMBER 2023	END OF EXPECTED PROJECT LIFETIME
-	-	-	-
44	52	60	-
			-
2	2	60	-
9	8	9	-
109.86	148.12	224.12	310.12
20.71	71.61	122.51	275.21
197,953	278,736	431,020	21,783,946*
55,766	145,155	298,091	6,871,553*
817,095	848,877	852,708	856,538
60,253	208,416	356,579	801,069
382	382	382	382
388	502	615	-
-	-	-	-
80	102	125	-

* Note: refers to cumulative total greenhouse gas emissions mitigated over life-time of project.

PROJECT CASE STUDIES

ARC POWER RWANDA

Location
Rwanda

PROJECT SUMMARY

The first phase of this ambitious scheme to install a large portfolio of mini-grids in Rwanda is under way thanks to a £600,000 convertible loan from REPP.

REPP's early-stage support has been critical to enabling British-based developer ARC Power Ltd to progress with its first eight installations in Bugesera District. Once completed, the mini-grids will have a combined generating capacity of 0.12MW and will meet the energy needs of around 5,600 people in Rwanda, which currently has an estimated national electrification rate of 30%, and just 12% in rural areas.

The mini-grids are portable and modular, and can each connect between 100 and 600 households or businesses in a village, providing A/C power for lighting and mobile charging, as well as appliances and machinery, enabling the development of small businesses.

Electricity from the mini-grids will be offered on a pre-pay, PAYG basis with no connection charge to off-grid communities. Currently, these people have no access to clean energy, and instead mostly rely on more expensive and polluting fuels such as kerosene.

If the initial roll-out is a success, REPP intends to follow on with a larger construction loan to complete phase two, which will boost the project's total generating capacity to 3.5MW.

The project directly supports Rwanda's NDC targets to establish up to 100 solar PV mini-grids in rural communities by 2030 and boost their income generating potential.

AT A GLANCE

Technology
Solar PV mini-grids

Project type
Off-grid

Offtaker
Off-grid communities

KPIs

Greenhouse gas emissions avoided: Phase 1: 263 tCO_2e p.a., whole project: 7,665 tCO_2e p.a.

People with new energy access: Phase 1: 5,600, whole project: 164,000

Installed capacity: Phase 1: 0.12MW, whole project: 3.5MW

FUNDING STRUCTURE

Signed: 18 February 2019

Type: Convertible loan

REPP funding: £600,000

SDGs

"We have huge ambitions for ARC Power in Rwanda. The funding from REPP will allow us to press forwards with our national rollout, providing affordable, reliable and clean power to around 150,000 people in these next two phases."

Karl Boyce, CEO, ARC Power

BUFFALO ENERGY LTD

Location
Zambia

PROJECT SUMMARY

A convertible note from REPP is enabling British renewable energy developer Buffalo Energy Ltd to progress a diverse pipeline of projects in Zambia with a combined generating capacity of up to 100MW.

Buffalo Energy Ltd was set up in 2016 to develop small-scale projects to provide clean, low-cost electricity to the southern African country's rural communities, most of which currently lack reliable access to modern clean energy and instead have to rely on kerosene and other expensive and polluting fuels for their energy needs.

In 2017, the company raised seed capital to originate several opportunities and initiate development on a six-project portfolio, which includes grid-connected, captive and off-grid schemes employing large-scale solar PV, biomass, wind and mini-grid technologies.

For its grid-connected projects, Buffalo Energy has a co-operation agreement - through its Zambian subsidiary, Buffalo Solar - with Zambian developer Western Renewable Power Limited.

The convertible note means Buffalo Energy can now fund a further 24 months of operations, and cover the project development expenses to bring projects to financial close.

Once built, the six projects will contribute significantly to both Zambia's energy diversification strategy and its target of 51% energy access in rural areas by 2030. They will also support its conditional NDC target to reduce greenhouse gas emissions by 47% by the same date against a base year of 2010.

* Estimate of achieved capacity during REPP's support

AT A GLANCE

Technology
Grid-connected solar PV, wind, biomass, mini-grids

Project type
Grid-connected and off-grid

Offtaker
Zesco and rural communities

KPIs

Greenhouse gas emissions avoided: 87,448 tCO_2e per year

People with first-time access to clean energy: 19,000

MW Installed capacity: 30MW*

FUNDING STRUCTURE

Signed: 23 October 2018

Type: Corporate convertible loan

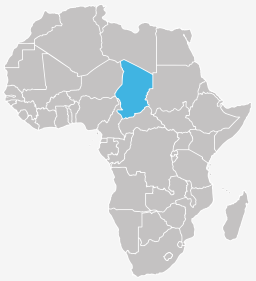
REPP funding: Undisclosed

SDGs

"REPP funding has enabled us to significantly progress our projects. We have commenced the full feasibility study on the wind project, the meteorological mast has been ordered and the ESIA is underway. The extra funds have also enabled us to originate new projects in the region, including a 3.2MW run of river hydro project in Zambia, and early stage solar and wind projects in Malawi and Mozambique."

Will Dryer, Director, Buffalo Energy

DJERMAYA



Location
Djermaya, Hadjer-Lamis region, **Chad**

PROJECT SUMMARY

Ambitious plans for an estimated 25MW (AC) grid-connected solar PV power plant in Chad could catalyse the transformation of the country's inadequate and entirely fossil-fuel based energy system, and help to alleviate poverty.

Despite numerous financial and geo-political challenges associated with the project, REPP has committed to a EUR 380,000 development loan to Smart Energies International on the strength of the enormous positive impact the success of the project would have on Chad and its people.

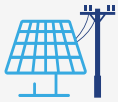
Today, Chad is one of the world's poorest countries and has just 125MW installed power generation capacity, all of which is reliant upon heavy fuel oil and diesel. As of 2016, only 8.8% of its population was connected to the national grid.

At the same time, the country experiences exceptional levels of solar irradiation, creating significant potential for solar energy generation. For this project, the developers have secured a site with an estimated irradiation value of 2,191 kWh/m2.

Once built, the solar plant will contribute significantly to Chad's conditional NDC target to reduce greenhouse gas emissions by 71% by 2030. The project will also help alleviate poverty in the country by providing power to the grid at a lower cost than fossil fuel-fired generation, meaning the government can reduce its subsidies to the energy sector and focus its limited resources on services such as infrastructure, education and health.

AT A GLANCE

Technology
Solar PV with single axis trackers



Project type
Greenfield, grid-connected

Offtaker
La Société Nationale D'Electricité (SNE), Chad's national utility

KPIs

Greenhouse gas emissions avoided: 39,680 tCO_2e per year

People with first-time access to clean energy: N/A

MW Installed capacity: Approx. 25MW (AC)

FUNDING STRUCTURE

Signed: 2 May 2018

Type: Development loan

REPP funding: EUR 380,000

SDGs

"The energy needs are very important in Chad – needs mostly satisfied today by polluting energies. In a country with strong sunlight like Chad, solar energy appears as a great means to expand access to clean energy. We are happy to contribute to its deployment."

Hugues Antoine Guinoiseau, Director, Smart Energies International

MOUNT COFFEE

Location
Montserrado County,
Liberia

PROJECT SUMMARY

Feasibility studies for what would be Liberia's first ever grid-connected solar farm are under way thanks to a development loan from REPP to Gigawatt Global.

Liberia currently suffers from one of the lowest electrification rates in the world and has a total installed capacity of just 126MW, which is constraining economic growth.

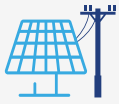
Once built, the 20MW plant in the north of the country would increase national generation capacity by 15% and, with that, contribute significantly towards its NDC target of increasing the proportion of renewable energy to at least 30% of all electricity production by 2030.

Developer Gigawatt Global Liberia Ltd.'s proposed site for the farm lies 18km from the Mount Coffee hydropower dam, which experiences periods of significantly reduced productivity during the dry season due to low water levels. The completed plant would complement the hydropower facility during these months and in doing so displace the need for higher-cost diesel generation that most Liberians rely on for lighting, while supplementing the dam's clean energy production for the rest of the year.

The project has been openly supported by the Liberian government and is the country's first development by an Independent Power Producer (IPP). If it proves a success, it will provide a strong demonstration of impact for other clean energy projects regionally and help build the necessary capacity at government level to support the growth of Liberia's nascent solar sector.

AT A GLANCE

Technology
Grid-connected solar PV



Project type
Greenfield, grid-connected

Offtaker
Liberia Electricity Corporation (LEC)

KPIs

Greenhouse gas emissions avoided: 17,520 tCO_2e per year

People with first-time access to clean energy: N/A

MW Installed capacity: 20MW

FUNDING STRUCTURE

Signed: 13 December 2018

Type: Development loan

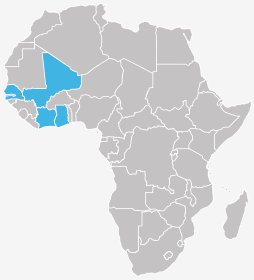
REPP funding: Undisclosed

SDGs

"Gigawatt Global is pleased to partner with the UK's REPP to unlock the potential of deeply impactful renewable energy projects where they're needed most. This is especially evident in Liberia which struggles with seasonal hydro levels and reliance on expensive polluting diesel power, thus benefiting greatly from Gigawatt's solar project."

Michael Fichtenberg, Executive VP Finance & Business Development, Gigawatt Global

PEG AFRICA



Location
Cote d'Ivoire, Ghana, Mali, Senegal

PROJECT SUMMARY

Hundreds of thousands of people living with poor or no access to electricity in West Africa look set to receive clean power for the first time thanks to the region's leader in financing and deploying solar assets.

PEG Africa's innovative service provides rural communities in Ghana, Cote d'Ivoire and Senegal with credit to purchase solar systems. The company is now looking to double its reach and open a fourth market in Mali after securing US$25m additional funding, including US$1.1m in equity financing from REPP. As of the end of March 2019, PEG had reached over 37,000 people as a direct result of REPP's involvement.

Scaling up PEG's operations is expected to provide numerous economic, environmental and health benefits in the region, where off-grid households are typically spending US$14 – US$20 per month on kerosene, candles, batteries and phone charging.

Standard solar kits include a panel, control box, phone charging kit, LED lights, torch, radio and a 19" television. Bigger systems are also available, and PEG is starting to leverage its credit knowledge to offer solar water pumps to smallholder farmers.

Through the asset-based financing scheme, PEG's customers – who lack formal banking services – make small incremental repayments via their mobile phones to acquire, use and finally own the solar device.

Sales agents are paid their commission partly upfront, and the remainder over the next six months of the loan term, dependent on customer repayment status. If customers default, the commission is clawed back, which incentivises agents to find credit-worthy customers and deliver ongoing product support.

AT A GLANCE

Technology
Solar home systems

Project type
Off-grid

Offtaker
Off-grid communities

KPIs

Greenhouse gas emissions avoided: 12,750 tCO_2e per year

People with first-time access to clean energy: 425,000

Installed capacity: 4.3MW

FUNDING STRUCTURE

Signed: 5 October 2018

Type: Equity

REPP funding: US$1.1m

SDGs

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

Hugh Whalan, Group CEO, PEG Africa

POWERHIVE

Location
Kisii and Nyamira counties
Kenya

PROJECT SUMMARY

Around 90,000 people living in rural Kenya are expected to gain first-time clean electricity access after REPP approved a US$3m results-based financing facility for this first-of-kind solar PV mini-grids project.

Developer Powerhive's plan involves the installation of close to 100 ground-mounted mini-grids that will supply clean energy to rural communities in the Kisii and Nyamira regions of south-western Kenya over the next three to four years. So far, the company has installed 13 operational grids under REPP financing, resulting in nearly 19,000 people being connected to clean electricity for the first time.

Once they are all operational, the mini-grids will provide up to 1MW of generating capacity, and will directly support Kenya's NDC target to abate 30% of its greenhouse gas emissions by 2030. Electricity will be sold directly to local households and businesses by developer Powerhive East Africa Ltd on a prepayment basis. Each system will include batteries to offer reliable power to customers.

REPP's financing facility is enabling Powerhive to continue the successful roll-out of its project and grow to a sufficient scale to attract additional debt and equity finance, and continue building mini-grids in Kenya.

Up until 2016, mini-grids were not licensed but "tolerated" in Kenya. Powerhive broke new ground when it became the first private company to be licensed to develop the technology within the country. The success of the venture is expected to make it easier for other private developers to operate in Kenya and will assist in the creation of a sustainable business model.

AT A GLANCE

Technology
Solar PV mini-grids

Project type
Off-grid

Offtaker
Off-grid communities

KPIs

Greenhouse gas emissions avoided: 2,190 tCO_2e per year

People with first-time access to clean energy: 90,000

MW Installed capacity: 1MW

FUNDING STRUCTURE

Signed: 24 May 2018

Type: Debt

REPP funding: US$3m

SDGs

"The REPP facility has been critical to unlocking the potential of microgrids [mini-grids] for Powerhive in Kenya. In addition to providing equity investors with a framework to understand how Powerhive's micro-grid projects can be leveraged by project debt, it is also a great show of confidence in our data-driven platform, which we intend to deploy across Kenya and more broadly Africa in the future."

Christopher Hornor, Founder and CEO, Powerhive

RUPINGAZI

Location
Embu county,
Kenya

PROJECT SUMMARY

Construction work on a partially completed run-of-river hydroelectric power plant in eastern Kenya is under way again thanks to an initial development loan provided by REPP.

The 6MW project is located on the Rupingazi River in Embu County on the south-eastern slopes of Mount Kenya. It was halted in February 2018 after Kenya-based developer Kleen Hydro Limited (Kleen) was unable to raise additional financing to continue construction.

At the time, the project was one of the country's most advanced mini-hydro schemes under development – and when completed stands to contribute significantly towards Kenya's NDC target to abate 30% of its greenhouse gas emissions by 2030.

Building work started again in November 2018 after Kleen finalised the project's pre-construction development phase and agreed a new funding agreement from REPP in principle. Utilising the US$200,000 provided under the technical assistance facility by REPP has enabled the developer to make progress on both the plant's weir and canal, which as of 31 March 2019 measured 24m long.

Around 70 local jobs will be created at the height of the project's construction phase and a further 10 during operation. The power plant will supply offtaker Kenya Power under the terms of a signed 20-year power purchase agreement.

The project is providing the sponsors with much-needed completion experience and successful closure will help them attract senior debt for its other pipeline projects. It is also demonstrating how – with REPP's assistance – local developers can build and operate small-scale schemes that support Kenya's renewable energy goals.

AT A GLANCE

Technology
Run-of-river hydro

Project type
Greenfield, grid-connected

Offtaker
Kenya Power

KPIs

Greenhouse gas emissions avoided: 17,534 tCO_2e per year

People with first-time access to clean energy: N/A

Installed capacity: 6MW

FUNDING STRUCTURE

Signed: 15 April 2018

Type: Development loan

REPP funding: US$200,000

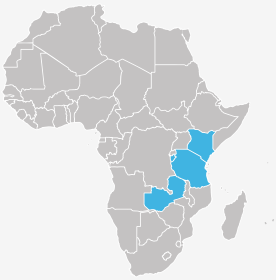
SDGs

7 AFFORDABLE AND CLEAN ENERGY
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS

"REPP's funding has enabled us to make substantial progress on what is one of the largest private renewable energy projects in the county, while at the same time elevating the living standards of our workforce and their families."

Rosemary Mugo, Director, Kleen Hydro Limited

VIRUNGA CORPORATE



Location
Burundi, Kenya, Tanzania and Zambia

PROJECT SUMMARY

Ambitious plans to develop a 100MW* portfolio of hydroelectric power and rural distribution projects in East and Southern Africa - which will provide improved energy access for nearly 3 million people when fully completed - have been given a helping hand in the form of a US$2.5m convertible note from REPP.

Virunga Power had been raising investment to fund corporate expansion and project development expenses after building up an advanced pipeline of run-of-river projects in Burundi, Kenya, Tanzania and Zambia.

REPP committed the note during the company's US$5m Series A corporate financing round in December 2018 alongside the EU-funded Electrification Financing Initiative (ElectriFI), which invested the other US$2.5m.

The funds will enable Virunga Power to deliver on its project pipeline and pay for a number of new hires with specialised expertise in building and managing small hydro and rural utility projects.

In addition to their corporate investments, both REPP and ElectriFI expect to pursue aligned investments in project capital expenditure to help realise Virunga Power's ambitions.

Virunga Power employs a unique "grid-as-anchor" approach to rural electrification by combining MW-scale, contracted generation with thousands of new household connections to surrounding communities through grid-connected mini-grids.

This is not the first time REPP has supported Virunga Power. In June 2017 REPP committed US$751,000 in development capital for a pair of run-of-river hydropower plants in Kenya with a combined generating capacity of 10MW (see page 31).

* This figure is only expected to be reached post-2023. The first plant is expected to come online in 2021 with approximately 5MW generating capacity.

AT A GLANCE

Technology
Run-of-river hydro

Project type
Grid-connected

Offtaker
Multiple

KPIs

Greenhouse gas emissions avoided: TBC tCO_2e per year

People with first-time access to clean energy: N/A

MW Installed capacity: 100MW*

FUNDING STRUCTURE

Signed: 13 December 2018

Type: Convertible loan

REPP funding: US$2.5m

SDGs

7 AFFORDABLE AND CLEAN ENERGY

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

"We are very excited to have ElectriFI and REPP on board as investors in our platform. It is very important to us to have investors who are aligned with our goals of expanding sustainable and practical electricity infrastructure across the continent, and we welcome the experience and acceleration that these investors can bring to our mission."

Brian Kelly, Founder and CEO of Virunga Power

PROJECT UPDATES

GAIA ENERGY GHANA

Ankoma and Agogo,
Ghana

PROJECT SUMMARY

This project will see the construction of two onshore wind farms, and is the largest REPP-supported project to date. Once built, the farms will provide a significant boost to Ghana's NDC target to increase renewable energy penetration by 10% by 2030.

AT A GLANCE

Technology
On-shore wind

Project type
Grid-connected

Offtaker
Electricity Company of Ghana (ECG)

REPP funding:
US$450,000

KPIs

Greenhouse gas emissions avoided: 74,000 tCO_2e per year

People with first-time access to clean energy: N/A

MW Installed capacity: 50MW

SDGs

7 AFFORDABLE AND CLEAN ENERGY
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS

GVE NIGERIA

72 rural villages in seven states,
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. ESIAs have so far been carried out on 24 of the sites thanks to REPP's support, with commercial operation expected to begin in 2020.

AT A GLANCE

Technology
Solar PV mini-grids

Project type
Off-grid

Offtaker
Off-grid communities

REPP funding:
US$288,000 in development capital

KPIs

Greenhouse gas emissions avoided: 5,957 tCO_2e per year

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

MW Installed capacity: 2.72MW

SDGs

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

KILOSA

Kilosa District,
Tanzania

PROJECT SUMMARY

Planned small-scale grid-connected solar PV power plants totalling 7.2MW will provide much-needed additional grid stabilisation in one of Tanzania's most underserved regions. The project by developer Ruaha Energy will lead to over 7,000 tonnes of avoided greenhouse gas emissions every year.

AT A GLANCE

Technology
Grid-connected solar PV

Project type
Grid-connected

Offtaker
TANESCO

REPP funding:
US$245,000 in development capital

KPIs

Greenhouse gas emissions avoided: 7,050 tCO_2e per year

People with first-time access to clean energy: N/A

MW Installed capacity: 7.2MW

SDGs

7 AFFORDABLE AND CLEAN ENERGY
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS

MIDDLE NZOIA AND GITUGI

Central and Western Kenya

PROJECT SUMMARY

This project by Virunga Power involves the construction of two run-of-river hydropower plants with a combined generating capacity of nearly 10MW. Once built, they will improve the reliability of the Kenyan national grid and help avoid over 28,000 tonnes of greenhouse gas emissions every year.

AT A GLANCE

Technology
Run-of-river hydro

Project type
Greenfield, grid-connected

Offtaker
Kenya Power

REPP funding:
US$751,000 in development capital

KPIs

Greenhouse gas emissions avoided: 28,288 tCO_2e per year

People with first-time access to clean energy: N/A

MW Installed capacity: 9.68MW

SDGs

7 AFFORDABLE AND CLEAN ENERGY
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS

MUBUGA

Gitega Province,
Burundi

PROJECT SUMMARY

Once completed, this 7.5MW solar PV power plant is expected to increase Burundi's generation capacity by up to 15% and improve the reliability of the national grid, while providing 50 permanent jobs. The project by developer Gigawatt Global is approaching financial close with an expected construction period of 12 months.

AT A GLANCE

Technology
Grid-connected solar PV

Project type
Grid-connected

Offtaker
Régie de Production et de Distribution D'eau et D'electricite

REPP funding:
Undisclosed

KPIs

Greenhouse gas emissions avoided: 1,790 tCO_2e per year

People with first-time access to clean energy: N/A

MW Installed capacity: 7.5MW (AC)

SDGs

7 AFFORDABLE AND CLEAN ENERGY
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS

PAS SOLAR NIGERIA

Northern and Kano regions,
Nigeria

PROJECT SUMMARY

This far-reaching solar home systems project aims to connect over 114,000 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.

AT A GLANCE

Technology
Solar home systems

Project type
Off-grid

Offtaker
End-user households and micro-enterprises

REPP funding:
US$2.2m in development capital and revolving trade finance facility

KPIs

Greenhouse gas emissions avoided: 3,420 tCO_2e per year

People with first-time access to clean energy: 114,000

MW Installed capacity: 1.14MW

SDGs

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

POWERGEN

Tanzania

PROJECT SUMMARY

This project involves a portfolio of Pay-As-You-Go hybrid solar PV mini-grids that has already led to nearly 2,700 people gaining access to clean, grid-quality electricity for the first time. The project aims to connect more than 60,000 people in total, and directly supports Tanzania's rural electrification targets and climate change mitigation efforts.

AT A GLANCE

Technology
Solar PV mini-grids

Project type
Off-grid

Offtaker
Off-grid rural communities

REPP funding:
US$345,000 in development capital

KPIs

Greenhouse gas emissions avoided: 2,190 tCO_2e per year

People with first-time access to clean energy: 62,500

MW Installed capacity: 1MW

SDGs

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

FINANCE IN FOCUS

1

DEVELOPING A FINANCING MARKET FOR THE ASSET CLASS - POWERHIVE

Background detail on the project is on page 26.

Mini-grid developers often appear to encounter a funding paradox: The equity capital available to them at corporate level is venture capital with high risk/return expectations, while the mini-grids that they are developing have more of a utility-style profile (i.e. lower risk and returns with long-dated performance). Funding in-country at the asset level, however, is difficult because mini-grids are too small for, and differ from the traditional single-asset pattern used in, project finance.

The REPP team has been working hard to find solutions to this problem, concentrating on in-country funding at asset level.

During 2018, REPP worked with established mini-grid company Powerhive to structure an asset vehicle and senior secured loan to fund the construction of up to 100 mini-grids in Kenya. Powerhive had been constrained from self-funding this due to requirements of their corporate finance structure. By structuring and providing funding at a local/asset level, REPP is unlocking the financing problem while hoping to encourage other financiers to adopt similar approaches.

The facility allows for the rollout of mini-grids over time by providing tranched drawdowns. It also permits Powerhive to build a track record of performance and revenue data on a group of mini-grids so that, in future, they are better equipped to attract private finance into similar vehicles. REPP included conditions in the loan documentation so as to ensure that the mini-grids funded complement the Kenyan government's overall electrification strategy.

MINI-GRID ASSET VEHICLE SENIOR SECURED LOAN

Borrower:	Powerhive's East African SPV
Lender:	Renewable Energy Performance Platform
Facility type:	Convertible amortising senior secured loan
Amount:	US$3m
Tenor:	10 years + 1-year grace period
Location:	Kenya
Interest rate:	Not disclosed
Arranger:	Camco Clean Energy
Legal counsel:	Trinity International LLP

2

STREAMLINING ACCESS TO FINANCE - PAS SOLAR

Background detail on the project is on page 32.

REPP initially invested in PAS Solar (PAS), a joint venture between Pan Africa Solar and BBOXX, in October 2017, providing a US$2m convertible loan along with a US$0.2m development loan. The purpose of the investment was to help the company to achieve critical mass, growing from a pilot project of installed solar home systems to a size where it could develop a stronger team with better systems and processes, and then attract capital from a wider range of financiers.

Between then and March 2019, PAS grew to an installed base of over 4,000 households and SME customers. It also developed good competency in customer post-sales service, revenue collection, repossessions and redeployments.

In late 2018 and early 2019, REPP worked with PAS to structure a syndicated loan facility to allow further growth. REPP's US$2.2m loan was rolled into the new facility and a REPP partner, EU-funded Electrification Financing Initiative (ElectriFI), committed a further US$3m. Funding needs for future growth of PAS were factored into the structure through the inclusion of an "accordion" that allows new lenders to enter the facility with minimal additional legal expense up to a total amount of US$10m.

The syndicated debt facility is a demonstration of REPP's work to facilitate and streamline energy developers' access to finance. This is accomplished by reducing transaction costs by having a single set of loan documents, making negotiations faster using standardised terms and conditions, and reducing management time spent on reporting and monitoring commitments. In structuring the facility, REPP has sought to allow more funding to be accessed over time as the business continues to grow, with minimal redocumentation and in a form that lenders and debt capital markets are already familiar with.

The structure has already attracted interest from other lenders.

SENIOR SECURED SYNDICATED TERM LOAN

Borrower:	PAS Solar Limited
Initial lenders:	Renewable Energy Performance Platform, ElectriFI
Amount:	US$10m, of which US$5.2m is committed, with an accordion of a further US$4.8m
Tenor:	5 years with 2-year flexible grace period
Interest rate:	10%
Documentation:	Simplified Loan Market Association syndicated loan agreement
Arranger:	Camco Clean Energy
Facility and Security Agent:	Camco Clean Energy
Legal counsel:	Womble Bond Dickinson

ABOUT THE UK'S INTERNATIONAL CLIMATE FINANCE

UK International Climate Finance (ICF) is the UK government's commitment to building resilience and catalysing low carbon transition in developing countries. At the UN Secretary General's Climate Action Summit in September 2019, the UK committed to doubling its international climate finance – from £5.8bn in the previous five years to at least £11.6bn from 2021-2025 – placing the UK amongst the world's leading providers of climate finance, and playing a crucial role in addressing the global challenge of climate change. This forms part of the UK's commitment to work alongside other developed countries to jointly mobilise US$100bn per year in climate finance for developing countries, from public and private sources.

ENDING POVERTY THROUGH CLIMATE ACTION

A diverse portfolio of programmes is supported through the ICF, which is managed by three government departments: the Department for Business, Energy and Industrial Strategy (BEIS), the Department for International Development (DFID) and the Department for Environment, Food and Rural Affairs (Defra). The aim is for a balance between mitigation and adaptation measures through the ICF, 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 is geared towards eradicating 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

Meeting these objectives requires transformational change, which the ICF aims to deliver through well-targeted finance, such as helping to pay the incremental cost of making infrastructure investments "climate smart" and avoiding lock-in of high-carbon technologies. 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.

Since 2011, ICF has:

- helped 57m people cope with the effects of climate change;
- provided 26m people with improved access to clean energy;
- reduced or avoided 16m tonnes of greenhouse gas emissions;
- installed over 1,600MW of clean energy capacity; and,
- mobilised £3.8bn public finance and £1.4bn private finance for climate change purposes in developing countries.

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 as a way to help overcome the barriers that are currently preventing or disincentivising private investments, by building capacity and capabilities in developing countries. Using public money to help create the conditions that encourage the private sector to invest is an essential step in delivering on the Paris Agreement and limiting the global temperature increase to 1.5°C.

For this reason, the ICF supports innovative approaches like REPP that develop markets in a way which can be replicated and scaled up by the private sector. By working with private sector developers of renewable energy projects in African countries, REPP is proving its important role in enabling developers to draw in further private sector investment, helping projects to bring access to clean energy supplies to communities, and avoiding greenhouse gas emissions.

ABOUT CAMCO CLEAN ENERGY

Camco Clean Energy (Camco) specialises in clean energy and climate finance in emerging markets.

It was created in 1989 and since then has provided innovative finance solutions to over 180 on- and off-grid and energy efficiency projects spread across Africa, China, Southeast Asia, North America and the Caribbean, with a combined value of over US$15bn.

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 a number of 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 has helped raise over US$360m of capital – both in debt and equity – for investment in renewable energy projects. It has also supported the financing of projects with total capital investment of over US$15bn 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 2018 £	AS AT 31 MARCH 2019 £
Fixed assets		
Investments	1,176,801	**4,465,900**
	1,176,801	**4,465,900**
Current assets		
Debtors: amounts falling due within one year	12,798,927	**165,766**
Cash at bank and in hand	511,686	**7,551,702**
	13,310,613	**7,717,468**
Creditors: amounts falling due within one year	(14,487,414)	**(12,187,395)**
Net current liabilities	(1,176,801)	**(4,469,927)**
Total assets less current liabilities	-	**(4,027)**
Net (liabilities)/assets	-	**(4,027)**
Capital and reserves	-	**(4,027)**
Profit and loss account	-	**(4,027)**

STATEMENT OF CASH FLOWS

	PERIOD ENDED 31 MARCH 2018 £	PERIOD ENDED 31 MARCH 2019 £
Cash flows from operating activities		
(Loss) for the financial year	-	**(4,027)**
Adjustments for:		
Foreign exchange movement on intangible assets	-	**(56,496)**
Impairment of fixed asset investments	-	**37,477**
Interest receivable	(46,744)	**(220,599)**
Taxation (credit)/charge	12,485	**(1,977)**
Decrease/(increase) in debtors	(12,561,195)	**12,633,161**
(Decrease)/increase in creditors	13,025,905	**(2,249,894)**
Corporation tax (paid)	-	**(4,026)**
Net cash generated from operating activities	430,451	**10,133,619**
Cash flows from investing activities		
Issuance of long-term loans	(650,552)	**(3,093,603)**
Interest received	147	**-**
Net cash used in investing activities	(650,405)	**(3,093,603)**
Net (decrease)/increase in cash and cash equivalents	(219,954)	**7,040,016**
Cash and cash equivalents at the beginning of period	731,640	**511,686**
Cash and cash equivalents at the end of period	511,686	**7,551,702**
Cash and cash equivalents at the end of period comprise:		
Cash at bank and in hand	511,686	**7,551,702**
	511,686	**7,551,702**

PROFIT AND LOSS

	PERIOD ENDED 31 MARCH 2018 £	PERIOD ENDED 31 MARCH 2019 £
Turnover	1,271,364	**1,792,298**
Gross profit	1,271,364	**1,792,298**
Administrative expenses	(1,314,264)	**(1,970,145)**
Operating loss	(42,900)	**(177,847)**
Interest receivable and similar income	48,904	**171,843**
(Loss)/profit before tax	6,004	**6,004**
Tax on (loss)/profit	(6,004)	**1,977**
(Loss)/profit for the financial year	-	**(4,027)**


WELCOME
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GLOSSARY

Avoided greenhouse gas emissions – the amount of emissions, in tonnes of carbon dioxide equivalent (tCO_2e), 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_2e 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.

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.

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

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

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 36 for more.

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.

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

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.

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

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.

FURTHER INFO

CONTACT INFORMATION

REPP

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REPP COMPANY INFORMATION

Directors:	P U H Coveliers (appointed 1 December 2018), D J Farchy (appointed 1 November 2018), D Potter (appointed 3 July 2019), E P Usher (appointed 14 December 2015)
Company secretary:	K V Upston-Hooper (appointed 20 November 2015)
Registered number:	09882930
Registered address:	20 Jerusalem Passage, London, EC1V 4JP, 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

WITH THANKS TO:

REPP founders

European Investment Bank

UN environment

REPP funders

Department for Business, Energy & Industrial Strategy

UKaid from the British people

REPP manager

camco CLEAN ENERGY

REPP partners

African Trade Insurance Agency

EDFI ElectriFI

EMPOWER NEW ENERGY

FMO Entrepreneurial Development Bank

FINNFUND

GLOBAL CLIMATE PARTNERSHIP FUND

INSPIRED EVOLUTION Investment Management

GuarantCo

OPIC

OIKO CREDIT investing in people

SUNFUNDER

TDB

BOAD

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

REPP developers

ARC POWER

BUFFALO ENERGY

Gaia ENERGY

GIGAWATT GLOBAL

GV

KLEEN HYDRO LIMITED

PAS BBOXX

PowerGen RENEWABLE ENERGY

PEG

powerhive

RUAHA ENERGY

VIRUNGA POWER

smart energies international