



# QUARTERLY IMPACT REPORT

Quarter 4 2022

# EXPECTED DEVELOPMENT AND CLIMATE RESULTS

Expected lifetime results of current project portfolio, as of 31 December 2022



# ACTUAL DEVELOPMENT AND CLIMATE RESULTS

Actual achieved as of 31 December 2022



<p><b>140,022</b> Improved connections</p>	% of 2022 target N/A	<p><b>47</b> Capital committed (m£)</p>	% of 2022 target 74%	<p><b>2,360</b> Jobs created</p>	% of 2022 target N/A
<p><b>31.1</b> New renewable capacity (MW)</p>	104%	<p><b>101,527</b> tCO<sub>2</sub>e avoided</p>	113%	<p><b>471</b> Women hired from jobs created<sup>1</sup></p>	N/A
<p><b>28</b> Projects reaching financial close to date</p>	93%	<p><b>1.29M</b> People provided first-time electricity access</p>	107%	<p><b>133</b> Third-party funding mobilised (£m)</p>	47%

<sup>1</sup> Job figures are for 2022 only.

# WELCOME

COP27 and its focus on how to implement climate action dominated the global climate agenda in Q4 2022. For the UK government-funded REPP, this provided an ideal opportunity to demonstrate how - through our investment manager, Camco – REPP is already delivering transformative impact in Africa by building an ecosystem of developers and projects in tough and uncertain environments, and thereby creating the de-risked and viable markets for private investment needed to scale climate solutions. Find out more about REPP's activity at COP27 [here](#).

REPP's year-end results for 2022 puts this transformative impact in real terms, with nearly 1.3 million people having been connected to electricity for the first time through REPP-supported projects by 31 December. These connections have led to improved quality of life through better lighting, refrigeration, longer active hours, improved access to information and increased productive use of energy opportunities. In addition, REPP projects connected 226 critical services and 3,376 microbusiness to energy, thereby strengthening community resilience and allowing for improved income and economic activity.



## REPP CHALKS UP ANOTHER SUCCESSFUL INVESTMENT EXIT

REPP has exited its investment in mini-grid developer ARC Power while continuing to support the company through a partial equity conversion. REPP's initial convertible loan in 2019, and an additional loan in 2020, has enabled ARC Power to pursue its ambitious plan to build a large portfolio of solar mini-grids in Rwanda. REPP's partial exit demonstrates our continued faith in CEO and founder Karl Boyce and his team to deliver on their impressive plans for expansion and asserting ARC Power as one of the leading mini-grid developers in the region. [Read here](#) for more.

## REPP INVESTEE SECURES USD50M GRIDWORKS INVESTMENT

Virunga Power [has secured up to USD50m](#) from Gridworks Development Partners, the UK government-backed investor in Africa's electricity networks.

As an early-stage investor in Virunga Power, Camco-managed REPP helped the company to grow to the point where it was able to secure this pivotal investment. The funds will support new projects across the continent, as well as the substantial growth of the Zengamina hydro-backed rural utility in northern Zambia (pictured below), resulting in increased generation capacity and the addition of thousands of new connections.

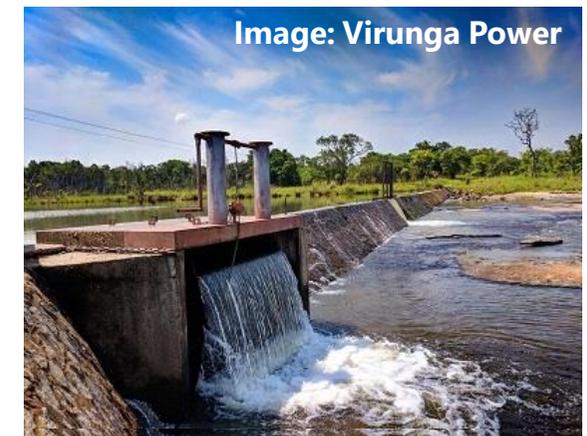




Image: OnePower

## DIGNATORIES VISIT LESOTHO MINI-GRID

Lesotho's Minister of Natural Resources Hon. Mohlomi Moleko and EU Ambassador for Lesotho Paola Amadei paid a visit to OnePower's mini-grid in Ha Makebe village. The successful completion of the pilot mini-grid, which provides power to over 180 households, was made possible thanks to an LSL7m (Lesotho loti) REPP loan and has since paved the way for the on-going development of 10 further mini-grids supported with LSL150m in equity and senior debt from REPP.



Image: OnePower

## MINI-GRID POSITION PAPER PUBLISHED

A [multi-stakeholder position paper](#) on how to improve the bankability of

Nigeria's mini-grid policy and regulatory framework was published in late 2022 as part of an official review by Nigerian Electricity Regulatory Commission of its 2016 mini-grid regulations. The paper was co-written by REPP, REAN and AMDA and was supported by multiple private sector stakeholders leading the development of the Nigerian mini-grid market. Watch the video below for a quick intro to the paper.



## DUE DILIGENCE STREAMLINED

REPP has partnered with other lenders and risk mitigation instrument providers to demonstrate best practice through sharing due diligence results to simplify the funding process and reduce costs for developers.. In 2022, REPP's sharing of due diligence documentation sped up the lending process for three projects from five additional lenders.

IN THE  
SPOTLIGHT

# BBOXX ACCELERATES IN WEST AFRICA VIA PEG ACQUISITION



REPP first invested in PEG in 2018 by participating in its series C equity raise and has continued to support the company ever since.

In 2022, clean energy solutions provider Bboxx consolidated its market leading position by acquiring solar energy pioneer and REPP investee PEG Africa.

Through the acquisition, Bboxx gained access to new markets in Senegal, Ivory Coast, Ghana and Mali – where PEG had reached one million people with its solar home systems (SHS) – and brought the UK-based company's total operating markets to 10 countries.

Five months later, Bboxx is making good on its plans to transform the continent's utility sector through its increased geographical footprint and by being a driving force behind access to goods and services for underserved communities.

In addition to the business integration that will be underpinned by Pulse, Bboxx's proprietary operations management system, Bboxx is focused on accelerating product diversification through mobile phones, e-mobility and clean cooking solutions. The company also aims to close new financing to fuel growth ambitions.

Factoring in all PEG-related sales since the September acquisition, Bboxx sold over 176,000 clean energy products in 2022. In doing so, the company has provided improved or first-time electricity access to over 630,000 people, with 46,000 people doing more economic activity as a result. Further, the installations have led to the replacement of 103,640 kerosene lanterns which, over the lifetime of the solar panels, will lead to over 134,000 tonnes of avoided greenhouse gas emissions.

*Images copyright of Bboxx*



# REPP'S REALISED IMPACT AT A GLANCE<sup>1</sup>



<sup>1</sup> See page 15 for definitions of greenhouse gases (GHG) avoided, installed capacity, new connections and finance mobilised.

<sup>2</sup> Refers to number of people connected to electricity for the first time

<sup>3</sup> Decrease is due to a project where not all CPs had been met. This amount has been removed.

<sup>4</sup> Refers to small businesses that are clients of REPP investees, such as mills, hatcheries, barbershops and shops

<sup>5</sup> Refers to schools, clinics, hospitals, waterworks and water-pumping stations that have received electricity through the projects

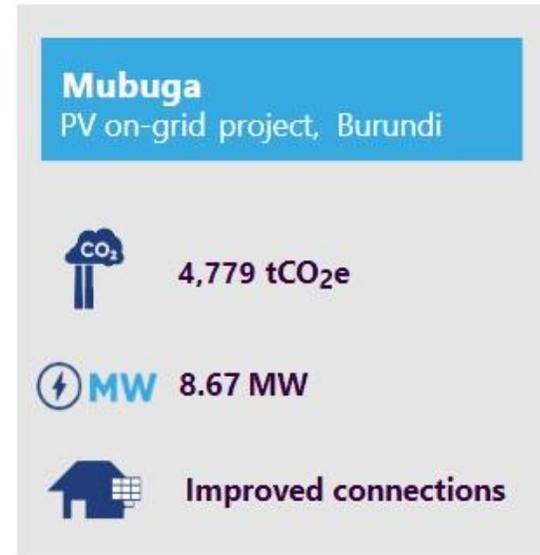
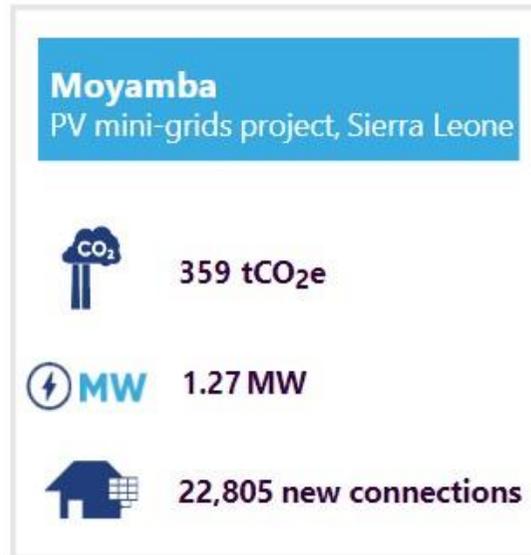
# REPP'S IMPACT PROJECT BY PROJECT<sup>1</sup>



<sup>1</sup> Figures shown for the number of new connections and installed capacity reflect total performance to date. Figures for GHG avoided are for the year to date..

# REPP'S IMPACT

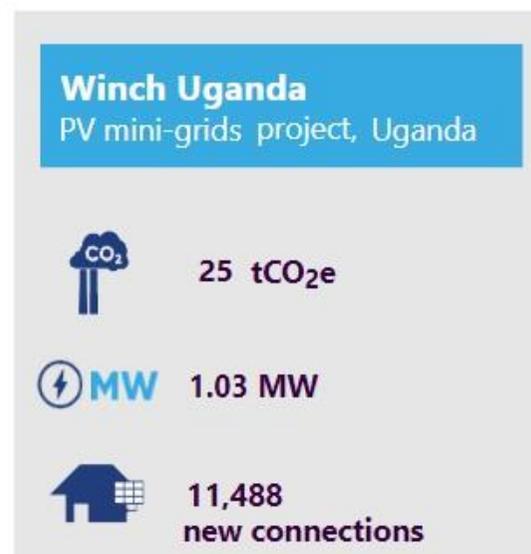
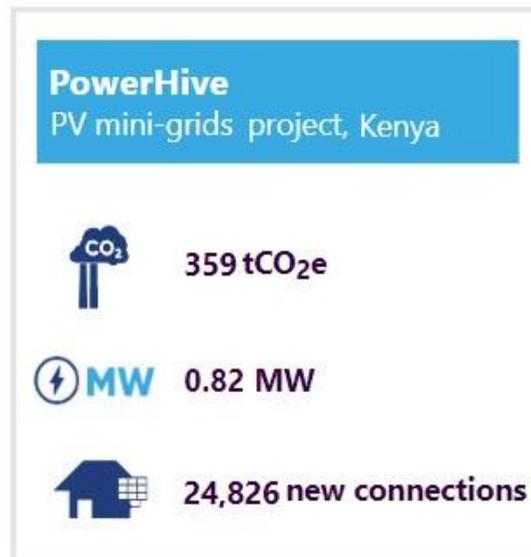
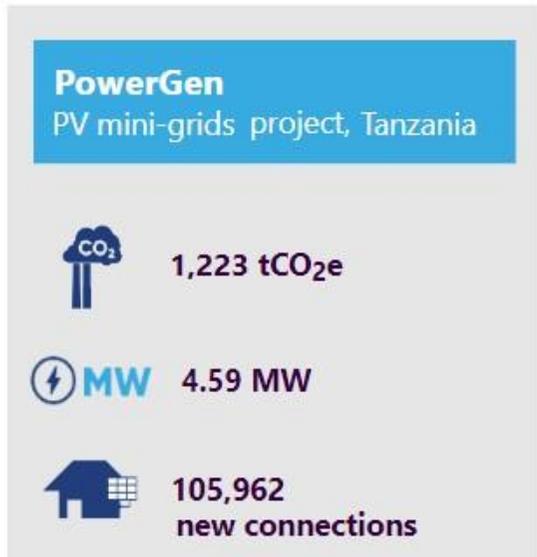
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# REPP'S IMPACT

## PROJECT BY PROJECT<sup>1</sup>



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WHAT					HOW MUCH					
Focus area	Performance indicators	Link to SDGs		Alignment with IRIS+	Achieved			Forecast <sup>1</sup>	Target	Data quality
		SDGs	Target		2020	2021	2022	2023	2023	
Prosperity	Number of projects supported by REPP	7 13	7.1, 7.2, 13.1		37	40	50	51	44	High. Measured.
	Number of projects reaching financial close	7 13	7.1, 7.2, 13.1		16	21	28	31	39	High. Measured.
	REPP funding committed in GBPm	17	17.3	OD5990	37	45	47	63	65	High. Measured.
	Finance mobilised in GBPm	17	17.3		89	151	133	361	335	High. Measured.
	Direct job creation in each year <sup>2</sup>	1 8	1.2, 8.5	OI8869 OI9028	2,037	2,726	2,360	MNT	MNT	High. Measured.
Planet	Installed renewable energy capacity in MW	1 7 8 13	1.5, 8.4, 7.1, 7.2, 13.1	PD1602	8.4	24.1	31.1	54.5	60	High. Measured.
	Number of countries whose NDCs are supported	13	13.2		14	18	18	18	MNT	High. Measured.
	Greenhouse gases avoided in tCO <sub>2</sub> e	13	13.1	PI2764	22,053	46,192	101,527	156,204	180,000	Medium to high. <sup>3</sup>
People	Number of people with first-time access to clean energy	1 3 7 11	1.4, 1.5, 3.4, 7.1, 7.2, 11.1	PI2822	581,400	843,905	1.29m	2.66m	1.4m	Medium to high. <sup>4</sup>
	Number of households using products to support business / microbusiness	1 8	11.2, 8.5		9,509	5,574	3,376	MNT	MNT	High. Measured.
	Number of critical services supported <sup>5</sup>	1	1.4, 1.5	PI2822	371	447	226	MNT	MNT	High. Measured.
	Number of women in the workforce from direct jobs created <sup>6</sup>	5	5.5	OI2444 OI6978	501	519	471	MNT	MNT	High. Measured.
	Investments aligned with 2X criteria (USDm)	5	5.5	OI1571 OI8118 OI8709	14	21	27	MNT	MNT	High. Measured.

MNT = Monitored. No Targets.

<sup>1</sup> Risk-adjusted pipeline includes committed projects and projects in advanced pipeline.

<sup>2</sup> 2020 job figures have been rectified.

<sup>3</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>4</sup> Calculated based on sales / customers and conservative average household size of 5 people.

<sup>5</sup> Refers to schools, clinics, hospitals, waterworks and water-pumping stations that have received electricity through the projects.

<sup>6</sup> Agent jobs not included



# LOOKING AHEAD

REPP has long been a supporter of Africa's rapidly advancing solar mini-grid sector and recognises its huge potential addressing energy access challenges and meeting SDG7. In Sub-Saharan Africa alone, nearly 291,000 population clusters have profiles favouring the deployment of solar mini-grids, with around 28,000 projects currently planned. However, developers and financiers often have different views on the key challenges and solutions to sector growth. Without a common vision, effective and timely progress is not possible.

To address this, REPP is co-hosting the **Mini-grid CEO Roundtable** with Africa Minigrid Developers Association (AMDA) in March as part of the World Bank's ESMAP and AMDA's 7th Mini Grid Action Learning Event. The one-day invitation-only workshop will convene developers and financiers for a frank discussion on the fundamental challenges that are inhibiting sector growth and to facilitate knowledge sharing leading to the co-creation of possible solutions.

A core focus of the event will be on how to scale finance for mini-grids, drawing on the collective experiences and perspectives of both developers and financiers. The aim will be to define 'investment readiness' and due diligence requirements and to identify ways to increase the scale and speed of financing flows. Another key part of the talks will centre around the environmental and social risks that exist within the mineral supply chains of solar panels and batteries and which are receiving increasing attention among the renewable energy community. We will be sharing key insights and other takeaways from the talks with the wider mini-grid community following the event.

Aside from the roundtable, it will be business as usual for REPP in Q1 as we continue to catalyse the growth of Sub-Saharan Africa's renewable energy sector and develop a market that is viable for private investment.



Image: Camco



# ABOUT REPP

The Renewable Energy Performance Platform (REPP) works to mobilise private sector development activity – and investment – in small to medium-sized renewable energy projects (typically up to 25MW) in West, Central, East and Southern Africa to ensure access to clean energy for all and avoid greenhouse gas emissions (GHG) in line with SDG 7 and SDG 13 and the Paris Agreement.

REPP is managed by Camco, a leading fund management company, and is supported with funding from the UK's International Climate Finance through the Foreign, Commonwealth and Development Office (FCDO).

To date, REPP has financing agreements with **42 projects** or companies spread across **18 countries** and employing **7 different technologies** (grid-connected solar PV, run-of-river hydro, on-shore wind, solar PV mini-grids, solar home systems, solar PV-powered batteries, geothermal).<sup>1</sup> A total of **£47m** has been contracted through these projects and an additional **£16m** committed to projects in the pipeline.



Image: Camco



Image: upOwa

<sup>1</sup> Seven earlier projects were terminated.



# HOW CAN REPP HELP?

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



## DEVELOPMENT AND START-UP PHASE CAPITAL

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REPP provides loans for selected third party development expenses (such as feasibility studies, environmental and social impact assessments, legal advice etc. It also provides convertible loans to support the growth of start-ups in the sector.



## GAP FINANCING

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



## NON-FINANCIAL SUPPORT

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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.

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

REPP also supports developers and investors with financial structuring, general project guidance and, in selected cases, developer capital. It also provides business planning support, training, workshops and seminars, and facilitates learning and exchange between developers.

# DEFINITIONS

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

**Greenhouse gases (GHG) avoided** - 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.

**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.

**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.



Image: Winch Energy



Image: PAS Solar

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