# REPP

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managed by camco clean energy

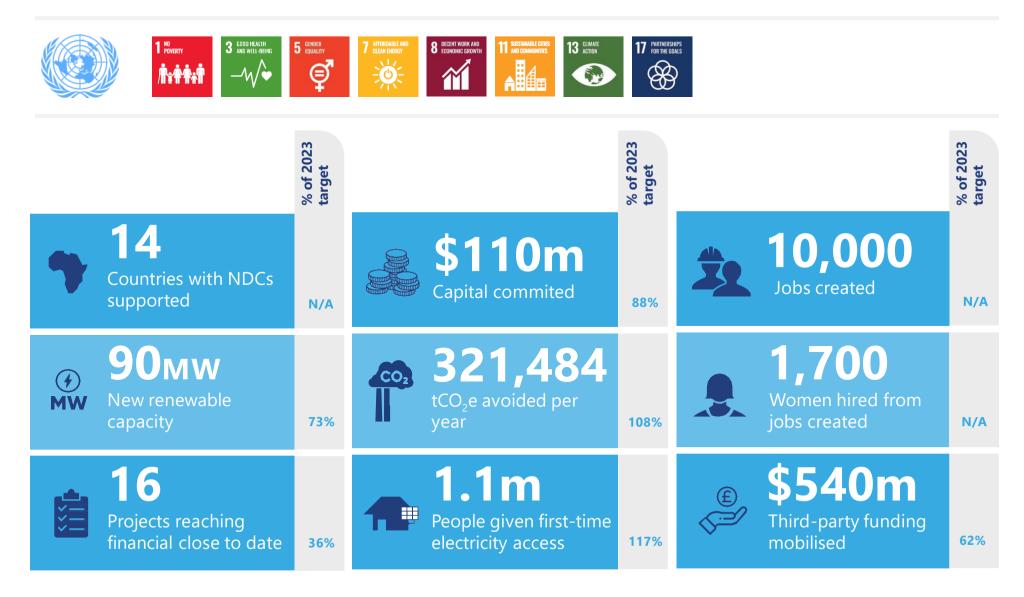
# QUARTERLY IMPACT REPORT

Quarter 1 2021

Image source: Marco Borero

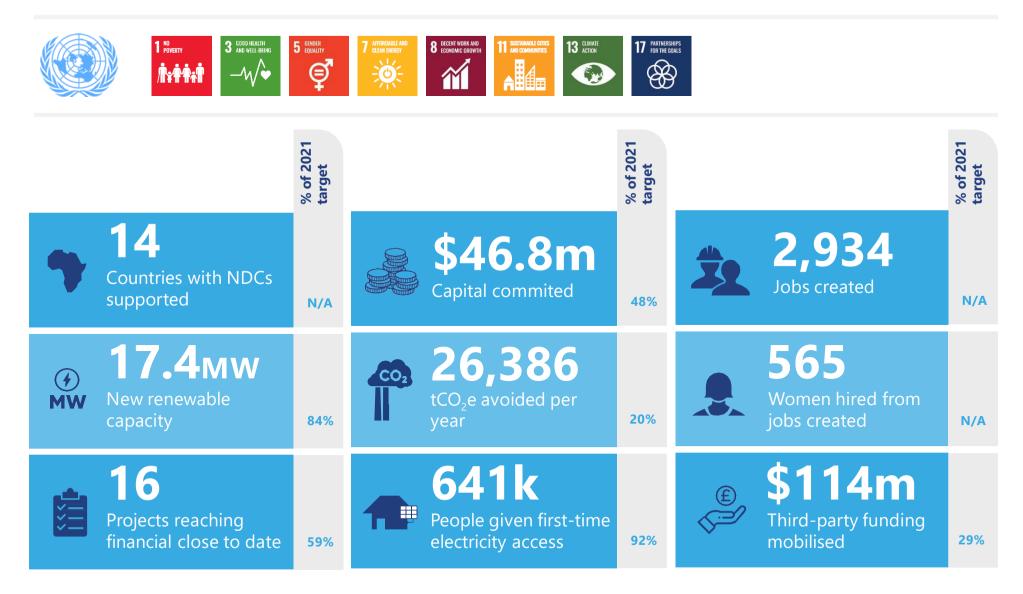
## **EXPECTED DEVELOPMENT AND CLIMATE RESULTS**

Expected programme lifetime results of current project portfolio as of 31 March 2021



## ACTUAL DEVELOPMENT AND CLIMATE RESULTS

Actual out-turn as of 31 March 2021



### WELCOME

Regular readers of this report will notice that we've changed things up a little, and that there are now two overview slides right at the start of the report. These new additions reflect REPP's expected development and climate results for the current project portfolio as of the end of each quarter, as well as the actual turn-out.

The idea behind the change was to make sure that the most time-strapped readers could get a quick but comprehensive account of REPP's performance against its key performance indicators without having to delve deeper into the report. If it's been effective, it's very likely they will not have got as far as reading this but will hopefully have learned something valuable already!

### EXPLORATORY DRILLING BOOSTS GEOTHERMAL HOPES

<u>Bweengwa</u> developer Kalahari GeoEnergy Ltd has confirmed all wells drilled to date intersect a single resource and can supply geothermal fluid to power a prototype power unit of up to 500kW together with cascading direct uses in Zambia.



### REPP RAISES AMBITION ON NEW CONNECTIONS

REPP's target for the number of people connected to electricity for the first time as a direct result of its investments has been increased from 357,000 people by the end of 2023 to 960,645 people. The target was changed to reflect the betterthan-expected performance of the programme's off-grid project portfolio.

### MOBILE POWER PREPARES FOR ENTRY INTO THIRD MARKET

Eight new "MoPo" hubs have arrived in Nigeria to facilitate <u>Mobile Power</u>'s entry into its third market (after Sierra Leone and Liberia). The company has also purchased 17 e-motorbikes to upscale its battery swap e-mobility plans in Sierra Leone after a promising grant-funded initial pilot.





Image source: Mobile Power

### IMPACT INVESTING ACE JOINS INVESTMENT COMMITTEE

Shelmith Theuri is a seasoned finance and investment professional with over 10 years' experience working in impact investing and a diverse range of other finance disciplines in Sub-Saharan Africa. Find out more about Shelmith and the rest of REPP's IC <u>here</u>.



### SOLAR PROJECT GETS HIGH-LEVEL ATTENTION

The Marco Borero solar PV project in Kenya was discussed during talks between British High Commissioner Jane Marriott and Nyeri County Governor Kahiga on how the county will benefit from the Kenya-UK trade deal. See *In the spotlight* for more on the project.



### Q&A WITH RIFT VALLEY ENERGY'S MIKE GRATWICKE

In this <u>latest instalment</u> in our Talking Points interview series with REPP investees, we talk to the managing director of the company that built and operates a hydro/wind hybrid distribution network in rural Tanzania. Mike discusses a variety of topics including grid 2.0, tariffs, regulation, productive use of energy (PUE) and the progressive developments underway.

### IN THE SPOTLIGHT

# **MARCO BORERO**







Construction of this grid-connected solar PV plant in Kenya is approaching completion after a USD 355,000 equity investment from REPP breathed new life into the project.

Before REPP got involved, developer Marco Borero – which is an SPV set up by Kenyan nationals Henry Maina Kanyua and his wife, Faith Nzilani Maingi – had been unable to raise the final tranche of equity required to complete the financing package for the 1.65MW (DC) plant.

With REPP's funding, the developer reached financial close on the project in September 2020, unlocking a USD 1.8m senior debt facility from the French Development Agency's (AFD) SUNREF programme via the Co-operative Bank of Kenya to accelerate construction at the site in Nyeri County.

Depending on how quickly it is completed, the project may become the first privately owned solar plant to reach operation in Kenya, although a number of larger solar projects currently in construction are also vying for the title.

#### COUNTRY POLICY ALIGNMENT

Marco Borero supports Kenya's ambitious 782MW solar capacity target, as outlined in the Updated Least Cost Power Development Plan 2011-2027 (2018). It also contributes towards its Updated Nationally Determined Contribution (NDC, 2020) aim of reducing GHG emissions by 45.76MtCO2e by 2030 – a 32% reduction to BAU scenario of 143MtCO2e – with renewables expected to play a significant role. By contributing to the diversification of the energy mix, the project is supporting the National Climate Change Action Plan 2018-2022 (2018) vision for a renewable energy-based electricity supply mix that is resilient to climate change.

#### LOCATION

Nyeri County, Kenya

#### AT A GLANCE

**Technology** Gridconnected

Project type Grid-connected

d Offtaker

Kenya Power and Lighting Company

#### Supported SDGs





Greenhouse gas emissions avoided: 1,929 tCO<sub>2</sub>e per vear



Improves stability of grid supply



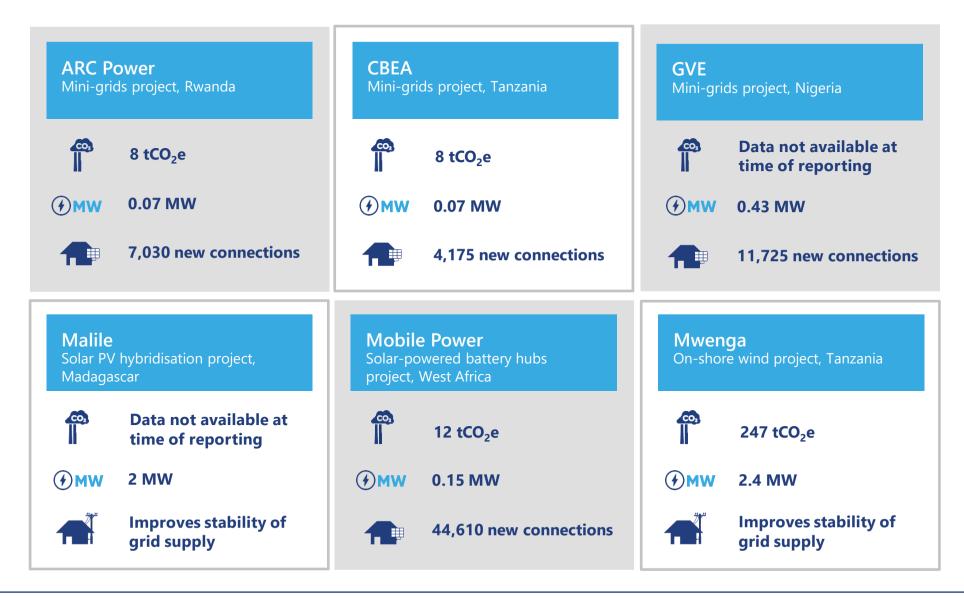
Installed capacity: 1.65 MW (DC)

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



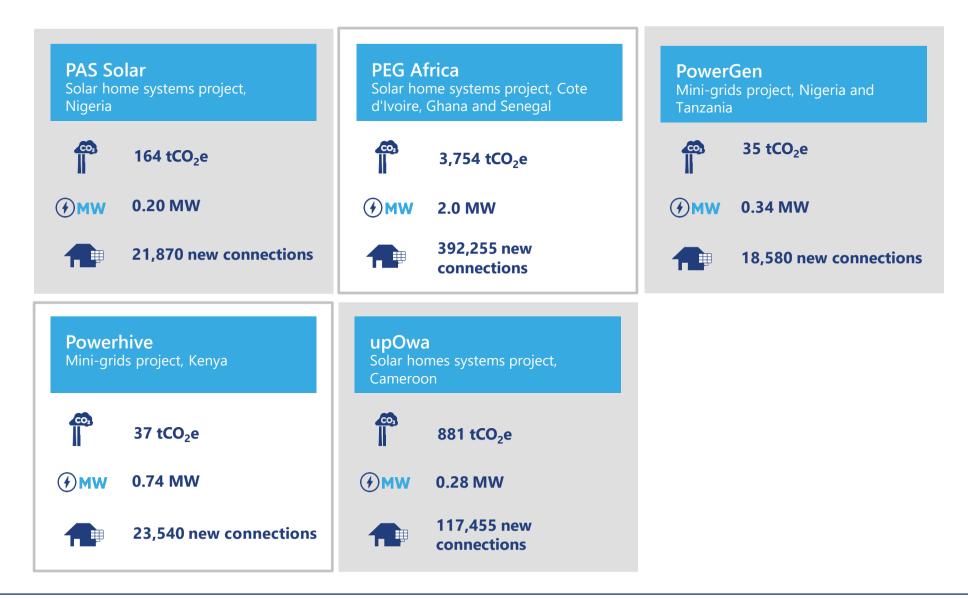
<sup>1</sup> See page 13 for definitions for greenhouse gases (GHG) avoided, installed capacity, new connections and finance mobilised.

### **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.

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WHAT						HOW MUCH						
Focus area	Performance indicators	Link to SDGs		Align- ment	Achieved			Forecast <sup>1</sup>		Target		Dete suelitu
		SDGs	Target	with IRIS+	2019	2020	2021	2021	2023	2021	2023	Data quality
Prosperity	Number of projects supported by REPP	7 13	7.1, 7.2, 13.1		25	27	28	37	37	44	60	High. Measured.
	Number of projects reaching financial close	7 13	7.1, 7.2, 13.1		8	16	16	26	28	27	44	High. Measured.
	REPP funding committed in USD	17	17.3	OD5990	24	47	47	167	167	113	176	High. Measured.
	Finance mobilised in USD	17	17.3		61	114	114	679	414	548	870	High. Measured.
	Direct job creation in each year	1 8	1.2, 8.5	OI8869 OI9028	-	2,037	2,934	MNT	MNT	MNT	MNT	High. Measured.
Planet	Installed renewable energy capacity in MW	178 13	1.5, 8.4, 7.1, 7.2, 13.1	PD1602	2.4	8.4	17.4	31.2	114	20.7	122.5	High. Measured.
	Number of countries whose NDCs are supported	13	13.2		-	14	14	MNT	MNT	MNT	MNT	High. Measured.
	Greenhouse gases avoided in tCO $_{\mathbf{z}}$ e	13	13.1	PI2764	5,958	22,053	27,237	52,654	377,904	55,766	298,091	Medium to high. <sup>2</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	174,220	581,400	641,240	679,090	1.12M	694,948	960,645	Medium to high. <sup>3</sup>
	Number of households using products to support business / microbusiness	1 8	11.2, 8.5		-	9,509	9,562	MNT	MNT	MNT	MNT	High. Measured.
	Number of critical services supported <sup>4</sup>	1	1.4, 1.5	PI2822	-	371	430	MNT	MNT	MNT	MNT	High. Measured.
	Number of women in the workforce from direct jobs created <sup>5</sup>	5	5.5	OI2444 OI6978	-	510	565	MNT	MNT	MNT	MNT	High. Measured.
	Investments aligned with X2 criteria (USD)	5	5.5	OI1571 OI8118 OI8709	-	18	18	MNT	MNT	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> 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 tCO2/SHS/year. <sup>3</sup> Calculated based on sales / customers and conservative average household size of 5 people.

<sup>4</sup> Refers to schools, clinics, hospitals, waterworks and water-pumping stations that have received electricity through the projects.

<sup>5</sup> Agent jobs not included



# **LOOKING AHEAD**

The fallout from COVID-19 continues to be keenly felt on Africa's renewable energy sector, just as it does across all sectors globally. As we continue to take stock of the impact the pandemic has had to date on REPP's portfolio of supported renewable energy projects across Sub-Saharan, we recognise there is still considerable uncertainty as to how things will pan out in the coming months and that further disruption is inevitable.

Although REPP's investees continue to show tremendous determination in the face of adversity, REPP investees have reported an average of between 3-6 months of construction delays due to the pandemic. We are hopeful, however, that in three months' time we will be able to report on the completion of **Kenya's 1.5MW Marco Borero solar PV plant** and the flagship **8.67MWp Mubuga solar PV plant in Burundi**, both of which we had expected to see in full operation in Q1 2021. The 5.7MW first phase of the **42MW Malile project** to hybridise three existing heavy fuel oil plants with solar PV in Madagascar is progressing steadily, albeit behind schedule, and we are expecting to see commercial operation of the two remaining sites under development in Q2.

All operational off-grid projects are expected to continue to grow over the quarter, pushing the number of people newly connected to electricity ever closer to one million. Unfortunately, the mini-grid installation at Ha Makebe, Lesotho, continues to be beset with COVID-related delays, although construction of the powerhouse is expected to be completed imminently, as well as the installation of inverters, batteries and generator.





# **ABOUT REPP**

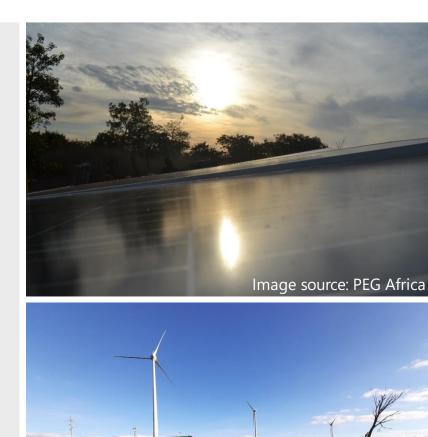
The Renewable Energy Performance Platform (REPP) works to mobilise private sector development activity – and investment – in small to medium-sized renewable energy projects (typically up to 25MW) in West, Central, East and Southern Africa to ensure access to clean energy for all and mitigate greenhouse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

REPP is managed by Camco Clean Energy, a leading fund management company, and is supported with £148m funding from the UK's International Climate Finance through the Department for Business, Energy and Industrial Strategy (BEIS).

To date, REPP has financing agreements with **27 projects** or companies spread across **14 countries** and employing **5 different technologies** (solar home systems, solar PV mini-grids, grid-connected solar PV, run-of-river hydro, and on-shore wind).<sup>1</sup> A total of **£37m** has been contracted through these projects and a further **£82m** committed to projects in the pipeline.









# **HOW CAN REPP HELP?**



#### 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.



#### **GAP FINANCING**

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



#### 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.

# 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 ( $tCO_2e$ ), 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.

**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.





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#### FOR MORE INFORMATION, PLEASE CONTACT:

Renewable Energy Performance Platform 28 St John's Square London EC1M 4DN United Kingdom





+44 (0) 207 121 6101

🔀 info@repp.energy

