

Changing lives with energy

Annual Review 2019

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The big picture

Access to energy for all is not just an end in itself, it's about the benefits it brings: from smoke-free homes, lit up in the evening, to more productive farms and businesses, to schools and health clinics able to operate the equipment they need, and to function after dark.

We focus our efforts around four key challenges:



Coping with climate change

Mitigating the impact of climate change on agriculture, using clean energy technologies to make farms more resilient and productive.



Empowering women

Improving women's daily lives at home and work, and supporting their role in the economic growth of their communities.



Boosting livelihoods

Creating income opportunities through increased access to, and productive use of, energy.



Serving the poor and vulnerable

Making clean energy affordable for the very poorest, who might otherwise be left behind by growing energy markets.



"Energy is vital to our lives. The world must take urgent action to ensure that everyone has access to clean, efficient and affordable sources of energy."

United Nations Secretary-General,
António Guterres

Our approach

We believe in private sector-led development. We help clean energy suppliers and businesses in Africa to expand energy access and use new energy supplies to grow.

We help them navigate the challenges facing energy markets, like lack of skills, difficulty accessing technology and finance, poor policies and regulations, untested business models, and weak distribution channels.

What we do

We provide training and advice on technical issues, growing supply chains, running a business, and raising capital, across a range of challenging contexts:

- Working with the poorest 20% of households.
- Incubating clean energy start-ups testing new technologies and models.
- Helping smallholder farmers.
- Working in refugee camps.
- Crowdfunding for energy access companies.
- Helping women entrepreneurs in the last mile.
- Advocating for policies that promote gender and social equity.
- Exploring how to make mini-grids more profitable.
- Solarising rural schools and clinics.

Our accomplishments



10,400
local jobs created
within the businesses
we support.



13.2 million
tonnes of CO₂
emissions avoided
by adopting clean energy
technologies.



\$154 million
of capital raised.

We have raised
£13 million in
crowdfunding through
315 campaigns resulting
in over **650,000 people**
with improved access
to energy.

Since 2007 we have helped
over **17 million people** in sub-
Saharan Africa acquire better
energy access.

And we've helped **5,000 businesses** – local micro energy
businesses, small and medium enterprises and project
developers – access the capital, skills and equipment to use
energy, grow, and deliver energy access.

Lack of access to capital can hamper growth.
We have a variety of models to help with this:

- Microfinance lending to rural businesses and informal community-based groups.
- Underwriting credit risk for energy product suppliers.
- Providing investment readiness, investor introduction and transaction support.
- Targeted grants.
- Crowdfunding and peer-to-peer lending.



In the last year, we:



Supported 128 mini-grids across sub-Saharan Africa in demand assessment, productive use of energy, technical design, site selection, regulatory advice and capital raising.



Helped 621 energy using businesses - 363 of them owned by women – to use electricity to increase productivity.



Introduced 1,070 electrically-powered devices for small businesses such as: welders, carpenters, farmers, shops, restaurants, cold storage and water pumping.



Assisted 796 energy supply businesses – 624 of them owned by women – that provide clean cooking and solar lighting in remote areas and in refugee camps.



Helped 512 smallholder farmers access funding, equipment and markets.



Made it possible for 1,600 of Kenya's very poorest households to afford solar, thanks to a top-up payment on government allowances.



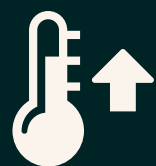
Provided solar power to schools and health clinics in poor and remote areas of Kenya, serving 15,000 students and over 550 patients every week.



Supported 10 projects providing communications and technology hubs, solar-powered clinics and hospitals, irrigation facilities, and energy for businesses and households in refugee camps in Uganda, Burkina Faso, Kenya and Jordan.

Where we work





Coping with climate change

To survive a changing climate, African farmers need better access to energy and the tools and skills to use it.



Agriculture employs **65% of Africa's workforce** and makes up a **third of its gross domestic product**.



Only **4% of arable land in sub-Saharan Africa is irrigated**, leaving farmers vulnerable to droughts.



Properly irrigated land yields **twice or more crops** than rain-fed and hand-irrigated land.

We promote climate-smart agriculture and technologies which improve yields, preserve fresh produce, and reduce carbon emissions.

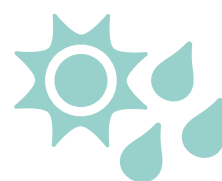
These include:



Cold storage



Crop-processing equipment



Solar-powered irrigation systems

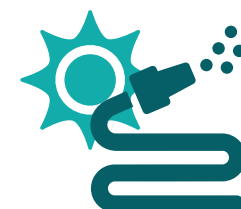
In **Rwanda**, we provided technical assistance to **281 smallholder farmers** and helped them to **buy solar irrigation systems**, which **increased yields by up to 67%**.

In **Senegal**, we helped **women's agricultural cooperatives** acquire solar dryers to process cereals, improve quality, and reduce labour. Their monthly **sales** typically **grew by over 100%**.



Solar irrigation and new business skills for a market garden

Senegal



Aïssata Ba, has been market gardening for 30 years – hard, manual work for someone without modern infrastructure, tools, and agronomy skills.

With our help, Aïssata acquired a solar-powered pump on credit and developed a business plan to restructure her activity, evaluate profitability of crops, and define a route-to-market strategy.

In just one season:

900kg → **1428kg**

Production increased from **900 kg** to **1428 kg** of vegetables.

\$350 → **\$617**

Sales increased to from **\$350** to **\$617**.

"Solar irrigation can have a long-lasting benefit on productivity, enabling farmers to increase the number of planting seasons and diversify their crops. We partnered with Energy 4 Impact to train farmers to use solar pumps, and to provide them with practical know-how on agricultural practices, pest control, and potential new crops."

Dr Charles Murekezi, Director-General for Agriculture Development, Ministry of Agriculture and Animal Resources, Rwanda



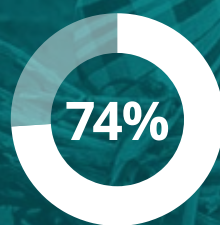
Solar irrigation can boost farmers' yields and help them cope with erratic rains, but the multiple supply chains – for crops, equipment, and finance – all need to function well for the solar irrigation market to develop. This takes a system-wide approach, equipping everyone – not just the farmers – with the necessary skills, knowledge and resources.



Empowering women

Energy offers life-changing opportunities for women, through selling energy products and services and working in electricity-powered enterprises.

In sub-Saharan Africa:



74% of women work in informal, often unpaid employment, performing hard, manual labour.



Women are **50%** of the agricultural workforce but control only **20%** of the land.



Girls can spend up to **18 hours a week** gathering fuel for household cooking and five hours per week collecting water.

In 2019, 68% of the enterprises we supported were led by women.

For the Maendeleo Women Trading Association, involved in cassava production and processing in Kazulu:

282%

Monthly sales went up **282%**, a net profit of **\$652** per month.

\$6,500

A **US\$6,500** bank loan was granted.

The UN Women Programme in Tanzania funded empowerment in Kigoma, where:



82

82 women entrepreneurs are supported.

115%

Average monthly profits have grown by **115%**.

\$2.87

The average entrepreneur earns an extra **\$2.87** per day.

In Senegal, we helped more than 3,000 women in 61 agricultural cooperatives get finance for solar freezers, pumps, dryers, water purification systems and lighting.

This has increased profits by 200% and created 106 jobs.

In Benin, we are showcasing their potential to drive sustainable economic development by working with women leaders of 25 medium-sized businesses.



Awa sells solar-refrigerated drinks

Khassid, West Senegal



In 2018, Energy 4 Impact helped Awa Sene – a 37-year-old widowed mother of six – get a micro-loan for a solar-powered fridge-freezer. Awa has now launched the first cold trade in her village, selling refrigerated food and drinks.

"Soft drinks are very popular and selling fast. This means that I can recharge my freezer several times a day to meet the demand, and generate a good profit." - Awa Sene

Since then...

\$138 → \$345

Turnover has increased from **\$138** a month to **\$345** a month.



With her profits, she's opened **another shop** and **hired two young women**.

\$220

Monthly net profit is **\$220**.



Energy's contribution to economic development will be magnified significantly when combined with fair participation by women.

Women benefit disproportionately from energy access and should have a major role in their communities' development. That said, we must adapt to entrenched cultural and business norms, and use success stories that build the economic case for women's empowerment, to challenge them from within.



Boosting livelihoods



Off-grid energy creates jobs – and for **every one job in companies that supply energy, five more jobs are created** in businesses that consume it.

Supporting energy suppliers, and the businesses they serve to realise their potential.



Unreliable electricity hampers Africa's economic development, costing as much as **2% of GDP**.



Rural enterprises are **one fifth** as productive as urban ones.

Energy access alone will not help business to grow; they also need new skills, investment, equipment and markets. By helping them to find these, we ensure jobs are created and incomes improved.

We helped **Tanzania's Rural Energy Agency** promote productive use of energy in villages recently connected to the main grid.

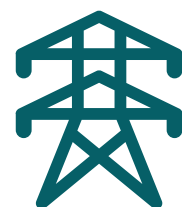
87%

349 enterprises increased their profits by **87%**.



214 jobs were created.

We improve the commercial viability of rural power projects by stimulating demand amongst the businesses they serve.



We have advised **128 mini-grid developers** across **36 countries**.

An electric motor means finer flour, lower costs for Mr Kilua's milling business. With a business plan and improved record-keeping, he recouped his investment in six months.



Unlocking investment for independent energy developers

Uganda

Equatorial Power is developing a 600kWp solar mini-grid on Lake Victoria, to supply **3,500 connections** and an industrial park.

We helped with:



Demand assessment and customers' ability and willingness to pay.



Validating the business and financial project models.



Investor marketing and due diligence.

This culminated in Equatorial Power closing an investment with major energy player, Engie. The project is expected to be commissioned in 2020.

"We have gained traction on our first projects and partnered with Engie. Energy 4 Impact supported us on many fronts. What a fantastic service!"

Riccardo Ridolfi, CEO, Equatorial Power

Energy improves a business' capacity to serve a market, but livelihoods projects must reflect all the needs of the market and the businesses. These may encompass new skills, equipment, suppliers, finance, or routes to market. Energy is just a small – albeit important – piece of the puzzle. Electrification benefits the wider community more than the power company – so it often deserves public funding support.



Serving the poor and vulnerable

Using pro-poor strategies to reduce inequality and help people escape poverty.



More than **368 million** people live on less than **\$1.90** a day.



Over **90 million children** attend schools without electricity.



Almost **60% of health facilities** have no power for life-saving equipment.

18m

There are more than **18 million** displaced people, **26% of the world's refugee population**.

We address the energy needs of the poorest, by making clean energy available and affordable.

In Kenya:



We are providing solar systems to **300 schools** and health clinics in five of its poorest counties.

1,600

Households

We are topping up government subsidy payments to **1,600 of the poorest households** to enable **8,000 people** to access solar energy.

More than **15,000 students**, and over **550 patients** per week are benefitting from better energy access through lighting, powering computers, learning tools and life-saving equipment.



Energy in humanitarian contexts

Kenya, Burkina Faso, Uganda and Jordan

We are boosting the private sector's role in addressing refugees' energy needs and changing the way energy is managed in the humanitarian sector.

In refugee camps, settlements and host communities, we have helped companies:



Set up distribution outlets for solar home systems.



Build a solar-powered ICT and learning hub to teach new skills.



Install solar in a hospital and two health clinics.



Install solar water pumping for drinking water and irrigation.



Develop energy-efficient buildings.



Helped entrepreneurs use solar power to expand their businesses.



There is a compelling case for subsidising the poor's initial purchases in energy access markets, but how will they manage the systems, and pay for parts and replacements in the long term? We are experimenting with various mechanisms to address this challenge and create more sustainable solutions.

Inadequate energy limits the poorest people's access to education, employment, and healthcare, trapping them in poverty. Energy access can help them overcome this, but it needs to be affordable.



Thank you

Access to energy, and the empowerment it brings, changes everything. The transformative impact of our work would be impossible without the brilliant private sector businesses that we work with, and the generous support of our partners and donors. To all those we work with and who support us, thank you. You are changing lives. There is still much to do. Together, we can deliver not just expanded energy access, but also the equipment and know-how to use it to help farming communities, women, businesses, and the most deprived and vulnerable.

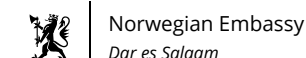
Get involved

If you are a practitioner, investor or business involved in energy access and you're interested in collaborating with us, please contact us on info@energy4impact.org. To support our work visit www.energy4impact.org/donate

Our donors



THE ADVENTURE PROJECT

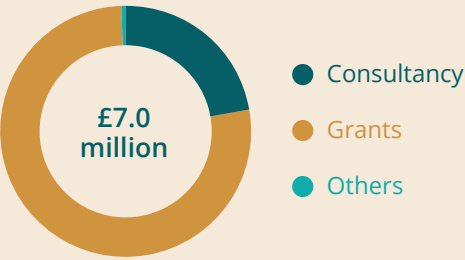


We thank the OVO Foundation for the use of some of their photos.

Financials

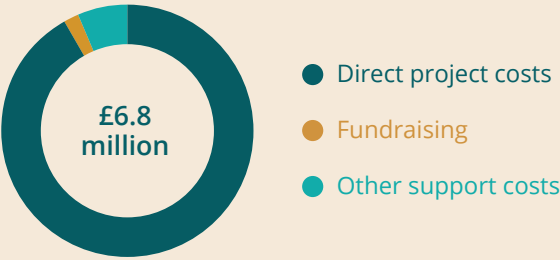
Income

£7.0 million, 3% down on last year.



Expenditure

Total expenditure was £6.8 million, up 8% from last year. Of this 92% is spent on direct project costs.



	2019 Unrestricted £	2019 Restricted £	2019 Total £	2018 Total £
Income from:				
Donations and legacies	20 981	-	20 981	16 018
Charitable activities - grants	19 397	5 414 433	5 433 830	6 292 714
Charitable activities - consultancy	1 564 444	-	1 564 444	944 800
Investments	238	-	238	217
Other income	5 917	-	5 917	4 082
Total income	1 610 977	5 414 433	7 025 410	7 257 831
Expenditure on:				
Raising funds	120 455	-	120 455	101 882
Charitable activities	1 554 642	5 166 667	6 721 309	6 237 302
Total expenditure	1 675 097	5 166 667	6 841 764	6 339 184
Net income / (expenditure)	(64 120)	247 766	183 646	918 647
Transfers between funds	(1 063)	1 063	-	-
Net movement in funds	(65 183)	248 829	183 646	918 647
Reconciliation of funds:				
Total funds balances brought forward	514 832	1 004 938	1 519 770	601 123
Total fund balances carried forward	449 649	1 253 767	1 703 416	1 519 770







Energy 4 Impact is a non-profit organisation working with local businesses to extend access to energy in Africa. Our work growing sustainable clean energy markets is creating jobs, accelerating economic growth and improving the quality of life for millions of people.

Visit our website: www.energy4impact.org

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