

Moving Mountains: Lighting up Africa's last mile

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Moving mountains

Around the world, nearly [800 million people](#), or about ten percent of the world's population, still live without electricity. Three quarters of them are where we work, in sub-Saharan Africa. Despite everyone's efforts, the challenges of connecting the "hardest-to-reach" to basic energy can feel like a matter of moving mountains – sometimes quite literally.

Take the case of Lesotho, the tiny country of 2.2 million people inside South Africa. Here, villages are separated by 10,000-foot mountains, and travel is often along bone-crunching gravel roads, where there are roads at all. In a country where only a third of the country's population has access to electricity, mini-grid operators are left having to build their own bridges just to get construction supplies to their projects. As part of our work with [Acumen](#) to provide energy access to the hardest-to-reach, our team spent time in Lesotho, among other countries, trying to see how fresh capital could improve the desperate situation and support innovators like these in serving their customers.

What we saw there mirrored the situation in the least-served countries in which we've worked these past 13 years, including Sierra Leone, Burundi, and Niger. In all of them, there are great business ideas and smart people. But they face huge challenges – from a lack of financing for their business to their customers struggling to afford their products and logistical constraints like importing containers or finding local experience to repair systems.

Globally, the movement for electricity access has made enormous strides over the past decade. In that time, the number of people without electricity has halved globally, and close to [500 million people](#) have connected to solar for the first time. But as the world continues to light up, the places where the risks and challenges of investment are highest, like Lesotho, risk being left behind entirely. With just seven years left before the deadline for the Sustainable Development Goals (SDG) – including universal electricity access – it is imperative that we act quickly to bring these countries along.

Their development – and by extension the world’s – relies on it.

Of course, this work will be incredibly challenging. As a revolution in electricity access has transformed many African countries like Kenya, Ghana, Rwanda, Senegal, and South Africa over the past two decades, progress in smaller and less investment-friendly markets on the continent has withered. Reaching these Africans before 2030 will take innovation, patient investment, and partnerships between the public and private sectors.

In particular, getting off-grid solar power to hundreds of millions of people who can't rely on existing electrification projects is among our most urgent tasks. However, [89 percent](#) of these people live in nascent and emerging markets where there is little-to-no commercial off-grid solar activity.

But there's good news too. The off-grid solar sector has proven more resilient than expected, following the Covid pandemic. We see continued business model and technology innovation to serve new markets and investments have continued to grow. What's more, governments, investors, and development partners are increasingly recognizing the important role of off-grid energy in electrification.

We've been excited by the progress we've seen already across Open Capital's 300 energy access engagements in 27 African countries and the renewed focus on serving these tough markets. We have seen great success through partnerships, for example, a new investment firm called [VentureBuilder](#), we co-founded with Catalyst Off-Grid Advisors, which provides early-stage financing to African-owned distributors in markets like Mali, Malawi, Zambia, and Zimbabwe. Or our partnership with [USAID's Power Africa](#), supporting >10 innovative solar companies in markets like DRC, Cameroon, Niger, Mozambique, and Zambia, or with the [EU's Get.Invest program](#), helping local off-grid energy companies to scale and mobilize capital.

Here's some of what we've learned – and where we want to see the world go next.

Accurate information is hard to get, but critical

It's not flashy or headline-grabbing, but deep research to understand the energy landscape is key. Data is often unavailable and inaccurate and cannot otherwise guide investors – both for-profit and philanthropic – on where to invest.

Recently, we co-authored the [Off-Grid Solar Market Trends Report 2022](#) with Lighting Global/ESMAP, GOGLA, and Efficiency for Access. This report distills the main trends in the off-grid solar market and analyses what developments are shaping the future of the

off-grid market. Our research found that off-grid solar is the single most accessible path to electrification for the world's poor, and will be the most efficient, cost-effective way to provide power to more than half of those who currently live without it. In spite of this, however, we also found the sector has a massive projected funding shortfall. Such research, we hope, will catalyze funders to act boldly and quickly.

More information is needed especially in nascent and emerging markets where the gap is greatest. We applaud the work done here by groups like Acumen, African Development Bank, Shell Foundation, the World Bank/ESMAP, USAID Power Africa, the UK's Foreign and Commonwealth Development Office, among others and have been actively contributing by authoring several market assessments in these markets.

More catalytic capital is needed

[Between now and 2030, the off-grid solar sector is projected to raise \\$7.8 billion. That's great news, but it's still \\$15.5 billion short of what we need to reach SDG7, universal electricity access.](#) To realize that goal, we need bold investments to seed companies, foster growth in new markets, and expand access.

We recently hosted a roundtable in Nairobi with 15+ of the main energy access funders globally to discuss how to accelerate energy access in Africa. The message was clear: there are gaps in the types of investment needed, with a few specific recommendations:

- **Grant funding** to support early-stage companies in nascent markets who are critical to the 'fabric' of local markets, but cannot attract any other form of capital and therefore cannot grow
- **Venture finance (equity)** that can offer small investment sizes (e.g., \$100-500k), which is largely missing but necessary to support the next generation of innovative companies
- **'Blended' finance for investment vehicles or banks** that use a combination of grants and return-seeking investment to allow the investment vehicle to take more risks, as one must in nascent markets. Examples can include guarantees and operational co-sharing
- **Innovative debt structures** to address unique business needs (e.g., on-lending working capital through manufacturers or venture debt)

We've already seen a number of examples of the above and are encouraged by the results these can achieve. With the right forms of capital, fragile markets can rebound and new markets can develop, eventually making them attractive prospects for for-profit funders. We hope to see the same kind of trajectory in the hardest-to-reach countries over the next decade.

We are stronger together

The boom in electricity access in African countries like Kenya over the last decade has been nothing short of a revolution. But now that these markets are better understood, they attract a disproportionate amount of attention from investors and funders. There is still much to be done in Kenya and Africa's larger economies, but much more attention is required for Africa's hardest-to-reach countries. In these countries, more must still be built 'from scratch' which is risky and challenging work and requires game-changing interventions.

No one can do this alone - companies, governments, development partners, donors, investors and ecosystem players will all need to come together and better coordinate efforts. This is where partnerships come in. We are part of a partnership to be announced at Unlocking Solar Capital next week, of leading practitioners coming together to extend the reach of off-grid solar solutions in underserved markets, supporting both established players and local distributors operating there. We are excited to be part of this partnership but recognize this is just a start. We need more stakeholders to come together, both public and private, to multiply our impact.

What's next?

We have been inspired by progress in the last decade towards universal electricity access but the problem remains urgent. We have seven years left until the 2030 deadline for the SDGs, and Investors need to act quickly and boldly to close the estimated [\\$23.3 billion in funding needed](#).

It's equally important that the [733 million people](#) living without energy access not be invisible in conversations about global commitments to net-zero emissions. No one on Earth has done less to contribute to global warming or stands to benefit more from slowing the progress of climate change.

Going forward, we as Open Capital are working alongside clients in many of Africa's hardest-to-reach markets to enable their growth and develop and deploy new funding. We are also investing in a range of partnerships and piloting new initiatives for this purpose, and will try to share in many ways the lessons we've learned working in these nascent markets over the past 13 years.

We hope this piece is encouraging, as much as it is daunting! We look forward to working with many of you and seeing much more great progress in the coming years.