Innovative solutions for filling the energy access funding gap

With just a decade left to achieve Sustainable Development Goal 7 (SDG 7), the decentralized renewable energy (DRE) sector has a large financing gap to fill. This fact sheet summarizes the latest data on current investment trends, challenges and possible finance solutions.

DRE finance surpassed US$ 500 million in 2018 with 71% from private capital. Financing for energy access still falls short of the US$ 52–55 billion needed annually to achieve SDG 7.

- The International Energy Agency (IEA) reports that US$ 52 billion is needed annually to achieve SDG 7 and the 2018 SDG 7 Tracking Report estimated about US$ 55 billion annually. Current commitment levels fall well short of either target, at US$ 30.2 billion per year.
- Of the US$ 30.2 billion electrification finance, about US$ 16.2 billion goes to grid-connected renewable energy and US$ 8 billion goes to fossil fuel plants.
- In terms of investment in DRE, 2018 was a banner year for the sector. Investment grew by 22% and crossed the US$ 500 million mark, reaching a total of US$ 511 million. About 71% of this funding comes from the private sector.
- The off-grid solar sector (pico-solar appliances and solar home systems) is a clear leader in attracting DRE finance, and raised a record US$ 352 million in 2018.
- Despite major growth in DRE finance, Lighting Global estimated in 2017 that a total of US$ 5.7 billion until 2022 is needed to meet the off-grid solar expansion plans. Acumen estimated in 2017 that US$ 210 million of early-stage equity is needed annually to close the pioneer gap.
- A worldwide drop of foreign direct investment (FDI) by 41%, unseen since the 2008 financial crisis, may have a negative effect on DRE finance.

Investment is concentrated in a small number of companies with an unbalanced geographical representation and favors non-residential consumers. Available finance needs to be directed to high-impact countries and focus on residential electrification.

- The 10 largest funding recipients attracted 77% of the total off-grid solar funding in 2018. This is likely because funders usually prefer large-scale investments, which most companies are too small to venture into, therefore creating a “pioneer gap” for companies that are too small to raise commercial finance but too big for seed funding.
- DRE investment is concentrated toward SHS. To date, over US$ 1.3 billion has been invested in SHS, while mini-grids capture only US$ 250 million.
- In terms of geographical concentration, sub-Saharan Africa receive about 17% of total electricity financed, as compared to the 95% advised by IEA.
- 58% of the US$ 511 million invested in the DRE sector is concentrated in East Africa.
- Not only are investments highly unbalanced geographically, they also favor commercial and industrial customers over residential ones, leaving poor households behind. Latest data showed that 72% of the electricity finance goes to non-residential customers.

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By the Numbers:

$55 billion
ANNUAL ENERGY ACCESS
FINANCE NEEDED FOR SDG7

$30 billion
CURRENT ANNUAL ENERGY ACCESS INVESTMENT

$511 million
ANNUAL INVESTMENT IN DRE IN 2018

Implementing innovative financing methods can reduce transaction cost, mitigate risk and mobilize funds for high-impact but slow-return projects.

» Aggregation (financial bundling) brings together projects and companies into portfolios to reduce transaction costs and mitigate risks. The Infrastructure Development Company Limited (IDCOL) in Bangladesh, for example, mobilized US$ 900 million through aggregation.19

» Investors believe that investing in cash-poor households is risky. Mixing highly bankable and less bankable projects could mobilize capital for low-income household installations that might deliver greater social impact.20

» Acumen showed that investing early-stage equity in start-ups has the potential to secure additional investment 10-fold in subsequent financing rounds.21

» Crowdfunding for DRE and energy access grew from US$ 3.4 million in 2015 to US$ 8.7 million in 2016. However, it most likely will not help close the “pioneer gap”, as most crowd-funders favor established companies as compared to start-ups.23

» The resource intensity and time limitation of crowdfunding makes it challenging to meet DRE companies’ debt needs. SunFunder, for example, is shifting away from crowdfunding to private debt.4

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» 2018 was a banner year for DRE finance as the sector secured US$ 511 million in investments. However, US$ 52 - 55 billion annually, including US$ 210 million annually of early-stage patient capital for the DRE start-ups, is needed to achieve universal energy access.

» 95% of energy access finance needs to be directed to sub-Saharan Africa and more focus should be put on new or improved access for residential consumers of electricity.

» Financial aggregation can help finance less profitable but high-impact projects.

Sources:
10. “Investment Data,” GOGLA, 2019
17. “Energizing Finance: Understanding the Landscape,” SE4ALL, 2018