



Year in Review: Off-grid 2018

2018 was another important year for the various segments of the burgeoning off-grid industry. It was a year less about raising money than investing it to build the foundations of future growth.

The off-grid sector is going through an exciting period of expansion, partnership, innovation and learning and as long as investors continue to believe in the opportunity, the technology and the business models, the sector should prove resilient to bumps along the road.

Most large solar home system companies now have established business models and product lines, which they are taking to new markets using tested methods of raising financing. Large equity raises in 2017 and early 2018 as well as the entry of huge European utilities into the market, notably Engie and EdF, provided funds for the consolidation of businesses and expansion into new markets outside of East Africa. Companies are also moving into the next phase of product development, looking at larger, more sophisticated systems able to manage power from multiple sources including the grid, small mini-grid systems and systems for small businesses.

There is still scepticism about the sustainability of the business model in some quarters, with concerns about the cost of gaining and maintaining customers and the quality of portfolios. This has led to a focus on service add-ons such as television services and partnerships with established local businesses. Theft and gaming the systems has also been an issue for some companies and the sector is potentially vulnerable to new regulation, particularly around consumer finance and interest rates.

Development finance institutions (DFIs) have also begun to implement much larger programmes in off-grid rural electrification, finding their niche in geospatial mapping and incentivising companies to operate in harder to reach areas. There is a growing multiplicity of funds established by DFIs to invest in the sector and an increasing focus on financial innovation.

Perhaps counter-intuitively, the much longer established commercial and industrial market is at a somewhat earlier stage of transition to technologies and business models. Traditional diesel and rooftop solar installers have found their businesses buoyed by increasing grid tariffs, but new models are emerging which aim to provide fully integrated technical and financial solutions.

Two models have found traction. New debt and equity funds have been set up for commercial and industrial projects, with the aim of raising money upfront to build portfolios of projects capable of sustaining longer term commercial debt and bonds.

Most of these funds have only been through one or two raises and it remains to be seen how sustainable and scalable the model will be.

Companies leasing systems have also been gaining momentum. Advancing the well-established model to new technologies has been particularly effective in markets like Ghana, where the cost of power is high. Similarly, rental giant Aggreko as well as competitors like APR Energy have been developing much larger solar-diesel-battery and diesel-battery options capable of powering large off-grid mines.

The mini-grid market serving rural communities has proved challenging but considerable strides have been made through pilot projects and a growing body of research and experience. Non-governmental organisations and universities still play a crucial role in this sector, but the number of mini-grids operating is growing and developers are reporting broadly positive results, although profitability has so far been limited. Limited opportunities for load growth in rural agricultural communities has resulted in some ad hoc attempts to actively increase demand, with mixed results.

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