



Investing in the off-grid solar sector: What you need to know



About

GOGLA is the global association for the off-grid solar energy industry. Established in 2012, GOGLA now represents over 150 members as a neutral, independent, not-for-profit industry association. Our services assist the industry to build sustainable markets and profitable businesses that deliver quality, affordable off-grid electricity products and services to as many customers as possible across the developing world.

GOGLA believes in a solar powered world. With the right support, the off-grid solar market can scale to provide affordable solar power products and services to provide electricity to the 1 billion people currently living without access to modern energy by 2030, in line with Sustainable Development Goal 7 (SDG7).



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What is the off-grid solar sector?

The off-grid solar sector is designed to supply power through standalone products, systems and services, to people living beyond the reach of the grid power supply. This is predominantly in the developing world, where almost one billion people currently live without access to clean, reliable and affordable energy.

The off-grid solar sector is set to power opportunity for these people. It is increasingly recognised that energy plays a major role in making a lasting economic, social and environmental impact around the globe. The off-grid solar industry is already making positive impacts across these sectors.

GOGLA estimates around 245,8 million people to have ever lived in a household with improved energy access and 108 million people currently benefitting of improved energy access thanks to off-grid solar products. About 58,4 million metric tons of CO₂ were averted due to reduced kerosene use, and an additional 4,2 billion USD of additional income was generated as a result of off-grid system ownership¹.

From solar powered torches and portable lanterns to high capacity solar home systems (SHS) used to power televisions, refrigeration and cooling, and solar water pumps for irrigation or agri-processing, GOGLA members manufacture or distribute products and solutions that enable energy access². Smaller products provide task lighting and phone charging (or what is known in the industry as Tier 1 electricity access). Larger products, in addition to lighting, can power refrigeration, TVs, or fans (what is known as Tier 2+ electricity access). By unlocking partial

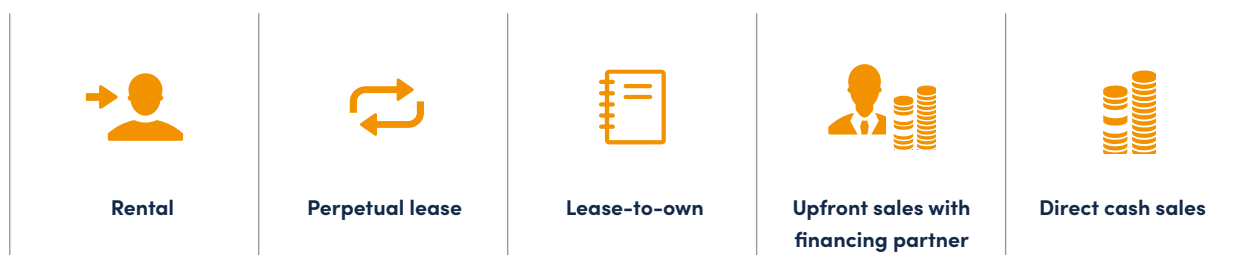
or full access to these Tiers, customers and households have reported additional income, savings on energy spending as well as increased economic activity. Solar lanterns and multi-light systems sold to date are estimated to have saved customers over 9.1 billion USD on energy-related expenditure³.

Additionally, 24% of SHS owners report to use the system to support their business, which generates an additional 29 USD per month⁴.

To date, companies trading in off-grid solar are generating thousands of jobs across East, West and Central Africa and South Asia. GOGLA's latest report *Off-Grid Solar: A Growth Engine for Jobs* estimates the sector currently supports 370,000 full-time equivalent (FTE) jobs across these four regions, within the supply chain. 56% of the jobs created are currently in rural areas. By 2022, the sector could be generating 1.3 million jobs, and 27% of the workforce would be female. The types of jobs will also change with time. As companies evolve, they might need to expand their employee base with technical and customer support, technology development and more extensive sales networks⁵.

Business models in the off-grid solar industry

The first companies started trading in off-grid solar products around 2009/10. Since then, business models have evolved, and innovation continues to date. Today, business models in the off-grid solar industry range from service-based models that provide energy as a service, to lease-to-own and cash sales of individual products through single or multiple payments.



← Consumer buys a **service** Consumer buys a **product** →

1 Over expected lifetime of all products sold since July 2010.
2 Beyond Connections: Energy Access Redefined (ESMAP technical report 008/15).
3 Global Off-Grid Solar Market Report H2 2018.
4 Powering Opportunity: The Economic Impact of Off-Grid Solar.
5 Off-Grid Solar: A Growth Engine for Jobs, GOGLA (2019).

What is the off-grid solar sector?

Companies in the sector mainly operate with cash-sales or pay-as-you-go (PAYGo) lease-to-own models. PAYGo models combine the retail and financing value chains and leverage mobile money, allowing customers to pay for systems in small instalments, making the larger systems more affordable for consumers. In a cash sale model, the customer pays for the full product upfront at the point of sale. Many companies do employ both a cash and a PAYGo model.

There are variations within the lease-to-own models. These range from vertically integrated to partnership-based models with many variations in-between. [The taxonomy of off-grid companies](#) explains the variations of PAYGo business models in more detail⁶.

Figure 1 - Share of PAYGo and cash sales (including lanterns, Multi-light systems and SHS, H2 2018)

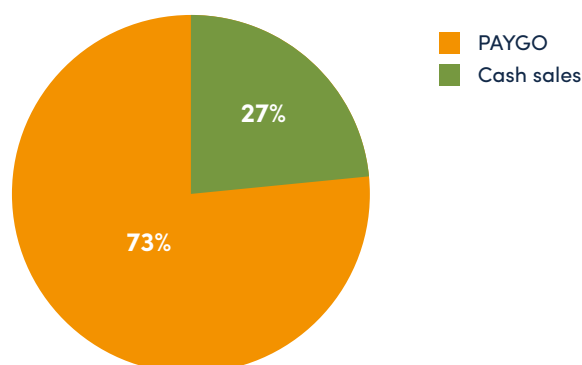
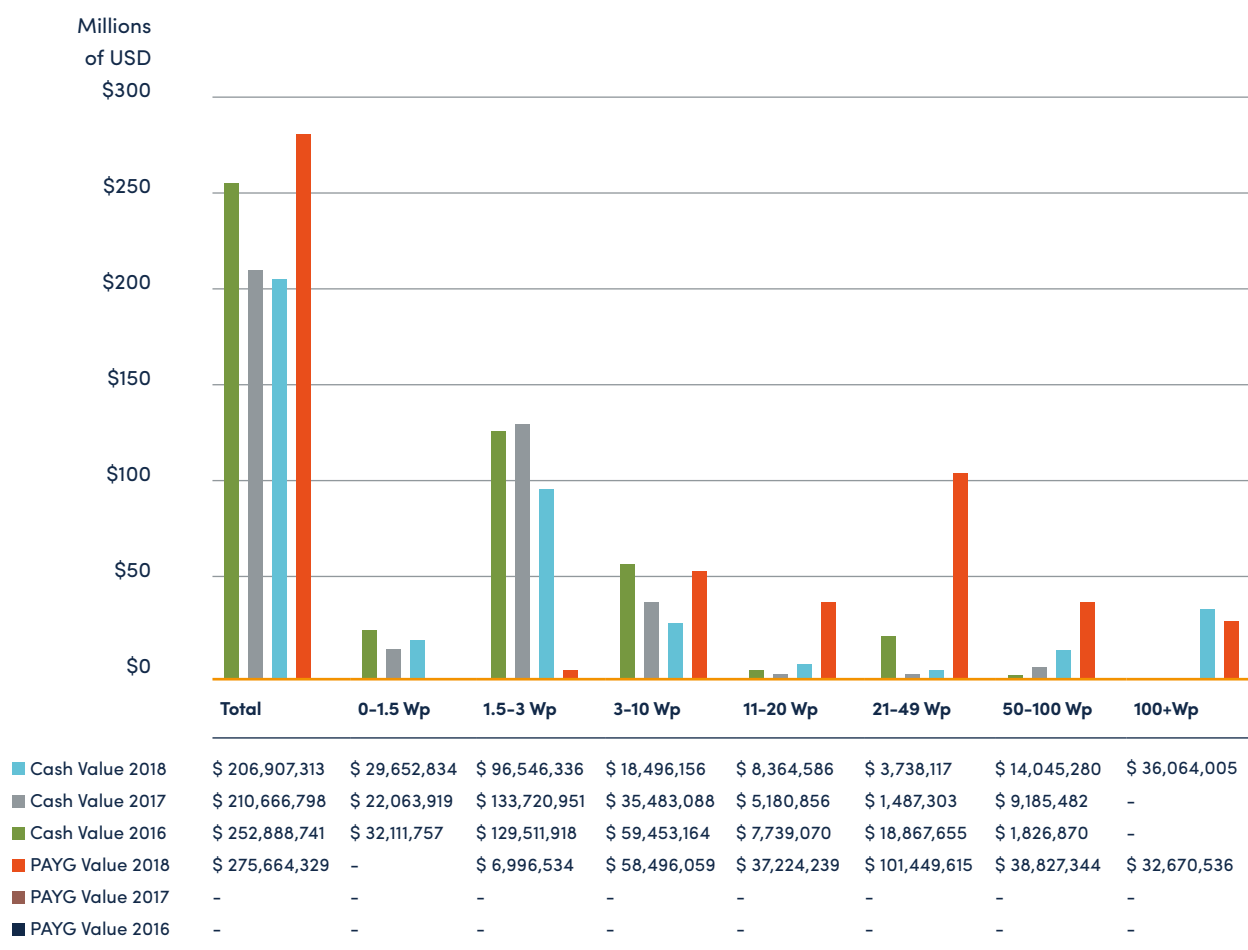


Figure 2 - Yearly Comparison: Global Cash and PAYGo Market Value (2016-2018)



NOTE:

1. Data is not shown for categories for which insufficient or no data points were captured.

The off-grid solar market at a glance

The off-grid solar market is growing. It's expected to continue to do so across product segments, with nearly 200 million units expected to be sold between 2019–2022. By then, the industry could provide improved energy access to as many as 740 million people⁷.

Between 2016 and 2018, more than 23 million solar off-grid products were sold⁸.

There is increasingly strong growth in the sales volume of larger systems (especially 11–20 Wp and 20–100 Wp, see figure 3) leading to an increase in newly installed capacity, getting access to more electricity services.

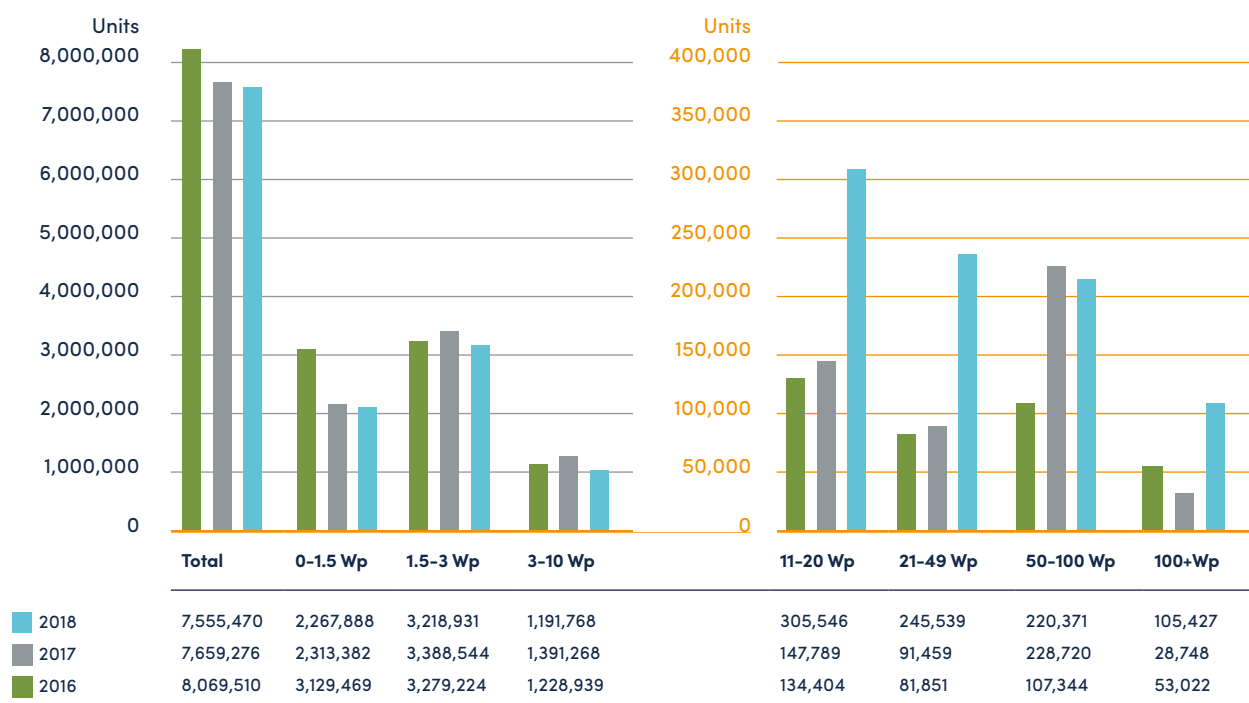
Market maturity and potential

The International Energy Agency (IEA) estimates that around 315 million people in rural areas will gain access to electricity by 2040 and 25% of

household electricity access needs to come from off-grid solar systems. This share could be even larger if mini-grid and grid solutions don't develop at the pace required to fulfil their expected contribution to SDG7. Off-grid solutions' added value lies in its cost-effectiveness and in that it can reach more remote households years or even decades earlier than grid extension programmes. This, in turn, spearheads and accelerates economic development in rural areas⁹.

The take up of off-grid solar has started in many countries (with East Africa leading the way). Its potential is big, with 40 countries continuing to have at least 1 million off-grid households each¹⁰. This means there is large scope for expansion into harder to reach areas (see figure 4). Even in markets where solar off-grid has taken off, millions of households still need to be served to achieve SDG7¹¹.

Figure 3 - Global sales volumes evolution (2016–2018)



NOTE:

1. Data is not shown for categories for which insufficient or no data points were provided.
2. Products with solar module capacity of less than 11 Wp are categorized based on services provided, while products with capacity of 11 Wp and over are categorized based on wattage of the solar module provided.

7 2018 Off-Grid Solar Market Trends Report. Source: Industry interviews (for assumptions and estimates); Dalberg market model and analysis.
 8 GOGLA/ Lighting Global Sales Data Report.
 9 GOGLA, Guidance for Governments.
 10 2018 Off-Grid Solar Market Trends Report.
 11 Shell Foundation. Achieving SDG7, the Need to Disrupt Off-Grid Electricity Financing in Africa.

The off-grid solar market at a glance

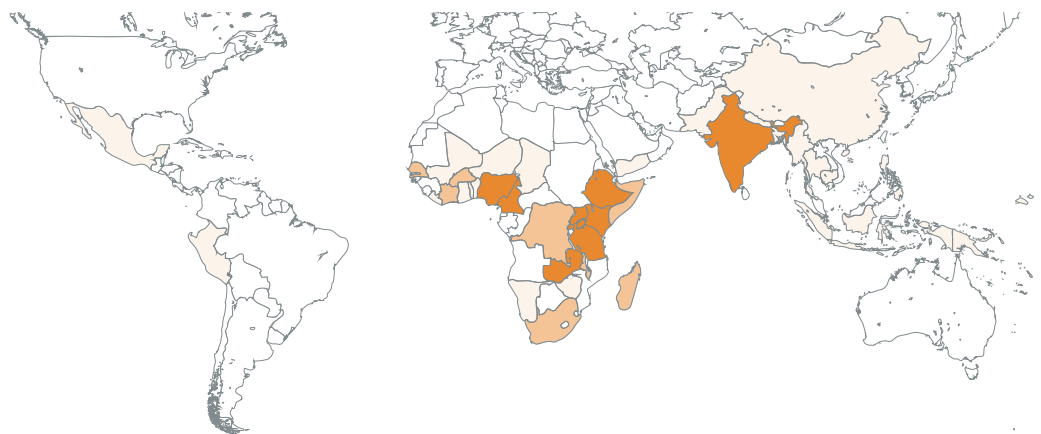
An enabling environment for Off-Grid Solar

Ultimately, creating an enabling environment is crucial for companies to be able to reach untapped markets. In markets that can be considered active, the products that companies have sold are responsible for a significant rise in electrification rates. Companies are more successful in countries, and attracted to markets where they find:

- Defined electrification strategy that leaves room for entry of solar off-grid products,
- A relatively stable policy and investment climate
- Stable average income levels
- Fiscal incentives like VAT and import duty exemptions on solar products.

On the demand side, indicators such as the addressable market - or total available market, ability to pay for products and geography are critical factors in the expansion plans of companies. On the supply side, access to finance, operational considerations, value chain partnerships, mobile money penetration, and access to human capital are key considerations¹². Access to finance and mobile money penetration are even more critical for PAYGo businesses, given the high level of capital needs to finance products and the need for mobile money to effectively operationalise the business model.

Figure 4 - Global Off-grid solar sales per country (2018)



Active

at least 3 companies selling >100.000 pico PV, MLS or SHS products during 2018

Up and coming

at least 3 companies selling 40.000-99.999 pico PV, MLS or SHS products during 2018

On the starting blocks

3 or less companies selling <40.000 pico PV, MLS or SHS products during 2018

NOTE:

1. This assessment is based on 2018 data collected resulting in GOGLA's Global Off-Grid Solar Market Report (H1 and H2 2018). Industrialized countries, as defined by the World Bank, have been excluded from this assessment. Data is not shown for geographies where insufficient or no data points have been captured.

The off-grid solar market at a glance

Market drivers and trends

The off-grid solar market is a fast-evolving space that can transform the lives of millions. Future growth projections for the entire off-grid sector show an expected 25% growth in sales volumes year on year until 2022¹³. Some of the current market drivers include:

- Rising incomes of households
- Falling product prices driven by technological innovation
- Improving infrastructure enabling better distribution networks
- Population growth in off-grid and unreliable grid access areas
- Increased availability of consumer finance¹⁴

Cash sales are particularly well established in some markets, with India being a prime example, and are expected to be maintained. PAYGo has increased its market share in regions such as East and West Africa and is expected to continue to grow as a business model. While the first wave of

PAYGo companies favoured vertical integration across the supply chain, the second and third wave of PAYGo players tend to opt for partnership models, allowing them to focus on a few steps in the supply chain.

Barriers that are specific to PAYGo – such as the adoption of mobile money as a pre-existing condition – are likely to be overcome in some markets over the next years as mobile money becomes more commonplace. For instance, Nigeria has recently passed regulation that will allow mobile network operators to easily embrace mobile money. This will be a game changer for the PAYGo sector in West Africa¹⁵.

For more details on the cash sales and PAYGo models, consult the latest report on sales and impact data published by GOGLA and Lighting Global¹⁶.

13 2018 Off-Grid Solar Market Trends Report.

14 Ibid.

15 Ibid.

16 Global Off-Grid Solar Market Report (H2 2018)

The off-grid solar market at a glance



Investment in the solar off-grid sector: landscape and opportunities

Capital flows into the sector have grown considerably over the past seven years. This means more and more people and businesses are putting their money into the off-grid solar sector. Despite positive investment trends there is still a long way to go for the off-grid solar sector to achieve its full potential¹⁷.

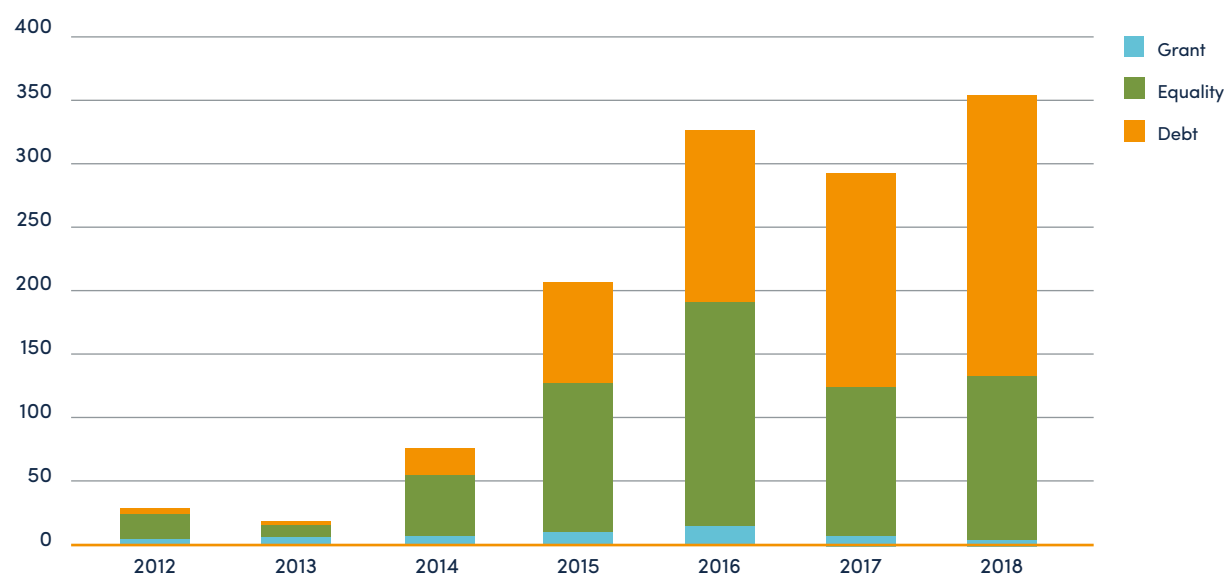
3.1. Key Investment Trends in the last years

Between 2012 and 2018, the off-grid solar sector attracted 1.2 billion USD in funding¹⁸. After a slight dip in 2017, 2018 saw a 20% increase in total capital investment. In that year, the sector attracted a total of 352 million USD from 43 different investors. Debt finance has kept a positive momentum since 2014, reflecting a maturing sector, increasing financing of consumer loan portfolios, greater internal fundraising capacity, and improved financial discipline. In previous years, particularly 2016, large amounts of equity flowed into the sector. But in 2017 a dip in equity was recorded. To some this raises overvaluation concerns, yet others point to industry-wide macro trends and see it as a sign that equity investors are prepared to support the sector and have merely taken a wait-and-see approach since 2017¹⁹. Whichever the stance,

valuations remain difficult to determine in such a nascent industry²⁰. In 2018, equity investments increased by 11% and reached a total of 124 million USD. However, this is still 30% less than in 2016. Despite an increase in absolute numbers, companies report that securing early-stage equity remains a challenge.

Between 2017 and 2018, grant funding has decreased. In 2017, relatively large result-based grant schemes were disclosed. Recently, however, national governments, often supported by Donors, are implementing new subsidy programmes to promote off-grid as an integral part of rural/national electrification policies. A good example is the Kenya Off-Grid Solar Access Project for Underserved Counties (KOSAP). KOSAP is a World Bank Initiative implemented by the Ministry of Energy and Petroleum of Kenya to increase access to modern energy services in underserved areas²¹. Challenge funds such as the AECF are an important provider of seed capital to companies. Their second REACT Household Solar round just launched, aiming to channel 20 million USD to companies in 2019²².

Figure 5 - Investment into the off-grid sector per year (2012-2018)



17 2018 Off-Grid Solar Market Trends Report.

18 GOGLA deal database.

19 2018 Off-Grid Solar Market Trends Report.

20 Ibid.

21 Kenya Off-Grid Solar Access Project (KOSAP, 2018).

22 REACT Household Solar Programme

Investment in the solar off-grid sector: landscape and opportunities

3.2. New Players and New Geographies

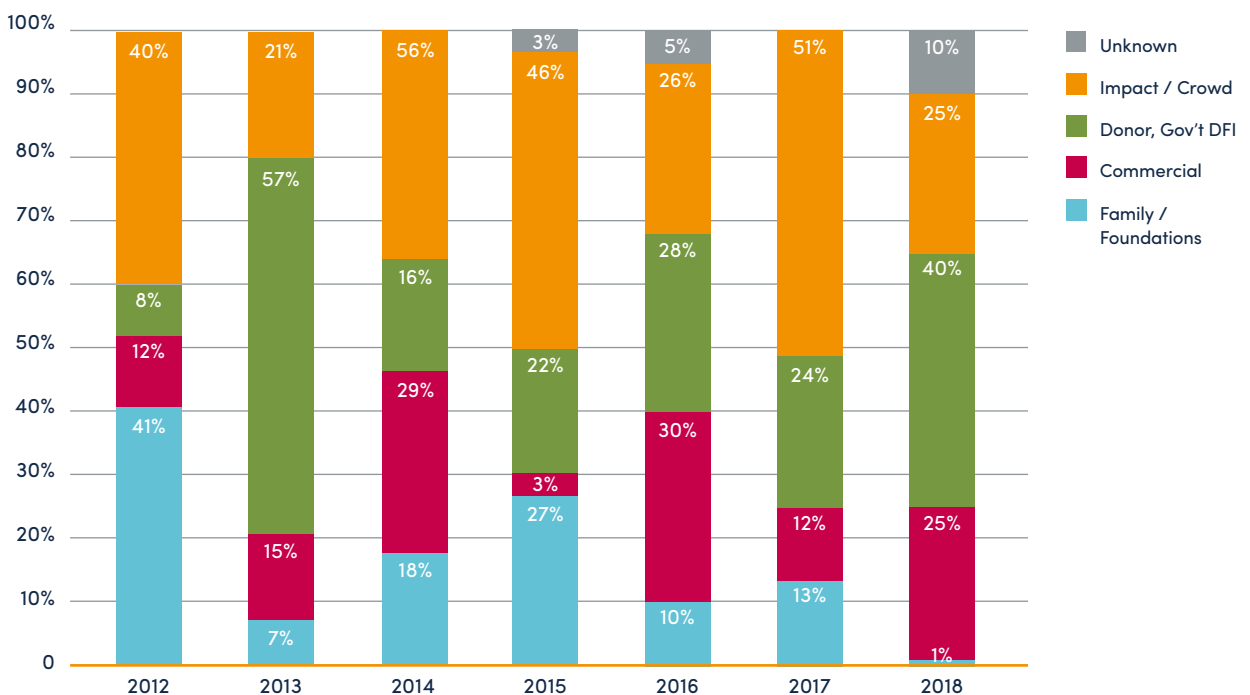
The share of Development Finance Institutions (DFIs) in the overall capital flow has increased substantially in recent years, reaching close to 40% of all investments in 2018. DFIs have provided capital to all types of firms; their participation extends from pico to Plug and Play (PnP) SHS companies, including PAYGo, or investments into intermediary funds. Debt has been an important part of DFI funding, particularly as equity investments can be cumbersome for government-backed institutions²³.

Crowdfunding has also become a vital part of overall investment landscape. Initially addressing smaller companies, crowdfunding platforms are now raising millions in debt for established off-grid solar companies. In 2018, crowdfunding deals accounted for 28 million USD²⁴ and were responsible for the significant increase in the number of transactions in 2018, compared to previous years (almost triple the number of transactions in 2017 and more than double compared to 2016).

The sector has seen growing investment and involvement from global energy players, and strategic investors from other sectors, taking steps towards creating customer-centric utilities that go beyond electricity connection. These include appliances, financial products, and internet connectivity. For many of the strategic investors, Corporate Social Responsibility has been the starting point, allowing the parent company to get initial exposure and insight into this relatively young sector. Today, strategics both buy shares in companies (e.g. Engie taking over Fenix International or becoming majority shareholder in Simpa Networks) or invest in specialised intermediary funds (e.g. Schneider Electric seeded the Energy Access Venture fund)²⁵.

There has also been an increase in local currency deals. Throughout 2018, 60 million USD equivalent was invested in local currency. Access to local currency is important for companies, particularly in countries where currency fluctuations are common. A number of local banks have started to look at the sector but are still relatively hesitant to invest. During 2018, only one out of the 12 local currency transactions recorded was led by a local bank.

Figure 6 - Sources of capital flowing into the off-grid solar sector (2012–2018)



²³ 2018 Off-Grid Solar Market Trends Report

²⁴ Crowdfunding deals accounted for 12.5% of total debt funding that year. GOGLA investment data.

²⁵ Stateaic Investments in Off-Grid Energy Access. Wood Mackenzie, 2019.

Investment in the solar off-grid sector: landscape and opportunities

While the increase in the number of investors in the space is very encouraging, there is growing evidence and need for blended finance arrangements. This would mean early-stage capital, such as patient and/or concessionary capital and grants from the public and donor sectors, de-risk transactions and effectively crowd-in private sector investors. Until 2018, East Africa remained the main geographical target for investors in the sector, receiving 44% of total investment. Throughout 2018, in absolute terms it attracted the least amounts of funding since 2012. Investors and companies alike are increasingly seeing the potential of West Africa, where 200 million USD have flowed since 2014.

The GOGLA deal database is part of our data collection work, ensuring market intelligence is available to inform the off-grid solar sector on trends we should not miss. The database captures the investment trends over the period 2012 - 2018. A digital version of the investment data is available on the [GOGLA website](#).

3.3. Financing opportunities at the individual company level

Off-grid solar is a fast-growing and dynamic sector. However, companies still need to go through several growth and funding stages before

they achieve scale and profitability.

In their report *Accelerating Energy Access: The Role of Patient Capital*, Acumen describes the needs and main growth stages of a company in the access to energy sector:

Blueprint stage

At this stage, companies should undertake customer research and understand their needs, develop a value proposition, business plan and core service or product. In order to do that, they need innovation capacity and access to talent networks that can help them with strategy development and business planning. Typically, they need between 10,000 – 1m USD in seed funding, from grant providers, research and development (R&D) funding or governments.

Validation stage

Companies in the validation stage test their business model assumptions and refine their business models, services or products in stages. Operationalisation of their model and focus on cost, value and pricing is paired with a need to create innovation capacity. In order to achieve that, they need access to funds that facilitate market trials and refinement, ranging between 250,000 and 5m USD in grants and early stage funding (equity and/or debt).

Figure 7 - Stage of Company Growth and Respective Capital Needs



SOURCE:

Adapted from Acumen's report *Accelerating Energy Access, the Role of Patient Capital* (2018)

Investment in the solar off-grid sector: landscape and opportunities



Early-stage equity is key to unlocking a company's potential and helping them move through the pioneer gap. \$210 million in early stage equity is needed to scale the off-grid sector to achieve SDG7, yet only \$16.5 million has been invested on average over the last five years. At Acumen, we are committed to investing early-stage equity into pathbreaking energy access start-ups serving the poor. By investing equity, companies gain credibility, can more easily access debt, become better governed, and are well positioned for scale.

Leslie Labruto,
Head of Global Energy
Acumen



Preparation phase

Preparing to scale requires resources to professionalise operations and establish processes, strengthen team capacity for sales and marketing to stimulate demand, and develop the supply chain. Companies in this stage will require between 3m and 10m USD in grants and early stage funding (equity and/or debt) to be ready for the next stage.

Scale stage

At the scale stage, companies move into new geographies and/or segments, invest into assets and talent, streamline systems and processes and mobilise to respond to competitors. They will need stakeholder and risk management and competitive strategies. In order to realise growth, they will need above 10m USD in private equity and commercial

debt. To meet their funding needs, companies are using off-balance sheet transactions or special purpose vehicles (SPVs)²⁶.

Leveraging the value of consumer receivables on a company balance sheet to support commercial loans is an important fundraising tool in the sector that allows companies to raise working capital. Using the consumer receivables, they form the foundation for a borrowing base. Some companies have borrowed from local banks often in syndication with DFIs or impact investors looking to experiment. Others have used off-balance-sheet structures where the receivables are sold to a special purpose vehicle (SPV). Cash flows from the repayment of those consumer receivables, which are diverted into the SPV, service the commercial loan repayment²⁷.

26 2018 Off-Grid Solar Market Trends Report 2018.

27 Adapted from Acumen's report Accelerating Energy Access, the Role of Patient Capital (2018)

Investment in the solar off-grid sector: landscape and opportunities

3.4. Opportunities and Considerations for New Investors

Investment opportunities are available across different risk profiles. From more mature and stable markets and companies to smaller, more nascent ones. At the global level, the investment opportunity is huge. To sustain current levels of growth, it is estimated there is need for around 4 billion USD of additional funding²⁸. The size of the total available market has been estimated at 104 million households in latent markets (see table 1) and an additional 22 million households in established ones.

The off-grid solar sector is ready to deliver impact to millions of people. It has also proven itself as a young and dynamic space with immense potential. Investors and managers are learning along the way as they are building enterprises, expanding into new markets and geographies, and polishing and adapting their business models. While the opportunities remain vast, there are a couple of **key considerations** for new investors in the sector. The PAYGo business model itself is rather straightforward, but PAYGo companies may be more complex to analyse. They are typical start-ups emerging from innovative technological developments. They are an attempt to disrupt the status quo. In other ways, they are atypical. 'They sport a unique operational structure that spans multiple sectors and features vertically integrated operations that encompass product design, sales and distribution, installation and maintenance, payment collection, and ultimately, financing'²⁹.

There are unique risks associated with the PAYGo sector. Companies operate in volatile markets that often see strong currency fluctuations or economic shocks; valuation of companies in a young market is not an exact science, having arguably led to some high valuations in the space; not many exits have happened to date; companies might operate in geographies with distribution challenges that introduce unique risks at the enterprise level; and it is difficult to quantify the actual commercially addressable market, especially in latent markets³⁰.

The off-grid sector has clearly established itself as a high-impact, high-growth market. Yet few companies have reached profitability to date. This is not cause for alarm, but rather signs of a relatively young but steadily growing sector. With more commercial capital coming into the sector, companies are moving into the performance zone, focusing on delivering impact and returns. Companies continue to innovate and fine tune their business models to put unit economics to work. Strategies differ from one company to another. While some seek success in scaling quickly and securing market share, others are more focused on becoming profitable before taking the business model to scale. Success strategies take different forms and include:

- Building relationships with customers geared toward nurturing a lifetime relationship from a single purchase
- Moving beyond off-grid solar systems and appliances and deepening a loan product relationship
- Replicating tried and tested models and markets with a focus on established design and highly competitive prices
- Specialising and achieving excellence in one part of the value chain and outsourcing the rest

28 Off-Grid Solar Market Trends Report. Additional funding refers to expected external funding publicly announced by 2018 and new external funding to be raised.

29 CGAP and CDC: Taming the Strange Beasts: Servicing and the Future of PAYGo.

30 Ibid, interviews with companies and investors conducted for the update of the GOGLA deals database, 2018 Off-Grid Solar Market Trends Report.

Investment in the solar off-grid sector: landscape and opportunities

Table 1 - Funding needs to achieve SDG 7 in active markets and latent or untapped ones (SHS companies).

| Latent Markets | Established Markets |
|--|---|
| 104 million households – Off-Grid Market Size | 22 million households – Off-Grid Market Size |
| 1st Gen companies would need (USD) | 1st Gen companies would need (USD) |
| <ul style="list-style-type: none"> - 211 M in grant finance - 2.9 B in equity - 4.5 B in debt | <ul style="list-style-type: none"> - 80 M in grants - 1.1 B in equity - 2.3 B in debt |
| 2nd and 3rd Gen companies would require | 2nd and 3rd Gen companies would require |
| <ul style="list-style-type: none"> - 596 M in grants - 6.7 B in equity - 6.4 B in debt | <ul style="list-style-type: none"> - 56 M in grant finance - 617 M in equity - 555 M in debt |

SOURCE Shell Foundation (2018, adapted)³¹.



Blue Haven Ventures is an early and enthusiastic participant in the off grid energy sector across Africa. Leveraging mobile money to make increasingly affordable solar and battery systems more widely available to those with unreliable or nonexistent access to the grid has the potential to transform lives while also responsibly generating capital to our investors. Changing the global electricity shortage won't happen overnight, but we believe the sector is well on its way to delivering on both of these promises.

Lauren Cochran,
Managing Director
Blue Haven Initiative



31 Shell Foundation: Achieving SDG7: the Need to Disrupt Off-Grid Electricity Financing in Africa. The information in this table is an estimation of investment needs based on data prior to 2018.

Building profitable, scalable and impactful companies

4.1. Measuring performance

In a sector as young as off-grid solar, it can be difficult to measure company performance, yet it remains important for both investors and investees to have clear visibility of key financial and operational indicators. In order to attract new commercial funders, there needs to be a better understanding of the variety of business models and how to track their performance accordingly. Companies, investors of several types and other stakeholders need robust, reliable evaluation metrics and data.

Standardised metrics have the potential to unlock developments like policy programs, financial vehicles or operational toolkits. Eventually, they might also be the driving force behind a faster adoption of industry standards such as common credit metrics or standardised methods to shut down devices. Some of the benefits of developing a framework include:

- Enable comparability given evolving business models and need to understand portfolio health (varying products, payment periods, repossession strategies, etc).
- Streamline and harmonise the due diligence process for investors.
- Provide structure and help predict future performance based on companies' product portfolios.
- Enable operators to improve their customer targeting and credit risk assessment capabilities³².

PAYGo PERFORM

In 2018, a first version of a Key Performance Indicator (KPI) framework was made available, looking to improve availability and quality of PAYGo solar sector data and facilitate information flows between investors and companies. After recognition that the KPIs needed to be more publicly owned and required a collective effort to capture the needs of several stakeholders³³, IFC, GOGLA and CGAP took the lead to coordinate the **PAYGo Performance, Reporting, and Measurement (PERFORM) initiative**. Together, investors (private and debt, local and international banks, as well as DFIs), PAYGo executives,

and experts in energy and financial inclusion are working in the development of the revised framework. The initiative builds on previous work by Lighting Global and GOGLA and is set to develop common reporting standards and address transparency challenges to aid current and potential investors.

The revised KPIs will focus on financial and operation performance, coupled with a set of company indicators put in place to contextualise the rest of the KPIs. For more information about this initiative, please [visit the project website](#).

4.2. Measuring impact

GOGLA industry members and Lighting Global associates are committed to delivering both financial and impact returns. A consistent approach to impact measurement allows companies, investors, policymakers, multi-lateral institutions, non-government organisations and other stakeholders to comprehensively estimate the impacts created by off-grid solar, from calculating carbon savings to assessing increased household economic activity. That's why, in 2013, GOGLA's Impact Working group set out to develop the first standardised impact metrics for the sector.

The GOGLA impact metrics measure:

1. Energy Access
2. Economic Activity
3. Income Generation
4. Kerosene replacement and CO2 reductions
5. Light Availability and Quality
6. Energy Spending
7. Financial Inclusion

The metrics lay the foundations for calculating estimated impact. Yet many critical social development benefits from off-grid solar remain difficult to track. For example, improvements in health and safety which there are few, if any, reliable frameworks to measure accurately. Therefore, these metrics should be seen a starting point, not an end, to the exploration of socio-economic impacts by the off-grid sector and new metrics may be added as new data becomes available. Visit [GOGLA's Impact Hub](#) for more information and tools.

32 Technical Guide for the KPI framework.

33 Introducing PAYGo PERFORM.

Building profitable, scalable and impactful companies

245.9 million

people who have ever lived in a household with improved energy access⁸ as a direct result of off-grid solar lighting products sold since July 2010



108 million

people with improved energy access currently, considering only the off-grid solar lighting products still within their estimated lifetime

59.5 million

people currently accessing Tier 1 energy services, based on the Sustainable Energy for All Global Tracking Framework, considering only the off-grid solar lighting products still within their estimated lifetime

4.9 million

people currently accessing Tier 2 energy services based on the Sustainable Energy for All Global Tracking Framework, considering only the off-grid solar lighting products still within their estimated lifetime

2.7 million

people using their SHS to support an enterprise (e.g. charging phones for a fee or operating a bar, restaurant or shop/stall at night), considering only the off-grid solar lighting products still within their estimated lifetime



\$4.2 billion

additional income generated as a result of off-grid system ownership, over the expected lifetime of all off-grid solar lighting products sold since July 2010



\$9.1 billion

savings on energy expenditure, over the expected lifetimes of all solar lanterns or multi-light systems sold since July 2010

58.4 million

metric tons of CO₂e emissions avoided, over the estimated lifetime of all off-grid solar lighting products sold since July 2010



The impact metrics add a lot of value for CDC as an investor. We can use them to articulate credibly the downstream impact of our OGS investments for our stakeholders. And we can then aggregate those impact indicators across our portfolio to give a fuller picture of what our investments are achieving. They are also proving useful in standardizing reporting across investors. We've seen several cases where companies have to prepare multiple impact reports, but now we can standardize and get quality impact measurement without putting an inordinate reporting burden on companies.

Geoffrey Manley,
Head Decentralised Energy
CDC Group



Additional information

GOGLA's approach to promoting access to finance revolves around three main pillars:

1. Market insights collection, analysis and reporting (including sales, investment and financial performance)
2. Awareness raising and proactive outreach to potential new investors
3. Networking and knowledge exchange facilitation amongst companies, investors and other sector stakeholders.

GOGLA's Access to Finance work can be consulted in the [Access to Finance Hub](#), which centralises information and additional resources about the sector, market dynamics and trends, from sales data to impact measurement and academies.



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Arthur van Schendelstraat 500A
3511 MH Utrecht
The Netherlands

info@gogla.org
+31 304 100 914



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