

The Investor



Founded in 2000 as a joint venture between Australia's Macquarie Group and South Africa's Old Mutual Investment Group, AIIM invests in infrastructure projects in East, West and Southern Africa. As of October 2021, AIIM has raised seven private equity infrastructure funds and invested in 65 portfolio companies. The firm has 41 investment professionals operating in offices across South Africa, Nigeria, Kenya and Côte d'Ivoire.

FUND NAME

African Infrastructure Investment Fund 3

FUND SIZE

USD399 million

TOTAL AUM

USD2 billion

The Company



Starsight Energy provides clean on-grid and off-grid energy services to commercial and industrial clients such as banks, gas stations, universities and commercial agriculture businesses. The company provides an end-to-end solution from the initial data-driven assessment to design and installation with lifetime technical support. As of October 2021, Starsight Energy has delivered energy solutions at over 540 sites and more than 48 megawatts of installed generating capacity.

WEBSITE

www.starsightenergy.com

INDUSTRY / SECTOR

Distributed Power

LOCATION

West and East Africa

DATE OF INVESTMENT
FEBRUARY 2018

AMOUNT
CONFIDENTIAL

PARTICIPATION/STAKE
37.8%

AFRICAN INFRASTRUCTURE INVESTMENT MANAGERS (AIIM) is a long-term investor in Africa's energy sector with experience executing several large-scale Independent Power Producer (IPP) projects in markets such as Nigeria and Ghana. However, it found the IPP development process to be lengthy and inefficient due to complex regulatory processes, heavy levels of government involvement, political sensitivities to rates and more.

AIIM knew that these delays and the chronically undersupplied grids in Africa were forcing businesses to generate their own electricity, often from generators burning fossil fuels. For example, Nigeria's available operational generation capacity of 5 gigawatts (GW) is well below the estimated 20GW in demand. AIIM realized that it could solve a significant problem by helping customers find a more reliable and cost-effective energy supply.

The AIIM team was interested in distributed generation solutions, defined as energy generated in smaller amounts onsite rather than being transmitted over an electric grid from a centralized facility. Between 2015 and 2016, AIIM undertook a detailed market mapping exercise to see who was working in this niche industry but found little more than ideas on paper. They identified Starsight Energy, a small company that had run a limited pilot at 10 sites in Nigeria with 300 kilowatts (KW) installed. AIIM invested an undisclosed amount in the company in February 2018 for a 37.8% stake and has since supported it with additional follow-on commitments. Since AIIM's investment, Starsight has provided energy solutions to over 540 client sites across Nigeria and Ghana, delivering over 48 megawatts (MW) of installed power generating capacity, 35 megawatt hours (MWh) of battery storage and 17,754 horsepower in cooling capacity.

The Deal

UNLIKE ITS COMPETITORS who often charge customers a per-kilowatt hour fee for simply installing solar panels, Starsight's unique energy efficiency approach uses smart technology and data analytics to measure its clients' energy needs and supply power efficiently. This is done through a combination of newly designed solar and hybrid generation systems, energy storage capacity and cooling-as-a-service solutions.

Starsight works with customers to reduce energy consumption at their sites. For example, the company will test to determine the most efficient alternating currents, add shades to windows, change light bulbs, put timers in place, ensure proper door placement, etc. These incremental changes translate into cost savings. Starsight estimates that its clients reduce their electricity consumption by an average of 20-45%, while the cumulative cost

and energy savings for all customers were USD2.7 million and 9,474MWh as of October 2021.

Starsight's clients do not pay any upfront costs and are instead charged an all-inclusive monthly fee for end-to-end service, so accurate pricing is important to minimize losses. Starsight has been able to leverage AIIM's experience as a disciplined infrastructure investor to measure the unit economics of each deployment and ensure prices are fair to the customer. To help develop its pricing strategy in Nigeria, the company leverages the most extensive databank on solar generation patterns in the country. Starsight's data analytics team uses its in-house data to increase efficiencies, such as predicting a site's consumption within a 10% margin of error versus conducting the same exercise on site, which allows installations to be designed at a reduced cost.

Since AIIM's initial investment, Starsight's footprint has grown rapidly. AIIM designed a framework for evaluating new markets and helped screen potential targets, which has supported the company's geographic expansion strategy. Starsight initially added Ghana to its coverage in 2019, and in May 2021 announced the acquisition of a 50% stake in the East African operations of commercial and industrial-focused Premier Solar Group, which is active in Kenya and will be building a pipeline in Uganda, Tanzania and Rwanda over the next 12 to 18 months.

Given that the company seeks to reduce carbon emissions at each client site, AIIM helped Starsight hire an ESG Officer and implement IFC's sustainability reporting standards to measure and report on the company's environmental impact. As just one example, Starsight designed and completed a 950KW solar system for Nigeria's Big Bottling Company in May 2021, integrating a rooftop solar solution into the plant's existing natural gas power infrastructure. The company estimates that its efforts will ultimately help the company offset 11,743 tons of carbon dioxide over the next 10 years. To date, Starsight estimates that it has reduced carbon emissions at its sites by 31,634 tons.

Outlook

STARSIGHT'S GOAL is to become the largest distributed generation provider on the continent. Due to the unreliability and high cost associated with national grids across Africa, AIIM is working with the company to further expand and diversify across the region. As the company continues to scale, it is also seeking to broaden its reach to residential clients. Starsight and AIIM are exploring ways to build plants anchored by commercial and industrial clients that would guarantee a minimum level of return, and then supply the excess generation capacity to residential customers who might otherwise be a riskier bet by themselves.



When we first invested in Starsight, nobody in Nigeria had experience working in distributed generation, so we had to hire telecommunications workers, HVAC engineers and managers from outside the industry, all of whom are now experts in clean energy.

Developing local human capital has been a key part of our success — it leaves the company better protected because its people have a deep understanding of the market as well as a vested interest in solving the problem.”

DAMILOLA AGBAJE

INVESTMENT DIRECTOR, AIIM

Strengthening Nigeria's workforce and communities

AS STARSIGHT EXPANDED, its team grew from a few employees in 2017 to approximately 150 employees as of October 2021. The company is proud that 97.5% of Starsight's workforce is Nigerian as well as 84% of its management.

As Starsight strives to increase opportunities for Nigerians, it has also launched several community-focused initiatives. For example, in 2020, it installed an off-grid solar system at a hospital in Ekiti State that had previously received less than eight hours of grid electricity per month. By having a clean and reliable energy supply, the hospital has been able to speed up COVID-19 testing times and provide better care for its patients.

