

CASE STUDY

West Africa Container Terminal

Leading the Energy Shift in Terminal Operations

In Nigeria’s fast-evolving industrial and maritime sector, having a dependable and cost-effective energy source is pivotal for continuous operations and environmental responsibility. At container terminals where large-scale logistics, import/export flows, and time-sensitive handling converge, energy disruptions can quickly ripple into operational inefficiencies, higher costs, and reputational risks.

West Africa Container Terminal (WACT) recognises this reality and is taking bold steps to address it. Facing common challenges such as unreliable grid supply, high diesel fuel expenses, and the urgent need to reduce carbon emissions is paramount for any company in today’s world.



The Key Stats

	Solution Delivered	Power-as-a-Service (PaaS)
	Energy Generation Type	Phase 1: Solar Power Phase 2: Solar Power & Battery
	Project Tenor	15 years
	Sector	Terminal Operator
	Location	Onne, Rivers State, Nigeria
	Completion Date	Phase 1: September 2024 Phase 2: Ongoing
	Installed Capacity	Phase 1: 514KWac/617KWp Phase 2: 605KWac/726KWp
	Annual Savings	₦365m
	CO ₂ Offset (kg)	16,721,140

About West Africa Container Terminal (WACT)

The West Africa Container Terminal (WACT) is a significant container terminal located in Onne, Rivers State, Nigeria, and is owned by APM Terminals. As Nigeria's first greenfield terminal established through a public-private partnership, WACT serves the Eastern Nigerian market and the oil and gas industry, effectively connecting the region to global trade networks.

The terminal is equipped with modern machinery and employs skilled staff to provide excellent customer service. It also features e-commerce platforms, such as the LIFT system, which enhances efficiency and cargo handling for shippers and importers.

With an annual capacity of 360,000 Twenty-foot Equivalent Units (TEU), WACT aims to be the best-performing terminal in West Africa by delivering safe, reliable, and cost-effective services to its customers.

The Problem

As global pressures mount for industries to reduce their environmental impact, the maritime and logistics sector faces increasing scrutiny over its carbon emissions and sustainability practices. For West Africa Container Terminal (WACT), a critical player in Nigeria's port infrastructure, the challenge lies in aligning its energy-intensive operations with the urgent need for decarbonisation. Achieving meaningful progress toward net-zero emissions requires a strategic shift away from diesel dependency and a significant reduction in operational carbon output.

To meet APM Terminals' ambitious global targets – a 65% reduction in scope 1 and 2 emissions by 2030 (from 2022 levels) and full net-zero emissions by 2040; WACT must adopt scalable, clean energy solutions that can sustainably power its growing operational demands while maintaining efficiency, reliability, and competitiveness.

The Smart Choice for Reliable And Predictable Energy

At Starsight Energy, we understood their need for unwavering power and predictable costs, especially given the current economic climate. Our Power-as-a-Service (PaaS) model enables WACT to acquire a world-class system with zero upfront capital cost, thereby freeing up their capital to invest directly into their core business growth.

The use of Tier 1 technology ensures that our equipment is of the highest quality, guaranteeing maximum efficiency, durability, and a longer operational life, providing unparalleled reliability for their critical operations.

The Results & Impact

100%

Power availability for its entire manufacturing operations, 24/7, with no interruptions



Reduced carbon emissions by 16,721,140 kg and reduced noise pollution around their factory.



Enhanced value proposition as an environmentally conscious organisation.

35%

Saved up to 35% on operational costs, including monthly diesel costs



Power-as-a-Service (PaaS) model allows for effective energy cost management



TAKE THE LEAP

It's time to rethink your energy strategies and consider the benefits of alternative, reliable energy sources. Join the movement toward sustainability and operational efficiency!

Explore how transitioning to solar power and battery systems can not only reduce your energy costs but also enhance your commitment to environmental stewardship.



Client Testimonial

This partnership marks a major step forward in WACT's commitment to achieving net-zero emissions and contributing to APM Terminals' industry-leading global commitment to be fully net zero by 2040, and to reduce our scope 1 and 2 emissions by 65% by 2030 compared to 2022. The topic of decarbonisation and renewable energy is a passionate cause for the business, marking the first significant step towards WACT's net-zero journey.

West Africa Container Terminal

Towards a Sustainable Future: Solar Over Diesel

West Africa Container Terminal's (WACT) forward-thinking commitment to energy transition is a landmark project designed to enhance operational sustainability and energy resilience. By reducing its reliance on diesel-powered generators, WACT is expected to cut its carbon footprint by 17,608 tonnes of CO₂ over the lifespan of the agreement, an ambitious yet critical move that signals the terminal's alignment with both national and global climate action goals.

This solar initiative not only addresses immediate operational challenges, such as high diesel costs and inconsistent grid supply, but also establishes a long-term foundation for energy independence and environmental stewardship within Nigeria's maritime logistics sector. It exemplifies how industrial-scale infrastructure can adopt clean energy solutions without compromising on performance or efficiency.

As Nigeria intensifies efforts to shift from fossil fuel dependency to a cleaner energy mix, projects like WACT's solar deployment are instrumental in accelerating this transition. They also offer a replicable model for other industrial operations across the country demonstrating that sustainability and profitability can go hand-in-hand.

About Starsight Energy

The Starsight Energy Africa Group is an Africa-focused pure-play commercial and industrial ("C&I") renewable energy service provider covering the full scope of C&I projects, from rooftop projects to large-scale corporate Power Purchase Agreement ("PPA") backed projects, including power-as-a-service and cooling-as-a-service.

We provide carbon reduction, power security and cost savings to blue-chip clients in several key economic sectors, including agro-processing, education, financial services, data storage, healthcare, and manufacturing.

Our presence spans three key geographical hubs (Southern, Western and Eastern Africa) with operations in Nigeria, Ghana, Kenya, Namibia, South Africa, Tanzania and Uganda.

Our primary objective is to offer complete solar solutions at no upfront cost, enabling our clients to reduce their energy expenses, enhance energy efficiency, and reduce their carbon footprint.

For any enquiries, visit