



Electrifying New Markets

For a Sustainable

Future

Introducing Phanes Group



Phanes Group is an international solar energy developer, investment and asset manager strategically headquartered in Dubai, UAE.

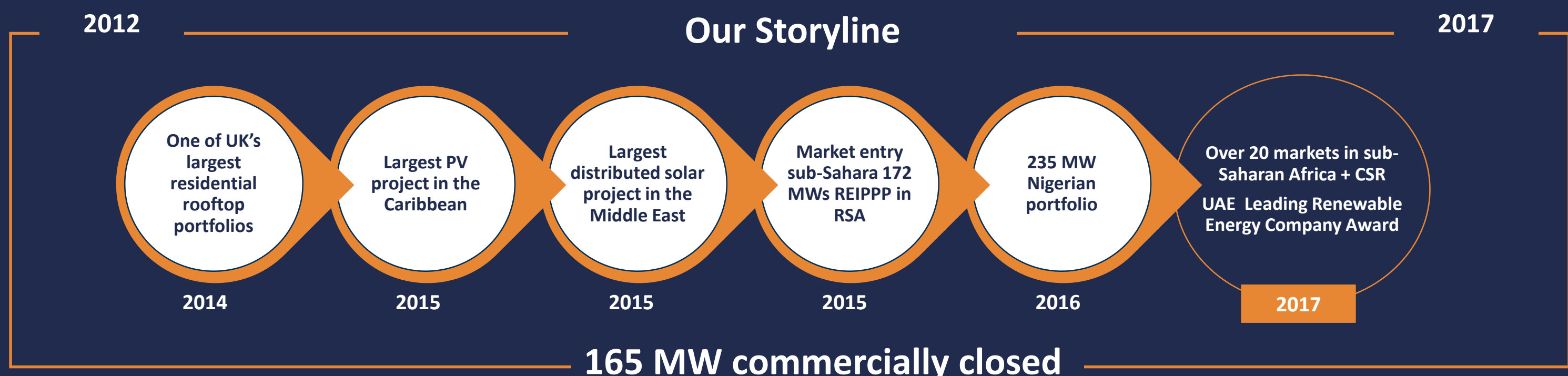
The group was founded in 2012, making a transition from early successes as an advisory-focused consultancy into an end-to-end PV solar player overseeing the complete solar value chain. Today, we have a growing portfolio of solar investments and developments spanning multiple geographies, with a distinct focus on new markets – particularly MENA (Middle East & North Africa) and sub-Saharan Africa.

Cumulatively, the company's global clean power contribution is in excess of 70 MW, with a further 1.5 GW in the pipeline – including 235 MW of grid connected PV solar in Nigeria across three different projects. The first of the three Nigerian projects, in the Sokoto region, is backed by one of the Nigerian government's 14 first solar PPAs. In addition, the group is developing off-grid solar solutions to ensure communities across the region have access to a stable and clean energy supply.

Our team has substantial experience in capital markets, renewables development, risk management, and asset construction. Our integrated approach delivers clean and affordable energy with stable long-term financial yields to economies that need it most.

As a new markets specialist we focus on growing markets where the agility offered by our integrated business model and independency gives us a competitive advantage. We are able to adapt to fast-changing environments where the necessary regulatory frameworks and physical infrastructure are often still being developed.

The effectiveness of our business model has been demonstrated through the delivery of landmark projects around the world. They are proof that tightly intertwining financing and engineering expertise are the key to making projects bankable. Close coordination across the project value chain gives the flexibility and speed necessary to succeed in new and growing markets.





**A Track Record of Growth,
Achieving Proof of Concept**



2012

Year of
Phanes Group's
establishment



3 Years

The company has
achieved profitability
for the past 3 years



35+

Full-time
employees
on the team



20+

Nationalities
within
the team



1.5 GW

Pipeline under
development or at the
planning stage



20+

Number of countries
represented in project
pipeline



4

4 continents with
projects delivered or
being delivered



70+ MW

Currently installed
capacity
to date



\$250 mln

Projects
commercially closed
to date

Partner Organizations



Awards & Recognition



**S&P GLOBAL PLATTS
GLOBAL ENERGY AWARDS
2017 FINALIST**



*"Finalist
Business of the Year
2017"*



*"Highly Commended Finalist
Renewables Category
2017"*



*"PV Solar Company of
the Year
UAE, 2017"*



*"Leading UAE
Renewable Energy
Company, 2017"*

Our Approach: End-to-End Development & Delivery

Phanes Group believes in a holistic approach to solar, uniting under one roof the competencies and expertise necessary to oversee the entire solar project value chain – from Project Selection & Development, to Construction & Financing, to Asset Management & Monetization.



Project Selection & Development

- *Local Partners*
- *Exclusive Asset Pipeline*
- *Development to Bankability*
- *Accelerate Pipeline Development*
- *Faster Execution*
- *Design Competence*



Construction & Financing

- *Competitive Transfer Pricing*
- *Faster Execution*
- *Aligned Equity Investor*
- *Access to Pool of Capital*
- *Purchasing & Execution Competence*



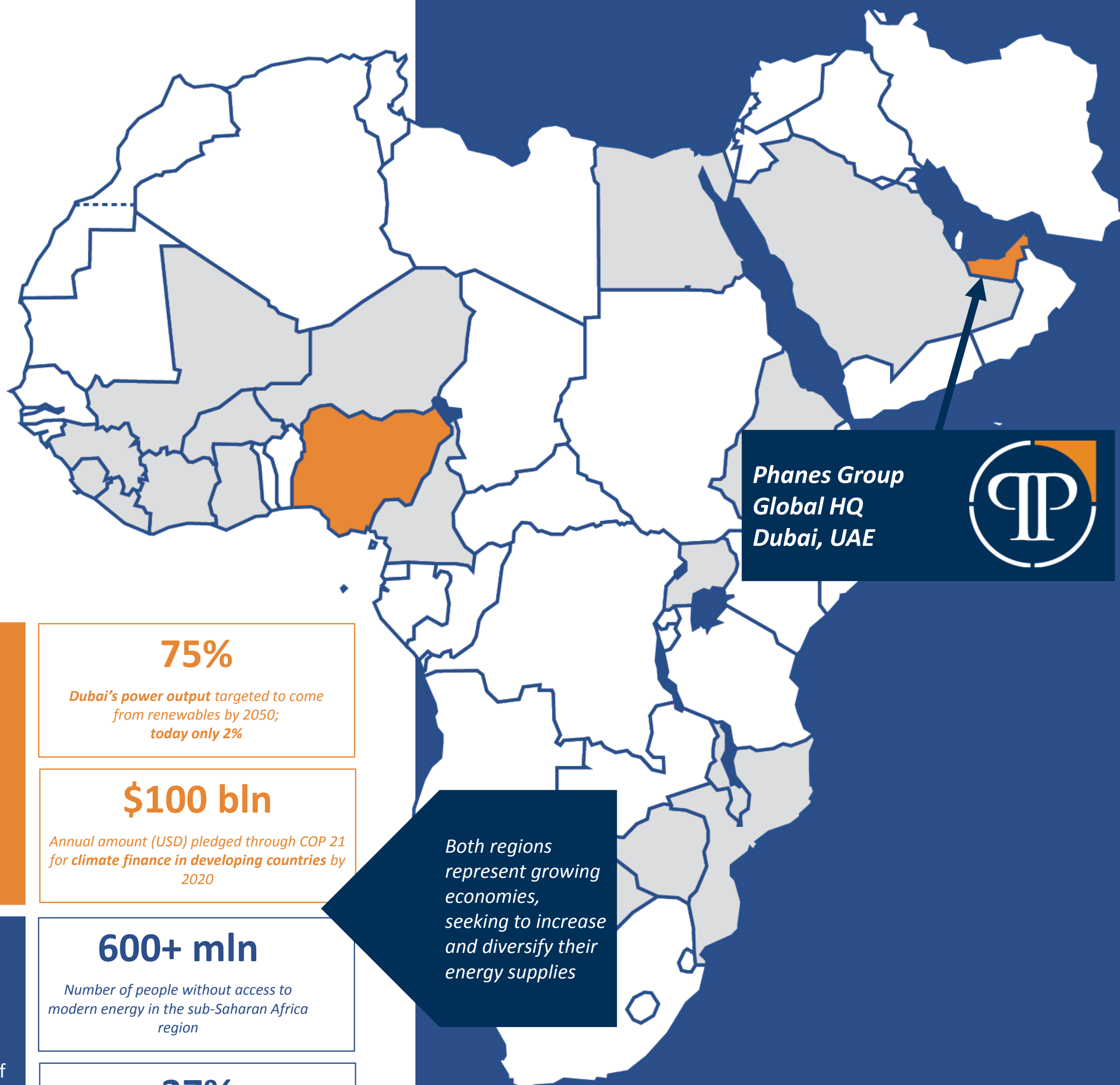
Asset Management & Monetization

- *De-Risked Assets*
- *High Yield Assets*
- *Flexible Exit Routes*
- *Economies of Scale on Asset Management Side*

Value Drivers

Bringing Clean Energy to Economies That Need it Most

Our focus is on MENA and sub-Saharan Africa – two regions with growing economies seeking to expand and diversify their energy sources. Solar energy provides a unique, sustainable solution to the challenge of energy access, which remains a key barrier to the economic and social development of these regions.



Phanes Group
Global HQ
Dubai, UAE



MENA

With MENA's energy consumption expected to continue to grow over the next two decades, renewables have become an important source of alternative energy to diversify the region's energy mix. As MENA nations have some of the world's highest levels of solar irradiation, the region is especially well-placed to benefit from solar energy.

75%

Dubai's power output targeted to come from renewables by 2050; today only 2%

\$100 bln

Annual amount (USD) pledged through COP 21 for climate finance in developing countries by 2020

Both regions represent growing economies, seeking to increase and diversify their energy supplies

Sub-Saharan Africa

We maintain a strategic focus on sub-Saharan Africa, where in many areas, solar energy represents a unique and sustainable solution for delivering clean, reliable, and affordable power to address the challenge of energy access. This remains a major barrier to the economic and social development of many African nations.

600+ mln

Number of people without access to modern energy in the sub-Saharan Africa region

37%

Average electrification rate; two out of three people without electricity access

Case Study (Distributed Small-Scale)

UK Housing Association

Portfolio



- One of the UK's largest residential rooftop PV solar systems in its sector
- Simultaneous management of multiple stakeholders across multiple sites within a market in transition

A foundational project in setting Phanes Group's distributed approach

- Total capacity: 10.5 MW
- Homes served: 3,500
- Annual production: 6,540 MWh
- Average annual savings per household: \$260+



Case Study (Utility-Scale)

Monte Plata Solar

Plant

- The Caribbean's largest PV solar plant, in line with the government of the Dominican Republic's target for 25% renewables generation by 2025
- Proof-of-concept for our integrated approach to deliver large-scale projects in dynamic growth market environments



Large-scale economic, social, and environmental impact, supporting the Dominican Republic's national development

- Total capacity: 67.7 MW (on completion)
- Phase I complete (33.4 MW), Phase II construction start in 2018
- Annual production: 50,000 MWh
- UN Gold Standard Accredited, Atabey Award Winner

Case Study (Distributed Industrial)

DP World Solar

Power Programme



- The Middle East's largest distributed solar project, awarded competitively against more than 50 companies
- Key project under Dubai's net-metering scheme, serving as a blueprint for the roll-out of distributed industrial solar for the region



Demonstrating a viable way forward in making Dubai a global leader of clean energy & clean economies

- Total capacity: 23.2 MW
- 88,000+ solar panels across 60+ rooftops
- 25,000 tons of CO2 saved every year
- Accredited under UN Component Project Activities for Small-Scale Solar in UAE
- Key project under the Shams Dubai net-metering scheme

Case Study

(Sub-Saharan Africa)

Nigeria Portfolio

- Phanes Group entered the sub-Saharan Africa solar market in 2016, acquiring and commencing development on three ground-mounted utility-scale PV projects in Nigeria, totaling 235 MW



Mobilizing for the roll-out of solar for sub-Saharan Africa

- The Sokoto Solar Plant (60 MW), is supported by 1 of the 14 first solar PPA's signed with the government of Nigeria
- Contributing to Nigeria's national ambitions to generate 2,000 MW of power from renewables by 2020
- Close involvement with local communities to deliver projects with a positive and sustainable social & environmental impact

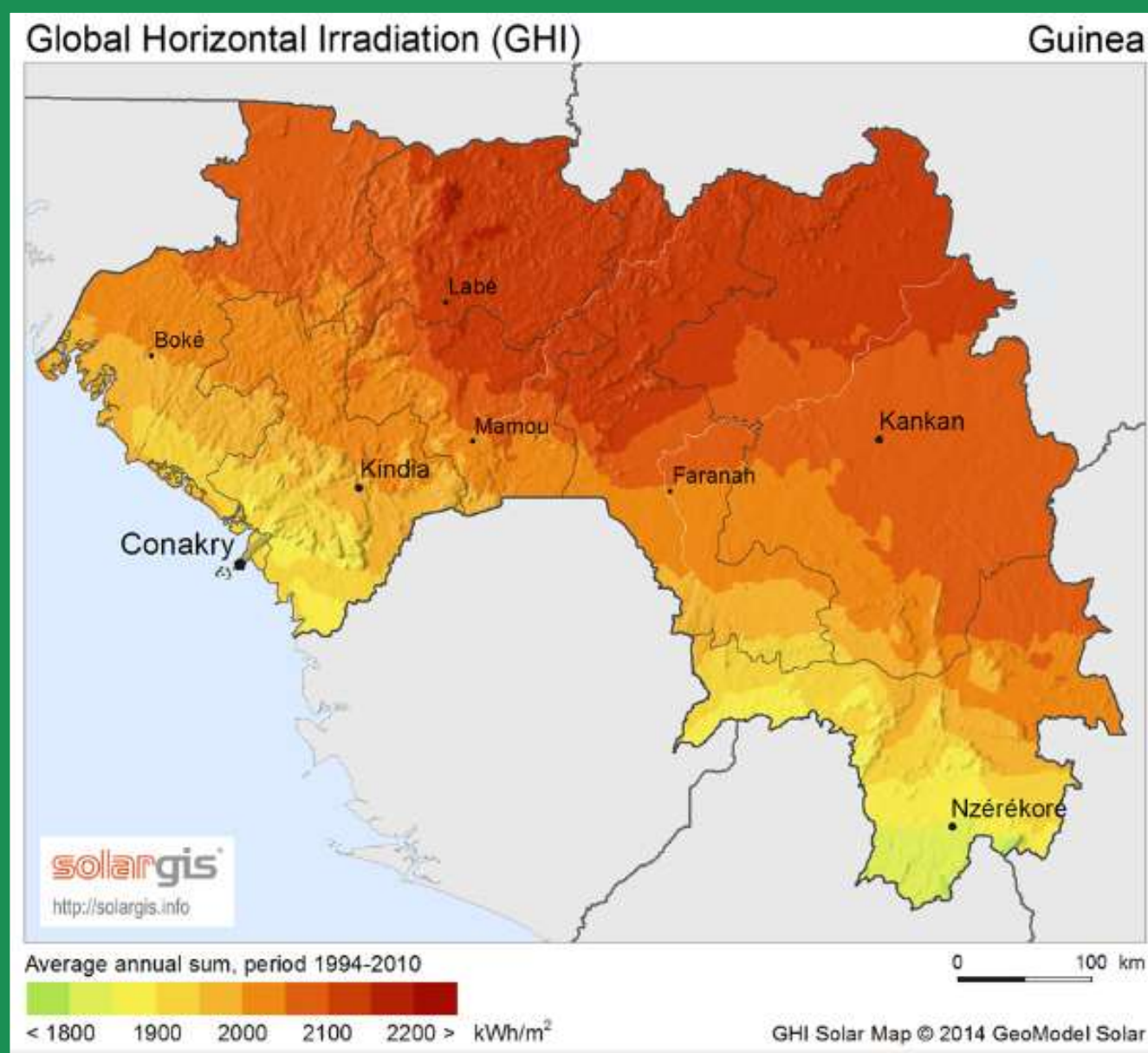
Case Study

(Sub-Saharan Africa)

Guinea, Coyah



- In the context of a significant power supply deficit, and one of the lowest electrification rates in the world (12%), the government of Guinea has set the development of its power sector as a priority for the country's economic growth
- Renewables (especially solar) represent a particularly well-suited solution for the country, given its rich natural irradiation (approximately 4.8 kWh/m² per day)
- In line with this direction, Phanes Group is currently developing a portfolio of solar projects in Guinea, having signed an MoU with the government of Guinea in April 2017
- A key project is the Coyah Solar Plant, a 50 MW grid-connected plant located in the country's Western region

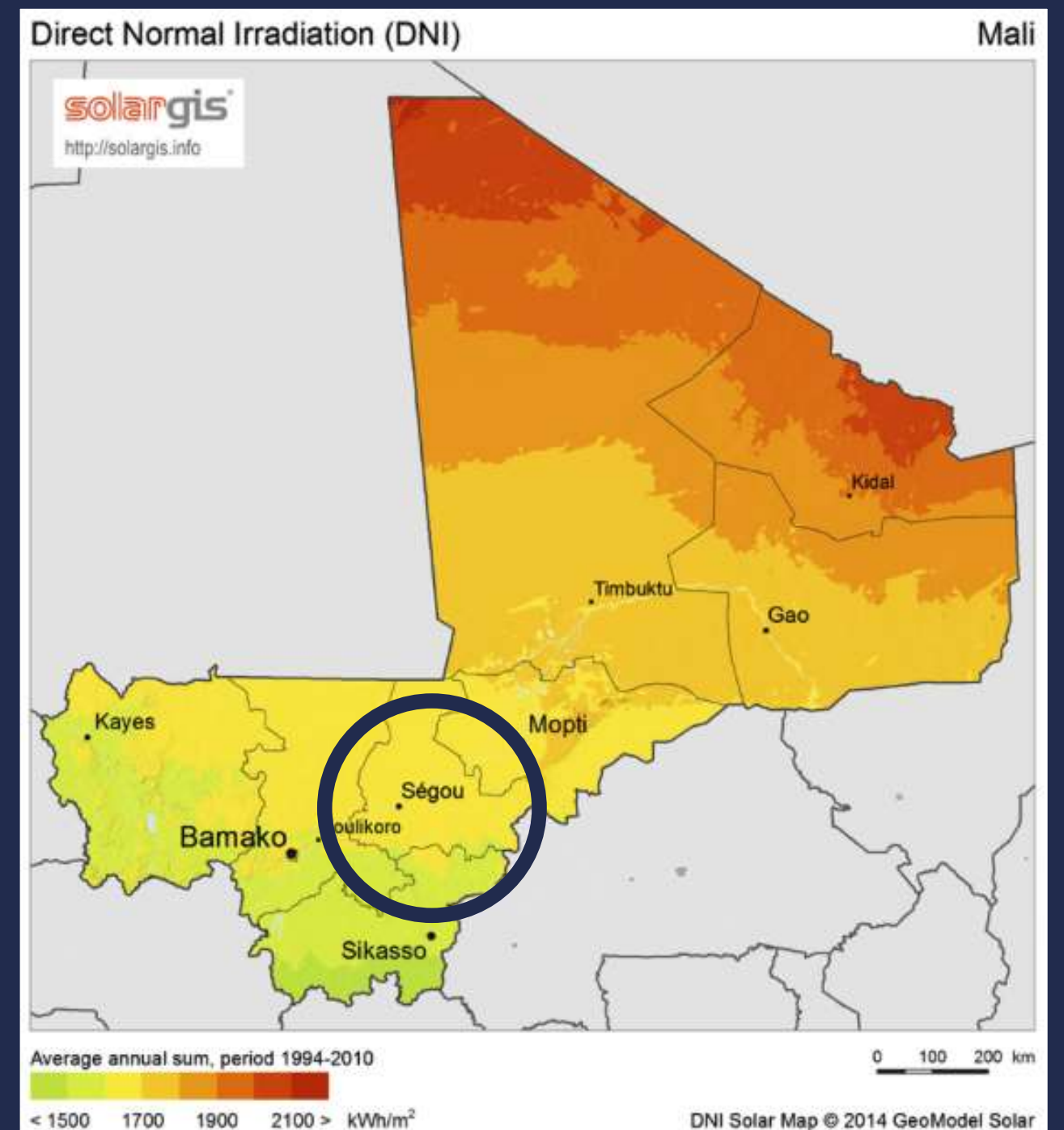


Case Study

(Sub-Saharan Africa)

Mali, Bla

- Though Mali has made significant progress in its power sector in the last 10 years, overall access to power remains low – with an electricity access rate of approximately 27% and demand growing at 10% annually
- With renewable energy also representing a strong solution for the country's needs, Mali has key assets within its institutional and political framework in place for its development – notably a National Strategy for the Development of Renewable Energy
- In February 2018, Phanes Group has signed an MoU with Mali's Ministry of Energy to develop a PV project in the country's Ségou Region
- Project capacity is targeted for 75 MW, and feasibility studies are currently in progress (grid, environmental, evacuation)



Innovation & Social Responsibility

At the Heart of Our Business Model

- Phanes Group maintains a key focus on rural electrification initiatives that pair our core activities with the provision of complementary resources, e.g. agricultural solutions or community spaces



Solar Powered Classroom (Somaliland)

- Pilot in collaboration with DP World, converting a container to a solar powered classroom
- Now deployed in Somaliland, helping teach students about sustainability



Solar Irrigation Project (Nigeria)

- Solar-powered water pumps for cooperative farmers (pilot)
- Supporting local agriculture, lacking adequate infrastructure



Case Study

(Rural Electrification)

Boki Pilot Project

Phanes Group has launched a rural electrification initiative in 2017. As a pilot project, we electrified Boki village in Niger, implementing our modular system. Coming from a utility perspective we aim to electrify entire villages instead of single households.

The system can be customized to each village's needs by combining mini-grids, solar home systems and containerized solutions like community spaces, schools or medical facilities. In Niger, we will be electrifying up to 1,000 villages in stages throughout the next three years. The Boki pilot is fully operational and serves as a blueprint for Phanes Group's wider off-grid strategy.



- In Boki, a 28 kWp mini-grid in the village serves as a primary source of electricity for communal buildings – connecting:
 - 1 school
 - 1 health center
 - 1 mosque
 - 70 houses
 - 4 streetlights in the town square
 - 50 individual solar home systems
- These connections improve quality of life, while strengthening the village's educational and medical capabilities, and allow for increased income generating activities

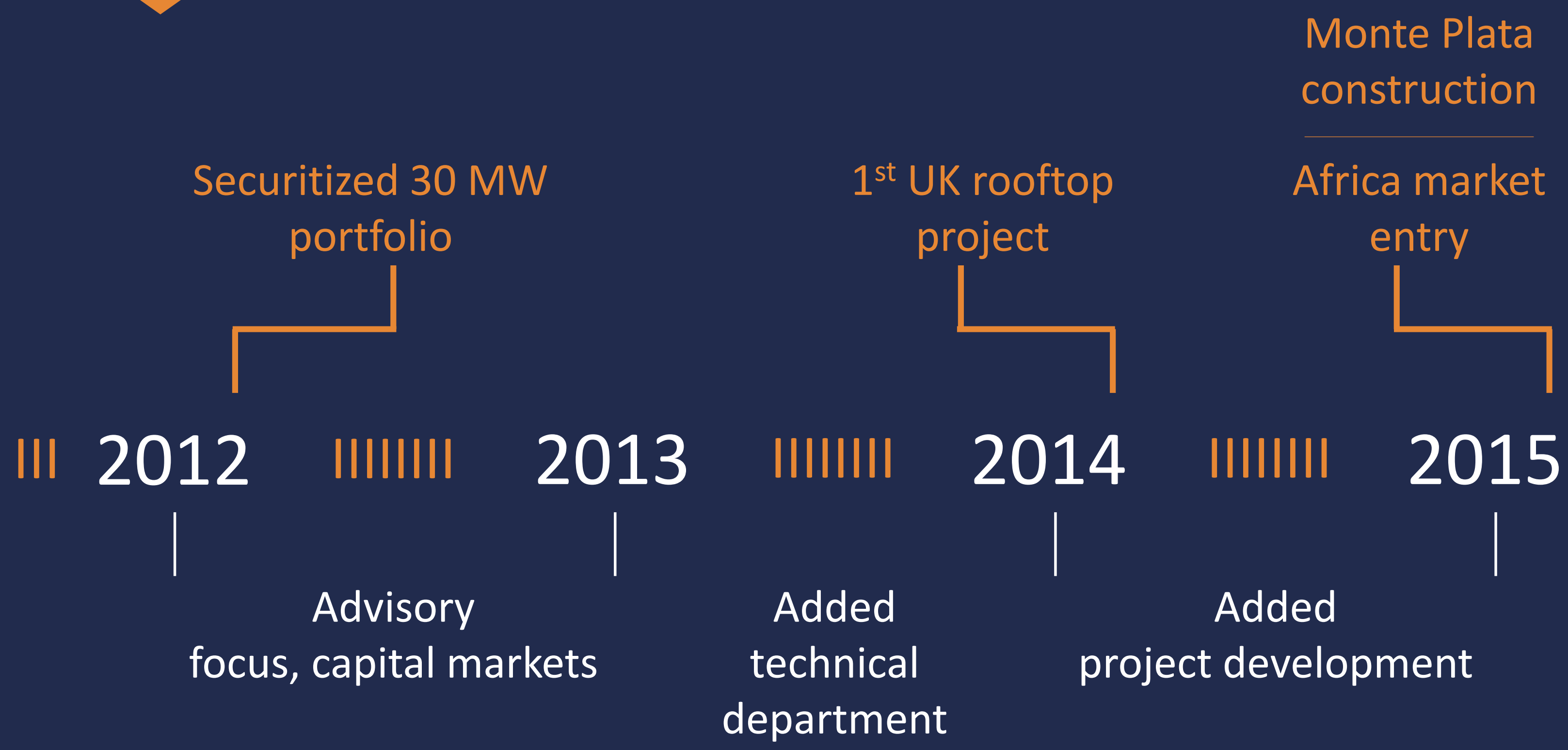
A Clear Strategic Roadmap

To Become a Leading IPP

In MENA & Sub-Saharan Africa



Milestones: Projects



Milestones: Corporate



Pipeline exceeds
1,000 MW

Project wins:
Ghana, Guinea Conakry,
Malawi

UK portfolio
complete

DP World
construction

Roll-out of Rural
Electrification Phase 1 in
Niger

Monte Plata
Phase 1 complete

Nigeria
portfolio

||||||| 2016

||||||| 2017

|||||||

2018 & Beyond

Strengthened
balance
sheet

Added
asset construction
Added Nigeria office

- IPP Business Model
- A leading company in MENA & sub-Saharan Africa
- Wide-scale roll-out of rural electrification initiatives

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