

Gneiss Energy focuses on solar hybrid to push forward the Energy Transition in Africa

The falling cost of battery storage is making African commercial and industrial off-grid projects more attractive for investors, writes Richard Lockhart

AFRICA

WHAT:

Gneiss Energy is arranging a multi-million dollar debt facility for solar hybrid projects in East Africa

WHY:

The company is looking to take advantage of falling costs to make projects more affordable for customers and less risky for investors

WHAT NEXT:

Gneiss offers an Energy Transition Advisory Service to oil and gas and extractive industries companies seeking to diversify their operations away from fossil fuels and towards renewables.

WITH 600mn Africans lacking reliable power supplies, new sources of finance and innovative funding models are needed for large and small power projects to get off the ground.

The World Bank said in a report earlier this year that the mini-grid concept offered one of the most cost-effective methods of providing universal access to power in developing countries in Africa and Asia by 2030.

The bank argued that investment of \$220bn from both private and public sources was now needed to finance up to 210,000 new mini-grids worldwide in order to meet this goal.

Crucially, the bank said this cash would only be found if new funding options, supportive regulatory regimes and attractive investment environments emerged in order to take advantage of falling solar and storage costs.

“The costs of key mini-grid components, such as solar panels, inverters, batteries and smart meters, have decreased by 62%-85% as a result of innovations and economies of scale in utility-scale solar projects, the booming rooftop solar industry and the growing electric vehicle [EV] market,” the report said.

Falling costs

Edinburgh-based strategic and financial advisory practice Gneiss Energy is taking up this opportunity to source new investment models for clean energy projects. One key area is solar hybrid projects, which involve both photovoltaic (PV) panels and energy storage technologies at industrial and commercial sites.

Gneiss told *AfrElec* that it is arranging a multi-million dollar debt facility for a turnkey energy services and financing firm to develop solar and battery storage projects for commercial and industrial (C&I) customers in East Africa.

The company is looking to take advantage of falling costs to roll out solar hybrid. This makes such projects more affordable for customers and less risky for investors.

“While the cost of solar modules has already fallen significantly and made these systems more affordable, we are now also seeing a fall in the cost of battery storage technology adding further to the competitiveness of the combined systems,” Gneiss Energy’s head of cleantech and renewables Andrew Coull said.

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► solar-hybrid mini-grids could fall to \$0.20 per kWh by 2030 if its global investment target of \$220bn is met by 2030.

Hybrid’s attractiveness is not limited to cost, Coull noted.

“Hybrid projects of solar plus battery storage create stability of power supply and an alternative to diesel generators with both cost and environmental benefits,” he said.

Finding funding

In terms of investment, smaller off-grid projects have found it difficult to attract funding from the private sector or development finance institution’s (DFIs) which have tended to focus on larger scale projects.

However, Coull said that this was changing, and that he saw both African and European DFIs becoming more interested in commercial and industrial (C&I) energy solutions.

“Gneiss is currently in discussions with a number of African and European DFIs about C&I projects and we expect this to be an area of focus for some time,” he explained.

In terms of size, C&I projects fall between the pay-as-you-go solar kits provided by the likes of BBOX and d.light that are now common across rural Africa and the utility-level projects

that are connected to national grids.

C&I projects provide a viable alternative for customers that do not want to use unreliable and more expensive grid connections to provide uninterrupted power supplies for their operations.

Universities, health centres, office blocks and factories are typical customers for the projects Gneiss is focusing on.

Global focus

As well as Africa, Gneiss has a worldwide focus. Coull said: “We are currently engaged to raise capital for a leading European renewables fund and we are advising the owner of a 385MW solar project in Australia on strategic funding options.”

The firm also offers an Energy Transition Advisory Service to oil and gas and extractive industries companies seeking to diversify their operations away from fossil fuels and towards renewables.

With power demand being pushed up by economic and population growth, providing reliable off-grid power for commercial and industrial premises is crucial for job creation, reducing pollution and easing the load on creaky transmission systems. ❖

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Andrew Coull
Credit: Gneiss Energy