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## Ghana's green energy projects await sign-off

About 10 per cent of electricity production to come from solar, wind and biofuels by 2020



A young African farmer puts a solar panel on the roof of his house © Getty

Irishmen are playing an outsized role in reshaping Ghana's energy sector. First, Tullow Oil, founded and chaired by Aidan Heavey, pioneered development of the country's oil and gas reserves. Now, Mainstream Renewable Power, founded and chaired by Eddie O'Connor, is aiming to do the same for renewable energy.

Mr O'Connor, like Mr Heavey a graduate of University College Dublin, has described the widening of access to electricity in Africa as "one of the greatest challenges of our time" and Ghana is at the forefront of Mainstream's efforts to help achieve it.

The company is planning to build Ghana's first large-scale wind farm - a \$525m project 60km east of Accra with capacity to meet about 4 per cent of domestic electricity demand.

The 225-megawatt Ayitepa project would mark a big step forward for modern green power in Ghana, where the only significant existing renewables, excluding hydropower, are two solar farms together accounting for less than 1 per cent of domestic capacity.

The government is aiming for 10 per cent of electricity production to come from solar, wind and biofuels by 2020, but big hurdles stand in the way.

Renewables were prominent among dozens of contracts granted to project developers in recent years as Ghana scrambled to overcome a chronic electricity shortage. President Nana Akufo-Addo has applied brakes to the procurement spree since taking office in January, alarmed that Ghana risked swinging from undersupply to oversupply — and paying too much in the process.

Mr Akufo-Addo has reiterated Ghana's commitment to renewables but put all electricity contracts under review. Subsidies for green power are being renegotiated downwards and some contracts cancelled altogether.

Liam Leahy, another Irishman who is development manager for Mainstream in Africa, says he is confident Ayitepa will be among those that go ahead and welcomes the government's "positive" reforms to make the debt-laden energy system more sustainable.

Whereas financing questions loom over many proposed renewables schemes, Ayitepa has backing from Lekela Power, a joint venture between Mainstream and Actis, a UK-based, emerging markets-focused private equity fund with \$6.7bn of assets under management. Other investors include the World Bank's International Finance Corporation and the Rockefeller Brothers Fund, the charitable foundation.

Mr Leahy is hopeful of a green light for Ayitepa in the next six months, subject to a sovereign guarantee from the government and agreement on final contract terms. That would clear the way for the start of construction, expected to last two years.

Shinya Nishimura, an energy specialist at the World Bank, cautions that large amounts of intermittent renewable power would risk destabilising Ghana's electricity grid unless more interconnection is built with regional neighbours. An integrated west African electricity market would allow countries such as Ghana, Ivory Coast and Togo to absorb the peaks and troughs in each other's wind and solar output, but progress so far has been faltering.

Ayitepa would be the biggest wind farm in west Africa — a region more commonly associated with solar resources. Ghana is planning to increase its solar capacity from 22MW to 1,000MW by 2030. But it is also aiming to reach 800MW of wind capacity over the same period, from zero today.

Mr Leahy says that, while not as gusty as northern Europe, Ghana has consistent, gentle winds that can be harnessed economically by the latest large turbines. "Advances in technology mean we can develop in areas with low average wind speeds, which wouldn't have been viable 5-10 years ago," he says.

Source: [www.ft.com](http://www.ft.com)