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A 10MW / 20MWh battery energy storage project in Belgium has achieved financial close and is expected to begin construction shortly, the consortium behind the project has said.

The lithium-ion battery energy storage system (BESS) will be built in the town of Bastogne in Belgium’s southern Wallonia region. EStor-Lux, the consortium developing it, comprises public and private partners, including players in Belgium’s offshore wind industry and Wallonia’s local government’s investment group.

Europe is host to some 80% of the world’s offshore wind capacity, the European Union targets carbon neutrality by 2050 and Belgium has committed to phasing out nuclear by 2025. However, EStor-Lux said in a press release that rolling out battery storage technology at scale – strongly expected to be required to balance the system as more and more renewables come onto the grid – remains challenging in the absence of the sorts of policy support schemes that have support wind and solar in European countries in the past.

However, the Bastogne project has raised funds including project financing from sustainable bank Triodos and construction will get underway “in a few days’ time”, expected to be completed by the middle of next year. Technology provider Fluence will supply, install and maintain the energy storage system while Centrica Business Solutions Belgium will dispatch and trade the battery’s capabilities and capacity.

At two hours’ duration, the system is longer duration than many of the large-scale projects seen to date using lithium-ion batteries in Europe. Project manager Pierre Bayart said this means that, “compared to the 30 minute to 1 hour durations that are currently the standard for storage duration in Europe,” the battery system will be able to provide “a wider range of services with higher added value to the grid operator and market players.”

Also key to the business model is that the battery storage will be aggregated along with other types of distributed energy resources (DERs) into a pool of resources, Bayart said. With the system able to provide

balancing capacity to the grid both upwards as well as downwards i.e. charging from it as well as discharging when needed, Estor-Lux claimed the system can “offer a total alternative to thermal power plants”.

“This is an important step, demonstrating that battery energy storage projects provide a fully-fledged alternative to conventional flexible capacity, and are therefore completely viable even without government support,” Pierre Bayart said.

It can provide energy to the grid when the grid needs it in times of low renewable energy generation, or offer balancing services to mitigate mistakes in consumption or generation forecasting. Consortium Estor-Lux said that this initial project’s “proven solutions” will be replicated on a larger scale.