

Dutch fail to energise battery storage

Battery energy storage development in the Netherlands has yet to accelerate due to high network fees, putting pressure on authorities to intervene to keep the nation on track towards its renewable energy goals.

By Karolin Schaps

Investors are excited about battery energy storage projects in the Netherlands, but painfully high grid fees are keeping more than 60 GW of potential storage capacity from being built.

Renewable energy abounds in the densely populated nation, where wholesale power prices frequently fall below zero thanks to the intermittency of wind and solar generation.

By early June, the Netherlands had already seen more negative hourly prices than in all of 2022, with intraday prices dropping below EUR -700/MWh during some low-demand periods. The price swings provide an ideal arbitrage opportunity for battery systems that can draw power from the grid during the troughs and transmit it back during the peaks.

"Negative prices are great for a battery's business case. We expect negative prices are here to stay and that they will occur more often, improving battery economics," says Jeroen Althoff, co-founder and chief technology officer at Dutch company Lion Storage.

However, final investment decisions in utility-scale battery energy storage systems (BESS) have been far and few between in the Netherlands. National grid operator Tennet says that it has received connection requests

from BESS projects worth 65 GW in capacity, of which 6.5 GW have already signed basic design quotes. But not many projects are currently progressing beyond the planning stages.

"I firmly believe it's going to happen, there's no scenario in which there will be no batteries connected in the Netherlands in the future; however today the business case unfortunately is not feasible with the current high grid tariffs," says Friso Huizinga, managing director of solar and battery developer LC Energy in the Netherlands.

Battery energy storage projects are currently paying the same grid fees as any large-scale consumer of electricity since batteries draw power from the grid. Due to increasing costs for running the high-voltage network, Tennet has been steadily increasing fees and has already announced raising prices by 90% for the extra high-voltage grid by 2030.

One developer says they will face annual grid fees of EUR 165,000/MWh from next year, a charge that would mean no profit or return on investment on their BESS project. The issue has been escalated by acting energy minister Rob Jetten, who last year initiated a review of Dutch network tariffs to allow more flexible use of the grid that will lighten congestion.

"We are in the process of reviewing the tariffs for battery storage," says a spokesman for the Dutch Consumer and Market Authority (ACM), which regulates energy network tariffs. He adds that the regulator was expecting a proposal for tariff changes from Dutch grid operators shortly and that this would be reviewed with urgency.

Tennet estimates that the Dutch market needs around 9 GW of standalone battery storage capacity by 2030, to ensure the clean energy will be used instead of going to waste when demand is low. Also, it sees improvements in spatial planning as important to speed up battery project delivery. The TSO earlier this year designated the most ideal locations for placing BESS projects, including in the vicinity of wind and solar farms or industrial users and as close as possible to substations to avoid heavy cable investments.

BESS developers are calling on the Dutch regulator to create a level playing field with the surrounding markets of Germany and Belgium, where grid fees have been removed for battery storage for 20 and 10 years of operation, respectively.

"Investments in these types of projects are assessed from an

international point of view. If the business cases are positive in Germany and Belgium, but not in the Netherlands, then investors will just choose the countries where they can bank the better return," says Althoff.

Shortly before its fall in early July, the Dutch government published a roadmap for energy storage in which it made clear its support for BESS projects because they can enable the targeted build-out of solar and wind power capacity. The Netherlands aims to generate 70% of its electricity from renewable sources by 2030. Last year, the percentage reached 40%.

Although government support is clear, industry experts expect delays to decision-making ahead of national elections in November. "It doesn't help that we are approaching elections, that makes it a little bit difficult. But I think all stakeholders, the TSO and DSOs and the energy companies, are all in favour of energy storage projects, and they really would like to make it work," says Ruud Nijs, chief executive at Dutch battery operator and developer Giga Storage and board member at Energy Storage NL, the Dutch business association for the energy storage industry.

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