

Repowering wind farms, Germany

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Renewables investor Qualitas Energy, through its German subsidiary, closed in May (2023) the acquisition of 3 German wind farms from an unknown seller with plans to repower the assets, taking a further step to invest half of its Q-Energy Fund V in the German wind market.

The move aligns with a business model that Germany needs to achieve its energy transition and economic goals, a source says.

The deal is also a step towards reaching a portfolio of about 6.2GW in the country, which consists of wind farm acquisitions for [repowering and greenfield projects](#).

Background and Qualitas' business model in Germany

Germany took its first steps into the wind market in the late 1990s, contributing to making the country the largest onshore wind market in Europe, with some 60GW of installed capacity at the end of last year (2022).

However, with German authorities doubling wind targets to around 115GW by 2030 to meet energy transition goals and accelerate its independence from Russian energy, an old fleet has posed challenges, including:

- about 15GW of assets due to go offline soon
- installed turbines have a capacity of 1-2MW, generating less energy

Slow licensing procedures and limited land are additional factors that increase the barriers to achieving the targets.

Repowering existing farms and building new ones is therefore a business model that Germany needs to advance its energy transition and boost its economy, and Qualitas decided to "take an active position" in this process.

The investor set up its local subsidiary Qualitas Energy Deutschland in 2018 with 4 offices – and 2 to open later this year (2023) – and has since increased its portfolio in the country, either operational or under development, to more than 3GW.

Local experience and expertise of the evolving German energy landscape motivated Qualitas to make wind farm repowering the main investment focus of its [Q-Energy V fund](#), a vehicle launched in August last year (2022) that reached a [first close of €1.1 billion](#) (\$1.2bn).

Qualitas expects to invest half of its fund in the German market to reach 6.2GW in the next 2 years by acquiring:

- repowering projects



- [greenfield projects](#)

The portfolio to be repowered

The portfolio, developed and initially operated by Prokon Nord Enrgiesysteme, consists of 3 wind farms with a total capacity of 21MW.

The [Quenstedt II farm](#), located in Arnstein in the Mansfeld-Südharz district, has 3 Enercon-E66/18.70 turbines with an installed capacity of 6MW. It was switched on in 2004 and, since then, its annual production is about 9,800MWh with an average annual wind speed of 6.4m/s.

The [Heldrunen farm](#), in the Kyffhäuser district of Thuringia, through 5 Enercon-E66/18.70 turbines has an installed capacity of 9MW.

It was commissioned in 2004 and has an annual production of about 15,500MWh, with a wind speed of 6.2m/s.

The 6MW [Dornstedt II](#) wind farm is located in the municipality of Teutschenthal in the Saalekreis district of Saxony-Anhalt and was commissioned in 2006.

The plant produces annually around 16,000MWh with an average wind speed of 6.9m/s.

As of 2022, the last registered owner of the plants was German developer PN Power Plants, which focuses its business on the sale of its 13 wind farms for repowering and 2 offshore wind test fields.

The transaction

The negotiation for the farms started at the end of last year (2022).

In repowering transactions, technical and development issues are key aspects to be analysed, as studies will suggest whether and to what extent a plant can be repowered, a source said.

An analysis process that could have taken months for a new investor in the German market, Qualitas did in about 4 weeks.

Qualitas' internal team carried out the planning for the repowering of the farms, including possible turbine types, and Tüv contributed to the due diligence of the existing parks.

Discussions with stakeholders were swift and the investor secured approvals to proceed with the deal within a short period of time.

In particular, Qualitas' track record and presence in the German market, as well as the realisation of previous projects, allowed it to approach stakeholders in "an effective way."

Following the positive results of the analysis, Qualitas determined that the assets were "attractive" and pursued the closing of the deal.

According to a source, the fact that the seller and the buyer knew each other's high reputation in the German market also accelerated the process.

"With Qualitas Energy we have found a partner on an equal footing. The whole process was transparent, uncomplicated, and fair – from the initial contact through the evaluation of the projects to the final transaction," said the unknown seller in the announcement of the deal.

The parties, only around 5 months after the start of negotiations, closed the transaction in May (2023) and the deal was publicly announced last month (July).

The plans for the farms

The repowering process has already started and could be completed in 3-4 years.

The capacity of the parks as a whole will be increased by 1.5-1.6 times.

Qualitas' aims to dismantle the old plants and install "new, more efficient turbines" to double power generation and reduce the number of turbines, while reducing the environmental impact.

The investor will multiply the generation capacity by 2.3 times, and the plants will have a new lifetime of 35-40 years.

The manufacturer of the turbines and the model have not yet been decided, as this is one of the last stages of the process, a source said, and Qualitas plans to pursue the most efficient turbines on the markets at the time of that phase.

The renewable investor, however, has a technical notion of the turbine model to be used.

Once the repowering of the assets is completed, the plants will supply power to around 20,000 German households.

Qualitas' upcoming moves

Qualitas is on track to achieve its goals in Europe's largest wind market.

The company intends to replicate similar operations in the country and is "pursuing many opportunities".

Through its various departments, Qualitas is also following different markets, talking to manufacturers and being "aware of the latest trends to analyse and apply them".

The renewables developer thus does not close the door to repowering technologies in other assets, such as solar farms, or adopting a similar business model in other countries.

Advisers

Advisers to Qualitas on the transaction:

- Qualitas internal – financial, legal and technical
- Reuther Rieche – legal
- TÜV – technical

Advisers to Qualitas in establishing Q-Energy V:

- Campbell Lutyens – placement agent
- King & Wood Mallesons – legal
- Linklaters – legal and tax

(Images are sourced from Qualitas and PN Power Plants)

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