Press release
14 May 2026

Iberdrola begins commissioning of the Tâmega Complex wind-hydroelectric megaproject

- *The facilities will form part of the first grid-connected hybrid wind-hydro development on the Iberian Peninsula*
- *Work on the Tâmega Norte wind farm is entering its final stages*

Iberdrola is consolidating its leadership in renewable energy with the commissioning of the Tâmega Norte wind farm, located between Braga and Vila Real, in the Portuguese municipalities of Cabeceiras de Basto and Montalegre. It is the first of two wind farms that form part of the Tâmega Complex. It is the first grid-connected wind-hydro hybrid project on the Iberian Peninsula . It will consist of two wind farms (north and south) linked to a large pumped-storage hydroelectric system. This combination allows both technologies to complement each other and store energy to be released when the system requires it.

From a technical and operational perspective, hybridisation facilitates the sharing of grid connection infrastructure, reduces environmental impact and improves the stability of the electricity system by accelerating electrification.

Tâmega Norte will have a capacity of 195 MW, distributed across 27 state-of-the-art Vestas wind turbines, each with a capacity of 7.2 MW and a rotor height of 172 metres, making it one of the *onshore* projects with the highest-capacity equipment installed by the company. Its implementation has been a challenge due to weather and environmental conditions during the breeding season of certain species, which significantly affected the construction schedule during the spring and summer months. During the peak construction phases of the Tâmega Norte wind farm, there was a significant impact on employment, with around 150 people involved, including transport, installation, crane, health and safety (HSE), external supervision and Vestas staff.

Connection via REN

The annual output generated by Tâmega Norte will be approximately 414 GWh, whilst at Tâmega Sul, currently under construction, it will be 185 GWh. The electricity will be transmitted using the complex's existing infrastructure. The connection is made via the Red Eléctrica Nacional (REN) hub in Ribeira de Pena: northwards from the Daivões substation, and southwards from Gouvães.

The total investment for the two wind farms amounts to €346 million (TOTEX), of which €237 million is for Tâmega Norte and €109 million for Tâmega Sur. The project has involved a large number of international and national suppliers, including Haizea Wind, a Basque group specialising in the design, manufacture and assembly of metal structures and cast

components for the wind power industry, through its subsidiary HaizeaTecnoaranda, as a supplier to Vestas, a Danish company and leader in the supply of wind turbines. The Danish firm also has a research and development (R&D) centre based in Porto. In addition, firms specialising in civil engineering (all Portuguese) have taken part.

The Tâmega wind farms will prevent the emission of more than 230,000 tonnes of CO_2 per year, a figure equivalent to the annual carbon absorption of millions of trees or the annual emissions of approximately 100,000 vehicles.

The project has been developed in strict compliance with all the conditions set out in the environmental licence. Iberdrola is implementing preventive, corrective and compensatory measures, as well as monitoring programmes, to ensure that the environmental and socio-economic impact is as low as possible.

The complex is financed by the European Investment Bank (EIB) and involves Norges Bank, in partnership with Iberdrola, which will hold a 49% stake once the plant becomes operational.

State-of-the-art technology

One of the most unique aspects of the project has been the use of BladeLifter technology to transport blades of considerable size. The complexity lies not only in their length, but also in the terrain: sharp bends and steep gradients.

At Tâmega Norte, the BladeLifter has enabled the blades to be raised by between 25 and 30 degrees, facilitating passage along narrow roads without the need to widen tracks or carry out major civil engineering works. This solution reduces the impact on rural areas and avoids unnecessary interference with the landscape.

The success lies with the professionals carrying out the work, who have extensive experience in handling these technologies. Each truck requires three professionals who work as if they were a single mind. Coordination is constant, supported by continuous radio communication. One drives, another controls the rotation and tilt of the bucket – capable of rotating 360 degrees on its own axis – and a third supervises the levelling and stabilisation of the whole unit.