

Iberdrola gets green light to install Portugal's largest wind farm

- *This project, with a total investment of around €350 M, confirms Iberdrola's commitment to its environmental objectives in Portugal, the first of which is to combine wind power with hydroelectric*
- *With an installed capacity of 274 MW and a production capacity of 601 GWh a year, this infrastructure will be integrated into the Tâmega Power Plant System and will use the connection point and existing infrastructure in Ribeira de Pena*
- *This type of clean energy project improves our energy autonomy and guarantees our supply without having to depend on foreign countries and fossil fuels*

Iberdrola has obtained the production licence from the Portuguese Directorate General for Energy and Geology, which is another step towards the construction of the largest wind farm in Portugal. This project, located in the districts of Vila Real and Braga, in northern Portugal, and with a total investment of close to €350 M, confirms Iberdrola's commitment to its environmental objectives, and is the first of its kind to combine wind power with hydroelectric power. This involves sharing the connection point and the electricity evacuation line, which will include an extension of the substation, already foreseen in the project's initial design.

With an installed capacity of 274 MW and a production capacity of 601 GWh per year, equivalent to the use of 128,000 households, this infrastructure will be integrated into the Tâmega Power Plant System. The project, which will benefit from the existing connection point in Ribeira de Pena, will sign a PPA or power purchase agreement.

This project, consisting of the Tâmega Norte and Tâmega Sul wind farms, is part of an agreement signed with the Norwegian sovereign wealth fund, managed by Norges Bank Investment Management. The incorporation of wind energy in the Tâmega Complex will increase the contribution of clean, competitive and low-cost energy to the Portuguese electricity system, guaranteeing the maximum supply of green energy originally authorised for each project for as long as possible.

The reduction in CO₂ emissions comes not only from 100% green energy production, but also from the construction of the project, which, by being integrated into the Tâmega Complex, significantly reduces the environmental impact by making use of existing infrastructure, roads and facilities.

In addition, at peak times, some 700 jobs will be created in areas such as civil engineering, wind turbine assembly, substations and transmission lines. The project will strengthen the country's

energy independence, which will make an important contribution to achieving the objectives of the National Energy and Climate Plan.

Alejandra Reyna, director of Iberdrola Renovables Portugal, says, "We've taken an important step towards the construction of the largest wind farm, and the first hybrid project combining wind and hydro power, in Portugal. This project is a further demonstration of Iberdrola's commitment to promoting the energy transition in Portugal, where it has already invested more than €2 B in renewable energy over the past 20 years. This commitment to electrification, through renewable energy and a focus on innovation, shows our commitment to building a sustainable, reliable and affordable future.

Advanced technology and impact on the local economy

The wind project has been awarded to Vestas and will consist of the installation of 38 of the latest wind turbines, the Vestas Enventus V172, with a unit capacity of 7.2 MW and a height of 114 metres.

Alternating between hydropower and wind technologies will significantly reduce dependence on intermittent environmental conditions and the constraints of scarce resources such as wind. This will increase stability in renewable energy production and optimise infrastructure.

As with all renewable energy projects in Portugal, the focus on local suppliers will be key: companies such as CJR and Conduril-Socorpena will be involved in developing the basic structure, while Painhas and Proef will be involved in building the substation and lines, which will start roll-out in early 2025.

Innovative environmental measures

Preserving the ecosystem is an essential element when building this type of project. Iberdrola will implement systems for constant oversight of environmental factors during construction to monitor birds, flora, habitats and archaeology, to mitigate potential impacts, identify new solutions to minimise them and gain a deeper understanding of local biodiversity.

Tâmega Power Plant System

The Tâmega Power Plant is one of the biggest hydroelectric projects carried out in Europe in the last 25 years. With a total investment of more than €1.5 B, it consists of three power plants: the Alto Tâmega Hydroelectric Power Plant, with an installed capacity of 160 MW, the Gouvães Pumped Storage Power Plant (880 MW) and the Daivões Power Plant (118 MW). The latter two have been in operation since 2022.

The three plants have an installed capacity of 1,158 MW, which increases the total installed electrical power in the country by 6%. The complex is capable of producing 1,766 GWh a year, enough to meet the energy needs of neighbouring municipalities and the cities of Braga and Guimarães (440,000 households). In addition, this renewable infrastructure has a storage capacity of 40 million kWh, equivalent to the energy consumed by 11 million people 24 hours a day in their homes.

The Tâmega Complex will eliminate the emission of 1.2 million tonnes of CO₂ per year, which is equivalent to removing approximately 260,000 fossil fuel combustion vehicles from the roads each year. This will enable diversifying production sources, preventing the import of more than 160 thousand tonnes of oil a year. The positive impact on the region will boost economic activity and jobs with the creation of up to 3,500 direct jobs and 10,000 indirect jobs during construction, 20% of which will come from neighbouring municipalities thanks to the more than 100 suppliers, 75 of which are Portuguese.