

Wind Consulting

With its wind consulting services, Applus+ assists its clients throughout all the stages of their wind farms. From the project design to its development, construction, and management, with the ultimate goal of ensuring maximum profitability and adequate risk management.

Through our technical advisory experts from Enertis Applus+ and Barlovento Applus+, we provide comprehensive wind consulting services worldwide, guaranteed by more than 20 years of experience. For both, wind offshore and onshore technology our wind energy consultants provide independent and professional advice to identify the most appropriate solution for each client's needs.



THE Applus+ SOLUTION

With offices in more than 70 countries, Applus+ operates in a wide range of international wind energy projects to equip its clients with the right team and set up the best possible results, no matter the project's location.

Applus+ counts on highly experienced wind technicians who cover a complete project timeline, from development to operation and maintenance for both onshore and offshore wind power plants.

Our portfolio includes:

• **Red Flag Analysis** to perform a preliminary evaluation of the project and identify any potential problems



- Wind farm layout Micrositing: The process through which the specific location of wind turbines is determined. Each position must comply with several requirements regarding existing wind resources, distances from other wind turbines, etc.
- <u>Wind Resource Assessment</u> and Site Assessment: An in-depth analysis of the site location conditions, while a Wind Resource Assessment estimates the energy to be produced by a specific WTG (Wind Turbine Generator) model in the selected location
- <u>Technical due diligence</u> for project financing in ready-to-build wind projects and project acquisitions under development, construction, or operation. We provide a comprehensive technical review of the projects and of the main providers and contractors to assess the potential risks and the strategies to mitigate them
- **Elaboration or review of TSA** (Transitional Service Agreement) or EPC/BoP (Engineering, Procurement, and Construction/Balance of Plants) contracts
- Construction monitoring and supervision during operation
- Wind Power performance testing

The company's wind energy consultancy services and activities are accredited by ISO 9001, the world's most popular standard for quality management, which certifies its high-standard services and solutions.

We also provide specialised <u>wind engineering services</u> during the design, planning, construction, and commissioning phases, in order to ensure the projects' quality throughout their lifetime.

Target customers

Applus+ provides wind offshore and onshore consulting services across all phases of a wind project life-cycle, namely:

- 1. Pre-planning phase
- 2. Planning and development phase
- 3. Implementation and construction phase
- 4. Operation and asset management phase

Ensuring high-quality in all these stages is key to the long-term success of each project and Applus+' wind experts are there to make sure that their clients meet their goals.

Key customer benefits

With more than 40 years in the power market and more than 20 years in renewables, we are qualified to provide to our customers with a trustworthy technical advisory service in the whole wind project lifecycle across our offices on five continents.



The company's consulting experts identify the best solutions that suit their client's needs in every particular case. We ensure adequate risk management and superior performance of their wind projects regardless of their location.

By offering specialized and independent advice, our clients obtain the maximum profitability and life extension in their wind assets.