

VAISALA / SUCCESS STORY

WEATHER SOLUTIONS FOR ENERGY

La Compagnie du Vent / Engie Takes Triton Data to the Bank

Using Triton data as part of their wind resource assessment, La Compagnie du Vent was able to produce a bankable due diligence report with reduced uncertainty and improved financing terms

La Compagnie du Vent, Engie Group, one of France's leading wind power producers, needed to finance a 20.7 MW wind project in central France with six planned 3.45 MW-class, 117-meter hub height wind turbines. Using the Triton Wind Profiler, they were able to reduce the uncertainty of their wind resource assessment by obtaining measurements at and above the hub height of the turbines. Working with a leading independent engineering firm, La Compagnie du Vent used the Triton data to successfully finance the project. ▶



La Compagnie du Vent, ENGIE Group is a pioneer in the French wind energy industry and a producer of both wind and solar energy. La Compagnie du Vent develops, finances, builds, and operates wind and solar parks and today has a portfolio of nearly 600 MW either operating or currently being installed.

La Compagnie du Vent has a technical department (headed by Philippe Alexandre), which includes three teams working closely together: Measurements, Studies and Innovation, serving the wind and solar sectors. Innovation at La Compagnie du Vent sweeps a broad spectrum: Measurement technologies, long-term prediction, but also performance analysis, short-term forecast, and energy storage.

Challenge

- Finance a wind project with accurate, hub-height data for turbines with hub heights of 120 meters
- Make the best choice of technology for the climate and terrain conditions

Solution

- Use the Vaisala Triton Wind Profiler SoDAR with an 80-meter met mast to get the best combination of traditional methods and higher height wind data
- Rely on Vaisala's technical support and field services to install, move, and maintain the Triton

Benefits

- Bankable due diligence report with reduced uncertainty
- Improved project financing terms
- Flexible technology — can be used as a movable asset throughout La Compagnie du Vent's development pipeline and on operational wind projects

"It was clear to us that Triton was the right choice for this project. We were able to obtain much better financing terms because we used Triton here."

*Benoit Buffard
Studies Department Manager
La Compagnie du Vent*

La Compagnie du Vent began in 1989 as a pioneer in wind energy development in France and is now one of the country's leading power producers. Like other wind developers, the team at La Compagnie du Vent found that predicting annual energy output was getting more and more difficult as the wind energy industry turned to higher turbines.

"On our latest project, we plan to use turbines with a hub height of 120 meters," said Guillaume Terris, who leads the company's wind measurement team. "We installed a met mast 80 meters high. As soon as we made the decision to use an 80-meter met mast, we knew that 40 meters is a huge extrapolation. So we turned to remote sensing for the solution."

Guillaume Terris and his team already owned five Tritons—the company was an early adopter of remote sensing technology and uses Triton and LiDAR in many different applications throughout its development and operations portfolio.

"We find that Triton is extremely valuable, provided one knows how to use it," said Guillaume Terris. "Our team has been trained in the technology, and now we value Triton because of its convenience and accuracy. It's easy to use, easy to move, and the power system is quite good. It doesn't need to be returned

to the factory for an annual visit, so we don't have to contend with long periods without data."

However, for many years La Compagnie du Vent felt there were limits on their use of Triton data as part of bankable wind resource assessments because of a perceived reluctance on the part of the financial community to accept remote sensing technology.

La Compagnie du Vent had been using Triton to add value in many aspects of wind project development and operations, including wind resource assessments, noise assessment surveys that are required in most parts of France before a project is built, and wake studies on operating wind parks.

"Here in France, there is a general preference for LiDAR as a remote sensing technology. Overall, however, we have found that Triton and LiDAR both have a place in wind resource assessment. Each technology has advantages and disadvantages. We felt the Triton was better suited for this particular project. It was time to demand that the financial community take Triton seriously," said Guillaume Terris.

La Compagnie du Vent's Studies and Measurements team deployed a Triton near the met mast and conducted a measurement campaign using data from both the mast and the Triton. They submitted the Triton measurement data along with the mast data to a well-known independent consultant.

"We value Triton because of its convenience and accuracy. It's easy to use, easy to move, and the power system is quite good."

*Guillaume Terris
Measurement Department Manager
La Compagnie du Vent*



La Compagnie du Vent was an early adopter of remote sensing technology. The company uses the Triton SoDAR in many different applications throughout its development and operational portfolio.

"The independent consultant understood the value of the Triton in reducing uncertainty about our wind resource," says Benoit Buffard, Studies Department Manager. "And the project was successfully financed using Triton data."

Benoit Buffard was able to quantify the value that Triton added on their project by calculating the total project uncertainty both with and without the Triton data. The result was a 0.7% reduction in uncertainty. "The bottom-line financial result will be different depending on any developer's particular situation," Benoit Buffard acknowledges. "But it is clear to us that Triton was the right choice for this project. We were able to obtain much better financing terms because we used Triton here." ■

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