



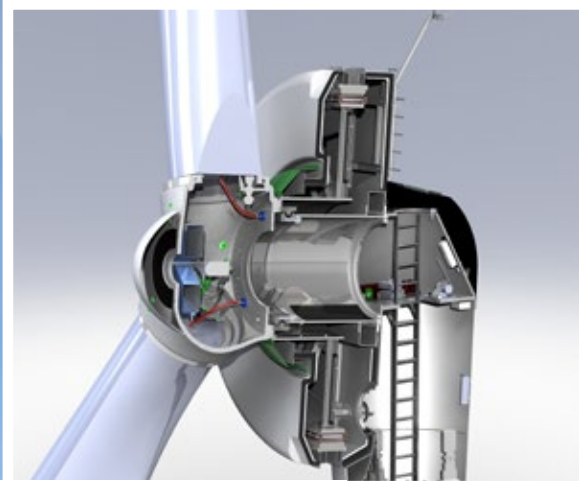
## **High yield, high availability, low maintenance**

With our proven technology, our wind turbines are leaders in output and efficiency in their category. Direct drive technology is applied that eliminates the gearbox, reduces the number of components, and stays online for longer and more consistently than competitive gearbox wind turbines.

## **High standards, customer focussed**

We pride ourselves in the professionalism of our organization, the skills of our engineering and service personnel, and the quality of our products. But we're equally proud of the customer focus that distinguishes us from others. When you do business with EWT, you'll find a company that is responsive and accessible, that takes a personal approach, listening carefully to what you have to say and working closely with you.

A TURBINE  
ANYPLACE,  
ANYTIME



### Experience and expertise in small-scale wind energy projects

Unlike many other producers of medium-sized wind turbines in the field, we are very much focussed on small-scale wind energy projects – often just one wind turbine, sometimes a few, occasionally more. We offer professionalism, proven technology, know-how and experience, and the accessibility of an organisation that values each and every one of our clients. Our service level is proof that small does not mean less. At EWT, we offer the full package: sales, operations, maintenance. We're service-oriented, flexible, and absolutely committed to ensuring that every wind turbine we install delivers as promised.

### Direct drive wind turbines

In most wind turbines, a gearbox links the rotor to the generator. In our DIRECTWIND turbines, we take a different approach. The rotor directly drives the synchronous generator. That increases the availability level and reduces the likelihood of a breakdown, because gearbox breakdowns and failures are among the most frequent maintenance issues with traditional wind turbines. With pitch control to adjust the angle of the rotor blades, we are able to control rotor speed to ensure optimal yields under all wind conditions.



## CONTINUOUS MONITORING OF TURBINE



### 24/7 monitoring – rapid response

With our sophisticated SCADA system, we can remotely monitor practically any operational parameter of your wind turbine – wind speed and direction, power output, and availability percentage, as well as all signals generated by numerous sensors inside the turbine. We monitor all our systems 24/7, and in approximately 70 percent of all cases, we can deal with operational issues remotely. But we will be on site within hours if need be.

### Working with you

We understand what is at stake. A wind energy project is a big investment. It's a complicated project, and for many who choose to invest in wind energy, it is the first time. There's much to know and if you don't ask the right questions, you can't get the right answers. So an important part of what we do is to work with our customers – to make the right decisions about the equipment, to help them step-by-step to move from concept to power delivery, and to provide the service and support to keep their wind turbine up and running and doing what it's supposed to do.





**RELIABILITY  
AND SUSTAIN-  
ABILITY**



### Proven technology

We use direct drive technology due to its efficiency. Our company history goes back to 2004, but our turbines are based on technologies that have been delivering power all over the world for almost twenty years. Our proven technology in the medium wind segment offers reliability, availability, and provides returns in energy production. And with our track record in the installation of more than 500 sub-megawatt turbines (250kW, 500kW, and 900kW), you can look to us as the market leader in this segment. Moreover, all of our turbines have IEC (International Electrotechnical Commission) Type Certification.

### High availability

We guarantee high availability on every wind turbine we deliver, and typically exceed our own ambitious targets. That's partly because of the direct drive technology and partly because we've been able to increase reliability and availability by designing a compact nacelle with a single bearing. This reduces the number of components and the maintenance that they would require. But when a maintenance issue arises, you can rest assured, because we offer an all-inclusive service contract. And when we say 'all-in', we mean any maintenance issues you may have – scheduled or unscheduled, including all parts and components. How can we do that? Because we have full confidence in the reliability of our technology.





**AT  
THE LOWEST  
NOISE LEVEL**

## Low noise

The two main sources of noise with wind turbines are aerodynamic noise and noise generated by the gearbox. Because there's no gearbox, we've eliminated one major source of noise. And with our advanced blade design, we've managed to minimise the aerodynamic noise without sacrificing energy efficiency. You see them, but you can scarcely hear them.

## Weak grid friendly

Not every grid is as stable as you'd like, and many wind turbines tend to adversely affect already unstable grids. But EWT's back-to-back converter actually helps to maintain grid stability by being able to control voltage and reactive powers.

## Engineering

Every job is a little different. While there are international standards for wind turbines, the grids differ from country to country and from grid operator to grid operator. The intended use of the energy also differs from installation to installation. Not a problem – we have our own engineering department equipped to deal with any issues that may arise during all stages of the project, from planning to start-up. We also have an R&D department that is constantly working to refine our technology and our product line.





# "THEY'VE GOT A TRIED AND TESTED FORMAT"



## Managing risk, a developer chooses EWT

IAN JOHNSTON, CHIEF OPERATING OFFICER

Temporis Wind is one of the largest developers of wind energy in the UK, working with land owners to take advantage of a government program that encourages investments in wind energy with economic incentives.

"Since 2010 we've been developing projects in association with agricultural landowners across the UK from the southern tip of Cornwall right to the tip of Scotland. What's important to us is the fact that with EWT we know they can put these turbines up in an innovative and time-effective way" explains Ian Johnston, Chief Operating Officer for Temporis Wind.

"They've got a tried and tested format. That makes it very easy for us in terms of a risk perspective. And when a funder is looking at investing between £1-2 million pounds on completing a project, that makes a big difference. There's a flexibility in their approach which is very helpful. And they are in touch with the market. They know what the customers need in terms of dealing with the hurdles that come to us from local councils and from the local grid operators. We've had our portfolio running for over a year now and to date, the availability has been above 99 percent, which is fantastic."

# "SPOT ON. IT'S DONE WHAT THEY PREDICTED"



## Getting the most of the available resources

ANDREW BREWER, FARMER IN CORNWALL

"My wife and I are dairy farmers in Cornwall. We were looking into diversifying into alternative energy. We run our farm on a very efficient basis, making the most of our natural resources in the environment that we live in. Wind was a natural progression for us. We looked at other manufacturers. Some weren't overly interested in individual small projects. Others didn't have the same power curve or estimations of output that EWT had. So EWT was one of the most efficient on the market. We selected them, made initial contacts, proceeded with the planning process.

From the time we signed the contract, we had a calendar in place, and the organization and timing was spot on. The tidiness and efficiency was phenomenal. The power curves have done what they said, it's done what they predicted it would do, and it's earning us a good return. We can't ask for anything more than that."



...is a satisfied customer

"SOMETHING MORE THAN  
JUST BUY A WIND TURBINE"



A wine cellar with an energy division?

ADAM BLACK, MANAGING DIRECTOR OF LANCHESTER ENERGY

Up in County Durham in Northern England, Lanchester Wine Cellars is one of the UK's largest distributors of wine to bars, restaurants, and retailers. But as well as importing wine in bottles from distant wine producing lands, Lanchester imports the wine in containers and bottles it using the most advanced techniques to ensure quality – 75.000.000 litres of wine a year, and that takes a lot of energy. Owner Tony Cleary decided a few years ago to go carbon neutral, and the solution was to install two EWT 500kW wind turbines on the site.

"I think EWT recognizes that each and every project has its own unique characteristics," says Adam Black, who heads up Lanchester's Energy Division. "And they recognized that we wanted to achieve something more than just buy a wind turbine. We wanted to turn the operation carbon neutral and we didn't know everything about how to do that. They were very helpful adapting their offer to meet our needs."

The result: Lanchester now uses 70 percent of the energy generated to power its own operations, and sells 30 percent back to the grid. A third wind turbine has just been installed. And two more are planned.

"AN A+ ON SERVICE"



Green energy on a brownfield site

DAVID STUVA, PRESIDENT RECC

The Rural Electric Convenience Cooperative (RECC) is a member-owned cooperative serving some 5,800 consumers, as well as farms and commercial establishments in a rural five-county area of south-central Illinois in the United States. In 2009, RECC began operating an EWT DW54-900kW wind turbine on the "Gob Nob", a 60-foot hill consisting of tailings from an abandoned coal mine. The installation represented a unique conversion of a brownfield site into a green energy producing project.

"Our board was looking for a way to get involved in renewable energy, so we said, 'why don't we put up a wind turbine?'" recalls RECC President David Stuva. "It's been very popular with our members and it's even become a bit of a tourist attraction on Interstate 55. Everybody knows where the Gob Nob wind turbine is."

"We liked the EWT turbine because it was a direct drive unit. It didn't have a gearbox, which is one less thing you have to worry about down the road. We needed something around 1 megawatt because that was the average load on the nearby substation, so EWT was a good fit for us."

"They've done everything that they said they would do. They went above and beyond on standing behind their product. We benefit from the maintenance contract we have with them. They monitor the wind turbine from the Netherlands, and we don't have to worry about anything. I give them an A+ on service."

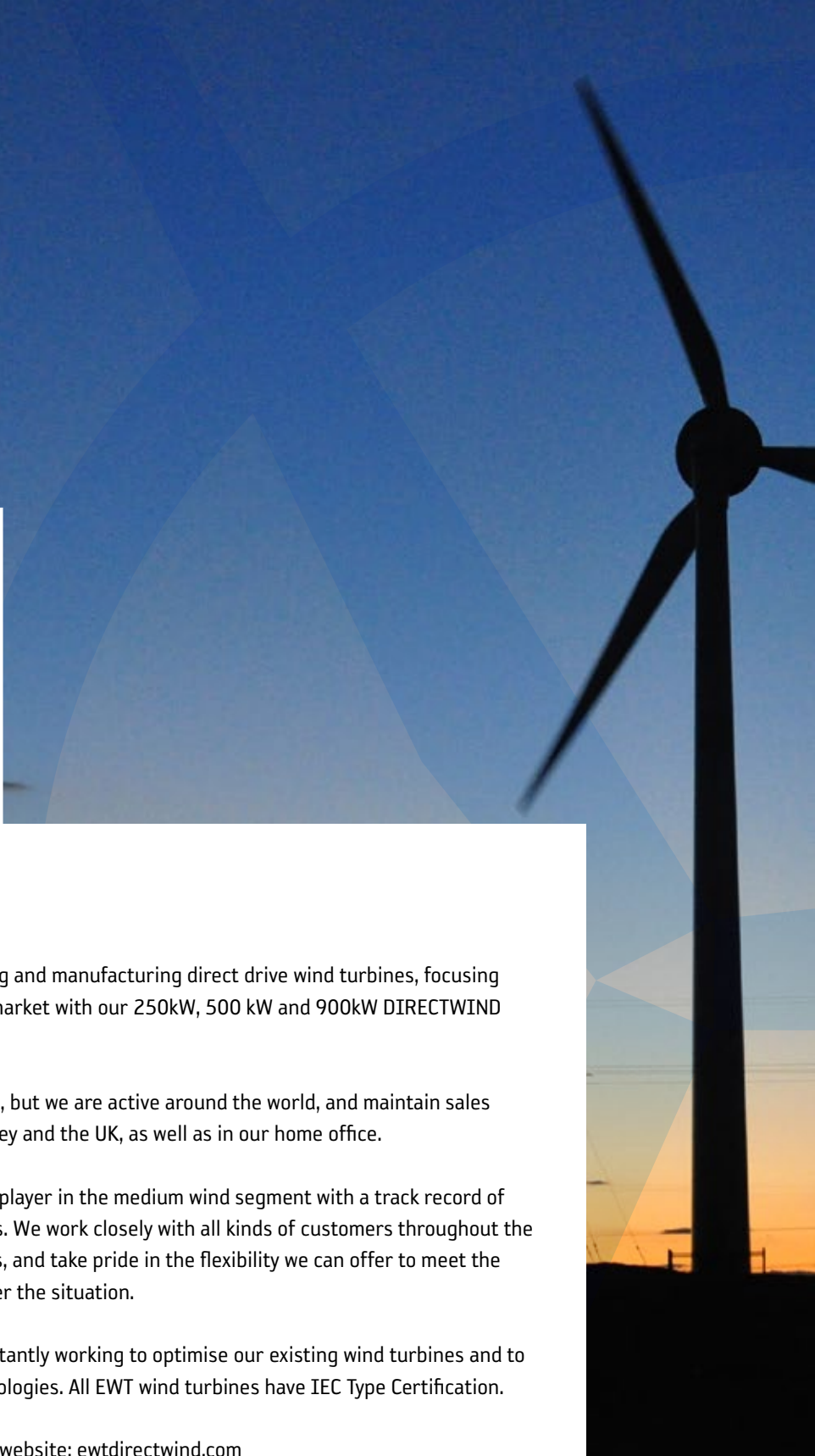


CONSIDER  
IT DONE.

We call it **DirectWind Service Program (DSP)**, and what it means for you is the knowledge that we'll take care of any maintenance you may require, from routine to extraordinary.

- Preventive maintenance**
- Corrective maintenance**
- Availability guarantee**
- Power curve guarantee**
- Extended product warranty**
- Business interruption compensation**





## About EWT

Since 2004, we've been designing and manufacturing direct drive wind turbines, focusing primarily on the sub-megawatt market with our 250kW, 500 kW and 900kW DIRECTWIND turbines.

We are based in the Netherlands, but we are active around the world, and maintain sales offices in the United States, Turkey and the UK, as well as in our home office.

We are a trusted and successful player in the medium wind segment with a track record of more than 500 installed turbines. We work closely with all kinds of customers throughout the planning and installation process, and take pride in the flexibility we can offer to meet the needs of each customer, whatever the situation.

Our in-house engineers are constantly working to optimise our existing wind turbines and to develop new products and technologies. All EWT wind turbines have IEC Type Certification.

For more information, check our website: [ewtdirectwind.com](http://ewtdirectwind.com)  
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