

The magazine
for success with wind

Flying high

/ Events in 2024

21 March	JobMesse Rostock
20–22 March	WindEurope Bilbao
20 April	Karrierechance MV Rostock
27 April	Renewable Energy Day German national initiative for environmentally friendly measures
11-12 June	16. Branchentag Windenergie NRW
3-4 July	vocatium Fachmesse (training and studies)
9 August	13th Rostock Wind Rostock
20-21 September	Job Factory Hansemesse Rostock
24-27 September	WindEnergy Hamburg
5-7 November	32nd Windenergietage Linstow
21-22 November	12th Windenergietage NRW
27 December	Chamber of Commerce Returners Day

Dear eno mag readers,

Amid the many challenges and changes that face us in today's fast-paced world, we would like to invite you to enjoy a little time out with eno magazine at the end of the year. In times when topics such as climate change, geostrategic interests, political uncertainty, financial challenges and skills shortages are ever-present, it is all the more important to seek out sustainable opportunities and work actively to create a positive future.

Global demand for clean energy is rising continuously and our industry is playing a key role in this transformation process. By 2030, Germany is due to have solar plants with an installed output of 215 GW and wind farms with a total output of 115 GW, which will make a crucial contribution to the energy transition. Although expansion in the PV sector is around 50% above the planned level for this year and the development targets for 2023 were reached back in August, installation of new wind energy facilities is currently around 25% lower than planned. Around 650 onshore wind turbines have been installed so far this year in Germany, which is significantly fewer than the 4–5 per day called for by Federal Chancellor Olaf Scholz. These figures illustrate the shared challenges we face if we are to achieve the defined goals.

Decisive political action has been taken in this legislative period to accelerate the expansion of wind energy, with the first positive effects already being apparent. Despite these successes, the European wind sector is facing challenges, including global competitiveness, supply chain stability and the optimisation of turbines to achieve better public acceptance. We are, however, confident that we can continue to overcome these challenges by working together to develop innovative and future-proof solutions.

Skilled. Innovative. Flexible.

Here at eno energy, we can look back with satisfaction on a successful year. We recently erected the first prototypes of our newly developed 6+ MW enoventum platform – the Falkenhagen wind farm is now home to three eno152 turbines with an impressive output of 5.6 MW each and a hub height of 165 metres. The installation of our first eno160 6 MW turbine is planned for early 2024. This current year will also see completion of the prototype of a further evolution of our 4 MW platform, the 4.2 MW eno140. Market feedback on our innovative products has been positive and we are experiencing high demand that validates our strategic route map.

The future holds many exciting opportunities for us to help shape a sustainable world. We are committed to utilising these opportunities and look forward to working with our partners, customers and staff to develop innovative solutions and actively drive the energy transition. Thank you for your continued support.

We wish you all a peaceful, relaxing Christmas and a happy new year 2024.



Dr Fabian Gierschner
Head of Research and Development



Three eno152s for Brandenburg

The new power sources have
joined the grid in Falkenhagen.



The view from the nacelle across the shaft assembly is simply amazing. The dizzying height our service engineers work at never fails to impress, and rewards our teams with incredible panoramic views of the countryside. Anyone with a fear of heights should not apply!



15.11. **Completion of third turbine**



10.09. **Completion of second turbine**



30.08. **Transportation of the second turbine to Falkenhagen**

15.08. **Completion of first turbine**
Installation of the hub on the pivot shaft

08.08. **Testing and lifting of rotor blade crossbeam**
Installation of gearbox

01.08. **Start of construction of second tower**
Raising into position of machine



25.07. **Start of erection of hybrid tower for eno152**

01.07. **Rotor blades shipped**

July 2023
Start of construction

July 2023 saw the start of construction for our new wind farm project at Falkenhagen, near Pritzwalk (Brandenburg).

The site is home to three new eno152 wind turbines, which each produce 5.6 MW and have a hub height of 165 metres. Erection of the last turbine was completed in mid-November. Following a trial phase, the first eno152 will enter regular operation the week before Christmas. Going forward, the three turbines will provide more than 15,000 homes with power and save some 30,000 tonnes of CO₂.

Maximum efficiency thanks to maximum performance

The eno152 was unveiled at the ninth Rostock Wind event in summer 2020, when eno energy systems GmbH launched a wind turbine optimised for high wind locations in the segment for wind turbines with a rotor diameter of over 150 metres. This turbine variant leverages all the benefits of the **ENO Ventum** platform and is designed for locations with medium to high wind levels. The tried and tested four-point bearing for the drive train and the choice of high-quality sub-suppliers for →

the core components ensure reliability, durability and high availability, made in Germany. With a 21% higher yield than the eno140 due to its rotor swept area of 17,979 square metres, and with towers offering total heights of 200 metres and 241 metres, flexibility is guaranteed.

Constructing an eno152 with a hub height of 165 metres requires a large crane and up to 80 hours of work. Erection of a turbine of this size is always exciting and presents a significant logistical challenge. Perfect supply chain management is essential.

We are unique in Europe!

No other wind turbine manufacturer is able to offer the planning of turnkey wind farms, planning services, approval services and end-to-end project management in-house from a single source, in addition to supplying turbines that are optimised to suit the specific customer requirements.

The eno energy group will continue to evolve as a tech-driven wind energy company, strengthening its activities across a variety of areas and new projects.



Construction company Max Boegl begins erection of the hybrid tower.

The hub is lifted onto the pivot, where it is completed and installed.



“Eno Energy is flying high”

Article in the *Ostsee Zeitung* newspaper



Flying high. That's the best way to describe Eno Energy, which is based in Rostock and Rerik. The wind turbine manufacturer has been growing steadily for almost 24 years. From its beginnings with just three founders, it now has some 260 employees. The five different wind turbine models offered by the company are in service across Germany, southern Sweden and northern France, with Belgium and Poland set to follow.

“The company has manufactured exclusively in Rostock since 1999 and is currently expanding strongly.”

Patrick Rudolf, Head of Sales



Jacqueline Wunsch is an authorised signatory of eno energy based at the company's Rerik site. She is seen here in front of the wind turbines in Brusow (Rostock district).

Jacqueline Wunsch has been part of the team almost since the beginning. The graduate in industrial engineering started out as a technical draughtswoman and is now responsible for the Northern Region project development team. Like Gudrun Gottschalk of the Southern Region project development team, Jacqueline Wunsch is also a sole authorised signatory, alongside managing director Karsten Porm, and thus able to represent the eno energy group. "It's just never boring here. You have to be passionate about it," she says when asked to explain the company's growth – and also why she has stayed so long.

“Production will remain based in Rostock.”

Karsten Porm, owner and managing director of Eno Energy





INTRODUCTION

In conversation with eno energy head of sales Patrick Rudolf

Dear interested readers,

I joined the eno energy team five months ago as head of sales. In the course of those five months, I have got to know a fascinating and distinctive industry and also learned a lot about an amazingly complex and special company with exciting prospects.

I want to use the next few paragraphs to share my insights into eno energy and the potential that lies within what is probably the most unique company in the wind energy sector.

The wind energy industry is more strongly diversified and widely discussed than almost any other sector. This is where the pioneering spirit of enthusiastic individualists who take huge risks and make personal sacrifices to bring about real change meets large-scale industrial structures, interests and challenges against a backdrop of basic socio-political and economic needs, such as security of supply, competitiveness and affordable electricity.

Operating in this demanding arena, eno energy has built a strong reputation and established itself as an industry all-rounder. No other company plays such a relevant role in so many different areas or can offer its customers such a broad range of services. Despite the eno energy group being well known in the industry, it seems that few people really fully understand the business. While it is

successfully involved in almost all product and service areas relating to the wind industry, it cannot be conveniently pigeonholed as a developer, wind turbine manufacturer, service provider or development service provider, making it very difficult to put a label on. The best way of describing eno energy is as an agile technology company that has the wide-ranging capability to offer comprehensive, largely independent solutions in the renewable energy sector.

The broad service portfolio is no accident, but nor was it the founder's original intention to make the company so broad-based and multi-faceted. Rather, it reflects the evolution from project development firm to an infrastructure development company that operates its own portfolio of wind turbines. Unlike with the common pattern of growth by way of monostructures and specialisation, the owner-managed eno energy group chose early on to minimise risk through diversification and to pursue long-term goals.

As a logical consequence of this approach, the eno energy group has deliberately not pursued disproportionate growth in any of its business areas. It has therefore not become one of the big, well-known players with large production numbers, prestigious deals and correspondingly extensive media coverage, both good and

bad. The eno energy group has always had a strategy of measured growth, achieving this in recent years primarily through striking a balance between project implementation and parallel development of the company's own wind turbine portfolio.

The current WTG portfolio – we recently commenced construction of prototype installations for our eno140, eno152 and eno160 WTG types – allows eno energy to make its wind turbines consistently available in the market. In contrast to traditional series manufacturers, our focus is not on mass production scaling of our products. The priority is to achieve organic growth through customers with single-digit annual turbine requirements.

With a design geared to longevity, maximum ease of servicing and high component quality, a mainly German/European supply chain and production based solely in Germany (Rostock), we intentionally choose not to follow the market's usual migration of production to "best-cost" countries or to engage in over-scaling (i.e. deliberately pushing engineering design limits), because our product, our reputation and our promises to our customers are simply too important. A satisfied customer and a wind turbine that consistently delivers energy are more important to us than generating deals at any price and defining ourselves in terms of quantity.

I was asked just recently for my personal thoughts on the wind turbine manufacturer market and the challenges facing eno energy in this respect. In general, I don't see eno energy as being in direct competition with the market-leading wind turbine manufacturers because our market positioning scarcely overlaps with the sales targets of other OEMs. On the contrary, I regard eno energy's positioning in the low-volume premium segment as significantly more robust than serving the high-volume mass production market. Like other industry sectors before it, the European wind industry is now seeing the arrival of Chinese mass manufacturers and is faced with aggressive price policies, short lead times and huge production capacity. European mass manufacturers are expected to streamline their product ranges due to further cost-cutting in response, which will open up additional sales potential for eno energy in the future and boost demand for its wind turbines.



Having said that, I believe the advantages for eno energy extend beyond a competitive product range and strategically favourable market positioning. It is safe to assume that the energy market, and thus also established sales structures, will undergo significant changes in the medium term. The anticipated liberalisation of the energy market will lead to an increased focus on providers of holistic energy generation solutions; the existing long-term subsidies for mediocre wind energy sites are simply too expensive and make no sense in terms of environmental policy. With its unique company structure and years of expertise around the development of turnkey wind farms through equipping them with its own WTG portfolio, ownership and operation of its own wind farms and also electricity marketing, the opportunities for further developing the eno energy group are virtually limitless.

To sum up this brief look at the various aspects of eno energy, its market options and growth opportunities, I can only say that I am very much looking forward to developments over the coming years and see an entirely positive future for the eno energy group.

I warmly invite you to follow our progress or indeed to play your own part as a customer or partner.

Best regards,

Patrick Rudolf
Head of Sales, eno energy group

// edit //

engineering – design – innovation – technology
from a hidden champion – to a technology company

/ Prowind x eno energy

The foundations for a long-term partnership have been laid

Brief profile

Prowind GmbH is a regional company, based in Osnabrück. Johannes Busmann, the owner and managing director of Prowind GmbH, is the man behind the Prowind story. He developed his passion for wind energy as a young farmer back in the 1980s, building his first wind turbine to provide his farm with electricity. Eventually, this pioneering vision of a sustainable energy supply led to the establishment of Prowind GmbH in 2000.



➤ Why did you choose to partner with eno energy?

Johannes Busmann ■ We are always on the lookout for wind turbines for optimal self-operation together with local people which are also a good fit with Prowind and offer the prospect of better quality. After careful scrutiny of purchasing, asset management and a variety of data on installed eno WTGs, plus a visit to eno's production facility, all interested parties decided to try out eno energy and hopefully enter into a lasting partnership.

➤ Could you briefly describe the joint project?

■ The project encompasses three eno160 type turbines producing 6 MW each. The wind farm is located in North Rhine-Westphalia, near the town of Marienmünster in the Höxter district, around 1.1 km to the southeast of Bredenborn. The site layout and all the associated plans, such as access to the wind farm, are based on existing plans and consent gained with a different turbine manufacturer. Working with eno, we were able to adapt the plans to the new specifications without significant changes.

➤ What details had to be taken into account?

■ The project was at a critical phase of the planning process when the effects of global crises such as the Covid pandemic and then the war in Ukraine directly impacted the plans. We are very proud that we are nevertheless able to successfully implement the wind farm, and are confident that we have found a reliable partner in eno.

➤ What is the current status of the project?

■ Road construction, crane sites and the excavation work have all been completed. The footings for the foundations have also been laid. The next milestones will be to pour the foundations for turbines 1 and 3 between weeks 49 and 52, and to install the rebar for the second turbine so that the foundations can be poured after 15 January 2024. The intention is then to erect the concrete towers by the end of March.

➤ How do you find eno to work with?

■ Our collaboration so far during the construction phase has gone very smoothly. Communication is good and any issues that need clarification are dealt with very efficiently by engaging directly with the relevant product manager.

“In eno, we have found a smaller-scale manufacturer that offers excellent quality and partnership on an equal footing. We are delighted to be progressing this joint project.”

Johannes Busmann,
owner and managing director, Prowind GmbH



“We can definitely see ourselves continuing to work with eno in the future. We already have a project pipeline in place for any future collaboration.”

Johannes Busmann,
owner and managing director, Prowind GmbH

Delivery of the
transmission station
for Marienmünster at
Vörden substation.

Mechatronics apprentice Niklas Mainzinger in the production facility at Rostock Hinrichsdorf.



Dual studies at eno energy

Shaping a green future together

To recruit qualified employees, eno energy is working with Wismar University of Applied Sciences for the first time this year, offering a part-time study programme in mechanical and electrical engineering.

We welcomed our first dual students on 1 August 2023. Our students spend nine semesters studying mechanical and electrical engineering at Wismar University of Applied Sciences. The practical placement that forms an integral part of their course takes place in our production facility in Hinrichsdorf, where they undertake training as mechatronics engineers and electronics engineers for operational technology.

In addition, seven apprentices started work at eno sites on 1 September 2023.

In another first this year, two apprentices travelled to Dublin to improve their foreign language skills. Trainees who perform particularly well within the company and at college benefit from this option as part of their second and third year of training.



PERSONAL REPORT
**Dublin placement
 with Erasmus**



Our trainee Tim Sturm at his workplace in the Speicher building.

**APPLY
 NOW!**



➤ **Hi Tim! You took part in our AHK Erasmus programme this year and had the opportunity to improve your English skills in Dublin, with a particular focus on your training in industrial management.**

Please tell us briefly where you went and how long you were there.

Tim ■ Hi, I was able to spend time in Dublin from 21 May to 10 June this year. I attended Dublin Business School and took a course in international industrial management.

➤ **How was the course organised there?**

■ The course consisted of different parts. Firstly, there was classroom teaching in various subjects, but always with a link to Dublin and Ireland. In the first few days we had the opportunity to take tours of the city to enable us to get to know our way around a bit better. We also visited a variety of businesses, giving us an insight into the international employment market.

➤ **Did the trip allow you to improve your English?**

■ My English definitely improved significantly during my stay. Over my time there, I noticed that it got easier and easier to use English in everyday life.

➤ **What is your takeaway from the Dublin programme?**

■ My stay in Dublin and the course I took there have given me a completely new insight. I would recommend anyone who has the opportunity to take part in a programme like this to do so – not just for the language and socio-cultural aspects, but also for their personal development.



BrandZZ

Modern ideas for
impactful 
communication.

Our main topics

Renewable
energy

Sustainability

Digitalisation

Structural change