

# Your fleetwide lifetime service partner

Vestas Services



**Wind.** It means the world to us.™

**Vestas**

# Innovation and knowledge of the wind industry, at your service

## **Service matters to us**

Servicing wind turbines all over the world requires industry experience, in depth knowledge and technical innovation. To us at Vestas it is all equally important when it comes to the maintenance and operation of your fleet. We develop knowledge and capacity to service the world's largest wind turbine brands, throughout the entire lifetime of the turbines. We do so always in accordance with the highest quality standards and safety requirements.

## **The largest fleet of wind turbines under service in the world**

So far in 2023, we have achieved +166 GW in installed power and have become the global leader in wind power plant solutions. In 2023, we passed the 146 GW milestone for capacity-under-service: more than anyone else in the market. This important achievement reinforces our position as the most trusted service partner in our industry, and we are proud of it.

## **The right expertise**

With Vestas' service solutions, your wind turbines can deliver to their full potential, so your

fleet operates at the utmost efficiency. We take care of your assets from installation to decommissioning, relying on the sharpest minds in our industry, the most equipped operational infrastructure, and data gathered from servicing thousands of wind turbines running globally. Together we can take your business to the next level, bringing even more sustainable energy to the world.

Vestas' service partnerships are long-term, lasting on average 18 years. This prolonged mutual commitment between Vestas and our customers is key to delivering the lowest cost of energy.









Safety first.  
Always.



#### **Powered by safety**

Safety is fundamental to our service business: our goal is zero injuries. We believe that all injuries can be prevented if every hazard is managed and the correct behaviour is in place.

We work closely together with you to fulfil the demand for the highest level of safety in our operations as this adds certainty to your business case. Also, we actively join hands with partners across the industry to mitigate general risks and improve training.

By putting safety first, we have significantly improved our incident rate for many years in a row.

However, we recognise that working with wind turbines is not hazard-free; heavy components, dizzying heights, unpredictable weather conditions and demanding processes present a challenging work environment.

#### **Vestas safety culture**

Safety is firmly embedded in our culture and in Vestas it starts at the top. Management is accountable, but each employee shares responsibility for their own and their colleagues' well-being. This focus on individual employees ensures that working safely is a condition for employment at Vestas. We consider our employees to be the most vital factor in our collective effort to stay safe.

In practice, this means that whenever you have a Vestas service technician or engineer at your disposal, you can be sure that they always put safety first.

#### **Towards zero injuries**

Vestas is on a cultural journey, moving towards taking a collective responsibility for safety. Since this journey of ours began in 2006, the incidence of industrial injuries per one million working hours at Vestas has been reduced an average of 28 percent every year.

In 2015, a new safety KPI was introduced in Vestas, focusing on 'total recordable injuries', which in addition to 'lost time injuries' includes 'restricted work injuries' and 'medical treatment injuries'. The measure 'total recordable injuries' includes a broader number of injuries giving a broader perspective of where unsafe behaviour takes place and unsafe material is used. This allows Vestas to evaluate and target injury reduction programs more effectively.



# Setting the bar for world-class maintenance



+146 GW  
of Vestas service  
capacity all over the  
world. More than  
anyone else in the  
industry.



#### **World leader in wind service solutions**

At Vestas, service is big business. And as our global footprint grows, so does our service organization. In fact, we now number more than 11,000 dedicated employees and skilled service technicians in our service division.

With over 1.46 GW under service, Vestas is the wind industry's largest service provider. To deliver the best possible service, we leverage more than 40 years of industry experience and a global service network spanning across all continents.

The combination of our truly global supply chain and a strong local presence allows us to bring our worldwide wind expertise right to our

customers' doorstep, regardless of the turbine brands they own.

#### **Maintaining your fleet, maximising your performance**

One of the major advantages you get from partnering with Vestas, is the scale and quality of service we are able to offer you: by converting unique, data-driven knowledge from thousands of monitored turbines into operational excellence, we help you capture around 98% of the available energy, restricting the lost production factor (LPF) to just around 2.4%.

Our records show that wind farms fully maintained by Vestas produce up to 3% more energy

than equivalent farms without a full-scope Vestas maintenance contract.

So doing, we ensure our customers' renewable power plants constantly deliver to their full potential.

# Globally proven multibrand service capabilities

## What is multibrand service?

Multibrand service means the ability of one service provider to maintain wind turbines manufactured by different original equipment manufacturers (OEMs).

If your fleet consists of wind turbines from more than one OEM, a multibrand service provider can serve as one single partner and one single point of contact to help you maintain and repair your fleet and optimise your turbine investment.





We believe our knowledge and expertise should be available to you and all other wind turbine owners. Throughout the lifetime of the turbines. All over the world. Across the largest turbine brands.

With our Multibrand service offering, we're responsible for the performance of thousands of wind turbines from the world's largest original equipment manufacturers (OEM) brands across all continents.

Our strong combination of a global outreach and a local presence allows us to identify and realise the full potential of your business. The Vestas Multibrand service offering combines the flexibility and agility of an independent service provider

(ISP) with the high-quality standards, knowledge and economies of scale of an OEM.

Partnering with us you are given the possibility to reduce the complexity of your service setup and achieve consistent quality as a result of having one single service provider. This allows for grouping of service agreements across technologies and OEMs, reducing transactional costs and bettering the overall efficiency. Ultimately, this will provide you with the opportunity to optimise not only turbines of the same brand, but also all turbines across your entire fleet as one system.

**We service all major turbine brands**

At Vestas we service the world's largest wind turbine brands of turbines with the same adherence

to high-quality standards as we are known for applying when servicing our own turbines. Brands served: Acciona, Alstom, Bonus, Clipper, Enercon, Gamesa, GE Wind, Nordex, Servion, Siemens, Suzlon, and Tacke.

New brands are added to the list as we develop knowledge and capacity in accordance with our quality standards and safety requirements. This includes training of technicians, development of documentation, service manuals and technical support. All of which are implemented throughout our global service organization and made directly available to our network of service technicians 24 hours a day.







# Vestas service offering

Our service offering is structured around three business areas built upon tangible products that you can implement directly into your operation and maintenance (O&M) strategy, regardless of the wind turbine brands you own.

All our services are designed to enable you to capture the maximum available wind and ensure the highest energy output at the lowest costs. Whether the solutions are designed through extensive field experience or through the utilisation of smart data, you can be confident that they are developed with your specific business in mind.

Our market-leader perspective gives us the overview and experience necessary to be able to identify the true potential of your business. Our technical and operational excellence then allows us to convert this potential into real business advantages.

## Maintenance Partnering

Maximise the availability of your windpark with the most experienced maintenance partner in the industry.



## Parts and Repair

Benefit from the combination of a truly global supply chain and a strong local presence to decrease your costs.



## Fleet Optimisation

Optimise your business with our data-driven solutions, bringing increased AEP and valuable insights.





# Maintenance Partnering

Our service partnering job begins as soon as your wind assets are installed and in operation. Our philosophy is that making the most of your power plant is about more than just engineering and logistics. It's about working together – creating solutions that revolve around your specific needs and your expectations.

As the industry's preferred operation and maintenance (O&M) partner, we offer flexible scheduled and unscheduled maintenance services - from low-scope to wall-to-wall programs with advanced guarantees. Our maintenance packages can be put together to specifically support long-term service and provide you with operational certainty for all kinds of wind turbine technologies – from the newest to old or legacy ones.

By choosing one of our maintenance service packages and adding on ad-hoc services as needed, you can tailor the service offering to suit your specific project necessities, no matter what wind turbine brands you own.

## **Active Output Management**

To realise the best possible return on your investment, implementing an effective O&M strategy is just as important as installing reliable turbines.

This is why we offer our Active Output Management® (AOM) maintenance concept, a flexible service package (AOM 1000 - 5000) that you can tailor according to your needs.

With Vestas AOM, you are supported by a proven service partner – working in collaboration with you to identify, allocate, and properly manage risks, and ensure peak performance from your plant. Regardless of which AOM solution you choose, we make sure to deliver the right people, the right infrastructure, and the right intelligence.

Vestas is committed to the smooth running of your business – ensuring that you benefit from industry-leading performance, research, innovation, expert technical teams, and a global supply chain that is reliable, efficient and cost-effective. All of this is done with one aim in mind: to offer you predictability, and to strengthen the certainty of your business case.



### AOM 1000

#### Maximum flexibility

You gain access to all of Vestas' capabilities, available on a time and material basis.

### AOM 3000

#### Shared risk

A complete package with a flat fee and main components on a time and material basis. Your risk profile is shared with Vestas. Once your initial contract has expired, AOM 3000 enables you to replace it with a model for greater risk sharing.

### AOM 2000

#### Reduced risk

Sustained turbine performance through regular preventative maintenance, with all components available on a time and material basis, and a selection of optional add-ons.

### AOM 5000

#### Move wind from hour to power

AOM's all-inclusive, comprehensive energy-based option. Energy-based availability guarantee maximises output by carrying out service and maintenance only during low-wind periods. Guarantee based on 97% energy-based availability, moving the availability measure from hour to power. You can also use our new Vestas Performance Manager software, ensuring complete transparency at all times. Contract covers periods up to 10 years, with the possibility to extend for 2 x 5-year periods.

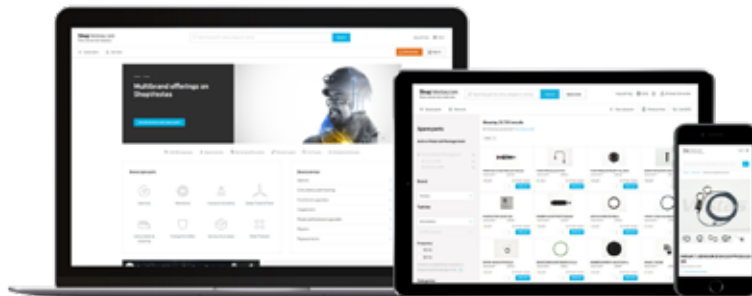
### AOM 4000

#### Maximised uptime

Everything your turbine requires, including main components and materials. This option includes a time-based availability guarantee of up to 97% uptime. You can also use our new Vestas Performance Manager software, ensuring complete transparency at all times. Contract covers periods up to 10 years, with the possibility to extend for 2 x 5-year periods.



# Parts & Repair services



When you choose Vestas as your preferred service provider, you get a partner who is dedicated to ensure timely delivery of the parts and repair services that you need at a minimised cost, so that your wind operations constantly operate smoothly.

With Vestas as your service partner, you get access to a one-stop-shop for spare parts and repair solutions across your fleet, independent of platform brands and models. We can deliver a spare parts set-up that fits your business needs all over the world, from fixed-fee main component coverage services to over-the-counter spare parts.

We strive to deliver unique, stand-alone repair solutions, which are designed to benefit our non-contract customers. Our repair solutions are based on extensive field experience, high quality standards, continuous investments in R&D, and timely execution. Our advanced uptower capabilities enable you to fix technical issues affecting your major components at the best possible tradeoff between time and cost.

## **Global supply chain, local presence**

Vestas distributes more than 350,000 parts per year and co-operate with more than 1,200 suppliers globally.

With more than 1,000 warehouses around the globe, and more than 88,000 different parts on stock, we ensure that your turbines can recover from problems and return to production in the shortest time possible, independent on the type of part you may need.

## **Care concepts for main components**

Major components are a root cause to unexpected operation and maintenance (O&M) costs. That is why Vestas consistently develop preventive and corrective repair solutions for blades, generators, gearboxes and transformers.

Preventive solutions, such as inspections, represent a cost- and time-efficient alternative to running the component to failure. By repairing the component before it breaks, you will achieve an improved lifetime of the component, while keeping your O&M costs under control.





#### Leveraging the convenience of e-commerce

The Vestas Parts & Repair offering is supported daily by our strong digital capabilities.

This is why we are able to provide to our customers Shop.Vestas, the industry's leading e-commerce platform offering spare parts and services across the largest wind turbine brands, in more than 70 countries around the world.

Leverage online access from any device and 24/7 opening hours to make your procurement activities as easy and efficient as possible with Shop.Vestas.

+11,000

skilled Vestas service technicians are on the field everyday to support our customers' wind operations all over the world.

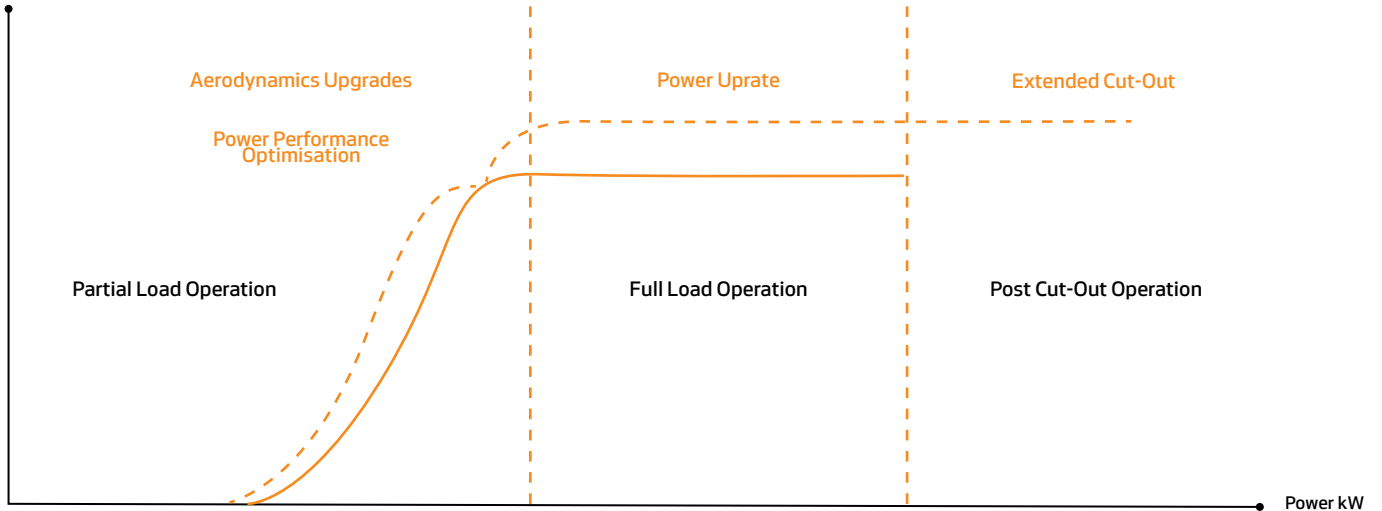


# Fleet Optimization solutions





Power kW



Display of the PowerPlus solutions and their impact on AEP on the different stages of the power curve

up to 5%  
annual energy  
production  
(AEP) increase  
as a result of  
implementing  
PowerPlus®  
solutions to your  
wind turbines

By offering our fleet optimization service solutions we constantly seek to improve the performance and efficiency of already installed and operating wind turbines, across the largest wind turbine brands. We do this through our own research and development efforts, but also through strategic supplier agreements with trusted partners, which have shown outstanding innovation within wind technology and validated results.

#### How to get more from what you have

Our range of product improvements is designed to enable you to manage your wind energy assets in the most efficient and profitable way possible. Through innovative, high-quality technologies and analytics-driven services, we strive to offer you more from what you have.

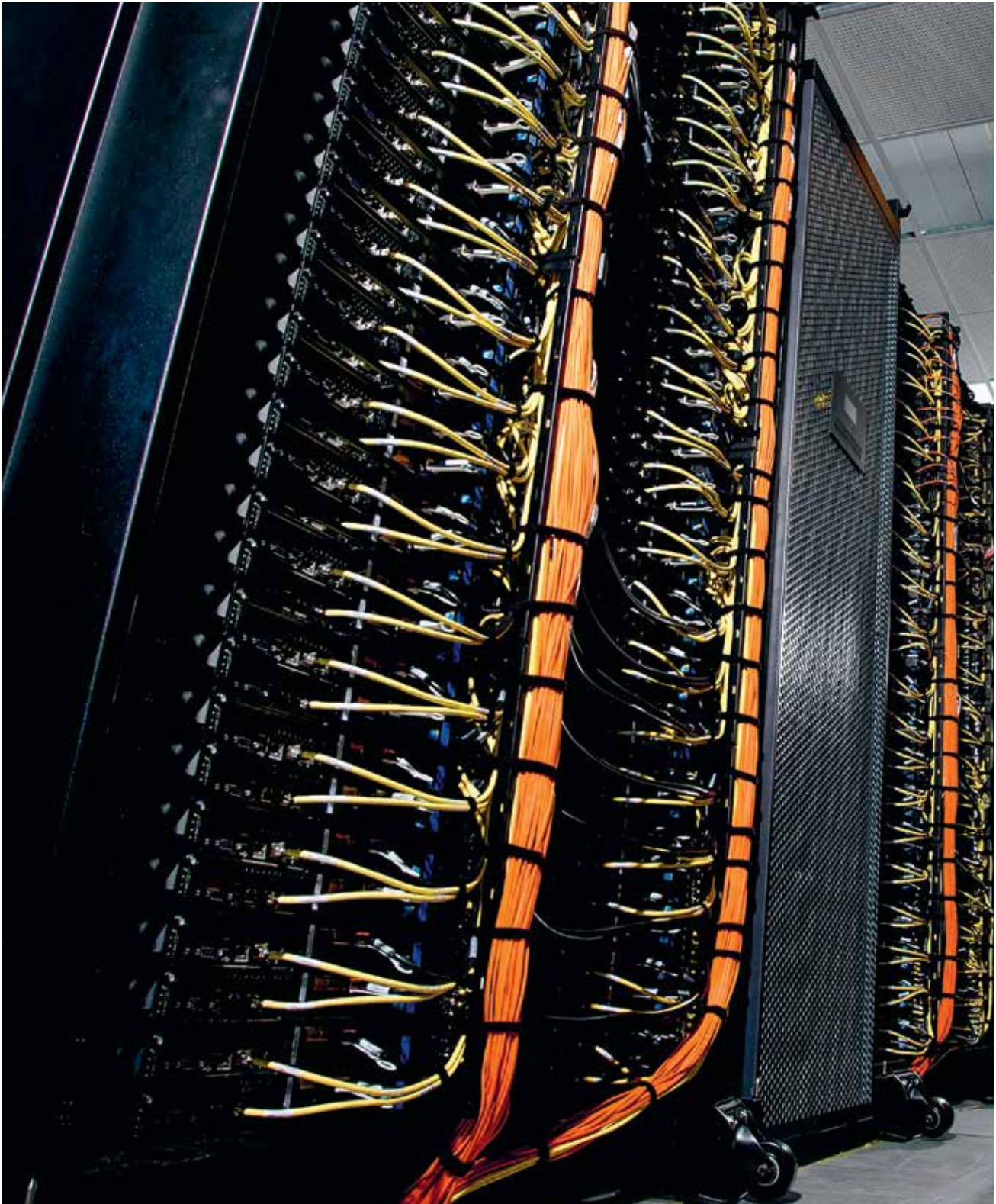
The product suite consists of three service concepts, each carrying a wide range of highly valuable solutions, making sure that we can provide you the improvements that fit your assets.

#### Product improvements portfolio

PowerPlus® solutions allow you to increase the output of your existing wind turbines and increase the annual energy production by improving the turbines performance at different stages of the power curve. PowerPlus® products come with a performance guarantee, providing you optimal business case certainty.

LifePlus™ Lifetime Extension offers tailor-made solutions customized to prolong the life of your existing wind assets, thus optimizing your business case and ensuring you lifetime certainty. The objective is to help your assets perform beyond design life.

TurbinePlus™ is our wide selection of simple, effective upgrades, designed to improve the safety, performance and lifetime of your turbines.



# Smart data and analytics

At Vestas, we believe that your business has the potential to perform even better than it does today and that digital solutions are needed to release this potential. Your ability to control performance and optimisation requires data-driven insights about your assets' behaviour.

Our service solutions are built upon and constantly optimized by insights and data that we collect in the field. Every time we start servicing a turbine somewhere in the world, we add on to our knowledge and experience, which we use to deliver even better value to our broader customer base.

As the global energy sector is transforming, Vestas offers customers digital solutions to deliver greater predictability, increased renewable energy production, more efficient operations, and better integration with energy grids.

Converting big data to smart data  
Daily utilisation of data from thousands of wind turbines provides Vestas with a unique perspective on the world's turbine fleet, both technically and operationally. By inviting you into our data ecosystem, we engage in a transparent partnership where our ultimate goal is to deliver improved implementable data-driven solutions to you.

We have more than 15 years of proven track record of integrating data into digital solutions to provide streamlined forecasting, monitoring and diagnostics for your convenience, ultimately optimising LPF, power output and cost out.

You decide the level of our involvement in turning the output into better performance. We can provide you with a simple overview of your turbines, or we can help you apply more sophisticated diagnostics to optimise your fleet.

We stand on the forefront of a data-driven solutions era in our industry, and our vision is to share and develop this universe with you. Together we can take your business to the next level, by utilising smart data in day to day operation.

#### Utopus Insights

To support customers even better on the digital transition, Vestas has acquired the US-based company Utopus Insights, Inc. The company develops, sells and services energy analytics software to renewable energy producers, operators, manufacturers (OEMs), transmission and distribution utilities, and other energy companies.

Together with Utopus Insights, we offer customers a suite of best-in-class analytics applications across energy sources that support the digitalization of renewable energy assets and energy systems as well as addresses well-known challenges such as predictive maintenance, forecasting and power plant optimisation.

+ 48,000

wind turbines all  
over the world  
delivering data  
and insights  
for analysis  
everyday.

# Sustainability in everything we do

At Vestas, we want to leave the Earth a better place than we found it. This is why integrating sustainability into everything we do is part of our vision to become the global leader in sustainable energy solutions.

Sustainability is at the core of what we do, and therefore minimizing the environmental footprint of our activities is top of mind for us. So is taking leadership in driving the change needed to achieve a more sustainable planet.

To remain at the forefront of the green energy transition, we as a company must do even more today to meet the growing sustainability expectations of our customers, business partners, investors and employees.

Achieving this goes beyond just producing sustainable products, as it affects our entire value chain. To succeed we are addressing our supply chain, the raw materials that we use, the transport that we use, the companies that we partner with... ultimately, everything. Including the way we build and deliver our service solutions.

To be truly sustainable, we have committed the way we operate and do business to four main sustainability goals:

Sustainability is a top priority for us at Vestas, and our entire organization is committed to succeed with it. For more information on our sustainability policy and plan of action, visit our website: [vestas.com/en/about/sustainability](https://vestas.com/en/about/sustainability)

## Sustainability in everything we do



Carbon neutral company by 2030 - without using carbon offsets



Producing zero-waste wind turbines by 2040



Safest, most inclusive & socially-responsible company in the energy industry



Leading the transition towards a world powered by sustainable energy







in 2020

we began our service sustainability journey by starting to replace our global service vehicle fleet with new vehicles powered by renewable energy.

**Vestas Wind Systems A/S**  
Hedeager 42, 8200 Aarhus N, Danmark  
Tlf: +45 9730 0000 . Fax: +45 9730 0001  
vestas@vestas.com . [vestas.com](https://www.vestas.com)

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