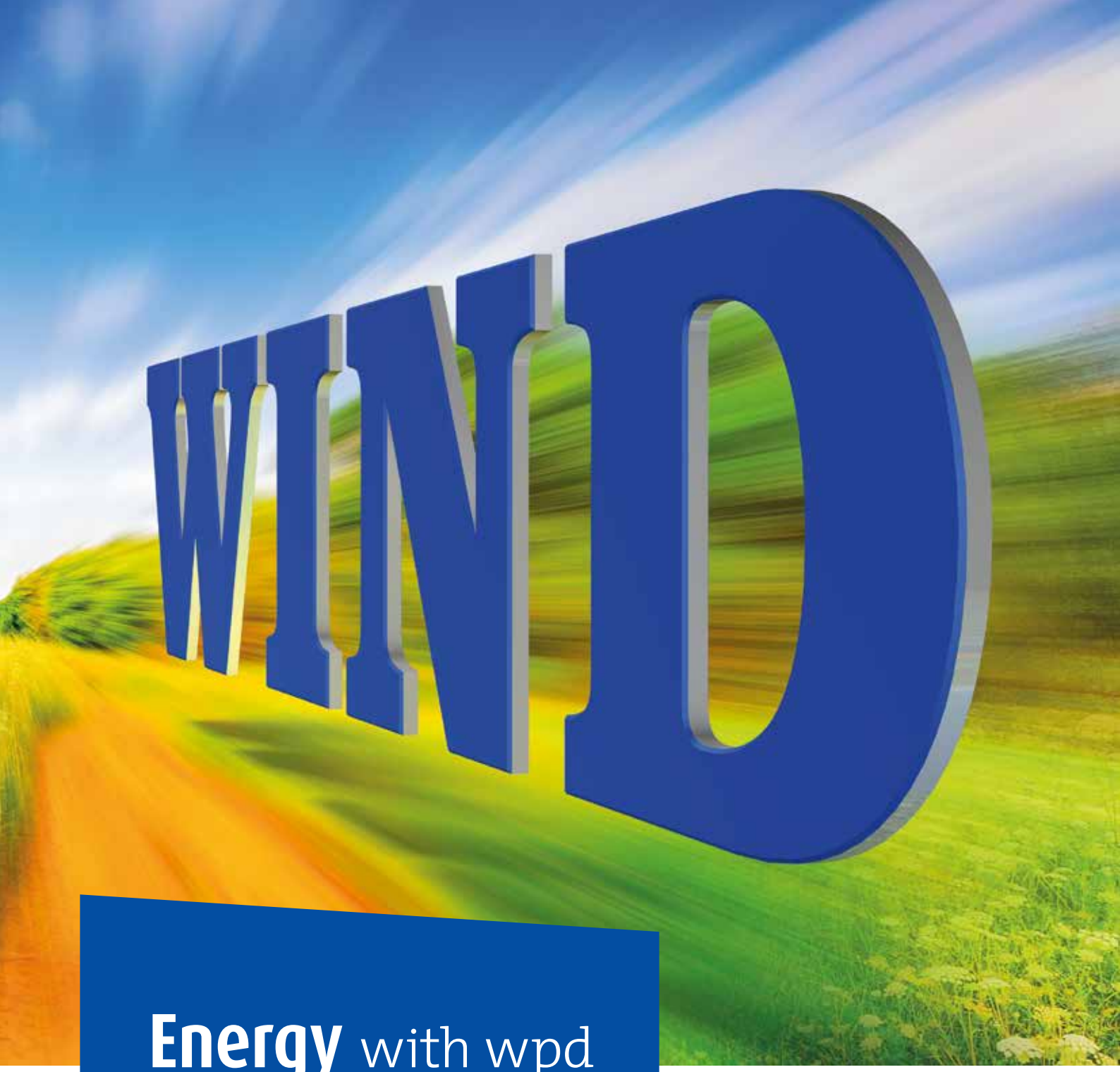


Energy with wpd

wpd

think energy


ONSHO
OFFSHO

Development, financing, construction and operation of wind energy projects

Good reasons for choosing wpd

Manufacturer

„Our collaborations are marked by mutual respect and fairness. We greatly appreciate our business ties with wpd employees going back many years which in some cases are also personal relationships, whether in Germany or abroad.“

Hans-Dieter Kettwig, Managing Director of ENERCON

Investors

„wpd’s technical and commercial track record has convinced us. We are looking forward to a long-term partnership at eye level.“

Dr. Gerd Weidenfeld, Gothaer Asset Management AG,
Head of Corporate Finance

Cooperation partners

„Over half of all wind projects require a strong anchor investor as well as a regional project developer. wpd has distinguished itself here as a reliable partner in numerous projects and offers us great experience in the areas of development, finance, construction and operation.“

Bernd Jeske, Managing Director of naturwind

Local authorities

„We opted for wpd – and that was the right decision: all promises and agreements were kept. The company always looked after us and maintained personal contact.“

Dieter Langmaack, Mayor of the town of Lübberstedt/Lower Saxony

Property owner

„It‘s important to have a reliable project developer who gives you good advice and who, for example, can use his experience to overcome the hurdles of planning permission and the expert reports that have to be produced. Things went very smoothly with wpd in that regard.“

Johann-Wilhelm Knopf, farmer and owner, wind farm in Wehren/Schleswig-Holstein

Banks

„We particularly appreciate the noticeably high level of professionalism and reliability on all levels – starting with the staff and continuing with the management all the way up to the wpd board of directors.“

Rita Vollmar, Deutsche Kreditbank, Team Manager for Environmental Technology

Together, strong, sustainable

Our expert team is working on the energy turnaround

Finite raw materials, climate change and the question of self-sufficiency in the supply of energy make renewable energies the central component of the energy mix. wpd has been working specifically on implementing this strategy since 1996, and every year since then it has built an average of 100 new wind turbines.

We have played a determining role in helping to shape the wind industry since its early beginnings, we act as an engine of innovation in fields such as offshore wind energy or repowering and we strive to be proactive in meeting the challenges of the future.

For us, implementing sustainable projects is based on building partnerships on an equal footing as well as on fairness and continuity; political will and support from society for the energy turnaround are the factors which spur us on. We owe the success of our fast-growing, medium-sized company predominantly to the great commitment, many years of experience and high level of expertise of our staff. Welcome to wpd!

Dr. Gernot Blanke
(Member of the Board of wpd AG)

Dr. Hartmut Brösamle
(Member of the Board of wpd AG)

Achim Berge Olsen
(Member of the Board of wpd AG)

Benefit from our expertise

1 | Site evaluation

Our engineers identify the best locations for wind farms, taking into account technical and commercial parameters but also conservation concerns and the wishes of the local communities.

2 | Secured under private law

Suitable locations are secured by means of purchase or lease agreements with the property owners.

3 | Determining the potential of the wind

We conduct our own, high-quality wind measurements in order to determine the exact potential of the wind and to calculate the potential yield professionally.

4 | Technical planning / Micro-siting

Specialists work out the best possible configuration of the wind farm drawing on a variety of parameters.

5 | Approval process

We conduct all the surveys, produce the necessary documentation and accompany the entire process until final approval.

6 | Planning for connection to grid

Working with the operator of the grid, our electrical engineers draw up the best concept for connecting to the grid.

7 | Finance

We draw up solid financing concepts for the wind farm in conjunction with leading banks.

8 | Construction

Our construction engineers provide support in all phases of the construction process, thereby guaranteeing that the wind farm will be reliably built.

9 | Commissioning

Our electrical engineers ensure that the wind farm is safely connected to the power grid.

10 | Management and operation of the plant

We ensure the best possible technical and commercial operation of the turbines throughout the entire lifetime of the wind farm.

11 | Marketing electricity

We develop innovative concepts in order to act as an independent producer of wind power on the market.

1996

wpd GmbH founded by
Dr. Klaus Meier and Dr. Gernot Blanke

1997

Realisation of the first wind farm:
Olzheimer Berg

2000

wpd offshore GmbH founded

More than 100 turbines and over
100 megawatts on the grid

2001

wpd AG set up

Over 200 turbines and around
240 megawatts in operation

2005

wpd enters the world of international project financing with a 50 megawatts project in Taiwan

First approvals for offshore projects in the Baltic Sea

2006

wpd acquires EnerSys GmbH; this leads to acceleration of international project development; Managing Director of EnerSys, Dr. Hartmut Brösamle, is appointed to the Board of wpd AG

2008

Sale of Hochseewindpark Nordsee (Hohe See) offshore projects, Baltic 1, Kriegers Flak I (Baltic 2) and He Dreiht to EnBW AG with a cooperation agreement for project and construction management

2009

wpd sells nine wind energy projects with 163 megawatts to Stadtwerke München, HSE and Mainova

2010

wpd takes over Butendiek offshore wind project

Most successful year in sales terms with 405 megawatts of newly secured business

2011

Stadtwerke München takes a 33 percent stake in wpd europe GmbH; the international onshore activities in Europe and Canada are consolidated in this wpd subsidiary

2012

Third wind farm in Croatia in operation

Collaboration with Albwerk to realise Lauterstein wind farm

wpd wins French offshore projects in a consortium with EDF, ALSTOM and DONG Energy

2014

Head Office in Bremen moves to new building next to the river Weser

wpd commissions its first two projects in Canada, and also starts construction of a major project in Finland

2015

Company's own portfolio of wind farms crosses the 1,000 megawatts mark

Butendiek offshore wind farm goes into operation

2016

wpd begins construction of the Nordergründe offshore wind farm

Tender contract awarded for 350 megawatts for onshore wind farm in Chile

2017

wpd wins contract for 170 megawatts in Spain

Nordergründe offshore project goes into operation

2018

Contracts won in onshore tenders in Germany

wpd wins contracts for 1,000 megawatts for the Taiwanese offshore projects Yunlin and Guanyin

Achim Berge Olsen is appointed to the Board of wpd AG

„Protecting our climate represents one of the greatest challenges of the coming years.

It is a matter of importance to us that we complement our successful commitment in the wind sector by also supporting non-commercial projects from other fields and thus making our own small contribution towards the preservation of our planet."

Dr. Hartmut Brösamle, Member of the Board of wpd AG

Protect nature on a sustainable basis

CSR projects in Guatemala and Pakistan

Protecting the climate and resources is our motivation. That is why we make such a strong commitment in this area. Naturally, by expanding wind energy but also by maintaining a responsible view of our daily work. We try our utmost namely to avoid travelling by air or road, we provide company bicycles and rely increasingly on electromobility. Numerous outlets for charging e-cars have been provided at our facilities, for example.

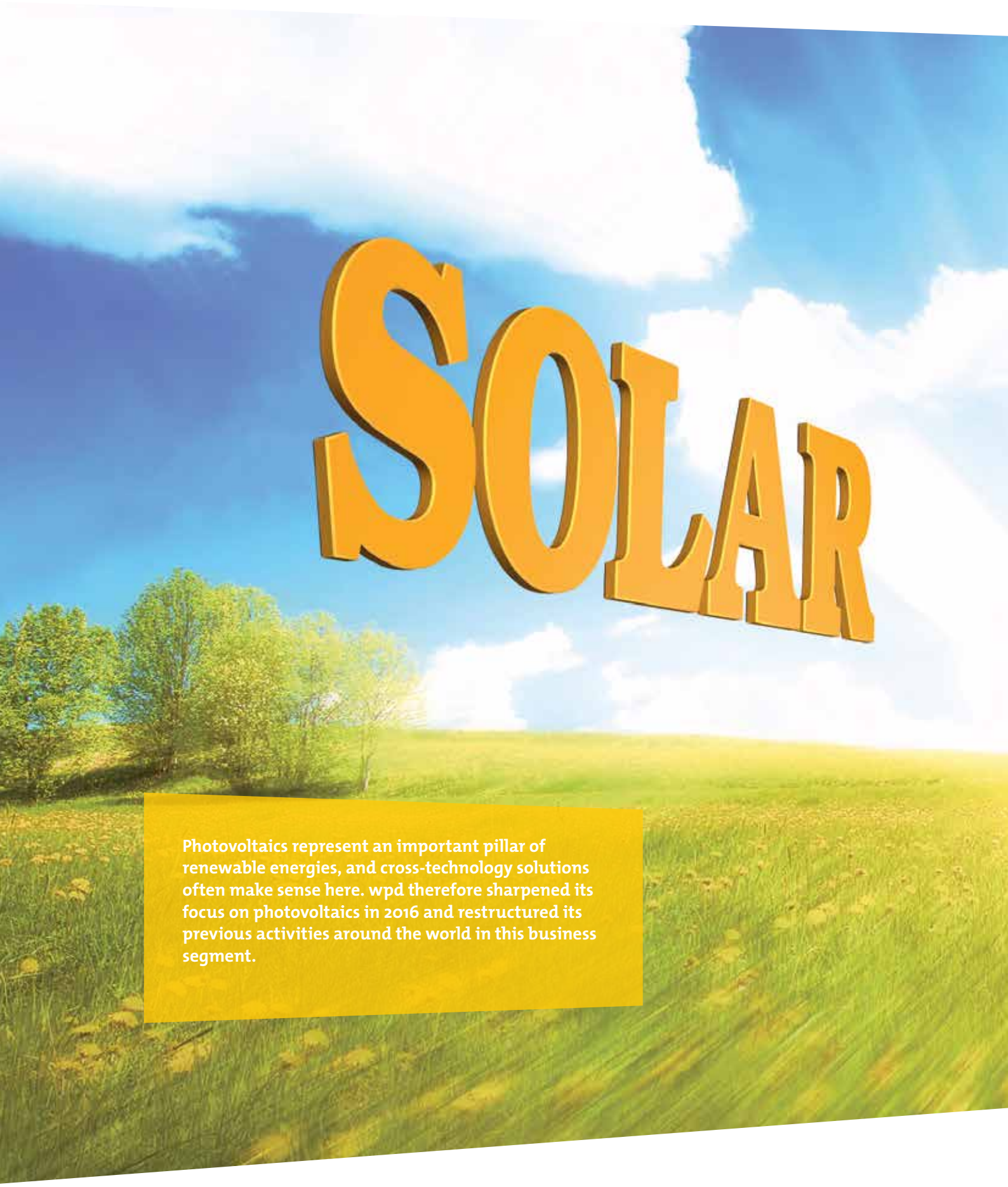
In addition, we have been analysing the CO_2 emissions caused by the energy requirements of our offices and travel for years, and we compensate them partially by means of sustainable and sensible projects such as reforestation in Guatemala and the replacement of petrol-fuelled lamps with solar lights in Pakistan.

We regularly receive positive feedback from these projects. For example, it has proved possible to extend the rain forest in Guatemala in the last few years – today the total area covers an impressive 176 hectares.

Financing solar lighting in Pakistan and as a result doing away with petroleum lamps that damage the environment and health, enables us to achieve numerous goals at the same time: It saves a lot of CO_2, eases the financial burden on families and children can study for longer in the evening.

Small building blocks which we see as sensible and significant.

Among other projects, wpd actively supports the use of solar lighting in Pakistan (above), reforestation in Guatemala (below).

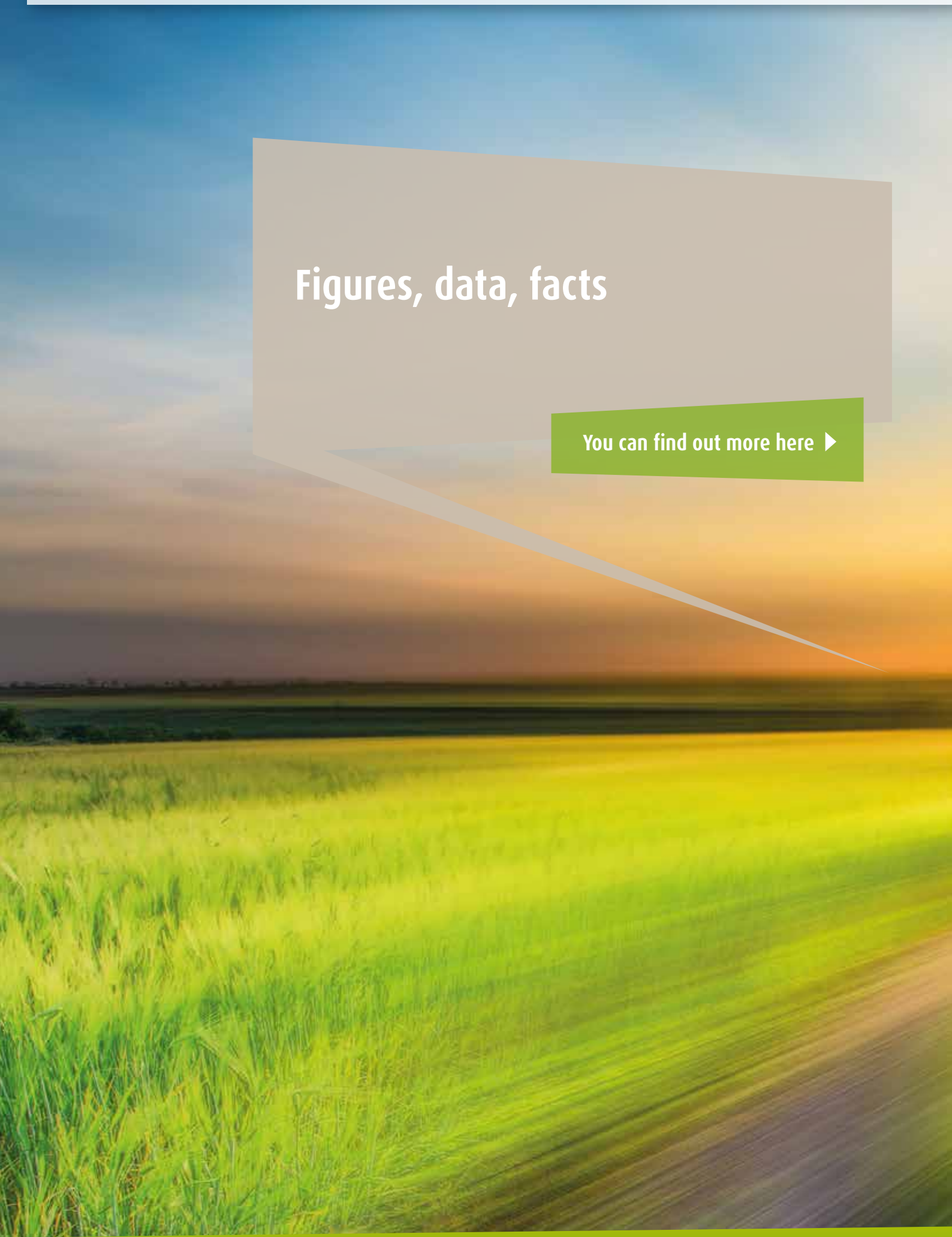


Photovoltaics represent an important pillar of renewable energies, and cross-technology solutions often make sense here. wpd therefore sharpened its focus on photovoltaics in 2016 and restructured its previous activities around the world in this business segment.

wpd rounds off portfolio with photovoltaics

With solar energy, our focus is on so-called utility scale solar projects. Large-scale, free-standing solar power stations make a major contribution to reliability of supply and affordable, renewable electricity. wpd delivers everything from a single source. We provide the finance and connection to the grid, coordinate expert reports and studies, plan the design of the park, purchase the components and manage the construction. wpd has already successfully implemented its first projects, e.g. in Taiwan where it realised PV roof-top projects in industrial parks.

Building on this success, we are currently working on expanding the project pipeline and reinforcing local teams in our priority regions of Europe, North America and in parts of Asia.



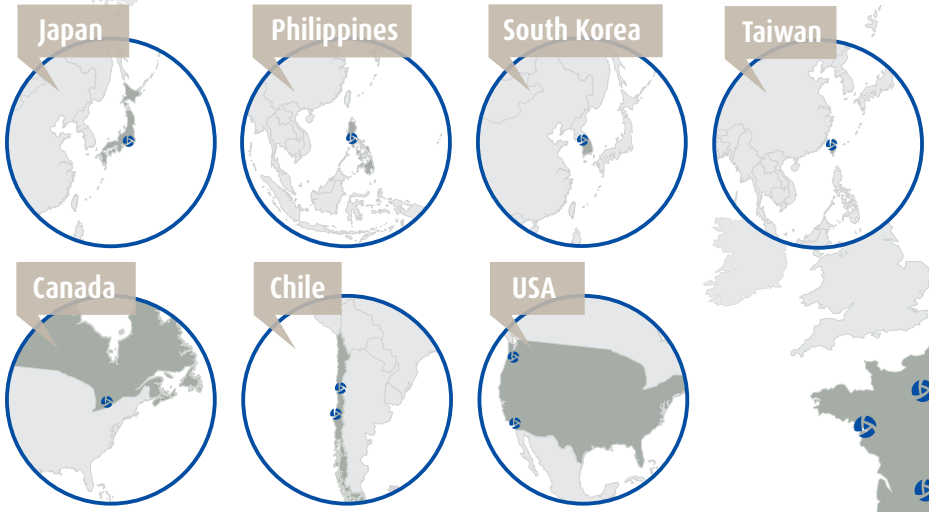
Figures, data, facts

You can find out more here ▶

Development and operation of wind energy projects

Figures, data, facts for 2019

wpd
think energy



Germany
Bremen
Bietigheim-Bissingen
Bad Kreuznach
Düsseldorf
Hamburg
Kassel
Leipzig
Munich
Osnabrück
Potsdam
Rostock
Schleswig

Croatia
Dubrovnik

Finland
Espoo

France
Boulogne-Billancourt
Dijon
Limoges
Lyon
Nantes
Paris

Italy
Bari
Rome

Poland
Poznań

Romania
Iași

Spain
Valladolid

Sweden
Stockholm

Switzerland
Zurich

Canada
Mississauga

Chile
Santiago de Chile
Los Angeles

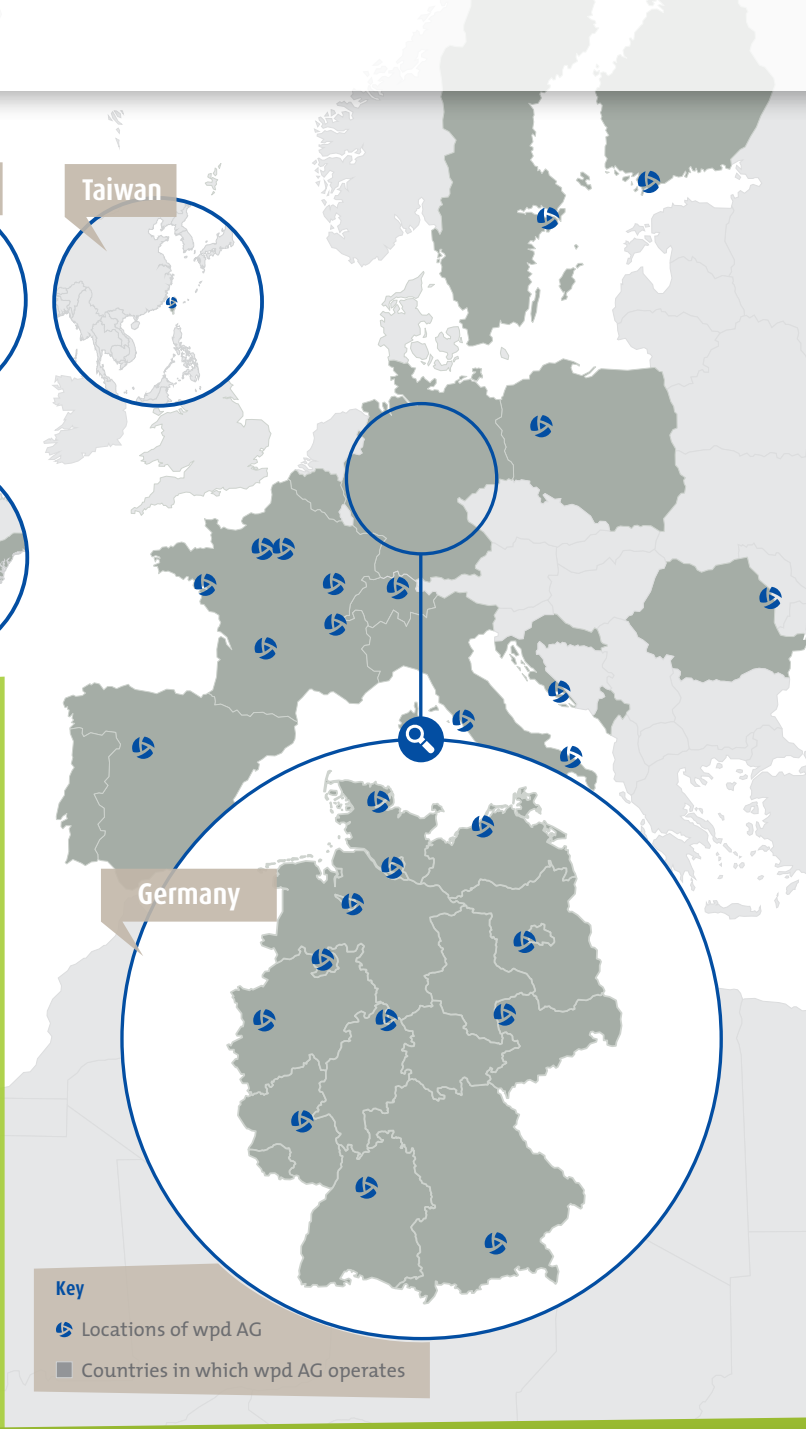
USA
Portland, OR
Mission Viejo, CA

Japan
Tokyo

Philippines
Manila

South Korea
Seoul

Taiwan
Taipei



Some
2,200 employees
worldwide

Today, the wpd group employs some 2,200 staff who are driving the expansion of wind energy around the world and who offer a complete value-added chain in this field. The focus lies on the home market of Germany but we also concentrate on selected countries in Europe as well as individual markets in America and Asia. The company`s head office has been located in Bremen since wpd was set up in 1996.

The wpd Group

654 employees
Development and operation

394 employees
Commercial management and technical operational management

1,162 employees
Maintenance and service

wpd think energy

wpd windmanager

Deutsche Windtechnik

wpd AG – on- and offshore facts

2,200 wind turbines set up

4,450 MW of installed capacity

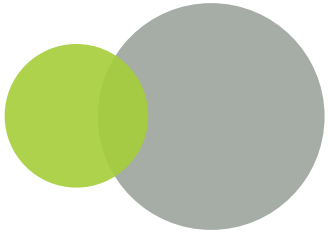
Active in **21 countries**

1,525 MW own capacity (IRPP)

Additional power installed by wpd:

1996 - 2003
- 589 wind turbines
- 717 MW

1996 - 2010
- 1,315 wind turbines
- 2,069 MW

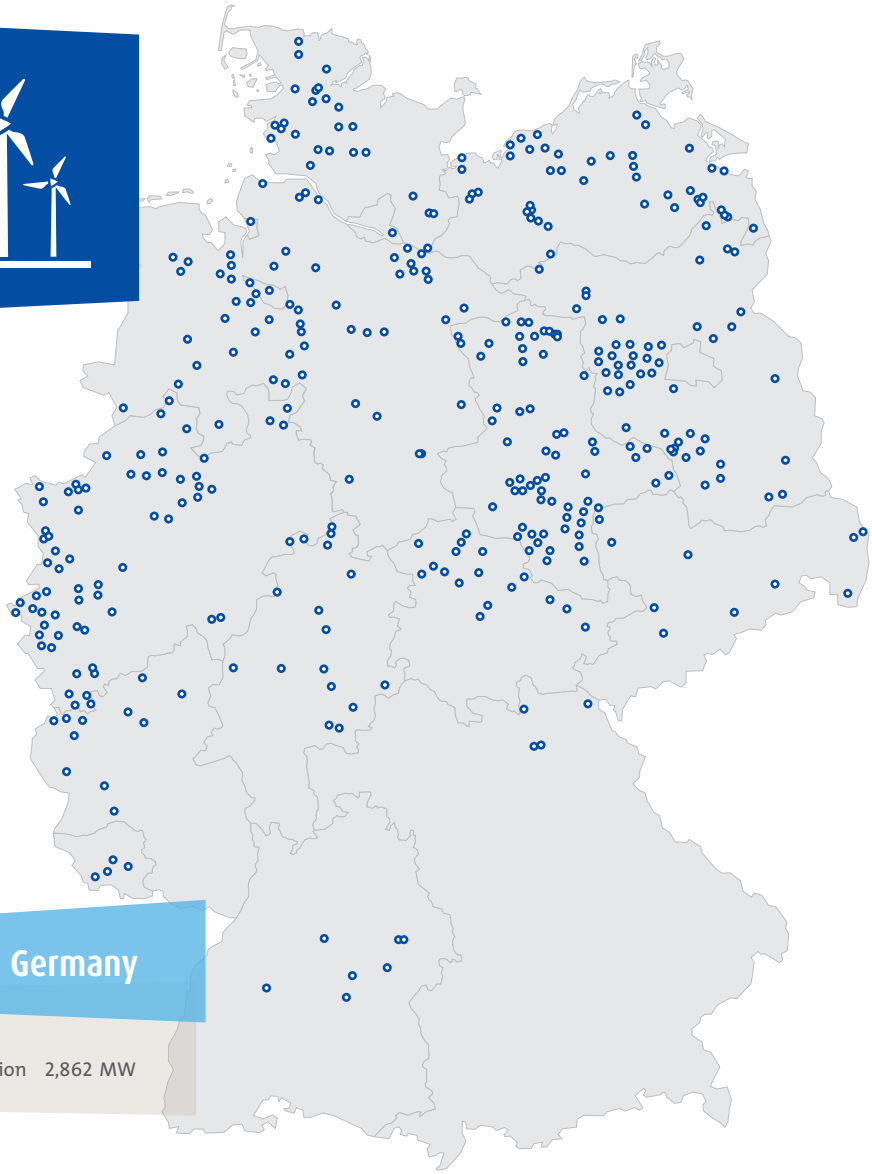


1996 - 2019
- 2,197 wind turbines
- 4,452 MW

Projects onshore

So far approx. **4,000 MW** installed onshore

8,725 MW wind onshore in planning process



Wind farms in Germany

Key

- wpd wind farms in operation 2,862 MW


Canada
28.70 MW
180 MW
Chile
500 MW
USA
750 MW
350 MWp
Japan
30 MW
South Korea
90 MW
Taiwan
388.30 MW
520 MW
4.91 MWp
75 MWp
Finland
141.60 MW
700 MW
Sweden
6.00 MW
1,000 MW
Key
Wind projects installed
Wind projects in planning process
Photovoltaic projects installed
Photovoltaic projects in planning process
Poland
20.60 MW
200 MW
Germany
2,861.54 MW
2,600 MW
7.40 MWp
Belgium
9.00 MW
Romania
300 MW
Croatia
91.80 MW
130 MW
France
366.00 MW
1,000 MW
400 MWp
Montenegro
75 MW
Portugal
2.15 MWp
Spain
64.50 MW
300 MW
Italy
350 MW
2.89 MWp
Greece
9.80 MWp

The turbines installed by us in **Germany** can supply about **1,600,000** three-person households with power.

A major success in two decades

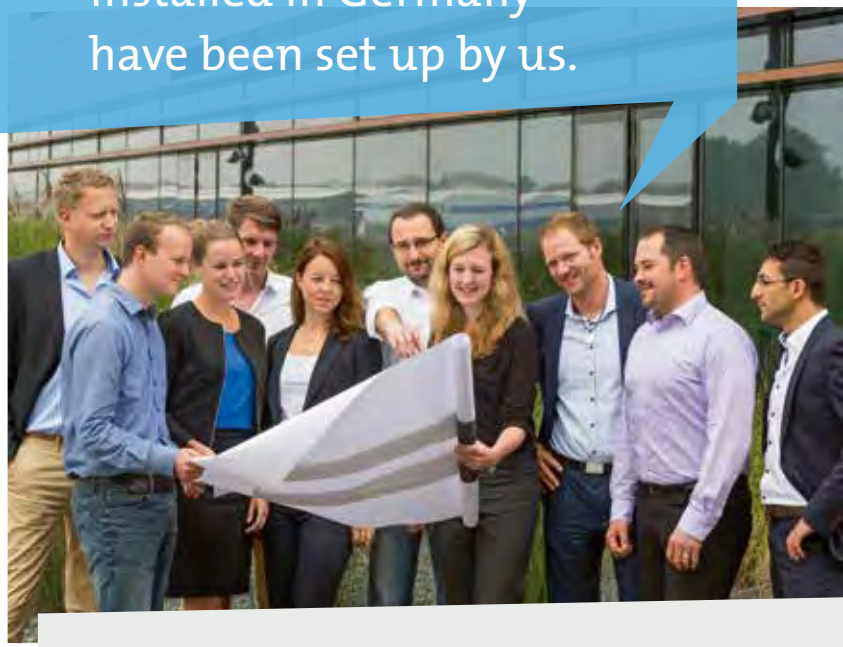
In 1996 the two founders stood alone – today 544 employees at wpd AG work in the onshore wind energy division. Of these, 315 work in the German market and 229 in international markets – and we are currently developing onshore projects primarily in Europe but also in America and Asia.

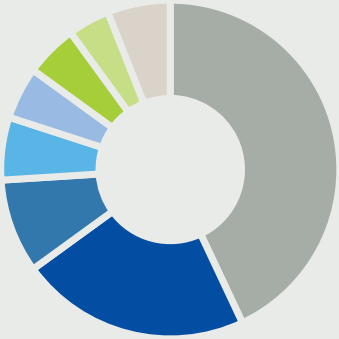
All these employees represent a total of about 2,100 wind turbines onshore so far with a total worldwide installed power of around 4,000 megawatts. Ahead of them lie projects amounting to a further 8,725 megawatts – a challenge which all those concerned are highly motivated in tackling as they are convinced of their ability to master them successfully.

The individual teams, sometimes working with partners, take reliable care of all phases of the projects – from the first evaluations of the location, wind measurements, the approvals process, finance, turbine purchase through to the construction and sustainable operation of the wind farm.

70 Cooperation partners

1,680 of the turbines installed in Germany have been set up by us.





Manufacturer of the turbines installed by us

- Enercon 43 %
- Vestas/NEG Micon 22 %
- Siemens 9 %
- Senvion 6 %
- GE 5 %
- Nordex 5 %
- Frisia 4 %
- Others 6 %

Left: wpd employees from our office in Kassel

Right: Staff from the wpd team in Bremen

Members of the wpd team in Santiago de Chile

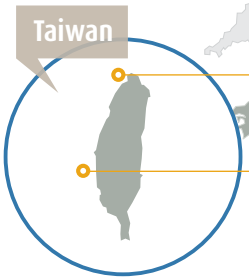
The CO_2 saved by all the turbines installed by wpd amounts to **5,018,527** tons a year.

Wind farms:

Onshore international:	71
Turbines:	516
Rated power:	1,167 MW

Projects offshore

So far **447 MW** installed offshore



Germany

- Baltic 1 (48.3 MW)*
- Butendiek (288 MW)
- Nordergründe (110.7 MW)
- Kaikas (581 MW)
- Gennaker (824 MW)

France

- Courseulles (450 MW)
- Fécamp (498 MW)
- Dunkerque (500 MW)
- Oléron (500 MW)

Sweden

- Storgrundet (420 MW)
- Finngrunden (1,000 MW)

Finland

- Suurhiekka (480 MW)

Japan

- Kyushu (1,000 MW)

Taiwan

- Guanyin (360 MW)
- Yunlin (640 MW)

* Sold – wpd was further involved in the construction management

Key: Project stages (total output)

- in operation (447 MW)
- approved and in the procurement process (1,948 MW)
- approved (1,481 MW)
- participation in tender process (1,000 MW)
- permission process (824 MW)
- early permission process (2,000 MW)

Approx. **270** employees are developing a total of **12** projects in **8** countries with a total output of **7,250** MW.

Offshore

Up to the special demands

The start of the new millennium also marks the beginning of wpd's commitment to offshore wind power. Since then, we are working on various offshore projects in diverse countries.

The major strength of the wpd team lies in its expertise with regard to all phases of the project – an expertise it has demonstrated across several projects and which represents a significant control variable in this still young sector.

Besides nearly 100 employees of wpd AG who have experience from developing 21 and constructing three offshore wind farms, a further 170 specialists are working on offshore subjects in sister companies.

Together they offer services across all phases of the project: development, approval planning and implementation planning, project management, quality control and construction supervision, operational management and service.

10 projects fully approved.
Procurement management for **3** projects successfully completed.
3 projects taken from construction management to operation.

Left: Employees of Bremen's offshore team in the Butendiek construction field

Right: wpd offshore staff from the office in Paris

Figures, data, facts

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4.2018

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Publisher
wpd AG
Stephanitorsbollwerk 3 (Haus LUV)
28217 Bremen
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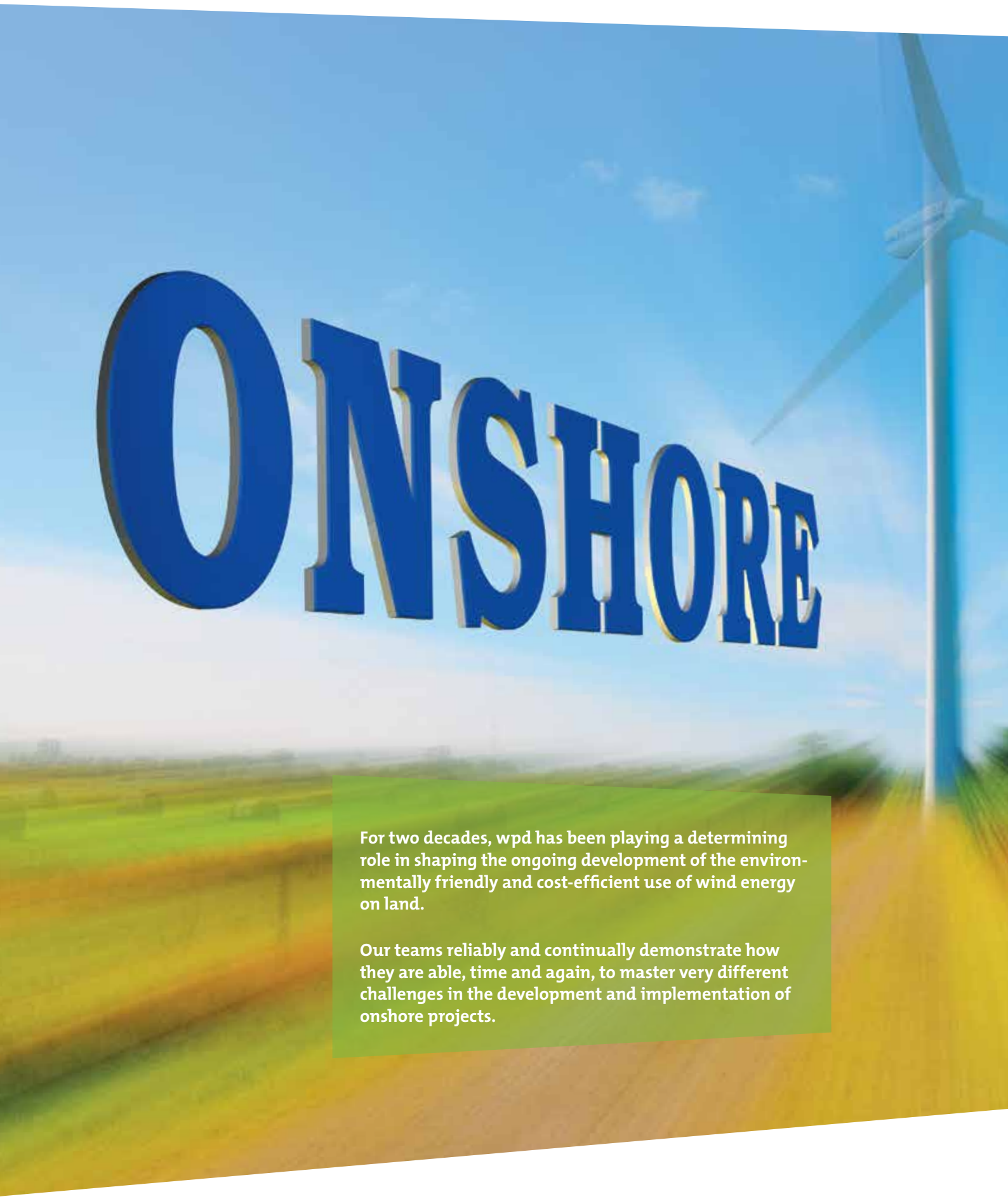


For two decades, wpd has been playing a determining role in shaping the ongoing development of the environmentally friendly and cost-efficient use of wind energy on land.

Our teams reliably and continually demonstrate how they are able, time and again, to master very different challenges in the development and implementation of onshore projects.

Farnstädt

Fact sheet

Number of turbines:
16

Type:
Vestas V-90

Rated power:
32 MW

Location:
Saxony-Anhalt

Commissioned:
2007

Many interests – one wind farm

wpd set up three 1.5 megawatts turbines in Farnstädt in 2004 in cooperation with a private operator, and took over the design for a further 16 from a small planning office. The planning process for this project took years until it was finally commissioned. During this period, in-house experts determined the best configuration for the turbines and the farm, signed numerous licensing contracts, oversaw a very demanding approval process and built a transformer substation.

A key task in this project was to find solutions that suited all those involved: property owners, the local community, approval authorities, energy suppliers and the operators of the neighbouring wind farm. wpd mastered this assignment; the turbines have been in operation since October 2007.

Dalwitz

Staying power leads to success

When wpd staged a major opening ceremony in the Dalwitz wind farm with 250 guests in September 2014, all those involved could look back on a long time of project development. Some seven years had passed since wpd first established contact with the administrative office of Gnoien, the community of Walkendorf and the owners of the land until that opening ceremony. Turbine sites had to be relocated and readjusted several times due to protected species, military air safety and inconsistent subsoil. After a long winter, work began on road-building and deep foundations in the spring of 2013. The first eight turbines were then commissioned in quick succession at the end of 2013. There are now nine Enercon E-101 models with a rated power of three megawatts each producing environmentally friendly electricity on the site.

The calculated annual output will be 70,000 to 80,000 megawatt hours which corresponds to the rough power requirements of around 20,000 average households.

Fact sheet

Number of turbines: 9

Type: Enercon E-101

Rated power: 27 MW

Location: Mecklenburg-Western Pomerania

Commissioned: 2013 / 2014

Fact sheet

Number of turbines: 9

Type: Enercon E-82

Rated power: 18 MW

Location: Lower Saxony

Commissioned: 2008

Fahrenwalde

Swift journey through time

The 26 megawatts Fahrenwalde project can be described as a collaboration project with challenges. What made this project different from a planning perspective for wpd was the speedy implementation target set: approval was only issued in March 2012 but the aim was to commission all the turbines in the same year.

It was all the more impressive that by the end of 2012 ten Enercon E-82 models and one Enercon E-101 had been installed. The wpd team also experienced a hitherto rare surprise when constructing the transformer substation: several finds from various periods of human history from the Bronze Age to the Slavic period made it necessary to conduct archaeological recovery work and interrupted construction – but in the end all the turbines were commissioned on time.

Fact sheet

Number of turbines: 11

Type: Enercon E-82 and E-101

Rated power: 26 MW

Location: Mecklenburg-Western Pomerania

Commissioned: 2012

Wilstedt

„Work has been going on to expand this farm since 2013, and our new group of owners also opted for wpd as their partner. We really appreciate working with them on an equal footing!“

Hermann Cordes, farmer and chairman of the group of owners for the wind farm extension in Wilstedt/ Lower Saxony.

Wehren

Fact sheet

Number of turbines: 6

Type: Enercon E-70

Rated power: 13.8 MW

Location: Schleswig-Holstein

Commissioned: 2009 / 2011

Less is more: Repowering in Wehren

The Wehren wind farm is one of wpd's first repowering projects. The previous eight Enercon wind energy turbines of type E-40 which were installed in 1998, were replaced with six E-70 turbines. The first five turbines were commissioned in August 2009, and the last one went into operation in January 2011. The installed power at the location was multiplied from four megawatts to 13.8 megawatts, and the annual energy output rose to over 23 million kilowatt hours. A nice example of the sense that repowering makes: several turbines using old technology and of a previous power class are replaced by fewer, but more modern systems – and the energy yield is multiplied several times over at the same time.

Leipzig

A project pointing the way to the future

The Leipzig wind farm generates wind energy directly for the industry, in this case for the car manufacturer BMW. Special circumstances specific to the location such as the need to incorporate the facility into the already existing infrastructure and to take account of processes in the plant, represented particular challenges. Here, too, wpd delivered tailor-made planning.

The direct integration of wind turbines into industrial estates with one or more consumers offers opportunities in terms of relieving the grid, and for the companies concerned, it represents a visible connection with the ecological production of electricity. The four Nordex N-100 wind turbines each with a rotor diameter of 100 m supply the energy generated directly to BMW's own plant grid. Among other purposes, it is used to produce the i3 and i8 electric and hybrid vehicles. With a gross energy yield of around 28 gigawatt hours per year, the wind farm saves over 21,000 tons of CO_2 emissions.

Fact sheet

Number of turbines: 4

Type: Nordex N-100

Rated power: 10 MW

Location: Saxony

Commissioned: 2013

Montagne-Gaillard

Fact sheet

Number of turbines: 8

Type: Enercon E-82

Rated power: 18.4 MW

Location: Picardy / France

Commissioned: 2013 / 2014

Local involvement

The Montagne-Gaillard wind farm is located between Amiens and Saint-Quentin in an area marked by the communities of Épehy and Villers-Faucon, and it stands on high ground with excellent wind resources. It consists of eight wind turbines with a total rated power of 18.4 megawatts which are able to produce around 40 million kilowatt hours per year.

The turbine towers are among the first to be made by the manufacturer Enercon in its prefabricated concrete tower plant in Longueuil-Sainte-Marie which is some 100 kilometres away. Many local companies were also involved in the construction of the wind farm providing various types of work. The facility was finally commissioned in May 2014, and in July wpd held a large opening ceremony with almost 300 guests.

Ponikve

Fact sheet

Number of turbines: 16

Type: Enercon E-70

Rated power: 36.8 MW

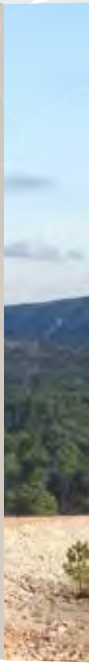
Location: Peninsula of Peljeac / Croatia

Commissioned: 2012

High power on the Adriatic

wpd is one of the pioneers in the Croatian wind energy market and commissioned its first wind farm near the Adriatic coast in 2006. The second followed in 2009 and the Ponikve wind farm is now the third and so far the most powerful wpd wind farm in Croatia. It lies 60 kilometres north-west of Dubrovnik on the peninsula of Pelješac and it can supply around 17,000 households with environmentally friendly energy.

Staff in wpd's construction department experienced this project as one of their most exciting as they had to contend with large amounts of rock on the mountainous ridge which had to be dynamited and shaped correctly. Despite the occurrence of poisonous snakes, storms, sleet and heavy snowfalls as well as having to construct a self-owned transformer substation, wpd completed the wind farm ahead of schedule.



Springwood and Whittington

„With projects of this complexity, it's a question of experience, knowledge of the country and implementation skill – and at the end it's the environment that benefits. This is what wpd stands for and we have relied on them as our partner for many years."

Mirko Sedlacek, KfW IPEX-Bank,
Team Head Power, Renewables and Water

Premiere in North America

After a planning and approvals phase lasting several years, wpd took a major step forward at the end of 2013 by starting construction of the Springwood and Whittington wind farms in the province of Ontario in Canada – the first sods were turned in creating the infrastructure for a total of seven Senvion MM-92 wind turbines.

In spite of a spell of Arctic temperatures, the date for commissioning the farm was met and the turbines have been running since the end of 2014. The implementation of the first two projects in Canada represents a major success for local staff and an important milestone for the wpd group as a whole, as these are the first projects which we have ever realised in North America.

Fact sheet

Number of turbines: 4 and 3

Type: Senvion MM-92

Rated power: 8.2 and 6.15 MW

Location: Ontario / Canada

Commissioned: 2014

Tohkoja

Fact sheet

Number of turbines: 22

Type: Vestas V-117

Rated power: 72.6 MW

Location: Finland

Commissioned: 2016

Wind farm defies icy conditions

With the acquisition of project rights for the Tohkoja wind farm, wpd secured its third wind farm in Finland in 2014. We had to build in a lot of time for construction as the long winters only afforded short windows for erecting the turbines with the result that they had to be completed in stages. Finland's frequently icy weather also played its part in the choice of turbines. All the rotor blades are equipped with heating and can thus be safely operated even at sub-zero temperatures.

Guanyin

Hand in hand with nature

wpd has been active in Taiwan since 2005, and in 2016 it took over the planning office infraVest Energy Co. Ltd. which now trades under the name wpd Taiwan energy Co. Ltd. In spite of extreme geographical and climatic conditions such as typhoons in the summer and regular earthquakes, wpd and infraVest have successfully implemented numerous projects.

One of the first projects is the Guanyin onshore farm on the northern coast which was realised by infraVest in collaboration with wpd. 19 turbines were commissioned between 2009 and 2011. Earlier, the planners had worked with the State "forest bureau" for environmental matters to develop a concept to compensate for the area occupied by the site. The Taiwanese team had selected varieties of bushes and trees planted in a nearby technology park – for every tree felled, one and a half new ones were planted and wpd Taiwan continues to look after them. And we don't just take care of the trees: the Guanyin onshore wind farm has also become the new home to a colony of little terns. To protect the birds, a nearby road is closed every year during the nesting season.

Fact sheet

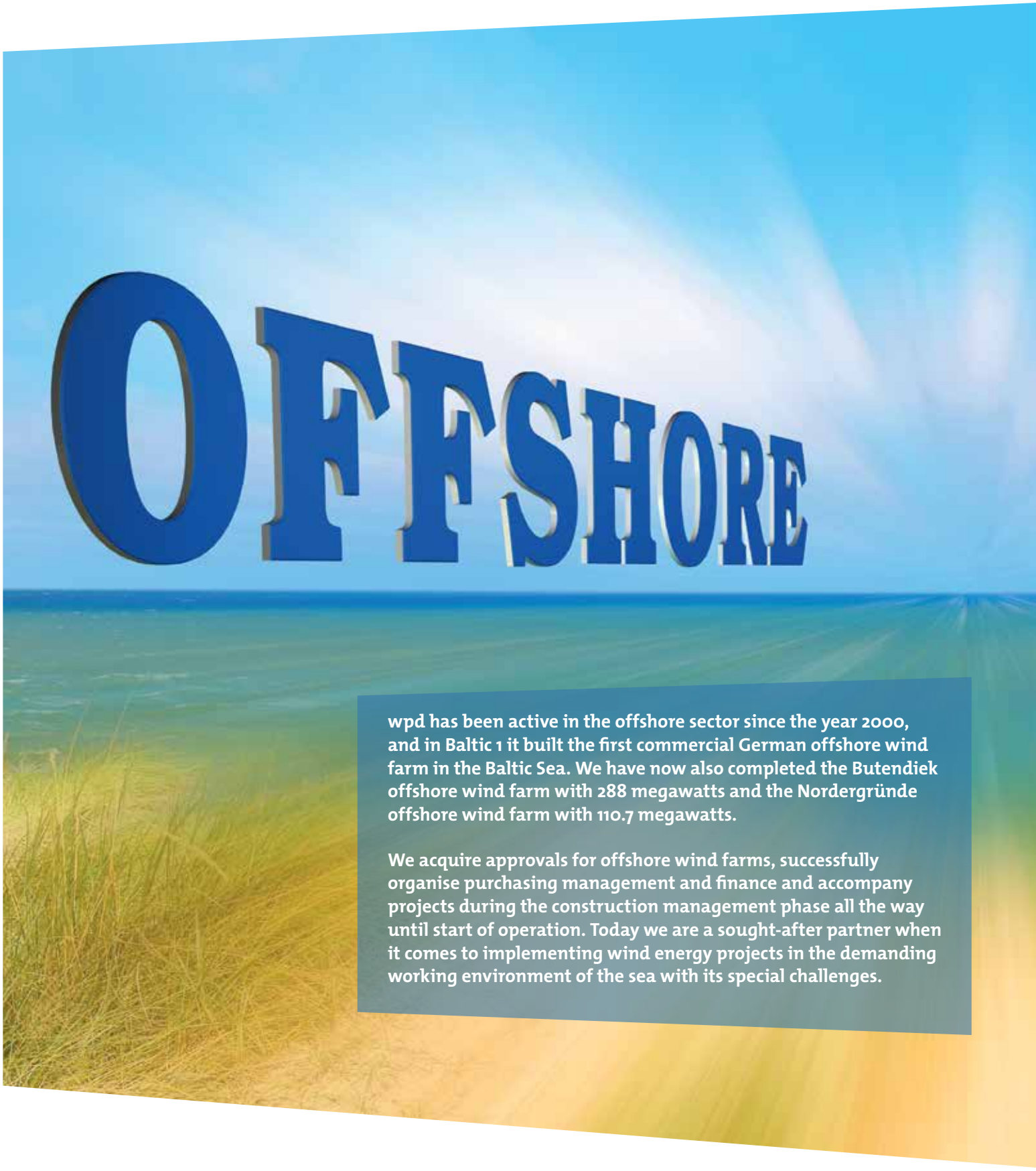
Number of turbines: 19

Type: Enercon E 70

Rated power: 43.7 MW

Location: Taiwan

Commissioned: 2009 - 2011



wpd has been active in the offshore sector since the year 2000, and in Baltic 1 it built the first commercial German offshore wind farm in the Baltic Sea. We have now also completed the Butendiek offshore wind farm with 288 megawatts and the Nordergründe offshore wind farm with 110.7 megawatts.

We acquire approvals for offshore wind farms, successfully organise purchasing management and finance and accompany projects during the construction management phase all the way until start of operation. Today we are a sought-after partner when it comes to implementing wind energy projects in the demanding working environment of the sea with its special challenges.

Butendiek

„wpd has done a great job in developing and implementing the Butendiek flagship project, and we are impressed with the professionalism of the company."

Michael Dedieu, Marguerite Fund, Managing Director

Milestones in the sea

The Butendiek project started in 2000 as a community wind farm. It was the second German offshore wind farm to receive approval at the end of 2002 and was finally acquired by wpd in 2010. Securing the overall financing of 1.3 bn euros in February 2013 represented an important milestone.

Construction work on the 288 megawatts project, 32 kilometres west of the island of Sylt in the German North Sea, has been under way since 2014. Together with partners such as Marguerite Fund, Industriens Pension, PKA, Siemens Financial Services, CDC Infrastructure and ewz (Utility of the city of Zurich), wpd was investing in the construction of 80 Siemens-SWT-3.6-120 turbines. After taking on the construction management role all the way to successive commissioning in the summer of 2015, wpd will also be responsible for running operations and will support the Butendiek offshore wind farm throughout its entire lifetime.

Fact sheet

Number of turbines: 80

Type: Siemens SWE 3.6-120

Rated power: 288 MW

Location: Germany

Commissioning: 2015

Nordergründe

Fact sheet

Number of turbines: 18

Type: Senvion 6M126

Rated power: 110.7 MW

Location: Germany

Commissioning: 2017

Green electricity for 100,000 households

In December 2017, wpd commissioned its second project at sea: the Nordergründe offshore wind farm which is situated within the 12 nautical mile zone, 15 kilometres north-east of the island of Wangerooge in the Weser estuary. Since then, the 18 turbines have been feeding 110.7 megawatts into the grid, supplying around 100,000 households with green power.

For this project, wpd not only took charge of planning and realising the monopiles and grid connection, but also of constructing the transformer substation. Besides wpd, the John Laing Group plc and the Gothaer Versicherungsgruppe are co-owners of the wind farm.

Fécamp

Fact sheet

Number of turbines: 83

Type: GE Haliade 150-6MW

Rated power: 498 MW

Location: France

Start of construction: 2019

Innovation in the Channel

wpd has been developing offshore projects in France since 2007. The European consortium consisting of EDF EN, Enbridge and wpd secured the Courseulles and Fécamp projects with a volume of around 1,000 megawatts in the French tender process. Turbines in the 6 MW class from manufacturer GE are to be used for the project.

Yunlin

Fact sheet

Number of turbines: 80

Type: SG 8.0-167 DD

Rated power: 640 MW

Location: Taiwan

Start of construction: 2019 / 2020

First offshore project for wpd in Taiwan

wpd is currently realising two Taiwanese projects in the Formosa Strait. Together they will have a rated output of 1,000 megawatts. wpd will start by implementing the Yunlin offshore wind farm. By 2021, we will construct 80 turbines with eight megawatts each, eight kilometres off the coast of the County of the same name. These 640 megawatts will be fed into the Taiwanese grid via two onshore transformer substations.

wpd windmanager

Efficient wind farm management

24 hours a day, 7 days a week

www.windmanager.de

Since 1998, our sister company, wpd windmanager, has been taking on all the tasks in connection with the commercial and technical management, primarily of wind farms but also of solar parks and biogas plants. wpd windmanager is the market leader in wind farm management in Germany. Thorough knowledge of the market and many years of experience with wind energy, ensure that farms under its management run at their ideal level. Customers include fund companies, national and international investment groups as well as institutional investors. In addition to Germany, wpd windmanager is active in Belgium, France, Italy, Croatia, Poland, Finland, Canada and Taiwan.

You can find a detailed overview of all services, references and locations on the website.

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