

# EWEA 2014

DAY TWO

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## ‘Crimea is a wake-up call’

Ukraine crisis shows that Europe needs a binding renewables targets to reduce reliance on Russian gas, says EWEA president

**BERND RADOWITZ**

The crisis in Crimea shows how dependent Europe is on fossil-fuel imports that could easily be replaced by green energy, especially if the EU set binding 2030 targets for renewables, EWEA president Andrew Garrad said yesterday.

“The situation in the Crimea is a wake-up call to all of us,” Garrad told the opening session of EWEA 2014. “It demonstrates the vulnerability of our fossil-fuel supply.”

Every EU citizen pays €2 a day to import fossil fuels from outside the EU, Garrad said, meaning that the union’s 28 countries pay about €1bn a day

for oil and gas imports. The renewables industry instead brings energy independence and with it huge savings, he stressed.

“Mr Putin can and perhaps will turn off the tap that supplies Western Europe with oil and gas. But even Mr Putin, bare-chested, awfully clothed, cannot turn off the tap of supplies of our wind, our free indigenous fuel.”

Russia provides about a third of Europe’s natural-gas needs, and any sanctions against Moscow could send prices soaring.

Garrad linked the EU’s

dependency on Russian oil and gas directly to its inability to establish binding and ambitious 2030 targets for renewable energy. The European Commission’s recent position paper on 2030 energy and climate policy settled on a figure of 27%, non-binding on individual member countries. EWEA is calling for a 30% target that is binding on member states.

“It seems that some politicians would rather line Mr Putin’s pockets than agree to an ambitious target for renewables for 2030,” he said.

“An ambitious 2030 target will help us get back to business today. What we do today, determines what fuel mix we have in 2030 and beyond.”

If the EU fails to act now, it is in danger of locking itself into a fossil-fuel future, he added. Garrad called upon EU leaders to deliver an ambitious target when they meet in ten days’ time.

In addition to securing energy supply, the renewables industry is creating jobs and addressing climate change, he stressed.

“All that, and the potential to save a billion euros a day. How could any politician refuse such a possibility?”



**RUSSIAN BARE:** President Vladimir Putin; top: Andrew Garrad

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Photography | Jason Bickley/EWEA | AP/PA

# Portugal wants 25% target for energy links

**BERND RADOWITZ**

To achieve energy security without pushing up prices, Europe must act on a continental scale, looking beyond national borders when defining renewables policies, Portugal's energy secretary urges.

"We believe a four-target approach is the best solution:

**/// We think a four-target approach is the best solution**

one for renewable energy, one for CO<sub>2</sub>, one for efficiency and one for interconnections. If we miss one of these, we might not get the balance," Artur Trindade told the opening press conference at EWEA 2014.

"We are proposing a 25% target for interconnections." This would

mean a quarter of a country's energy could be transported to neighbouring countries if necessary.

Portugal has one of Europe's highest shares of wind in its energy mix. But it is unable to export much of that on days of surplus production, because neighbouring Spain has an excess of energy, and the interconnection capacity between Spain and France is minimal.

International Energy Agency executive director Maria van der Hoeven said interconnection capacities in Northern Europe are much bigger, especially between Scandinavia, the Netherlands, Germany, Austria and Switzerland.

"So you're not talking about something new, but it has to be done also in this part of the world, also around the Mediterranean," she added. □



**FOUR-POINT STRATEGY:**  
Arthur Trindade



**AMBITIOUS TARGET:** Hasan Murat Mercan yesterday

## Turkey shows Europe the way with 30% goal

**ANAMARIA DEDULEASA**

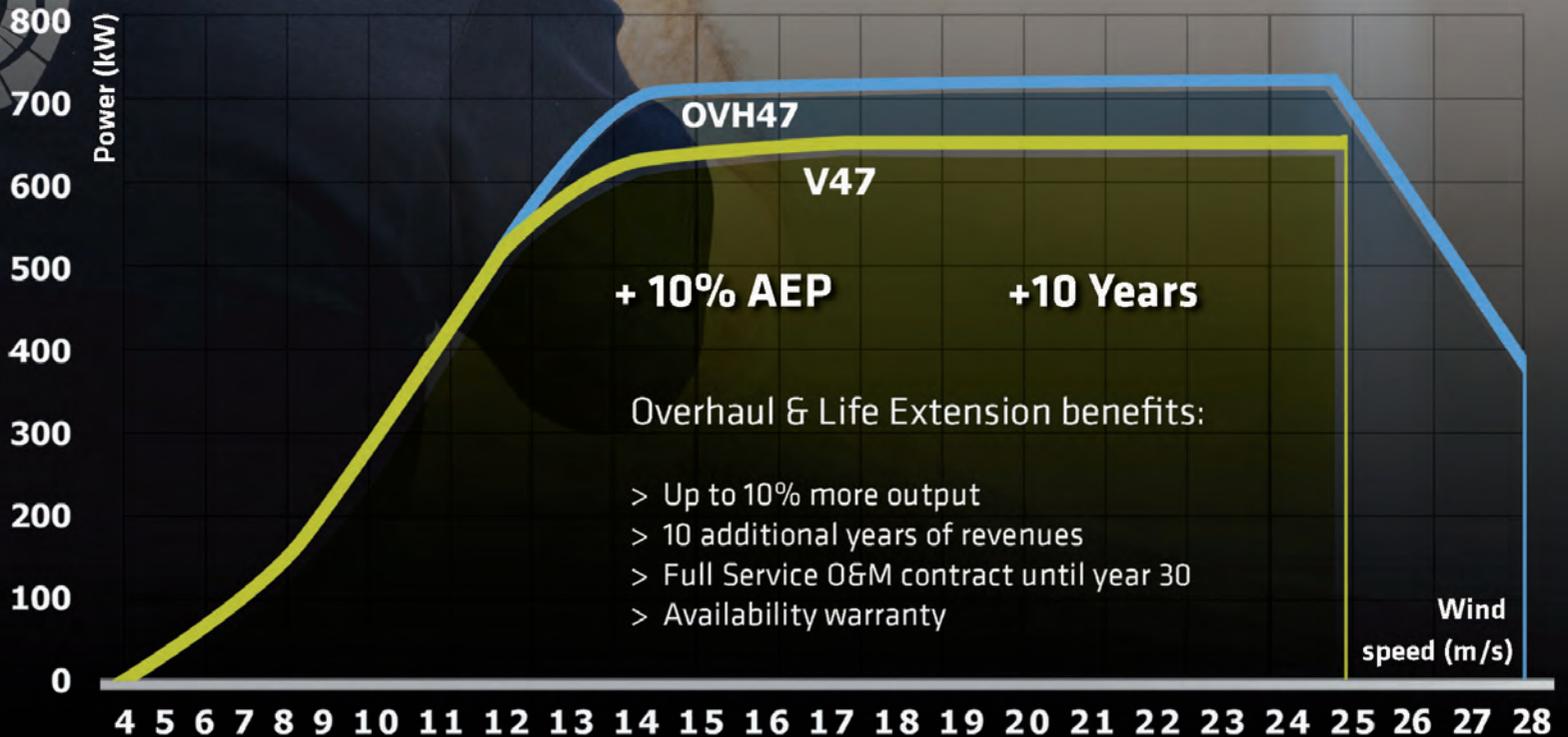
Turkey has outlined a 30% renewables target for 2023, by which time it plans to have 20GW of installed wind.

"Right now we have 2.7GW of installed wind, and if we count the projects in the process of being registered, then we reach 3GW," the deputy minister for energy and natural resource, Hasan Murat Mercan, told EWEA 2014 yesterday.

Additional incentives to local manufacturers are also attracting investment from companies such as Enercon and Vestas, he said.

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**ANDREW LEE**

Britain says it is still open to potential trading of renewable energy with Ireland — despite a report that talks over the issue have faltered.

The *Irish Independent* has quoted Ireland's energy minister, Pat Rabbitte, as being "doubtful" whether an inter-governmental agreement can be reached within a time frame that would help the UK meet its 2020 renewables targets.

The two governments signed a memorandum of understanding (MoU) on the issue in early 2013 and started discussions over a formal agreement. Any pact would have to nail down issues such as the eligibility of Irish power plants for UK renewables incentives.

A meeting between Rabbitte and UK energy secretary Ed Davey in Brussels this week failed to advance matters, the newspaper says. "In terms of the timelines dictated both by European policy and the



**POWER PACT:** Ed Davey, left, with Pat Rabbitte at the signing of the energy-export MoU

# Rabbitte 'doubtful' over Irish energy exports to UK

exigencies imposed on developers — in other words between now and 2020 — I can't now see an export project as envisaged," Rabbitte is quoted as saying.

Both the UK and Irish energy ministries declined to comment on the newspaper report.

The prospect of a deal receding will concern industry players that have identified Ireland-UK transmission as a major opportunity.

Three developers — Bord na Móna, Mainstream Renewable Power and Element Power —

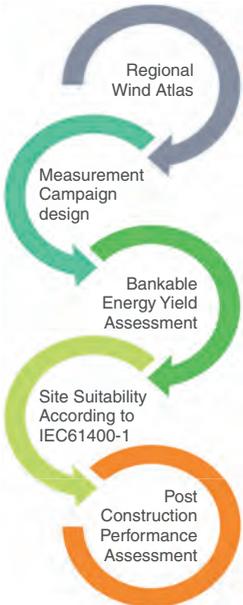
have come forward with proposals to build onshore wind farms in Ireland for gigawatt-scale export across the Irish Sea.

The plans for large-scale wind deployment in the Irish Midlands have spurred considerable local opposition. ☐

Photograph | UK Department of Energy and Climate Change

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**SMART TECHNOLOGY:**  
GE's prototype 'brilliant' turbine in California; inset: Anne McEntee

**BEN BACKWELL**

Wind turbine manufacturer GE aims to continue its push to raise market share in Europe as it seeks to reduce its historic reliance on the US market, GE's vice-president for renewables says.

"There are some nice markets in Europe," says Anne McEntee, mentioning the UK and Turkey, as well as Russia — despite the current political uncertainty around its intervention in Ukraine.

"We think we have the products to win," she adds, without giving a specific target for the percentage of market share that GE expects to gain in Europe. McEntee says the company is "clearly focusing on international growth," adding that two thirds its sales were outside the US in 2013, albeit in what was a very slow year in its home market.

GE announced a series of European orders to coincide with EWEA 2014, including 110MW of orders for its "brilliant" 2.5-120 turbine in Germany, to developers Juwi, Abo-Wind, Max Bogl Wiesner and Pfalzwerke.

Outside of Germany, GE Wind announced the sale of another 43 turbines to a range of developers across France, Scotland and Sweden.

In France, GE will deliver 27 of its 2.85MW turbines to projects backed by the developer Boralex in the northern regions of Picardy and Nord Pas-de-Calais. SSE Renewables has ordered ten of GE's 1.6MW turbines for its Langhope Rig project in the Scottish Borders region.



# GE making inroads into European market

Meanwhile, in southern Sweden, GE has sold six of its 1.6-100 turbines and a five-year service agreement to the Erikshester project, which is owned by Eksjö Energi and nearly a dozen other investors.

"We want to expand business in Europe, and do it in a profitable way," says Cliff Harris, general manager of GE's European renewable-energy business. "Our strategy is to look at things like grid infrastructure and battery storage to make wind complementary with existing

generation sources, as well as make sure our service provision is good."



He says GE is "doing well" in Germany, where the market is dominated by local manufacturer Enercon, with Denmark's Vestas in number-two spot.

Harris has said in the past he would like to double GE's market share in Europe from 6% in 2012 to 12% in 2015. □

● GE launched its ultra-tall-tower concept — a five-legged space-frame sheathed in architectural fabric — at EWEA 2014 yesterday. See tomorrow's edition for *Recharge's* feature on this innovative technology.

Photography | GE | Irwin Wong

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**NEW HORIZONS:**  
Gamesa turbines  
spinning in  
northwest Spain;  
below: Xabier  
Etxeberria

# Foreign forays pay dividends for Gamesa

The Spanish turbine maker has turned problems in its home market into opportunities, reports **Bernd Radowitz**

As Spain's energy reforms kill off the construction of new wind farms in Gamesa's domestic market, the turbine manufacturer has been searching for alternative business opportunities — in services at home, as well as overseas and in offshore.

"Our expectation for wind energy in Spain is that after the new regulation is in force, hardly any new parks will be developed, at least in the short term," chief executive Xabier Etxeberria tells *Recharge*.

This is prompting clients to maximise the revenue of the plants they already operate, ensuring that they continue to run profitably for as long as possible.

"That fact has turned into an opportunity for Gamesa, which is developing maintenance and operation services capable of prolonging the operating life of parks and turbines above the lifespan foreseen in their original design — both for Gamesa models and those of other manufacturers," he says.

Allowing turbines to operate longer than the 20 or so years for which they have been designed is a concept also being looked at outside Spain, in countries where support regimes are more generous.

A study by Imperial College London shows that the UK's oldest onshore turbines, installed in the 1990s, are still producing

75% of their original output after 19 years of operation and are on course to run effectively for up to 25 years.

"This study gives a 'thumbs up' to the technology and shows that renewable energy is an asset for the long term," says Richard Green, co-author of the study and head of the department of management at Imperial College Business School.

Another avenue for Gamesa to escape the disastrous effects of Spain's reforms has been to intensify its already significant overseas activities.

"Gamesa years ago had laid out a strategy to internationalise its activity — we started to expand overseas in 2000 — to anticipate possibly regulatory changes and minimise regulatory uncertainties in various countries, among them Spain," Etxeberria explains.

More than 85% of the company's sales are made outside Spain, with Latin America accounting for 51% in the third quarter and India 18%.

Studies by BTM Consult point

to growth of more than 10% a year in the company's key markets of Brazil, Mexico and India over the next four years.

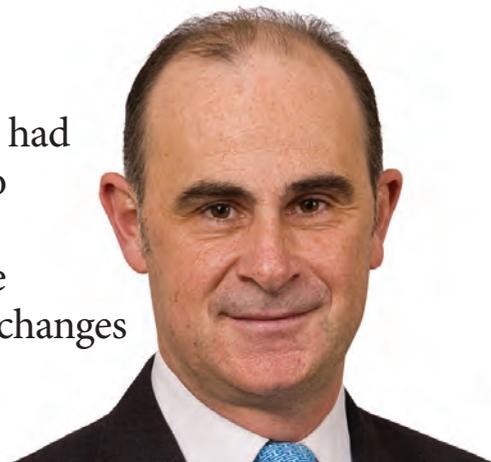
However, Gamesa could not avoid being hit by the near-collapse of the Spanish wind market and had to shrink its manufacturing capacity there.

In the past 15 months, it has shed more than 600 employees, closing its Albacete and Tudela blade plants and downsizing other factories across Spain.

Etxeberria claims, however, that the offshore joint venture with France's Areva has nothing to do with the trouble in his company's home market.

"Gamesa has always declared that it wants to be present in the offshore industry together with a strategic partner," he says. "This accord will allow us to position ourselves as a leader in the offshore industry, contributing with a profitable growth... and generating important synergies with our onshore business." □

**Gamesa years ago had laid out a strategy to internationalise its activity to anticipate possibly regulatory changes**





**NOUVEAU NICHE:**  
Norvento Enerxía's Ivo Arnús; *below:* the company's nED100 turbine

# Medium-wind segment picking up momentum

## KARL-ERIK STROMSTA

The UK's fast-growing "medium-wind" market will maintain momentum despite looming support cuts, with surging retail power prices becoming a key driver, according to a new industry player, Norvento Enerxía.

The UK's thriving micro- and small-wind sectors have been growing strongly for a decade, but the medium-wind segment — installations from 100-500kW — hardly existed until the government introduced its feed-in tariff (FIT) scheme in 2010.

The medium-wind sector remains a niche, with about 9MW installed in 2012. But when last year's final figures are tallied, trade organisation RenewableUK believes the segment is likely to have installed nearly 40MW.

Furthermore, advocates say the sector's importance stretches beyond capacity additions, with its jobs-heavy and distributed nature proving an effective means of weaving renewables into the social fabric, particularly in farming communities.

Perhaps one in five wind-related jobs in the UK is tied to small and medium wind.

The "very, very generous" FIT for the sector explains the high growth rate, says Ivo Arnús, business development director for Spain's Norvento Enerxía, which launched a 100kW turbine in the UK last autumn. "It's more than any country in Europe."

Even after a planned 20% FIT reduction on 1 April, lowering rates for a 100kW turbine from



£0.22 (\$0.37) per kWh to about £0.17, Britain will remain an attractive market, he says.

To put that in context, a 100kW PV system is eligible for an FIT of about £0.10/kWh, while the Contract for Difference strike price for large onshore wind farms will kick in this year at £0.095/kWh.

Given the sector's immature state, medium wind needs an FIT "in the mid-teens" to continue fuelling strong growth, Arnús says.

Several factors are likely to

keep the industry competitive in the years ahead, he believes. Chief among them are a shift towards greater on-site consumption; rising retail electricity prices; and more efficient project monitoring and O&M.

Average domestic electricity consumers already pay nearly £0.15/kWh, with higher rates in remote (and more windy) places such as Scotland and Northern Ireland, making the case for medium wind even more compelling.

Launched last autumn with the UK as the initial focus, Norvento's direct-drive nED100 turbine has a rotor diameter of 22 metres and a hub height of up to 36 metres, and sells for around £300,000.

Norvento intends to sell its turbines — directly and through distributors — as well as lease them to landowners looking for cheaper power bills, employing a model familiar in residential PV.

Norvento's push into Britain puts it in competition with US-based Northern Power Systems, which also sells a 100kW model, and the local market leader, Canada's Endurance Wind Power, which recently began producing a 225kW turbine in the UK. ☐

# res

## POWER FOR GOOD

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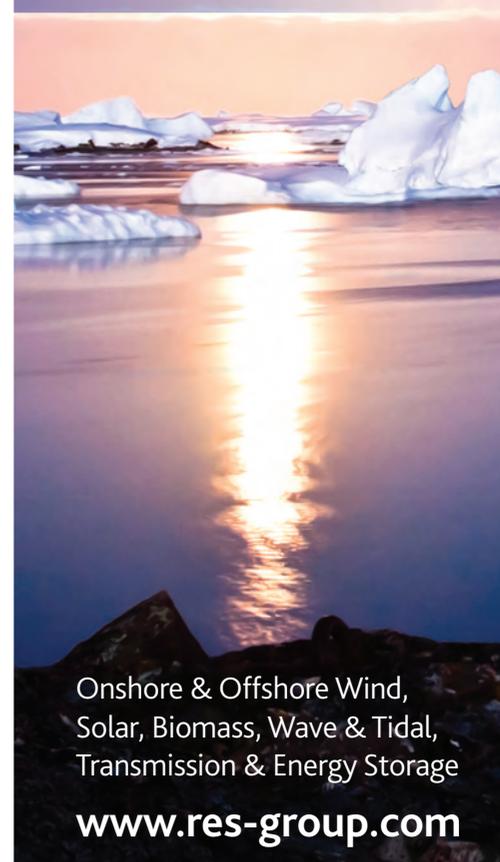
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### HAPPENING TODAY

#### Launch of TP Wind Strategic Research Agenda

14:15-15:45 (Room Ponent)

Wind energy's outstanding technological progress over the past 15 years has been made possible by the industry's significant R&D efforts. Now is the time to set out new priorities for the decades ahead. Come to this session to discover where wind energy technology is heading.

Interested in attending this session alone? Top-up your exhibition pass at the New Visitor Registration desks.

### SIDE EVENTS AND SOCIAL EVENTS

#### *Recharge Insight* – get ready for the launch

16:00-17:00 (COR-1)

#### Invest in Brazil

09:00-16:00 (Room Güell)

#### Basque Energy Cluster

15:00-18:00 (Hall 8.1, Room 8.17)

#### CG beer reception

16:30-18:00 (Hall 7, Stand 7D80)

#### Gamesa stand party

18:00-19:30 (Hall 7, Stand 7D50)

### DON'T MISS TOMORROW

#### Third European Wind Energy Summit on Health and Safety

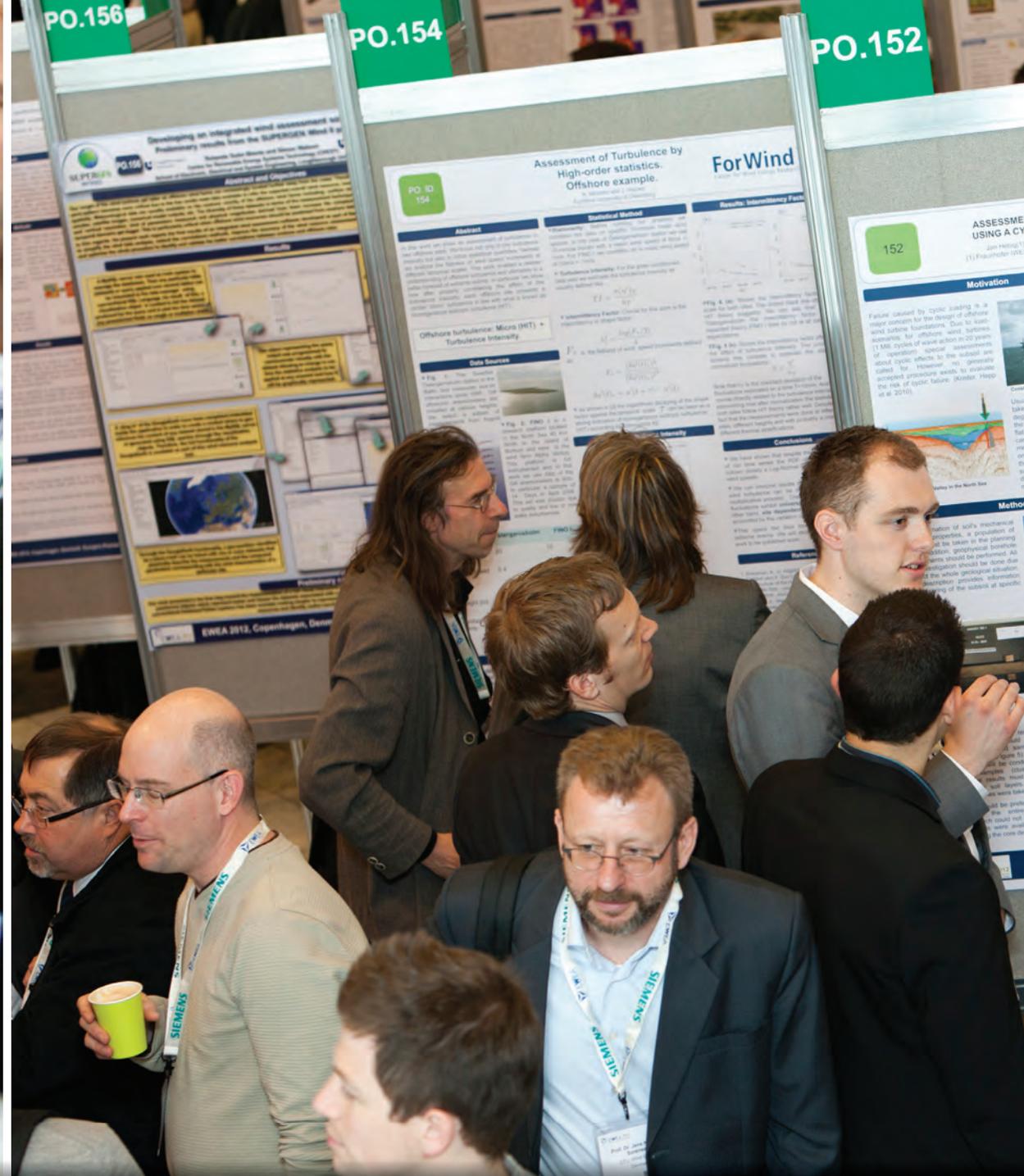
09:00-18:00 (Room Güell)

Sharing experiences and lessons learnt in wind energy safety.

#### Outside the box – finding new growth opportunities

09:00-10.30 (Room Ponent)

Clear and ambitious targets are key to our industry's growth and competitiveness. But while politicians deliberate, what can we do, here and now, to help our day-to-day business? Can we think outside the box?



**The Spanish wind sector and the latest electricity sector reform — impacts and lessons**

9:30-14:00 (Hall 8, Room Ciutadella)

**Saving water with wind energy — launch of the ‘Avoided Water’ report**

10:30 (EWEA stand, Hall 6, D40)

Thermal and nuclear power stations use the same amount of water as the population of Germany every year. How can boosting wind energy help save water?

**Poster award ceremony**

13:30-14:00 (poster area — corridor linking the entrance/conference hall 8 to exhibition halls 6 & 7)  
Get the latest on wind-energy research and technology developments.

**Launch of the EWEA health and safety video**

16:00 (EWEA stand, Hall 6, D40)  
See the premiere of EWEA’s video on health and safety best practices.

**DNV GL stand party**

16:30-18:00 (Hall 7, Stand 7B20)

**Acciona stand party**

18:00-19:30 (Hall 6, Stand 6C30)

**Conference dinner**

20:00-23:00 (Maritime Museum, Avinguda de les Drassanes s/n, 08001 Barcelona) Shuttle buses to the conference dinner venue will leave from 19:30 onwards in front of the North Entrance of the Fira Gran Via.



## Connecting people in the wind industry from Europe and beyond

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**GREEN GROWTH:** The Czech Republic needs to add more wind farms like this one in the northwest of the country if it hopes to meet its 2020 target

# Czechs turn their backs on wind

**CHRISTOPHER HOPSON**

Wind-power growth in the Czech Republic all but dried up last year, with only four new projects totalling 8MW, leaving it with an installed base of 268MW.

As Michal Janeček, chairman of the Czech Wind Energy Association, CSVE, puts it: “The cheapest domestic renewable resource is in strong decline.”

The association points out that in stark contrast to the rest of

Europe, which continues to show staunch backing for wind, the Czech Republic is supporting the development of coal and nuclear.

According to the CSVE, national wind output increased by only 15% last year, to 478GWh.

At this rate, Janeček says, the country will not be able to meet the 2020 wind goals set out in its national energy action plan.

One of the main reasons for this slowdown is sophisticated opposition measures against wind

in regions where the sector has the best potential.

In addition, he pinpoints changes to the renewables support system, which took effect from the start of 2013, when the feed-in tariff was abolished for all renewables projects over 100kW and for hydro projects exceeding 10MW.

“It is incomprehensible why the state is revoking its support for wind energy — the cheapest ever power source — while massively financially supporting coal plants

in the Czech Republic,” says CSVE vice-chairman Štěpán Chalupa. “We are promoting old technologies that have failed, despite massive support from public funds for more than half a century.

“Instead we are voluntarily giving up our participation in the third industrial revolution — the changeover to modern renewable-energy technologies, producing a clean environment, local employment and energy independence.” ☐

Photograph | Radek Kucera

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Vestas chief executive Anders Runevad is upbeat about prospects for the European wind industry, despite palpable disappointment over the European Commission's recent White Paper.

Still on a high from presenting Vestas' better-than-expected 2013 results, Runevad spoke to *Recharge* in Brussels after joining other leading renewables company bosses to call on the EU to adopt binding national green-energy targets for 2030. The event was part of an initiative that brought together 91 companies and associations with an interest in developing the sector.

"I am positive," said Runevad. "What we asked for was 30% and a binding target, and what the commission came out with was 27% and a binding target, so I think that is a very good step in the right direction.

"Now the next part of this is to make sure that binding is binding. And we think the best way to achieve that is to have binding national targets — this is a system that has worked well in Europe before."

Despite the positive tone, he has little doubt that Europe's energy policy is at a crossroads, with rising consumer prices in some countries, as well as comebacks for dirty coal generation in Germany and elsewhere. He is adamant, however, that these problems are not being caused by a growing percentage of renewables.

"Europe has invested in renewables and taken the lead and got a lot in return, I would say, both when it comes to European-based companies but also in terms of changing the energy mix," he said, adding that the fact that Europe has subsidised its renewables industry to gain early-mover status is all the more reason to keep developing it now.

"I think it's important now that we reap the benefit of that going forward and not give up on the investment," he said, pointing out that the wind industry is lowering generation costs — by 15% in the past five years — while the cost of new fossil-fuel plants has risen. "Let's not stop



**TOP TABLE:** Anders Runevad, right, with other renewables bosses in Brussels

# Vestas in vanguard of the fight for Europe

## Anders Runevad tells Ben Backwell the continent can't blame its energy problems on the growing percentage of renewables

now when we are so close to the finish line."

While the industry needs to continue lowering costs, particularly offshore, Runevad says there are two big problems with the debate around costs.

Firstly, there is no level playing field, with the fossil-fuel and nuclear industries receiving a wide range of subsidies. Secondly, wind-power costs are routinely compared with the generation costs of old legacy fossil-fuel plants. "The fact is that

there is about 95GW of capacity that needs to be retired in the next ten years in Europe, which is a substantial amount of energy.

"It's a question of how you want to handle the mix change. It has to happen, it's a question of when and how it will happen. Of course, if you are really short-term-focused, it's probably more cost-efficient to run a coal plant for another month, but that's not a solution."

Runevad calls Europe "basically a replacement market" rather

than one of growing power demand. But Europe continues to be key for Vestas, although he refuses to speculate on the impact on his company if binding national targets are not adopted.

Engaging with the public and policymakers will be of utmost importance. "At the end of the day, what makes me very comfortable is that in all the surveys we have done, 70% of the population want renewable energy. And as any business school will teach, if such a big majority of the end-consumer asks for and wants your product, that is the best reassurance for the future."

While Vestas has traditionally played a big role in promoting the wider interests of the wind industry, Runevad says the company will be looking to build on initiatives such as the joint declaration unveiled in Brussels.

"I have no problems with Vestas taking a lead, but the message is much stronger with an agreement among 90 companies than to go at it alone." ☐

### 'We're very committed to offshore'

Like most observers, Anders Runevad is concerned about the lack of clarity on the size of the offshore market. "I have seen the forecasts coming down, but I think if we can hold it at this level, then it is a good enough size for us to be extremely interested and committed."

He adds that Vestas is committed to bringing its new 3MW V164 turbine to market and is "deep into many customer discussions" on sales. Its offshore joint venture with Mitsubishi Heavy Industries, which is due to be ready for launch in April, makes perfect sense, he says, given the size of offshore projects.

"On the customer side, it's big utilities grouping together because these are big projects, and it made sense for us to pool resources with Mitsubishi and go for a good slice of a big cake, rather than a small cake."

**ONE-NIGHT STAND:** The prototype V164's three blades were fitted in an overnight 11-hour shift

# 8MW prototype up and running

## DARIUS SНИЕCKUS

The blades are now turning on the world's first 8MW wind turbine. Vestas' flagship V164 has a swept area of 21,124 square metres — larger than the London Eye — and provides enough energy to power 7,500 homes.

Three years in development, the prototype — which stands 10km inland of the north Jutland coast at the Danish national testing centre in Østerild — features 80-metre structural shell blades and a three-stage

“semi-geared” Bosch Rexroth drivetrain with Switch-supplied permanent-magnet generator in its 390-tonne nacelle.

Constructing the turbine this winter was a labour of love. Winds whipped up to more than ten metres per second and several heavy snowfalls “did pose certain challenges”, states Torben Hvid Larsen, Vestas' chief project manager for the 8MW platform.

With teams working round the clock, the prototype's 140-metre tower was erected with all componentry fitted, and the three blades were bolted on in

the glare of industrial klieg lights during one exemplary 11-hour night shift.

The Østerild prototype recently passed its first kWh milestone in its “run-in” phase — a commission programme involving pitching the 35-tonne blades, connecting and disconnecting the turbine from the grid, priming all on-board data-critical measurement systems and ramping to full 8MW output.

“The turbine is truly an immense machine and seeing it assembled and turning has given

everyone a big spark of motivation to carry on the good work we are doing in bringing it to the market,” states Larsen.

Vestas' “enhanced” co-operation framework deal with Denmark's Dong Energy saw first fruit last month with the award of a contract to use the V164s at the developer's 258MW Burbo Bank extension project off the UK. Vestas says it is on track to deliver zero-series turbines to the market by 2015, subject to firm orders. However, the V164 has yet to be allocated an offshore testing site. □

Photograph | Vestas

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# Romanian project seals funding

**ANAMARIA DEDULEASA**

A German developer has secured €125m (\$172m) to build and operate the 108MW Crucea North wind farm in Romania. The €200m project, in the Black Sea region of Dobrogea, is the first Romanian wind farm developed by power producer STEAG, the project company's main shareholder.

A senior loan of €49m will be provided by the European Bank for Reconstruction and Development (EBRD) towards the construction, commissioning and operation of the project, while Austrian finance group Erste will supply the same sum again, 90% of which will be covered by the Danish Export Credit Agency.

Banca Comercială Română, a local unit of Erste, will contribute a €27m VAT-funding loan.



**BREAKING NEW GROUND:** A STEAG wind farm in western Germany. Crucea North is the company's first Romanian wind project

STEAG, which also owns fossil-fuel and solar plants, is aiming to build more wind projects in European growth markets such as Poland, Romania and France. "Crucea North will promote private investment in Romania's

energy sector and help the country meet EU green energy targets," comments James Hyslop, the EBRD's Romania director. Denmark's Vestas will supply and install the 36 3MW turbines, with commissioning due to be

completed by mid-2015, according to the EBRD. Thomas Richterich, president of Vestas Central Europe, says the order reinforces the manufacturer's leading position in the Romanian market. **R**

Photograph | STEAG

## WHAT IS RECHARGE INSIGHT?

Recharge is launching a new premium subscription service called *Recharge Insight*, led by an award-winning industry analyst.

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**RECHARGE insight**

# Robot finds unexploded bombs at Gwynt y Môr

ANDREW LEE

An exclusion zone was enforced at part of the 526MW Gwynt y Môr offshore wind farm after unexploded bombs were found there.

Three bombs believed to date from the Second World War were discovered at the site in Liverpool Bay, off northern Wales, where German-owned developer RWE Innogy UK is well advanced with turbine installation.

Construction activity continued outside the 250- square-metre protected zone and RWE Innogy UK does not expect the discovery to affect the overall schedule.

Gwynt y Môr, which is using 160 Siemens 3.6MW turbines, will be the world's second-largest offshore wind farm when it is completed this year.

The bombs — discovered by a robot vessel carrying out seabed survey work for the cabling — should be cleared quickly.

A spokesman said: "RWE is working with a number of contractors and consultants to identify the safest method of removal, and applications have already been submitted for the appropriate licences.

"It is not uncommon for unexploded ordnance to be found



**NASTY SURPRISE:** The discovery is not expected to affect Gwynt y Môr's schedule

on the seabed and standard procedures are in place to deal with potential 'UXO targets', as they are often referred to."

At several German offshore projects, the presence of bombs and other munitions proved a serious and costly obstacle. □

## ZephIR launches free Lidar rental scheme

DARIUS SNIECKUS

Lidar technology developer ZephIR has launched a free rental service to put its latest wind-measurement device through its paces at a wider range of sites.

The Fred Olsen company's Lidar Research Programme is targeting campaigns of up to three months for wind and meteorological companies using its ZephIR 300 system.

ZephIR senior scientist Mike Harris says: "We are keenly aware of the difficulties in sourcing high-quality technology to experiment with. This programme is designed specifically to allow this."

The ZephIR 300 measures wind characteristics between ten to 200 metres from a unit's location to flesh out wind-regime studies during development and operation.

Launched in 2003, ZephIR was

recently given classification body DNV GL's stamp of approval as "bankable" for wind projects in benign onshore and offshore environments.

The offshore version, piloted on a floating spar buoy at RWE Innogy's Gwynt y Môr wind farm off Wales, was judged to provide "finance-grade" data to prove the economics of a wind farm, without recourse to industry-standard, cup-anemometer-based meteorological masts.

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# Photos of the day

1. Teresa Ribera, senior adviser on international climate policy at France's Institute for Sustainable Development and International Relations, speaking at yesterday's session on UN climate talks; 2. Eddie O'Connor, *right*, boss of Mainstream Renewable Power, receives the prestigious Poul la Cour prize from EWEA president Andrew Garrad; 3. The busy Siemens stand; 4. Enercon chief Hans Dieter-Kettwig makes a point at the press conference yesterday; 5. The EWEA members' brunch

Photography: EWEA/Jason Bickley



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