

EWEA 2013

DAY TWO

ewea.org | rechargenews.com

Produced by **RECHARGE**



IEA boss: fossil-fuel subsidies are public enemy No 1

BEN BACKWELL
VIENNA

International Energy Agency (IEA) chief economist Fatih Birol, left, has hit out at government support for fossil fuels, saying that present policies mean that CO₂ emissions are being subsidised to the tune of \$100 per tonne.

Speaking at the EWEA 2013 conference in Vienna, Birol said that fossil-fuel subsidies rose to \$523bn globally, dwarfing support for renewables of about \$88bn, with only \$21bn for wind.

"For me, fossil-fuel subsidies are public enemy number one of

sustainable energy development," said Birol, adding that the IEA is doing its best to persuade the G20 group of countries to act on the issue.

Birol pointed out that while CO₂ emissions are at record levels, the renewables industry is "under strain". He said that the current energy system is unsustainable, with high oil prices acting as a "major handbrake" on economic

Continued: Page 2

RECHARGE
PRODUCER OF THE EWEA 2013 DAILIES
VISIT US AT STAND A-A9

TO ENSURE RELIABILITY
AND PERFORMANCE OF YOUR
WIND TURBINES WORLDWIDE



WE CREATED
WINDLINK®,
HIGH QUALITY CABLE
SOLUTIONS



Visit us at
EWEA Vienna
Hall B
Booth BF31

Nexans
At the core of performance

Because you want to supply electrical generation efficiency and not just turbines, we have developed WINDLINK® cable solutions. At the leading edge of technology, WINDLINK® cable solutions can outfit a complete wind turbine. Based on Nexans' proven expertise, all our cables, connectors and accessories ensure maximum reliability and performance for your turbines. And our substantial production capacity worldwide assures you manufacturing continuity. www.nexans.com/windlink - marcom.info@nexans.com



MAN WITH
A MESSAGE:
Adnan Amin

CHRISTOPHER HOPSON
VIENNA

The renewables industry must develop a strong global message, to defend itself from growing attacks by Big Oil, says the head of the International Renewable Energy Agency (Irena).

Director-general Adnan Amin tells *Recharge*: "At the moment with renewables, I think we are giving out different messages in different markets. In Europe the subsidy message is a key one, and everybody is frightened about what is happening due to austerity and why some nations are pulling the carpet from

We need one voice to battle Big Oil, says Irena boss

under the renewables business. But in other markets it's a very different message.

"So I think we need to have a single global message, which is that the economic and technical feasibility of renewables today allows it to be deployed at scale

and offer a solution to energy security and climate change issues, while meeting growing energy demand throughout the world.

"The question is how we shape that message and make it meaningful to policymakers,

decision-makers and investors. That is something we need to get into the public mind, so we can develop public support for a massive upscaling of renewables."

Amin says the reason the fossil-fuel industry is increasing its attacks on renewables is that it feels increasingly under threat.

"However, if such Middle East oil producers as Saudi Arabia and Kuwait are investing so heavily in renewables, surely that sends a strong message to those in the fossil-fuels business who are fighting us".

Amin says his organisation is set to play a major role in persuading governments to adopt renewables, with huge growth potential in Southeast Asia, Africa and South America, where billions of people lack access to electricity.

"I can say with confidence that Irena has come of age. Our membership has grown beyond all expectations, to include 160 countries. Near-universality is within reach, as demonstrated by... China announcing its intention to join in our mission.

"The growth of wind power over the past 15 years has matched that of telecoms and IT, with wind becoming a mainstream generation technology around the world. Wind is one of our big success stories, and proves that renewables are not longer a niche option.

"Wind power is already competitive with fossil-fuel generation in many countries without subsidies," he says, highlighting initiatives by Irena to provide governments with objective information on the economic advantages of renewables. □

'Public enemy number one'

From front page

growth, while differentials in gas pricing undermine the European economy's competitiveness.

Birol urged governments to establish stable frameworks to speed up the growth of renewables. "One of the major challenges wind has is of predictability, but the major

problem is the predictability of government policies in terms of investment frameworks," he said. "If government policies were as predictable as the wind, then we would win this."

Even with current policies, Birol was fairly bullish on wind energy, saying that the sector would account for 20% of all new power additions until 2035. □

Single EU size won't fit all

BERND RADOWITZ
VIENNA

The EU needs to make sure that countries speeding ahead in renewable energy can keep their ambitious support schemes, the director-general of the Austrian Economics Ministry said yesterday at EWEA 2013.

"We need to find a system so

that these member states [such as Austria and Germany] are not punished in competition *vis-à-vis* other member states or the rest of the world," Michael Losch said. "This will be a difficult test and it's not a one-size-fits-all approach."

Anni Podimata, vice-president of the EU Parliament, said the bloc needs to establish a binding target for renewables for 2030.

Loss prevention

Safeguarding your people,
your equipment,
your processes and
your business reputation

Lloyd's Register helps companies around the world to operate with confidence and tackle the industry's ever-growing technical, regulatory, commercial and environmental demands.

In an industry where safety is paramount, choosing us as your technical expert sends a clear message to your stakeholders that your business is committed to meeting its responsibilities on safety, reliability and performance.

Trust us when it matters – apply our expertise

Visit us at www.lr.org/renewables

Visit us at EWEA in Vienna at stand no. A-E62

Read what our technical experts are saying at <http://blog.lr.org>

TRUST IS GONE:
Gamesa's David Mesonero at EWEA 2013 yesterday

Latest cuts in Spain will cause 'very serious' damage

KARL-ERIK STROMSTA
VIENNA

Spain, a pioneering renewable-energy nation, is on the verge of disappearing from the industry map as politicians lose sight of the long-term commercial potential of renewables.

Last week, Madrid drew another round of howls after unveiling its latest plan to alter power-market regulations, limiting the options wind farm owners have for receiving payments and tightening the mechanism by which future rate increases will be calculated.

Shares in Spanish renewables players such as Acciona and Abengoa slumped on the news.

The government's incessant tinkering with regulations is problematic enough, making investments in large Spanish wind projects all but impossible. Even worse are signals that Spanish officials no longer grasp the value of helping the industry survive Europe's

financial storm, say industry sources.

"It's very serious," says David Mesonero, director of corporate development at Gamesa, Spain's most important turbine supplier, with more than 25GW installed worldwide.

"To be very honest, I no longer trust Spanish politicians."

Gamesa has chosen to base

Gamesa... is trying to move everything outside Spain

its offshore wind subsidiary in Scotland and is "trying to move everything outside Spain", Mesonero says.

Robert Pottmann, head of renewables within Ergo, the primary insurance arm of Munich Re, says that while the Spanish government may think it is just taking the axe to the power sector, the reputational damage done to the country is

far deeper and more dangerous.

"This is not just about the wind or solar business," says Pottmann. "They're hitting the same investors that are buying Spanish government debt."

The government argues that it must take dramatic action to close the country's gaping "tariff deficit". But Mesonero says this should be done in a way that reflects the importance of hanging onto the hard-won "green wealth" the country amassed in the years before the eurozone crisis. Meetings with government officials have laid bare the fact that "they don't understand this", he claims.

Madrid-listed Gamesa has about 5,000 workers and maintains more than 20 manufacturing sites in Spain alone, including many in areas where job prospects are grim, even by Spanish standards.

Spain had nearly 22GW of wind installed at the beginning of last year, the fourth-largest base in the world, in addition to more than 4GW of PV. ☐

Gamesa offshore: Page 15

Europe and Asia won't mirror the US decline

BERND RADOWITZ
VIENNA

Wind markets will remain more or less stable in Europe and Asia this year — in contrast to the sharp decline in the US, according to Jürgen Zeschky, chief executive of German turbine manufacturer Nordex.

"We don't expect a lot of growth [in Europe]," he says. "In the US, obviously, it's a lot different."

After 13.1GW of wind was added in the US in 2012, new installations will fall to 3-5GW this year, despite the extension of the production tax credit, says Zeschky, *below*.

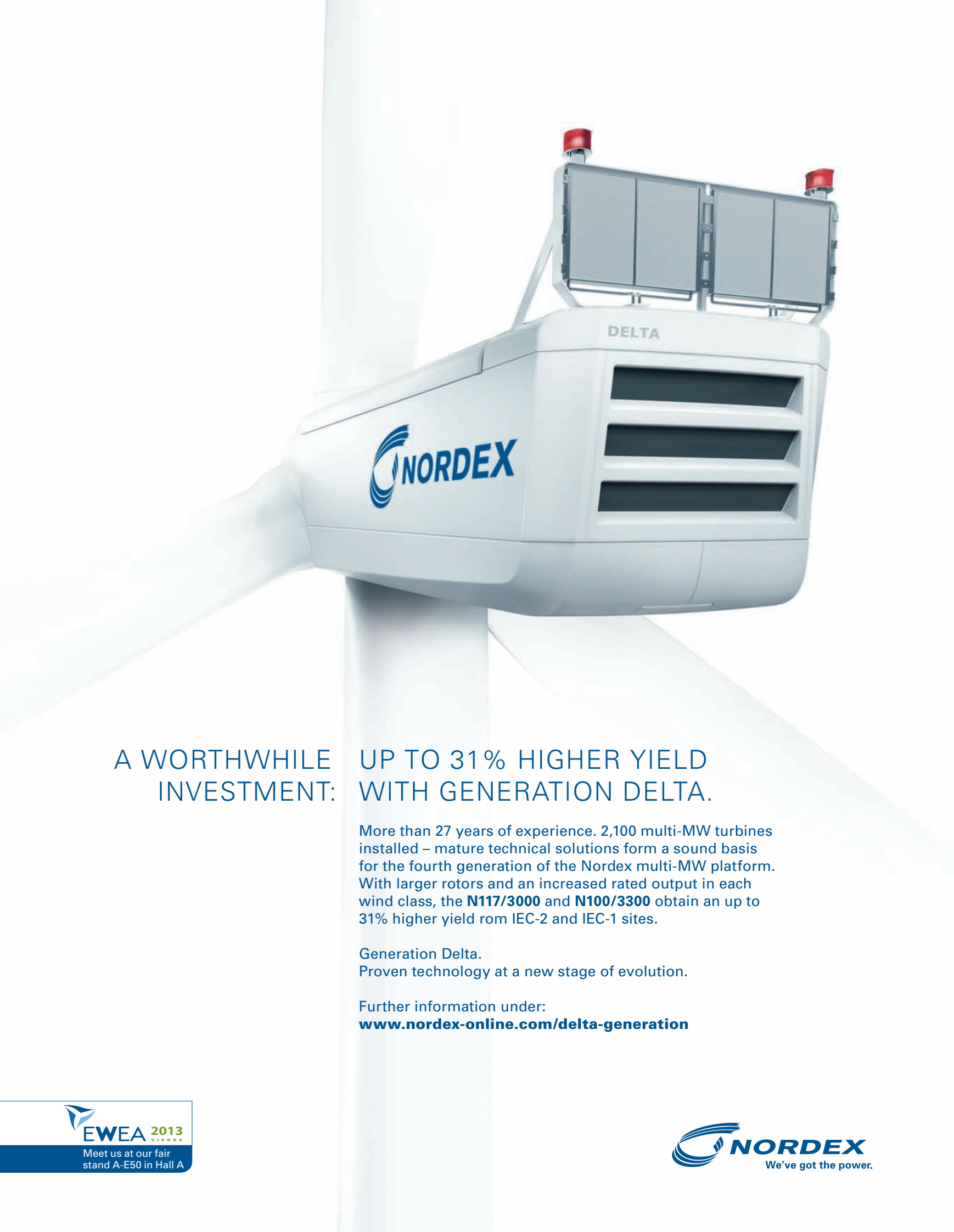
His company sees growth in the Americas outside the US — in Uruguay and other unspecified countries.

In Europe, he expects a shift from southern to northern countries. "That's actually working in our favour," he added, "because that's the market we're strong in."

Zeschky did not give details of how the restructuring of the company's US and Chinese businesses are going, but says Nordex has "a viable business case in countries outside China", in countries such as Pakistan, the Philippines and Thailand. ☐

Delta force: Page 16





A WORTHWHILE INVESTMENT: UP TO 31% HIGHER YIELD WITH GENERATION DELTA.

More than 27 years of experience. 2,100 multi-MW turbines installed – mature technical solutions form a sound basis for the fourth generation of the Nordex multi-MW platform. With larger rotors and an increased rated output in each wind class, the **N117/3000** and **N100/3300** obtain an up to 31% higher yield from IEC-2 and IEC-1 sites.

Generation Delta.
Proven technology at a new stage of evolution.

Further information under:
www.nordex-online.com/delta-generation



Meet us at our fair
stand A-E50 in Hall A





Will opening up Eastern Europe be a piece of cake?

CHRISTOPHER HOPSON
VIENNA

The European wind industry is looking east for growth. In the long term, that is a sound strategy. But emerging markets in Eastern Europe will take time to replace growth in the continent's stagnating established markets.

Observers have long forecast a rapid increase in wind activity in Eastern Europe. However, growth on the periphery of the EU has been patchy so far, both geographically and in terms of

market share. EWEA's *Eastern Winds: Emerging European Wind Power Markets* report, published today, says that between 2007 and 2010, €786m (more than \$1bn) from the EU's regional cohesion fund was earmarked for wind projects, of which €420m was set aside for newer member states, primarily Poland, the Czech Republic and Romania.

However, due to "complex EU and national application procedures", only 3% (€23m) of those funds has been spent, and none in newer member states,

according to the report. The commercial banks that are active in wind financing in the region consider Romania and Poland the most promising new markets for wind.

Romania (520MW of installed wind in 2011) and Poland (436MW) rank in the top ten EU wind markets. However, these markets have not avoided destabilising discussions about their support mechanisms in the context of the sovereign debt crisis.

Poland is seen as heading in the right direction domestically in

spite of its sometimes unhelpful position on energy and climate policy at a European level.

Overall, the biggest barriers in these countries remain administrative and the development of the grid. In Romania, for example, most wind production is in the Dobrogea region near the Black Sea, distant from the main demand centres.

Croatia is also seen as having a good project pipeline, with several wind farms under construction.

However, Croatia and Ukraine, which began developing wind energy in the mid-2000s, had still reached only 131MW and 151MW of installed capacity respectively by the end of 2011.

Russia, which has huge wind potential, was languishing too, with only 15MW of wind up and running, and virtually no growth for the past decade.

One of the next hot spots looks likely to be Serbia, although no installations were operating by the end of 2011. However, wind farms totalling 150MW have been permitted there, and others are starting the approval process.

Turkey is by far the most promising wind market on the edge of the EU. Its cumulative installed capacity rocketed from 20MW in 2005 to almost 1.8GW at the start of last year.

In the current round of 2014-20 EU budget talks, funding is expected to be linked more closely to the continent's 2020 priorities, including meeting climate change targets. This means the funding for wind projects is likely to increase over the coming years.

FULL SCOPE WIND ENERGY CONSULTANCY AND SOFTWARE SERVICES

Join us on stand A-J70

Technical guidance through the wind project lifecycle

Brussels | Toulouse | Beijing | Istanbul | Cape Town | Milan | wind@3E.eu | www.3E.eu



Poland's onshore challenge

FLOWER, POWER:
Suwałki wind farm in northeast Poland;
below: Karol Lasocki

KARL-ERIK STROMSTA

Poland's onshore wind market has overcome a host of challenges to become one of the most attractive in Europe, but from next year it will face two new rivals on the battlefield: offshore wind and PV.

The simplistic nature of the renewables law enacted by Warsaw in 2004 — which sees one Green Certificate (GC) awarded for each megawatt hour of renewable electricity produced, regardless of technology — means onshore wind and biomass co-firing have been the real beneficiaries, the latter supported by the country's powerful coal lobby.

Some 440MW of onshore wind was added in 2011, and the 2012 figure will be far higher, with Iberdrola, RWE and E.ON pouring money into projects.

The frenzy has been fuelled partly by a desire to bring projects on line before a new renewables law — set to offer different levels of support to various technologies — enters force. The introduction of that law was expected at the beginning of 2013, but political foot-dragging means it will probably be pushed back by a year, taking effect in early 2014.

Although the full implications are not yet clear, the law will redraw the competitive landscape for onshore wind,

says Karol Lasocki, a Warsaw-based member of the energy team at law firm K&L Gates.

The most immediate winner will be PV, with small installations tipped to receive 2.85GCs per MWh under the new regime. By comparison, onshore wind will receive 0.9GCs. Although a decrease on the current level, that is still higher than the 0.75GC laid out in an earlier draft version of the



legislation, which met fierce resistance from Poland's growing wind sector.

Ironically, players such as state-run utility PGE, which have been cast in a sinister light by the renewables industry in the past, have recently become significant investors in onshore wind. Without their lobbying clout, support levels might well have come down even further.

Offshore wind farms — tipped to receive 1.8GC/MWh under the new regime — will also

begin factoring into Poland's energy future for the first time. Last year, the country awarded five zones totalling 4.5GW, with PGE the big winner.

Realistically, the first offshore project is unlikely to be commissioned before 2020, with experts pegging 3GW as a reasonable 2025 target.

The remaining debate on the new law — which is being batted around in the cabinet, and will probably be put before parliament this spring — hinges on two issues, Lasocki says.

First is the future level of support for co-firing. Under a worst-case scenario, the technology would remain eligible for GCs for a further four years.

Second is the point at which the government would step in to prop up GC prices if the market becomes oversupplied — a distinct possibility if PV takes off.

All things considered, "it's difficult to say whether the new law is a good or bad thing for onshore wind", Lasocki says.

But regardless of the final shape of the law, there will be one unambiguously positive aspect for the sector — "certainty", Lasocki says, "which is maybe the most important thing of all".

Karol Lasocki will speak at EWEA 2013 today at 11am, as part of the Emerging Central and Eastern European markets session

See how your turbines perform.

Verify, monitor and optimize your wind farm performance with the Wind Iris™ turbine-mounted Lidar.



**VISIT US
ON BOOTH
A-H46**



TURBINE-MOUNTED WIND INTELLIGENCE

Avent Lidar Technology is a joint investment of



Siemens' new turbine to lead push into mass production



SUBSIDY-FREE DREAM:
Siemens Wind's chief technology officer, Henrik Stiesdal

DARIUS SNIIECKUS
VIENNA

Germany's Siemens will today launch its recently unveiled 4MW wind turbine, the SWT-4.0-130, as the flagship in a "platform" strategy aimed at standardising its machines in four main groups for mass production.

The new model, which features ultra-flexible 63-metre blades, will target the "comfort zone" offshore projects — developments in depths of up to 30 metres and less than 30km from shore — using a design built around the company's workhorse SWT-3.6-120.

Nacelle and tower are "advanced variants" of the 3.6MW turbine

— 500 of which have been erected around the globe, with another 1,200 on order — while the drivetrain is an evolved version of its predecessor's three-stage, geared concept, powering an asynchronous generator.

The aeroelastic B63 blades, said to be the "longest and most technologically advanced" in the 4MW class, have been developed

through an "optimised coupling of bending and twisting", making them respond better to high wind loads by cushioning forces, like "shock absorbers on cars", says Siemens.

The blades will be fabricated using the company's "no-glue joints" IntegralBlade process.

"The advancements designed into the SWT-4.0-130 increase energy capture by up to 15% over our best-selling SWT-3.6-120 type," states Siemens Wind chief technology officer Henrik Stiesdal.

The prototype of the 4MW machine has been showing "excellent performance" in trials at the Østerild test centre in Denmark since installation last December, he notes.

Siemens expects to put the new turbine in the showroom next year with serial production slated for 2015.

The platform design strategy will tear a page from the automotive industry's manufacturing practice of mass-produced modular components.

All future Siemens wind turbines will be "bundled" by product platforms G2, G4, D3 or D6, with the G denoting "geared drive" and the D "direct-drive".

"We can reduce production and logistics cost by standardising and modularising components within our product platforms," says Stiesdal. "This is a major step towards achieving our goal of making wind power independent from subsidies."

IHS Energy estimates that shallow-water wind farms currently account for 93% of European and nearly 100% of Asian capacity. ☐



kk-electronic®

For more than three decades kk-electronic has been an innovative and dedicated part of the wind power industry.

Flexible concepts for software and hardware solutions is the foundation of both our customer's and our competitiveness.

Discover the unique difference at our stand!

STAND AJ30

www.kk-electronic.com

Modular thinking !



— makes **integration** come easy

C SOFTWARE [USER-FRIENDLY AND FLEXIBLE]

C HARDWARE [ROBUST, COMPACT AND FAIL-SAFE]

C KK-ELECTRONIC [DISCOVER THE UNIQUE DIFFERENCE]

GE unveils intelligent turbine

BRAINPOWER:
The new turbine is an step change up from GE's current 2.5MW model

Hendry brought on board at Dogger Bank

DARIUS SNIECKUS

Forewind, which will operate the massive Dogger Bank offshore development, has brought in former UK energy minister Charles Hendry as chairman.

The Conservative Member of Parliament, who takes up the post immediately, says: "Dogger Bank... is the most ambitious offshore wind project in the world and will help make the UK the undisputed global leader in the technology."

Fully developed to 9.6GW by 2020 at an estimated cost of £3bn (\$4.7bn), the wind farm, 125km off the eastern coast of England, could supply 10% of the UK's power. The Forewind consortium consists of RWE, SSE, Statkraft and Statoil.

DARIUS SNIECKUS

VIENNA

GE has launched its 2.5-120 turbine for low wind speeds, claiming a 25% increase in efficiency and a 15% boost in power output compared with its existing model.

The US manufacturer says the 120-metre-diameter rotor — combined with a tower with a maximum hub height of 139 metres and state-of-the-art

control technology — will help operators harvest low-wind sites such as heavily forested regions in Europe and Canada. The first prototype will be deployed in the Netherlands next month.

The 2.5-120 is designed to link with energy storage. The company has been testing the integration of wind and storage over the past year in California.

The new 2.5MW turbine uses "intelligent decisioning" — in which information streamed via

smart devices is acted on by the turbines themselves, so that system operators can "transfer the burden of complexity" of certain processes to the machine's digital hardware.

For a wind farm, this advanced automation will mean production levels can be adjusted in response to fluctuating wind speeds, changes in electricity demand and the availability of other wind farms on the same transmission network. ☐

Photograph | GE

THINK AW3000

BIG

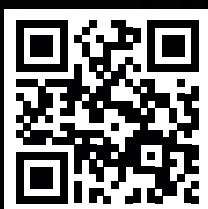
acciona
Windpower

THINK BIG. THINK AW3000.

Think big production from taller towers and a 3 MW nameplate. Think big capacity factors with an impressive swept area and 116 meter rotor diameter. Think big return on investment, with savings on construction costs and operations and maintenance. Think big experience from a global leader in wind power.

ACCIONA Windpower's AW116/3000 brings the performance and reliability customers need to sites with stronger wind resources. ACCIONA Windpower offers taller concrete towers using local content and multiple transportation options to accommodate almost any project. On sites with limited land or restrictive setbacks, the AW3000 makes it possible to locate more megawatts in less space. Think of what ACCIONA's AW3000 can do for your project.

VISIT AW3000.COM AND EWEA BOOTH A-H 70





Happening today

'Experience Austria' business tours

Tuesday 5 February, 13:30 – 16:30;
Wednesday 6 February, 10:30 – 13:00
and 13:30 – 18:00

The Austrian Wind Energy Association is offering the opportunity for EWEA 2013 participants to experience Austrian solutions in the field of renewable energy during the event. Participants will be able to experience some premier projects in the field of renewable energy of Austrian companies. There are three business tours taking place.

The world's most powerful onshore wind turbine

Tuesday 5 February, 13:30 – 16:30
Wednesday 6 February, 10:30 – 13:00

Biogas Plant Bruck/Leitha

Tuesday 5 February, 13:30 – 16:30

Repurposed power plant — the renewables take over Wednesday 6 February, 13:30 – 18:00

To find out more and to purchase a ticket, you can enquire at the registration desks.

High-level panel debate: Boom and Bust — North, South, East 09:00 – 10:30 (Room Strauss 2-3)

This session will illuminate the differences between established and emerging markets. In this high-level panel debate, leading industry figures from developers and utilities will share their views on where, and how, the European wind sector will develop.

Conference session tickets: There is still a chance to attend even if you are not a conference delegate. Participants can purchase up to two conference session tickets per person at the registration desks.

Emerging Markets workshop

Part 1: Tuesday 5 February, 13:00 – 17:00

Part 2: Wednesday 6 February, 09:00 – 13:00
(Room Strauss 1)

Exploring the most effective ways to operate profitably in emerging markets, you will improve your understanding of these new markets and maximize the role that they play in your company's overall success. This two-day workshop covers everything from political framework to financing wind energy, legal aspects, opportunities, challenges and best practices in developing wind in emerging markets.

All participants will receive a free copy of a new market study of investment opportunities in emerging markets (*Eastern Winds* – EWEA's new report on Emerging European wind power markets).

Programme

Tuesday 5 February

- Session Opening (13:00)
- Panel Discussion — Political Framework in Emerging Markets (13:15 – 14:00)
- Financing Wind Energy in CEE (14:10 – 15:30)
- How to Supply a Growing Market — Solutions for a Renewable Market (15:45 – 17:00)

Wednesday 6 February

- Breakfast (08:00 – 09:00)
- Legal Aspects of Planning and Operating Wind Farms in Emerging Markets (09:00 – 10:15)
- Renewable Energy and the Grid — Challenges and Opportunities for Emerging Markets (10:30 – 11:45)
- Hurdles and Best Practices in Developing Wind — Why Some Grow and Some Don't (12:00 – 13:15)

Lively quick-fire session 11:00 – 12:30

Science & Research Quick-Fire: Small Wind Energy (Room Stolz)

The performance of smaller wind turbines will be considered, particularly when integrated into building structures or exposed to rapidly varying wind conditions in complex environments. Presenters will give a two-minute pitch of their work in the area of small wind energy. The audience can then vote on the four presenters they wish to give a full presentation. Delegates get to decide what they learn about!

Learn about new developments in a very short time and make your own session. The quick-fire session is the pressure cooker for presenter-audience interaction!

Poster Session: Get one-on-one time

with the experts 15:30 – 19:00 (Poster Area)

Hundreds of poster presentations covering the whole spectrum of track topics are available for viewing throughout the event in the

poster area. Take the opportunity between sessions to discover a wide range of new information across many specialist subject areas. The poster session is designed to facilitate information-sharing and networking between participants and poster presenters.



LEITWIND Networking event 16.30 – 17.30 (Stand B-C40)

All conference delegates, exhibitors and visitors are invited to the LEITWIND Tyrolean reception to network with other top industry professionals. Take a break after a busy day and enjoy our typical Tyrolean snacks and drinks! We hope to see you.

EWEA Networking event

17:30 – 19:00 (EWEA stand B-B40)

Every EWEA staff member plays a part in making this event happen. Come for a drink at the EWEA stand to meet the team organizing the event, and get more information about EWEA's other activities. Find out more about the upcoming events, including Barcelona, the next destination of the EWEA Annual Event, and enjoy some tapas with a glass of wine.

Burgenland Networking event

17:30-19:00 (Stand B-G40)

All EWEA 2013 visitors are invited to the Burgenland networking reception to experience Burgenland, which is famous for its excellent wines and beautiful landscape. Furthermore, it is well known as the first Austrian region that produces 100% of its energy consumption from wind.

Don't miss tomorrow

Electrical Systems from Torque to Grid

09:00 – 10:30 (Room Schubert)

This hardware session focuses on how the wind industry is facing up to the challenges involved in converting turbine shaft torque to power on the grid. Participants will learn about advances in offshore turbine generators and power electronics, new grid code testing methods and high-voltage turbine transformer technology. They will also be introduced to alternative HVDC concepts and gain an understanding of the practicalities of subsea power connections.

Project Workshops

EWEA participates in a number of EU projects. At EWEA 2013, project workshops are open to all participants free of charge.

REserviceS stakeholder workshop

14:00 – 16:30 (Business Suites 1 & 2, 1st floor)

The aim of this workshop is to present the main findings of the REserviceS project, discussing — most importantly — the cost implications of the ancillary services offered by wind and PV.



EWEA 2013 at your fingertips

Download the event app for free

NOW AVAILABLE! Choose from a range of wind energy images and style your mobile phone.



10,000
professionals

70+
countries

470+
exhibitors

40+
conference
sessions

Visit EWEA
at stand B-B40

Europe's premier wind energy conference and exhibition

10 – 13 March 2014

BARCELONA, SPAIN

What are you doing on 10 – 13 March 2014?

Come to Barcelona and join the top international wind companies at Europe's LARGEST wind energy conference and exhibition to network and do business



EWEA 2014
BARCELONA
EUROPE'S PREMIER WIND ENERGY EVENT

www.ewea.org/annual2014

SUPPORTED BY:



ORGANISED BY:



EWEA
THE EUROPEAN WIND ENERGY ASSOCIATION

Global Wind Day: a breath of fresh air



CHRISTOPHER HOPSON

Photograph | EWEA

Which worldwide event links bike rallies, regattas, workshops, abseiling and photography? The answer is Global Wind Day

on 15 June, for which events and activities will help young and old discover the power of wind.

The annual event started life in Europe in 2007 and went global two years later. Last year, more than 50 organisations arranged

250 events in 40 countries, overseen by EWEA and the Global Wind Energy Council.


"Global Wind Day is a great opportunity for wind-energy supporters around the world to communicate loudly and strongly

on the benefits of wind energy, and help others find out about them", says EWEA campaigns officer Elke Zander. "We encourage all those who believe in the power of wind to get involved by organising and attending activities or supporting Global Wind Day via social media."

This year's Global Wind Day is already taking shape. A photo competition has been launched in conjunction with *Recharge* (see page 14), which asks participants to share their "wind energy story". The winning photos will be displayed in the European Parliament in Brussels.

In Ireland and the Netherlands, several wind farms will be opened to the public around 15 June.

And Austrians can enter a sculpture, painting, comic or drawing depicting wind energy into a competition, or, if they are the right age, attend a teenage wind-power party.

Details of all forthcoming events will be published at www.globalwindday.org 


Aon Risk Solutions

Does your risk management exceed your expectations?



When the risks attached to your wind energy project become too complex, you need the support of an expert. Aon is the leading global provider of risk management, insurance and reinsurance brokerage. Aon's insights, solutions and expertise empower you to keep your business headed in the right direction.

Aon Versicherungsmakler Deutschland GmbH
erneuerbare-energien@aon.de | www.aon.de



What does wind energy mean for you?

Global Wind Day 2013 photo competition

Discovering the stories behind wind energy



YOUR PHOTO

+



YOUR STORY



Every picture tells a story – what's yours?

Tell us your wind energy story with a photo plus a description, or a poem, or a song....

Length of story: 50-300 words

Deadline: 5 May 2013

First prize: a €1000 Amazon voucher

Find out more: www.globalwindday.org



Gamesa's offshore turbine certified

DARIUS SНИЕCKUS
BRISTOL

Spain's Gamesa expects to have a prototype of its 5MW G128 offshore turbine up and running this summer on the island of Gran Canaria, after securing design approval for the machine from Norwegian certification body DNV.

The turbine would be ready for

maiden offshore installation at a commercial wind farm in 2014.

Gamesa, which has been struggling with falling sales, said the go-ahead for prototype testing of the 5MW machine "represents a major milestone... ensuring the timely launch, sales and manufacturing potential of the company's offshore turbine systems in coming years".

The 5MW model — which features a 128-metre-diameter

rotor and modular componentry with built-in redundancy based on technology in its 4.5MW turbine (*pictured*) — with a view to bolstering reliability and boosting energy output.

Gamesa plans to "concentrate its resources in coming years" on two new on- and offshore turbine designs with nominal capacities of 2.5MW and 5.5MW, with a 7-8MW model on the cards "in the medium to long term". □

Turbine maker Leitwind builds 24MW project

KARL-ERIK STROMSTA
LONDON

Leitwind has commissioned the 24MW Deliceto wind farm in the southern Italian region of Apulia as its permanent-magnet direct-drive turbines continue to find success in the domestic market.

The company was hired to build Deliceto last year by Elce Energia, and raced to complete the project in six months using 16 of its gearless 1.5MW LTW80 turbines.

Leitwind — based in Sterzing, in the German-speaking northern Italian province of South Tyrol — has installed more than 250 turbines since it began serial production in 2007. The company recently brought its first 3MW turbine to market.

Visit us at the HUSUM Wind Beer Reception

Today at 4.30 pm
Hall A · Stand no. AA29

You are cordially invited to our beer reception, where you can enjoy real **HUSUM Wind Beer**, specially brewed in Husum for wind events — the wind industry's favourite lager.



**HUSUM
Wind**

The Leading
Wind Energy Trade Fair

23–26 Sept. 2014
Husum, Germany

Member of **Windalliance**



Nordex turns to Delta force

German turbine maker launches next-generation range, aimed at medium- and high-wind sites in Europe

DARIUS SNIECKUS

Germany's Nordex has unveiled its next-generation wind turbine platform, targeting medium- and high-wind onshore sites in Europe.

The Delta machines — the 3MW N117/3000 and the 3.3MW N100/3300 — are based on the company's proven rotor, drivetrain and generator technology — boosted by longer blades and refinements designed to hone the efficiency and output of key components.

"We see there is tremendous potential outside the offshore markets in the strong wind areas, but this has not until now been reflected in the turbine technologies being developed," says Nordex head of engineering Jörg Scholle. "We wanted to dig into this, and develop a generation of machines that would really drive down the cost of energy on these sites."

"We think there may be more than 50% of the remaining [onshore] market that is IEC1 and IEC2 [average annual wind speeds of ten and 8.5 metres per second] and these are very attractive sites because they have really good payback if you have the right turbine out there."

The medium-wind N117/3000, which will use a beefed-up carbon-reinforced version of the 58.5-metre glass-fibre blades fashioned for Nordex's low-wind 2.4MW machine, is expected to have a 20% higher output than its

Gamma generation predecessor, the N100/2500, due to a 37% larger rotor sweep and 10% improvement on full-load hours.

"We are confident the blades we have developed [for the N117/3000] are state of the art. It is about configuring them in such a way that the whole turbine will have improved reliability and efficiency, greater robustness," Scholle tells *Recharge*.

With a nameplate capacity of 3.3MW, the high-wind N100/3300 will have a rotor diameter ten metres wider than its forerunner, the N90/2500,

enlarging the swept area by 23% and generating an increase in output of more than 30%.

The Delta range will stick with Nordex's tried and tested three-stage geared drivetrain and double-fed asynchronous generator.

Two taller steel towers — one for a hub height of 120 metres for the N117/3000 and a 100-metre model for the N100/3300 — will be offered for the Delta range, with an eye on "additional gains" from



more turbulent locations such as forested sites in the UK and northern Germany.

Nordex is also particularly targeting emerging markets in Finland, Ireland and Turkey.

"We believe the Delta turbines

will be able to achieve up to 31% in additional yield at locations with medium and strong winds, wherever they are," states Scholle.

For Arctic wind developments, Nordex has outfitted the Delta machines with a cold-climate package, featuring a new heating-mat-based anti-icing system for blades.

"Many of our clients are now quoting for sites in the emerging Arctic markets, so we are looking to improve output from machines that will be installed in the most severe conditions [below -20°C]," says Scholle.

Eight test sites "around Europe and Scandinavia" have been scoped out for demonstration installations of the flagship Delta turbines this year.

The company expects to start delivering the new machines from the beginning of 2014. ■

REVEALED:
An illustration of the Delta turbine platform.
Top: Jörg Scholle

FREE TRIAL
AVAILABLE



The all-new Recharge

Recharge is the multi-platform news service for senior professionals in solar, wind and related sectors. It balances in-depth coverage of wind and solar with relevant news from the wider global renewables industry. The result is an agenda-setting and indispensable news and information service that keeps its readers informed and better able to operate successfully.

Recharge has changed

It has fully embraced the digital revolution while still recognising the important role print plays in communication.

The all-new Recharge is:

- The redesigned website delivering 24/5 news, analysis, opinion and industry information
- Specialist daily newsletter providing breaking news and business-critical information
- Weekly newsletters for wind and solar summarising the week's news
- A high-quality monthly magazine with thought-provoking features, informative opinion pieces and photojournalism of the highest order
- An online archive of all articles published by Recharge since its launch
- Android and iOS apps to take all content to smartphones and tablets



Don't miss the next edition, sign up now!

Go to www.rechargenews.com/subscribe and place your order, or fill in the form below and fax it back to us.

Yes, I would like to subscribe to the following Recharge package for 12 months

Full year	Wind	Solar	All
US\$	<input type="checkbox"/> 345	<input type="checkbox"/> 345	<input type="checkbox"/> 460
Euro	<input type="checkbox"/> 295	<input type="checkbox"/> 295	<input type="checkbox"/> 395
Nkr	<input type="checkbox"/> 2 065	<input type="checkbox"/> 2 065	<input type="checkbox"/> 2 765

Please fax this order to your nearest Recharge sales office:
Oslo (47) 24 10 17 10 Stavanger (47) 51 93 87 81
London (44) 207 029 5749

Alternatively please send an email
subscribe@rechargenews.com

Company
Name
Position
Postal address
Postal/zip code
Country
Phone Fax
Email

☐ **Please invoice me**
☐ Alternative invoice address

☐ **Please charge my card**
☐ Visa ☐ American Express
☐ Master/Euro card

Cardholder's name
Cardholder's address
Amount
Card no.
Expiry date CVC code

Signature

OUTSIDE HELP: EU President Herman Van Rompuy, *far right*, and Bulgarian Prime Minister Boyko Borisov. *Below:* Michael Sponring

Support is not always financial

Renewables sectors in some emerging European markets need advice as much as subsidies, writes **Philippa Jones**

Support mechanisms for renewable energy are always controversial, especially in the current economic climate.

Debates on this matter will be at the heart of the sessions under the leadership of Michael Sponring, managing director of PwC Vienna and chairman of the Policies and Markets track.

The future of support schemes is key for potential investors and the “technical developments of different wind turbines”, says Sponring. “Normally a time

frame is provided for a support mechanism, and at the end of it, the technology should be able to manage without subsidies.”

But because of EU financing issues, it could be difficult for renewable energies to manage without incentives, particularly in countries where wind power is less developed. This theme ties in with another main thread running through EWEA 2013, that of emerging markets in Europe and further afield.

“Certain conference attendees will want subsidies to be phased out, but most will accept that in some countries there are still risks and that a feed-in tariff scheme is needed,” says Sponring. “Many delegates in this track are likely to back long-term support schemes such as green certificates. But some will say that we have already paid a lot of money for renewables, and that we now have to step back a bit and see how the economy will

develop in the next few years.”

Sponring believes that one way of reducing potential risks associated with wind projects (and thereby helping the move away from subsidies), especially in Eastern Europe, is to offer increased non-monetary support for projects and investors in these regions.

“Everyone from consultancies, to industry and the EU institutions needs to get involved,” he says. “It is not even clear to some people in Romania and Bulgaria, for instance, how to approach the right institutions for funding. They do not know how to access EU cohesion funds or European Development Bank aid, and we have to help them.”

Companies from Western Europe that want to work in these countries “need to understand the necessity of having a local partner that is well known in

the area and has good links with local government”.

However, despite these concerns, Sponring is confident about the future of the wind industry in Europe. “I believe that wind, beside hydropower, is the most accepted form of renewable energy among the general population, which sees that it makes sense.”

Nonetheless, he insists that a close eye must be kept on the development of the sector.

“We need to check that too many turbines are not erected in areas with a lot of wind, such as east Austria and west Germany, otherwise the acceptance of wind power among the local populations could be put into question,” he says. Such potential problems “should be discussed at EU level, but ultimately each country needs to make a national decision about where the turbines should go”. □

Michael Sponring is the track chair for Policies and Markets. He is managing director at PwC Vienna and head of its Austrian energy practice. He has been commissioned by EWEA to write its report on wind in emerging markets

Making turbines more efficient

Innovation to improve existing technology will keep Europe in the lead, writes **Philippa Jones**

// We have learned over 20 years that you don't make money from a machine hidden behind a tree

The need to ensure the wind industry is as cost-effective as possible is driving innovation in Europe, says Peter Tavner (*pictured*).

Tavner — emeritus professor of engineering at Durham University in the UK, former president of the European Academy of Wind Energy and author of *Offshore Wind Turbines, Reliability Availability & Maintenance* — will chair the Science and Research track at EWEA 2013.

He is acutely aware that the sessions must be relevant to industry as well as to more academically minded delegates. So he wants to allow the global economic situation to shape the debate.

"There is pressure on industry to make things cheaper, and so we will focus on how it can produce equipment more cost-effectively rather than on blue-sky thinking," he says. "Companies are in a particular state of mind — they do not want to hear 'clever dick' ideas, but how to make machinery work better so that the EU can stay ahead."

One focus for this exchange

of ideas will be drivetrain cost savings.

The "Battle of the drivetrains" session — Tavner says he has "tried to make the title and content a bit more sexy" to encourage delegates to attend — will examine the relative merits of different drivetrain concepts



for large turbines, with regard to the cost of energy. "People who have had clever ideas and put them into action" will lead this discussion, says Tavner.

Likewise, his colleagues plan to enliven a session on small turbines by asking presenters

to give a two-minute pitch on their work and then allow the audience to vote on the four speakers they want to give a full presentation.

A third session will consider research aimed at improving the aerodynamic performance of large and small turbines.

"We have learned over 20 years that you don't make money from a machine hidden behind a tree," says Tavner wryly.

He admits it is not always easy to break down the science to make it understandable for everyone, but acknowledges that "manufacturers do not have a lot of money to spend" and they therefore need the research discussed in the track.

"Turbine manufacturers can be prosaic, but when you get big wind farms, you get big-name investors who want to know that the right turbines are being put up in the right place and conditions, and that the right site survey has been carried out," says Tavner.

"It is not like it was ten years ago, when three months' data was enough for a bank to say yes."

He also believes that by taking on board some of the new ideas out there, EU manufacturers will stay ahead of the game.

"China is very good at producing turbines cheaply, but the quality is not necessarily so good," he says.

By applying new research, European companies can make quality products suitable for local climates and be better equipped to successfully penetrate overseas markets, such as China, which needs turbines able to cope with warm, windy deserts during the day and sub-zero temperatures at night, he adds. ☐

Peter Tavner, emeritus professor of engineering at the UK's Durham University, is the track chair for Science and Research. He has held senior research, development and technical positions in the power, electrical manufacturing and wind industries, and is researching and developing high-reliability techniques for the wind sector



EWEA 2013



Photos of the day

1. Delegates registering for the first day of the EWEA 2013 event; 2. The audience waits in anticipation for the opening ceremony; 3. (l-r) Francesco Starace, chief executive of Enel Green Power and EWEA 2013 conference chair; Hasan Murat Mercan, deputy minister of energy and natural resources; Christian Kjær, chief executive of EWEA; Pat Rabbitte, Irish energy minister; Fatih Birol, chief economist at the IEA; Adnan Amin, director-general of Irena; Arthouros Zervos, president of EWEA; at the EWEA 2013 press conference; 4. A Gamesa representative presents its 2MW turbine; 5. The Easy-Laser stand prepares for the days events; 6. Christian Kjær opens the session with his keynote speech; 7. The EWEA members reception at the Palais Ferstel on Sunday



TWITTER VIEW

If only the press could see this info on Global fossil fuel subsidies - \$500billion in 2011, or \$110 per ton of carbon emitted #EWEA2013

Laura Kane @laura_windCDT

Blistering attack by Chief Economist of IEA on fossil fuel subsidies. #EWEA2013

Adam Bruce @adamrbruce

EU parliament vice pres Anni Podimata @ewe2013 : 45% EU renewables target by 2030 is "absolutely realistic and feasible". From 20% in 2020

Jamie Stewart @Jamie_IH

Irish Minister Rabbitte:v consumers will only truly benefit from renewables when they are exported at scale #EWEA2013

A Word About Wind @awordaboutwind

From the EWEA blog at #EWEA2013 - Fossil fuel subsidies are "public enemy number one" <http://www.ewe.org/blog/2013/02/fossil-fuel-subsidies-are-public-enemy-number-one/>

EWEA @EWEA

Arthouros Zervos at #EWEA2013: "First they attacked windpower because they said it was too expensive, now because they say it is too cheap"

Ben Backwell @benrecharge

#Spain on the verge of disappearing from the industry map as politicians lose sight of long-term potential of #renewables #EWEA2013 #Merkel

RedAlumni Renovables @RedAlumni