

The image shows a large white wind turbine blade extending from the bottom left towards the top right. The blade is the central focus, with the Vestas logo printed on its base. In the background, a landscape of rolling green and brown fields is visible, with several other wind turbines scattered across the horizon. A body of water is seen in the distance under a clear sky. The overall scene is captured during the golden hour of sunset or sunrise, with warm lighting.

**Vestas**®

# Sustainability Report 2010

**Wind.** It means the world to us.™

## Vestas Sustainability Report 2010

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## Sustainability is good for business, too



Welcome to Vestas' first sustainability report. We have expanded our previous sustainability reporting in the annual report to reflect our commitment to the sustainability agenda and to invite stakeholders to take a closer look at our business.

Being a major player in the wind industry, many people tend to think of Vestas as a sustainable company almost by definition. While this is obviously true, we recognise that becoming truly sustainable is a journey. Not only for Vestas, but for everyone involved, including business partners and society at large.

We do our utmost to be sustainable at Vestas, but we are a high tech business, manufacturing wind turbines with more than 9,000 sophisticated components. At the same time, we belong to an industry characterised by heavy machinery, steel, concrete and global logistics – challenging elements in terms of sustainability. But as you will see in this report, we are moving in the right direction thanks to a dedicated effort from our business partners and Vestas colleagues worldwide.

In 2009 Vestas joined the UN Global Compact, and in January 2011 we became one of the 50 'elite companies' in the UN Global Compact LEAD – companies that are all committed to leading the way in sustainability. Recently, we have also shown our commitment to sustainability by signing up for the UN Caring for Climate initiative.

It is with deep regret that we experienced a fatality in India on the 25th of January 2011. A vital part of our sustainability effort is safety. In fact, safety is a priority for everyone at Vestas in everything we do. No injury will ever be acceptable at Vestas. Our ultimate goal is zero injuries. Failing in this objective is not an option. The fatality stresses the importance of our continued efforts to improve our safety record as we have over the last five years.

As a leading player in the wind sector, we are constantly expanding our business into new countries and new markets. This means new opportunities, but also new risks. One area where we are 100 percent committed is business ethics. Vestas is a member of the World Economic Forum's PACI initiative: 'Partnering Against Corruption Initiative'.

An initiative we are particularly proud of is WindMade™ – the world's first sustainable consumer energy label to be endorsed by the United Nations and other organisations and companies.

The interest it has already received suggests that WindMade™ not only has the potential to increase corporate investments in wind power, but also the strength to create greater worldwide transparency and awareness of energy. With Vestas' commitment to WindMade™, we are expanding our stakeholder engagement to reach out to consumers, while continuing to engage politicians.

Business is certainly gaining momentum again – although we cannot deny that 2010 was a tough year for Vestas. We made some very difficult decisions and had to lay off 2,200, mainly Danish, colleagues. We did it to stay competitive in an increasingly challenging market. A market where we still stand strong and in which, I am convinced, sustainable actions and ethical behaviour will be ever more important factors.

When you buy a wind turbine carrying the dark blue Vestas logo, you not only buy a turbine that incorporates the highest safety standards, you buy a turbine that incorporates Vestas' commitment to minimising harm to the environment. You buy an energy solution produced in a very responsible way, by a company that takes great pride in treating its employees well all over the world.

This is what sustainability means to us at Vestas. And we are convinced it makes good business sense, too.

Yours sincerely

Ditlev Engel  
Group President & Chief Executive Officer

# Global challenges and opportunities

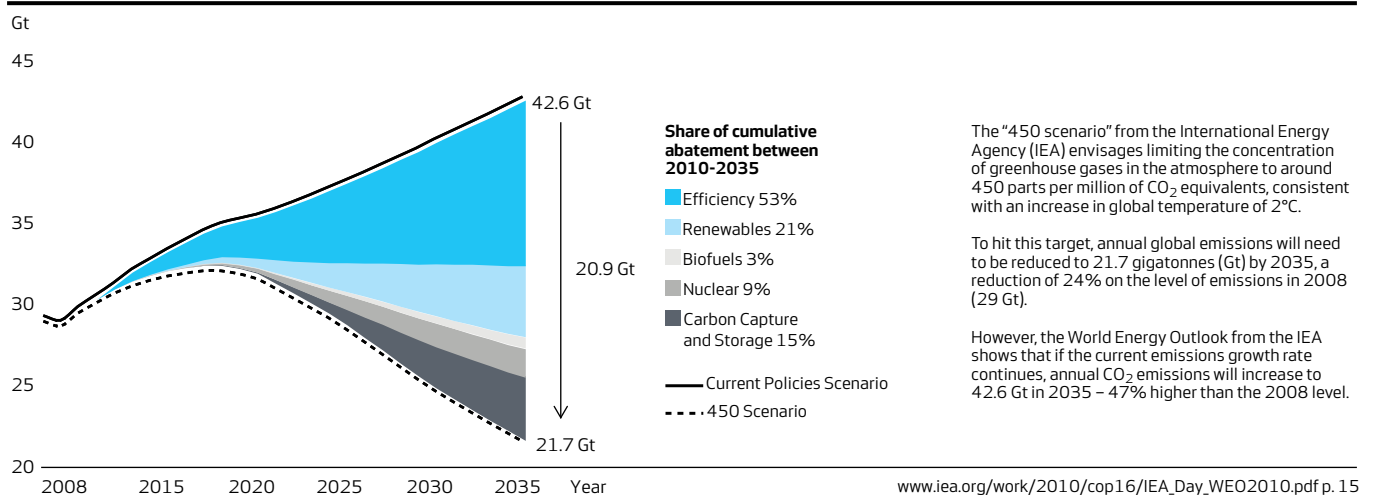


Energy is the foundation for a better quality of life. A stable energy supply is an essential part of the infrastructure for a developed society. It enables not only IT, communication and transportation, but provides power for basic needs like clean water supplies, food storage and preparation, heating/cooling of houses and lighting. In most places, energy is a precondition for health. Energy, in other words, brings hope and prosperity to people all over the globe.

But herein lies the challenge: most energy today is produced by fossil fuels, which cause poor air quality locally and contribute to global climate change. Therefore the world must take a different approach to the energy needs of the future. Fortunately there is increasing recognition in the world community of the dangers of climate change.

The global need for more renewable energy is an opportunity for Vestas. Wind power is not the only answer, but it is a vital part of the solution for bringing more energy to the world and still reducing total CO<sub>2</sub> emissions.

## Limiting the increase in global temperatures



## Climate change

Climate change poses one of the most serious challenges mankind has ever faced. The predicted effects could be both devastating and irreversible.

According to the Intergovernmental Panel on Climate Change (IPCC), the effects of climate change will be broad-ranging, affecting water supplies, ecosystems, food availability, health and the economy, and devastating coastal regions.

There is broad consensus on the need to limit the global temperature increase to 2°C, as agreed in the Copenhagen Accord at COP15.

This general objective was reaffirmed at the UN Climate Change Conference in Cancún, Mexico (COP16) in December 2010, but a legally binding, global treaty still looks some way off.

Urgent action is needed to avoid the worst ravages of climate change. Greenhouse gas emissions must peak and then begin to fall in the next decade, and low carbon energy generation technologies like wind power are a vital weapon in the battle against climate change.

Ambitious emissions reduction targets are essential. A price needs to be put on carbon, one that is stable enough to change people's behaviours and investment decisions.

## Increasing population and living standards

By 2050, the global population is projected to reach nine billion (UN 2008). This means that over the coming years, there will be as many people added to the world's population that lived in the world at the time of World War I. At the same time, people in developing countries understandably expect an increase in their standard of living. In China and India alone there will be 150 to 200 million more people with a middle class income.

If society maintains its current dependence on non-renewable energy sources, the planet's ability to sustain this huge population will be severely constrained.

Wind power and other low carbon energy generation technologies can contribute to sustainable economic growth for millions of people all over the world, by providing a viable alternative supply of energy.

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"We need a global clean energy revolution – a revolution that makes energy available and affordable for all. This is essential for minimising climate risks, for reducing poverty and improving global health, for empowering women and meeting the Millennium Development Goals, for global economic growth, peace and security, and the health of the planet." \*

U.N. Secretary General Ban Ki-Moon said at the fourth annual World Future Energy Summit in Abu Dhabi

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## Pressure on resources

The earth does not possess infinite amounts of resources like fossil fuels and metals. Wind power plants are already generally more resource efficient than other energy sources, and this is set to improve further as ever more efficient technologies and manufacturing processes are developed.

Energy is an essential part of the infrastructure in the developed world and is becoming increasingly important in the developing world. Ensuring that this energy helps to protect and enrich societies, rather than threaten them, is at the crux of the global climate change challenge.

\* [www.un.org/apps/sg/sgstats.asp?nid=5036](http://www.un.org/apps/sg/sgstats.asp?nid=5036)

# Wind. It means the world to us

Wind power is Vestas' one and only focus – a fact which the company is proud of and which is reflected in its tagline, **Wind**. It means the world to us.™ With 30 years' experience in wind power, and acknowledged as a pioneer in bringing wind power to 65 countries, we are totally committed to the industry we helped establish. The company's ultimate vision is to see its employees, customers, communities and other stakeholders working together towards the shared goal of clean energy.

Wind power is sustainable energy. Vestas is passionate about ensuring it helps preserve the environment for future generations. That's why Vestas makes sure every aspect of its business is based on responsible operations and long-term business success.

This involves not only complying with national laws and conventions, but also meeting Vestas' own standards – which often go far beyond its legal obligations. The Vestas Code of Conduct lays down these principles, and the company is a member of the UN Global Compact.

## The Vestas Strategy House

This report explains how Vestas' vision, mission, and strategy all support its commitment to a sustainable development.

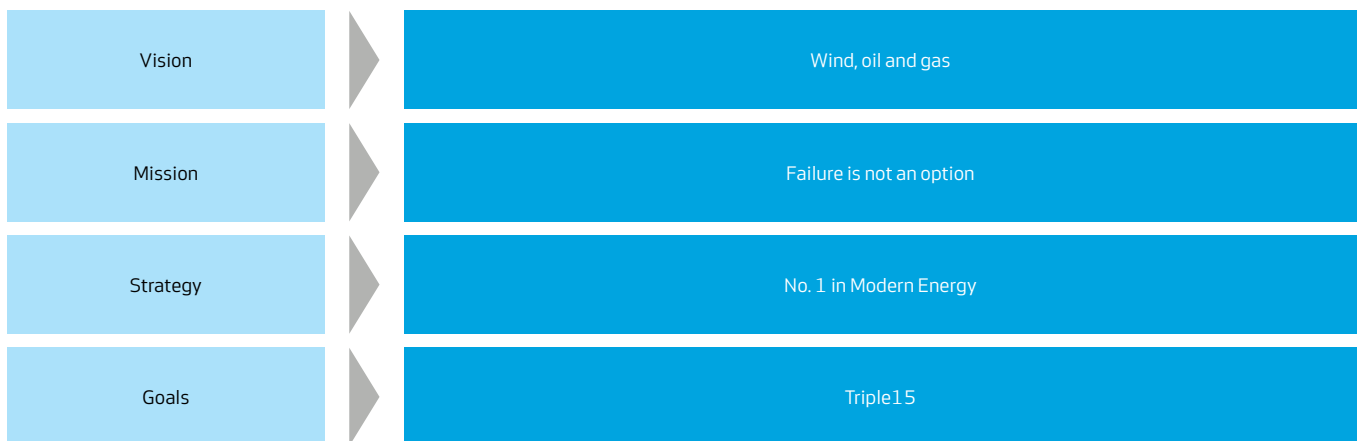
Vestas' **vision** is "wind, oil and gas"; in other words, the company aims to make wind an energy source on a par with fossil fuels. At the end of 2010, wind power accounted for about 2% of the world's combined electricity production. However, among renewable sources of energy, wind power is the best way to ensure that many national climate targets are reached.

Vestas' **mission statement**, "failure is not an option", symbolises the company's commitment to constantly improving its products, service and technology. Vestas vows to correct errors and has an uncompromising approach to safety. Safety is given top priority in every aspect of the working environment, because customers demand it and employees deserve it.

The Vestas **strategy** is called "No. 1 in modern energy." Being number one means being the best. And being the best means maintaining world class safety standards, having the most satisfied customers, the best performing wind power plants and the most environmentally friendly production. As the market-leader in wind power, Vestas aims to create the world's dominant energy brand. This is possible because wind power is financially competitive, predictable, independent, fast and clean. Vestas has expressed its belief in the future growth of the wind power business in its Triple15 business goals: A turnover of 15 billion euro and an EBIT margin of 15 percent no later than 2015.

## The Vestas Strategy House

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# Vestas at a glance

Vestas focuses purely on wind. The company sold its first turbine in 1979 and to date has erected wind turbines in sixty-five countries across five continents. Accumulated, Vestas has delivered a total of 44,144 MW generating more than 95 million MWh of electricity each year, equivalent to the electricity use of a country such as Belgium or Malaysia. 5.4 million tonnes of CO<sub>2</sub> will be saved annually by Vestas turbines produced and shipped in 2010 alone – equivalent to the amount emitted by a country like Costa Rica.

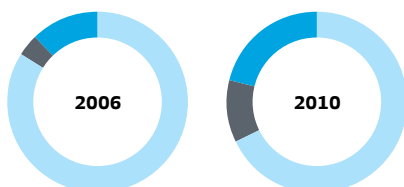
Thanks to technological advances, the last 30 years have seen the power output of turbines increase by a factor of 250. Vestas continuously invests in research and development to help secure Earth's energy future. The company owns the world's largest wind power R&D facility, in Aarhus, Denmark, and has opened similar centres in India, China, Singapore, Germany, the UK and the US.

On behalf of its customers, Vestas monitors the performance of more than 18,500 turbines globally. This allows its engineers to carry out preventive maintenance, ensuring maximum yield at all times.

More than 23,000 people work for Vestas across 34 countries. The company is proud of the range of skills and capabilities they possess. The number of employees has increased by 89 per cent since 2006, demonstrating Vestas' dedication to the industry, even in times of global recession.

## Vestas employees at 31 December 2010

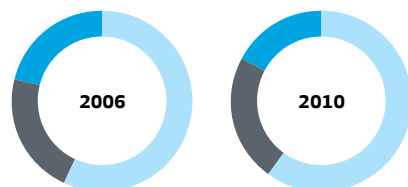
	Sales and				Total
	Production	service	R&D	Others	
Europe and Africa	7,579	4,509	1,515	1,522	15,125
Americas	1,479	1,278	189	0	2,946
Asia and Pacific	2,475	2,004	573	129	5,181
<b>Total</b>	<b>11,533</b>	<b>7,791</b>	<b>2,277</b>	<b>1,651</b>	<b>23,252</b>



■ Europe and Africa  
■ Americas  
■ Asia and Pacific

## Distribution of revenue 2010 (mEUR)

Europe and Africa	4,162
Americas	1,626
Asia Pacific	1,132
<b>Total</b>	<b>6,920</b>



■ Europe and Africa  
■ Americas  
■ Asia Pacific

## Non-financial highlight of the group

	2010	2009	2008	2007	2006
<b>NON-FINANCIAL KEY FIGURES<sup>1)</sup></b>					
<b>OCCUPATIONAL HEALTH &amp; SAFETY</b>					
Industrial injuries (number)	201	306	534	534	525
– of which fatal industrial injuries (number)	0	0	0	0	1
<b>PRODUCTS</b>					
MW produced and shipped	4,057	6,131	6,160	4,974	4,313
Number of turbines produced and shipped	2,025	3,320	3,250	2,752	2,533
<b>UTILISATION OF RESOURCES</b>					
Consumption of metals (tonnes)	171,024	202,624	187,478	170,505	164,413
Consumption of other raw materials, etc. (tonnes)	107,485	126,600	129,207	111,541	93,983
Consumption of energy (MWh)	578,063	537,165	458,296	372,037	330,106
– of which renewable energy (MWh)	241,930	263,611	172,800	139,983	124,841
– of which renewable electricity (MWh)	209,351	238,462	167,311	138,035	124,841
Consumption of water (m <sup>3</sup> )	598,258	521,005	474,958	554,516	343,084
– of which water of non-drinking water quality (m <sup>3</sup> )	72,302	102,528	103,066	14,809	14,954
<b>WASTE DISPOSAL</b>					
Volume of waste (tonnes)	88,663	97,471	96,632	89,643	82,739
- of which collected for recycling (tonnes)	35,410	34,303	30,254	28,422	27,593
<b>EMISSIONS</b>					
Direct emission of CO <sub>2</sub> (tonnes)	56,547	50,532	41,832	32,798	28,396
<b>LOCAL COMMUNITY</b>					
Environmental accidents (number)	0	10	16	15	7
Breaches of internal inspection conditions (number)	3	3	5	5	6
<b>EMPLOYEES</b>					
Average number of employees	22,216	20,832	17,924	13,820	11,334
Number of employees at the end of the year	23,252	20,730	20,829	15,305	12,309
<b>NON-FINANCIAL INDICATORS<sup>1)</sup></b>					
<b>OCCUPATIONAL HEALTH &amp; SAFETY</b>					
Incidence of industrial injuries per one million working hours	5.0	8.1	15.6	20.8	25.3
Absence due to illness among hourly-paid employees (%)	2.6	2.8	3.3	3.6	3.2
Absence due to illness among salaried employees (%)	1.3	1.3	1.1	1.4	1.5
<b>PRODUCTS</b>					
CO <sub>2</sub> savings over 20 years on the MW produced and shipped (million tonnes of CO <sub>2</sub> )	108	163	164	143	124
<b>UTILISATION OF RESOURCES</b>					
Renewable energy (%)	42	49	38	37	38
Renewable electricity for own activities (%)	74	85	68	66	68
<b>EMPLOYEES</b>					
Women at management level (%)	19	19	17	N/C <sup>2)</sup>	N/C
Non-Danes at management level (%)	49	46	42	N/C	N/C
<b>MANAGEMENT SYSTEM</b>					
OHSAS 18001 – occupational health & safety (%)	98 <sup>3)</sup>	97	98	84	77
ISO 14001 – environment (%)	98 <sup>3)</sup>	97	100	80	76
ISO 9001 – quality (%)	98	98	98	98	94

1) Accounting policies for non-financial highlights for the Group, see page 47.

2) Not calculated (N/C) for the year.

3) The production facilities in Xuzhou, China, and the technology centre in Chennai, India, have not yet been certified. Vestas' aim is for all new units to be certified within six months after commencing operations.



## The four priorities

To ensure its vision of a greener future is achieved, Vestas aims to deliver maximum added value for its customers.

This means focusing on four key priorities which customers regard as most important to adding value.

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- 010** Cost of Energy
  - 020** Safety and Citizenship
  - 028** Partnership
  - 036** Business Case Certainty
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## Cost of Energy

represents Vestas' continual innovation and commitment to driving down the cost per KWh for its customers, shareholders and the environment.

As global warming gathers pace and fossil fuel resources dwindle, the need for renewable energy has never been greater. Vestas is committed to capturing every possible wind movement and converting it in the most effective way possible to drive down the cost per kilowatt hour produced.

Only by pursuing this strategy can Vestas achieve its goal of putting wind power on a par with oil and gas, as well as with other renewable energy sources.

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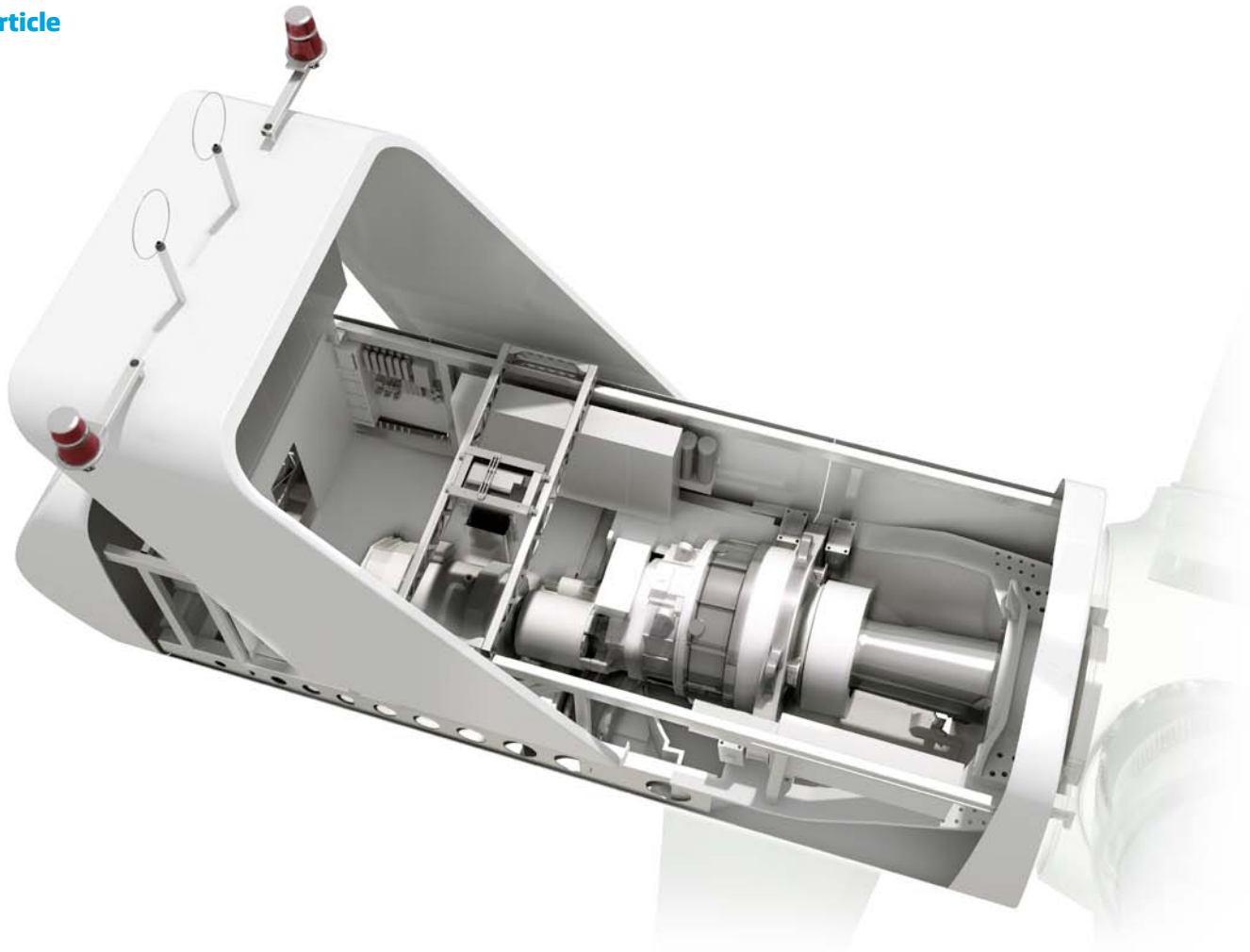
**011** Doing the maths – lowering the Cost of Energy

**013** Wind power and sustainable wind turbines

**014** Carbon footprint

**017** Recyclability

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# Doing the maths - **lowering** the Cost of Energy

What does a wind power plant cost to build, run and maintain over its more than 20-year life cycle? And how does this compare to a gas or coal-fired plant? Utility companies, financiers, project developers and governments use the Cost of Energy concept to compare technologies and help find the best long-term investments.

Vestas Technology R&D constantly innovates to ensure customers get

the most efficient turbines at the right price. Cutting the cost of wind power will make it increasingly competitive.

## **Cost of Energy formula**

R&D manager Brian Schmidt Ipsen explains: "My team is part of the process deciding if we should put a bigger rotor on a particular turbine, or whether we should consider a technical addition which increases energy output but also adds weight. We have to consider

everything carefully, because foundation costs rise, tower costs rise, gearbox costs rise and so on. It's about finding the balance between yield and cost. The Cost of Energy formula is a perfect solution for that."

Put simply, the Cost of Energy formula takes all capital costs of a new power plant, adds operation and maintenance costs, and divides that sum by the MWh produced over the plant's lifetime. ►

“Today, one V112-3.0 MW turbine can replace around 250 V10-33 kW turbines from 1979. Although the size of the rotor only has increased by a factor of 12.5, we are able to generate 250 times more electricity on an annual basis.”

Finn Strøm Madsen, Vestas Technology R&D president



► Reducing the cost of energy benefits both the customer, by increasing profit margins, and Vestas, by making turbines more competitive. It furthers the company's goal of ensuring wind power is as financially attractive as coal, oil and gas. And by minimising the resources which go into building a turbine, the environment benefits again.

### Increased efficiency

Vestas has come a long way in a short time. Finn Strøm Madsen, Vestas Technology R&D president, explains the efficiency of modern turbines: “Today, one V112-3.0 MW turbine can replace around 250 V10-33 kW turbines from 1979. Although the size of the rotor only has increased by a factor of 12.5, we are able to generate 250 times more electricity on an annual basis. This shows how far we've come technologically over the last 30 years.”

With the V112-3.0 MW turbine, Vestas has developed a turbine for low and medium wind sites, which account for 75% of potential global wind sites.

The scale of Vestas' operations has increased along with its technical capability. “We've gone from selling

wind turbines to selling power plants,” says Brian Schmidt Ipsen. “Ten years ago, utilities were not comparing wind farms with coal-fired power plants. Now they are. That's one of the reasons why we need the Cost of Energy concept – to help spread this good news.”

### Future potential

What has driven down the Cost of Energy in the last 10 years? For Brian Schmidt Ipsen, the answer is simple – everything. “It's not one single thing, but a lot of small breakthroughs in all aspects of the turbine,” he says. “Things like scale effects, better turbine design, technical developments (such as reduced weights and advanced aerofoil and control strategies), new blade designs, global sourcing, and the reduction of operating and maintenance costs. This is why the output from a Vestas wind turbine has increased 250-fold in 30 years.”

Finn Strøm Madsen adds: “Although the results so far have been impressive, you have to remember that the V112-3.0 MW mainly relies on proven technologies from existing turbines. So, just imagine the potential for the future – it's huge!”

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### The price of wind power

The price of wind power is falling, whereas the price of fossil fuels is expected to rise. Through large-scale investments in development and test facilities around the world, Vestas aims to further its position as the most innovative company in the business.

Ever-more efficient and reliable turbines with increasingly high power output is the overriding goal for the customer and the environment.

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## Wind power and sustainable wind turbines



Vestas is focused not just on making the world a better place today, but also on protecting it for future generations. To make that goal a reality, Vestas ensures its wind power plants generate renewable electricity that can compete financially with other energy sources.

The company's products are financially competitive, predictable, independent, fast and clean. Moreover, to truly make a difference for the world, Vestas is dedicated to making the entire life cycle of its wind power plants as green as possible.

It goes without saying that wind power emits no CO<sub>2</sub> while producing energy and that the cost of the fuel (wind) is free. This means that Vestas' team of experts can accurately calculate the true cost of energy for customers throughout the duration of a project. Armed with this knowledge, customers can make a solid business case, and governments can devise detailed energy strategies.

Vestas' researchers and technical teams are tireless in their pursuit of ever-cleaner and more efficient energy. Two ambitious targets have been launched in the company's quest to further improve the green credentials of wind power.

### Target for 2015: **Reduce Carbon Footprint by 15%**

Today: 7g CO<sub>2</sub>/kWh \*

The sum of the net greenhouse gas emissions that contribute to global warming.

Quantified by g CO<sub>2</sub> equivalents / kWh

Vestas has undertaken an extended Life Cycle Assessment study on its newest product, the V112-3.0 MW turbine, to set its 2015 product targets. The study assessed 98.9% of the total individual materials that make up the V112-3.0 MW. This way, Vestas can ensure the most easily-accessible and renewable resources are used in their future construction.

Steel and cast iron account for about 82% of the weight of a V112-3.0 MW wind turbine, the total weight of which is approximately 365 tonnes. In addition to the weight of the wind turbine, the foundation weighs about 950 tonnes, consisting of concrete and steel. By analysing these figures, Vestas can target the highest possible MWh output per turbine weight, and use resources which have the lowest embedded emissions of greenhouse gases.

From a business case point of view, as the installed wind power base grows from 200,000 MW in 2010 to 1,000,000 MW in 2020, increasing the recyclable and renewable content of each turbine will make Vestas' products ever-more sustainable.

### Target for 2015: **Increase Recyclability to 85%**

Today: 80% \*

A material which maintains its initial properties when recycled, including re-use for the same function.

Quantified by % weight of the materials that can be usefully recycled

\*Baseline is the Life Cycle Assessment performed on the V112-3.0 MW (Class IECII, 33 wind turbines, 8m/sec wind speed)

# Carbon footprint

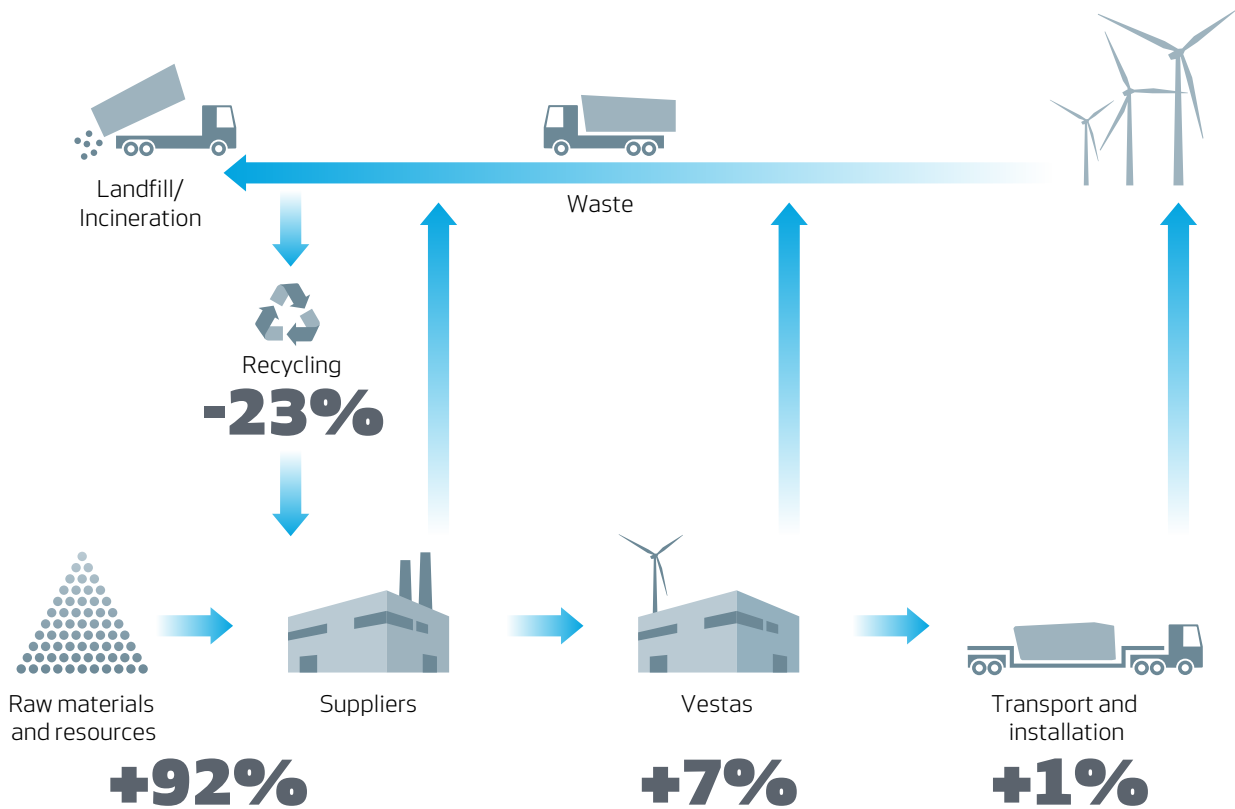
To reduce its carbon footprint, Vestas must address all phases of a wind power plant's life cycle, from construction to supply chain to decommissioning.

By 2015, Vestas' aim is that turbines will be at least 15% more efficient, emitting only 6 grams of CO<sub>2</sub> per kWh during their lifetimes. For each unit of energy used in the life cycle of a wind power plant, approximately 30 units of electricity are produced.

This return on energy is unmatched by non-renewable energy sources.

Vestas contributes approximately 7% of the total CO<sub>2</sub> emission for the V112-3.0 MW turbine. Of the remaining amount, 92% is contributed by material and component suppliers, and 1% is for transport of materials and components for construction, decommissioning and recycling. Recycling at end of life provides an environmental benefit of about -23% of the total CO<sub>2</sub>.

## Carbon balance



Target for 2015:  
**Increase renewable energy to 55%**

In 2010: 42%

Target for 2012:  
**Increase renewable electricity to 100%**

In 2010: 74%

**CO<sub>2</sub> emissions**

Vestas is committed to reducing its impact on the environment by cutting its emissions of greenhouse gasses.

As a company, it aims to decrease its overall use of energy, increase its use of renewable energy, and use less carbon-intensive energy forms.

**Renewable energy and electricity**

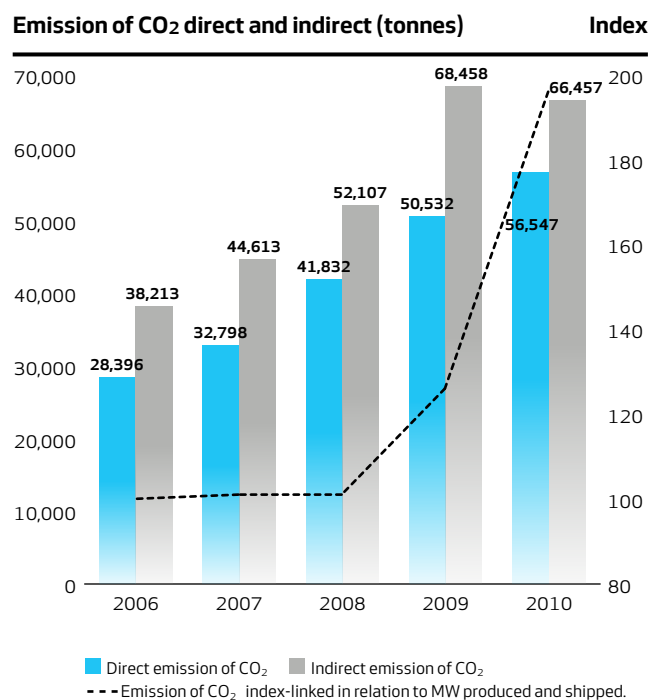
Vestas aims to lead by example, showing other corporations how businesses can reduce their impact on the environment and spearhead the drive for a low carbon society. In 2010, it set a target for 55% of the total energy it used to come from renewable sources. For the electricity portion of its total energy consumption, the target was for 90% to be renewable electricity.

In 2010 it was still not possible for Vestas to source enough renewable energy to meet its needs in parts of the United States, China and India. Consequently, compensation from a wind power plant established by Vestas in India is included in the figure. Renewable Electricity Certificates from the electricity produced are kept by Vestas.

The 2010 result for renewable energy is 42% and renewable electricity is 74%, both significantly below target. This was due to an increase in production in areas where renewable electricity was not available, and because the power plant in India was sold during 2010.

Vestas plans to invest in wind power plants in late 2011. This implies a minimal balancing of renewable electricity for 2011, putting Vestas' renewable energy consumption down to 33 per cent. For 2015, Vestas' ambition is to achieve 55 per cent renewable energy.

Vestas aims to contribute to boosting demand for renewable energy and show the world that large production companies can reduce their environmental footprint and pave the way for a CO<sub>2</sub>-free economy.



## Energy consumption

In 2010, Vestas energy consumption went up by 8%. Normalized against the MW produced and shipped, the index was 63% higher than 2009. The increase in energy consumption index is caused by the relatively low utilisation of production facilities in 2010. At the same time, production capacity in China and the US increased in 2010, contributing to an increase in energy consumption. A high utilisation of capacity increases the energy efficiency. A significant share of the energy consumed in 2010 was used for heating, costs for which are constant regardless of the amount of goods being manufactured in the production area.

In order to reduce energy consumption, Vestas has invested in a monitoring system showing real-time usage, making it possible to pinpoint excess consumption and work out the best remedy. The system was piloted in 2010 and will be rolled out over the next two years to all production facilities and larger offices.

## Transportation

Vestas is exploring options for cutting CO<sub>2</sub> emissions from the transport of turbines – such as increasing fuel efficiency and swapping modes of transport from high-energy to low-energy forms, wherever possible.

## Water consumption

In many parts of the world, fresh water is itself becoming a scarce resource. Vestas is proud that wind power is extremely water efficient compared to fossil fuels. Approximately 30 litres

of water is needed to produce 1 MWh of energy across the life cycle of an average wind power plant. Coal and natural gas use around 20 to 80 times more water.

Vestas strives to reduce its own water consumption across its operations. Most fresh water is used for cooling at the foundry in Norway, and in the production of blades.

Besides using fresh water, Vestas uses cooling water from water streams and reservoirs, and delivers the water back into these sources at three foundries. The amount of cooling water used in 2010 was 555,979 m<sup>3</sup>.

In 2010, the quantity of water used in production increased by 15% compared to 2009 due to increased production capacity, and per produced and shipped MW, the consumption increased by 74%. In order to reduce water consumption, Vestas has invested in a monitoring system showing real-time usage, making it possible to pinpoint excess consumption and work out the best remedy. The system was piloted in 2010 and will be rolled out over the next two years to production facilities and larger offices.

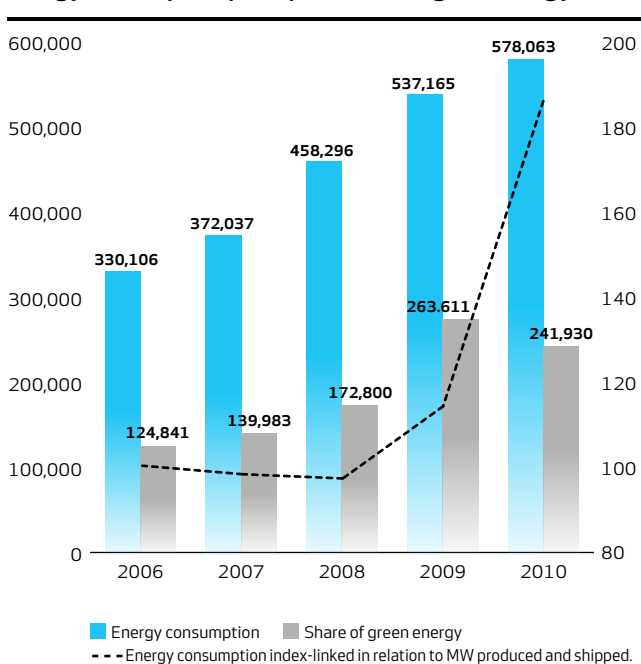
## Building policy

As an important part of reducing its environmental impact, Vestas has introduced a green buildings policy. This will ensure all new buildings are as energy efficient and environmentally friendly as possible.

Vestas is using the Green Building standard LEED to assess its buildings during major renovations or new builds. Each project must reach as high a rating as possible, from Certified to Platinum.

In 2010 Vestas began building and fitting-out four facilities, targeting a LEED Platinum rating. The four buildings, expected to be finished during 2011 or 2012, are in Aarhus, Denmark; Portland, Oregon; Singapore; and Lem, Denmark. Green features include geothermal heating systems, green roofing, rainwater toilets and increased insulation.

**Energy consumption (MWh) and share of green energy Index**



## Energy consumption by source

	MWh
<b>Fuels for heating (direct energy)</b>	
Oil	14359.00
Gas	104030.00
<b>Indirect energy</b>	
Electricity (74% renewable)	284591.00
Heat (56% renewable)	56148.00
<b>Fuels for transportation</b>	
Liquefied petroleum gas (LPG)	510.00
Diesel oil	95756.00
Petrol	22668.00



## Recyclability

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# 80%

of Vestas' V112-3.0 MW  
can be usefully recycled

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Vestas abides by a strict definition of recyclability – when recycled, both the value and the essential properties of the material must be preserved.

By this definition, 80% of Vestas' V112-3.0 MW can be usefully recycled at the end of its lifetime.

The company believes that a sustainable product should not only benefit society during its operation, but also leave the smallest possible environmental footprint when decommissioned. Therefore, it aims to increase the recyclability of its turbines from 80% to 85% by 2015.

Currently, wind power contributes less than 2% of the world's total electricity consumption, but by 2020 this will have increased to 10%. That translates into an installed wind power capacity of at least 1,000,000 MW, as compared with approximately 200,000 MW at the end of 2010. With such a massive expansion predicted, it is doubly important that end-of-life impacts are as small as possible.

In 2010, Vestas carried out an extensive study of the V80-2 MW platform alongside a Life Cycle Assessment of the V112-3.0 MW. This helped to identify the best available technology for decommissioning and recycling turbines. The company held meetings and workshops with waste handlers to improve end-of-life strategies for its turbines.

Vestas, its customers and wider society will benefit, thanks to increased revenues from end-of-life products and lower amounts of landfill.

Metal is the most common material in wind turbines. The findings from the meetings and workshops revealed that the increasing value and purity of many of the components make them very easy to sell for recycling.

Today, companies in Germany, Denmark and the US can transform used blades into concrete, railroad ties, fish tanks or construction barriers. Further research is being carried out to avoid 'down-cycling' and preserve the structural properties of the materials during the recycling phase. If this is achieved, recycling rates could surpass 85%.

Over the next 10 years, almost 10,000 Vestas turbines will reach 20 years of age. The company aims to take the opportunity to replace some of them with more efficient and reliable turbines. It plans to develop its relationship with waste handlers to help customers dismantle old turbines in the most efficient, profitable and responsible way possible.

In order to improve the recyclability of its turbines, Vestas is taking proactive initiatives. These range from recycling research (in collaboration with universities in Spain, the UK and Germany), to the full recycling of test nacelles. Additionally, new turbines are being designed with disassembly very much in mind, so that more parts can be recovered in a more efficient way. And in another move, future turbines will feature more recycled materials than at present.

## Recyclability percentages for a V112-3.0 MW\*

**87** per cent of the nacelle can be recycled

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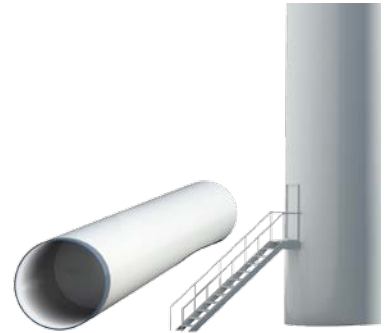


The nacelle weighs 118 tonnes and accounts for 32 per cent of the total weight of the wind turbine

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**97** per cent of the tower can be recycled

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A tower of 84 m weighs 166 tonnes and accounts for 46 per cent of the total weight of the wind turbine

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**38** per cent of the rotor can be recycled

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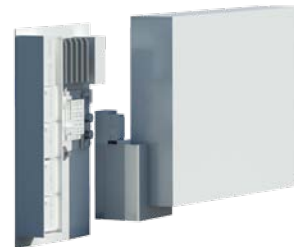


The rotor weighs 72 tonnes and accounts for 20 per cent of the total weight of the wind turbine

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**47** per cent of the remaining parts can be recycled

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The remaining parts weighs 7 tonnes and accounts for 2 per cent of the total weight of the wind turbine

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\*) The recyclability percentage is related to the wind turbine, not including foundation. This includes tower, nacelle, hub and blades. Only iron/steel, aluminium and copper are calculated as recycled, other materials are calculated as incinerated or placed in landfill.



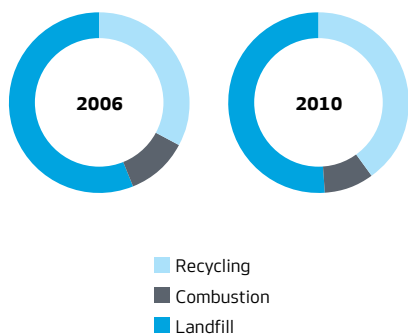
## Waste

Vestas is striving to minimise its generation of waste and maximise the proportion of waste that can be recycled. In 2010, the total volume of waste generated was 88,663 tonnes, against 97,471 tonnes in 2009. The amount of waste decreased due to a reduction in production in 2010. In 2010, 40% of the total volume of waste was recycled, against 35% the year before. This relates to the production and shipment of 4057 MW in 2010 and 6,131 MW in 2009.

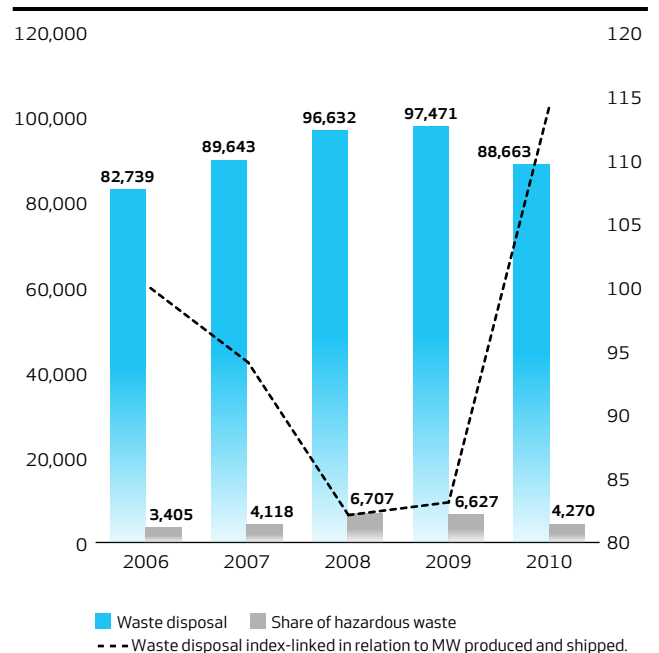
The majority of waste generated in Vestas comes from casting sand in the foundries and from fibreglass cut-off during blade production. In 2010, this represented 48% of the company's total waste. These two operations are therefore the most critical when it comes to reducing the amount of waste generated.

### Waste disposal 2010 (tonnes)

Recycling	35,410
Combustion	7,693
Landfill	45,559
<b>Total</b>	<b>88,662</b>



### Waste disposal (tonnes) and share of hazardous waste Index



## Safety & Citizenship

is Vestas' dedication to being a responsible global citizen and safeguarding the welfare of people, be they employees, customers or residents in the communities where Vestas operates.

Safety is Vestas' number one priority. The wellbeing of the company's employees and the people it works with is paramount. Vestas intends to continue using its position in the industry and its global presence as an influence for good.

It aims to create jobs in communities and set the highest possible ethical standards – not only for safety and the environment, but for human rights, labour practices and anti-corruption.

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**021** Walking the talk – safety is the priority

**023** Safety First

**024** Green jobs – the race is on

**026** Corporate citizenship

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# Walking the talk – **safety** is the priority



Visiting Vestas Blades in Lem, one of the largest production facilities in Vestas, is a truly safe experience.

Guests have to wear safety shoes, protective eyewear and a luminescent safety vest. There's also a thorough safety briefing before entering the production facilities. And "Don't touch anything" is the last instruction given before venturing on a Safety Walk with team leader, Steen Madsen.

In 2007 the number of industrial injuries across Vestas was falling, but not fast enough. To reach the next level of safety something had to change. One of the

changes introduced was Safety Walks, which have proved to be a huge success.

Per Olesen, factory manager in Lem, explains: "We needed to change people's approach to safety. I don't believe it's enough to say the word 'safety'. You have to demonstrate it, and the Safety Walk does that fantastically well!"

### **Mutual benefit**

The Safety Walks are a key component of Vestas' ambition to build a world-class safety culture with zero accidents. In a competitive marketplace, a flawless safety record provides a competitive advantage. Customers demand safe ▶

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### **Safety Walks**

The purpose of the Safety Walks is to make management visible in the production units, to gain knowledge of the environment they manage and to further their involvement in safety issues. These walks also help to identify safety weakness in the organisation and to engage production workers in discussions about safety awareness.

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► turbines – in production, during transport, under construction and in service.

Per Olesen adds: "Of course, you need to have the safety equipment in place, like protective glasses and safety shoes, but we've had that for decades. In my opinion, that only accounts for ten per cent of the safety. What really matters is the remaining 90 per cent in people's heads."

"As a manager I have to walk the talk. When I do a Safety Walk, my employees know that I'm doing it for all our benefit," says Per Olesen. "They also have the opportunity to tell me directly if they think we should be doing something differently."

### Changing priorities

Safety has not always been so prominent in the wind industry, or in society as

a whole. Historic safety statistics show that there was room for improvement. The focus those days was primarily on quality and delivery on time. This has changed completely – now it is the other way around.

Per Olesen explains: "Today, it is Safety First – no matter what. Then we want to have the quality in place, and lastly we work hard to hit our delivery schedules. If safety is not in place, then we can't deliver any turbines. It's as simple as that.

"For example, in our busiest period last year we had a number of near-miss incidents, so I decided to gather my Team Leaders together for a Safety Timeout. This means that we stop production, gather everybody within the production facility and talk about the safety challenges we face"

### Changing approach

For Steen Madsen, no detail is too small when it comes to safety. "Look at this safety jacket lying here in front of the restrooms – somebody may trip over it," he says during a tour. "I'll move it somewhere safer, but that was not the attitude years back. Today, our approach has changed – for the better. We are handling blades that are twice as high as a man and in excess of 50 metres long, each weighing several tonnes"

Since the introduction of Safety Walks, the statistics for accidents resulting in at least one day of absence in Lem have been very persuasive.



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### Incidence of industrial injuries\* at Vestas Blades, Lem

2007	61.5
2008	57.4
2009	18.0
2010	6.3
2011	5.0 (target)

\*(per million work hours)

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# Safety First – the journey towards a world-class safety culture

Vestas' ultimate goal is zero injuries. The company is proud of the fact there has been a significant improvement in its incident rate for five years in a row.

Safety is embedded into Vestas' culture. Its customers demand the highest levels of safety and its employees expect a safe and healthy working environment.

## The journey

The incidence of industrial injuries per one million working hours at Vestas was 8.1 in 2009, declining 48% from 2008. The 2010 result shows that the trend is continuing. In 2010 the incidence rate was reduced to 5.0, a 38% reduction on 2009.

Year after year Vestas has reduced its incident rate. Getting from 25.3 in 2006 to 5.0 in 2010 was tribute to the dedication of its employees.

In 2015 the target is 0.5 – a small but significant step in the journey towards eliminating accidents entirely. Achieving a 0.5 rate will challenge the company at every level, but Vestas will not be happy until its working environment is as safe as possible.

## The road ahead

The company has developed a safety roadmap to help achieve its 2015 target. It focuses on key initiatives and serves as a tool to ensure all safety activities are rolled out in a coordinated manner across all Vestas' business units.

## Safety Awareness

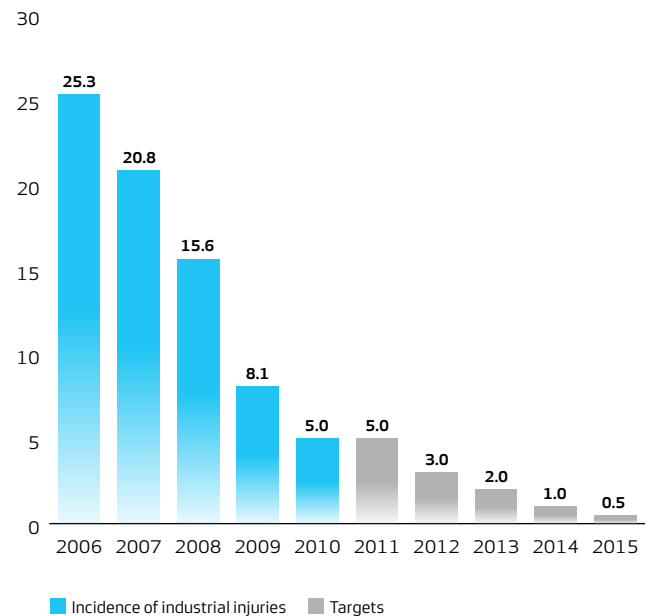
Vestas believes that all injuries can be prevented. Its Safety Awareness Programme for managers is a central tool for wiping out all industrial injuries across the company. Since 2008, all Vestas operational managers and team leaders have undergone Safety Awareness Training. The course aims to strengthen the safety culture in factories and introduces new and better safety habits. It's one of a number of initiatives that have helped take safety at Vestas to the next level. In 2010, the programme was expanded to employees as well as managers. By the end of 2010, 5006 employees had been trained in Safety Awareness. Eventually, Vestas intends to give Safety Awareness training to all employees.

Target for 2011:

**Incidence of industrial injuries  
5.0 or less**

per one million working hours

## Incidence of industrial injuries (per 1 mio. working hours)



## Global standards and processes

Customers expect a unified approach to safety regardless of region or country. Vestas agrees. That's why, in 2010, it developed a new global process for incident management, and two new global standards for energy control.

The incident management process ensures that lessons learned from incidents are shared across the organisation. Training began in 2010 and will continue to be rolled out in 2011.

## Contractor safety

Vestas expects zero injuries among its contractors, as well as its employees. Sadly, not all went well in 2010. It is with great regret that the company experienced two tragic losses. In October, Vestas Wind Technology India experienced the fatality of a customer's employee who was working on a blade repair. The same month, Vestas Towers America also experienced a tragic accident, involving the fatality of a subcontractor's employee who was loading a tower section onto a rail wagon.

In both cases, Vestas conducted a thorough investigation and a follow-up analysis to learn from the incidents and to avoid similar accidents in the future.



# Green jobs – the race is on

Can the solutions to the world's energy needs be found in "Colourful Colorado"? This is the nickname given to the American state because of its magnificent scenery of mountains, rivers and plains. But in recent times a new colour has been at the forefront of Colorado's vision – green. The state has been creating more and more clean energy; in the process creating new local green jobs.

On a global scale, the challenges facing the world today are clear. The population

is on the rise and we need more food, more drinking water, much more energy and even more jobs.

## G20 Working Group

These challenges have been recognised by the G20, which acknowledges that solutions must come from both public and private sectors. That's why G20 members invited some leading private companies to participate in the 2010 G20 Business Summit in Seoul, Korea.

In the joint statement following the summit, the Creating Green Jobs Working Group highlighted the critical need for "G20 countries to adopt policies that strike a new balance between incentives and disincentives that indisputably favour green investment!"

Key recommendations include putting a high and stable price on carbon to change people's behaviour and investment decisions; allowing free trade in green goods and services, along with lower prices to encourage competition and result in faster job creation. The group also recommended increasing research and development, and abolishing fossil-fuel subsidies within the shortest possible timeframe – not more than five years. ►



“Key recommendations include putting a high and stable price on carbon to change people’s behaviour and investment decisions.”

Creating Green Jobs Working Group

► Specific to the power sector, the Working Group urged G20 leaders “to accelerate the uptake of renewable and other low-carbon energies, and expand and upgrade electrical grids to guarantee priority access for green energy.”

### **The New Energy Economy**

In Colorado, decisions about the energy of the future have already been taken. Politician Bill Ritter ran for the office of state Governor in 2006 with the message, “Colorado’s New Energy Economy” – and duly won. The New Energy Economy is a mixture of personal and local incentives and legislation about energy consumption at state level. Through information and economic incentives, Colorado encourages private households to use less energy. Through legislation the state has decreed that Colorado’s electricity consumption should be 30 per cent renewable by 2020, the second-highest target in the US.

Today, Colorado is proving that a sustainable energy future means a sustainable economic future; that a pro-business environment also can be a pro-environment environment. Colorado now boasts the fourth-highest concentration of clean-energy workers in the US and 1,500 clean-energy companies – an 18 per cent increase since 2004.

One company that is investing in Colorado is Vestas, in line with its strategy of “in the region, for the region”.

Vestas chose to establish its North American manufacturing hub in Colorado, hiring 1,500 local workers and building four factories: a blade factory in Windsor, a tower factory in

Pueblo and two facilities in Brighton – nacelles assembly and blades.

### **Creating new jobs**

Promoting green energy creates many new jobs, as a growing number of countries are recognising. It also addresses short- and long-term issues such as securing energy supplies, energy price stability, and the threats to health and environment related to climate change. With a focus on creating green jobs, the wind power sector offers proven solutions leading to a sustainable, low-carbon economic future. This transformation does not happen by itself, but needs to be stimulated and guided by visionary policies.

According to the European Wind Energy Association, 1 MW of installed wind power capacity creates 15 direct and indirect jobs (2009). Every time a job is created in the renewable energy sector in the US, it is estimated that an additional 4.8 jobs are created in the wider economy (Econorthwest study for Vestas: “Creating a New Energy Economy in the US”).

Vestas creates jobs in areas where there is a stable market for turbines large enough to support such large investment, or where the total costs are competitive. At the moment, this is mainly in China and the United States. Thanks to Vestas’ investment, additional jobs are then created by suppliers and other local businesses.

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# Corporate citizenship



Vestas operates in many countries and interacts with stakeholders of many different nationalities, cultures, religious beliefs and political views. It acknowledges that this brings with it a responsibility to act with integrity in respect of ethical standards across all its business activities.

## **Business ethics is critical to business success**

Corruption – the abuse of entrusted power for private gain – is one of the biggest obstacles to economic and social development around the world. It distorts markets, stifles economic growth, hinders democracy and undermines the rule of law\*. The private sector should be part of the solution. As a company with high ethical standards, anti-corruption efforts are a key priority for Vestas.

When expanding into new markets, Vestas knows integrity is vital for both its sustainability focus and ultimate business success. As stated by the International Chamber of Commerce, Transparency International, the United Nations Global Compact and the World Economic Forum's Partnering Against Corruption Initiative (PACI): "Clean business is good business". Eventually, high ethical standards reduce the cost of doing business, attract investments from ethically-oriented investors, attract and retain highly skilled employees, and foster a competitive advantage by becoming the preferred choice for ethically-conscious customers.

In 2009, Vestas launched an updated version of its code of conduct, clearly setting out the ethical standards all its employees and representatives must adhere to. It sets the framework for the company's work with the UN Global Compact, the International Bill of Human Rights and the International Labour Organisation's conventions. In particular, the code affirms a zero-tolerance policy against bribery and corruption.

During 2010, Vestas has continued its efforts to ensure a high degree of business integrity and compliance with the code. All new employees are being introduced to the Vestas Code of Conduct as part of their induction. They also take part in compulsory e-learning, some of which is tailored for particular job roles.

## **Anti-corruption initiatives as a signatory to PACI**

To further consolidate its zero-tolerance policy towards bribery and corruption, Vestas signed the World Economic Forum's PACI in August 2010. PACI is a global business-driven, anti-corruption initiative. By adhering to PACI, Vestas gains access to a risk-mitigation platform and to 'peer dialogue' on best practices across various industries and regions.

The best practice implementation programme includes an overall strategy for identifying corruption risks, educating employees, implementing operational procedures such as anti-bribery due diligence processes, and monitoring and auditing for compliance. Vestas has developed a PACI road map translating this commitment into concrete actions to be carried out over the coming years.

\*source: The World Bank

## EthicsLine

Since 2007, Vestas employees have been able to report violations of company's policies, or ask questions on ethical dilemmas, through the company dedicated whistle-blowing programme, EthicsLine.

The guiding principles for how to manage EthicsLine reports are outlined in the chart below.

As the chart shows, the President of the People & Culture department receives a copy of the report, unless the report refers to members of the Vestas Government, the Executive Management or the Board of Directors. Everyone receiving a copy of the report is instructed to keep it strictly confidential. The reporting process contains other safeguards to make sure that information is not abused. For instance, an incident is never investigated by someone who might be involved in the matter under discussion, or who might be biased in any other way.

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### Number of reports and questions registered in EthicsLine.

2009	2010
<b>88</b>	<b>68</b>

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Together with other Danish companies, Vestas successfully advocated for a revision of a ruling by the Danish Data Protection Agency which prevented whistle-blowing by a company's business partners. The revision will enable Vestas to expand its whistle-blowing programme by opening up EthicsLine to all its business partners in early 2011.

## Human rights

Recent years have marked a change in society's expectations of business. Citizens now expect companies to act responsibly and respect internationally recognised human rights.

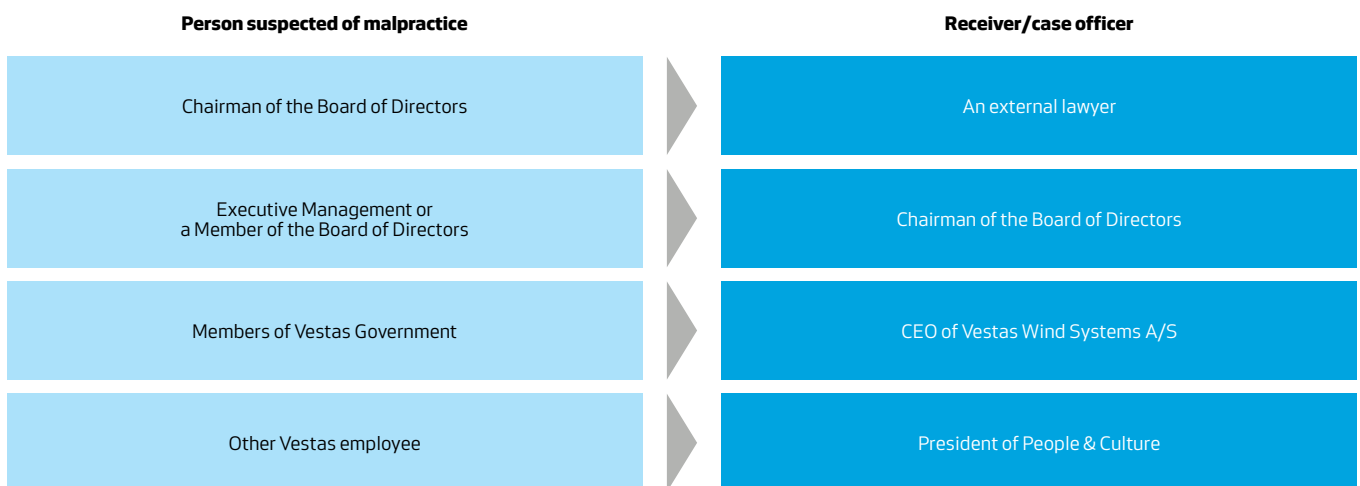
Vestas' operations can affect the human and labour rights of various stakeholders, both directly and indirectly. To deal with this challenge, Vestas is currently identifying its human rights priority areas and establishing processes to minimise any negative impacts.

Vestas' commitment to the Universal Declaration of Human Rights and International Labour Organisation (ILO) standards is addressed in the firm's Code of Conduct. As part of its support of the UN Global Compact, Vestas is dedicated to implementing the principles on human rights and labour across all its business processes.

As part of this effort, baseline assessments, tools and methodologies are being developed. During 2011, Vestas' focus on human rights and business will be further strengthened.

## EthicsLine reporting procedures

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## Partnership

is Vestas' dedication to working closely with all its employees and business partners to achieve mutual value.

Vestas recognises the value of partnerships in meeting the demands of an energy-hungry world. Partnerships with customers, suppliers and other stakeholders – not least its employees – play a pivotal role.

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**029** WindMade

**031** Supplier partnerships

**032** People Pipeline

**035** Scholarships

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# WindMade™

– the choice for a better world



It is generally accepted that the world needs more renewable energy. Politicians have shown their commitment by setting ambitious long-term targets. However, short-term policies are often indecisive and insufficient, and each day sees more renewable energy projects hit by delays. Consumers, though, are showing their growing commitment by choosing more sustainable products.

WindMade is the first global consumer label identifying products produced with renewable energy and specifically, wind power. It enables consumers to help drive change through the choices they make, and is supported by some of the world's leading corporations and non-profit organisations. WindMade is a direct response to increasing consumer demand for sustainable

products. International negotiations aimed at substantially reducing emissions broke down at the UN Climate Change Conference in Copenhagen in 2009. The following year, an agreement was reached on far more modest goals at the conference in Cancún, Mexico.

### Buyers will pay more for green

Consumers prefer to have a choice and are prepared to pay more for it. A global survey of 25,000 consumers across 20 markets showed that 88 percent of respondents believe renewable energy is a good solution to climate change. They also claim that, if presented with a choice, 75 percent of them would prefer WindMade products, even at a premium (TNS Gallup, June 2010). ▶

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WindMade™ is a non-profit organisation founded by the United Nations Global Compact, World Wildlife Foundation, The Global Wind Energy Council, Vestas Wind Systems A/S, the LEGO Group, PwC (the official verification partner) and Bloomberg (the official data provider). Its mission is to empower citizens to choose products and corporations committed to cleaning up their own energy consumption.

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1969



1978



1982



1989



1992



2002



2011



WINDMADE™

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“Governments are dragging their feet, but consumers want to see change now. The private sector needs to provide the solutions we need to respond to the global energy and climate crises. With WindMade, we want to facilitate the change that the public demands.”

**Steve Sawyer, Secretary General of the Global Wind Energy Council, and interim CEO of WindMade**

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► Consumers in many countries, such as China and India, do not have the option to buy renewable energy for their households. Even fewer can gauge the energy source of the product or organisation they are about to choose. WindMade provides the transparency they need for making informed choices.

“We want to build a bridge between consumers and companies committed to clean energy, and give consumers the option to choose more sustainable products,” says Ditlev Engel, Vestas president and CEO. “We hope this will create a strong element of consumer pull which will accelerate the pace of wind energy development globally. We strongly encourage forward-looking companies to join us in this effort.”

#### **Vestas sets example for others**

After the Davos presentation, the WindMade consortium hopes to attract leading consumer brands as members. To use the WindMade label for their organisation or products, members

will have to prove they use renewable energy – and specifically wind power – to meet a certain proportion of their energy need. The exact qualification criteria are still being defined by the technical committee.

“At Vestas, we believe the WindMade label will allow qualifying corporations to differentiate their brand, by conveying to customers their commitment to wind and renewable energy,” says Ditlev Engel. “Now more than ever, we believe that one of the most important ingredients in a product is the energy used to produce it. As the world struggles with the increasing impact of climate change, we need companies and products that are WindMade.”

Vestas will be setting up its own wind power plant to meet its requirements under the WindMade certification. The wind power plant will ensure Vestas uses 100 per cent renewable electricity in its operations, with wind as a large part.

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“The days of consumption without thought are over. Climate change is rendering the old model obsolete.”

“We need a revolution”

**Ban Ki-moon, United Nations Secretary-General at the 2011 World Economic Forum in Switzerland**

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Photo by [swiss-image.ch](http://swiss-image.ch/)/Rémy Steinegger

# Supplier partnerships

Vestas' overall sustainability impact is closely linked with its business partners and their separate approaches to sustainability. Therefore, its performance depends on the whole value chain, not only its own operations.

The contribution of Vestas' business partners to the overall footprint of its products is considerable. For example, when producing a wind turbine, 92% of the CO<sub>2</sub> emissions can be linked to business partners. Clearly, in order to lower the CO<sub>2</sub> emissions of its products, Vestas has to improve its footprint and the energy balance of its turbines.

Vestas will prioritise working with business partners who are dedicated to supporting its approach to sustainability, with particular emphasis on the following:

- ensuring that work is carried out safely – the first priority in any situation
- initiatives on anti-corruption
- initiatives on climate change
- eliminating all forms of forced labour
- eliminating child labour
- respecting the freedom of association and the right to collective bargaining, balancing our commitment to international labour standards and the local legal framework of the country in which the business partner operates
- eliminating all forms of work-related discrimination
- protecting the environment

While monitoring is an essential and valuable tool, it cannot alone achieve positive changes in the supply chain. That is why Vestas' long term strategy is to work with suppliers in partnerships to improve their sustainability performance together.

Vestas tailors its sustainability efforts to the different business partners it works with. The long-term approach is a combination of requirements, advice and guidance. With some partners it might be to cut energy consumption; with others, it might be improving safety. Ultimately, knowledge will be shared between partners so that overall standards are raised.

Suppliers must be willing and able to work with Vestas to improve sustainability performance, both within their own organisation and among their sub-suppliers.

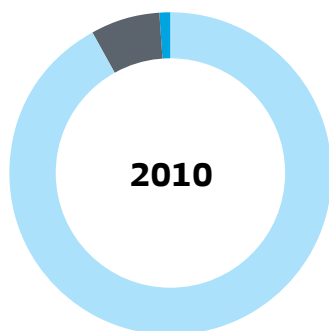
## Transforming policies

Vestas is devoted to a principle of 'Responsible Supplier Management' in its production business units. From 2010, employees are starting to use the same tools and processes when working with suppliers on sustainability.

All employees responsible for assessing suppliers are receiving training on Responsible Supplier Management, identifying deviations from standards and undertaking appropriate actions.

To ensure awareness throughout the sourcing organisation, the Responsible Supplier Management initiative is supported by an e-learning programme, recently rolled out to all employees in the supply chain management organisation.

## Distribution of CO<sub>2</sub> emission during the life cycle of a V112-3.0 MW



- Sourcing of components & materials
- Vestas
- Transport

# People Pipeline – because people are our most important asset

Vestas knows that people are its most important asset. Employees are crucial to staying competitive and providing customers with the best service. The company's People Pipeline – employee lifecycle – makes sure the right people are in the right jobs throughout the organisation. It enables Vestas to attract, employ, reward, train and retain the best of the best, and consolidate its position as the leading player in the wind industry.

The different sectors of the pipeline are continuously being developed to ensure that Vestas stays competitive. The annual Employee Survey plays a part in this, offering an indication of employees' satisfaction across many areas – including how the different People Pipeline processes are perceived.

## Employee Forecast

In 2010, Vestas developed a global Employee Forecast process. This helps predict the future demand for employees, and ensures all processes are fit to support future growth.

## Employer Branding

In order to achieve a competitive advantage, it is vital to attract, develop and retain the best possible people. Employer Branding helps Vestas brand itself to appeal to different recruitment target groups. This might include jobs fairs, events and presentations at schools or universities.

## Recruiting

Vestas is already active in more than 60 countries and is constantly seeking opportunities to expand into new markets.

Its recruitment processes support this strategy. They cover not only external candidates, but also internal candidates wishing to develop their careers. Vestas likes to offer its people positions in the organisation where their skills and competences will have the largest impact.

Vestas' People Review process ensures talented employees in different levels of the organisation are recognised, considered and recruited for vacant or upcoming key positions globally.

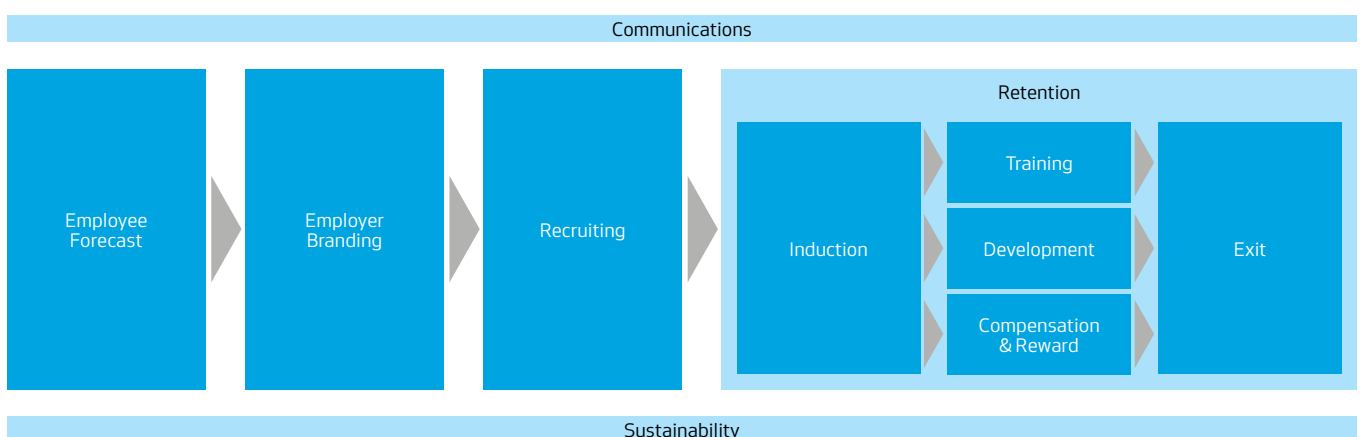
## Induction

Vestas knows how important it is to introduce new employees properly to the firm. New members of staff need to know the values and culture of the company in order to understand what is expected of them and how they are expected to behave. Clarity in regards to roles and responsibilities has proven to positively impact employee turnover.

The induction period typically lasts for six months and consists of both company-generic and job-specific courses. These cover topics such as quality, sustainability, customer service and the people aspect of working in Vestas. The training is a mixture of classes, e-learning and webinars.

The company also has a buddy scheme in which new employees are paired with longer-serving colleagues, who help ensure their welcome into the company is smooth and inclusive.

## People Pipeline process





## Training

Vestas believes that focusing on learning is one of the strongest means to stay competitive in the wind industry business.

The company offers different employees tailored training to maximise their impact on the organisation and help the employee achieve his or her potential.

Vestas has also been proactive when it comes to e-learning. It has developed several programmes including the award winning global e-learning programme, Vestas World. In this online environment, learners meet and interact with virtual characters. Through different missions and challenges, the employees learn about the values, the culture and the business. E-learning is also used when new learning initiatives are rolled out in the organisation. Due to the success of the programme, Vestas has made some of its e-learning accessible to the public on [vestas.com](http://vestas.com), for them to learn about the company.

In 2010, 1,366 courses were offered and 773,964 hours of training completed. 93% of the training hours were spent in classrooms, 6% in online, self-paced training and 1% in virtual classrooms.

## Targeted courses

Vestas has three different career tracks aimed at employees with leadership responsibilities. The three tracks are people and business leaders, knowledge and innovation leaders, and project leaders.

Vestas recognises that management is about more than just leading people. The skills of project leaders and knowledge and innovation leaders are crucial in order for the firm to stay competitive.

## Dyslexia

Vestas appreciates that being able to read and write well is fundamental to operating in today's society. To help some employees read and write better, the company has developed an award-winning dyslexia programme. The programme consists of education and coaching by certified teachers, as well as PC software that helps a reader scan, write and read text aloud.

Initially aimed at Danish employees, the programme will be rolled out internationally, starting in 2011 with Vestas Americas. It is expected to be implemented in all units within the next four years.

Some 400 employees in Denmark have already undergone the training, with 450 more signed up for 2011. The number of employees who might take part in the training globally are not yet known.

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Since November 2009, Vestas has offered free world-class e-learning on wind technology to the public at [VestasElearning.com](http://VestasElearning.com).

35 e-learning courses have been accessed more than 100,000 times by people all over the world.

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## Development

Vestas attempts to identify and develop different skill groups within the company. This is essential to ensure successors are always in place for key positions and that knowledge is kept and shared within the company.

Being a growing company makes it even more crucial that skills and information are spread internally.

## PDD, People Review, Talent Management and Organisational Review

Performance and Development Dialogues (PDD) are discussions between managers and their staff. They ensure all employees receive feedback on their performance and behaviour for the year and sets goals for the coming 12 months – including any training. By setting clear objectives, employee development is assured.

82% of Vestas' employees responding to the Employee Survey in 2009 confirmed that they had had a Personal Development Dialogue (PDD) with their manager. The aim is for all Vestas' employees to have a yearly PDD that is followed up mid-year.

Every year, the People Review process in Vestas helps highlight up-and-coming stars within the organisation, potential vacancies and possible successors. Talented individuals are discussed at monthly meetings in which all Vestas units participate. This enables Vestas to distribute its talent globally – in return, employees receive enlarged career opportunities and a broader business knowledge.

Running alongside this, an organisational review process is being developed to ensure that the company meets the needs of the market and its customers. An organisational review ensures that the business is lean, aligned, transparent and supports the needs of its clients.

## Compensation & Reward

Vestas believes in rewarding high achievers. Carrying out job evaluations and setting external benchmarks ensures its compensation structure is competitive across all locations – vital for attracting and retaining staff.

It is important for Vestas' future that all employees strive to reach the company's goals and remain motivated and focused. The PDD and the Global Bonus Programme (GBP) are vital for creating a true performance-oriented culture.

The GBP allows Vestas to give an financial appraisal to all employees, if the company hits its targets over the course of a year. For Vestas, 2008 and 2009 were two outstanding performance years. Unfortunately 2010 was more challenging and bonuses will for the first time not be paid. But from 2011, the bonus programme is being designed to give employees a larger personal influence on the result.

Vestas is a global company; inevitably, this means local pay practices and market rates differ. However, the company aims to approach each location in the same manner and with the same guidelines to ensure that compensation and reward levels remain fair with other locations. That calls for transparent compensation and reward practices. Creating detailed job evaluations, benchmarking, target setting and assessment of employee performance are clearly integral to this process.

## Exit

All employees leaving Vestas are offered an interview as part of the exit process. Everyone is interviewed, regardless of the reason for their departure, as long as they agree to take part.

This way, the company learns more about why employees tend to leave Vestas, and in the process can devise new methods for making the company more likely to attract and retain talent in the future.

## Supporting the People Pipeline

Being a global business entails employing people of different nationalities and cultures. The business must be 'in the region, for the region'. As well as being visible in its growth areas, Vestas knows the importance of understanding the culture and background of its customers in order to offer them the best service possible. Therefore, Vestas attempts to foster an inclusive and diverse environment to attract employees of different nationalities, while remaining true to core company values such as Safety First and the Vestas Code of Conduct.

Inclusion & diversity in Vestas	Women		Non-Danes	
	2009	2010	2009	2010
In government	6%	6%	25%	25%
In management positions	18%	19%	45%	49%
All employees globally in Vestas	20%	19%	64%	67%

## Inclusion and diversity

Vestas has established an inclusion and diversity taskforce, and in April 2010 a survey was sent out to approximately 6,700 employees. The employees were asked about their perception on a variety of diversity-related topics.

The company has developed an inclusion index to continuously investigate how it is faring in this area. This consists of a range of questions in the Employee Survey.

As the company expands globally, Vestas staff will naturally become more diverse and consist of more non-Danes. It is important that this expansion is also reflected in leadership positions, where more women and more non-Danes are expected to be recruited. Leaders in Vestas are encouraged to consider whether their teams have appropriate diversity and, if not, consider a better balance for their teams when recruiting new employees. Diversity awareness training will be developed in 2011.

## Responsible restructuring

In 2010 Vestas unfortunately had to lay off 2,200 employees due to overcapacity in the European market and fewer than expected orders in the region. Redundancies were a last resort and it was crucial to management that they were carried out in a decent and responsible manner. When having to lay-off employees in large numbers, Vestas always ensures negotiations are conducted as quickly as possible and result in decent severance packages for all those affected. Vestas also offers laid-off employees support for further education and outplacements.

## Scholarships – combining talent attraction with wind power research



In order to reach the company's goals, Vestas must attract aspiring talent and increase the quality and amount of its research on wind power.

Vestas encourages and supports education and research around the world. By supporting various programmes globally, the firm positively impacts on people's academic opportunities and career potential. When dealing with scientists around the world, Vestas reaps the benefits of its vast research history, and this further strengthens its specialist talent pipeline.

By developing a global technology research strategy, Vestas aims to be at the forefront of innovation in the wind power industry. By combining internal and external ideas and developing new technologies, customer value will greatly increase.

Through a Global University Programme, Vestas provides scholarships for wind power-related research projects in collaboration with universities worldwide. Support includes scholarships and thesis supervision for Masters and PhD students and professors, all of which will inspire further independent research. By providing specific research topics in fields such as aerodynamics, structural design and analysis, and electromagnetic design, Vestas hopes to fuel a global research community for the benefit of the wind power sector.

Another significant initiative is the Vestas Power Programme, which in partnership with the University of Aalborg in Denmark, offers ten PhD projects for students from all over the world, within the fields of wind power, power electronics and energy storage. The first Vestas Power Programme PhD graduate, Jorge Martínez García, generated six patent applications and nine articles through his research.

### Examples of PhD scholarships granted

1. Simulation Tools for Floating Offshore Turbines.  
Partner University: Massachusetts Institute of Technology, USA.  
Budget: €83,000 (3 years)
2. Development of Computational Models for Predictive Analysis of Three-Dimensional Dynamic.  
Partner University: IIT Chennai, India.  
Budget: €39,900 (3 years)
3. Scale Mode Wind Turbines.  
Partner University: Politecnico de Milano, Italy.  
Budget: €125,400 (3 years)

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In total, Vestas committed €6,532,732 to global research with external partners in 2010

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## Business Case Certainty

is Vestas' ability to give customers and financiers confidence that the assumptions they make when choosing to invest in wind power will be accurate.

Vestas customers expect Business Case Certainty. They expect power generation that will deliver as forecast, on time and to the budget they have agreed.

When delivering Business Case Certainty to customers, there are a number of key issues to bear in mind:

1. Finding the right locations for wind turbines. Vestas has more than 30 years' experience in mapping and analysing weather and site data to find the best possible turbine locations and it knows the value of engaging key stakeholders early in the process. This includes communities, wildlife organisations and local government.

2. Technology that benefits both the environment and customers. Vestas' latest V112-3.0 MW turbine is specifically designed for low wind speed areas and can generate power at a wind speed of just three metres per second. In the future, innovations like the Smart Grid will represent a leap from disconnected power suppliers to connected national networks. A hugely more efficient way to distribute and diversify power sources.

3. The fuel – wind – is abundant and free. Wind power is competitive, predictable, independent, fast and clean. Vital characteristics that support the goal of delivering Business Case Certainty.

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**037** From Nimby to Yimby –  
Advocating the potential of wind power

**039** Wildlife and Vestas

**040** Wind power and public policy

**041** Increasing the share of wind power

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# From Nimby to Yimby – advocating the **potential** of wind power

Surveys show that people are generally very positive towards wind power. However, with towers rising 100 metres above the ground and blades with a radius up to 112 metres, wind turbines are a visible mark on the landscape. When concerns over potential noise and flickering shadows are also considered, the positive opinion can soon change.

The construction of new wind turbines often causes an automatic “Nimby” (Not In My Back Yard) reaction from local residents, worried about the height of the towers, the possible noise, and the impact on wildlife and birds, for example. These are all legitimate questions which deserve straight answers. Answers which Vestas are dedicated to providing, with the aim of turning Nimbys into Yimbys (Yes In My Back Yard).

“When Vestas engages in a project, we are the face of the wind industry. A major utility company may be the customer, but it is often the Vestas name on the turbines that people focus on. Therefore we have to enter into a dialogue, not only with the customer, but also with the local community as a whole”, says Peter C. Brun, the Senior Vice President responsible for Group Government Relations at Vestas.

The company believes that one way of engaging the local community is to involve them in the process as early as possible, and discuss with them the realities of modern wind power.

“Vestas is advocating that Wind Power Plants should be constructed only after a thorough screening process,

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## Nimby

“Not in my back yard” or “Nimby”, is a term used to describe people who strongly oppose new development in their communities, whether it's new wind turbines, a new housing complex or a casino. Nimbys will often mount vocal opposition to a local project in an effort to curb development.

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where the local community has a say about the plans. We believe that dialogue is the key to enhance understanding of what we do, and what we stand for”, says Peter C. Brun. ►

“We have to enter into a dialogue, not only with the customer, but also with the local community as a whole.”

Peter C. Brun, the Senior Vice President responsible for Group Government Relations at Vestas



► This is exactly what Vestas Northern Europe is doing in Sweden. In spring 2010, it organised a road show in three municipalities in northern Sweden.

Lisa Ekstrand, Vestas Policy Specialist working out of Malmö, explains: “The general idea was to meet at an early stage with the municipalities where the big wind farms are planned and discuss with them the local benefits of wind power. Additionally, we made contact with local entrepreneurs to identify potential new suppliers in the region, so we would be prepared when the projects started to progress.”

Not only did the initiative create a good relationship between the Swedish municipalities and Vestas, but it also created a better perception of what it meant to bring wind power to the region.

“At all locations the result was very positive. More than 60 entrepreneurs wanted to meet Vestas at one road show and at the next meeting close to 100 people showed up. The dialogue with politicians has also been constructive and there is a much clearer understanding of how the local community benefits from wind power,” says Lisa Ekstrand.

And local understanding is essential to making a wind project truly successful in the long term.

But what is the impact of a modern wind turbine? It is true that Vestas turbines are getting bigger, but the technology is also constantly improving, generating less noise and more electricity. The typical restrictions are a maximum of 40-50 decibels (dB) at the closest residential area, although it varies from country to country.

Vestas has designed noise modes for its turbines ensuring that the sound level from a modern wind turbine placed 300 meters away can be less than 45dB, or half the sound level of everyday traffic. But it is still too much for some people. That is why wind power plant owners need to adhere to different local rules on how to reduce the noise. In some places, Vestas can decrease the rotational speed by the pitch system to reduce such concerns.

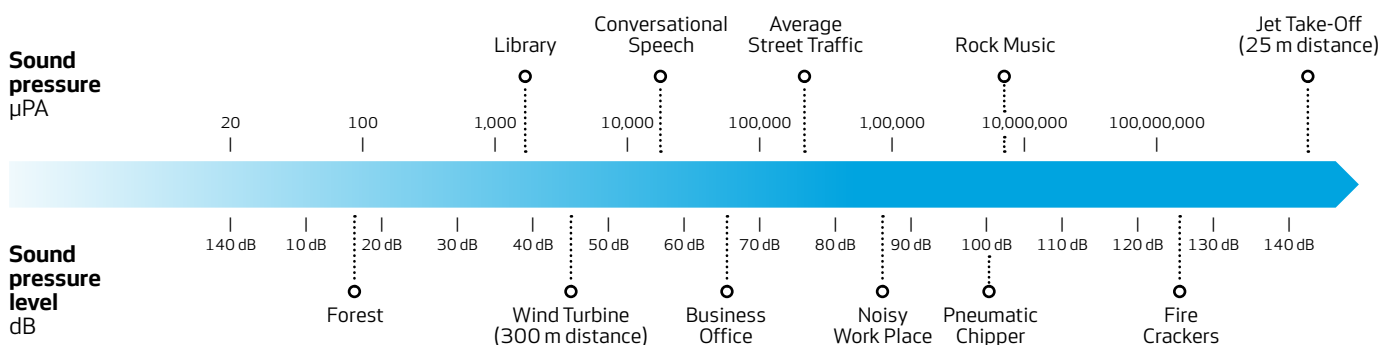
Specific local considerations can strongly influence a community's opinion on turbines. For example, turbines sited along the coastline are very efficient, but they change the sea view.

To minimise the visual impact therefore, Vestas paints its turbines white or light grey so they blend in with the sky. It also places them in regular patterns that fit the landscape.

Another visual impact in populated areas is that turbines can cast considerable shadows, causing flickering. However thorough site planning and the use of state-of-the-art software to control the rotation of the turbine make it possible to avoid most of the shadow casting.

Lisa Ekstrand sums up the challenge for Vestas: “Of course, we are always trying to promote wind power. It's what we do. But we do it by sticking to the facts. Not rumours or false information.”

The goal of the Government Relations Group at Vestas is not to ignore or sideline Nimbys, explains Peter C. Brun, but to convince them to change their views. “We want to turn Nimbys into Yimbys, through good long term relationships and open dialogue. Successes like the Swedish roadshows suggest that we are on the right track,” he says.



## Wildlife and Vestas



Vestas cares deeply about the environment and is proactively engaged in organisations that are working on behalf of both wind and wildlife. Vestas emphasises the vital role of site specific Environmental Impact Assessments to minimise and mitigate potential impacts.

Wind power is part of the infrastructure needed to develop and support modern society. The WWF states in its policy paper on wind power that, "In comparison with fossil and nuclear fuels, the environmental impacts associated with wind power are small!"

The organisation adds: "Careful siting and operation of wind energy projects can ensure that impacts on biodiversity are minimised and that they are integrated well within the local environment".\*

Global climate change is one of the largest threats to all wildlife, due to disruption to habitats and ecosystems, with rising temperatures and accompanying changes to precipitation patterns. Wind power can reduce this threat by considerably reducing the CO<sub>2</sub> emissions from power production.

Even though wind turbines have less of an impact on nature and wildlife than other energy infrastructure, Vestas is continuously seeking to reduce it further. We work with wildlife consultants and universities to ensure we remain at the forefront of environmental development. Also, Vestas is a founding member of the American Wind and Wildlife Institute (AWWI) – a collaboration between NGOs, government agencies and the wind industry with a mission to facilitate timely, responsible development of wind energy while simultaneously protecting wildlife and wildlife habitat. AWWI works in the areas of research, mapping, mitigation, and public education.

\* Source: WWF, 2004: "Position paper on wind power"

## Wind power and public policy

Vestas conducts its business around the world in an open and transparent manner. The company is committed to ensuring that wind power remains at the top of the global energy agenda. It hopes to influence tomorrow's policy decisions to safeguard stable and predictable markets for wind power.

Vestas holds regular discussions with politicians, public servants, interest groups and non-governmental organisations (NGOs) all over the world. It offers advice and information to the public about the potential of wind power, both in individual markets and worldwide. The main objective is to encourage greater use of wind power to offset the effects of climate change, ultimately leading towards the sustainable development of clean, modern societies.

Vestas shares its expertise with governments and other stakeholders through a range of policies:

- Wind resource mapping
- Spatial planning for large-scale wind power integration, including noise and wildlife concerns
- Grid planning for large-scale wind power integration

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“Eradicating subsidies to fossil fuels would have a dramatic effect on global energy balances, enhancing energy security, reducing emissions of greenhouse gases and air pollution, and bringing economic benefits.”

Source: IEA World Energy Outlook 2010 Factsheet

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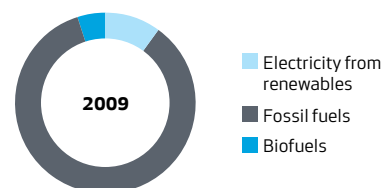
The trend towards wind power will trigger a range of regulatory and planning issues. Vestas' key policy recommendations provide governments with constructive insights on how to respond to these:

- Plan now for all available wind resources:  
Policymakers should take a long-term approach that identifies all available national wind resources and evaluates the contribution they can make. This has been successful in many countries where wind power is already a significant part of the energy mix.
- Set clear targets and timetables:  
Be clear about objectives and resolve all regulatory issues – encouraging the investor confidence needed to expand production capacity.
- Develop national and regional siting plans:  
Identify the most appropriate sites for large-scale developments, both onshore and offshore. Planning should consider factors such as long-term sustainability in terms of economic and environmental issues, as well as public acceptance.
- Upgrade national/regional grid plans:  
Assess the condition of the existing electricity grid, which might need upgrading to cope with future demand. With renewable energy as a priority, grids should be extended to reach areas where wind power is abundant. Any country aiming for large-scale wind integration would reap considerable benefits from carrying out their grid upgrade in parallel to the site planning process described above, so that rising energy demands can be met by growing wind power penetration.

During 2010 Vestas has engaged with policy makers in the USA, Canada, Australia, China and numerous other countries, advocating reforms and providing best practice experience.

### Subsidies for energy sources (billion USD)

Electricity from renewables	37
Fossil fuels	312
Biofuels	20
<b>Total</b>	<b>369</b>



Source: [www.worldenergyoutlook.org/docs/weo2010/factsheets.pdf](http://www.worldenergyoutlook.org/docs/weo2010/factsheets.pdf) pp 4-5



## Increasing the share of wind power in the worldwide energy supply

Vestas is confident that the overall share of wind power in the worldwide energy supply will increase. But the increase depends on a combination of accurate forecasting of wind power generation, and continuously improved integration with the power system.

### Integration with the power grid

As a provider of wind power plants, Vestas develops technology to allow easier integration of wind power into power grids.

Technology currently under development allows wind power plants to stabilise the overall power system – and it will provide even more flexibility in the near future. These technologies include voltage and frequency controls, as well as upcoming Smart Grid technologies to improve grid connection capabilities.

### Developing the Smart Grid

Vestas is active in developing Smart Grid technologies and is currently taking part in an €8 million public-private development project, headed by the Danish National Laboratory for Sustainable Energy at Risø.

Much like computers and routers manage the flow of bits on the internet, Smart Grid technologies use information to optimise the flow of electricity. Although not yet available, by adding computer and communications technology to the existing electricity grid, the Smart Grid promises to operate more efficiently and reliably. It can also accommodate more solar and wind power, as well as other variable sources of energy with the potential to become even more reliable in the future.



### Developing the electricity grid in China

In February 2010, Vestas signed a joint research agreement with the Chinese State Grid Energy Research Institute (SGERI) on “Coordinated Development of Wind Power and Electricity Grid”.

The project aimed to promote the development of the wind power industry in China, and coordinate the growth of wind power with the safe and stable operation of the electrical grid system. The three phases of the project were successfully completed in December 2010.

### Predicting performance

Vestas uses highly-evolved models to predict wind conditions at any site in the world. Accurately mapping the performance of a planned project allows wind power to be traded at higher prices.

### Reliable equipment

Vestas is prepared to accept tough contractual obligations relating to availability/production when servicing wind power plants. Years of experience monitoring and maintaining turbines provides a solid basis for guaranteeing the yield.

### Energy storage

In spite of all the developments in wind turbine generator technology, control techniques and forecasting, wind remains a variable energy source. In order to further increase the business case certainty, Vestas is working on reliable energy storage systems for its power plants.

This will provide a ‘balancing resource’, increasing predictability and therefore decreasing the risk in energy trading. Energy storage increases the return on investment by cutting the cost and allowing a higher income per kWh.

## Our approach to sustainability

As a basis for long-term responsible operations and financial success, Vestas knows it must manage its operations to comply with the highest standards of business practice and sustainability. This means complying with national laws and conventions – as well as Vestas' own internal standards, which often exceed its legal obligations. These standards are detailed in Vestas' Code of Conduct and related policy documents. The firm is a member of the UN Global Compact.

Vestas has a global Health, Safety and Environmental (HSE) policy and a Code of Conduct explaining its sustainability policies. Both these documents help shape Vestas' management policies and strategy.

To underline the HSE policy and the Code of Conduct, Vestas is continually introducing new processes and setting new objectives and goals. To ensure these targets are met, business units, factories, and sales units in Vestas have each been set localised objectives.

The Sustainability Forum, with representatives from all 14 Vestas Business Units, meets monthly. This forum creates a roadmap for continuous improvement and lays the groundwork for implementing them throughout the organisation.

### A sustainable culture

Vestas' global strategy is based upon its vision, mission and values. By focusing on best practice worldwide, irrespective of country, religion or gender, Vestas is proud that it has no boundaries. People are the company's most important asset; at Vestas they are able to work in a challenging and creative environment where they can develop themselves professionally.

To encourage a company-wide sustainability culture, Vestas invests in nurturing and developing the knowledge and skills of its employees, so everyone is empowered to work towards the shared goal of sustainability. At every level of the organisation, precautions are taken to reduce risk. Decisions are only taken if they are both safe and ethical.

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### Our commitments

Vestas joined the United Nations Global Compact (UNGC) in 2009.

In 2010 Vestas joined the UN Caring for Climate initiative.

In 2010 Vestas also became member of the Partnering Against Corruption Initiative (PACI) of the World Economic Forum.

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Vestas is committed to delivering value to its customers. In the power generation industry, reliability is key. Securing outstanding performance levels for all wind turbines through the Six Sigma philosophy is a major objective for Vestas. Since 2007, the company has been steadily improving its performance. It raised the bar to Four Sigma by 2008 and Five Sigma by 2010. Vestas will continue its journey towards Six Sigma because achieving parity with oil, gas and coal requires this level of quality.

All employees must feel engaged by the company and its goals. Involvement is encouraged through the use of employee-manager feedback sessions, committees and staff surveys.

### Management systems to support sustainable behaviour

At Vestas, all employees must work according to management standards for the environment and occupational health and safety. All activities are certified according to the ISO 9001, ISO 14001 and OHSAS 18001 standards for quality, environmental and occupational health and safety management.

New sites have to be certified within six months after production starts. At the end of 2010, 98% of Vestas employees worked in a facility certified according to ISO 14001. 98% of all employees worked in a facility certified according to OHSAS 18001. And 98% of all employees worked in a facility certified according to ISO 9001.



## Engaging stakeholders at Vestas



With a global presence in more than 60 countries, Vestas works alongside a wide number of stakeholders around the world. These partners are pivotal to the company's perception within the energy community and the wider public. Vestas believes strongly in engaging with Non-Governmental Organisations (NGOs), industry organisations and local communities wherever possible. It promotes awareness of wind power by openly discussing environmental impacts and supporting local initiatives.

### Listening to stakeholders

Vestas' Key Account Management process ensures open and honest dialogues are held with customers, supported by a yearly Customer Survey and Wind Summit. The survey sheds light on customers' loyalty and perceptions of Vestas and helps the company focus on key areas such as Business Case Certainty, Cost of Energy, Partnerships and Safety & Citizenship. Wind Summits are periodic "open house" events where customers are invited to discuss energy, innovation and relationships.

Vestas desires an ever-deeper understanding of what customers, partners and investors see as key indicators of success. It strives to be a leader in innovation, citizenship, and energy products; the main elements that define how stakeholders value reputation and global leadership. As an example, the company recently carried out a Global Wind Study of unprecedented reach: 25,000 citizens from domestic households around the world, across all age groups, from domestic households to big businesses, expressing their views on climate change and wind power. Their input guided Vestas' strategy to create a new generation of partnerships for renewable energy: the WindMade initiative.

When assessing its environmental impacts, Vestas studies not only its internal processes, but also its whole supply chain. At the company's Global Suppliers' Day, held every year since 2006, all members of the supply chain share knowledge on how to deal with the latest challenges in the wind industry, in terms of both capacity and quality.

Once a year, Vestas conducts an independent global Employee Survey to address any internal issues. These are then tackled with specific action plans. To make the process as transparent as possible, employees are briefed about areas where there is room for improvement and what steps are being taken. Through the survey, the company also learns what drives employees' commitment. Reputation and sustainability frequently emerge as key factors, reinforcing Vestas' already strong commitment to being a sustainable company. As the response rate of 92 per cent for the 2009 survey shows, employees are strongly engaged in the culture of Vestas.

The company is constantly evaluating how to further engage its global stakeholders on sustainability. During 2011, Vestas will continue to develop its stakeholder relationships, listening to their needs and addressing their concerns, and establishing a process for better dialogue and partnerships.

### Reporting transparently

Vestas is committed to reporting its performance openly, with regard to both the present state of the company and its future potential. These include areas that are of significant concern to stakeholders, and over which Vestas has a reasonable degree of control.

Vestas' commitment to environmental impact transparency is the reason it supports the Carbon Disclosure Project (CDP). Vestas has further engaged with CDP to develop the criteria by which CO<sub>2</sub> emissions performance will be judged.

Vestas strives to report according to the Global Reporting Initiative (GRI). The next two pages show the level of fulfilment of the reporting standard.

# GRI and Global Compact

GRI	INDICATOR	Information available at <sup>1</sup>	Level of fulfilment <sup>2</sup>
<b>STRATEGY AND ANALYSIS</b>			
1.1	Statement from the CEO	SR p. 3	●
1.2	Key impacts, risks, and opportunities	SR p. 4,5,8	►
<b>ORGANISATIONAL PROFILE</b>			
2.1	Name of the organisation	SR p. 50	●
2.2	Primary brands, products and/or services	AR p. 18	●
2.3	Operational structure of the organisation	AR p. 20	●
2.4	Location of organisation's headquarters.	AR p. 150	●
2.5	Number of countries where the organisation operates	SR p. 7	●
2.6	Nature of ownership and legal form	AR p. 36	●
2.7	Markets served	AR p. 26	●
2.8	Scale of the reporting organisation – Number of employees	SR p. 7	●
	Net sales / Quantity of products and services	AR p. 6-7	●
	Total capitalisation / Total assets	AR p. 78-83	●
2.9	Significant changes during the reporting period	SR p. 16,34	●
2.10	Awards received in the reporting period.	SR p. 46	►
<b>REPORT PARAMETERS</b>			
3.1	Reporting period	SR p. 8	●
3.2	Date of most recent previous report	SR p. 8	●
3.3	Reporting cycle	SR p. 8	●
3.4	Contact point for questions regarding the report	SR p. 50	●
3.5	Process for defining report content	SR p. 47	►
3.6	Scope of the report	SR p. 47	●
3.7	Limitations on the scope of the report	SR p. 47	●
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations etc.	SR p. 47	●
3.9	Data measurement techniques and the bases of calculations	SR p. 47-48	●
3.10	Re-statements of information provided in earlier reports	SR p. 47	●
3.11	Significant changes from previous reporting periods in the scope of the report	SR p. 47	●
3.12	GRI overview	SR p. 44-45	●
3.13	External assurance for the report	SR p. 49	●
<b>GOVERNANCE, COMMITMENTS AND ENGAGEMENT</b>			
4.1	Governance structure of the organisation	AR p. 36-57	●
4.2	The roles of the chairman of the Board and the CEO	1)	●
4.3	Members of the Board	AR p. 42-53	●
4.4	Mechanisms for shareholders and employees to provide recommendations to the Board	AR p. 36	●
4.5	Linkage between performance and compensation for Board members, senior managers and executives	AR p. 38	●
4.6	Processes in place for the Board to ensure conflicts of interest are avoided	AR p. 37	●
4.7	Process for determining the qualifications of the Board members	2)	●
4.8	Statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	SR p. 6,42	●
4.9	Procedures for the Board to overseeing the organisation's identification and management of economic, environmental, and social performance	AR p. 37	●
4.10	Processes for evaluating the Board with respect to economic, environmental, and social performance	AR p. 37	●
4.11	Explanation of whether and how the precautionary approach or principle is addressed	SR p. 42	►
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses	SR p. 42	●
4.13	Memberships in associations	SR p. 46	●
4.14	List of stakeholder groups engaged by the organisation	SR p. 43	►
4.15	Identification and selection of stakeholders with whom to engage	SR p. 43	►
4.16	Approaches to stakeholder engagement	SR p. 43	►
4.17	Key topics and concerns that have been raised through stakeholder engagement	SR p. 9,43	►

1) [www.vestas.com/en/investor/corporate-governance/statutory-report.aspx](http://www.vestas.com/en/investor/corporate-governance/statutory-report.aspx), Related documents (pdf), Duties and responsibilities of the chairman of the Board of Directors

2) [www.vestas.com/en/investor/corporate-governance/the-board-of-directors.aspx](http://www.vestas.com/en/investor/corporate-governance/the-board-of-directors.aspx)

GRI	INDICATOR	Information available at <sup>1</sup>	Level of fulfilment <sup>2</sup>	UN Global compact
	Economic Management approach	AR p. 14,21	●	
EC7	Procedures for local hiring and proportion of senior management	SR p. 34	○	
	Environmental Management approach	SR p. 42	●	
EN1	Materials used by weight or volume	SR p. 8	●	Environment 8
EN3	Direct energy consumption by primary energy source	SR p. 16	●	Environment 8
EN4	Indirect energy consumption by primary source	SR p. 16	●	Environment 8
EN6	Initiatives to provide energy-efficient or renewable energy-based products and services	SR p. 13	●	Environment 9
EN8	Total water withdrawal by source	SR p. 8,16	●	Environment 8
EN16	Total direct and indirect greenhouse gas emissions by weight	SR p. 15	●	Environment 8
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	SR p. 14,15	▶	Environment 8
EN22	Total weight of waste by type and disposal method	SR p. 19	●	Environment 8
EN23	Total number and volume of significant spills	SR p. 8	●	Environment 8
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention	SR p. 19	●	Environment 8
EN26	Initiatives to mitigate environmental impacts of products and services	SR p. 13	●	Environment 9
EN29	Significant environmental impacts of transporting products, other goods, materials used for the organisation's operations, and transporting members of the workforce	SR p. 16	○	Environment 8
	Labour Practices Management approach	SR p. 23,32	●	
LA1	Workforce by employment type, employment contract and region	SR p. 7	▶	
LA7	Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities	SR p. 23	▶	
LA10	Average hours of training per year per employee by employee category	SR p. 33	○	Labour 6
LA11	Programs for skills management and lifelong learning that support the continued employability of employees	SR p. 33	●	Labour 6
LA12	Percentage of employees receiving regular performance and career development reviews	SR p. 33	●	
LA13	Composition of governance bodies and breakdown of employees per category, according to gender, age group, minority group membership etc.	SR p. 34	▶	
	Human Rights Management approach	SR p. 27	○	
	Society Management approach	SR p. 26	○	
S05	Public policy positions and participation in public policy development and lobbying	SR p. 40	●	
	Product Responsibility Management approach	SR p. 42	○	
PR5	Practices related to customer satisfaction	SR p. 43	▶	

1) SR = Sustainability report, AR = Annual report

2) ● = Full reporting, ▶ = Partial reporting, ○ = Started reporting

# Memberships and recognition

Vestas further developed its global network in 2010 by joining a number of sustainability groups, resulting in increased stakeholder awareness of the company's commitment to sustainability. In addition, Vestas received a number of recognitions of its ambition of achieving excellence in sustainability.

## Recognitions



Dow Jones Sustainability World index in the sector for renewable energy equipment.  
[www.sustainability-index.com](http://www.sustainability-index.com)



FTSE4Good

FTSE Environmental Technology Index Series (1<sup>st</sup>)  
[www.ftse.com](http://www.ftse.com)

Carbon Disclosure Project, second year included in Europe 300 and Nordic 200 Leadership Index.  
[www.cdproject.net](http://www.cdproject.net)

Global 100, the most sustainable corporations in the world (42nd)  
[www.global100.org](http://www.global100.org)

## Memberships



WINDMADE™

WindMade™ (founding partner)

Global Wind Energy Council (GWEC)

World Economic Forum

Business for Social Responsibility (BSR)

American Wind Wildlife Institute, founding member (AWWI)

Member of more than 25 national wind associations around the world

## Award



For the V112-3.0 MW and its achievements in the wind industry in general, Vestas was awarded the 2011 Zayed Future Energy Prize, which recognises and rewards innovation, leadership, and long-term vision in renewable energy and sustainability.  
[www.zayedfutureenergyprize.com](http://www.zayedfutureenergyprize.com)

# Accounting policies for non-financial highlights for the Group

Vestas has selected a number of non-financial key figures that are relevant to understanding Vestas' development, results and financial position. These key figures are monitored closely, and specific targets have been defined for relevant indicators.

All Vestas' wholly owned companies are covered by the report. New established companies are included from the time of production start and for purchased companies at the time when coming under Vestas' operational control. Companies are excluded from the reporting from the time of the company leaving Vestas' operational control. The same measurement and calculation methods are applied at all Vestas sites.

No information provided in earlier reports has been re-stated. There have been no significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.

## Safety and health

Occupational health & safety is measured for all activities under the organisational structure. Industrial injuries of all employees are stated on the basis of registration of incidents that have caused more than one day's absence.

From 2009, injuries and working hours for external supervised employees are also included. The incidence of injuries is defined as the number of injuries per one million working hours. The number of working hours is measured on the basis of daily time cards registered in the payroll system for hourly-paid employees and prescribed working hours for salaried employees. For external supervised employees, the injuries are reported by Vestas, and working hours are reported by the subcontractor. Absence due to illness is defined as hours absent due to illness, exclusive of absence caused by industrial injuries, maternity leave and child's first day of illness.

Absence due to illness is measured by means of registrations in the payroll system based on daily time cards (hourly-paid employees) and absence records (salaried employees), respectively.

## Management systems

Percentages of Vestas certified according to ISO 9001, ISO 14001 and OHSAS 18001, respectively, is stated on the basis of the number of employees in the certified departments.

## Consumption of resources

Metals and other raw materials are stated on the basis of consumption from inventories to manufacturing in the first phase of production and to servicing of wind turbines, respectively, as recorded in the company's ordinary registration systems. Metals include only the amount of metal that is processed at Vestas.

Consumables are stated on the basis of decentralised lists of quantities delivered per site in the financial year. Relevance has mainly been determined on the basis of Vestas' sector assessment of material environmental impacts, followed by a selection in relation to quantities consumed compared with the activities carried out at the sites.

Electricity, gas and district heating are measured on the basis of quantities consumed according to direct meter readings per site including related administration. Consumption of electricity comprises electricity purchased externally and consumption of production from own wind turbines. Oil for heating is stated on the basis of external purchases adjusted for inventories at the beginning and at the end of the period. Fuel for transport has been recognised on the basis of supplier statements. Electricity from renewable energy sources is calculated on the basis of supplier statements.

Renewable energy is energy generated from natural resources, which are all naturally replenished – such as wind, sunlight, water and geothermal heat. Nuclear power is not considered to be renewable energy.

Consumption of electricity from non-renewable sources purchased as a result of not being able to purchase renewable electricity at some locations, is in the Group statement balanced with renewable electricity produced by wind power plants owned by Vestas and sold to the local grid.



The consumption of water is stated as measured consumption of fresh water. Water of less quality than drinking water is part of the fresh water consumption and is primarily used for watering of the outdoor areas and process water. Cooling water from streams, rivers, lakes, etc. that is solely used for cooling and released to the stream after use without further contamination than a higher temperature, is not included.

### **Waste and emissions**

Waste including hazardous waste and waste for recycling is stated on the basis of weight slips received from the waste recipients for deliveries affected in the accounting period, apart from a few types of waste and non-significant volumes which are estimated on the basis of subscription arrangement and load. Waste disposal is based on supplier statements.

Direct emission of CO<sub>2</sub> is calculated on the basis of determined amounts of fuel for own transport and the direct consumption of oil and gas, with the usage of standard factors published by the Danish Energy Authority.

Indirect emission of CO<sub>2</sub> is calculated on the basis of direct consumption of electricity and district heating, with the usage of national grid emissions factors published by International Energy Agency. Indirect CO<sub>2</sub> emissions from electricity consumption based on non-renewable sources is balanced out by CO<sub>2</sub> emission savings caused by production and sale to the grid from Vestas-owned turbines.

### **MW produced and shipped**

Produced and shipped MW is stated as the accumulated effect of wind turbines that were produced and shipped to the customers in the accounting period.

### **CO<sub>2</sub> savings from the produced and shipped MW**

CO<sub>2</sub> savings are calculated on the basis of a capacity factor of 30 % of the produced and shipped MW, an expected lifetime of 20 years of the produced and shipped MW, and the latest updated standard factor from the International Energy Agency (IEA) of average CO<sub>2</sub> emission for electricity in the world, at present 507 grams of CO<sub>2</sub> per kWh.

### **Breaches of internal control conditions**

Breaches of internal inspection conditions are stated as the conditions for which measurements are required, and where measurements show breaches of stated conditions.

### **Environmental accidents**

Accidental release of substance that Vestas considers to have an irreversible impact on the environment.

### **Employees and diversity**

The number of employees is calculated as the number of employees who have a direct contract with Vestas and permanent staff employed through third parties. The average number of employees is calculated as the number of active employees at the end of a month distributed on the 12 months of the year. Employee information is determined on the basis of extracts from the company's ordinary registration systems with specification of nationality, sex and IPE level (Mercers International Position Evaluation).



# Independent auditor's statement

## **The independent auditor's statement concerning non-financial highlights for 2010**

We have made an assessment of Vestas Wind Systems A/S' non-financial key figures and indicators for 2010, stated on page 8, in the sustainability report for 2010.

## **Criteria for the preparation of reporting on non-financial issues**

Page 47 of the sustainability report for 2010 include the Management's responsibility for choice of the non-financial highlights relevant for integration in the sustainability report on page 8. The non-financial key figures and indicators have been included in the sustainability report for 2010 according to the accounting policies for non-financial highlights for the Group applied and described on pages 47-48.

The preparation of the reporting on non-financial issues and non-financial highlights is the responsibility of the Company Management. Our responsibility is to express an opinion on the reporting on non-financial key figures and indicators based on our assessment.

## **Basis of opinion**

Our work has been planned and performed in accordance with the International Standard on Assurance Engagements, ISAE 3000 (other assurance than audit or review of historical, financial information) to obtain reasonable assurance that the data stated on page 8 have been computed in accordance with the criteria for the preparation of reporting on non-financial highlights.

Based on an assessment of materiality and risk, our work has comprised accounting technical analyses, inquiries and spotchecks of systems, data and underlying documentation, including tests that the guidelines for measurement and statement of data have been followed. We have assessed the expediency of the internal recording and reporting system as basis for consistent recording and reporting on the non-financial environmental and occupational health & safety data.

## **Opinion**

In our opinion, the non-financial key figures and indicators included on page 8 of the sustainability report for 2010 have been stated in accordance with the criteria mentioned.

Copenhagen, 9 February 2011

**PricewaterhouseCoopers**

Statsautoriseret Revisionsaktieselskab

**Lars Holtug**

State Authorised Public Accountant

**Birgitte Mogensen**

State Authorised Public Accountant

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