



Positive Energy: how renewable electricity can transform the UK by 2030

SUPPORTIVE QUOTES

The following businesses, individuals and organisations have welcomed the contribution of the Positive Energy report to the energy debate, and supported many or all of its recommendations.

Siemens

“Siemens welcomes the contribution that the WWF’s *Positive Energy* report makes to the UK energy and climate change policy debate, focusing on energy efficiency, the role of renewables, carbon capture and storage and much stronger interconnection with continental Europe. The report highlights the need for strong stable policies to drive investment, stimulating the green economy and bringing skilled manufacturing, construction and service jobs to the UK.”

Michael Rolls, director, Business Development, Sustainability and Government Affairs

Vestas

“This report demystifies the concerns some people have about wind power. It shows that electricity prices have largely risen due to increases in gas prices, not increases in wind power and that high levels of wind power will shield consumers from volatile gas prices in future. It shows that the electricity network can cope with very high levels of wind, even in the harshest of winters. And perhaps most importantly it shows that wind can generate economic growth and jobs, much needed by the UK economy.

“To significantly reduce the cost of offshore wind the industry needs to radically scale up turbines. We’re not talking about tweaking around the edges. We need turbines with rotors significantly larger than any installed in the UK to date. This requires new manufacturing facilities, scaled up to accommodate the new turbines, using engineering processes

which squeeze out costs at every stage. And we need new vessels, specifically designed to handle the huge new turbines and install them at sea as quickly and safely as possible.

“However, before they set off down the path of radical cost reduction, investors need confidence there will be a long term demand for the final, lower cost wind power. Vestas cannot build its manufacturing plant in the UK unless it sees a visible order pipeline for the offshore turbines the facility will produce. Bold and decisive action from Government is needed. The Government needs to commit to firm, unambiguous long term targets for the sector, and ensure the planning regime allows for projects and ancillary works to be consented in a timely manner. Without such a commitment the UK risks missing out on the huge cost reductions and economic benefits offshore wind has to offer.”

Anders S e-Jensen, president of Vestas Offshore. Vestas, the world’s largest wind turbine manufacturer, has plans to develop its first factory dedicated to offshore turbines in Sheerness, Kent. The facility would manufacture Vestas’ new dedicated offshore turbine the V164-7.0 MW. The investment could create more than 2000 new jobs in Britain. If constructed the facility could begin serial production in 2015.

Unilever

"Over the next ten years Unilever plans to double the size of its business but reduce its overall environmental footprint. To achieve this goal will mean that we will have to triple the use of renewable energy in our 250 factories from around 16% today to over 40% in 2020. WWF's *Positive Energy* report demonstrates that achieving 60% renewable electricity use in the UK by 2030 is perfectly feasible. Reaching such a goal will not just be good for business but it will be absolutely essential if we are to retard the speed of accelerating climate change."

Gavin Neath, senior vice president of Sustainability

SSE

“WWF’s *Positive Energy* report, published today, is an interesting and useful addition to the debate on how the UK should transform its electricity sector. SSE supports the report's emphasis on the need to continue to try and reduce the UK's energy demand; as well as its conclusion that the renewables industry requires long-term certainty to continue to invest in the UK. Sufficient certainty that renewables will be a long term part of the energy system, well beyond the current 2020 cliff edge, is needed in order to allow the industry to

mature and put renewables on a path of cost reduction that will steadily reduce and eliminate the need for support. Introducing a well designed, long-term financial support mechanism for renewable technologies, as well as a renewables target for 2030 - both of which are recommended in *Positive Energy* - could help to provide this certainty.”

Keith MacLean, policy and research director

Conservative Environment Network

"WWF's report shows just how important it is to avoid being locked-in to old technologies. Renewable energy has the potential to boost economic competitiveness, protect consumers from price hikes and generate green jobs. We must have less exposure to volatile wholesale fuel prices and more security for families and businesses. This is a clear message which should resonate with modern conservatives who want strong and sustainable growth in the UK. The Government must remain steadfast in its commitment to a renewable energy revolution in this country."

Paul Foote, director

Crown Estate

"WWF's *Positive Energy* report clearly demonstrates how renewable energy sources could meet at least 60% of the UK's energy needs by 2030. We welcome its conclusion - that it will take a long-term commitment by government and industry to achieve such high levels of renewable energy. In particular the report identifies the need for a positive forward thinking commitment and visibility of a market beyond 2020 in order to make investment and to attract green jobs to the UK."

Rob Hastings, director of the Marine Estate

Procter & Gamble

"P&G fully supports moving towards wider implementation of renewable energy. Powering our plants globally with 100% renewable energy is part of P&G's long term environmental sustainability vision and we have set a goal to be sourcing at least 30% of our energy from renewable sources by 2020."

Len Sauers, vice president, Global Sustainability

Jeremy Leggett

“Many people like me, on the renewable front-lines, wouldn't find 60% renewables by 2030 at all daunting, given appropriate policy, will, and capital. There is invariably a tendency to underplay the scope for microgeneration and energy efficiency in studies like this. Personally, I believe we can mobilise low carbon infrastructure faster than this.”

Jeremy Leggett is founder and executive chairman of Solarcentury

Jonathan Porritt

“Climate change is accelerating even as the global economy is slowing. This could be a lethal combination here in the UK, where enthusiastic talk of “the green economy” has as yet achieved very little. This report from WWF shows exactly what needs to be done to counter that impasse – by moving forward purposefully, now to ensure that 60% of our electricity is generated from renewables by 2030.”

Jonathan Porritt is founder director, Forum for the Future

Dimitri Zenghelis

“Withering prospects for increased private spending in the current economic climate mean that nervous businesses are likely to postpone investment plans until the global market picks up. This deferral of spending will only serve to exacerbate the economic crisis and become self-fulfilling in deepening the recession. The result is that investment is further curtailed, job-creation postponed, while consumers and businesses sit on near-record levels of saving which are making more-or-less zero real returns.

“As shown clearly in WWF's *Positive Energy* report, providing a long-term, coherent and credible climate and energy policy in tandem with our EU partners could help break this vicious spiral. It could provide UK investors with the certainty needed to kick-start investment in one of the world's fastest growing markets. A clear non-discriminatory, market-based policy could reduce the long-run cost of renewable technologies, spur energy efficiency and attract low-cost financing to the sector.

“Some carbon-intensive tradable sectors will face pressure, but these sectors account for only a few percentage points of UK jobs and output, and the threat that they might flee to ‘pollution havens’ is hardly credible when most of our competitors, including China, are applying ambitious carbon

and energy-efficiency policies of their own. Moreover, the impacts of higher short-term energy costs for some are far outweighed by the short run opportunities from stimulating investment and job-creation across the economy. In the longer term, this investment will help cut energy costs by locking the UK into a resource-efficient infrastructure.

“The Government should help the small number of companies that are energy-intensive and trade internationally to adjust to policies to reduce emissions, but it should also continue to promote a transition to low-carbon, resource efficient-growth, which will ultimately benefit the UK economy as a whole.”

Dimitri Zenghelis is associate fellow at Chatham House, adviser to Cisco and senior visiting fellow, Grantham Research Institute at the London School of Economics

Royal & Sun Alliance (RSA)

"As one of the leading global insurers of renewable energy RSA stands firmly behind what WWF's *Positive Energy* report sets out to achieve. We agree that significant investment in new electricity generation is required so that the UK becomes a world leader in clean, renewable energy. The UK can then reap the social, environmental and economical benefits that this investment will bring."

Mark Potter, head of renewable energy

InterfaceFlor

“If a carpet company such as Interface has decreased non-renewable energy by 60% per unit of production and absolute greenhouse gas emissions by 35% despite growth, I don’t see why a country such as the UK can’t.”

Ramon Arratia

Alan Whitehead MP

“Decarbonising our energy supply rapidly whilst keeping the lights on should by now be a mainstream aim of energy policy: after all the Government has adopted the Climate Change Committee’s fourth carbon budget, which sets out clearly the low level of carbon we can tolerate in our energy economy if action on climate change is to be kept on track. The problem is that too many people simply do not believe it is possible to do it, or perhaps think it is only possible at prohibitive cost. That kind of thinking will land us with locked-in high carbon power sources if we are not careful. This report blows those myths

away: yes we can, and without breaking the bank or technology constraints. It will be an important technical back up to all those pressing for the political will now to be in place to make our low carbon energy aspirations a reality.”

Alan Whitehead is chair of the Parliamentary Renewable and Sustainable Energy Group

Tessa Munt MP

“The planet deserves better from us than a toxic legacy for thousands of years. There are solutions and I fully support this WWF report in looking for a truly renewable way forward.”

Caroline Lucas MP

“This compelling report from WWF is a wake-up call for the Government to stop the anti green forces in the Coalition from scaling back ambition on the UK’s climate and renewables targets – and undermining investor confidence in clean industries. It shows that, with proper investment in renewable energy and energy efficiency measures, we can wean the UK off dirty fossil fuels and vastly improve our energy security – as well as create a whole new generation of skilled green jobs. This research is a valuable addition to the growing body of evidence proving that the jobs-rich, low carbon infrastructure of the future can be both good for the planet and for the economy.”

Sir Graham Watson MEP

“This report shows that if we seriously expand our clean power generating capacity and build interconnections with our neighbours we can actually create a lucrative export market, as there will be times where the UK will be generating more electricity than it needs.

“The UK can no longer remain an energy island. The time for interconnections with the rest of Europe - and interconnections between other European countries, known collectively as a European 'supergrid' - has come. Everyone now agrees that this is *the* way to secure and green our energy supply. WWF is saying it; the European Commission is saying it; the business community is saying it; governments are beginning to say it. Now is the time to stop talking about it and start building it!”

Sir Graham Watson is a Liberal Democrat Member of the European Parliament and chairman of the Climate Parliament network of MPs and MEPs from across the globe working to promote renewable electricity supergrids.

Aquamarine Power (wave energy developer)

“This report re-affirms the UK’s potential to become a low carbon economy based on a growing and diversified renewable energy mix.

“It shows we can move away from near-term spikes in our domestic fuel bills caused by over-reliance on fossil fuels and move towards a long-term, stable future built on wind, wave, tidal and other technologies – and benefit from the new jobs these technologies offer.

“To realise this vision, the UK Government can lead the way by putting in place an ambitious new target for renewables alongside a stable and long-term market support mechanism which will unlock the significant private investment the sector will bring”

Martin McAdam, CEO

National Energy Action

“NEA supports WWF calls for greater investment in energy efficiency to reduce demand for power and energy in the home. Unless we heed their recommendations energy will be unaffordable for millions of households by 2030 whatever happens on the supply side and renewable energy targets will be much harder to meet.”

Jenny Saunders, chief executive, NEA (Campaigning for Warm Homes)

Consumer Focus

“We need to make sure our energy supply is secure and sustainable for the future. WWF’s report sets out how energy efficiency and renewable energy can be an important part of the picture over the coming decades.

“Investment in renewable technology has a high initial cost, although this falls significantly with economies of scale. The best way consumers can protect themselves from extra cost is to insulate their homes or if renting look for a good rating on the Energy Performance Certificate, and to choose and use appliances with the impact on energy bills in mind.

“By reducing the energy used to heat our homes and power our appliances, we not only cut the bills we pay, we can reduce our carbon footprint and also cut the amount that has to be spent on new infrastructure and generation capacity.”

Mike O’Connor, chief executive

Good Energy

“We welcome WWF’s *Positive Energy* report, which makes an important contribution to the energy debate and the role which renewables have to play in the UK’s energy future. In particular, we’d love to see the government set a target for renewables to provide 60% of our energy needs in 2030, as our own research suggests that the UK can become 100% renewable by 2050. Investing now to encourage more renewable generation in the future is the only way to deliver lasting energy security as well as cut our carbon emissions. I hope the government will heed the report’s recommendations – we need to take action now and shift control of our energy from corporations to consumers. When people understand where their energy comes from they will value it more and use it less.”

Juliet Davenport, founder and CEO

Triodos Bank

“Triodos Bank is a global pioneer of sustainable banking, with a mission to make money work for positive social, environmental and cultural change. We’ve been investing in the Energy and Climate sector since the early 1980s and have built up a strong track record in this area, funding over 300 sustainable energy projects across Europe.

“We welcome the *Positive Energy* report from WWF which adds weight to the massive contribution renewable energy can play in addressing energy security and environmental issues within the short-to-medium-term.

“We have long believed in the need to initiate a productive debate within the political sphere asking ‘what is the most efficient way to transform the energy infrastructure to sustainable renewable energy – and what infrastructure is required to support this?’.

“This combines the need to reduce primary demand through energy efficiency and developing and deploying clean renewable energy technologies. With critical decisions to be made imminently about our energy choices, this report comes at a crucial time.”

James Vaccaro, managing director

G Cube Insurance

“As an industry, the insurance sector sits in favour of decarbonising future energy generation, due to the correlation between climate change and extreme weather events,

commodity price volatility, and rising sea levels – all of which impact deeply on insurance businesses.

“By investing in key renewable energy developments such as offshore wind, and committing to agreements that provide continuity for the supply chain, only then can we move towards a low carbon economy.”

Fraser McLachlan, chief executive officer

Renewable UK

“This important report demonstrates the clear role that wind, wave & tidal power can play in our future generation mix. Through increased interconnection with our European neighbours, we can cut our reliance on imports of fossil fuels from unstable and unfriendly areas of the world – and eliminate carbon dioxide emissions from power generation. WWF are rightly calling on Government to provide the certainty needed to engender investment in renewable energy. I would urge Government to consider the contents of this report thoroughly.”

Dr Gordon Edge, director of policy

European Wind Energy Association

“With its very robust security of supply analysis, *Positive Energy* provides an extremely valuable contribution to the debate on renewable electricity. Its recommendation for a 2030 renewable energy target would provide much needed certainty for investors after 2020. The report correctly highlights that increased interconnections including an offshore grid, with the UK at its heart, will enable a further substantial increase in the level of renewables in Europe’s energy mix. This will put Europe on track to cut its greenhouse gas emissions by 80-95% by 2050, and exploit the economic benefits of being the world leader in wind and other renewable technologies.”

Stephane Bourgeois, head of regulatory affairs

Ecotricity

“Britain needs huge investment in new sources of green energy to cover the looming gap in generation capacity.

“A target of 60% renewables by 2030 is achievable if government don't slash the Renewables Obligation for onshore wind (which will deliver the lion's share), if the planning system is reformed (as the government have promised) and if

the energy companies commit to serious investment in new green energy - instead of shareholder dividends.

“The big problem in the energy market is not how much money the big six energy companies are making – it’s about what they are doing with that money.

“Ofgem say the Big Six are making £125 per customer, but they spend less than £5 of that on building new green energy sources – that’s a scandal.

“The reason for this lack of investment is not just weak regulation but because the interests of the big energy companies are not aligned with the interests of the British Public - they want quick shareholder returns we need long term investment in energy infrastructure that will make Britain energy independent again.”

Dale Vince, founder

RSPB

“Wind turbines and other renewable sources of energy are vital for the future of our birds and wildlife. Climate change is already having a detrimental impact on the natural world and if we are to avoid it becoming a major driver of extinctions then we urgently need to reduce our emissions. That means rapid and widespread deployment of all forms of renewable energy. The RSPB believes that renewable energy can, if sensitively sited and designed, be deployed at the scale suggested in WWF’s new report without unacceptable impacts on wildlife. We therefore strongly support WWF’s calls for Government to commit to a target of 60% of electricity from renewable sources by 2030.”

Harry Huyton, head of climate change

Friends of the Earth

“This analysis shows that investing in clean energy and energy saving will keep the lights on and help tackle climate change – a win-win for people and planet.

“We don’t need to gamble on nuclear, and we must avoid an expensive dash for gas that will cause emissions and cost UK households £300 extra every year.

“Only by developing UK clean power and using energy more wisely will we stabilise our bills in the long run.

“That’s why Friends of the Earth’s Final Demand campaign calls for an inquiry into how the Big Six energy firms have kept

us hooked on fossil fuels for so long, banking huge profits while people die in cold homes.”

Paul Steedman, energy campaigner

The Carbon Trust

"This new report is a much welcome addition to the debate on the role that renewables will play in helping us meet our long term carbon targets and in ensuring a safe and secure energy future for the UK. We know from our own experience that much still needs to be done, both to bring down costs to support wider deployment of existing technologies, and to innovate to ensure the next generation of technologies are developed. Government will play a key role in achieving this, setting a stable long term policy framework and providing continued support the UK's world-leading innovation base, and continuing to work closely with UK industry to ensure these technologies are developed as cost effectively as possible, ensuring that the UK benefits economically from the new industries that will spring up around the UK."

Benj Sykes, director of innovation

FOR MORE INFORMATION

Please feel free to contact Nick Molho, Head of Energy Policy, nmolho@wwf.org.uk

To download the report, please visit:
wwf.org.uk/positiveenergy

