



## Position Paper

# Vestas response to the UK Electricity Market Reform Consultation

### Vestas Wind Systems

Vestas is the world's largest wind turbine manufacturer, operating both on- and offshore. Today, we have installed over 41,000 turbines in 65 countries across five continents. Vestas has been present in the UK for many years, and with major operations in Warrington, Isle of Wight, and Bristol, Vestas now employs over 500 staff in the UK. Vestas remains committed to delivering wind power in the UK, and helping the Government achieve its goal of moving the UK to a low carbon economy.

Having pioneered the wind industry and with our extensive track record and experience in on & offshore wind markets around the world, we believe that our input to the UK Electricity Market Reform can help UK policy makers make the right choices and decisions now that will affect the generations of the future.

## Executive Summary

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Vestas welcomes the UK Government's objective of increasing investment in new low-carbon generation and acknowledges that reform is needed to further stimulate and accelerate investment, as the current market structure is not delivering it. We empathize with the Government's ambitions to lower the cost of capital and thereby lower the cost of energy through lower funding costs. We also support a stronger role for the electricity market including increased liquidity and transparency. However it is vital that the Energy Market Reform is quickly concluded in such way that the markets for on- and offshore wind do not come to a halt.

The most important ingredient in any incentive scheme for wind energy is the commitment to long-term support. The Government has not provided the detailed design of each FIT option although this would have enabled Vestas to make more of an informed choice. Whatever the outcome it is vital that the wind industry is engaged in the development of the mechanism in order to minimise unintended consequences. Vestas would be keen to be engaged in the process of developing the white paper.

Acknowledging that the Government is minded to introduce a new support mechanism for low carbon generation, we have put forward our views on the options proposed in this response. Responses to the specific consultation questions follow this executive summary.

### Key views on the EMR proposals

- We support the UK Government's objective of decarbonising electricity generation in the UK.
- We believe a fixed Feed-in-Tariff (FIT) is the ideal ultimate instrument to replace the RO, with a fixed premium FIT our preferred alternative option.

- Whilst a Contract-for-Difference (CfD) FIT theoretically could work, we have many concerns related to the complexities of introducing such a system in the UK, and the consequence of a more substantial hiatus in investments occurring.
- If the Government were to opt for a CfD or Premium instead of our preferred option of a Fixed FIT, sufficient liquidity in the wholesale power market would be essential; however, it is not clear that the Electricity Market Reform (EMR) will deliver it. We would prefer to see proposed changes to current market arrangements relating to liquidity included in the EMR rather than as a parallel work programme undertaken by Ofgem.
- Any FIT system introduced should be technology specific
- We do not support auctions/tenders for setting the tariff level
- We support giving projects the choice between the RO and FIT for a transitional period; however, we are concerned that the long lead time for large-scale projects means that an accreditation deadline of 2017 equates to no choice at all
- Above all it is paramount that existing investors in the sector are protected to safeguard already made investment decisions, e.g. via sensible ROC pricing, grandfathering.

## Key issues

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Vestas is not certain that a CfD or premium FIT would fundamentally reduce risk to the extent the Government perhaps hopes for or believes. It is indisputable that a fixed feed in tariff has proved to be the overall most efficient support system for renewables over time. Adding the price risk to other risks such as volume risks, development, construction, technology and operation risk, means that in particular offshore developers face a quite substantial amount of risks. Taking the price risk away will be a significant measure to reduce cost of capital. It is imperative that efforts to make planning consents simpler, and grid connections affordable and timely are not given lower priority while the Government turns its attention to the market arrangements. Investment will only be encouraged through the whole policy environment being supportive. Greater policy certainty is required to provide business with the stability against which capital formation and deployment is possible. Policy includes everything from planning and regulation to grid. The renewable energy sector in the UK must be predictable and attractive enough to attract new large investors if it is to draw in the necessary capital to fund the gap.

From Vestas' perspective, a Fixed FIT is the ideal instrument, although a premium FIT could work as well. For a company who is currently facing major decisions on investments in new offshore turbines designed primarily for the UK offshore wind market, and who is currently considering where to manufacture the new offshore product, we would appeal to the UK Government to choose a package of reform options that limits the hiatus in investments to the largest extent possible. We recommend the UK Government acts with urgency and speed, and a transition period securing investment decisions and executions in the short-term. It is in the interest of both the UK Government and Vestas for disruption to the wind sector to be limited as much as possible.

### Effect of uncertainty on the Wind Industry supply chain

Right now the biggest issue facing Vestas and the wind sector is a potential hiatus in investments. Our customers may take the "sit and wait" approach, i.e. they put final investment decisions on existing projects

under development on hold until they know what the new FIT system looks like (level, terms, duration etc) resulting in delays to planned investments while the preferred package is implemented.

Any uncertainty in the policy environment potentially puts major decisions related to our new 6 MW platform offshore turbine on hold. Designed to lower the cost of offshore energy, this turbine is being developed primarily with the UK's offshore Round 3 programme in mind.

Any transition from the RO to a new system of support needs to be handled with extreme care if delivery is not to be disrupted in the short term. Such disruption would be extremely damaging to the ability of the UK to capture the manufacturing industry for the UK in offshore wind, and the jobs and economic development that would result. It is important to note that delay would not necessarily mean that investment in the UK happens later, it could instead go to other countries such as Germany or France, and the significant economic benefit of the UK's offshore wind programme will be felt elsewhere. Furthermore, our customers working on projects now may choose to suspend their projects until the details of the UK Government's proposals are worked out, as any new system needs to be fully understood before investment decisions can be made on a more certain basis.

It is very important the UK Government get's this right now. The investment hiatus is already happening and very real. If it isn't right in the first go and tweaks are needed later the hiatus will be much worse – affecting both climate change obligations, energy security issues and job creation potential. Capital could flow out of the UK rather than in.

There is a timing pressure on both industry and on Government if the 2020 targets are to be delivered. Any delay in allocation of financing, project start dates are likely to result in a delay in construction decisions and therefore build programmes being postponed.

The UK is currently the number one offshore market in the world, as well as a significant market for onshore wind. As a result renewable energy is the only low-carbon generation sector that has current delivery that could be disrupted by major policy change. Care must be taken to ensure that the confidence to invest is not damaged in pursuit of new investors as the sector has experienced in Spain.

**Fixed FIT – the “ideal instrument” to help the UK Government reduce cost to the consumer, and attract a wider group of new investors**

We believe the FIXED FIT is the ideal instrument to deliver more and faster investment. If the Government's intention is to de-risk low carbon projects, we believe this could be better achieved through the fixed FIT. The Government's own modeling illustrates that of all three proposed FIT options, a Fixed FIT would incur the least overall cost to society. The low risk premium associated with a FIXED FIT means lower cost of capital for investors due to a more predictable income and cashflow, and therefore reduced costs to the consumer. A fixed FIT has the greatest stability. Under a FIXED FIT electricity price risk is fully removed, as well as offtake and balancing risk. The familiarity of a Fixed FIT from most of the other large wind turbine markets may allow a greater volume of financiers to become comfortable with the support scheme. The FIT could be set to volumes or targets, for instance a FIT set specifically to meet the scenarios set out for on- and offshore wind in the UK's RENEAP to meet 2020 renewables targets.

Whilst we recognize that the UK Government is more minded to a market based mechanism, we believe that a change in the level of Government intervention may be necessary to achieve the Government's goals. A fixed FIT may have a bigger impact on reducing barriers to entry in the wholesale market. There is general consensus that power prices are only going to go up, particularly with a price on carbon and fossil fuel prices. The Fixed FIT is Vestas' favoured support system in view of the Government's ambition to lower the cost of

capital and bring in more investors, since it eliminates the price risk and highlights the Government's long-term commitment.

### Fixed Premium FIT with a floor price – our “second choice”

Of the preferred options presented in DECC's Consultation, we believe a premium FIT provides the least uncertainty to renewable generators and would result in the least amount of disruption to current and planned investments. As acknowledged in the consultation by the Government itself, the risk of an investment hiatus is lower with a premium FIT than with a CfD.

Similar in form to the RO and thus more familiar to the market at present a premium FIT could be an easier mechanism than a CfD to raise finance. A Premium could provide the right balance of risk and reward if there is a floor price. If the UK Government were to opt for a premium FIT, we would suggest there is a floor price to ensure that when electricity prices are low, the business case isn't depleted. In the absence of a supplier obligation, offtake risk is still present in a premium FIT. Provided you have sufficient liquidity in the market to sell your power this would not be an issue. A well functioning liquid electricity market is therefore necessary with a premium FIT and the UK does not have this at present.

It is at the moment unclear if the work that Ofgem is undertaking on this issue will result in enough additional liquidity to reduce offtake risk sufficiently. If this work on market liquidity is unsuccessful, then the reform process would have increased this key risk for developers. It is vital that this issue is addressed.

### Our concerns with a CfD FIT

Whilst a Contract-for-Difference (CfD) FIT theoretically could work, we have many concerns related to the complexities of introducing such a system in the UK, and the associated consequence of an even more substantial hiatus in investments occurring as a result.

Besides the complexity issue, we do not believe that, as it is outlined in the Consultation Document, a CfD FIT provides a level playing field for variable generation relative to its suitability for other low carbon technologies. Any move to a CfD would have to take into account the following issues:

- Basis risk - under a CfD variable generators are exposed to basis risk, the difference between the index used to determine CfD payments and the market into which they sell their power. The impact of basis risk is expected to rise with increased wind penetration.
- Offtake risk - a CfD carries no obligation on suppliers to purchase output from renewable sources.
- Liquidity - for a CfD to benefit renewable generators its price index must be based on a liquid spot market.

There are imperfections in the market for wind due to the increase volume of wind into the system. Wind will be penalized when there are high amounts of wind on the system. The choice of index also remains a core risk.

If the UK Government were to however go ahead with a CfD FIT irrespective of our position outlined here, then we would recommend the following

- A simple structure with minimised risk
- Government to act as the counterparty to the CfD
- Half-hourly reconciliation between spot market price and strike/tariff price

- Preference for technology specific strike price
- A reference electricity market that is accessible to all generators

But we would seriously urge the Government not to go down the CfD route, as we believe this would have the biggest adverse impact on the wind industry, thereby putting the UK's renewables obligations at risk, as well as the potential for economic benefit from the wind sector under threat.

### Setting the tariff level - flaws with auction

The basis of setting future tariffs must be done in the right way. This should include setting reasonable and appropriate hurdle rate assumptions corresponding to the risks being taken by investors. The level of the support must be set technology banded such that continued investments are spurred from day one. We would urge the Government to disregard any form of one-size-fits-all solution given the variation in the technologies; each technology must be looked at individually, as well as at an overall level to ensure the appropriate mechanisms to facilitate financing can be put in place. It is essential that tariff levels are based on wind energy generation costs onshore as well as offshore.

Whilst auctions make sense in theory, they do not work in practice. Tenders for support of renewable generation have a poor track record in other countries, can harm investor confidence, and do not support new entrants. Tenders need competitive tension to work, yet there are not many players in either Nuclear or Offshore wind yet. Auction uncertainty can lead to higher cost of capital due to the risk of loss – losing one bid means you have a higher cost of capital on the next one because you will want to recover losing bid costs. Auctions cannot be implemented immediately and will thus further enhance the risk of delayed investments. Furthermore, auctions can be detrimental for projects as developers have already won the concession once (for offshore) and have spent considerable amounts on the developments already.

The UK is competing with other Northern European countries for capital for offshore wind projects. Therefore international comparisons should also be considered to guide the level of FIT, adjusted for differences between country specific investment risks.

Which ever FIT the UK Government ends up adopting, we hope the government publishes indicative tariff levels by Q1 2012 at the latest

### Transitional arrangements and grandfathering

Getting the transition right is very important. The transition must occur on a timetable that ensures the UK remains on course to meet its renewables targets, and minimizes uncertainty for investors.

It is paramount that existing investors in the sector are protected. We recommend the Government to confirm its post 2017 approach in the white paper due to be published in the late spring 2011, thereby to reduce the risk of an investment hiatus

# Response to specific consultation questions

## ***Current Market Arrangements***

### ***1. Do you agree with the Government's assessment of the ability of the current market to support the investment in low-carbon generation needed to meet environmental targets?***

We acknowledge that reform is needed to further stimulate and accelerate investment as the current market structure is not delivering it. We empathize with the Government's ambitions to lower the cost of capital and thereby lower the cost of energy through lower funding costs. We also support a stronger role for the electricity market including increased liquidity and transparency. However it is vital that the Energy Market Reform is quickly concluded in such way that the markets for on and offshore wind do not come to a halt.

## ***Options for Decarbonisation***

### ***Feed-in Tariffs***

### ***3. Do you agree with the Government's assessment of the pros and cons of each? Of the models of feed-in tariff (FIT)?***

We do not agree with all of the pros and cons – The consultation implies that a CfD Fit reduces risk to the same extent as a FIXED FIT, which we believe not to be the case - please see remarks in "key issues" section above.

### ***4. Do you agree with the Government's preferred policy of introducing a contract for difference based feed-in tariff (FIT with CfD)?***

No, predominantly because we see the CfD in a UK context potentially carrying the greatest risk for delay in investments and in attracting capital due to the added complexity & unfamiliarity issue. Please see further remarks in the "key issues" section above.

### ***8. What impact do you think the different models of FITs will have on the availability of finance for low-carbon electricity generation investments from both new investors and existing the investor base?***

We believe that the familiarity of a Fixed FIT from most of the other large wind turbine markets may allow a greater volume of financiers to become comfortable with the support scheme. The CfD may be perceived as relatively risky by financiers due to their lack of familiarity with it.

### ***9. What impact do you think the different models of FITs will have on different types of generators (e.g. vertically integrated utilities, existing independent gas, wind or biomass generators and new entrant generators)? How would the different models impact on contract negotiations/relationships with electricity suppliers?***

We believe as stated above that a Fixed FIT will be most attractive to the new entrant generators, which the UK Government wishes to attract to the sector. Taking offshore wind as an example there is still considerable development and construction risks. The lock-in of a fixed income may reduce the cost of debt by reducing the overall risk profile of the investment.

### ***10. How important do you think greater liquidity in the wholesale market is to the effective operation of the FIT with CfD model? What reference price or index should be used?***

This is imperative if a CfD were to eventually be adopted – pls see remarks above.

**11. Should the FIT be paid on availability or output?**

We believe it would be better to pay the FIT on the basis of output only. Renewables targets in the RE Directive are set on the basis of energy volumes. A FIT set on the basis of output is best aligned to this.

**Analysis of Packages**

**26. Do you agree with the Government's preferred package of options (carbon price support, feed-in tariff (CfD or premium), emission performance standard, peak capacity tender)? Why?**

No – please refer to comments in the "key issues" section of this paper.

**29. How do you see the different elements of the preferred package interacting? Are these interactions different for other packages?**

From a pure wind player's perspective, the critical component of the package is the choice of an effective FIT system and the speed at which the reforms are implemented.

**Implementation Issues**

**30. What do you think are the main implementation risks for the Government's preferred package? Are these risks different for the other packages being considered?**

We believe introducing a CfD model in the UK carries the greatest implementation risks.

**31. Do you have views on the role that auctions or tenders can play in setting the price for a feed-in tariff, compared to administratively determined support levels?**

Yes please see comments above. We believe auctions/tenders can be detrimental. We would be happy to share our experience of auctions in other markets with DECC, should there be interest.

**Can auctions or tenders deliver competitive market prices that appropriately reflect the risks and uncertainties of new or emerging technologies?**

In theory this should be the case, in practice it doesn't work

**Should auctions, tenders or the administrative approach to setting levels be technology neutral or technology specific?**

We believe that levels should without doubt be technology specific, as is currently the case under the RO. Using an open, evidence led approach, we believe levels should be set that incentivise an appropriate level of build.

**Do you think there is sufficient competition amongst potential developers / sites to run effective auctions?**

No please see comments in the "key issues" section of this response.

**34. Do you agree with the Government's assessment of the risks of delays to planned investments while the preferred package is implemented?**

We feel the risk is perhaps even greater than the Government suggests. The hiatus in investment is already real. And there is a significant risk that the hiatus worsens during the transition to the preferred package if implementation is not carried out speedily.

**35. Do you agree with the principles underpinning the transition of the Renewables Obligation into the new arrangements? Are there other strategies which you think could be used to avoid delays to planned investments?**

One obvious option to mitigate the hiatus is announce the process for setting tariff levels as soon as possible and setting the level as quickly as possible. Any hiatus will not only reduce investor certainty but also risk renewable energy targets being missed.

Please also see industry response from RenewableUK to this question.

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**For further information please contact:**





Vestas Offshore

Email 

Tel 