

BWEA Calls on Government to Commit to 20% in 2020

by Dr Gordon Edge, Head of Offshore

The current Government Energy Review, the most important policy assessment in the area since 2003's Energy White Paper, has closed its public consultation period, with BWEA submitting a comprehensive response. In it, the Association has laid out evidence that the resources of on- and offshore wind, small wind systems, plus the emerging marine renewables can together provide 21% of the UK's power by 2020. As a consequence, BWEA is calling on Government to turn its current 'aspiration' to have 20% of the UK's electricity supplied by renewables in 2020 into a firm target. This would be a key indicator of the Government's seriousness in setting the UK on the path to a low-carbon economy.

Glens of Foudland © jkr



On- and offshore wind will play the leading roles in providing the 21% of the UK's projected electricity needs that BWEA believes can be met from renewables, generating 8.8% and 9.4% of projected UK electricity supply from 11,500 megawatts (MW) and 12,500 MW respectively. An additional 2.1% can come from 3,000 MW of wave and tidal power and up to 0.7% from micro and mini wind turbines. These technologies alone could have a combined capacity of 28,000 MW in place by 2020, generating 78 TWh of electricity, equivalent to the needs of two thirds of all UK homes. If displacing gas-fired electricity generation, this would reduce gas imports by 14.6 billion cubic metres annually and avoid at least 32 million tonnes of CO₂ emissions, whilst delivering major economic benefits to the UK of more than £16 billion in the period to 2020 from investment in the construction and operation of the potential onshore and offshore wind capacity.

While BWEA's research indicates that by 2010 around 8% of the country's

electricity needs will be met by renewables, primarily from onshore wind, it also shows that 'business as usual' progress, driven by the current support mechanism of the Renewables Obligation (RO), will not be sufficient to drive a major roll out of offshore renewables, without which we will fall well short of the potential identified by the Association. The renewable contribution of 20% in 2020 is deliverable, but the key to unlocking this potential is getting the financial mechanism right for emerging as well as existing lower-cost renewables. If no extra resources are provided for newer technologies or the RO not evolved to direct more resources to them, offshore wind will

not be delivered in the quantities required to establish the sector and attract investment in the supply chain that will bring costs down. Should offshore wind not deliver, then it will be difficult for investors to have the necessary confidence in Government to provide the right framework for the nascent technologies of wave and tidal stream; finding a solution for offshore, whether within or without the RO, will be a key test of the Government's resolve to set the UK on the path to a low-carbon future.

The RO is doing well in bringing forward the lowest-cost renewable resources, notably co-firing and landfill gas as well as onshore wind. What it is not doing is providing suitable incentives for technologies that are, at the moment, more expensive or further away from the market, such as offshore wind and the new marine renewables, both of which have potential to deliver significant volumes of renewable energy. BWEA would prefer the RO to remain as it is and the emerging technologies be given extra resources outside of that mechanism. However, should no or insufficient funds be forthcoming, then offshore wind will not deliver and the RO would be open to charges of underperformance. BWEA is thus open to the argument that the RO may need to be evolved to address these issues. However, the RO is still a young mechanism and it has just been subject to a year-long review, so investors would look askance at fundamental change being put forward in the near future without strong protection of their investments, and even then confidence in future development may be affected through the introduction of change. Nevertheless, the Association has reviewed options that are being debated as possible changes to the RO against five key criteria; at present BWEA is not in a position to endorse any shift from the status quo as it is not clear how investor confidence in onshore wind can be assured under any of the options reviewed. This is not to say that this cannot be done, but further work is

BWEA is calling on Government to take action in five specific areas:

1. To turn its current 'aspiration' for 20% of electricity supply from renewables by 2020, into a firm Government target. This is essential to provide strong long-term investment signals and to maintain confidence in the sector
2. To extend the RO to 20% by 2020 to provide the additional financial resources to deliver the 20% target. Extending the Renewables Obligation from its current top level of 15.4% in 2015 would increase its overall cost in 2020 from £1.9 billion/year to £2.5 billion/year, based on today's prices. For an average domestic consumer, this would mean an extra £8/year on top of the existing commitment of about £20/year for the 15.4% Obligation, or an additional rise of about 2% on top of the 6% pre-committed rise on a typical household bill of £400/year
3. To immediately resolve policy issues on offshore wind and marine renewables to ensure they are deployed en masse to meet more than half of the 20% by 2020 target. This may require either additional Government financing outside of the RO or an evolution of the RO to direct additional resources to these key technologies
4. To maintain a robust and positive planning framework throughout the UK and take action on current delays in decision making which are in danger of compromising the role of onshore wind in meeting Government's renewable energy targets. A combination of financial and policy mechanisms and communication initiatives should be introduced to incentivise prompt decision making at both the national and local level
5. To progress with breaking down non-economic barriers, in particular the grid bottleneck which must be resolved in time to allow onshore wind to deliver the shorter term 2010 target, and all the marine renewables to deliver on longer term objectives in 2020.

required to ensure that any possible change to the system continues to support the healthy expansion of the onshore wind sector.

Delivery of 20% of our power from renewable energy will require additional support. This should be done by extending the RO to 20% in 2020 and providing additional resources to the emerging technologies. Extending the RO to 20% in 2020 from its current top level of 15.4% in 2015 would increase the overall cost of the RO in 2020 from £1.9 billion year to £2.5 billion/year, in 2006 money. For an average domestic consumer, this would mean an extra £8/year on top of the existing commitment of about £20/year for the 15.4% Obligation, or an additional rise of about 2% on top of the 6% pre-committed rise on a typical household bill of £400/year. The resources required to support the emerging technologies are of the same order of magnitude as the surplus being generated by the Non-Fossil Purchasing Agency – £0.5-1bn cumulatively up to 2010 – and if this surplus were to be used to provide such support there would be no

additional rise in consumers' bills.

Alongside certainty on the economic front, the realisation of the 20% contribution from wind, wave and tidal requires action on planning. With clear steps to reduce the decision times for onshore wind projects, current progress can be accelerated. The current 'criteria based' approach must be retained and strengthened, and further work done to improve local planning departments' ability to deal with applications for this rather unique form of development. Since the numbers of renewable energy project applications will only increase – not just from wind but many other technologies – educating local planning departments in the wider issues of climate change and renewables' place in energy policy is essential in any case.

Outside of policy measures, there is a lack of incentive for planning authorities to make timely decisions. There are a range of initiatives which BWEA has called on Government to promptly employ to accelerate decision making in response (see page 6 for full details). In the near

term, the issue of Section 36 of the Electricity Act consents for larger projects in Scotland must be addressed: developers have been awaiting decisions from the Scottish Executive on 4,250 MW of projects, some of which were lodged several years ago. Determinations must be made soon to allow this capacity to be brought forward. Under Section 36, there is currently no right given to the applicant to appeal for non-determination after 16 weeks. While larger projects arguably require longer periods of assessment, the Government should amend legislation to introduce recommended timescales for the determination of on- and offshore wind farms under Section 36. Additionally, developers should be given the right to go to a public inquiry. Offshore renewables will similarly require a strong planning framework resulting from the current Marine Bill consultation.

Renewable development also requires grid issues to be addressed. The widescale uptake of renewables presents challenges for network owners and operators at a number of levels. The large-scale development of

renewables, such as on- and offshore wind and potentially the marine renewables, will take place where the resources are – and these places are generally where the grid is weak. Grid extension and reinforcement has to be planned several years in advance of when developers would want to connect due to long consent and build times for the infrastructure; strategic planning is therefore vital to ensure adequate grid capacity is in place at the right time. Thought will also have to be applied to how capacity can be provided for the new marine technologies or they will risk being squeezed out of the market, particularly in Scotland.

Effective management and regulation of a future energy market will be key to ensure successful delivery of any UK Government Energy Policy. However, the current narrow mission of Ofgem to reduce costs to the consumer is hindering delivery of policy as set out in the Energy White Paper. More appropriate would be for the UK Government to set a market framework that better takes account of wider energy policy objectives. This would start by changing the licence conditions of Ofgem, creating not one primary duty, but four equal duties of affordability, carbon, security and competitiveness.

This would not be an easy task for Ofgem, given the fact that the four objectives will not always sit well together. Instead, Ofgem will need to manage the creative tension between these different goals of energy policy. Expanding Ofgem's objectives would, however, allow it to lead the strategic planning for the electricity networks mentioned above, the principles for the process having been set by central Government.

Also in the institutional realm, BWEA is calling for Governmental responsibility for climate and energy policy to be brought under one departmental roof. Currently responsibility for implementation of that policy and wider climate strategy is spread across several Government



Barrow © Centrica & DONG

Barrelling along at Barrow

Work is progressing well at Barrow offshore wind farm for Centrica and Danish energy group DONG with the final turbine being lifted into place at end of April, and the installation vessel Resolution has now returned to Belfast

The project is now undergoing final commissioning work with a view to being in full commercial operation sometime in June. Barrow will be the UK's fourth large-scale offshore wind farm, bringing the UK's total installed capacity offshore to 303.8 MW from 122 turbines.

departments and a number of quasi-governmental agencies. This leads to diffusion of effort and uncertainty over Government's commitment to tackling climate change in the face of competing political pressures. BWEA recommends that these dispersed responsibilities, primarily at DTI and DEFRA but perhaps including some of ODPM's planning functions, be brought together in one department with a cabinet minister tasked with driving forward the agenda. This would send an unambiguous message of the Government's seriousness in mitigating climate change, and integrating its other three energy policy objectives with climate goals.

At the delivery level, there are different agencies, primarily the Carbon Trust and Energy Saving Trust, which are implementing different

parts of the sustainable energy agenda. There needs to be clarity on how the different programmes for energy reduction and encouragement of low-carbon supply inter-relate and cohere. For this reason, BWEA supports the call in the common sustainable energy policy statement (www.r-e-a.net/article_default_view.fcm?articleid=1858&subsidi=1) that the delivery of these programmes be brought together under one roof, in a 'Sustainable Energy Agency'. This would function as an executive arm of the 'Department of Energy and Climate Change' described above.

Full details of BWEA's response are available from www.bwea.com/energyreview. □

Contact Gordon Edge on 020 7689 1967 / gordon@bwea.com