



BWEA Consultation Response: Electricity Distribution Price Control Review - Update

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1 Introduction

This response is based on the Ofgem document 'Electricity Price Control Review Update' of October 2003. Reference has also been made to background material contained in the 'Electricity Distribution Price Control Review Initial Consultation' of July 2003. References to the former document section numbers are in parenthesis, the letters 'IC' precede references to the latter document.

The response starts with a summary of the key points in Section 2. The order of the following sections follows the order in the Ofgem document.

Section 3 deals with Distribution Losses and Section 4 addresses Distribution Network Operators' (DNOs') distributed generation (DG) data.

Section 5 is the main section covering the proposed incentivisation of DNOs to connect DG and has subsections covering the different aspects considered.

Section 6 covers the Registered Power Zones (RPZ) concept.

No commentary has been included on Quality of service or Financial Issues, as these are not considered critical issues for wind energy.

2 Summary of key points

- 1) BWEA supports the goals of the DG incentive scheme to encourage DNOs to connect more wind generation.
- 2) DNOs should only be rewarded for annual increases in DG to ensure they are incentivised to achieve continual improvement and that they do not continue to benefit from early, easy and low cost DG connections.
- 3) The incentive scheme should ensure that perverse outcomes are avoided – for example an incentive on DNOs to connect large fossil fuelled generators at 132kV - rather than encouraging the connection of dispersed renewables and CHP.
- 4) The incentive scheme should only apply to high quality CHP and Renewable Energy (RE).
- 5) The DG incentive scheme must produce 'speculative' investment by DNOs to develop new infrastructure in all those areas of with viable wind energy resources and sparse networks. This will be a key test of the success of the incentive scheme.
- 6) DNOs should make payments to generators whenever the DNO is unable to provide export capacity at the contracted level.
- 7) The integration of DG incentives with the proposed shallower connection charging and the structure of distribution charges should be considered in total. With so many simultaneous changes the possibility of perverse outcomes is higher.
- 8) DNOs should be incentivised to minimise losses from DG.
- 9) BWEA welcomes the publication of data on DG and encourages Ofgem to publish further data and analysis as soon as it becomes available.
- 10) BWEA supports the immediate introduction of Registered Power Zones (RPZs) provided that these develop truly new DG integration methods and do not result in delays for 'normal' generation connections.

3 Distribution Losses

BWEA has concerns regarding the possible linkages between the extra distribution losses caused by larger remoter generators and the DG incentives (3.30). BWEA notes:

- Distributed generators have a Distribution Loss Adjustment Factor (DLAF) applied to metered output (as do all other customers) and this should remove any effects of DG losses on measured energy in incentive schemes.
- BWEA would welcome the review or removal of the current distributed generation adjustment mechanism (3.32). As stated by Ofgem, it is applied in different ways by DNOs and it is highly complex and unclear to Users. The DLAFs should also be used to deal with the calculation of any generation effects.
- Under deep connection charging the generator has some choice between connection and reinforcement costs versus the effects of losses on the DLAF. BWEA is concerned that under a shallower charging regime the DNO

may choose not to reinforce and this will have an adverse effect on the generator's DLAF which will reduce the generator's income.

BWEA recognises that DG is penalised for losses through the DLAF. BWEA wishes to ensure that DNOs are also strongly incentivised to minimise losses from DG as well as from loads.

4 DNO information on distributed generation (DG)

BWEA welcomes the publication of information on DG from the distributed generation Business Plan Questionnaire (DG-BPQ). On initial inspection of the data provided there are some unexplained trends and variations. BWEA welcomes more data being published (5.3) and encourages this to be done as soon as possible and prior to further consultation documents being issued. Ofgem is also encouraged to use graphics to convey the data and to use benchmarking units such as £/MW. Benchmarking between DNO ownership groups as well as individual DNOs would be welcome.

In addition to the costs of DG shown in the data, BWEA believes that the charges made to generators under the deep connection charging regime should be included in the data. These would include the deep connection charges; capitalised or annualised O&M charges; and use of system charges for reactive power and energy imports. This data would indicate if DNOs had benefited from DG or whether DG had resulted in a loss of profit.

5 Incentive framework for DG

5.1 Hybrid mechanism

BWEA welcomes the aims of the hybrid mechanism, i.e. to reward DNOs for effective investment. However there are some concerns about the effects of the proposed arrangements.

Some DNOs may connect generators where network investment and reinforcement is not required and may not connect generators where investment is required. In this way they will benefit from the incentive scheme without having any additional investment costs.

In other cases DNOs may connect generation under 'temporary' constraint schemes pending reinforcements. The financial incentive on the DNO will be to delay the reinforcement. Hence these DNOs will be rewarded, yet the generators may be constrained off the network. Therefore BWEA believes that any mechanism must be accompanied by constraint payments to generators.

The annual accounting scheme (discussed below) aims to ensure that DNOs do not benefit unfairly and excessively from generation that can be easily connected without any reinforcement being required.

A danger with the hybrid scheme is that some DNOs may block, delay or make connections for generation difficult where such connections trigger reinforcement costs. Alternatively DNOs may delay until there are a number of generation schemes which can go ahead as a result of a particular reinforcement. Ofgem must therefore make it clear whether there is an obligation on DNOs to connect, or whether DNOs can choose whether or not to connect generation dependent on the DNO's business case. This is more important with the move to shallower connection charging.

The scheme assumes that deep reinforcement CAPEX for generation connections can be separately identified to load CAPEX in order to assign different rates of return (IC 5.31). Given that load driven CAPEX attracts a greater rate of return, DNOs will be tempted to class any CAPEX as load driven to claim the higher rates of return which is good for generators. However, DNOs will also be incentivised to argue that reinforcements are connection assets paid for by the generator and not shared assets to be funded by the DNO. The classification of generator assets and shared assets will therefore have to be very clear under the shallower charging regime.

BWEA hopes that the detailed comments in this response will help Ofgem to define the balance between pass through costs and incentivisation (5.18 bullet 1).

5.2 Energy or capacity based incentives

BWEA would probably favour a capacity (MW) based incentive approach, as the load factor for wind is expected to be lower than some other generation types. However there are some benefits of an energy (MWh) based incentive (some of which are identified in other Sections of this document) and also some concerns and risks with the MW approach; for example:

- There is a risk that DNOs are rewarded for connected generation that rarely or never operates.
- DNOs may be encouraged to keep generators "connected", taking up network capacity, even though they do not generate.
- It is unclear how new generators connected to existing demand customers (Customers With Own Generation (CWOOG)) would be counted (see below).
- If the incentives are sufficient, fossil fuelled standby generation plant may be connected to the network even though it may never generate onto the grid.
- DNOs may be incentivised to 'inflate' export capacity for generators. Therefore, if a MW based incentive is used, it should be based on a metered maximum export MW in each year.
- MWh data is metered and controlled by the settlements process, whereas MW maximum demand data does not have such independent control.

5.3 Annual or cumulative incentives

BWEA believes that it is imperative that the time duration of the incentive scheme and of any individual generator connection incentive, is considered. Regardless of the payment mechanism, the incentive on the DNO must be to connect an increasing amount of DG year on year. There is a significant concern that a scheme which rewards the first easy generation connections (the 'low hanging fruit') may not sufficiently incentivise and reward DNO's to develop their networks (through investment in more capacity and in active management) to connect more and more generation. It is therefore imperative that the rewards are based on the annual increase in generation, however this is measured.

In the case of an energy based (MWh) incentive BWEA appreciates that this introduces risk factors to DNOs, such as weather for wind generation, and market conditions for conventional plant (IC5.38). However, any reduction in output one year will make it easier to exceed the target in the subsequent year. Also these

risks are much higher for the generator, who is totally dependent on output for his revenue. A MWh scheme also incentivises DNOs to minimise constraints and speed deep reinforcements under an annual increase scheme.

Under an annualised incentive scheme DNOs would also have to make sure that new generation came forward to replace any generation which retired or failed in order to claim the incentive. This would support government policy which is interested in the continued operation, success and development of RE and CHP generation.

An incentive based on a one-off hit for each scheme connected rewards DNOs on an immediate basis, with a larger short-term benefit to shareholders. It is likely to be more attractive to DNOs and receive more business focus compared to spreading the payments over many years.

5.4 Reward by voltage, technology or site

If the only incentive used is an energy or capacity incentive, there may be a danger that DNOs will 'poach' new fossil fuel generators from the Transmission system to connect large amounts of DG at high voltages in distribution networks and this would be an unintended outcome.

BWEA recommends that the incentives scheme should only apply to Renewables and High Quality CHP. If this is not possible, Ofgem could consider:

- Making higher incentives for generators connected at lower voltage levels. This would encourage diversity of generation and would provide greater support for the network, including fortuitous future reinforcement avoidance.
- In addition to a capacity or energy incentive, rewarding DNOs for each scheme connected regardless of size. This would encourage DNOs to connect generation in smaller schemes.

Smaller wind energy schemes are far more in need of incentives than larger schemes. Larger schemes tend to be more financially viable to the developer in any case. Developers of larger projects also tend to be better able to afford professional support to challenge high DNO costs, technical objections or delays. In addition smaller schemes can often be as or more, costly for DNOs to administer than larger schemes.

5.5 Customers with own generation (CWOOG)

Generation on load sites can include all types of generation and is encouraged by government policy which allows ROCs to be claimed even if the energy is not exported onto the public DNO network. If the generation does not export onto the network then the impacts on the DNO are limited to increasing fault levels. The options are:

- Reward DNO on installed capacity. This may reward the DNO for little or no impact on the network and DNO costs. It would also be difficult to monitor capacity on an ongoing basis.
- Reward on export capacity (MW).
- Reward on exported energy (MWh).

Under a shallower charging regime, Ofgem needs to clarify who is expected to pay for reinforcements precipitated by Fault Level increases caused by CWOOG.

5.6 Network access and constraint payments

BWEA strongly supports the concept that generators should receive constraint payments when network access is prevented. A £/MW of reduced export capacity per hour would be a good basis for such compensation (5.18 bullet 2). However Ofgem should consider that:

- Under a deep connection charging policy the DNO will be incentivised to make deep reinforcement at the generator's expense to minimise the risk of making such payments.
- Under deep charging, generators may be able to waive their right to these payments for a lower cost connection with constraints. However, in any case where export capacity is reduced, it should be possible to determine whether this restriction was caused by the lower cost connection option or whether it was due to other DNO network faults/failures. In the latter case the compensation should still be paid.
- Under shallower charging, DNOs may be reluctant to connect generators until reinforcements can be completed, as they are likely to have to make constraint payments. This could delay connections and/or force generators to waive such payments.

5.7 Strategic reinforcements and active management

The incentive scheme must result in speculative DNO investments in new network assets which will open up new geographical areas to generation where existing Extra High Voltage (EHV) networks are sparse or saturated and where there is a viable wind resource. If such DNO investment is effective it will quickly attract new generation capacity. To develop the GB potential for wind energy it is vital that the incentive scheme achieves these results in all relevant DNO areas.

The incentive scheme must also encourage the implementation of active network management to maximise the opportunities to connect generation to existing networks. Active management can play an important role in the rapid development of wind generation in many areas prior to a major reinforcement taking place. This role is especially important where planning and wayleaving issues delay network reinforcements.

5.8 Shallower charging and funding

It is difficult to comment on the proposals in detail as the shallower charging regime (IC5.3) and revised structure of distribution charges is not yet defined. However, BWEA believes that a DNO incentive scheme for DG could also be applied under a deep connection-charging regime.

Ofgem should be explicit about the source of funding for DNO incentives. In order for industry to respond effectively to the proposals, Ofgem should clarify:

- Whether these incentives are to be derived from extra payments from generators or from other consumers.
- Whether Ofgem expects cross subsidies between generators

6 Registered Power Zones (RPZs)

BWEA supports the concept of RPZs in order to develop more innovative and successful ways of connecting embedded generation.

However, BWEA would be concerned if new generation connections, which appeared to pose some elements of increased risk to the DNO, were pushed into more complex, delayed and time-consuming RPZ processes. Most new DG connections can be seen to contain elements which increase risk to the DNO (as well as some elements that decrease risk). RPZ schemes must therefore also be helpful and beneficial to the DG schemes connecting in the RPZ and not just a means of removing all DG risk from the DNOs whilst still having all the benefits that DG brings.