

# **Electricity Distribution Price Control Review**

## **Initial Consultation**

### **Comments from the Renewable Power Association**

#### **Introduction**

The Renewable Power Association is focussing its comments on the proposals for incentivising DNOs to connect and not restrict distributed generation from generating. As such it is closely related to the treatment of distribution losses, the structure of distribution charges and the issues raised in the discussion paper on innovation and registered power zones. It is important that the way all three areas are treated is consistent and incentives in one area do not undermine those in another. We therefore feel it important that when the next consultation is published (targeted for December 2003) a section is included on the way the incentives in these three areas will interact. These comments should therefore be read in conjunction with our recent response on Innovation and Registered Power Zones and our comments on distribution losses in February 2003.

Our comments concentrate on the following areas:

- Who pays for investment needed to accommodate distributed generation;
- The need to incentivise non-capital expenditure facilitating the connection of distributed generation and to avoid capital expenditure through the utilisation of distributed generation;
- The proposed hybrid incentive mechanism;
- Incentivising efficient network operation;
- Alternative incentive mechanisms;
- A summary of our views on matters listed in section 5.48.

## **Who pays for the investment needed to accommodate distributed generation?**

The purpose of the proposals is to encourage the connection of distributed generation in line with Government objectives. We do not therefore support additional funding coming from generators. By additional funding we mean costs payable by generators over and above what a connection would cost the generator under the current arrangements. Indeed the aim should be for lower overall costs for a generator to connect than there are currently. The rationale for this is:

- As stated the idea is to encourage more distributed generation to connect. Higher costs clearly will not do this.
- Spreading the cost amongst existing generators (who receive no benefit from it), will not be consistent with encouraging distributed generation.
- Ultimately customers benefit from having access to more clean/green energy which it is Government policy to encourage. As costs are eventually passed through to customers, it seems sensible to smear the additional cost on them directly.

Given that from an economic point of view the generation/demand split is arbitrary and that the customer eventually pays, we would advocate as low an overall burden for distributed generators as possible. It is not clear, in particular, how charges could be made to prospective distributed generators for innovation that may reduce future charges to distributed generators, as this may have the effect of discouraging the contributing generators to connect. This is perfectly consistent with giving generators an incentive to locate appropriately which can be achieved by differentials in the charges between areas, not the absolute value of those charges. It should be possible to have negative use of system and indeed connection charges (where the latter are used to give locational signals), allowing differentials to be given whatever the overall level of charges for generators.

In some cases there may be instances where in order to ensure that generators do not pay more than they would at present, it is necessary to collect some of the “excess” cost of accommodating them to demand. Clearly it would not be appropriate for customers in areas with large amounts of such generation to have to pay all of these “excess” costs. We would therefore support a national fund that transferred money to areas with large amounts of relatively high cost generator connections. We do not agree with your statement in paragraph 5.20 that this is an additional subsidy to distributed generation. It is an equalisation payment to avoid customers in areas with large amounts of distributed generation being disadvantaged by paying the incentive premium. Although perhaps not a matter directly for Ofgem

this is very important given the need to promote public acceptance of generation in their locality.

It is stated in this and other consultations that the change from deep to shallower connection charging for distributed generators “is not intended to alter the balance of charges between consumers and generators”. Currently the existing network is paid for by consumers and all new work associated with connecting new generators is paid for in the first instance by generators. What not altering the balance of charges means is not clear, as it could mean not altering the current split in monetary proportional (or absolute) terms. Alternatively it could mean not altering the qualitative split described above (generators paying for new generation related work and consumers paying for everything else). Given the anticipated increase in generator related expenditure it is important to clarify which. (see our recent response to the structure of distribution charges)

### **The need to incentivise non-capital expenditure that facilitates the connection of distributed generation and to avoid capital expenditure through the utilisation of distributed generation**

It is important that distribution network operators face an equal incentive to utilise non-capital and capital expenditure when determining how to connect distributed generation. An example of a non-capital expenditure would be additional operating expenditure associated with the introduction of active network management. If the proposed hybrid incentive scheme is introduced, then one way to achieve this might be to capitalise the additional operating expenditure and allow a return to be made on it. The £/MW payment would be unchanged.

Equally, when considering reinforcement to accommodate demand growth, solutions relying on the use of distributed generation should be incentivised to the same extent as traditional network reinforcement. As suggested above, this could be achieved through capitalising, and including in the regulatory asset base, any incentive the payments to the distributed generator to connect at a particular location. An alternative and/or complementary approach might be to disallow any capital expenditure where it can be shown that a generation solution was available and would have been more economic.

### **The proposed hybrid incentive mechanism**

In February we indicated that we felt it important to distinguish between two types of revenue driver:

- Basic revenue drivers that ensure that DNOs recover expenditure efficiently incurred in meeting their statutory and license objectives; and

- Additional revenue drivers or incentive arrangements to encourage DNOs to “go the extra mile” in order to achieve desirable objectives.

We feel that the hybrid incentive proposed is consistent with this and we therefore support it. The consistency is mapped as follows.

- “Pass through treatment” of the costs to provide network access for distributed generation ensures that DNOs recover expenditure efficiently incurred in meeting their statutory and license objectives.
- The £/MW revenue driver is the incentive arrangement to encourage DNOs to “go the extra mile” in order to achieve desirable objectives.

The implications for this mapping are that:

- Although the rate of return on the pass through costs may be below the weighted average cost of capital for DNOs to discourage over-investment it ought not to be very far below it. Our comment in the previous section that capitalised operational expenditure should be allowed to qualify for the same treatment should be noted.
- The £/MW of connected generation can generally be quite modest. It should be sufficient to, on average, take the return on a successful investment over the normal rate of return. However, it does not normally have to be greatly over this to provide a sufficient management incentive to connect more generators. Note that where riskier investments are undertaken the reward for success should be higher and this is dealt with in the proposals on Registered Power Zones.

An alternative way of looking at the above is to note that the cost of accommodating a MW of distributed generation may vary considerably. If there is therefore excessive reliance on the £/MW driver for recovering costs there is the possibility that either

- It will be set at too high a level and DNOs will be over-rewarded or
- It will be set at a level that for the more expensive connections it will be less than the difference between the allowed return on investment and the WACC. Thus in these cases the DNO will have a disincentive to connect the generator.

On a point of detail it should be noted in this regard that figure 5.1 is oversimplified. The line B representing the £/MW cost driver will, when plotted on the DNO revenue/DNO cost axis, not be a straight horizontal line as shown. The revenue

(£/MW connected) will increase with the DNO cost but at a rate that changes as different projects will have different costs/MW to connect.

Clearly the issue of how to identify capital expenditure (or capitalised operational expenditure) that is to be treated in this way needs to be resolved. We address this issue in our comments on Registered Power Zones.

### **Incentivising efficient network operation**

The optimisation of network losses will not be considered in this response beyond reiterating that whatever incentives are adopted for it must be consistent with other incentives.

The other aspect of efficient network operation entails optimising network availability. Clearly MWh generated by distributed generation is largely outside the sphere of influence of a DNO. It is suggested that generation capacity times network access available might be used as an indicator of network performance. This will not be straightforward to measure and there is an obvious alternative.

It would be easier to develop an indicator based on generation times network capacity not available i.e. measure the MWh that a generator wishes to produce but is prevented from doing by network unavailability. This is of course a measure of constrained generation and a parallel may be drawn with the incentives to minimise transmission constraint (and other) costs that have worked successfully for NGC for a number of years.

It is important to note that any such minimisation of constraint incentives should not prevent “cheap” connection schemes where the generator has chosen to have a less robust connection with the expectation that it will be constrained off on occasion in exchange for lower (connection and/or use of system) charges.

### **Alternative incentive mechanisms**

We begin this section by reiterating our comments made in February both on a mechanism that has still not been discussed by Ofgem and on a revenue driver that we feel ought to be dropped.

#### A proposed mechanism not identified by Ofgem

One mechanism that may encourage DNOs to connect generation to their networks that has not been mentioned is to give them an incentive to make efficient use of the transmission system. There are two changes that could be made either individually or together that would do this.

The first is to change the 100% pass through allowance of NGC connection charges that DNOs currently get. Changing this to some type of sliding scale incentive scheme would give them a better incentive than they have at present to make efficient use of their connections to the transmission network, perhaps benefiting from savings made by connecting more generation to their network rather than reinforcing a connection to the transmission system. We note that the current consultation mentions this exclusion from regulated revenue almost as an afterthought in paragraph 3.18 with no consideration at all as to whether it is appropriate. The Renewable Power Association believes that it is not.

The second is to make DNOs rather than suppliers responsible for paying NGC Use of System transport charges, again with a sliding scale incentive / pass through scheme to enable them to benefit from making a decreased use of the transmission system if they can do this by connecting generation to their network. Irrespective of the advantages of this in respect of encouraging the connection of embedded generation, there are considerable advantages from the efficient transmission charging point of view, particularly if a system of long term transmission rights is introduced. For the avoidance of doubt, we are *not* advocating these long term transmission rights. It has been argued that in terms of the latter it is the DNOs rather than suppliers who should contract with the System Operator for long term transmission capacity, as they must plan their own networks over similar time scales and are not affected by customers changing from one supplier to another. They already contract for connection to the transmission system anyway, so it is both logical and consistent that they should be the parties contracting on behalf of the demand connected to their networks. The fact that this may provide a mechanism to encourage them to connect additional embedded generation is a bonus.

#### The removal of a current disincentive mechanism

The Renewable Power Association would like to see the current revenue driver of units distributed discontinued as it is a direct disincentive to the connection of embedded generation as well as not reflecting the costs that DNOs incur in providing, maintaining and operating their networks.

**Other matters on which views are requested in paragraph 5.48**

- We support the hybrid mechanism and as discussed feel that the majority of remuneration should come from a pass through of expenditure at slightly below the weighted average cost of capital. The figure could be evaluated by looking at achieving an acceptable probability that an expensive connection scheme would leave a DNO out of pocket. (For the avoidance of doubt in such a case we would expect special treatment so that the connection did proceed...this gives an acceptable occurrence of perhaps one or two connections per DNO per year).
- We suggest that network unavailability i.e. constrained generation would be easier to measure than network availability. Using either as an indicator would also be a step towards establishing the value of network availability.
- We support the concept of Registered Power Zones and discuss this further in our submission on the discussion paper on them.
- As stated we feel that there is a benefit of transferring costs between customers of different DNOs to avoid customers in areas of large numbers of high “excess cost” distributed generator connections paying higher charges than those without as the benefit of this generation is essentially a national one. The term “excess cost” is used to mean costs that are not recovered from generators.

## **Final Comment**

In the long term having more local generation should reduce the cost of distribution and transmission. In many cases when power stations connected to distribution networks closed significant sums had to be spent on reinforcement, often on the connections to the transmission system. Increasing amounts of distributed generation should lessen the need for such reinforcement in the future and may allow money to be saved when some of these assts come up for renewal.