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Dear Mr Cooke,

**Distributed Generation: price controls, incentives and connection charging.  
Further discussion, recommendations and future action, March 2002.**

Please find enclosed the RPA's response to the above consultation. I hope you find it useful. If the RPA can be of any further assistance, please do not hesitate to contact me.

Yours sincerely,

David Byers,  
Chief Executive, Renewable Power Association.

## **General points**

The Renewable Power Association welcomes this further opportunity to comment on Ofgem's Further Discussion, recommendations and future action document. This response complements the Association's previous response to Ofgem's September 2001 consultation.

Some of Ofgem's present proposals are welcome developments to the connection arrangements for distributed generation. In some cases the RPA is disappointed that Ofgem has decided to delay, or defer work that would have benefited the Association's members. Notwithstanding this, the Association notes the work programme set out by Ofgem and looks forward to taking part, making contributions and comments as it progresses.

There are three general points the Association wishes to make; first, is that Government Policy is developing, we expect it to issue a White Paper in the near future. Ofgem's work programme and policy should be appropriate and flexible within such a changing policy environment.

Second, Ofgem's work as described in the Document is wide ranging and will affect all aspects of the Distribution Price Control Review. At this stage parties would benefit greatly if Ofgem described its objectives for the review and set out the details of its programme. This would give parties the opportunity to examine possible developments and to consider them in both a policy and commercial context.

Third, and this point is linked to the previous one, the process should be transparent to outside observers. A move from passive to active distribution networks will affect all users either directly or indirectly. The development of appropriate incentive regimes will need to balance the interests of many stakeholders, Distribution Network Operators, distributed generation, customers, Ofgem, Government and NGC. The principles underpinning the incentives should be developed in consultation with them.

The RPA encourages Ofgem to publish further details of the work programme to enable the widest participation and debate in this key area in the development of renewable energy generation.

The RPA's detailed comments are set out below.

## **Government targets**

Government has set challenging targets for forms of distributed generation: 10 per cent of demand from renewable source electricity and 10 GW of Combined Heat and Power Plant by 2010. The PIU's report to the DTI on the Energy Review goes further and suggests that 20 per cent of demand should be met from renewable source electricity by 2020.

Developers will achieve these targets by making investment decisions with limited support from Government. The commercial framework that developers must operate in should be free of barriers and disincentives. Under the present arrangements, some renewable energy generation projects do not proceed because they cannot get cost effective connections to Distribution Networks. Measures to remove these constraints are welcome.

## Reviews of transmission charging arrangements

Since the publication of Ofgem's February 2002 report, NGC has announced a full review of its transmission charges. Most renewable energy generators do not have contracts with NGC for its services. However, the scope of NGC's review includes issues that affect, or potentially affect, distributed generation. For example, it proposes to review the present triad charging regime, its charging base and the treatment of trading sites.

Furthermore, Ofgem has set out proposals for revised Transmission Access arrangements to the transmission system. Whilst these proposals may not appear to have an impact on renewable energy generation the RPA considers otherwise. It believes that, with appropriate incentives, renewable energy generation could make a significant contribution to aspects of the Transmission Access arrangements:

- The environmental benefits of transmission network avoidance are best delivered by localised (and) renewable generation;
- Demand side access rights have a major influence on 'embedded benefit';
- Distribution connected generation is an alternative solution to transmission constraints;
- Transmission access is not being dealt with in conjunction with distribution access;
- Locational factors in transmission should not damage the development of renewable resources in UK.

The RPA considers that Ofgem needs to take account of these aspects of its Transmission Access proposals. Moreover, in considering NGC's review and the implementation of the revised arrangements of Transmission Access Ofgem should monitor the impact of that work on the Distributed Generation Co-ordinating Group.

## Distribution Price Control Review

Although Ofgem proposes some interim arrangements that may make developing distributed generation easier, developers will only realise the major benefits once Ofgem proposes and the Distribution Network Operators implement changes to their Distribution Price Controls. Work for that will start in Autumn 2003.

In order to inform Ofgem's work on the Price Controls the Distributed Generation Co-ordinating Group will need to have completed its work and have made firm proposals by then.

The RPA proposes that the Distribution Price Control that will apply from 2005 should have three additional features. First, all new investments for connections and network reinforcement should be included in the regulatory asset base. This will encourage economic investment and enable Distribution Network Operators to gain a realistic rate of return. All users, rather than just the connectees, would then share the costs and benefits of such investments.

Second, Generation Use of System charges accompanied by a shallow connection policy and appropriate costs sharing arrangements for first comers. Third, there should be provision for the procurement and payment of the benefits from distributed generation, for example ancillary services and the avoided costs arising from delayed reinforcement due to the presence of distributed generation.

## **Distribution Network Operators**

The RPA acknowledges that some Distribution Network Operators are more innovative than others in facilitating the connection of distributed generation. Moving to a price control arrangement that provides incentives to connect distributed generation rather than to just remove the disincentives would be welcome.

However, fully implementing this may be some time off for the reasons set out in Ofgem's paper. Meanwhile, the Association considers that Ofgem should encourage Distribution Network Operators to use best practice of their peers to develop and facilitate connection arrangements for distributed generation.

Notwithstanding Ofgem's observations on Distribution Network Operators they will continue to be monopoly providers of services. In this role they also maintain asymmetry of information. Whilst Ofgem's recommendations should aid distributed generation they remain as recommendations.

It would be of greater use if the recommendations were accompanied with guidelines for the minimum standards for services. For example, Ofgem's recommendations about the LC 4 and LC 25 statements should give greater transparency. However, Ofgem's recommendation would have been given more force if it had set out basic standards about the content and scope for the information in the statements. Investors now need to have good and accurate information about distribution networks. Distribution Network Operators have this information and could easily make it available with no additional cost to their businesses.

Finally, Ofgem wishes Distribution Network Operators to consider how best to develop the operation of their networks to become more active than at present. This will not be a trivial exercise and will require considerable guidance and encouragement by Ofgem. Without this impetus the RPA has doubts whether Ofgem's objectives in this respect will be in force during the next price review period.

## **Connection**

The RPA considers that connection of renewable energy generation often constitutes a major barrier to the development of distributed generation. Not only can be the costs of connection high, but Distribution Network Operators may not be able to give certainty about the costs until the later stages of the development of a project.

With the introduction of the Renewables Obligation the investment conditions for renewable energy generation have altered. Unlike the NFFO arrangements the premium price offered for renewable source electricity under the terms of the Renewables Obligation is not constant. The price will vary depending on the value of the buy out

arrangements in the Renewables Obligation. That value is directly related to the extent to which suppliers are able to comply with their individual targets. As the output from renewable energy generation nears the targets for the Obligation so the value of renewable source electricity falls.

Investors therefore need certainty about connection charges. They also have a strong commercial incentive to install and connect distributed generation quickly.

In general the commercial and technical arrangements for connection charging should be economic, easily understood and, where appropriate, developers should have a choice about all aspects of the connection arrangements.

The Distribution Price Control should include the costs of assets into the regulatory asset bases of Distribution Network Operators. This would give them greater incentives to make prospective incentives.

### **Shallow or deep**

The RPA considers that a shallow charging approach, combined with Use of System charges for both entry and exit at all levels, is appropriate for distributed generation. Experience of connections to the transmission system demonstrates that this approach better reflects the costs and benefits of generation and supply to the transmission system. Similar considerations also apply to the Distribution Networks.

In the context of Distribution Network the issue of locational signals arose several times. In the absence of Generation Use of System charges, signals conferred by connection charges are blunt and not reflective of conditions on the network. Sharper and better signals would come from shallow connection charges linked with Use of System charges.

Continuing with site specific charging is a disappointment and may delay investment in distributed generation. The RPA asks Ofgem to implement a review of connection charges in time to put in place shallow connection charging arrangements for the next Distribution Price Control Review.

### **Cost recovery**

The introduction of interim arrangements of annualised charging is welcome as a transitional measure. This should not be a substitute to the introduction of enduring arrangements for connection charging. Distribution Network Operators should make it clear that generators taking advantage of these arrangements will be able to transfer to any enduring connection charging arrangements when they come into operation. Also, that the enduring arrangements should not be more onerous than any transitional ones.

Ofgem considers that a Distribution Network Operator and a distributed generation operator should agree the repayment period for annualised charges. This still leaves Distribution Network Operators in a strong position when negotiating such arrangements. Ofgem should set guidelines on the duration of such charges, taking account of practice in other parts of the electricity supply industry and the regulated utilities.

Ideally, the Association wishes Distribution Network Operators to adopt a similar approach to cost recovery as NGC does. Broadly, connectees to the transmission system have a choice about the finance arrangements that they can use to pay for connection assets.

A typical arrangement for cost recovery would be that a party connected to the transmission system would pay for connection assets over their lifetimes. This is 40 years and in some cases may be longer.

Distribution Network Operators, as regulated monopolies tend to have stable and guaranteed income streams reflected in their cost of capital in the price review arrangements. The additional costs to the Distribution Network Operators of annualising their connection charges over longer periods will be minimal, and lower than the costs to renewable energy generators.

## **Security**

Ofgem suggests that distributed generation operators may be willing to pay premium rates or one off charges for firm connections to Distribution Networks. The RPA considers that initially a connection should be compliant with the prevailing standards in force. If the Distribution Network Operator or the connectee wishes to have a connection of a lower standard then they should be able to negotiate appropriate terms and conditions for such a connection. In most circumstances generators should receive a discount for accepting a lower standard connection.

The proposed transitional arrangements for connection charges, that is the system of annualised charges should apply irrespective of the type of connection.

Since the introduction of the New Electricity Trading Arrangements distributed generation operators that are BSC Parties, or are contracted with suppliers are exposed to imbalance arrangements in the balancing mechanism.

Presently, there are no imbalance compensation arrangements for such generators or suppliers in the event of either transmission, or more importantly, distribution constraints. This is an added risk to renewable energy generators. As part of its work programme the Distributed Generation Co-ordinating Group should consider how renewable energy generators and Distribution Network Operators could manage this risk effectively.

Ofgem needs to propose that Distribution Network Operators offer suitable compensation arrangements to distributed generation as part of connection agreements with such generators.

## **Banding**

The RPA notes that Ofgem intends to carry out further work on banding. It would be willing to offer assistance to Ofgem in the development of such work if Ofgem could demonstrate the benefits to renewable energy generation.

## **Use of System charges**

The RPA acknowledges that implementing Generator Use of System charges mid way through a price control period may present some difficulty. However, there are many benefits to having entry and exit charges based on a Use of System methodology and shallow connection charges. It is widely recognised that the distribution networks have

been constructed to transport bulk supplies of electricity from grid supply points to customers. Distribution Network Operators have established their Use of System charges accordingly.

Developing this system to take account of the different patterns of distributed generation that will prevail with the achievement of the forecast targets for Combined Heat and Power and renewable energy generation will take considerable effort. Some Distribution Network Operators have suggested that some work is required to develop the charging principles for the efficient introduction of generator Use of System charges.

Given the time pressures to consider whether to implement such a system in time for the next Distribution Price Control Review the RPA suggests that Ofgem/DTI commission the research and studies required to develop principles for Use of System charging. Ofgem/DTI should seek contributions to cover the full costs from the Distribution Network Operators. The main benefit of this approach is that all Distribution Network Operators will be able to benefit from the economies of scale and to pool information and resources.

## **Generators with existing connections**

The RPA welcomes the suggestion that Ofgem and DTI may consider revising the Electricity Connection Regulations to make them apply to the connections of distributed generators. This should enable them to share the costs of initial connection with parties connecting to distribution networks at a later stage.

Any change to the Regulations should apply retrospectively. In some cases Distribution Network Operators may not be able to trace eligible parties from their records. In such events, the Distribution Network Operators should rely on the records of affected users. In the case of disputes arising, the Regulations should give Ofgem the power to use its powers in the Utilities Act to decide the matters.

## **Metering**

Ofgem recommends that distributed generation should have import and export metering. In some larger installations this may be appropriate. However, for small renewable energy generators, for PV installations and for Domestic Combined Heat and Power plants the costs of this metering could well erode any financial benefit obtaining from such plants.

For distributed generators of this type it would be appropriate for net metering to be installed. The costs of this should be low, but would facilitate the connection of such plant.

## **Information**

Existing and potential users of the transmission system have benefited from the information NGC is required to publish by provisions in the transmission licence. Until now users of distribution networks have not had access to information of similar quality and quantity to that published by NGC. Without access to this information operators of distributed generation are not able to negotiate effectively with Distribution Network Operators.

Ofgem could specify standards for the Distribution Network Operators to publish LC 4 and 25 Statements. In that way there would be common standards across all Distribution Network Operators and Ofgem could set standards for the content and form of the statements.

## **Premium Power Zones**

Ofgem suggests the creation of Premium Power Zones. With reservations, the RPA supports the development of such zones. However, their creation should be of benefit to distributed generation in the zone and should not unfairly discriminate against generators in other parts of a distribution networks nor take resources from other parts of network businesses. However, Ofgem needs to carry out further work is required on this concept to develop more detailed proposals.

Distribution Network Operators already have much information available to them about the potential for renewable energy generation in their areas. Planning and implementation of the necessary infrastructure to incorporate new generation capacity could start now. To avoid delay, Ofgem could give undertakings that it would include the costs of such investments into the price control arrangements.

## **Ancillary and other services**

Distributed generation is capable of providing ancillary services. However, Distribution Network Operators seldom have arrangements for procuring or paying for such services. On the other hand NGC has established procedures for ancillary services, yet most distributed generators do not provide them to NGC.

Active management of distribution networks may require operators to procure ancillary services. In order to do this they will have to develop a methodology for procuring such services. The Distributed Generation Co-ordinating Group's work programme should include a work stream to investigate arrangements for the development of ancillary services in distribution networks.

Distributed generation often brings benefits to distribution networks. There is no widely used methodology for measuring and paying for them. Ofgem should include arrangements in the forthcoming price review for payments for such services. In preparation it should encourage Distribution Network Operators to develop such a methodology in preparation for the start of the work on the price review.

## **Conclusions**



There are several initiatives in Ofgem's recommendations that should benefit distributed generation. In the opinion of the RPA most of these initiatives are transitional in nature. By themselves they would not create an enduring charging environment for distributed generation. However, when linked to the work programme of the Distributed Generation Co-ordinating Group and the prospect of incorporating its proposals into the Distribution Price Control Review the proposals are a useful development.