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Dear Anna,

## Consultation on Distributed Energy

The Renewable Energy Association is pleased to give its views on the consultation on initial proposals for introducing more flexible market and licensing arrangements for Distributed Energy. The REA is a trade association representing producers of renewable energy. It has over 520 members, active across the range of renewable energy technologies and applications.

Whilst by definition we represent renewable energy interests we are not pre-disposed to installations of any particular size and therefore view as equally important the growth of large numbers of small scale renewable energy schemes and smaller numbers of much larger schemes. What matters is the total amount of carbon emissions avoided and this should be delivered by the most effective combination of scheme sizes possible.

The REA has been consistently in favour of cost-reflectivity and believes that inserting a series of sticking plasters on top of other arrangements ultimately leads to even further complexity and only moves the problem to another area or size threshold. The only enduring solution is to have a consistent set of proportionate and soundly based basic arrangements. Basing how one may access the market and the resultant costs purely on size results in the suboptimal sizing of generation to the ultimate detriment of all customers as well as the environment.

Our detailed comments follow.

Please feel free to contact us if you would like to discuss any of the matters further.

Gaynor Hartnell  
Deputy Director, Renewable Energy Association.



[http://sharepoint/Markets/EuropeEnv/Env\\_Policy\\_Lib/Generation/DistributedGeneration/Consultation/Responses/Submissions/07\\_Renewable\\_Energy\\_Association.doc](http://sharepoint/Markets/EuropeEnv/Env_Policy_Lib/Generation/DistributedGeneration/Consultation/Responses/Submissions/07_Renewable_Energy_Association.doc)

# Distributed Energy - Initial Proposals for More Flexible Market and Licensing Arrangements

## REA comments

### Overview

There are certain natural advantages of electricity generated close to where it is consumed. Therefore energy connected to a distribution network rather than the transmission system, most or all of which is consumed without flowing onto the transmission network, is in general a "good thing" and should be encouraged. It is desirable irrespective of what the contractual arrangements to buy or sell this electricity may be. Energy generation close to the point of use generally reduces distribution network losses and over the long term should reduce the requirement to invest in distribution network reinforcement. These benefits can be greater still for on-site generation.

The REA anticipates that a substantial contribution of the UK's contribution towards the EU 20% renewable energy target will come from "on-site" renewables.

We expect a large contribution from this type of installation because there is a colossal resource in terms of potential sites. These include industrial estates, brownfield sites (e.g. water treatment, waste management etc facilities) roofs of dwellings and commercial buildings. Planning permission is likely to be less of a constraint than for many greenfield renewable developments.

On-site generation can either be sized to meet the needs of the user, or larger in which case it can export additional renewable electricity onto the system. The latter is to be encouraged as it will help increase the penetration of environmentally friendly generation. It should be the optimum size for the technology being used that determines its output, not the local demand of the site or premise that it is on.

At present "self generators" face a step change in the reward that they receive for their generation if they export some of their output. This is wrong at the current time where most distribution networks import power from the transmission system. The step change is due to the gap between the avoided cost of imported electricity and the (generally smaller) reward received for exported electricity. There are a number of reasons why the latter is less than the former but a significant factor is non-cost-reflective distribution charges that do not reward generators for exporting onto the distribution network. In general whilst the flow of electricity is predominantly from the transmission network to the low voltage system, such a reward for power exported at low voltage would be cost-reflective.

It must be perverse if there is an incentive to install private wire systems which duplicate a distribution network already in place. If parties see a widespread need to do this, it is a sign that the charging arrangements for using a distribution network and other market mechanisms are not cost-reflective.

In particular we do not see that it is necessary (or desirable) to utilise private wire networks in order to tie customers in to a particular supplier. For a new build development with an associated local generation facility, the capital cost of that facility can be incorporated into the capital cost of the development. Similarly, if the development consists of rental units, the cost can be incorporated into the rent. As the generator / supplier then only has to recover the variable costs associated with generation, it is likely that customers will find it unattractive to change suppliers. Even if they did change the supplier should be neutral to this if its capital investment is covered. For retrofitted local generation facilities a deal of the necessary length can be agreed before the generation is built (given a get out from the 28 day rule).

As regards exposure to imbalance cash out prices, particularly for generators that rely on uncontrollable primary energy sources, whilst aggregation with other non correlated sources of generation can reduce the overall unpredictability of the resultant portfolio, at the end of the day we believe that there are more cost reflective cash out mechanisms available that should result in a more predictable “uncertainty overhead” for such plant.

Turning now to the questions posed in the document.

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### **Question 1**

**If the exemption limits for supply and distribution to domestic customers were to be raised, what measures would be required to ensure ongoing and effective protection of energy customers, and how would this be enforced or monitored?**

Clearly domestic customers do need some measures of protection. The licence requirements are different if domestic customers are being supplied from those which apply only to the supply of large industrial/commercial customers. It should be the case that measures in the normal electricity supply licence should be the minimum needed to achieve an acceptable level of protection for domestic customers. If this is not the case, and the arrangements are over-burdensome, this should be addressed as part of the review of the general supply licence conditions. Raising the supply licence limits is neither an acceptable nor a sustainable long term solution.

Likewise we do not favour raising the Distribution licence exemption limits. Again, there are more appropriate ways to provide the necessary customer security for local energy schemes. The root of the problem is the lack of cost reflective distribution charges and the solution is to address that problem, not avoid it.

Customers deserve the same level of protection regardless of whether they are being supplied by a local entity, or via the distribution network.

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### **Question 4 & 5**

**Do you consider it appropriate to use the provisions of the BSC to increase the representation of DE schemes in BSC governance processes?**

**Do you consider that there is a case for allocating funding for DE representation in BSC governance? If so, do you have views on where the funding should come from?**

Members of the code panel are independent, and at present, through Nigel Cornwall, the perspective of distribution-connected generators and smaller scale supply business are being catered for. This may not always be the case, however. Our view is that there should be assistance to engage smaller generators in following modification proposals, and facilitating their input to the process. It is very difficult for smaller companies to allocate time to this. Assistance needs to be carefully targeted in order for SMEs to be able to assimilate it. If, as we argue elsewhere, Ofgem's duties were realigned with current Government policy, that should result in decisions being taken that facilitate growth in low carbon generation.

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### **Question 6**

**Have we considered all the options to address the risk DE schemes are exposed to if trading in the wholesale markets? We welcome any other proposals to accommodate the needs of DE schemes selling their electricity in this way.**

The risk of exposure to cash out prices is actually one that disproportionately affects any single unit generator, regardless of size. The risk falls with increasing number of units, irrespective of their size. It also is an issue for generation with "unpredictable / not easily predictable" primary energy sources. Our view is that in fact the basic imbalance cash out rules do not reflect the reality of these "known unknowns." In other words it is known in advance that any generator may trip. It is also known that some renewables are intermittent. The system operator therefore carries response and reserve to cope with these and in our view it is the cost of that which should be passed on to generators that trip most often or generate at a different value from predicted most frequently.

These are not unexpected instances caused by a generator choosing to under or over generate but are events the possibility of which are known in advance and effectively largely insured against by the system operator carrying response and reserve. It is the cost of this "insurance", rather than an imbalance cost, that should be charged to generators that might trip or be subject to an uncontrollable variation in their primary energy source.

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### **Question 8,9,10 & 13**

**8) We would welcome views on whether there is a lack of competition in the market for small generator output?**

**9) Have we considered all the reasons for the lack of development of consolidation services in the market? We welcome views on whether further changes to the market rules may be warranted to remove any barriers to entry that continue to exist for consolidators.**

**10) Do you think there is a case for a specialist Energy Trader? What are your views on the scope and functions the specialist agency could perform as an interface between DE generators and the current trading arrangements?**

**13) What are your views on the implementation of a dedicated wholesale market for DE?**

The best way to limit risk, particularly of volume uncertainty in the wholesale market, is to be diversified. Diversity can be achieved by having a number of generator types, and also by being large. Larger diversified suppliers are best able to cope with absorbing the variation in output of distributed generation.

For this reason we do not think that there is significant merit in either a dedicated wholesale market for distributed generation or a specialist trader function. The parties who ought to be able to perform the consolidation function most efficiently are the larger broad portfolio suppliers.

We therefore think that the issue is whether suppliers have sufficient incentive to contract with distributed generation and whether if they do the prices offered are fair. There is some merit in as a minimum placing an obligation on suppliers to publish prices at which they are prepared to purchase from distributed generation. We realise that these prices may vary with the predictability of the generation output but if suppliers required to publish what they are prepared to pay that should at least establish a market rate for the output as well as the "going rate" for dealing with the uncertainty in that output. Clearly size is a significant factor and we are not suggesting that such a published tariff should apply to larger exports, the generators behind which should be capable of getting a decent rate for their output without one.

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### **Question 18 & 19**

**18) We welcome views on whether an Exempt Supplier Services obligation (similar to the former Standard Condition 53) should be imposed on all suppliers and whether any specific additional requirements are now necessary.**

**19) We welcome views on the feasibility of Exempt Supplier Services being provided at system cost – i.e., merely the costs incurred by suppliers from third parties in registering meters, using the network, etc. Are there ways of integrating with supply systems such that Exempt Suppliers do not create any overhead on Supplier operations?**

The concept of an exempt supplier can not work unless it can interface with the industry arrangements (ignoring trading over private wires which we will return to.) It is not clear what incentives there will be for licensed suppliers to provide these services at a reasonable price as their materiality is not likely to be such as to enable a reasonable profit without substantial mark up on the cost of providing the service. There is therefore an argument for it to be compulsory for licensed suppliers to provide these services and also we think that it may be necessary for the price of these services to be regulated. However we are conscious that it may be difficult to determine a fair price level to set for particular aspects of this service such as the provision of top up and back up so it would be better initially to make it compulsory for all licensed suppliers to publish terms for offering these services.

On the question of private wires we feel that the main incentives to use these are lack of cost transparency in distribution charges for export onto the distribution network (which should be negative whilst the predominant direction of flow remains

from the GSP to the lv network) as well as the ability to keep customers captive. We therefore support pressure being put on DNOs to come up with a cost reflective charging methodology. We note however that it may be impractical to implement such a methodology before 2010 which is the earliest that the constraint caused by the price control split between generation and demand could be resolved.

We agree with the proposition that for retrofit of plant customers can be given the option to sign up for a long term contract to get around this. For new build we feel that security of customers can be achieved by incorporating the capital cost into the price of the property and then selling electricity at variable cost only, leaving little incentive to switch supplier.

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### Question 20

**Is there a case for DE representation at the Energy Network Association working group examining the technical standards for connection? If so, do you have views on how representation might be funded?**

Clearly for any technical standard to become mandatory it must be incorporated into the Distribution Code where there is representation of a variety of types of generator. Whilst there is a case for a representative of generators to be at any group working on a standard that may be brought to the Distribution Code Review Panel in due course, it should not be necessary for this to be forced onto the Energy Networks Association. The ENA should invite one in its own interests, as not doing so is likely to result whatever is proposed taking longer to get through the process of incorporation into the Distribution Code.

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### Question 25, 27, 28

**25) Is there a case for granting a limited number of supply licences to new entrant DE schemes that restrict customers switching to an alternative supplier for a period of, say, [5] years?**

**27) Do you consider that there is a case for a new DE supply licence? If so, do you have views on its key terms? Please explain your reasoning in detail.**

**28) We welcome views on the proposed options for reducing the costs of becoming a licensed supplier and any other options that we have not considered in this consultation document.**

We do not think that it is necessary to grant supply licences that restrict the right of a customer to switch. As explained earlier we think that for retrofit schemes customers can voluntarily tie themselves in to a particular proposition. For new build incorporating the fixed cost of the generation into the purchase price or up front lease charge should enable electricity to be offered at variable cost only thus achieving the same effect.

We do not consider that there is a case for a new type of license purely for DE. As regards the cost of becoming a licensed supplier this may be split into two parts)

- Costs associated with interfacing with the industry systems and

- Costs associated with obligations to customers etc.

We see no reason why the industry facing obligations should not be done via agents, probably larger suppliers. In that way the fixed overhead of doing this can be spread over a large customer base and the cost per customer of the industry interface should be not significantly higher than it is for a larger supplier. As regards the licence conditions intended to protect customers we feel that these need to be looked at on a condition by condition basis but if the provisions are really necessary at all they are probably necessary for suppliers of all sizes with a significant domestic customer base.

It may however be sensible (and cause no detriment to customers) to leave out some of the obligations to provide services to other industry parties e.g. exempt supplier services if they are mandated to be offered, for licensed suppliers below a certain size. Thus whilst customers would remain protected some of the obligations that are there to help promote new entrants and foster competition may be left out of supplier licenses to those below a certain size, for example with less than 1m domestic customers. The economies of scale are such that such a limit would not inhibit those with ambitions to be large national suppliers from growing. Equally they would save the cost of smaller licensed suppliers offering these services without significantly reducing the number of parties with an obligation to offer them.

Finally and most importantly although there is no specific question on the relationship between distributed generation and the transmission network we must reiterate our view that levying transmission charges on generation or demand for electricity flows that do not occur on the transmission system is neither cost reflective nor helpful to the promotion of small scale generation. Irrespective of what the future holds for this debate, encouraging it to continue is both worrying and consumes scarce resources for those parties keen to see distributed generation prosper.