May 2007 Structure of electricity distribution Charges

Firstly, thanks for giving customers the chance to look at the future planning of an important part of our business.

In general, I have to say the document is certainly not bed time reading, and is very difficult to understand from a customer (embedded generator) point of view. In the main we need to know that we are being charged appropriately, but also that as generators, we are not treated in a way which is inconsistent, and at worst unfair.

The backdrop for the changes from an embedded generator point of view are not good reading either, but from a different perspective. In the UK, the present system employed has not been consistent, and has in almost all cases caused delay, and financial loss; sometimes very substantial individually, but over the years and all the connections we have been involved in it is significant.

The reasons for this are many, but the consistent ones are;

1. Lack of adequately trained staff to do connection study work and connection offers.
2. Lack of adequate internal co-ordination in the DNO
3. Poor contract control during the entire works due to high work load
4. Staff being multi role when they should be dedicated.
5. Lack of any meaningful regulator to refer to when problems occur.
6. Inconsistency across the country with regard to scope of supply, way leaves, switchgear type, sub station design and supply.
7. Inconsistent charges for all services.

I see this round of studies as the first step to incentivise the DNO's to do things in a better way, but by no means is it addressing the problems faced in the industry. There is nothing at all wrong in wanting to be rewarded appropriately for works produced for a customer, as long as you have the tools and resources to produce work in a timely and professional manner.
Government targets for embedded generation have been set; we are, as customer AND DNO the people who are actually going to produce the schemes which will achieve these targets. Without some major changes in the scenery behind this report, we will not achieve them.

With the above commentary in mind, I have made some comments on the document as follows;

Comments refer to document section numbers

3.8 Where does generation fit in to this? Generation can be a welcome addition to a network and indeed offset the need for system reinforcement. Generators should be rewarded for their presence in these circumstances for the savings in time and infrastructure the DNO benefits from. There has been a mechanism present within the Gduos arrangement, but I have never seen it implemented. Will the new methodology reflect this?

3.10 It is possible to predict where embedded generation will or is likely to occur in the future, ask your customers for their future plans! If this in kept strictly confidential, there is a pool of information readily available. Also, Look at the trends in technology, exploration licences, landfill site locations, government financial incentives for generators; this information is out there.
Also, reverse power will be an everyday feature of an active network, this should be being looked at and planned for now, not later. We have difficulty connecting in the north west because of an interconnected voltage group, the study work and method to allow us to connect at 11kv will take longer than the opportunity to generate.

3.13. Comment as 3.8

4, all the section. I have struggled with this and can't come to a conclusion of its meaning. Though I keep seeing the statement on "customers modifying their behaviour" which I find a little strange.
4.10 As an embedded generator, again I think this statement ignores a great many smaller generation schemes which when totalled up are very significant, and at a local level are very significant in their effect on the network. A hint at connecting generation at no cost is a bold statement, is this at no cost to the embedded generator, or the DNO?

4.11 Again, very hard to understand, but it looks like existing generation would be retrospectively asked to contribute to future growth in the system via annual use of system charging. This could force smaller generators to shut down earlier than expected, or even stop projects as they will not be able to model a connection cost over a time period, especially in marginal profit work (for example we start on landfill with a 300kw set as the lowest financially viable sized unit to install on a new site)
If our running costs are not consistent and could be ramped up due to other connectees coming along, it would likely be a non starter.

4.12 Embedded generation can have a major effect on local network voltages etc and needs to be judged individually to see if it is beneficial. I don't feel that these new arrangements are looking at the smaller, lower voltage connections with any real meaning.

4.15 Generator benefits again, at a local level. Would this be set by an individual doing the study, or set in stone at the various 415, 11kv,33kv etc levels and be applied as per national guidelines.
There is a growing market in carbon credits which works perfectly well base on offsetting carbon produced by large generators etc worldwide by using many, smaller schemes to achieve its aims. I see the contribution of smaller generation having a significant effect on the larger stations eventually in the same context. If the growth of small scale generation and renewables continue at a pace, and are actively encouraged to do so by financial incentives from both the government and the connection costs, you will be faced with a large wave of connections. You will need to be ready for this.

5. Section five is not reader friendly unless you are involved on the DNO side. Can this be written in simple terms against a "normal" connection cost we would receive now for comparison?
On timescales though, one year's worth of data is not relevant and could be heavily distorted ie by extremes of weather related problems in one year. Five years would be a more suitable number for averaging purposes.

6 Reactive power charging.
Embedded generation could be beneficial in the power factor of local networks. In countries abroad, there are bonus bands for the electricity produced at specific power factors, at certain times of the day. An example of pro-active solutions to a changing network implement by generators. We as generators can provide this if incentivised to do so. At the moment we simply run at the connection agreement level, or near unity until we decommission.
I would not feel we as a group were treated fairly if we had to pay for others poor power factor as part of an annual charge when we can actively improve things in the locality.

To sum up, there is a lot to be gained from embedded generators if utilised and incentivised to improve network performance at a local level, rather than simply pushing out the power.
It is not un-noticed that this document does not involve all the DNO's in the country; this in itself leads to a level of cynicism that the scheme proposed will run properly, or that it will produce a country wide standard of service and charging.

The DNO's need to be able to fulfil any new system implemented with a correct compliment of staff and resources. This will need a better, keener eye on what is coming in the future in reality, not in assumption. This can be done with the co-operation of the providers and operators of the technologies coming on stream.

Some of the requests for connections are to capture finite fuel resources and need to be done in a timely manner. A scheme to "fast track" some connections, even at an agreed premium to the generator would be welcome.

At the moment, the view of DNO performance from the generators side is very poor indeed, nationwide.
I would not welcome any new charging scheme which is going to cost me more if there is not a rapid, permanent improvement in customer service already in place to run it from day one of its implementation.

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