

School of Control Systems and Electrical
Engineering
Dublin Institute of Technology
Kevin Street
Dublin 8

Mr Paul Hogan
Commission for Energy Regulation
Plaza House
Belgard Road
Tallaght
Dublin 24

3 November 2006

Dear Mr Hogan,

We appreciate the opportunity to comment on the CER's recent consultation paper "Arrangements for Micro Generation". We would like to address a number of the issues raised in the paper. The section numbers from the consultation paper are used in this response.

Section 2.1 Technical Considerations

The Commission seeks comments on ESBN proposal to set initial penetration limits of 40% of the total installed micro generation capacity on the existing low voltage substation.

Section 2.1 of the consultation paper states that "ESB proposes, in the interests of prudence, to initially set a limit of 40% of the total installed micro generation capacity on the existing low voltage line". This is interpreted to mean that the total rating of the installed micro generation capacity is to be limited to 40% of the rating (or capacity) of the existing low voltage substation to which the micro generation is to be connected.

It appears that voltage rise concerns have formed the basis for the limit of 40% micro generation capacity. The acceptable range of voltage rise (or drop) in a particular installation or section of network will depend on the network characteristics, the load profile and the voltage control mechanisms available. Any installed micro generation capacity will off-set the existing load demand. Voltage rise would arise in circumstances where the peak output of installed micro generation capacity exceeds the minimum load condition for the network section.

For the initial phase of installations, it would appear that adopting a limit of 40% would be prudent. However, the CER should request that ESBN review this limit and to

identify the parts of the network where voltage rise is unlikely to be a problem and a higher limit would apply.

Section 2.2 Notifying the Network Operator

The Commission is of the view that the approach adopted for the installation of micro generation units should ensure timely information is provided to ESNB minimising the risk that noncompliant units will be installed and aiding management of the networks in a climate of increasing micro generation. The Commission requests comments on the “inform, consent and fit” approach from interested parties.

The preferred approach for the installation of micro generation would appear to be that of “inform and fit”. It would be the responsibility of the approved installer to make the DSO aware of the micro generator installation within an appropriate time of its installation. This would avoid excessive delays in the provision of consent by the DSO.

The approach adopted in the UK is the new Distribution Connection and Use of System Agreement (DCUSA) and it supports the plug-and-play solution for domestic scale micro generators to connect to the network without advance notice or requirement to seek permission¹. Installers are required to notify the DSO when the unit is installed. This approach is seen to minimise the interaction with DSO and reduce onerous documentation and administration and overall process burden on those installing micro generation. Therefore, if there were a list of approved technologies (and installers² for that matter) the need for connection quotations and inspections and the possibility of connection charges and delays are avoided. In the event of larger micro generation units or multiple units at a given location, changes to the local network may be required to accommodate them and for this type of integration, processes involving consultation with the DSO might be required.

In the event of installed micro generation approaching the limits as discussed in Section 2.1 (or if other technical limits arose), the DSO could inform the installers that no further capacity can be installed at the specific connection points in the network.

Section 2.3.1 Informing ESNB of Installation

The Commission requests comments on ESNB’s proposed approach to the implementation of the “inform, consent and fit” approach in Ireland. In addition, comments are requested regarding the Commission’s alternative approach as outlined above and, in particular, whether a register of approved micro generation units should be maintained and if so who is the appropriate body to do this.

¹ Ofgem and Microgeneration: Next Steps (ref:184/06)
www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/17008_MicroOctFINAL.pdf

² A list of the approved installers in the UK can be viewed on the Energy Saving Trust website
www.est.org.uk/myhome/generating/.

We would support the Commission’s alternative approach which would involve the establishment of a register of approved types of micro generators. This would be made available to the public³. Customers wishing to install a micro generator which is on the approved product list would only be required to inform ESNB of the model type, number of units and any other basic information required. In the event of a customer wishing to install a micro generator which is not included on the list, the process described by ESNB (involving the requirement to submit a completed notification form and a completed TCTRS) would be followed.

Section 2.3.3 Enforcement and Practical Implications

The Commission requests comments on the proposed consenting and fit processes outlined above. Comments are also sought on the area of enforcement and practical considerations in relation to informing interested parties of the need to inform ESNB of the intended installation of micro generation.

As outlined above, we are of the opinion that an “inform and fit” approach should be adopted where the proposed micro generator is on the list of approved equipment and where the work is being carried out by an approved installer. This would be the case for all installations. As stated in the consultation paper, customers would be obliged to comply with these regulations if they formed part of the connection agreement. These conditions would also apply in the event of the introduction of any grant schemes for the promotion of renewable energy.

Section 2.3.6 Licensing and Levy Order

The Commission seeks comments on the principle and level of the proposed application fees and the exemption from payments in respect of the Levy Order for micro generator.

If the “inform and fit” approach is adopted, then the associated processing costs would be minimised and only a small application fee would be required. The utilisation of approved installers reduces the risk of non-genuine applications of micro generation.

As suggested in the consultation paper, the cost of collecting any monies in relation to the Levy Order would exceed the monies received and it would be appropriate for an exemption from payment be granted to micro generators.

Section 3.5 Commission’s View

The Commission requests comments on the payment options for exported energy and metering options outlined above and any other proposals on payments.

³ For example, a list of recognised renewable energy products for the purposes of UK Government grants is available on the Clear Skies website www.clear-skies.org.

In general, it would appear that a payment system should be in place to award customers with micro generators who are in a position to export to the supply system. Although the uptake on this might initially be low, a mechanism should be in place which can allow for incentives to be used to encourage the installation of micro generation in the future. Of the options proposed, the compensation of customers with micro generation by the electricity supplier would appear to be the best approach. Such an arrangement would build on the current billing arrangements.

With regard to the issue of taking account of the time at which export from a micro generator occurs and the need to reflect the price of electricity at the time of export, consideration here needs to be given to the current arrangements for electricity customers. In general, electricity customers do not have the option of taking advantage of lower electricity prices⁴ by modifying their consumption patterns. Therefore, it appears reasonable that the same should apply to the export from micro generators. When the SEM comes into operation, and time of use pricing for domestic consumption of electricity is implemented, the compensation for export from micro generation should reflect the price at the time of export.

The cost of new metering would be significant for customers with little or no export from micro generation. The simplest approach would involve the installation of a second meter to record the export of power. The reading of both meters (import and export) could be read and processed for billing purposes at the same time. The decision on the installation of a second meter would be made by the customer. If the customer is producing sufficient power to justify the expense of a second meter, then this could be installed. Customers producing little or no power for export might not see the value of a second meter and hence would not obtain any benefit from the spilled energy.

In the longer term, the installation of smart meters would be the best approach. This would provide benefits in applying actual electricity prices to both consumption and generation of electrical energy. However, it would be beneficial if the CER was to commission a study⁵ to look at the cost and benefits of the available options.

Yours sincerely,

Dr Michael Conlon
Mr Keith Sunderland

⁴ Apart from the NightSaver option offered by ESB

⁵ The Department of Trade and Industry in the UK contracted Pöyry Energy Consulting (formerly ILEX Energy Consulting) to develop an economic model investigating four metering and settlement options for micro generation against a range of micro generation penetration scenarios (Metering, Settlement & Export Reward, options for micro generation).