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Comments on „Arrangements for Micro Generation, Consultation Paper, CER/06/190“

## **2.2 Notifying the Network Operator**

„Inform, consent and fit“ is agreed to be preferred approach for micro generation systems. Standard forms such as the TCTRS presented in Appendix 2 should be made available, but two types of grid connection should be differentiated: grid connection through an inverter, in which case the power quality factors (harmonic current, flicker etc) should be observed, and direct connection of asynchronous generators. Cage rotor asynchronous generators used in some small wind turbines cannot create their own mechanical excitation, in which this case the power quality factors are irrelevant.

### **2.3.1 Informing ESNB of Installation**

A register of approved micro generators is agreed to facilitate the installation of compliant products.

### **2.3.2 Consenting to Micro Generator Installation**

Prior registration on the approved list should take place directly with interested manufacturers, and be clarified before introduction on the market.

No point is mentioned for the consent of the micro generator with regards to the environmental impact. In many European Countries, in spite of clear acceptance of technologies, many users encounter problems to obtain building permits of small wind turbines. In France, the upper limit of 13m hub height for a permit free installation has pushed many users to install their wind turbine below this limit, although the output at the height is much lower than it would at 20m. In Germany, the limit of 10m hub height and the absence of official documents on the consent of small wind turbines, makes the permit procedures very strenuous and long, and discouraging many users.

Therefore, there should be documents clearly stating the conditions to the consent of micro generator installation with regards to the environmental impacts. Factors to be indicated are hub height (recommended to be not less than 20m), distance from neighbour house, and sound emission. This consent process should also be made standard with the preparation of forms such as shown in appendix 2.

### **2.3.5 Application Fees**

Principle and level of proposed application fees are justified.

## **3. Metering and Commercial Arrangements**

Even though the generated electricity can correspond to only a fraction of the user's consumption, it can happen that a large portion of the generated electricity occurs at times of

low consumption, hence generating excess energy. For this reason, a payment of the excess is believed to be an indispensable condition for the sustainable implementation of micro generators. Furthermore, benefits to the environment, and reduction of local losses should be encouraged, and excess units should therefore be paid. Although net metering happens to be a technically easy solution, and a very successful one, as experienced in the US, it seems to be inappropriate to the Irish market due to differential unit prices for the time periods.

Attention is brought to the Germany model: a fixed rate is agreed upon for each unit spilled at any time. This rate is financed thanks to a percentage paid by every user on their electricity bills. This means that this rate is neither subsidised nor uncertain, two conditions which ensure its sustainability. However, this rate in Germany does not take small wind generators into consideration. This rate should be worked out for and fixed every kind of micro generator. For small wind generator, it is believed to be appropriate around 10-20 c€/kWh. Based on a fixed rate for spills at any time, a simple import / export meter without profiles seems to be the best adapted and easiest solution for the metering. Spills can be read once in a year and then deducted from the electricity bill.

#### **4. Technical Aspects of Micro Generation**

It would be added that for an asynchronous generator as stipulated in the first comment, a so called “external isolation unit” complying with the said standards is sufficient to disconnect the generator in case of malfunctioning or exceeding of the values by the micro generator of the distribution network.