

European Local Electricity Production (ELEP) NEWSLETTER 2 – January 2006

ELEP (European Local Electricity Production) is a collaborative project that is working towards identifying and removing the policy and legislative barriers that are currently restricting the uptake of Distributed Generation (DG) within EU Member States. The project is co-funded by the European Commission (under their Energy Intelligent Europe Programme¹) and the Partner organisations.

Distributed Generation

Distributed Generation relates to the generation of electrical power close to the point of use. There is a wide range of technologies that are used – internal combustion engines, gas turbines, wind and solar power and fuel cell systems. DG can offer advantages related to

- Reliability
- Efficiency
- Emissions
- Flexibility

Project status

The ELEP project aims to address specific policy, commercial and regulatory barriers to DG in a number of key areas that were identified in the predecessor project, DG-FER². These areas of activity are

- Interconnection standardisation
- Charging rules and market policy
- DG commercial value
- Building energy efficiency
- DG certification and authorisation

This newsletter focuses on the interim result of the first two activities. These results will also

be presented and discussed at a stakeholder meeting in **Berlin on 8 March 2006**. This workshop is a joint event with the DG-GRID³ project.



Interconnection standards – a mid term assessment

Introduction

Interconnection requirements have been repeatedly singled-out as being major barriers to the deployment of DG installations in the European Union.

There are three main tasks in this study - map the existing standards, requirements and procedures throughout the EU-15, highlight the areas of commonality and inconsistency and finally propose a set of recommendations that redress some of the inconsistencies and barriers that currently exist. Findings from the first two tasks are summarised in the following.

The result is a strikingly diverse picture for interconnection rules and procedures in the EU-15. In essence, there are as many sets of rules as there are Member States and one can only group countries along the lines of very generic approaches. The overall sense of uncertainty and opaqueness is increased by the fact that in many instances there lacks a robust legal and regulatory framework for the interconnection of DG.

¹ http://europa.eu.int/comm/energy/intelligent/index_en.html

² Distributed Generation Future Energy Resources, www.dgfer.org

³ www.dg-grid.org

Best practises identified in the EU-15 review

Rules setting

Given the diverse picture offered by EU Member States for standard and rules setting, it is difficult to give precedence to one institutional architecture over another. However, different Member States offer different elements of best practice that can then be collated to form a coherent corpus of best practices. While network operators have the required expertise to prepare technical rules, their legitimacy to do so without the participation of generators is questionable.

The ELEP consortium therefore is of the view that the responsibility for drafting the technical interconnection rules for DG and RES applicable should lie either with national electro technical associations, under a clear mandate by the national standardisation authority and with guarantees as to the diversity of participants, or should reside with industry regulators .

In the UK, for example, a diverse group prepares revisions to the distribution code, and this is considered to be an example of best practice. The clear interrelations between the different parties involved in the process and the ultimate responsibility of the regulator also appear to be best practices.

Administrative and procedural issues

Easy and free access to all relevant interconnection rules and requirements exists in only a handful of Member States. Ireland and Belgium both offer sound approaches, with all relevant interconnection information being available free of charge

Consistency of interconnection requirements is also a key issue. Ireland is a good example where a thorough and complementary approach to interconnection technical requirements has been developed. The publication and regular revision of the interconnection guide in Ireland is also considered to be best practice.

Several countries have developed detailed interconnection procedures that prevent DNOs from entering in direct bilateral negotiations with the DG project developer. Belgium is a good example and Ireland offers typical timelines, while Portugal also offers a best practice in that it simplifies the procedure for the smaller units. The UK, however, is the Member States that offers the simplest interconnection procedure for microgenerators,

as they only have to inform the DNO that they have connected a unit.

Approaches to the regulatory and technical framework for connection

Again there are a number of approaches across the EU in relation to the regulatory and technical framework for interconnection. No one approach can be considered superior to another, as each has its own inherent benefits and drawbacks. Size-specific sets of technical requirements are the most commonplace and the distinction between requirements for microgenerators and those for larger units are the only approaches that stand out as best practices.

The UK approach to the connection of larger units is worthy of notice as the recommendations take into consideration both the network connection level and the rated output of the unit and do not assign a particular voltage level to a plant with a given output.

Next steps

This preliminary assessment of interconnection standards, rules, and procedures in EU-15 Member States has underlined the urgent need for a novel, consistent and pan-European approach to DG interconnection issues.

The ELEP Project Consortium Partners are now preparing a set of recommendations designed for energy policy makers keen to remedy the present state of affairs. These recommendations will be presented and discussed at the above-mentioned workshop in March 2006.



DG Connection charging within the European union

One of the key non-technical barriers to a large penetration of DG is related to connection charging. This is the focus of this study, which provides:

- A review of the current legislative framework relating to connection charging at the European level, and a summary of the connection charging options available to policy makers within Member States

- A benchmark review of the specific connection charging approaches currently adopted in the EU-15

- A series of European-level connection charging policy recommendations in the context of DG integration for consideration by policy makers and legislators within the EU

Key conclusions

- The legislative and regulatory framework relating to connection charging varies significantly across the EU-15 Member States. Deep⁴ connection charging is currently the most widely used charging mechanism in the EU-15.

- The high prevalence of deep charging generally leaves the DNO in a position of strength and puts the developer at a disadvantage. Interestingly, those Member States that have implemented shallow charging mechanisms tend to have higher relative penetrations of DG.

- The current level of transparency in connection charging methodology within the EU-15 generally remains low. This is in spite of the fact that Directive 2003/54/EC requires that the terms, conditions and tariffs for connecting new electricity producers are “objective, *transparent* and non-discriminatory”.

- It is generally very difficult for new DG plant developers to obtain public-domain information from DNOs regarding the methods they use for deriving the costs of a new connection.

- Whilst the general situation within the EU-15 remains negative towards DG and RES in terms of connection charging, there are a number of cases where innovative procedures and mechanisms have been introduced to create a fairer and much more transparent environment for DG and RES.

Key recommendations

- Fully transparent interconnection procedures, connection charging mechanisms and connection costs should be introduced (and enforced) across Member States.

- In general, connection charging for DG should follow a SHALLOW⁵ charging philosophy. In cases where grid network reinforcement is necessary, it is recommended that:

- The DG makes a (percentage) financial contribution towards reinforcement costs, derived from the power capacity of the generator relative to the capacity of the local grid network following reinforcement.

- The proportion of reinforcement costs not paid for by the generator should be the responsibility of the DNO.

- For very small generators (below ~10 kW), no contributions to distribution network reinforcement costs shall be required, with these costs being the sole responsibility of the DNO.

- DNOs shall be required to submit binding connection quotations within a given time of the developer’s application.

- Prospective DG developers should be given the right to access the network technical parameters of DNOs

- Annual connection charges levied by DNOs should only be used as a means of recovering the costs of maintaining the DNO’s assets involved in the connection of the generator.

- Regulatory bodies within Member States should be given the responsibility for arbitration, in conjunction with the power to impose changes to connection charging costs and practices.

ELEP Project Website

Further details of the ELEP project and the full reports referred to above can be found on our website:

<http://www.elep.net>

⁴ Where the generator pays all costs associated with its connection, including the physical connection to the grid and any reinforcements costs deemed necessary

⁵ Where the generator only pays the cost of equipment needed to make the physical connection to the grid

You are encouraged to contribute to the programme by supplying your thoughts, opinions and views as to how the barriers to DG and RES can be best minimised! All contributions gratefully received!

Contacts

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