

European Local Electricity Production (ELEP) NEWSLETTER 1 – May 2005

Welcome to this First Newsletter of the ELEP Project!!

The ELEP¹ project is a new collaborative research programme 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 Europe² Programme) and the Partner organisations.

The kick-off meeting for the ELEP project was held in February 2005, and the project will run for a period of 2½ years.

What is Distributed Generation (DG), and Why Does It Matter?

Distributed Generation (DG) relates to the generation of electrical power (often in conjunction with heat) close to the point of use. It challenges the traditional “centralised” electricity delivery model where power is generated by large power stations and transported to customers via a substantial electricity grid network infrastructure. Typical system losses in the centralised power delivery model can be of the order of 10%.

There are a number of advantages that DG can offer compared to the traditional centralised electricity model. These include:

- Increased service reliability due to dedicated power plants servicing local loads
- Increased overall system efficiency due to a reduced reliance on lossy grid infrastructures, the use of high-efficiency generation technologies and the ability to capture and re-use waste heat at the local level
- Lower emissions both as a consequence of reduced losses, but also due to the deployment of low-carbon technologies e.g. renewable energy systems (RES), fuel cells, etc
- Reduced through-life electricity costs through improved fuel efficiency and lower electricity network charges
- Improved flexibility through the deployment of flexible generation plant at distribution levels

DG Technologies

There is a wide range of generation technologies that fall within the “DG” category. These include turbines and engines (predominantly natural gas and diesel fuelled) through to small wind power

plants and fuel cell systems. The capture and re-use of the waste heat generated in the combustion process is often a key feature of a successful DG scheme.

ELEP Project Objectives & Research Areas

The ELEP project aims to address specific policy, commercial and regulatory barriers to DG and RES in a number of key areas that were identified in the predecessor project, DG-FER³. These areas of activity are as follows:

- Interconnection standardisation – this will involve a review of the current approaches to DG grid interconnection within EU Member States, and will develop proposals for formal interconnection standards for DG and RES at the European level. This activity is due to be completed in early 2006.
- Charging rules and market policy – this will develop new charging and market rule approaches specifically relating to DG and RES in order to “level the playing field” for these technologies in the liberalised market place within the EU. This activity is due to be completed by mid 2007.
- DG commercial value – this will develop an objective assessment of the value of *all* of the performance attributes of DG and RES within the energy markets of 5 representative EU States (Portugal, Germany, Denmark, Poland and Italy). The intention is that this value will ultimately be included in market mechanisms to enable fairer financial comparisons to be made between DG & RES and other alternative generation or network reinforcement solutions in liberalised markets. This activity is due to be completed by late 2006.
- Building energy efficiency – this will review the current Buildings Directive (2002/91/EC) and consider policy mechanisms that could be implemented to widen its scope to include the consideration of *all* DG technologies for building efficiency enhancements (the current Directive is fairly restricted in terms of generation technology selection). This activity is due to be completed by the end of 2006.
- DG certification and authorisation – this will develop proposals for the standardisation of DG and RES certification and authorisation procedures across EU Member States. It will also be considering the mechanisms for the introduction of an independent DG and RES certification authority to oversee the

¹ “European Local Electricity Production”

² http://europa.eu.int/comm/energy/intelligent/index_en.html

³ Distributed Generation Future Energy Resources, www.dgfer.org

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certification process such that repeat testing and other authorisation requirements can be minimised. This activity is due to be completed by mid 2007.

What Specific Benefits will the ELEP Project Deliver?

In the medium-to-long term it is anticipated that the implementation of the outcomes of the ELEP project will:

- Lower the costs of installation for DG and RES equipment through the introduction of standardised interconnection rules and common certification & authorisation procedures
- Create a more level playing field for DG and RES in EU energy markets through the removal of unfair market barriers and the evaluation of the true financial value of DG and RES
- Improve overall energy delivery efficiency through the increased deployment of more efficient and renewable energy systems, and through a contribution to a reduction in electricity transportation losses
- Provide increased flexibility in electrical energy delivery through increased localised power generation resource deployment

Partner Organisations

There are nine partner organisations contributing to the ELEP project, providing a broad cross-section of industry stakeholder groups and good coverage of EU Member States:

Partner Organisation	Country
Rolls-Royce plc ⁴	UK
Wärtsilä Corporation Oy	Finland
ECOGEN	Portugal
COGEN Europe	Belgium
EnerInn AB	Sweden
Stadt Frankfurt am Main	Germany
Essent Energie B.V.	The Netherlands
CESI	Italy
Turbec AB	Sweden

Stakeholder Involvement & Registration

A key part of making the ELEP project a success will be engaging will all stakeholder groups in order to ensure that the final recommendations of the project team reflect the opinions of as wide an

audience as possible. In order to ensure that this happens, interested parties are invited to register their details and feedback via the project website, further details of which can be found below.

Additionally, a series of dissemination workshops will take place, each of which will focus on providing an overview of the project findings and recommendations covering a specific research activity. The first workshop will take place early in 2006, details of which will be posted on the project website.

ELEP Project Website

Further details of the ELEP project can be found on our website:

<http://www.elep.net>

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

For further information please send an email to info@elep.net, or alternatively contact the project co-ordinator at richard.knight@rolls-royce.com.

⁴ Project co-ordinator