3rd Workshop of the International Feed-in Cooperation

Madrid, November 23rd and 24th, 2006

Agenda

Venue: IDAE. Madera 8. 28004 - MADRID

Nov. 23rd

9:00 – 9:15 Welcome by **Mr. Enrique JIMÉNEZ**
Institute for the Diversification and Saving of Energy
General Director

9:15 – 9:30 Welcome by **Mr. Reinhard KAISER**
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany
General Director for climate protection, energy and environment, renewable energies and international co-operation

9:30 – 10:00 Report on the EC Directive 77/2001
Ms. Karina VEUM
European Commission
Policy Officer - Regulatory policy & promotion of renewable energy sources

Session 1 Status of national feed-in systems

Chairman: **Mr. Cayetano HERNÁNDEZ**
Institute for the Diversification and Saving of Energy
Director of the Renewable Energies Division

10:00 – 11:00 For Germany **Mr. Uwe BÜSGEN**
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany
Deputy Head of renewable energy division

For Spain **Mr. Luis Jesús SÁNCHEZ DE TEMBLEQUE**
Spanish National Energy Commission
Sub-director for special regime

Discussion

11:00 – 11:30 Coffee-break

Chairman: **Mr. Hugo LUCAS**
Institute for the Diversification and Saving of Energy
International Feed-In Tariff Cooperation project manager

11:30 – 12:00 Future members of the Feed-In Cooperation: Slovenia

12:00 – 13:30 Round table on experiences of other feed-in countries:
Ontario (Canada), Estonia, The Nederland, Czech Republic

13:30 – 15:45 Lunch

Session 2 Other aspects of feed-in tariff system and promotion of electricity from RES

Chairman: **Dr. Volker OSCHMANN**
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany
Deputy Head of Renewable Energy Law Division

15:45 – 17:00 Key factors of feed-in tariff system, best practices of design options and comparison to other alternatives
Dr. Mario RAGWITZ
Fraunhofer Institute for Systems and Innovation Research
Project Manager in energy policy

Discussion

17:00 – 17:30 Approaches for a harmonized feed-in system in the EU
Mr. Miquel MUÑOZ
Institute of Science and Environmental Technologies - Universidad Autónoma de Barcelona
Researcher

17:30 – 18:00 Feed-in tariff system and state aid
Dr. Dörte FOUQUET
European Renewable Energies Federation (EREF)
Director

Discussion

Nov. 24th

Session 3 Procedures for the access and connection to the network for renewable energy producers

Chairman: **Ms. Isabel DEL OLMO**
Institute for the Diversification and Saving of Energy
Director of institutional relations department

9:00 – 10:15 Presentations

For Germany: **Mr. Ralf BISCHOF**
EWE German Multi-service Energy Company
Energy and enviromental technology department

For Spain: **Mr. Juan Francisco ALONSO**
Spanish Electricity Network Company (REE)
Director of the grid access department

Discussion

Session 4 Indispensable requirements for wind farms to contribute to the stability and operability of the system

Chairman: **Mr. Francisco MACIÁ**
Ministry of Industry Tourism and Trade
Subdirector General of energy planning

10:15 – 11:30 Presentations

For Germany: **Mr. Ralf BISCHOF**
German Wind Energy Association (BWE)
Director

For Spain: **Mr. Alberto CEÑA**
Spanish Wind Energy Association AEE)
Director of the technical department

Discussion

11:30 – 12:00 Coffee-break

Session 5 Next steps and conclussions

Chairman: **Mr. Hugo LUCAS**
Institute for the Diversification and Saving of Energy
International Feed-In Tariff Cooperation project manager

12:00 – 12:45 Next steps of the Feed-in Cooperation

Mr. Uwe BÜSGEN

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany
Deputy Head of renewable energy division

Discussion

12:45 – 13:00 Conclusions and closure
Mr. Luis Ciro PÉREZ
Institute for the Diversification and Saving of Energy
Renewable energy policy responsible of institutional relations department

13:00 – 14:30 Lunch

Description of the Sessions

Session 1:
Status of national feed-in systems

This session will give an overview of the different feed-in systems used in the countries participating in the workshop. Both the German and the Spanish feed-in system will be presented in more detail, focussing on the changes made to it during the past 12 months as well as the evolution of the systems since their first introduction in 1991 and 1998, respectively. As there is vital interest from other countries to become member of the cooperation, the representatives from these countries will have the chance to present theirs experiences concerning the promotion of electricity from renewable energies. Additionally, at the round table, other participants will also have the possibility to give information on the feed-in systems in their countries.

Session 2:
Other aspects of feed-in tariff systems and the promotion of electricity from RES

Several research institutes have monitored and analysed feed-in systems of EU Member States and countries worldwide. For the support of the International Feed-In Cooperation, the German Ministry for the Environment, Nature Conservation and Nuclear Safety engaged the Fraunhofer Institute for Systems and Innovation Research for the preparation of a best practice paper of feed-in systems throughout Europe. Both fixed tariffs as well as premium systems have been included in the analysis. Its results will be presented and discussed with the attending experts and participants.

In the political discussion of the European Union as well as in some of its Member States, the harmonisation of the promotional system for electricity from renewable energies remains to be an issue. Regardless of whether or not the cooperation or the participants of the workshop favour such a solution, we will look at whether a harmonisation of the systems is possible on the basis of a feed-in system and how such a system could be designed. This issue might be interesting for the long-term discussion concerning the promotion of renewable electricity in the European Union. Researchers and other experts who have had a closer look at this topic will give a presentation and their findings will be discussed.

In the European Union, measures for the promotion of electricity from renewable energies have to comply with the regulations of the European Community. Sometimes, this can be a challenge – particularly when it comes to the rules concerning state aid. Experts in the field will explain the current situation in the European Union in detail and try to show ways to avoid conflict when introducing feed-in systems.

The second day of the workshop is dedicated to more technical issues of the International Feed-In Cooperation. The sessions on Friday will therefore deal with the effects renewable energies in general, and wind power in particular, have on grid access and stability:

Session 3:
Procedures for the access and connection to the network for renewable energy producers

In Spain, the installed wind power capacity has grown from 73 MW in 1994 to more than 10.000 MW at the end of 2005. In 2005, the contribution of wind energy to the electricity generation was as high as

7.78% of the total electricity generation. In Germany, wind power capacity went up from 56 MW in 1990 to 18.428 MW in 2005.

In Spain, the technical operator of the network has been bound to develop specific procedures for the access and connection of renewable energy installations to the electricity grid. These "Procedures" establish the complete documentation to be supplied to the network operator, in order for the network operator to analyse the technical acceptability of the requested access. These analyses are becoming more and more complicated and new barriers appear with the massive connection of renewable energy installations to the grid. The objective of session 3 is to address those barriers related to procedures and access feasibility.

Session 4:
Indispensable requirements for wind farms to contribute to the stability and operability of the system

In order to ensure grid stability and to avoid undesirable disconnections of wind farms, the network operators are defining new regulations related to the operation requirements for renewable energy facilities to the national grid. Among the possible requirements to be addressed, we can find the following:

- *Answer to voltage drops:* minimum technical requirements to be met by wind turbines to keep connected to the grid in case of a voltage drop.
- *Reactive Power:* Possibility for renewable energy generators to supply reactive power to the grid when demanded.
- *Active Power:* Possibility to increase or reduce active power to stabilise the voltage of the network.
- *Modelling:* Software to allow the simulation of events prior to disturbances.
- *Monitoring:* Gathering and transmitting parameters of operation of wind farms.

During this session, the latest development in this field will be presented, after which discussion is possible.

The workshop will close with a session devoted to future actions of the International Feed-In Cooperation and conclusions of the workshop.