Grid-access and authorisation procedures RES-e WP2 Gobierno Navarra

<u>Summary</u>

This document contains updated information about grid-access and administrative procedures for electricity production installations by means of renewable energies in Navarra. The first part of this document deals in general with the connection to the grid, the wind, micro-hydraulic, biomass, biogas and solar photovoltaic installations.

Public opinion

The society of Navarra has become aware of the exploitation and use of the renewable energies, as shown by different surveys which indicate the high acceptance of renewable energies. Navarra is in the lead of wind park installation and is now finishing the wind development. In the same way, Navarra has the highest solar photovoltaic power connected to the grid in Spain.

<u>Planning</u>

The Energy Planning 1995-2000 set up the targets of renewable energies use up to year 2000 and the forecast until year 2010.

In this moment the elaboration of the Energy Planning 2005-2010 is being completed. Not only the targets in terms of savings, energy efficiency and environment will be set up but also the objectives for year 2010 of electricity generation by means of hydraulic, mini-hydraulic, wind, solar photovoltaic, biomass, solar thermoelectric and biogas energy.

Other renewable energies also considered in this planning are as follows:

- *Solar-thermal:* it is necessary to carry out a big effort to comply with the targets set up by the Renewable Energy Promotion Planning at a national level.
- *Biomass thermal:* the future development will greatly depend on the price to be set up in the above mentioned Planning.
- *Bio-fuels:* a bio-diesel plant is now working in the region and its expansion is soon expected.

All projects will be supported by the corresponding environmental impact analysis according with the law currently in force. The small and isolated solar photovoltaic installations do not require any environmental impact analysis.

Conditions of grid-access and related problems

There are two distinct groups of generation with respect to the grid-access procedures in Spain. The Law 54/1997, dated 27th November, currently in force, starts from the distinction of generating systems of electric energy that shape the so-called 'special regulation group', which enjoy a legal and economic singularity in comparison with remaining installations that take part of the 'ordinary regulation group'.

The generating systems that shape the 'ordinary regulation group' are considered out of the remit of this document.

Those that correspond to the generation of electric energy of 'special regulation' are classified in categories, groups and subgroups depending on the primary energies used, on the production technologies and on the energy capacity.

Specifically, those installations that use as primary energy some of the renewable energies or any kind of bio-fuel, as long as the owner does not carry out generating activities under the 'ordinary regulation', with production capacity of lower than 50 MW, have a grid-access procedure by virtue of the Real Decree that regulates the 'special regulation'.

For the larger generators, i.e. of greater than 50 MW, the procedure in Navarra can be summarised as follows:

<u>Project Planning Presentation</u>: the administration refers the project to the public information, as a prior step to its approval.

<u>Grid connection request</u>: the promoter requests a connection point to the Distribution Network Operator (DNO). In the case of Navarra, through the electric company Iberdrola, S.A. The DNO determines the connection point and costs are borne by the project promoter.

Construction: the project is carried out.

<u>Testings & connection</u>: the DNO and the promoter complete the necessary system agreements for connection and use. Necessary tests are carried out and the real connection to the grid is done.

Additionally, in the case of access to the transport network, the system operator (OMEL), the transport network manager (REE) and the distributor company (in the case of Navarra, Iberdrola, S.A.) must be informed about the technical contract of access to the transport network.

Analysis of questionnaires

The questions to the promoter companies were done during June 2005.

1. Which company/organisation is responsible for setting up the grid-access procedures?

The administrative authorisation for the production in 'special regulation' –as in the case of RES-e generation- of those installations with generating capacity of lower than 50 MW, corresponds to the Administration of the Government of Navarra.

For those installations with generating capacity of lower than 50 MW and that are located not only in Navarra but also in other region of Spain, the authorisation corresponds to the Administration of the Government of Spain.

The authorisation in the case of installations with generating capacity of greater than 50 MW is also responsibility of the Administration of the Government of Spain.

2. Which company/organisation does operate the grid connection in your region? The electric distributor company operating in Navarra is the company Iberdrola, S.A.

3. What price do you get for RES-e?

The Real Decree 436/2004, dated 12th March, sets up the methodology to update and systematize the legal and economic system related to the electric energy generation activity in special regulation.

In above mentioned Real Decree it is indicated that installation owners who intend to sell their electric energy production must choose from the following two different options:

a) To sell the electricity to the distributor company of electric energy (i.e., the case of solar photovoltaic installations). In this case, the sale price of electricity will be set up according to a <u>regulated rate</u>, the same for all program periods and shown in euro cents/kWh.

The <u>regulated rate</u> will consist of a percentage of the electric rate average or the reference rate of each year. For year 2005, 7,3304 cents/kWh.

b) To sell electricity in the free market. In this case the sale price will be the result of the free negotiation of the owner or the installation responsible, complemented with an <u>incentive</u>, and in its case, with a <u>premium</u>, both shown in euro cents/kWh.

For these installations the rate average will be within a strip of 80% and 90%, both inclusive.

4. What premium is there for RES-e?

The premium indicated in point 3.b. will consist of a percentage of the electric rate average or the reference rate of each year and will be published in the Real Decree that sets up the electric rate.

This premium will be set up depending on the group or subgroup of the installation and on the installed power.

Examples:

Rates, premium and incentives for onshore wind installations greater than 5 MW of installed power:

Rate: 90% during first five years from the working date, 85% during next 10 years and 80% from then.

Premium: 40%.

Incentive: 10%

Rates, premium and incentives for solar photovoltaic installations lower than 100 kW of installed power:

Rate: 575% during first 25 years from the working date and 460% from then.

5. What are the necessary conditions for granting grid access?

The electric energy has to be sold to the closest distributor company with enough technical and economic features to enable distribution.

Any installation of special regulation must have the necessary measure equipments of electric energy that will enable the settlement, invoicing and control.

In the case of access to the transport network, the demander has to enter into a contract of grid-access with the transport owner of the connection point, within the next 30 days. This contract has to be informed to the system operator, to the transport network manager and to the distributor company.

6. What is the cost of connection?

The cost of connection is variable, depending on size of generating plant and on the distance from the point of grid connection.

Necessary connections costs are borne by the generating plant holder.

The electric company owner of the grid receives the amount that corresponds to the inspection of protections and measure equipments. Any installation must have the necessary measure equipments of electric energy that will enable the settlement, invoicing and control.

7. Who bears the cost of grid-connection?

As indicated in previous question, all connection costs are borne by the generating plant holder.

8. What is the major barrier to connect RES to the grid?

In Navarra the major barrier to connect RES to the grid in the case of high power installations, particularly wind power, is the lack of capacity of evacuation of generated energy to the transport or distribution lines.

The wind development expected in Navarra is almost finished. First wind farms started in 1994 and now it is possible to increase the installed power by replacing first mills by other with a higher capacity.

This information is now being collected in the Energy Planning of Navarra 2005-2010, under elaboration.

The administrative procedures for small installations, such as those for solar photovoltaic connected to the grid with a maximum power of 100 kW, are not very complicated.