

NATIONAL RENEWABLE ENERGY ACTION PLAN

– PORTUGAL –

Forecast Document

18th December 2009

1. Introduction

Under the entry in force, on the 25th of June 2009, of the Directive 2009/28/EC, on the promotion of the use of energy from renewable sources, Member States have to submit to the European Commission reports on the renewable energy sources promotion policy, including forecast reports, targets reports, progress reports on the targets achievement and reports on any corrective measures and adjustments to the indicative trajectories, among others.

The first of these obligations is aimed at complying with Article 4(3) of the Directive, whereby each Member State have to publish and notify the Commission, six months before the presentation of its national renewable energy action plan, a forecast document indicating:

- a) Its estimated excess production of energy from renewable sources, compared to the indicative trajectory, which could be transferred to other Member States in accordance with Articles 6 to 11, as well as its estimated potential for joint projects, until 2020; and
- b) Its estimated demand for energy from renewable sources to be satisfied by means other than domestic production until 2020.

2. Methodologies and framework

This forecast document is based on the template for National Renewable Energy Action Plans adopted by the Commission on the 30th of June 2009, in particular with regard to the tables for the targets and estimated trajectories for the expected share of energy from renewable sources in gross final energy consumption.

The figures for the gross final energy consumption and the contribution of the various renewable energy sources in power production, for the years 2010, 2015 and 2020, presented in this document, match those that were used in the analysis that allowed Portugal to negotiate and set the 31% target for 2020. All the figures presented in this exercise will be reviewed by the 30th of June 2010, deadline for the submission of the Plan.

A new energy policy for the period of 2010 to 2015 is currently being prepared, with implications and outcomes that will extend to 2020. In this new energy strategy, some of the current targets will be reviewed, such as a significant increase in the target of the electrical energy production from solar energy (1500MW installed by 2020) or the introduction of the Electrical Mobility Plan (with a significant impact in the transports sector, since it is expected that by 2020 about 60% of electricity generation will be renewable).

On October of 2005, the Portuguese Government, through the Cabinet Resolution (RCM) no. 169/2005, had established a National Energy Strategy where were set the main objectives of the energy policy and the role of renewable energy sources, in particular for pursuing those objectives.

In the last years, the energy policy has sought to reduce the external energy dependence, by promoting the use of indigenous resources, fostering an increase of the investment in renewables, particularly in wind power and, more recently, in solar energy, while attempting to diversify its bet on a broad mix of renewable sources of energy, from hydro to waves, through biomass, biofuels, geothermal, biogas and others.

The new energy strategy, that should be ready by the beginning of 2010, will still give importance to the promotion of economic and environmental sustainability of the energy sector and the growth and competitiveness of the Portuguese economy.

3. Analysis and critical factors

Although the figures in this document are interim estimates, in fact, they already largely embody some options that are essential to achieve the commitments that were made by both Portugal and the European Union in this Directive.

In particular, we emphasize how important it is the development of strategic options that will allow the diversification of the renewable energy sources mix and the reinforcement of the energy supply security, by promoting the use of indigenous resources in Portugal.

Among these options the importance of the following initiatives already underway to meet the national targets should be emphasized:

- Ø The viability and development of hydroelectric plants identified in the High Potential Hydroelectric Dams National Program/Programa Nacional de Barragens de Elevado Potencial Hidroelétrico (PNBEPH), that already was submitted to the Commission, and which aims to identify and prioritize the investments in hydroelectric power plants to be completed by 2020. This program seeks to achieve, for Portugal a hydroelectric power installed capacity above 7000 MW by 2020, through an additional power of 2000 MW (at the moment, the installed capacity is around 5000 MW).

This Program is essential not only for the associated hydroelectric energy production, but also for the wind power that it enables, given the complementarity between these two sources - taking into account that the planned hydropower plants contemplate the possibility of pumping;

- Ø The continuous focus on the development of the wind power energy sector, with a 8500 MW target for 2020, including the possibility of some offshore capacity and the creation of a favorable legal framework to promote the small-scale production of electricity from micro and mini wind turbines;
- Ø To increase the diversification of the renewable energy sources, as well as, the applications and technologies based on renewable energy use, stimulating, at the same time, the research and the development of the new technologies and energetic products. Examples of this interest are the special attention given to the study and investment in certain areas, such as: Enhanced Geothermal Systems (EGS); wave energy; photovoltaic solar systems and concentrate thermoelectrical solar systems; or the promotion of integrated microgeneration in buildings.
- Ø The Electrical Mobility Program launched on the 7th of September 2009, that promotes the use of electrical energy in the transports sector, which should be around 60% renewable by 2020, make it possible to conciliate the objectives of emission reductions and energy dependency, by diminishing the use of fossil fuels with the aims of this directive, by promoting another mean, besides biofuels, for the diffusion of the renewable energy sources in the transports sector.
- Ø In addition, the implementation of this concept will allow to stimulate technological developments for the modernization of the electrical grids, towards the transition to intelligent grids, promote the creation of industrial clusters for the electrical vehicles production, batteries, and other components, develop a national electrical charging stations grid and encourage the modal shift of passengers in road or rail, to electrical transport.

A bet in these and others strategic areas of the renewable energy sector associated with new technologies is also part of the Portuguese participation and contribution to the development and implementation of the Commission initiative, the Set-Plan, to help to accelerate the development and the implementation of low carbon emissions technologies.

4. Conclusions

Portugal reaffirms its commitment to the target of 31% of energy from renewable sources in the gross final energy consumption, goal assigned to Portugal during Directive 2009/28/EC adoption negotiations.

Portugal believes that it has the conditions and the renewable resources to go beyond the committed target and thereby to contribute to any deficit of other Member States. However, this possibility depends on the physical capacity to export its surplus of renewable production, especially to Central Europe. The peripheral situation of Portugal, as well as the restrictions in interconnection capacity, in particular, between Spain and France, can be an obstacle to this possibility.

Therefore, a goal higher than 31% could only be addressed and committed in the framework of an interconnections development plan between the Iberian Peninsula and the rest of Europe and that should include an agreement on a precise timetable and interconnection capacities to establish.