18.4.2011 974/03.02.01/2011

EU PILOT CASE (1734/11/ENER):
SUBMISSION TO THE COMMISSION OF A NATIONAL RENEWABLE ENRGY ACTION PLAN REQUIRED BY ARTICLE 4(1) OF DIRECTIVE 2009/28/EC ON THE PROMOTION OF THE USE OF ENRGY FROM RENEWABLE SOURCES

Finland has submitted an amended national renewable energy action plan (NREAP) to the European Commission on the 15th of April, 2011. Please find below our answers to the Commission's comments in the Annex of the EU pilot case (1743/11/ENER). We enclose also our amended NREAP (Annex 1 of this document) and a memorandum for the state aid pre-notification of the aid for forest chips from small diameter wood from young stands (Annex 2 of this document).

Table 2:

- The 2005 share of renewable energy consumption indicated by the data in the plan (28.79% share) does not exactly correspond to the figure given in Directive 2009/28/EC (28.5%). The deviation should be corrected or explained.

  Small data revisions and minor methodological differences are the reasons for the divergence between the 2005 renewable share in the plan and the value found in the Directive.

  We have been told that 2005 renewable energy shares published in the Directive were calculated with data available to Eurostat database in 2007. Eurostat data have been partially revised since, following the submission of the joint questionnaires of 2006, 2007 and 2008. In addition, the calculation of the 2005 starting shares was based on the methodology of the proposed directive, which is slightly different from that in the finally adopted Directive.

Table 4a:

- There is a discrepancy in the data for the renewable transport share in row (C) of Table 4a, 560ktoe in 2020, and row (C) in table 4b, 600ktoe. It should be clarified which figure is correct.

  Both Figures are correct. The figure in Table 4b includes all renewable energy in the transport sector whereas renewable electricity is excluded from the figure in Table 4a as said in the note below the table in order not to report it twice. The renewable electricity used in the transport sector is included in row (B) in Table 4a.

Table 5:

- The table provides for a brief overview of measures promoting the use of renewables in buildings only. The requirement was to provide an overview of all measures promoting renewable energy. Further information should be provided.

  Table 5 has be amended in the NREAP (Annex 1)

Authorisation procedures (Q4.2.1):

- This part was not filled out. More information should be provided on planning mechanisms for the construction of wind power and hydropower, and in general on how spatial planning relates to permitting process. More details should be provided on how coordination is achieved between authorities responsible for different types of permits. Some stakeholders have observed that spatial planning often does not take account of renewables, and that there is a lack of coordination between authorities responsible for permitting. These issues are not tackled by the plan; therefore they should be further addressed.

  Answer to the Q4.2.1 has been amended in the NREAP (Annex 1)

Technical specifications (Q4.2.2):

- Information is missing. Information on technical requirements for equipment benefiting from support should be provided.

  Answer to the Q4.2.2 has been amended in the NREAP (Annex 1)

Buildings (Q4.2.3):

- Further details should be provided on the new law on energy requirements for new buildings to enter into force by 1/2012. In addition, more specific information should be provided on the support schemes identified, such as assistance to households, in order to be able to judge whether the ambitious increases of renewables in buildings (residential sector from 39% in 2005 to 68% in 2020) is realistic and credible.

  Answer to the Q4.2.3 has been amended in the NREAP (Annex 1)

  Specific question concerning increases of renewables in residential sector relates to
  - *fuel switch from the use of fossil fuels and peat to the use of forest chips in district heating production and (use of forest chips (primary energy) will be increased in CHP production and only heat production from 6 TWh in 2005 to 25 TWh in 2020). The support scheme to promote the use of forest chips is explained in more detail in answers to Q4.3 and Q4.4 of the amended NREAP (Annex 1)*
  - *significant increase of heat pumps and wood pellets in heating sector outside of district heating (heat production of heat pumps will be increased from 2 TWh in 2005 to 8 TWh in 2020 and the use of wood pellet will be increased from 0.4 TWh to 2 TWh respectively). The investments of heat pumps and investments related to the use of wood pellets are promoted with investments subsidies.*

About 2.6 million Finns live in houses heated by district heat. District heating accounts for almost 50 per cent of the total heating market. The more densely built the area is and the larger the buildings, the more economical district heating is. Almost 95% of apartment buildings and most public and commercial buildings are connected to the district heating network. In single-family houses, just over 6% of the heating energy comes from district heat. In the largest towns, the market share of district heating is more than 90%. Almost 80 per cent of district heat production is based on CHP generation.

Information provisions (Q4.2.4):

- This part of the template is not filled out. Information should be provided on guidance to architects and installers etc, planned database on forest resources, information provided by Motiva, and on projects such as ERA 17 and 'synergy house'.

  Answer to the Q4.2.4 has been amended in the NREAP (Annex 1)

Grid issues (Q4.2.6 and 4.2.7):

- These questions are not addressed. *Answers should be provided to each of the questions related to chapters 4.2.6 and 4.2.7* of the template.

  Answers to the Q4.2.6 and Q4.2.7 have been amended in the NREAP (Annex 1)

Sustainability criteria of biofuels (Q4.2.10):

- These questions are not addressed. *Answers should be provided to each of the questions related to chapter 4.2.10* of the template.

  Answer to the Q4.2.10 has been amended in the NREAP (Annex 1)

Electricity support schemes (Q4.3):

- There are measures referred to which are currently being discussed, but no details given, for instance, on a Biogas and CHP wood fuel feed in tariff to be introduced, or the landfill gas to be promoted through energy subsidies, and support for electricity production from wood chips planned for the beginning of 2011. In order to evaluate these planned measures more details are necessary. A timetable for the implementation of all support schemes, including those outlined, should be provided.

- Detailed information should be provided on the projections for the expenditure under the support scheme. In other words, an explanation should be given whether there is an understanding of the quantities of energy from the different technologies that will be produced as a result of the support scheme incentive. It should also be explained whether this matches or differs from your projected technology production plans.

  Answer to the Q4.3 has been amended in the NREAP (Annex 1). The new subsidy schemes took effect on 25 March 2011.

Heating support schemes (Q4.4):

- This section is not filled in, although a variety of future support is mentioned in the summary document, in particular for the production of wood chips which can be used for heating or electricity production, as well as CHP, with a brief mention of new support for heat pumps, and existing support for solar heating. Details on these support measures should be provided.

  Answer to the Q4.4 has been amended in the NREAP (Annex 1). The new subsidy schemes took effect on 25 March 2011. Although, the support scheme to promote the use of wood chips is based on electricity production, the high share of CHP (80 % of district heating is based on CHP) guarantees a very efficient support also for renewable heat.

  The investments of heat pumps and investments related to the use of wood pellets are promoted with investments subsidies. The subsidy is typically 20 % of the investment. Solar heating systems of companies can be supported with Energy aid system of the Ministry of Employment and the Economy.

Biofuels support schemes (Q4.5):

- The template should be respected; therefore answers should be provided to each of the questions in this section. As the support measures have to be consistent with the level of ambition for renewable energy in transport, the measures supporting the uptake of 2nd generation biofuels should be explained, having in mind Finland's aim of reaching 180 ktoe of such biofuels by 2020.

  Answer to the Q4.5 has been amended in the NREAP (Annex 1). The blending obligation of biofuels has been amended and the national obligation for 2020 is 20 %. A significant amount of the biofuels will be based on 2nd generation biofuels, which are double accounted. The use of biofuels (without double accounting for the 38 per cent target) will be 7 TWh in 2020. Three large scale 2nd generation biofuel plants using forest biomass are planned to Finland.

Biomass supply (Q4.6.1):

- Table 7:
  - Columns "imported", "exported", "net amount" should be filled.
  - The amounts of biomass supply from agricultural crops and agricultural by-products are given in hectares. These should be provided in m3 or tonnes (as requested).
  - It should be indicated the primary energy (in ktoe) from processed wood-fuel and the amount of domestic resource (in tonnes or m3) from by-products of the pulp and paper industry.

- The question on conversion factor / calculation methodology used for the conversion of the amount of available resources to energy should be answered.

- Table 7a is missing. This should be provided. When doing so, if agricultural biomass domestic supply is to be used for biofuels production, could it be indicated whether the data provided in the columns "primary energy production" (2015 and 2020) include the final energy contained in biofuels or the primary energy from raw feedstock used to produce such biofuels?

- The imports question is not answered: it should be indicated what is the estimated role of imported biomass up to 2020, while specifying the expected quantities (ktoe) and indicating possible imports countries.

- Table 8 is missing. This should be provided

  All data and information to the Q4.6.1 has been amended in the NREAP (Annex 1)

Biomass mobilisation (Q4.6.2):

- Questions (a), (b), (c), (d) and (e) were not addressed. These should be answered
- (f): If possible, the time table for introducing the energy support for small-sized wood should be indicated.

Impact on other sectors:

- Questions (a), and (b) should be answered.

  Answer to the Q4.6.2 has been amended in the NREAP (Annex 1). Aid for forest chips from small diameter wood has been shortly explained in chapter 1.2.3 of the amended NREAP. The Act on aid for forest chips from small diameter wood from young stands (101/2011) has been approved in the Parliament, but the system will take effect after the European Commission has approved the state aid notification. The provisions on the amount of aid and further details on the implementation of the Act are issued by Government Degree after the approval. For additional information please find enclosed a memorandum for the state aid pre-notification (Annex 2).

Table 10:

- Both onshore and offshore wind figures should be indicated.

  We have no official targets for the split between onshore and offshore. Unofficial figures for 2020 are now added (Annex 1, table 10).

- The installed capacity figures for biomass should be indicated.

  No data is available on installed electricity generation capacity for solid and liquid biomass. It is also impossible to present fair figures for the future. The reasons are that some generators can switch between several different fuels, both fossil and renewable, power generation is largely integrated in paper and pulp manufacturing plants and in addition there are generation facilities that use biomass in parallel with peat. The generation capacity for biomass in total is already a very theoretical figure, a further split between solid and liquid biomass would be totally academic.

Table 11:

- Table 11 indicates that District Heating will increase 2.5 times in 10 years, even though Table 11 also indicates that district heating has declined from 830ktoe in 2005 to 510 ktoe in 2010. Reasons should be provided for this decline and how district heating will be supported to increase again until 2020.

  2005 value was incorrect, should be 450 ktoe.

Table 12:

- In table 12, no bioethanol and biodiesel imports are reported in 2020. It should be confirmed whether biofuels needs will be all domestically produced or whether there will be some biofuels imports. In this later case, table 12 should be completed with imports estimates.

  Our target is that biofuels needs will be domestically produced in 2020. However, we are not able to estimate how the market of biofuels develops until 2020. As indicated above in Q4.5 there are concrete projects for 2nd generation biofuel production in Finland.