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Supply and Renewable Energy

**Forecast document provided for in Article 4(3) of Directive 2009/28/EC on the
promotion of the use of energy from renewable sources**

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1 Introduction

In accordance with Article 4(2) and (3) of Directive 2009/28/EC on the promotion of the use of energy from renewable sources (RE Directive):

'2. Member States shall notify their national renewable energy action plans to the Commission by 30 June 2010.

3. Each Member State shall publish and notify to the Commission, six months before its national renewable energy action plan is due, 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.*

Also, in accordance with Annex VI(3)(g) of the RE Directive, when notifying their national renewable energy action plans to the Commission by 30 June 2010, Member States are required to indicate their *'planned use of statistical transfers between Member States and planned participation in joint projects with other Member States and third countries'* (the RE Directive's cooperation mechanisms).

On 30 June 2009 the Commission published a Decision establishing a template for national renewable energy action plans. The template specifies the minimum requirements concerning the content and form of the national renewable energy action plans. Point 4.7. of the template indicates the information which the action plans should contain concerning the expected use of the cooperation mechanisms.

Section 2 of this document contains the information required in accordance with Article 4(3), and is in line with the relevant parts of Point 4.7.2. of the template.

Point 4.7.2. will be completed in the action plan due to be published in June 2010.

2 Report in accordance with Article 4(3) of the RE Directive

2.1 Assumptions on which the report is based

This forecast document is based on the Danish Energy Agency's latest basic projection of April 2009, which describes the expected energy consumption and supply trend in Denmark until 2030, including the trend in final energy consumption and the use of renewable energy. The basic projection represents a trajectory based on the assumption that no energy policy measures will be implemented in addition to the measures that have already been agreed upon. It should be noted that the Energy Agency updates the basic projection every year.

On 21 February 2008 the Danish Parliament reached a broad agreement on Danish energy policy for the period 2008-2011. The basic projection quantifies the effect of that energy policy in the framework of the existing energy agreement. This report gives no indication of possible means of developing renewable energy sources above and beyond the measures in the basic projection.

The projection is based on a series of assumptions about the future energy and fuel trend, technological developments, and an assessment of the impact of current energy policy. In conjunction with the basic projection of April 2009, an uncertainty assessment was made of the estimated development of RE until 2020. The conclusion reached was that there was considerable uncertainty about the predicted contribution from renewables in 2020.

This forecast document is based on the basic projection of April 2009. The national renewable energy action plan, on the other hand, will be based on the Energy Agency's next basic projection due to be published in April 2010. The uncertainty assessment of the estimated contribution of renewables will be updated in the forthcoming basic projection.

Lastly, Denmark is favourably disposed to discussing with other Member States the possibility of using the Directive's cooperation mechanisms.

2.2 Estimated excess production of renewable energy (compared to the indicative trajectory) which could be transferred to other Member States

Table 9 of the Commission's template is completed below, comparing the estimated consumption of renewable energy on the basis of the basic projection with the indicative trajectory for Denmark.

It emerges from Table 9 that Denmark expects to have excess production of renewable energy in the period up to and including 2018. Denmark also expects to have a renewable energy deficit in 2020 unless additional energy policy measures are taken.

2.3 Estimated potential for joint projects

Given the deficit forecast for 2020, it is not possible at present to indicate either the potential for joint projects that could be made available to other EU countries in 2020 or the statistical transfers that could be made in 2020. These questions will be addressed following analyses and clarifications in the context of the preparation of the national renewable energy action plan at the start of the summer of 2010.

The practical details of possible joint projects, as referred to in 4.7.3 (a)-(e) of the template, will be discussed in the national renewable energy action plan due to be submitted to the Commission in June 2010.

2.4 Estimated demand for renewable energy to be satisfied by means other than domestic production

It emerges from Table 9 that Denmark expects to have a renewable energy deficit in 2020 unless additional energy policy measures are taken. The question of how this deficit can be covered will be addressed following analyses and clarifications in the context of the preparation of the national renewable energy action plan at the start of the summer of 2010.

Table 9: Estimated excess and/or deficit production of renewable energy (compared to the indicative trajectory) which could be transferred to/from other Member States in Denmark (in thousand tonnes of oil equivalent (ktoe/year))

| ktoe/year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|------|------|------|------|------|------|------|------|------|------|------|
| Estimated excess in forecast document | | 613 | 809 | 769 | 784 | 473 | 657 | 333 | 366 | | 0 |
| Estimated excess in NREAP | | | | | | | | | | | |
| Estimated deficit in forecast document | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 337 |
| Estimated deficit in NREAP | | | | | | | | | | | |

NB:

As the RE Directive does not give an indicative trajectory (target) for 2010 and 2019, no figures can be given for the estimated excess or deficit for those two years.

Table 9: Estimated excess and/or deficit production of renewable energy (compared to the indicative trajectory) which could be transferred to/from other Member States in Denmark (PJ/year)

| PJ/year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|------|------|------|------|------|------|------|------|------|------|------|
| Estimated excess in forecast document | | 26 | 34 | 32 | 33 | 20 | 28 | 14 | 15 | | 0 |
| Estimated excess in NREAP | | | | | | | | | | | |
| Estimated deficit in forecast document | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 14 |
| Estimated deficit in NREAP | | | | | | | | | | | |

NB:

As the RE Directive does not give an indicative trajectory (target) for 2010 and 2019, no figures can be given for the estimated excess or deficit for those two years.