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Note from the Danish Energy Agency

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Report on trends in electricity production from renewable energy sources

In accordance with Article 3 of Directive 2001/77/EC of 27 September 2001, Member States are required to publish a report every two years containing an analysis of the extent to which the national indicative targets for promoting electricity production from renewable sources (RES) have been met. The analysis must take account, in particular, of climatic factors which may affect the achievement of those targets.

Consumption of electricity from RES in 2008

The table below shows the actual production of renewable energy in 2007 and 2008 plus the figures given in the earlier reports. It should be noted that all the figures for RES have been adjusted downwards by just under 1 percentage point compared with the earlier reports, following a reassessment of the content of fossil energy in waste. The table therefore reflects the revised data from 1996 to 2008.

In 2008 RES accounted for 26.7% of domestic energy supply, an increase of 21.2 percentage points over 1996 and 15.9 percentage points over 1998.

In 2008 wind power accounted for the biggest share – 18.3% – and provided over two thirds (69%) of the total amount of electricity generated from RES.

Table: Renewable energy's share of domestic electricity supply

Unit: TJ	1996	1998	2000	2005	2006	2007	2008
Solar energy	1	1	4	8	8	9	9
Wind power	4 417	10 152	15 268	23 810	21 989	25 816	24 940
Hydro	69	98	109	81	84	102	93
Straw and wood	1 088	1 472	1 482	8 300	6 400	6 580	6 491
Biogas	407	682	751	1 017	1 027	980	896
Biodegradable waste	1 605	1 847	2 616	3 840	3 874	3 742	3 950
All RES	7 586	14 252	20 229	35 574	33 383	37 230	36 379
Domestic electricity	-	-	132 170	135 401	139 220	137 552	136 245
Share of RES, %	**5.5**	**10.8**	**15.3**	**26.3**	**24.0**	**27.1**	**26.7**

Source: The Danish Energy Agency's energy statistics for 2008, pages 10 and 11.

Domestic electricity supply has been determined in accordance with the EU's Electricity from RES Directive, i.e. total gross electricity production from RES plus net imports of electricity. For 1996 and 1998 the share of RES has been calculated in the statistics for 2008, but the total domestic electricity supply has not been reported for these two years.

Likely development of electricity from RES in Denmark

Expansion of RES as a whole

Over the next few years a steadily growing proportion of energy consumption will have to be covered by renewable energy sources. This is laid down in the energy policy agreement of 21 February 2008, which is based on a broad political consensus and sets out the framework for the development of the energy sector between now and 2012. It is also evident from the energy policy agreement that the EU's burden sharing in relation to renewable energy will be binding for Danish energy policy. Consequently, as a result of adopting the RES Directive, the share of RES in relation to the energy system as a whole should increase in Denmark from 17% in 2005 to 30% in 2020. In addition, the expansion of RES will have meet a specified indicative interim target.

Each year the Danish Energy Agency publishes an estimate for the following 20 years of the development of energy consumption and energy supply. The latest estimate (basic extrapolation), published in April 2009, indicates that – on the basis of the technical and economic assumptions made and the energy policy measures adopted – it is likely that the overall expansion of RES up to 2018 will exceed the indicative target, but that the target of a 30% share for RES in 2020 will not quite be met.

The RES action plan due to be sent to the Commission in June 2010 will report how Denmark's obligations under the RES Directive will be satisfied, and will give an estimate of the extent to which the expansion of RES will be ensured in the electricity, heat and transport sectors.

The following components of the energy policy agreement should be mentioned in relation to the different renewable energy sources used to produce electricity:

Wind power

As a result of the energy policy agreement, the electricity-production grant for onshore wind turbines has been increased in order to ensure significant continued growth.

Also, an extra offshore wind farm capacity of around 400 MW will be available in addition to the installations agreed on earlier: 2 x 200 MW due to come into operation in 2009 and 2010. This will give a very significant boost for this of type of wind turbine.

Between now and 2012 it is expected that some 1 300 MW of new windmill capacity will be made available. This takes into account the scrapping scheme agreed on earlier and the abovementioned ongoing expansion of offshore wind turbines.

Straw, wood and biogas

The energy policy agreement provides for a bigger electricity-production grant for the use of biomass in power stations. The use of straw and wood is expected to be increased by up to 700 000 tonnes in 2011.

It also provides for a substantially bigger electricity-production grant for biogas in both

new and existing plants. In the context of a recent "green growth" agreement in the Danish Parliament, a scheme for new biogas plants will be established.

Meeting the indicative targets for 2010

As already mentioned, compared with the earlier reports all the figures for RES have been adjusted downwards by just under 1 percentage point following a reassessment of the content of fossil energy in waste. As a result, for example, the figure for 2008 is 26.7%, or around 2.3 percentage points below Denmark's indicative national target of 29% for electricity from RES under the Electricity from RES Directive. Assessments based on the latest basic extrapolation suggest that it still looks as if Denmark could in fact meet the indicative target for RES in 2010.

In the context of the preparation of the RES action plan for the period up to 2020, efforts will be made to ensure that the indicative national target for RES will be met, since, as a result of the RES Directive, there is now an overall RES expansion strategy for the Danish energy sector as a whole.