

Denmark

Renewable Energy Fact Sheet

Policy Background

The EU is working to reduce the effects of climate change and establish a common energy policy. As part of this policy, European Heads of State or Government agreed in March 2007 on binding targets to increase the share of renewable energy. By 2020 renewable energy should account for 20% of the EU's final energy consumption (8,5% in 2005). To meet this common target, each Member State needs to increase its production and use of renewable energy in electricity, heating and cooling and transport.

Although renewable energies are an integral part of our fight against climate change, they also contribute to growth, job creation and increase our energy security.

Country targets

The renewables targets are calculated as the share of renewable consumption to gross final energy consumption. Renewables consumption comprises the direct use of renewables (e.g. biofuels) plus the part of electricity and heat that is produced from renewables (e.g. wind, hydro), while final energy consumption is the energy that households, industry, services, agriculture and the transport sector use. The denominator for the RES share includes also distribution losses for electricity and heat and the consumption of these fuels in the process of producing electricity and heat.

Danish target: 30% (2005 = 17%)

Key issues

Due to an average growth of 71% per year, Danish offshore wind capacity remains the highest per capita in Europe (400 MW in total in 2006). Denmark is at present close to reaching its RES-E target for 2010. Two new offshore installations, each of 200 MW, are under preparation. RES other than offshore wind are slowly but steadily penetrating the market, supported by a wide array of measures such as a new re-powering scheme for onshore wind.

Denmark has been slow in introducing biofuels to the market and is behind on its EU target.

Main supporting policies

In order to increase the share of RES-E in overall electricity consumption, Denmark has implemented the following measures:

- A tendering procedure has been used for two new large offshore installations. Operators will receive a spot price and initially a settling price as well. Subsequent offshore wind farms are to be developed on market conditions.
- A spot price, an environmental premium (EUR 13/MWh) and an additional compensation for balancing costs (EUR 3/MWh) for 20 years is available for new onshore wind farms.
- Fixed feed-in tariffs exist for solid biomass and biogas under certain conditions.
- Subsidies are available for CHP plants based on natural gas and waste.

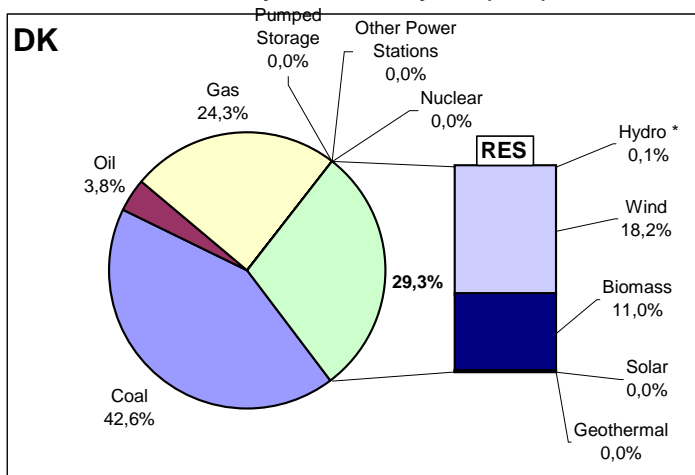
The generation of RES-H is supported by means of tax exemptions. Biomass, being CO₂ neutral, is exempt from CO₂ duty. Solar heating plants are exempt from both energy and CO₂ taxes. The Executive Order "Solar heating obligations in new buildings outside the district heating areas" (no. 337) was adopted in 2001 but has not yet come into force. It will require the introduction of solar heating from owners of new buildings (excluding the domestic sector). Solar thermal installations are also eligible for subsidies. Both regulations apply only outside district heating areas.

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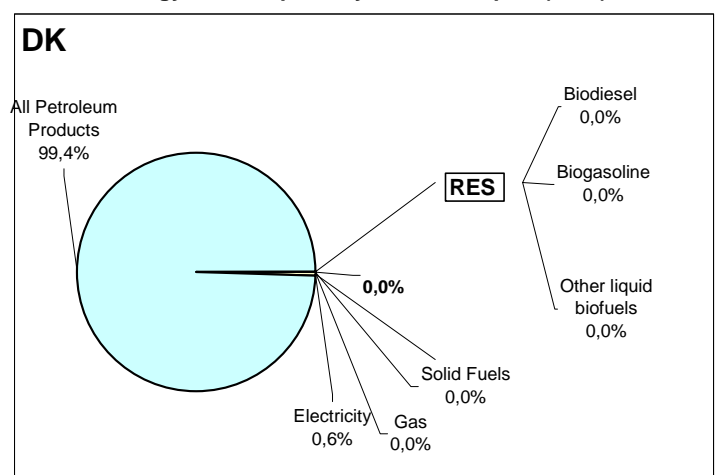
Biofuels have been exempt from the CO₂ tax imposed on ordinary petrol and diesel for transport since January 2005; this is currently the main supporting measure for biofuels. In early 2008 a bill will be presented to Parliament, instructing all filling stations to sell at least 5.75% biodiesel and bioethanol as of 1 January 2010.

Key figures¹

Gross Electricity Generation by fuel (2005)



Final Energy Consumption by Fuel, Transport (2005)



Source: Eurostat

* Not including generation from hydro pumped storage, but including electricity generation to pump water to storage. Municipal Solid Waste, Wood waste, Biogas included.

For further information

To find out more about renewables, go to: http://ec.europa.eu/energy/res/index_en.htm
http://ec.europa.eu/energy/intelligent/index_en.html

To find out more about the current situation of renewables in the Member States, go to http://ec.europa.eu/energy/res/legislation/electricity_member_states_en.htm
http://ec.europa.eu/energy/res/legislation/share_res_en.htm

To find out more about support measures, go to http://ec.europa.eu/energy/res/legislation/support_electricity_en.htm

To find out about a project or contact an energy agency in your region, go to <http://www.managenergy.net/emap/maphome.html>

¹ Reliable and complete data for heating and cooling is not yet available from Eurostat

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What is meant by.....?

RES: Renewable energy sources

RES-E: Electricity production from renewable energy sources

RES-H: Production of heat and cold from renewable energy sources

Biofuels: Mainly includes biodiesel and bioethanol

Biomass: Includes solid biomass, biowaste and biogas

PV: Photo-voltaic - technology for the production of electricity from solar energy

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