



COUNTRY POLICY PROFILE

Denmark

December 2015

**LOG FILE OF CHANGES IN SUPPORT
POLICIES AS COMPARED TO LATEST
MEMBER STATE PROGRESS REPORT**

The EurObserv'ER project

The EurObserv'ER Barometers monitor the renewable energy progress in each Member State of the European Union. Every two months a barometer dedicated to one particular renewable energy technology is published. Moreover, once a year an [Overview Barometer](#) collects the main indicators published during the year and completes these with additional renewable sectors which have not been detailed in the individual Barometers. Finally, the Overview Barometer also reports on socio-economic aspects: employment and turnover in the field of renewables, and the renewable energy investment climate. The country policy reports monitor policy developments by providing an overview of policy changes compared to the Member State Progress Reports (updated until December 2015).

All Barometers are available for download at <http://www.eurobserv-er.org>. An overview of direct links to Barometers is available in the Annex.

New Barometer releases are announced on Twitter (https://twitter.com/eurobserv_er).



Co-funded by the Intelligent Energy Europe
Programme of the European Union

The EurObserv'ER barometer is a project supported by the European Commission within the DG Energy "Intelligent Energy Europe" programme. It is also supported by Ademe, the French Environment and Energy management Agency, and Caisse des Dépôts.

The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.

Abstract

In Denmark, electricity from renewable sources is promoted through a premium tariff and net-metering. Furthermore, loan guarantees are provided for local initiatives for the construction of wind energy plants. Small scale installations for renewable electricity generation that are categorised as strategically important receive support through subsidies. RES for heating are supported through exemption of various taxes that apply for fossil fuels for heating (carbon dioxide taxes supply, import and production of fossil fuels for heating purposes). Biogas is further supported by a direct premium tariff. RES for transport are generally supported through a quota system. Biofuels for transport profit from tax incentives (RES LEGAL Europe, 2014).

Abbreviations

BTL	Biomass-to-Liquids
CHP	Combined heat and power plant
EEAG	Environmental and energy aid guidelines
EU-27	European Union, 27 Member States (excludes Croatia)
EU-28	European Union, 28 Member States (includes Croatia)
FiP	Feed-in premium (scheme)
FIT	Feed-in tariff (scheme)
GHG	Greenhouse gas(es)
GHG	Greenhouse gas
ktoe	Kiloton oil equivalent
MSW	Municipal solid waste
NREAP	National Renewable Energy Action Plan
PV	Photovoltaic energy
RE	Renewable energy
RED	Renewable Energy Directive
RES	Renewable energy sources
RMSW	Renewable Municipal solid waste (renewable fraction in MSW)
RQS	Renewable quota scheme
TSO	Transmission system operator

Renewable energy mix

According to the [EurObserv'ER Bridging Report \(2015\)](#) the amount of renewable energy in Denmark for the year 2013 was 3805.8 ktoe, +160.2 ktoe (+4.4%) compared to 2012. The 2012 share of renewable energy in Denmark amounted to 25.6%, and for 2013 this share amounted to 27.2%; the target for 2020 has been defined as 30%.

In this total amount, the 2013 contribution from renewable electricity amounted to 1299.7 ktoe (15116 GWh), +100.9 ktoe (+8.4%) compared to 2012, for renewable heat the amount was 2267.5 ktoe, +58.2 ktoe (+2.6%) compared to 2012 and for renewable energy in transport the 2013 realisation was 238.5 ktoe, +1.1 ktoe (+0.5%) compared to 2012.

The most important technology in Denmark (2013) is heat from biomass (2122.2 ktoe). Second technology is wind power (956.4 ktoe). Third comes electricity from biomass (297.6 ktoe). The growth rates range from -20.6% (for geothermal heat) to 398.1% (for solar power (photovoltaics and concentration solar power)).

Table Renewable energy production in Denmark. Data have been expressed in ktoe and refer to the years 2012 and 2013

Denmark		2012	2013	Difference	
		ktoe	ktoe	ktoe	Growth
Renewable Electricity	Hydropower	1.5	1.2	-0.3	-17.6%
	Geothermal	0.0	0.0	0.0	0.0%
	Solar	8.9	44.5	+35.6	+398.1%
	Tidal & wave	0.0	0.0	0.0	0.0%
	Wind	883.1	956.4	+73.3	+8.3%
	Biomass	305.3	297.6	-7.7	-2.5%
	Total	1198.8	1299.7	+100.9	+8.4%
Renewable Heat	Geothermal	3.4	2.7	-0.7	-20.6%
	Solar	21.0	24.5	+3.5	+16.7%
	Biomass	2068.3	2122.2	+53.9	+2.6%
	Ambient heat	116.6	118.1	+1.5	+1.3%
Total	2209.3	2267.5	+58.2	+2.6%	
Renewable Transport	Bioethanol/bio-ETBE	0.0	0.0	0.0	0.0%
	Biodiesel	226.6	226.6	0.0	0.0%
	Renewable hydrogen	0.0	0.0	0.0	0.0%
	Renewable electricity	10.8	11.9	+1.1	+9.9%
	Other biofuels	0.0	0.0	0.0	0.0%
	Total	237.4	238.5	+1.1	+0.5%
Total Renewable (calculated)		3645.6	3805.8	+160.2	+4.4%

Source: EurObserv'ER 2015

Recent RES Policy Developments

The current EurObserv'ER policy profile is listing recent policy changes in the EU Member States. Starting point for this monitoring is the situation as it has been described in the country's Progress Report (which were due end of 2013). All Renewable Energy Progress Reports are available in English language from www.eurobserv-er.org (translated versions).

Date	Technology	Policy change
January 2014	All RES	The Danish Renewable Energy Progress Report 2013 was released in by the European Commission in March 2014. An overview of policies and measures for Renewable Energy up to the end of 2013 can be found in Section 2 (page 7) to Section 4 (page 16) in the Progress Report.
February 2014 – January 2015		<no change to be reported>
February 2015	Solar PV and Wind	<p>The EU Commission approved the increased support for wind turbines, as adopted by Law no. 641 of 12 June 2013, and solar pv installations, as adopted by Law no. 900 of 4 July 2013. Both laws have been put in force on 11 February 2015.</p> <p>The surcharge amounts to 2.5 DKK/kWh for wind turbines with an installed capacity of 10 kW or less and 1.5 DKK/kWh for installations with a capacity from 10 kW to 25 kW. This surcharge is limited to 12 years</p> <p>The temporarily increased rates for new photovoltaic apply for plants of up to 6 kW per household within a pool of 20 MW in the years 2013-2017, respectively. The capacity of 20 MW for 2013 and 2014 will be transferred to 2015 so that the total pool in 2015 is 60 MW. Surcharges are limited to 10 years and are between 0.72 – 1.11 DKK/kWh depending on the type of plant and the year of installation (source: Danish Energy Agency, 2015).</p>
March – August 2015		<no change to be reported>
September 2015	All RES (small)	A new application procedure for photovoltaics, small wind turbines and other small renewable energy plants was introduced. The revised procedure means that applications for grants from Energinet.dk have to be handed in before beginning the project. The reason for the

		revised application procedure is that the Commission has conditioned the temporary approval of aid for solar cells and wind turbines to Denmark adapting the current legislation to the Commission's current guidelines for state aid.
October 2015	Wind	The Danish Minister of Energy, Utilities and Climate tabled a bill to reduce support for small wind turbines. In 2016, the settlement price for wind turbines up to 10 kW is to be reduced from 2.50 DKK/kWh to 2.12 DKK/kWh, while the price for turbines in the range of 10-25kW drops from 1.50 DKK/kWh to 1.32 DKK/kWh. Furthermore, the eligibility period is reduced from 20 to 12 years.
November 2015	Wind	A legislation concerning coastal wind turbines will strengthen the influence of municipalities on decisions on coastal wind farms. Furthermore, the right of authorisation new wind projects in the so-called open-door scheme will be moved from the Danish Energy Agency to the Danish Minister of Energy, Utilities and Climate. The new legislation allows municipalities to raise an objection against a project. In order to support municipalities, the green plan, which gives municipalities the opportunity to apply for grants to initiatives that benefit the public, is expanded to include coastal wind turbines in the open-door system. It is expected that the amendments enter into force 1 January 2017.
December 2015		<no change to be reported>

Note to the reader: the above overview had been compiled with care. However, in case you miss recent developments please be invited to inform EurObserv'ER on policy changes in a Member State. For communication use e-mail (policy@eurobserv-er.org) or Twitter (https://twitter.com/eurobserv_er).

Glossary

Auctions for granting renewable energy support	An auction is a process, organised by a governmental renewable energy implementation agency, of granting production or investment support to a specified volume of eligible renewable energy (or renewable energy generation capacity) based on the lowest bids per unit of renewable energy (or renewable energy generation capacity) by eligible renewable project developers.
Degression rate	See under 'Sliding feed-in tariff'
Feed-in tariff (FiT)	A technology-specific support scheme which provides for a technology-specific remuneration per unit of renewable energy payable to eligible renewable energy producers, typically for a period of 10-20 years. The FiT level is set <i>ex ante</i> by the National Regulatory Agency (NRA). It is to cover all future production costs including a <i>normal</i> rate of return to capital invested. In many schemes priority network access is offered to eligible renewable electricity generators, whilst a designated third party - e.g. the transmission or distribution network operator concerned - is being mandated to pay the FiT remuneration due. A proper, periodic review of FiT rates is often undertaken with the aim to prevent both too high FiTs so as to minimise regulatory rents, i.e. supra-normal returns and too low FiTs to preclude below-target market uptake because of FiT levels that are perceived by market participants to be less attractive.
Feed-in premium (FiP)	A technology-specific support scheme which provides for a technology-specific subsidy level per unit of renewable energy to eligible renewable energy producers, typically for a period of 10-20 years, at a pre-set fixed or floating (see under 'Floating FiP') rate, projected by the National Regulatory Agency (NRA) to enable renewable energy generation investments deemed commercially attractive by project developers without yielding supra-normal profits.
Floating FiP	A feed-in premium, which is periodically adjusted to exactly offset the change in the average energy wholesale market price, based on a pre-specified benchmark market price. A floating FiP may move freely or may only be allowed to move within a pre-set interval.
Grants	Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. (Source: Wikipedia.org)
Green public procurement	In Green public procurement contracting authorities take environmental issues into account when tendering for goods or services. The goal is to reduce the impact of the procurement on human health and the environment. (Source: Wikipedia.org)
NRA	National Regulatory Agency

Renewable quota scheme (RQS)	A renewable quota scheme mandates certain market actors (typically retail suppliers or large energy end-users) to respect a pre-set minimum share or amount of their total energy procurements from renewable sources of energy. Typically a tradable green certificate (TGC) scheme is operated to enable the obligated parties to prove their compliance with the prevailing renewable quota target by means of TGCs. Typically the renewable quota target is increased gradually over time. Renewable quota systems are also known under terms such as quota (obligation) schemes or renewable portfolio standards.
Request for tenders (RFT)	A request for tenders (RFT) is a formal, structured invitation to suppliers, to bid, to supply products or services. In the public sector an official fee is needed to fortify and secure the tender bid engagement/win documents, such a process may be required and determined in detail by law to ensure that such competition for the use of public is open, fair and free from bribery and nepotism. For example, a government may put a certain level of MW of offshore wind energy at a pre-defined location 'out to tender'; that is, publish an invitation for other parties to make a proposal for the construction of offshore wind farms, on the understanding that any competition for the relevant government contract must be conducted in response to the tender, no parties having the unfair advantage of separate, prior, closed-door negotiations for the contract. An evaluation team will go through the tenders and decide who will get the contract. (source: adapted from Wikipedia.org)
RD&D funding	The funding of research, development and demonstration activities and programmes. For technologies far remote from commercial maturity, government grants or subsidies might be considered. For technologies close to commercial maturity which are not taken up for commercial research any way, instruments such as fiscal instruments (tax credits, accelerated depreciation, etc.) and public-private partnerships may be considered, based on shared public and private RD&D funding.
Sliding feed-in-tariff	A FIT scheme which pre-sets technology-specific declining feed-in tariffs for certain prospective vintages in line with the technology-specific learning curve, as projected by the National Regulatory Agency (NRA). Often a depression rate is used indicating the %/annum decrease in the rate level.
Soft loans	Loans at concessional (below market-based) terms, for example at sub-market-conform interest rates, made available in several Member States to stimulate certain renewable energy technologies.
Tax credits	These are amounts a tax paying entity is allowed to deduct when declaring payable taxes, for example company tax or income tax, to the tax authorities, for example the producer tax credits (PTCs) used in the United States to stimulate among others wind energy deployment.
Tenders	See 'Request for tenders'

References

Danish Energy Agency, 2015, <http://www.ens.dk/>

EurObserv'ER, 2014, www.eurobserv-er.org

RES LEGAL Europe, www.res-legal.eu/search-by-country/denmark/

'The State of Renewable Energies in Europe', <http://www.eurobserv-er.org/pdf/bilan13-gb.asp>,
(edition 2013) and http://www.energies-renouvelables.org/observ-er/stat_baro/barobilan/barobilan14_EN.pdf (edition 2014)

Annex

The EurObserv'ER Barometers are all available for download.

Links to all EurObserv'ER publications:

'The State of Renewable Energies in Europe' (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-annual-overview-barometers>

Wind Energy Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-wind-energy-barometers>

Photovoltaic Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-photovoltaic-barometers>

Solar Thermal Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-solar-thermal-and-concentrated-solar-power-barometers>

Biofuels Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-biofuels-barometers>

Biogas Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-biogas-barometers>

Renewable Municipal Waste Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-renewable-municipal-waste-barometers>

Solid Biomass Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-solid-biomass-barometers>

Heat Pump Barometer (PDF, multiple languages)

<http://www.eurobserv-er.org/category/all-heat-pumps-barometers>