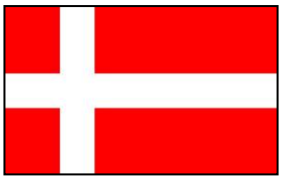

Renewable energy policy database and support – RES-LEGAL EUROPE

National profile: Denmark

Client: DG Energy

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Denmark – summary text

In Denmark, electricity from renewable sources is mostly promoted through a premium tariff and net-metering. Renewable energy sources for heating purposes are exempt from the tax obligations on the production, supply and use of energy sources. The main incentive for renewable energy use in transport is a quota system.

Access of electricity from renewable energy sources to the grid shall be granted according to the principle of non-discrimination. With regard to the use of the grid renewable energy shall be given priority. The connection of a heat generation plant to a district heating network in Denmark always involves grid development, since the construction of a plant must occur simultaneously with the development of the district heating grid.

There is number of policies aiming at promoting the development, installation and use of RES installations.

RES-E support schemes

Summary of RES-E support schemes

Overview	In Denmark, electricity from renewable sources is promoted through a premium tariff and net-metering. In addition, local initiatives for the construction of wind energy plants are supported through loan guarantees. Small renewable electricity generation installations deemed to be of strategic importance in Denmark are eligible for a subsidy.
Summary of support system	• **Premium tariff.** In Denmark, the generation of electricity from renewable sources is promoted through a premium tariff system based on bonus payments. The operators of renewable energy plants usually receive a variable bonus, which is paid on top of the market price. The sum of the market price and the bonus shall not exceed a statutory maximum per kWh, which depends on the source of energy used and the date of connection of a given plant. • **Net–Metering.** Electricity producers using all or part of the electricity produced for their own needs are totally or partly exempt from paying Public Service Obligation on this electricity. The Public Service Obligation is a charge levied to support renewable energy. • **Loan guarantees.** Associations of wind energy plant owners and other local initiatives may apply for guarantees for loans for feasibility studies that are conducted in the run-up to the construction of a wind-energy plant. • **Subsidy.** Small renewable electricity generation installations deemed to be of strategic importance in Denmark may receive a subsidy - ForskVE.
Technologies	VE-Lov governs the promotion of technologies for the generation of electricity from wind energy, biogas, biomass, solar energy, wave and tidal energy as well as hydro-electric power stations whose capacity does not exceed 10 MW.
Statutory provisions	• VE-Lov (Lov om fremme af vedvarende energi No. 1392/2008 – Law on the Promotion of Renewable Energy) • Act on Electricity Supply (Bekendtgørelse af lov om elforsyning No. 1115/2006 – general provisions on the supply of electricity) • BEK 804/2010 (Bekendtgørelse om nettoafregning for egenproducenter af elektricitet – Regulation on Net-Metering)

	• BEK 692/2012 (Bekendtgørelse om tilskud til at fremme udbredelsen af elproduktionsanlæg med vedvarende energikilder – Regulation on grants to promote the development of electric power generated from renewable energy sources)

Basic information on legal sources

Name of legal source (original language)	Lov om fremme af vedvarende energi	Bekendtgørelse af lov om elforsyning	Bekendtgørelse om nettoafregning for egenproducenter af elektricitet	Bekendtgørelse om tilskud til at fremme udbredelsen af elproduktionsanlæg med vedvarende energikilder
Full name				
Name (English)	Law on the Promotion of Renewable Energy	Act on Electricity Supply	Regulation on Net-metering for the Producers of Electricity for Own Needs	Regulation on grants to promote the development of electric power generated from renewable energy sources
Abbreviated form	VE-Lov	Act on Electricity Supply	BEK 1068/2012	BEK 692/2012
Entry into force	01.01.2009	21.11.2006	20.11.2012	01.07.2012
Last amended on	01.07.2012	01.07.2012		
Future amendments				
Purpose	Promoting the generation of electricity from renewable sources.	Managing and organising the national electricity market.	This law authorises the exemption of certain producers from the surcharge on electricity.	Promoting the deployment of small installations using renewable energy sources.
Relevance for renewable energy	See purpose.	This Act stipulates binding guidelines for the promotion of electricity from renewable sources.	Operators of renewable energy plants are exempt from the surcharge on electricity.	See purpose.

Link to full text of legal source (original language)	https://www.retsinformation.dk/Forms/R0710.aspx?id=139075	https://www.retsinformation.dk/Forms/R0710.aspx?id=141061	https://www.retsinformation.dk/Forms/R0710.aspx?id=144036	https://www.retsinformation.dk/Forms/R0710.aspx?id=142592
Link to full text of legal source (English)	http://www.ens.dk/en-US/supply/Renewable-energy/Documents/Renewable%20Energy%20Act%20_VE%20loven.pdf Please note: The English translation does not provide information on the latest amendment of the Act.	http://www.ens.dk/da-DK/Info/Lovstof/Hoeringer/2009/Documents/Lovbekg_286.pdf Please note: The English translation does not provide information on the latest amendment of the Act.		

Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
Energistyrelsen (ENS) – Danish Energy Agency	http://www.ens.dk		+45 339 267 00	ens@ens.dk
Energitilsynet (DERA) – Danish Energy Regulatory Authority	http://energitilsynet.dk		+45 417 154 00	post@energitilsynet.dk
Klima- og Energiministeriet (KEMIN) – Danish Ministry for Climate and Energy	http://www.kemin.dk		+45 339 228 00	kebmin@kebmin.dk
Energinet.dk – Transmission System Operator	http://www.energinet.dk		+45 701 022 44	info@energinet.dk

Support schemes

Subsidy (The ForskVE-programme - Funds for small renewable energy technologies)

Abbreviated form of legal source(s)	• VE-Lov • BEK 692/2012 • Act on Electricity Supply	
Contact Authority	Energinet.dk	
Summary	Energinet.dk provides funding to promote the deployment of small electricity generation installations using renewable energy sources or technologies deemed to be of strategic importance by the competent ministry, including PV-installations, wave power plants and special installations using biogas and biomass as electricity source (§ 49 par. 1 VE-Lov in conjunction with § 1 BEK 692/2012).	
Eligible technologies	**General information**	Subsidies are provided for small electricity generation installations using renewable energy sources that are deemed to be of strategic importance by the competent ministry. This includes PV-installations, wave power plants and special installations using biogas and biomass as electricity source (§ 1 BEK 692/2012). Eligible installations have to be connected to the grid (§49 par. 3 VE-Lov). Only installations which are believed to be able to produce electricity on a regular basis are eligible (§ 2 BEK 692/2012).
	Wind energy	
	Solar energy	Eligible are building integrated solar energy installations (§ 1 BEK 692/2012).

	Geothermal energy	
	Biogas	Electricity generation installations using gas produced through gasification of biomass are eligible (§ 1 BEK 692/2012).
	Hydro-power	Wave power plants are eligible (§ 1 BEK 692/2012).
	Biomass	Electricity generation installations using stirling engine and other similar facilities with biomass as an energy source are eligible (§ 1 BEK 692/2012).
Amount	The subsidy may be rewarded for the coverage of the following costs: - investment, preparation or installation costs into the plant in order to enable the production of electricity and the costs of commissioning of the plant into a proving phase, including the cost of the necessary consultancy (§ 3 par. 1 no. 1 BEK 692/2012). - expenses for preparing of results concerning its finance and operations for a period after commissioning (§ 3 par. 1 no. 2 BEK 692/2012). Energienet.dk has provided and manages a budget, which amounts to 25 million DKK per year (approx. € 3.35 M) until the end of 2015 (§ 49 par. 2 VE-Lov).	
Addressees	Subsidies are aimed to promote market introduction of installations, including pilot projects on a smaller scale (§ 49 par. 3 VE-Lov). Applicants have to be project owners, both enterprises and institutions. Installations receiving support through a premium tariff are still eligible for the subsidy scheme (§ 3 par. 2 BEK 692/2012).	
Procedure	**Process flow**	• **Tender.** Tenders for the application for the ForskVE subsidies are published on a special website: www.forskel.dk (§ 10 par. 1 BEK 692/2012). • **Application.** An applicant has to register on this website and apply for the subsidy within a specified timeframe. • **Selection procedure.** Energinet.dk decides which project shall be subsidised.

		• **Contract.** The contract has to be signed between Energinet.dk and the owner of the project. • **The project is allowed to begin** after the contract is signed. Energinet.dk may allow a project to start before the signing of the contract. • **Interim report** must be drawn-up and delivered to Energinet.dk at least twice a year. • **Final report.** When completing the project, several documents must be submitted, including a final report, a financial statement for the entire project and an auditor's report
	Competent authority	The transmission grid operator Energinet.dk is in charge of the subsidies (§ 49 par. 1 VE-Lov).
Flexibility mechanism		
Distribution of costs	**State**	
	Consumers	The costs of the support system are borne by the consumers (§ 8 par. 2 Electricity Supply Act).
	Plant operator	
	Grid operator	
	European Union	

	Distribution mechanism	• **Consumers – grid operators.** Every consumer is obliged to pay a surcharge, the so-called Public Service Obligation. It depends on each consumer's individual level of consumption. The surcharges are determined by Energinet.dk four times a year. According to Energinet.dk, the surcharges are collected by the grid operators. • **Grid operators – Energinet.dk.** According to Energinet.dk, the grid operators submit the surcharges collected to Energinet.dk. A certain part of this money is designated for the guarantees.

Loan (Loan guarantees for local initiatives for the construction of wind-energy plants)

Abbreviated form of legal source(s)	• VE-Lov • Act on Electricity Supply	
Contact Authority	Energinet.dk	
Summary	Energinet.dk provides guarantees for loans taken out by local associations of wind plant owners and other local initiative groups to finance feasibility studies prior to the construction of wind-energy plants (§ 21 VE-Lov). If a given wind energy project is not completed, the guarantee paid out need not be repaid unless the project was fully or partly transferred to a third party (§ 21 par. 4 VE-Lov).	
Eligible technologies	**General information**	Loan guarantees as stipulated by VE-Lov are provided for wind energy plants only (§ 21 VE-Lov).
	Wind energy	Eligible. The following plants are ineligible: • wind energy plants with a capacity of less than 25 kW that are connected to an energy-consuming device • off-shore wind energy plants authorised under a tendering procedure (§ 21 VE-Lov). This procedure is used to grant an exclusive right to construct off-shore wind power plants in a specific area.
	Solar energy	
	Geothermal energy	
	Biogas	
	Hydro-power	

	Biomass	
Amount	Energienet.dk has provided a budget of 10 million DKK (approx. € 1.3 M) for guarantees. Each guarantee will cover most of the loan in question. The maximum guarantee is 500,000 DKK (approx. € 67,209) per project (§ 21 par. 5 VE-Lov).	
Addressees	Guarantees are provided for local associations of plant owners and other local initiatives that intend to construct one or more wind energy plants. Such organisations and groups must have 10 members at least. The majority of the members shall be residents in the municipality in which the plants will be constructed or shall live within 4.5 kilometres of the building site (§ 21 par. 2 no. 1 and 2 VE-Lov). In case of off-shore wind turbines, the municipality shall be the municipality whose coastline is closest to the turbine.	
Procedure	**Process flow**	• **Application.** Local organisations or initiative groups apply to Energinet.dk (§ 21 par. 5 VE-Lov). • **Selection procedure.** Energinet.dk decides whether a guarantee will be provided (§ 21 par. 5 VE-Lov). Applicants shall meet the preconditions specified by law (§ 21 par. 2 VE-Lov). • **Loan borrowing.** The organisation or initiative takes out a loan from a bank. • **Guarantee.** Energinet.dk declares to provide a guarantee to the bank. • According to Energinet.dk, **the contract** between Energinet.dk and the group is an application form signed by both parties. • **Period of guarantee.** The guarantee is provided until the wind turbine in question is connected to the grid and ends three months after the installation of the wings at the latest (§ 21 par. 3 VE-Lov).
	Competent authority	The transmission grid operator Energinet.dk is in charge of the guarantee system (§ 21 par. 1 VE-Lov).

Flexibility mechanism		
Distribution of costs	**State**	
	Consumers	The costs of the support system are borne by the consumers (§ 8 par. 2 Electricity Supply Act).
	Plant operator	
	Grid operator	
	European Union	
	Distribution mechanism	• **Consumers – grid operators.** Every consumer is obliged to pay a surcharge, the so-called Public Service Obligation. It depends on each consumer's individual level of consumption. The surcharges are determined by Energinet.dk four times a year. According to Energinet.dk, the surcharges are collected by the grid operators. • **Grid operators – Energinet.dk.** According to Energinet.dk, the grid operators submit the surcharges collected to Energinet.dk. A certain part of this money is designated for the guarantees.

Premium tariff (Law on the Promotion of Renewable Energy)

Abbreviated form of legal source(s)	• VE-Lov • Act on Electricity Supply	
Contact Authority	Energinet.dk	
Summary	Denmark promotes renewable electricity generation through a premium tariff. Plant operators receive a variable bonus on top of the market price. The sum of the bonus and the market price shall not exceed a certain statutory maximum, which depends on the date of connection of a given plant and the source of energy used (§§ 36-48 VE-Lov). In certain cases, plant operators are granted a guaranteed bonus on top of the market price. In such cases the maximum is not defined by law.	
Eligible technologies	**General information**	The Law on the Promotion of Renewable Energy promotes all technologies except for geothermal power generation (§ 2 VE-Lov).
	Wind energy	Both on-shore and off-shore plants are eligible (§§ 36-43 VE-Lov).
	Solar energy	Eligible (§§ 47, 48 VE-Lov). According to the energy agency, only installations with a capacity of at least 6 kW are eligible for the premium tariff.
	Geothermal energy	
	Biogas	Eligible (§ 44 VE-Lov).
	Hydro-power	Eligible under the following conditions (§§ 47, 48 VE-Lov): • **Conventional hydro-electric power plants.** Eligible up to a capacity of 10 MW (§ 50 par. 6 VE-Lov). • **Wave power plants.** Eligible without restriction (§§ 47 par. 1

		no. 1 VE-Lov).
	Biomass	Eligible (§§ 45-46 VE-Lov).
Amount	**General information**	There are two types of bonuses: • **Maximum bonus:** The bonus varies according to the market price and the statutory maximum set for the sum of both the market price and the bonus. • **Guaranteed bonus**: In certain cases, plant operators are granted a guaranteed bonus on top of the market price. In such cases the maximum is not defined by law (§§ 36-48 VE-Lov). The following bonuses apply to new plants coming on line:

	Wind energy	• On-shore plants:
		  ○ Guaranteed bonus of 0.25 DKK (approx. €ct 3) per kWh for 22,000 full load hours (§ 36 VE-Lov)
		  ○ Plants financed by utility companies: maximum subsidy (bonus plus market price) of 0.33 DKK (approx. €ct 4) per kWh, applicable for 10 years from the date of connection of the plant, plus guaranteed bonus (unlimited term) of 0.10 DKK (approx. €ct 1) per kWh (§ 40 VE-Lov)
		• Off-shore plants:
		  ○ Wind farms: maximum subsidy (bonus plus market price) depends on the location of the farm:
		  ▪ 0.518 DKK (approx. €ct 7) per kWh for electricity produced at the off-shore wind farm Horns Rev 2 for a total of 10 TWh, limited to 20 years from the date of connection of the wind farm (§ 37 par. 2 no. 1 VE-Lov).

		▪ 0.629 DKK (approx. €ct 8) per kWh for electricity produced at the off-shore wind farm Rødsand 2 for a total of 10 TWh, limited to 20 years from the date of connection of the wind farm (§ 37 par. 2 no. 2 VE-Lov). ▪ 1.051 DKK (approx. €ct 14) per kWh for electricity produced at the off-shore wind farm Anholt for a total of 20 TWh, limited to 20 years from the date of connection of the wind farm (§ 37 par. 2 no. 3 VE-Lov). The bonus will not be paid during hours in which the market price (i.e. the Nordpool spot price) is not positive. This can occur when the demand for electricity is lower than the offer (§ 37 par. 5 VE-Lov). ○ Plants financed by utility companies: maximum subsidy (bonus plus market price) of 0.353 DKK (approx. €ct 5) per kWh, applicable to 42,000 full load hours, plus guaranteed bonus (unlimited term) of 0.10 DKK (approx. €ct 1) per kWh (§ 40 VE-Lov) • Plants with an installed capacity of up to 25 kW that generate electricity for the operator's own use: maximum subsidy (bonus plus market price) of 0.60 DKK (approx. €ct 8) per kWh (§ 41 VE-Lov)
	Solar energy	• Maximum subsidy (bonus plus market price) for installations deemed to be of strategic importance by the competent ministry: 0.60 DKK (approx. €ct 8) per kWh, applicable in the first 10 years of operation, and 0.40 DKK (approx. €ct 5) per kWh for a further 10 years (§ 47 par. 3 no. 1 VE-Lov). • Hybrid installations: for the proportion of electricity generated by a strategically important technology: guaranteed bonus of 0.26 DKK (approx. €ct 3) per kWh,

		applicable for the first 10 years of operation, and 0.06 DKK (approx. €ct 0.8) per kWh, applicable for a further 10 years (§ 48 par. 3 no. 1 VE-Lov).
	Geothermal energy	

	Biogas	• Maximum subsidy (bonus plus market price): 0.793 DKK (approx. €ct 11) per kWh (§ 43a par. 2 VE-Lov) plus a guaranteed bonus of:
		  • 0.26 DKK (approx. €ct 5) per kWh (§ 43a par. 5 VE-Lov). This amount will be adjusted annually based on the average price of natural gas in the previous year (§ 43e par. 2 VE-Lov)
		  • 0.10 (approx. €ct 5) per kWh (§ 43a par. 5 VE-Lov). This amount will be reduced annually from 1 January 2016 by 0.02 DKK and will cease by the end of 2019 (§ 43e par. 4 VE-Lov)
		• Co-firing: for the proportion of electricity generated from the combustion of biogas: guaranteed bonus of 0.791 DKK (approx. €ct 11) per kWh (§ 43a par. 3 and 5 VE-Lov).The tariff is net-price indexed. It is calculated every year on 1 January and based on 60% of the increase in the net price index of the previous year as compared to 2007 (§ 43a par. 6 VE-Lov).

	Hydro-power	• Guaranteed bonus of 0.10 DKK (approx. €ct 1) per kWh, applicable for 20 years from the date of connection of the plant (§ 47 par. 3 no. 2 VE-Lov). • Plants deemed to be of strategic importance by the ministry in charge (currently, only wave energy comes under this definition): maximum subsidy (bonus plus market price) of 0.60 DKK (approx. €ct 8) per kWh, applicable for the first 10 years of operation and 0.40 DKK (approx. €ct 5) per kWh for a further 10 years (§ 47 par. 3 no. 1 VE-Lov).

		• Hybrid plants:
		  ○ for the proportion of electricity generated from hydro-energy, guaranteed bonus of 0.10 DKK (approx. €ct 1) per kWh, applicable for 20 years from the date of connection of the plant (§ 48 par. 3 no. 2 VE-Lov).
		  ○ for the proportion of electricity generated by a strategically important technology: guaranteed bonus of 0.26 DKK (approx. €ct 3) per kWh, applicable for the first 10 years of operation, and 0.06 DKK (approx. €ct 0.8) per kWh for a further 10 years (§ 48 par. 3 no. 1 VE-Lov).

	Biomass	Electricity produced with usage of stirling engines and other special power generation plants with biomass as an energy source: • Maximum subsidy (bonus plus market price): 0.793 DKK (approx. €ct 11) per kWh (§ 44 par. 2 VE-Lov). • Co-firing: for the proportion of electricity generated from the combustion of biogas: guaranteed bonus of 0.431 DKK (approx. €ct 6) per kWh (§ 44 par. 3 VE-Lov). • The tariff is net-price indexed. It is calculated every year on 1 January and based on 60% of the increase in the net price index of the previous year as compared to 2007 (§ 44 par. 4 VE-Lov). Electricity generated by burning biomass: • Guaranteed bonus of 0.15 DKK (approx. €ct 2) per kWh (§ 45 par. 2 VE-Lov). • Plants financed by utility companies: Maximum subsidy (bonus & market price) of 0.30 DKK (approx. €ct 4) per kWh plus guaranteed bonus of 0.10 DKK (approx. €ct 1) per kWh,

		applicable for 10 years from the date of connection of the plant, will end on 1 August 2011 at the earliest (§ 46 VE-Lov).
Degression	**General information**	
	Wind energy	
	Solar energy	
	Geothermal energy	
	Biogas	
	Hydro-power	
	Biomass	
Cap		
Eligibility period	The Law on the Promotion of Renewable Energy stipulates several terms and deadlines, which depend on the technology used and the date of commissioning of the plant in question. For more detailed information see the Amount section (§§ 36-48 VE-Lov).	
Addressees	The persons entitled to the payment of a bonus are the owners of plants for the generation of electricity from renewable sources (§ 56 par. 2 VE-Lov).	
Procedure	**Process flow**	Entitlement to bonus payments arises from statutory law (§ 36-48 VE-Lov).
	Competent authority	The authority obligated to pay the bonus is transmission grid operator Energinet.dk (§ 56 par. 1 VE-Lov).
Flexibility Mechanism		

Distribution of costs	**State**	
	Consumers	The costs of the support system are borne by the consumers (§ 8 par. 2 Electricity Supply Act).
	Plant operator	
	Grid operator	
	European Union	
	Distribution mechanism	• **Consumers – grid operators.** Plant operators sell their electricity to the consumers via a supply company. Every consumer is obliged to pay a surcharge, the so-called Public Service Obligation. The surcharge depends on each consumer's individual level of consumption. The surcharges are determined by Energinet.dk four times a year. According to Energinet.dk, the surcharges are collected by the grid operators. • **Grid operators – Energinet.dk.** According to Energinet.dk, the grid operators submit the surcharges collected to Energinet.dk. • **Energinet.dk – plant operators.** Energinet.dk pays the bonus to the plant operators (Energinet.dk website).

Net-Metering

Abbreviated form of legal source(s)	• BEK 804/2010	
Contact Authority	Energinet.dk	
Summary	The Regulation on Net-metering authorises the exemption of certain plant operators from paying Public Service Obligation (PSO) or part of it. Electricity producers using all or part of the electricity produced for their own needs are completely or partially exempt from paying Public Service Obligation on this electricity. The Public Service Obligation is a charge levied to support renewable energy (§ 1 BEK 804/2010).	
Eligible technologies	**General information**	All technologies except for geothermal energy are eligible for net-metering (§ 2 no. 6 BEK 804/2010). Plants must be connected to a collective grid, installed at the place of consumption and fully owned by the consumer (§ 3 par. 3 BEK 804/2010). Moreover, plants must be listed in a key data register (Stamdataregistret) (§ 5 BEK 804/2010).
	Wind energy	Eligible only if the plant is connected to a private supply system or if the plant is located at the place of consumption (§ 3 par. 2, 4 and § 4 par. 2, 3 BEK 804/2010).
	Solar energy	Eligible only if the installation is connected to a private supply system or if the installation is located at the place of consumption (§ 3 par. 2, 4 and § 4 par. 2, 3 BEK 804/2010).
	Geothermal energy	
	Biogas	Eligible (§ 2 no. 6 BEK 804/2010).
	Hydro-power	Eligible (§ 2 no. 6 BEK 804/2010).

	Biomass	Eligible (§ 2 no. 6 BEK 804/2010).

Amount	Every consumer is obliged to pay a surcharge, the so-called Public Service Obligation. It depends on each consumer's individual level of consumption. The surcharge for the support of renewable energy is part of the PSO tariff. The surcharges are determined by Energinet.dk four times a year.
	Which surcharge a plant owner is exempt from depends on the installed capacity of his plant.
	• The following plants are exempt from the whole PSO tariff:
	  • Solar energy installations up to 50 kW
	  • Wind energy plants up to 25 kW
	  • Other technologies up to 11 kW (§ 4 par. 2 BEK 804/2010).
	• The following plants are exempt from the surcharge for the support of renewable energy:
	  • Solar energy installations > 50 kW
	  • Wind energy plants > 25 kW
	  • Other technologies > 11 kW (§ 3 par. 2 BEK 804/2010).	

Addressees	The persons entitled to total or partial exemption from PSO (tariff) are the owners of eligible plants (§ 3 par. 3 no. 2 BEK 804/2010).	
Procedure	**Process flow**	Plant operators must apply to Energinet.dk for net-metering (§ 3, 4 BEK 804/2010). The net-metering for the following plants: • Solar energy installations > 50 kW • Wind energy plants > 25 kW • Other technologies > 11 kW is calculated on an hourly basis (§ 3 par. 1 BEK 804/2010). Operators of the following plants: • Solar energy installations up to 50 kW • Wind energy plants up to 25 kW • Other technologies up to 11 kW

		may apply for net-metering to be calculated on an hourly basis (§ 4 BEK 804/2010). Energinet.dk determines whether the conditions for net-metering are met and which type of net-metering will apply (§ 6 par. 1 BEK 804/2010).
	Competent authority	Energinet.dk (§ 7 par. 1 BEK 804/2010).
Flexibility Mechanism		
Distribution of costs	**State**	The costs of the net-metering system are covered by the budget managed by Energinet.dk.
	Consumers	
	Plant operator	
	Grid operator	
	European Union	
	Distribution mechanism	

RES-E grid issues

Overview

Overview of grid issues	In Denmark, access of electricity from renewable energy sources to the grid is mainly governed by the general legislation on energy and shall be granted according to the principle of non-discrimination. Electricity from renewable sources is subject to special provisions only with regard to the use of the grid, in which renewable energy shall be given priority. The grid users are not entitled to the expansion of the grid.
Connection to the grid	In return for payment, all plant operators shall be granted connection to the grid without certain plant operators being discriminated against (§ 24 Act on Electricity Supply). Renewable energy plants are not given priority.
Use of the grid	The operators of renewable energy plants are entitled by law to priority use of the grids against the grid operator.
Grid development	The grid operator is statutorily obliged to expand the grid in order to guarantee the efficient transmission of electricity. Whenever possible, the national target of increasing the competitiveness and use of renewable energy sources shall be given special attention. The plant operators are not entitled to the expansion of the grid.
Statutory provisions	• Act on Electricity Supply (Bekendtgørelse af lov om elforsyning No. 1115/2006 – general provisions on the supply of electricity) • Order 1063/2010 (Bekendtgørelse om nettilslutning af vindmøller og pristillæg for vindmølleproduceret elektricitet - Order on the Grid Connection of Wind Turbines and Support for Wind-generated Electricity)

Basic information on legal sources

Name of legal source (original language)	Bekendtgørelse om nettilslutning af vindmøller og pristillæg for vindmølleproduceret elektricitet	Bekendtgørelse af lov om elforsyning	
Name (English)	Order on the grid connection of wind turbines and the support for wind generated electricity	Act on Electricity Supply	
Abbreviated form	Order 1063/2010	Act on Electricity Supply	
Entry into force	15.09.2010	21.11.2006	
Last amended on		01.07.2012	
Future amendments			
Purpose		Managing and organising the national electricity market.	
Relevance for renewable energy		This Act stipulates binding guidelines for the promotion of electricity from renewable sources.	
Link to full text of legal source (original language)	*https://www.retsinformation.dk/Forms/R0710.aspx?id=133266*	https://www.retsinformation.dk/Forms/R0710.aspx?id=141061	

Link to full text of legal source (English)		*http://www.ens.dk/da-DK/Info/Lovstof/Hoeringer/2009/Documents/Lovbekg_286.pdf* Please note: The English translation does not provide information on the latest amendment of the Act.	

Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
Energistyrelsen (ENS) – Danish Energy Agency	http://www.ens.dk		+45 339 267 00	ens@ens.dk
Energitilsynet (DERA) – Danish Energy Regulatory Authority	http://energitilsynet.dk		+45 417 154 00	post@energitilsynet.dk
Klima- og Energiministeriet (KEMIN) – Danish Ministry for Climate and Energy	http://www.kemin.dk		+45 339 228 00	kebmin@kebmin.dk
Energinet.dk – Transmission System Operator	http://www.energinet.dk		+45 701 022 44	info@energinet.dk

Grid issues

Connection to the grid

Abbreviated form of legal sources	• Act on Electricity Supply • Order 1063/2010	
Contact Authority	Energinet.dk; Energitilsynet	
Procedure	**Process flow**	The procedural steps are not specified by law. According to Energinet.dk, the procedure to be applied depends on the capacity of a given plant and on the voltage of the grid this plant will be connected to. 1) Connection of plants with a capacity of up to 11 kW: • **Application for connection.** The installer of the plant submits the application for connection to the grid operator. • **Installation of the plant.** • **Agreement on connection to and use of the grid with the grid operator.** • **Registration of the plant.** • **Installation of required meters.** • **Submission of documents to the grid operator.** The plant operator must submit the required information (general and technical specifications) to the grid operator. The grid operator then forwards these documents to Energinet.dk. • **Permission to operate.** The grid operator gives the plant operator permission to operate. • **Connection to the grid.** A plant is connected to the grid after the plant operator has been given permission to operate.

		2) Connection of wind energy plants to the 100 kV grid: • **Application for connection to and use of the grid.** The plant operator applies to the grid operator for connection to and use of the grid. • **Assignment of connection point.** The grid operator assigns a connection point to the plant operator and determines the required voltage level. • **Agreement on connection to and use of the grid with the grid operator.** • **Registration of the wind energy plant.** • **Installation of the wind energy plant.** • **Installation of required meters.** • **Agreement with a licensed expert who shall be responsible for balancing the output of the plant.** • **Submission of documents to the grid operator.** The plant operator must submit the required information (general and technical specifications) to the grid operator. The grid operator then forwards these documents to Energinet.dk. • **Permission to operate.** The grid operator gives the plant operator permission to operate. • **Connection to the grid.** A plant is connected to the grid after the plant operator has been given permission to operate. 3) Connection of wind farms to the > 100 kV grid: • **Application for connection.** A plant operator shall apply to the transmission grid operator for connection and submit the necessary permits and licences together with the application. • **Agreement on connection with the grid operator.** • **Registration of the wind farm.** • **Installation of the wind farm.** • The wind farm operator must submit the **documents required for a plant test**

		to Energinet.dk within 3 months after the wind farm was put into operation. • **Installation of required meters.** • **Agreement with a licensed expert who shall be responsible for balancing the output of the plants.** • **Commissioning of the plants** and commissioning report. • When the plants have been commissioned, the grid operator will give the plant operator **temporary permission to operate** and submit the technical documents (commissioning report and permission to operate) to Energinet.dk. • Energinet.dk then confirms the **temporary permission to operate** and approves the documents. • The grid operator gives the plant operator **final permission to operate**. • **Connection to the grid.** A plant is connected to the grid after the plant operator has been given permission to operate. Any plant must meet the technical requirements set by the Ministry for Energy (§ 26 Act on Electricity Supply). The grid operator is obliged to connect any wind power plant that fulfils the grid connection requirements (§ 2 par. 2 Order 1063/2010).
Overview	Plant operators are entitled against the grid operator to the connection of their plants to the grid. Electricity from renewable sources is not granted priority connection.	
	Deadlines	No deadlines are specified for the connection procedure.
	Obligation to inform	Plant operators are obliged to submit the general and technical documents required to the grid operator. The grid operator then forwards these documents to Energinet.dk. Apart from that, the owner of a wind turbine is, at any given time, obliged to provide any information necessary for the implementation of grid connection to Energinet.dk, the competent transmission and distribution grid operators or the **Danish Energy Agency** (§ 18 Order 1063/2010). The grid operator is obliged to provide any owner of a wind plant who requesting grid

		connection with all the necessary information including: • a detailed estimate of all expenses for connection; • a reasonable and precise timetable for processing the grid connection application and • a reasonable indicative timetable for grid connection itself (§ 10 Order 1063/2010).
Priority to renewable energy (qualitative criteria)	( ) Priority to renewable energy (x) Non-discrimination	Plants shall be connected according to non-discriminatory procedures (§ 24 par. 2 Act on Electricity Supply).
Capacity limits (quantitative criteria)		
Distribution of costs		
	State	
	Consumers	
	Grid operator	The cost of connecting a wind energy plant is borne by the plant owner and the transmission grid operator (Energinet.dk or an affiliated company) (§ 30 VE-Lov).
	Plant operator	The cost of connecting a plant to the grid is borne by the plant operator. The costs a plant operator has to bear shall not exceed the costs that would be incurred if his plant was connected to the 10-20 kV grid. This rule applies even if the grid operator chooses to connect the plant to a different grid. All other costs, including the expansion and upgrade of the grid, shall be borne by the grid operator (§ 67 Act on Electricity Supply). The cost of connecting a wind energy plant is borne by the plant owner and the transmission grid operator (Energinet.dk or an affiliated company) (§ 30 VE-Lov).

	European Union	
	Distribution mechanism	

Use of the grid

Abbreviated form of legal sources	• Act on Electricity Supply	
Contact Authority	Energinet.dk; Energitilsynet	
Overview	The plant operator is statutorily entitled against the grid operator to use the grid (§ 24 Act on Electricity Supply). Renewable energy plants shall be given priority use of the grid.	
Procedure	**Process flow**	A plant operator shall be entitled to use the grid only if his plant complies with the requirements for grid use established by Energinet.dk (§ 26 Act on Electricity Supply).
	Deadlines	
	Obligation to inform	
Priority to renewable energy **(qualitative criteria)**	(x) Priority to renewable energy ( ) Non-discrimination	Renewable energy shall be given priority use of the grid (§ 27c par. 5 Act on Electricity Supply).
Curtailment	Plant operators are entitled to priority use of the grid, i.e. in case of capacity shortage they shall have priority use over the producers of electricity from conventional energy sources. Producers of electricity from conventional sources are obliged to reduce their electricity exports if necessary. This principle of priority can be overruled for reasons of network security, i.e. to guarantee the technical quality and the balance of the grid (§ 27c par. 5 Act on Electricity Supply).Apart from that, the premium tariff payments for Anholt off-shore wind farm may be cancelled due to a lack of demand. The bonus for electricity generated at Anholt wind farm will not be paid during hours in which the market price (i.e. the Nordpool spot price) is negative. This can occur when the demand for electricity is lower than the offer (§ 37 par. 5 VE-Lov).	
Distribution of costs		

	State	
	Consumers	
	Grid operator	
	Plant operator	The cost of grid use is borne by the plant operator, who has to pay use of grid charges (§ 24 Act on Electricity Supply). The cost of grid use by a wind energy plant is borne by the plant operator and the transmission grid operator (Energinet.dk or an affiliated company) (§ 30 VE-Lov).
	European Union	
	Distribution mechanism	

Grid development

Abbreviated form of legal source	• Act on Electricity Supply	
Contact Authority	Energinet.dk; Energitilsynet	
Overview	In general, the grid operators shall act on their own responsibility and expand their grids to the extent necessary. If a grid operator fails to satisfy his obligation to expand the grid, the Ministry for Climate and Energy shall delegate responsibility for the expansion of the grid to Energinet.dk (§ 20 Act on Electricity Supply). The grid operator is not obliged to the plant operators to expand his grid.	
Procedure	**Process flow**	The grid operator is statutorily obliged to expand the grid if the expansion is necessary to guarantee the efficient transmission of electricity (§ 20 Act on Electricity Supply). The target of increasing the use of renewable energy sources is given special attention whenever necessary (§ 21 Act on Electricity Supply).
	Enforcement of claims	Statutory law does not give rise to an enforceable claim for grid expansion.
	Deadlines	There are no deadlines for grid reinforcement.
	Obligation to inform	
Regulatory incentives for grid expansion and development		
Distribution of costs		
	State	
	Consumers	In effect, the costs of an expansion of the grid are borne by the consumers (§§ 8, 67 Act

		on Electricity Supply).
	Grid operator	
	Plant operator	
	European Union	
	Distribution mechanism	The costs of an expansion of the grid are first borne by the grid operator in charge (§ 67 Act on Electricity Supply). The grid operator may then pass on these costs to the consumers (§ 8 par. 7 Act on Electricity Supply). Every consumer is charged an additional fee, the so-called Public Service Obligation (PSO). The fee depends on each consumer's individual level of consumption. The fees are determined by Energinet.dk four times a year. According to Energinet.dk, the fees are then paid to the grid operators.
Grid studies		

RES-H&C support schemes

Summary of support schemes

Overview	In Denmark there are several taxes on the production, supply and use of energy sources for heating purposes. Renewable energy sources are exempt from these tax obligations.
Summary of support schemes	**Tax regulation mechanism** – In Denmark, there are different taxes on the production, processing, possession, receipt and dispatch of fossil fuels for heating. Renewable energy sources are exempt from these taxes.
Technologies	All renewable energy technologies are exempt from the tax obligation.
Statutory provisions	• Act 313/2011 (Lov om energiafgift af mineralolieprodukter m.v. – Act on the Energy Tax on Mineral Oil Products etc.) • Act 1292/2010 (Lov om afgift af stenkul, brunkul og koks m.v. – Act on the Taxes on Coal, Lignite and Coke) • Act 321/2011 (Lov om kuldioxidafgift af visse energiprodukter - Act on the Carbon Dioxide Tax on Certain Energy Products)

Basic information on legal sources

Name of legal source (original language)	Lov om energiafgift af mineralolieprodukter m.v.	Lov om afgift af stenkul, brunkul og koks m.v.	Lov om kuldioxidafgift af visse energiprodukter
Full name			
Name (English)	Act on the Energy Tax on Mineral Oil Products and the like	Act on the Taxes on Coal, Lignite and Coke	Act on the Carbon Dioxide Tax on Certain Energy Products
Abbreviated form	Act 313/2011	Act 1292/2010	Act 321/2011
Entry into force	01.07.2011	01.07.1982	01.07.2011
Last amended on	01.07.2012	01.07.2012	01.01.2012
Future amendments			
Purpose	The Act sets rules for the taxation of the use of specific mineral oil products.	The Act sets rules for the taxation of the use of coal, lignite and coke.	The Act sets rules for the CO2 tax on the use of specific energy products.
Relevance for renewable energy	Renewable energy sources are not subject to tax under this act.	Renewable energy sources are not subject to tax under this act.	Renewable energy sources are not subject to tax under this act.
Link to full text of legal source (original language)	*https://www.retsinformation.dk/Forms/R0710.aspx?id=133871*	*https://www.retsinformation.dk/Forms/R0710.aspx?id=133856*	*https://www.retsinformation.dk/Forms/R0710.aspx?id=133858*
Link to full text of legal source (English)			

Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
Energistyrelsen (ENS) – Danish Energy Agency	http://www.ens.dk		+45 339 267 00	ens@ens.dk
Skatteministeriet (SKM) – Danish Ministry of Taxation	http://www.skm.dk/foreign		+45 33 92 33 92	skm@skm.dk

Support schemes

Tax regulation mechanism

Abbreviated form of legal source(s)	• Act 313/2011 • Act 1292/2010 • Act 321/2011	
Contact Authority	Skatteministeriet	
Summary	In Denmark, different taxes are levied on the production, processing, possession, receipt and dispatch of fossil fuels for heating purposes, for example the energy tax on mineral oil products, taxes on coal, lignite and coke or the carbon dioxide tax on certain energy products. Renewable energy sources are exempt from these taxes, as they are not classed as taxable in the specific regulations.	
Eligible technologies	**General information**	All renewable energy generation technologies are eligible for tax exemption.
	Aerothermal energy	
	Hydrothermal energy	
	Biogas	
	Biomass	
	Geothermal energy	
	Solar thermal energy	
Amount	The amount of tax relief is equal to the tax rate entitled persons are exempt from.	

Addressees	Heating from renewable sources is exempt from these taxes. Companies producing, processing, possessing, receiving or dispatching renewable energy products are exempt from paying tax.	
Procedure	**Process flow**	
	Competent authority	The competent authority is the Danish Ministry of Taxation.
Flexibility mechanism		
Distribution of costs	**State**	The costs of the tax reliefs are borne by the state.
	Consumers	
	Plant operator	
	Grid operator	
	European Union	
	Distribution mechanism	

RES-H&C grid issues

Overview

Overview of grid issues	Due to the nature of heat supply, the connection of a heat generation plant to a district heating network is closely linked to the construction of the plant. Grid connection always involves grid development, since the construction of a plant must occur simultaneously with the development of the district heating grid.
Statutory provisions	• Act 1184/2011 (Lov om varmeforsyning - The Heat Supply Act)

Basic information on legal sources

Name of legal source (original language)	Lov om varmeforsyning		
Full name			
Name (English)	The Heat Supply Act		
Abbreviated form	Act 1184/2011		
Entry into force	20.05.2011		
Last amended on	20.06.2012		
Future amendments			
Purpose	The objective of this act is to promote the socio-economically and environmentally sustainable use of energy for heating installations in buildings.		
Relevance for renewable energy	Also applies to district heating networks that transmit RES-H		
Link to full text of legal source (original language)	*https://www.retsinformation.dk/Forms/R0710.aspx?id=139597*		
Link to full text of legal source (English)			

Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
Energistyrelsen (ENS) – Danish Energy Agency	http://www.ens.dk		+45 339 267 00	ens@ens.dk
Danish District Heating Association	http://www.fjernvarmen.dk		+45 76 30 80 00	mail@danskfjernvarme.dk

Grid issues

Connection to the grid

Abbreviated form of legal sources	• Act 1184/2011	
Contact Authority	Energistyrelsen; Danish District Heating Association	
Overview	Due to the nature of heat supply, the connection of a heat generation plant to a district heating grid coincides with the process of developing the plant and the grid. The procedure described below illustrates the process of plant construction.	
Procedure	**Process flow**	Each district council in Denmark is responsible for preparing a plan for the district's heat supply (§ 3 Act 1184/2011). • In order to construct a heat generation plant whose capacity exceeds 250 kW, the developer has to submit a **project proposal** to the district council competent in the municipality in which the plant is to be constructed. • The municipality conducts an **evaluation of the socio-economic impact** of the new plant's construction. • Only if this impact is the least detrimental of all other options, the developer is allowed to **build a heat generation plant** (§§ 4 and 6 Act 1184/2011).
	Deadlines	
	Obligation to inform	Producers and suppliers of energy transported via district heating networks as well as consumers shall, upon request, provide the Minister of the Environment and any relevant district council with all information deemed necessary for planning the municipality's heat supply (§ 4 par. 3 Act 1184/2011).
Priority to renewable energy (qualitative criteria)	( ) Priority to renewable energy ( ) Non-discrimination	The district council may, as a precondition for issuing a permission to construct a heat generation plant, require that the plant either allows to use or uses certain types of energy in its production to a specified extent (§ 7 Act 1184/2011).
Capacity limits		

(quantitative criteria)		
Distribution of costs		
	State	
	Consumers	The costs of grid connection and development are borne by the consumers (§ 20 Act 1184/2011).
	Grid operator	
	Plant operator	
	European Union	
	Distribution mechanism	

RES-T support schemes

Summary of support schemes

Overview	The main incentive for renewable energy use in transport is a quota system. This scheme obliges companies importing or producing petrol, gas or diesel fuels to ensure that biofuels make up a defined percentage of the company's total annual fuel sales. Furthermore, biofuels are supported through tax incentives.
Summary of support schemes	• **Tax regulation mechanism.** Companies producing, processing, possessing, receiving or dispatching energy products are obliged to pay a defined amount of tax. This amount is reduced for fuels blended with biofuels. • **Biofuels quota.** The main Support schemes for renewable energy sources used in transport is a quota obligation. Companies importing or producing petrol, gas or diesel fuels are obliged to ensure that biofuels make up a defined percentage of the company's total annual fuel sales.
Technologies	The tax regulation mechanism and the quota obligation apply to biofuels only.
Statutory provisions	• Act 674/2011 (Bekendtgørelse af lov om bæredygtige biobrændstoffer og om reduktion af drivhusgasser fra transport – Act on Sustainable Biofuels and the Reduction of Greenhouse Gas Emissions from Transport) • Act 321/2011 (Bekendtgørelse af lov om kuldioxidafgift af visse energiprodukter – Act on the Carbon Dioxide Tax on Certain Energy Products) • Act 313/2011 (Bekendtgørelse af lov om energiafgift af mineralolieprodukter m.v. – Act on the Energy Tax on Mineral Oil Products and the like)

Basic information on legal sources

Name of legal source (original language)	Bekendtgørelse af lov om bæredygtige biobrændstoffer og om reduktion af drivhusgasser fra transport (biobrændstofloven)	Bekendtgørelse af lov om kuldioxidafgift af visse energiprodukter	Bekendtgørelse af lov om energiafgift af mineralolieprodukter m.v.
Full name			
Name (English)	Act on Sustainable Biofuels and the Reduction of Greenhouse Gas Emissions from Transport (Biofuels Act)	Act on the Carbon Dioxide Tax on Certain Energy Products	Act on the Energy Tax on Mineral Oil Products and the like
Abbreviated form	Act 674/2011	Act 321/2011	Act 313/2011
Entry into force	31.12.2010	01.07.2011	01.07.2011
Last amended on	01.04.2012	01.01.2012	01.07.2012
Future amendments			
Purpose	The act aims to promote the use of sustainable biofuels in the transport sector and to reduce greenhouse gas emissions from transport.	The act introduces a tax on certain energy products depending on their CO2 emissions.	The act introduces a tax on mineral oil products.
Relevance for renewable energy	Defining an obligatory quota of biofuels	Tax on petrol and petrol blended with biofuels.	Tax on petrol and petrol blended with

			biofuels.
Link to full text of legal source (original language)	*https://www.retsinformation.dk/Forms/R0710.aspx?id=137888*	*https://www.retsinformation.dk/Forms/R0710.aspx?id=133858*	*https://www.retsinformation.dk/Forms/R0710.aspx?id=133871*
Link to full text of legal source (English)			

Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
Energistyrelsen (ENS) – Danish Energy Agency	http://www.ens.dk		+45 339 267 00	ens@ens.dk
Skatteministeriet – Ministry of Taxation	http://www.skat.dk/SKAT.aspx		+45 72 22 18 18	https://www.skat.dk/SKAT.aspx?oId=5050

Support schemes

Tax regulation mechanism

Abbreviated form of legal source(s)	• Act 313/2011 • Act 321/2011	
Contact Authority	Skatteministeriet	
Summary	The Act on the Carbon Dioxide Tax on Certain Energy Products and the Act on the Energy Tax on Mineral Oil Products oblige companies producing, processing, possessing, receiving or dispatching energy products to pay defined amount of tax (§ 1 Act 313/2012 and § 2 Act 321/2011). This amount is lower if the fuel is blended with biofuels (Annex 2 Act 313/2011).	
Eligible technologies	**General information**	Only biofuels are subject to the reduced tax rate.
	Biofuels	Eligible
	Electricity	
	Hydrogen	

Amount	The amount of tax due is lower if the taxed energy product (gas, diesel or petrol) is blended with biofuels.
	Tax bands for the year 2012:
	- Gas or diesel oil:
	  ○ pure: 42.8 øre/liter
	  ○ blended with 6.8% biofuels: 39.9 øre/litre
	- Petrol:
	  ○ pure: 38.6 øre/litre
	  ○ blended with 4.8% biofuels: 36.7 øre/litre (Annex 2 Act 321/2011)
	- Low-sulfur diesel (sulfur content not exceeding 0.005%)	

	○ pure: 257.0 øre/litre ○ blended with 6.8% biofuels: 255.7 øre/litre - Unleaded petrol (lead content not exceeding 0.013 g / l): ○ pure: 402.2 øre/litre ○ blended with 4.8% biofuels: 395.4 øre/litre (Annex 2 Act 313/2011).	
Addressees	Companies producing, processing, possessing, receiving or dispatching energy products are obliged to pay the tax (§ 3 Act 313/2012).	
Procedure	**Process flow**	The obliged companies must inform the authorities on the amount of taxable energy products on a monthly basis (§§ 6 and 7 Act 313/2011).
	Competent authority	Ministry of Taxation
Flexibility mechanism		
Distribution of costs	**State**	The costs of the tax relief are borne by the state.
	Consumers	
	Plant operator	
	Grid operator	
	European Union	
	Distribution mechanism	

Biofuel quota (Act on Sustainable Biofuels)

Abbreviated form of legal source(s)	• Act 674/2011	
Contact Authority	Energistyrelsen	
Summary	The Act on Sustainable Biofuels obliges importers and producers of petrol and diesel to meet a defined quota of biofuels (§ 3 par. 1 Act 674/2011). Obliged fuel suppliers may pass on this obligation to other companies (§ 3 par. 6 Act 674/2011).	
Eligible technologies	**General information**	Only biofuels are subject to the obligation.
	Biofuels	Biofuels have to meet the requirements defined in the European RES-Directive (§ 3 par. 1 and § 4 Act 674/2011).
	Electricity	
	Hydrogen	
Amount	**Amount of quota and period of application**	The providers of petrol or diesel fuels have to ensure that biofuels make up at least 5.75% of the company's total annual fuel sales. The obligation must be fulfilled by the end of each calendar year (§ 3 par. 1 Act 674/2011). Petrol and diesel fuel sold for transportation to end users, must contain at least 1% of biofuels (§ 3 par. 2 Act 674/2011). This obligation does not apply to petrol fuel with 98 octane or higher (§ 3 par. 3 Act 674/2011).

	Adjustment of quotas	The Climate and Energy Minister may lower the amount of quota obligation in the event of a crisis or lack of biofuels (§ 3 par. 7 Act 674/2011)
	Fees and penalty charges	If a provider fails to fulfil the quota he will be punished by a fine (§ 8 Act 674/2011).
Addressees	The quota obligation applies to companies which import or produce petrol, gas or diesel fuels (§ 2 No. 9 and § 3 Act 674/2011).	
Procedure	**Process flow**	• The obliged company sends an **annual report** to the Climate and Energy Minister as evidence for the fulfillment of the obligation (§ 5 Act 674/2011). • **Penalty charge.** If a company fails to fulfil the quota, the responsible authority charges a penalty (§ 8 Act 674/2011).
	Competent authority	Energy Agency
Flexibility mechanism		
Distribution of costs	**State**	
	Consumers	The costs are borne by the consumers.
	European Union	
	Others	

	Distribution mechanism	The obliged companies pass on the costs arising from the quota obligation to the consumers by adding a surcharge to their fuel.

Policies

Summary of policies

Overview	The following policies aim at promoting the development, installation and use of RES installations: There are 2 training programmes for RES-installers, a certification scheme for wind energy plants, two different research, development and demonstration (RD&D) programmes and an obligation to use renewable heating in new and renovated buildings.
Summary of policies	• In general, there are two types of **training programmes for installers of RES plants**: the Quality Assurance Scheme for the installers of solar heating plants, PV installations and biofuels, and the Heat Pump Scheme covering the installation of heat pumps. Apart from that, the vocational education for specific professions covers all the requirements of the European RES Directive. • The **Danish Certification Scheme** for wind energy plants comprises two kinds of certification: type certification, which certifies the general type of wind energy plant, and project certification to evaluate individual installations. • There are two types of **Research, Development and Demonstration Programmes**: "The Energy Technology Development and Demonstration Programme EUDP", which supports innovative sustainable energy technologies and the "Green Labs DK Programme", which provides subsidies for the construction of test and demonstration facilities for new sustainable technologies. • The **RES-H building obligation** obliges owners of new or renovated buildings with a hot water consumption of more than 2,000 litres per day to install solar heating panels.
Technologies	

Statutory provisions	• Building regulations (Bygningsreglementet 2010 – 2010 Building Regulations) • Act 555/2007 (Lov om et Energiteknologisk Udviklings- og Demontrationsprogram og om Green Labs DK-programmet - Act on the Energy Technology Development and Demonstration Programme and the Green Labs DK Programme) • Executive Order No. 651/2008 (Teknisk godkendelsesordning for konstruktion, fremstilling, opstilling, vedligeholdelse og service af vindmøller - Executive Order on the Technical Certification for the Construction, Production, Installation, Maintenance and Service of Wind Energy Plants)

Basic information on legal sources

Name of legal source (original language)	Lov om et Energiteknologisk Udviklings- og Demontrationsprogram og om Green Labs DK-programmet	Bygningsreglementet 2010	Bekendtgørelse om teknisk godkendelsesordning for konstruktion, fremstilling, opstilling, vedligeholdelse og service af vindmøller
Full name			
Name (English)	Act on the Energy Technology Development and Demonstration Programme and the Green Labs DK Programme	Building regulations 2010	Executive Order on the Technical Certification for the Construction, Production, Installation, Maintenance and Service of Wind Energy Plants
Abbreviated form	Act 555/2007	Building regulations	Executive Order No. 651/2008
Entry into force	22.06.2007	01.06.2010	01.07.2008
Last amended on	26.04.2011	24.08.2011	
Future amendments			
Purpose	The act introduces a programme to support the development and demonstration of innovative sustainable energy technologies.	Building regulation	The order specifies the technical requirements for wind energy plants.
Relevance for renewable energy	Among other aims, the programme	The regulation includes rules for the installation of RES installations in	This executive order applies to wind energy

	supports innovative RES technologies.	buildings.	plants only.
Link to full text of legal source (original language)	*https://www.retsinformation.dk/Forms/R0710.aspx?id=22684*	http://www.bygningsreglementet.dk/	*https://www.retsinformation.dk/Forms/R0710.aspx?id=120515*
Link to full text of legal source (English)		http://www.ebst.dk/file/155699/BR10_ENGLISH.pdf Please note: The English translation does not provide information on the latest amendment of the document.	*http://www.wt-certification.dk/Common/Order%20%20651%20af%2026%20%20juni%202008%20eng.pdf*

Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
Energistyrelsen (ENS) – Danish Energy Agency	http://www.ens.dk		+45 339 267 00	ens@ens.dk
Erhvervsstyrelsen – Danish Enterprise and Construction Authority	http://www.ebst.dk		+45 35 46 60 00	erst@erst.dk
Klima- og Energiministeriet (KEMIN) – Danish Ministry for Climate and Energy	http://www.kemin.dk		+45 339 228 00	kebmin@kebmin.dk

Policy categories

Training programmes for installers

Abbreviated form of legal source(s)		
Sector	Electricity, Heating & Cooling, Transport	
Contact Authority	Energistyrelsen	
Description	The training programmes for installers in Denmark are not regulated by law. There are quality assurance agreements between the Danish Technological Institute, installers associations and the Danish Energy Agency. In general, there are two training schemes for installers: the Quality Assurance Scheme (Danish name: KSO) and the Heat Pump Scheme (Danish name: VPO). • The KSO scheme applies to the solar heating, solar panel and biofuel sectors. It certifies installers working with these types of installations. • The second scheme – VPO – is a training course for heat pump installers. Denmark recognises training and certification schemes from other Member States.	
Addressees	RES plant installers	
Competent authority	Danish Energy Agency	
Further information	Further information on both schemes is available at: www.kso-ordning.dk and www.vp-ordning.dk.	
Distribution of costs	**State**	

	Private Financing	In general, the trainees themselves have to bear the costs of a training course.
	European Union	
	Others	A company which wants its employees to attend a training course may apply for support from a special fund, the Electricity Skills Development Fund (Elbranchens Kompetenceudviklingsfond). The Fund was established by the TEKNIQ (Danish Mechanical and Electrical Contractors' Association) and the Danish Electricity Association (Dansk El-Forbund). Its aim is to provide funding for the training of employees. The Fund may grant 500 DKK (approx. € 67) per training day and participating employee.

Certification Programmes for RES installations (Danish Certification Scheme for Wind Energy Plants)

Abbreviated form of legal source(s)	• Executive Order No. 651/2008
Sector	Electricity
Contact Authority	Energistyrelsen
Description	The Danish certification scheme in applies to wind energy plants only. In order to be connected to the grid, wind energy plants have to meet the requirements of Executive Order No. 651 and receive a certificate of approval. The technical approval scheme is based on the requirements and procedures for the construction, production and installation of wind turbines according to IEC WT01, which is based on international standards. There are two kinds of certification: • type certification (with two classes of certification: A or B) (§ 3 par. 1 Executive Order No. 651/2008) • project certification. Obtaining a type certification lies in the responsibility of the plant's manufacturer or supplier. Type A certificates are issued for a maximum of five years (§ 3 par. 2 Executive Order No. 651/2008). Type B certificates are issued if some quality concerns still have to be solved, but no issues of significant importance to the safety of the plant's operation were detected. This certification shall be issued for a maximum of one year. It allows the existing quality issues to be evaluated and improved during that timeframe (§ 3 par. 3 Executive Order No. 651/2008). Type certification is a prerequisite for project certification (§ 3 par. 1 Executive Order No. 651/2008). It is the responsibility of a plant's owner to obtain project certification (§ 6 par. 3 Executive Order No. 651/2008). A given wind plant shall, at the time of installation, be examined once more in order to state if the evaluation for type A and B certification are also applicable in the given conditions of installation (§ 6 par. 1 Executive Order No. 651/2008). If a wind turbine obtains type B project certification, the certifying body shall inform the wind turbine owner about any necessary changes (§ 6 par. 2 Executive Order No. 651/2008). Wind turbines with a rotor area of 5 m² or less must only receive type certification and are excluded from project certification (§ 12 par. 4 Executive Order No. 651/2008). In addition, wind turbines must be CE marked. There are no national or regional technical requirements that exceed European standards.

Addressees	Type certification for wind turbines shall be issued to the manufacturers or suppliers of wind energy plants (§ 3 par. 1 Executive Order No. 651/2008) Project certification shall be issued to the owner of a specific wind energy plant (§ 6 par. 3 Executive Order No. 651/2008).	
Competent authority	The certification scheme is managed by the 'Energy Agency's Secretariat for the Danish Wind Turbine Certification Scheme' at Risø National Laboratory for Sustainable Energy (Technical University of Denmark). The bodies responsible for assigning certificates of approval to wind energy plants must be accredited by the Danish Accreditation and Metrology Fund (Danske Akkrediterings- og Metrologifond) – DANAK (§ 16 par. 1 Executive Order No. 651/2008). All certifying bodies must be registered with the Danish Energy Agency's Secretariat for Wind Energy Plants (§ 16 par. 4 Executive Order No. 651/2008).	
Further information	Further information is available at the Danish Energy Agency's Secretariat for Wind Energy Plants: http://www.wt-certification.dk/	
Distribution of costs	**State**	
	Industry	
	Plant manufacturers	The costs of type certification shall be borne by the manufacturers and suppliers of a wind energy plant (§ 20 par. 1/2008).
	European Union	
	Others	The costs of project certification shall be borne by the owner of a wind energy plant (§ 20 par. 1/2008).

Exemplary role of public authorities in accordance with art. 13 par. 5 RES Directive

Abbreviated form of legal source(s)	
Sector	None (Electricity, Heating & Cooling, Transport)
Contact Authority	-
Description	Regarding the exemplary role of public authorities, there are numerous measures aiming at reducing energy demand. Apart from these energy efficiency measures, there is no policy aiming at the increased use of RES by public authorities.
Addressees	
Competent authority	
Further information	Further information at: http://www.ens.dk/da-DK/ForbrugOgBesparelser/denoffentligesektor/Sider/Forside.aspx

RD&D Policies (Forsk-El Programme - Support for research and development of environmentally friendly power generation technologies)

Abbreviated form of legal source(s)	• VE-Lov
Sectors	Electricity
Contact Authority	Energinet.dk
Description	Energinet.dk provides funding for a support research programme, which aims at supporting the development and integration of environmentally friendly power generation technologies for grid connection. Each year a call for funding is implemented. ForskEL is financed through a so-called Public Service Obligation (PSO), which is paid by final energy consumers.
Addressees	
Competent authority	The transmission grid operator Energinet.dk is in charge of the subsidies.
Further information	Further information is available at: http://energinet.dk/EN/FORSKNING/ForskEL-programmet/Sider/default.aspx or https://www.forskel.dk/Pages/default.aspx

RD&D Policies (The Energy Technology Development and Demonstration Programme EUDP)

Abbreviated form of legal source(s)	• Act 555/2007
Sectors	Electricity, Heating & Cooling, Transport
Contact Authority	Energistyrelsen
Description	The programme "Energiteknologisk Udviklings- og Demontrationsprogram" (EUDP) supports the development, demonstration and market-introduction of innovative sustainable energy technologies (§ 2 Act 555/2007). The aim of this programme is to promote the efficient use of energy and help Denmark to become independent from fossil energy by 2050. Funding will be allocated through a tender process. The tenders will take place 2-3 times a year. The decisions on the amount of funding to be provided and the projects to be supported are made by an independent committee appointed by the Minister of Climate, Energy and Building. The precondition for receiving grants is that a private investor or applicant's partner is willing to finance more than a half of the project and to commercialise its results.
Addressees	The eligible addressees are public or private companies or knowledge institutions (§ 7 Act 555/2007).
Competent authority	Danish Energy Agency
Further information	Further information is available at: http://www.ens.dk/DA-DK/NYTEKNOLOGI/OM-EUDP/Sider/Forside.aspx

RD&D Policies (Green Labs DK Programme)

Abbreviated form of legal source(s)	• Act 555/2007
Sectors	Electricity, Heating & Cooling, Transport
Contact Authority	Klima- og Energiministeriet
Description	The Green Labs DK Programme grants subsidies for the construction of large-scale test and demonstration facilities for new sustainable technologies (§ 2a Act 555/2007). The scheme provides grants to a small number of green labs, where companies can test and demonstrate new green technologies under realistic circumstances. The programme supports green labs using all types of technology that can help Denmark become independent from fossil fuels. These are, first and foremost, energy efficiency and renewable technologies. The programme's budget is 210 million DKK (approx. 28 million €) for a period of two years, from 2010 to the end of 2012.
Addressees	The eligible addressees are public or private companies and knowledge institutions (§ 7 Act 555/2007).
Competent authority	The Green Labs DK Programme is run by an independent board appointed by the Minister of Climate, Energy and Construction (§ 3 Act 555/2007). The Secretariat of Green Labs DK is a part of the Danish Energy Agency and is responsible for the daily operation of the programme.
Further information	Further information is available at: http://www.ens.dk/da-DK/NyTeknologi/greenlabs/Sider/greenlabs.aspx

RES-H building obligations

Abbreviated form of legal source(s)	• Building Regulations
Sectors	Heating & Cooling
Contact Authority	Erhvervsstyrelsen
Description	The 2010 Building Regulations oblige owners of new or renovated buildings with a hot water consumption of more than 2000 litre per day to install solar heating panels. These panels shall cover an energy demand equivalent to the hot water consumption under normal operating conditions. This obligation does not apply to buildings using direct heating (Building Regulations art. 8.6.2. par. 2)
Obligated entities	According to the Building Act, the owner of the building is responsible for fulfilling the obligations of the Danish building regulations.
Competent authority	The Danish Enterprise and Construction Authority
Further information	http://www.bygningsreglementet.dk/
Obligation on regional level	No obligations on the regional level.

Support of RES-H infrastructure

Abbreviated form of legal source(s)	
Sectors	Heating & Cooling
Contact Authority	Klima- og Energiministeriet
Description	In Denmark, support for RES-H infrastructure is provided only on the local level. The Ministry of Climate and Energy encourages local authorities to support projects that promote the use of district heating.
Addressees	
Competent authority	Ministry of Climate and Energy and District Councils
Further information	