

Clean energy for EU islands

STATE-OF-PLAY INVENTORY OF LEGISLATION AND REGULATION
FOR CLEAN ENERGY ON EUROPEAN ISLANDS

Factsheet: Denmark

Denmark consists of the peninsula of Jutland and 1.419 islands, 443 of which have been named and of which 78 are inhabited. Of these, the largest and most densely populated are Zealand (7,031 km²), on which the capital Copenhagen is situated, the North Jutland Island (4,685 km²) and Funen (3,101 km²). Other islands are below 90 km². Population of people living on the islands is 3.193.343 or 54.68% of the total population.

Some islands are separate municipalities and will as such have the same municipal autonomy as mainland municipalities. Otherwise, island municipalities are treated the same as the mainland municipalities.

Clean energy national targets

According to the Danish Integrated National Energy and Climate Plan, the country aims for a renewable share of total energy consumption of approximately 55% in 2030. Denmark expects the renewables share in the heating and cooling sector to increase from 53.5 % in 2020 to 59.9 % in 2030. For the RES-T sector, it is expected that by 2030, 19% of the energy consumption will come from renewable sources.

Supported RES technologies

Denmark has for many years supported electricity production from renewable energy sources through various support schemes. In recent years, a shift has been made from technology specific support to a higher degree of technology neutrality and a more marked based approach through e.g., multi-technology tenders. Support for certain technologies (e.g. biomass) has also been phased out recently.

Support schemes:

- Technology specific tenders for offshore windfarms and technology neutral tenders for offshore wind, onshore wind, solar PV, wave power and hydroelectric power.
- Guarantees for loans for local owner associations and initiative groups wishing to establish certain RES installations.
- Net-metering: All electricity prosumers can be exempted, in whole or in part, from paying certain public tariffs and electricity tax on the electricity that they produce and consume within one hour.
- Several subsidy schemes support the deployment of heat pumps both for district heating production and for individual heating. Heat production from renewable energy sources is generally supported by a tax mechanism.
- The support schemes for renewable energy in transport focuses on reducing taxes for zero and low emissions vehicles as well as mandating that biofuel is mixed in with conventional fuels.

Electricity and heating grids

- The Danish electricity grid provides non-discriminatory access and priority dispatch for renewable energy sources. There are 40 local distribution system operators. The

country has a smart meter penetration rate of 99.1%. The electricity supplier switching rates for household customers in 2018 was 5.1%.

- District heating is very widespread in Denmark. Over half of all households are connected to a district heating system. This is predominantly due to mandatory expansion of the district heating system and orders from the central government to the municipal authorities to expand the district heating network wherever possible.

RES projects authorization process

For most licenses and permits (e.g. building permit, environmental impact assessment) for RES projects the municipalities are competent. Some specific permits and authorizations are to be obtained from specialised authorities or agencies. Electricity production from all plants with a capacity of more than 25 MW requires a license to produce electricity.

Supported energy efficiency measures

The energy efficiency measures currently implemented in Denmark run until 2024. There is a competitive subsidy scheme whereby individual projects are awarded a subsidy for the lowest cost per saved kWh. Additional energy saving requirements have been added to public buildings.

Supporting policies

Danish policies focus on increasing the accessibility and recognisability of RES installers by providing for a certification scheme and training scheme. Public institutions must reach an energy saving goal of 42,480 MWh by 2030, compared to 2020 levels.

Self-consumption and community energy

There are no measures on energy sharing or energy communities in Denmark, as legislation does not currently support the sharing of electricity between individuals. However, a scheme, which supports local citizen initiatives to secure loan guarantees for feasibility studies of RES plants, does exist in Denmark. Though, this does not extend to sharing energy or creating energy communities as the support no longer applies past the planning stages. On the other hand, a measure on net-metering allows for prosumers to pay a reduced charge on electricity produced from own solar panels or wind generators, as long as the electricity is consumed within the hour.

Island Specific Policies

In Denmark there are no specific island support systems for energy development. There are some regional development funds, but they are not specific to energy. General Danish law and policy applies to the islands. There are no specific permitting rules for Danish Islands. The Danish energy efficiency program is also valid for islands, but there are no specific energy efficiency programs for islands. Neither are there specific legal frameworks for energy sharing, prosumers and/or energy communities in place, nor specific grid policy for islands.



Sources

- Number of islands: Ministry of Foreign Affairs of Denmark ([Link](#))
- Island population: Statistics Denmark ([Link](#))
- National Population: Statistics Denmark ([Link](#))