



NEW ZEALAND
FOREIGN AFFAIRS & TRADE
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Denmark: Green transition developments

MARKET INTELLIGENCE REPORT

Summary

- Denmark's green transition is well underway, with a goal of net zero emissions by 2050. They are a world leader in wind technology.
- The domestic focus has now shifted towards carbon capture and storage and use of biomass for energy. Denmark has announced NZD\$6.54 billion for new carbon capture and storage tenders. These developments create two-way business opportunities for New Zealand through agritech and biomass technology.
- Denmark's biggest challenges are the expense of carbon capture and storage, and high agricultural and cement-related emissions. Denmark still needs to focus on lowering emissions despite increased clean energy production. The agricultural sector has a far outsized emissions impact despite being a small part of the Danish economy.
- Diminishing returns from domestic emissions reductions have pushed Denmark to focus more on international emissions reductions. Denmark imports many high-emissions goods, and Danish shipping company Maersk contributes to higher emissions. Many parties propose focusing on the international front rather than creating a more ambitious zero-emissions target.

Report

Green Transition Developments in Denmark

In August 2023, Denmark announced a plan to allocate NZD\$6.54 billion for new carbon capture and storage tenders, with projects to be operational by 2029. This reflects a shift in Denmark's domestic focus for climate action from renewable energy technology to carbon capture and storage.

Like New Zealand, Denmark's current target is to achieve net zero emissions by 2050. However, Denmark is currently debating whether it should increase the ambition of its 2050 target to a negative emissions target.

Denmark's key domestic challenges include addressing high emissions from agricultural and cement industries. Agriculture is expected to account for 50% of Danish emissions by 2023.

Opportunities for New Zealand

Denmark and New Zealand have much to offer each other on climate change and emissions reduction policy. Denmark's focus and experience on carbon capture and storage and use of biomass for energy, is potentially relevant to New Zealand. Denmark is actively following New Zealand agricultural developments. There may be two-way business opportunities in agritech, and biomass technology.

Domestic Objectives for the Green Transition

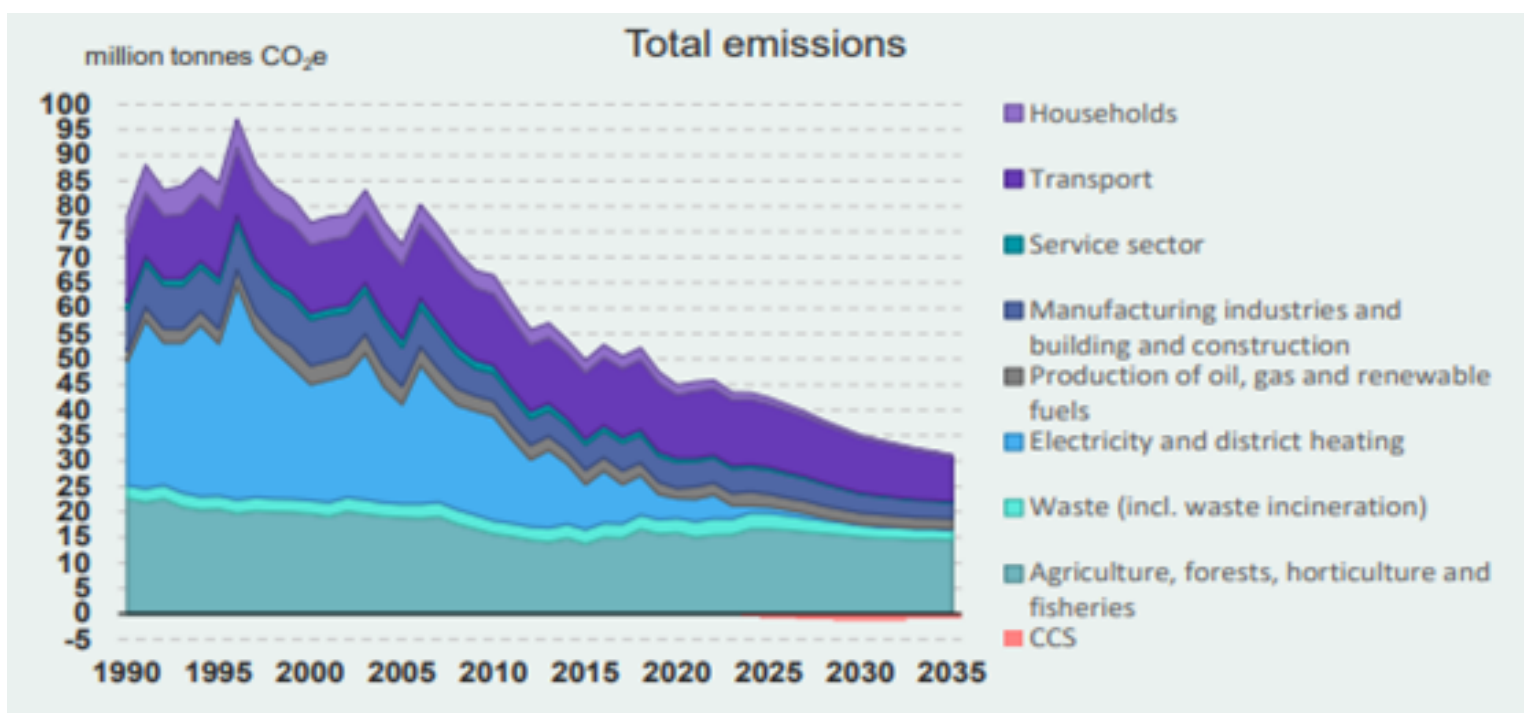
Denmark has become a world leader in climate policy and green solutions, in particular in wind technology. The Danish government is now phasing out wind and solar technology subsidies as these technologies become competitively viable. Its focus has shifted to the use of bio mass for energy and carbon capture and storage (these include natural sources such as biochar and forestry, and new technology). Earlier this year Denmark announced NZD\$6.54 billion for new carbon capture and storage tenders, with projects to be operational by 2029. The first licenses to develop storage facilities in the North Sea were awarded by the Danish government to Wintershall Dea.

Key Domestic Challenges

Carbon capture and storage is a two edged sword: it's expensive and in the end fossil fuels are still being used, so substantive reductions in emissions to complement new technology are still needed. Data released in 2022 reported that Denmark would have an emissions gap of 3-7 percent in 2022, and 13 percent in 2030, compared to reduction targets set out for 2025 and 2030 in the Climate Reduction Act (see page 8 of [Denmark's Climate Status and Outlook 2022](#) report). However, sources now consider that Denmark is likely to meet its 2030 target, but may miss its 2025 target.

The high emitting cement and agriculture industries represent the two main challenges to Denmark's emissions targets. Cement production is problematic because of the high energy consumption required for its high-temperature production process. Existing production plants rely heavily on fossil fuels, and switching to electrical processes would require total replacement/rebuilding of production plants.

Denmark also needs to reduce agriculture emissions in order to meet its targets. Agriculture is a small part of Denmark's economy, with only 7,000 commercial farms making up 1% of GDP. However, with other industries required to reduce their carbon output, agriculture is expected to account for 50% of Danish emissions by 2023. The strength of Denmark's industry advocates impacts the government's ability to introduce regulations. Agriculture was not included in Denmark's corporate carbon tax introduced in 2022.



Denmark total emissions by sectors, and carbon capture and storage (CCS). See page 12 of Denmark's [Climate Status and Outlook Report 2022](#).

Key green transition political issues in Denmark

Denmark is slowly shifting its focus from domestic to international emissions. Reducing domestic emissions is still important, however there is political debate that there could be more gains made by focusing effort on Denmark's international emissions. For example, Denmark purchases many international products with high carbon footprints including number of food products, and soil imports. The large Danish shipping and logistics company Maersk contributes to high shipping emissions.

Klimarådet (The Danish Council for Climate Change) assesses there is room for the Danish Government to focus on both domestic and international emissions. Denmark could bring down its consumption in international goods with large emissions, and provide international finance. Denmark could also form more international partnerships, such as Denmark's Green Strategic Partnership with India.

Denmark is also debating if it should reduce its emissions further from net zero by 2050. A number of parties oppose this, arguing that Denmark should concentrate on efficiency gains from international reductions, rather than increasingly expensive domestic emissions reductions.

The Ministry of Climate, Energy and Utilities has started to release an [annual global report](#) from 2021 on Denmark's international emissions and their international response.

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