

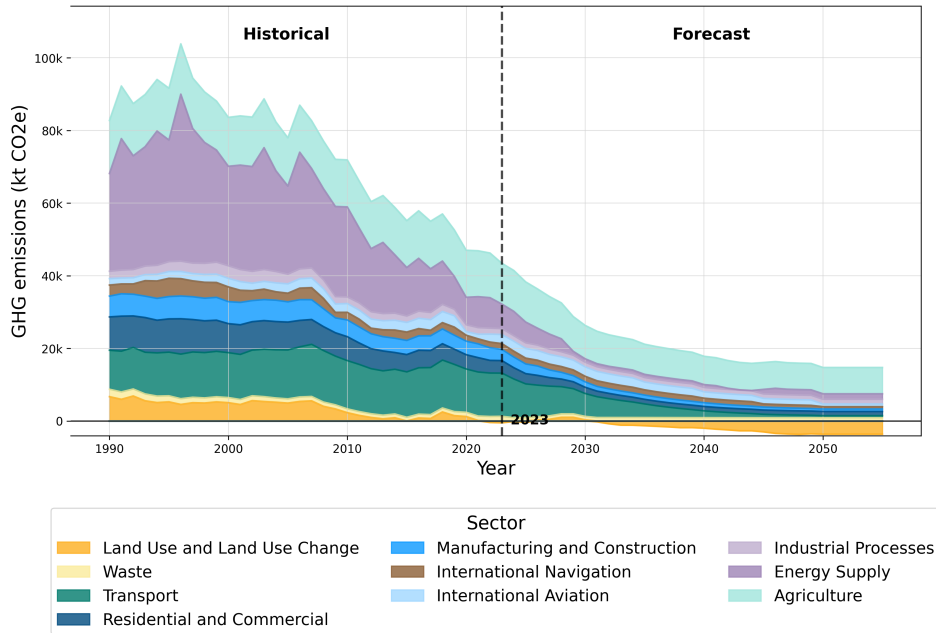


# National system for policies and measures and greenhouse gas projections of Denmark

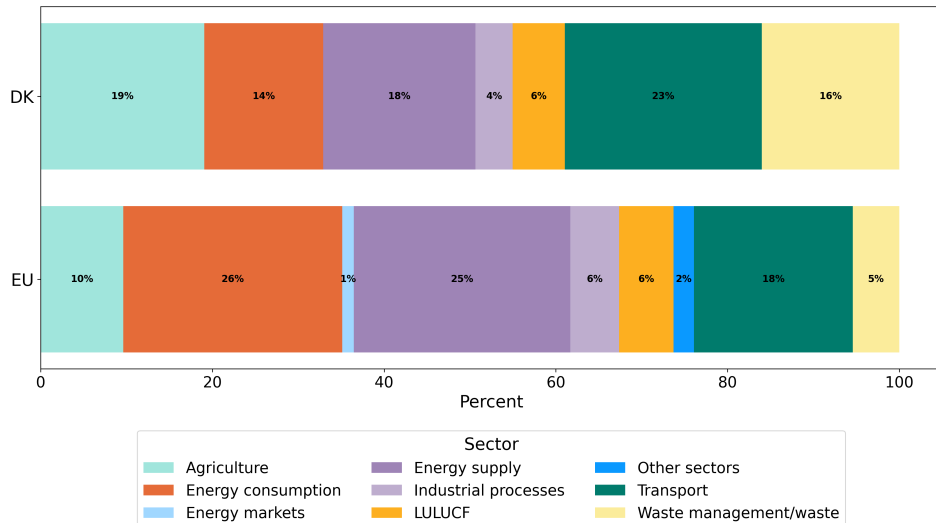
## Information reported in 2025

A robust and complete national system ensures the delivery of good-quality information on the projections of anthropogenic greenhouse gas emissions by sources and removals by sinks, as well as policies and measures in place to implement National Climate and Energy Plans. The two figures provide an overview of the information submitted by Denmark in 2025, enabled by the national system, as laid out below.

Historical and projected greenhouse gas emission in Denmark by sector in 2025.



Reported climate and energy Policies and Measures by affected sector in Denmark.



## Institutional and procedural robustness

### *Institutional arrangements*

The institutional arrangement in place for preparation of reports on climate relevant policies and measures includes the involvement of and/or contributions from the following ministries and institutions:

- Ministry of Environment and Gender Equality and the Environmental Protection Agency there under (CSO24/KF24: Ministry of Environment of Denmark and the Environmental Protection Agency and the Danish Nature Agency there under),
- Ministry of Green Transition and the Agency for Green Transition and Aquatic Environment and the Danish Nature Agency there under (CSO24/KF24: Ministry of Food, Agriculture and Fisheries of Denmark and the Danish Agrifish Agency there under),
- Ministry of Transport,
- Danish Ministry of Taxation,
- Ministry of Industry, Business and Financial Affairs and
- Danish Ministry of Climate, Energy and Utilities and the Danish Energy Agency there under,

where the Danish Ministry of Climate, Energy and Utilities is responsible for collecting the information and submitting the reports.

The institutional arrangement in place for preparation of reports on projections of greenhouse gas emissions includes the involvement of and/or contributions from the following ministries and institutions:

- Ministry of Environment and Gender Equality and the Environmental Protection Agency there under (CSO24/KF24: Ministry of Environment of Denmark and the Environmental Protection Agency and the Danish Nature Agency there under),
- Ministry of Green Transition and the Agency for Green Transition and Aquatic Environment and the Danish Nature Agency there under (CSO24/KF24: Ministry of Food, Agriculture and Fisheries of Denmark and the Danish Agricultural Agency there under),
- Ministry of Transport and the Danish Road Directorate and the Danish Civil Aviation and Railway Authority there under,
- Danish Ministry of Taxation,
- Ministry of Industry, Business and Financial Affairs and
- Danish Ministry of Climate, Energy and Utilities and the Danish Energy Agency there under,

where the Danish Ministry of Climate, Energy and Utilities is the national entity entrusted with the overall responsibility for making and publishing projections of greenhouse gas emissions. An inter-ministerial monitoring group comprising the above-mentioned ministries and institutions and the Ministry of Finance assists the work.

The work includes consultations on assumptions and choice of methodologies and models, collection of relevant information – including in relation to other activity data projections than energy projections involving relevant institutions. Further information is included under item 9 below.

The Danish Ministry of Climate, Energy and Utilities is responsible for submitting the projection reports and projection data to the EU.

An organogram is attached.

### ***Procedural and administrative arrangements and timescales***

The relevant procedural and administrative arrangements and timescales to ensure the timeliness, transparency, accuracy, consistency, comparability and completeness of the information reported on policies and measures and the information reported on projections are defined by the Danish Ministry of Climate, Energy and Utilities for the purpose of complying with reporting requirements in EU legislation, under the UNFCCC and the Paris Agreement in a timely manner.

Timeliness – is ensured by collecting the necessary information well in advance of the due date:

- PaMs: Collection of updates starts 1-6 month before the due date - depending on the due date for similar reporting under the UNFCCC (NCs) and the Paris Agreement (BTRs) and depending on when the previous update took place.
- Projections: The latest projection available by the due date 15/3 is the projection finalized in the previous calendar year (as a draft version for public hearing by April and a final version by July. The annual cycle (year wheel) under the Danish Climate Act is further described under reporting obligation no. 11. As part of the annual projection work, a public hearing of input parameters and assumptions takes place – normally from December to January.

Transparency – is ensured by reporting the information in a fully transparent manner:

- PaMs: The information provided follows the reporting formats and is considered to be as transparent as possible.
- Projections: The projection results follow the reporting formats and include references to documentation reports where further information such as descriptions of methods, assumptions etc. is available.

Accuracy – is ensured by reporting the information as accurate as possible

- PaMs: The information collected and reported is considered to as accurate as possible.
- Projections: The projection results are believed to be as accurate as possible – considering the inherent uncertainty of projections. The projection models are continuously being improved on the basis of new knowledge and by making comparisons of previously projected trends with actual developments in statistical data.

Consistency – is ensured by reporting the information in a consistent way

- PaMs: The information provided follows the reporting formats and is thereby reported in a consistent way.
- Projections: The information provided follows the reporting formats and is thereby reported in a consistent way.

Comparability – is ensured by reporting the information in a comparable way

- PaMs: The information provided follows the reporting formats and is thereby reported in a comparable way.
- Projections: The information provided follows the reporting formats and is thereby reported in a comparable way - i.e. the results of the GHG projections are presented in such a way that they can be compared with the historic GHG inventories and with projections of other countries, if they present the results of their projections in a similar way.

Completeness – is ensured by reporting all the mandatory information.

- PaMs: The mandatory information collected and reported is considered to be complete.
- Projections: The mandatory projection results provided follow the reporting formats and is therefore considered to be complete in the sense that all sources, sinks and greenhouse gases included in the historic GHG inventories are also included in the greenhouse gas projections.

The TTACCC principles are considered when information on policies and measures and projections are to be reported to the European Commission or the secretariat for the UNFCCC and the Paris Agreement.

Furthermore, when information on policies and measures and projections are to be reported to the European Commission or the secretariat for the UNFCCC and the Paris Agreement, the most updated information is reported – including information on the most recently published comprehensive and well-documented GHG projection.

### ***Procedures for the official consideration and approval of the Member States national system***

In accordance with the royal resolutions mentioned under item 3 above the Danish Ministry of Climate, Energy and Utilities is responsible for climate policy related issues. This includes the reporting of information on policies and measures and greenhouse gas projections.

As the collaboration between the Danish Ministry of Climate, Energy and Utilities and the contributing ministries and the institutions there under is based on the common understanding that the collaboration is an obligation for the involved ministries according to the royal resolutions defining the responsibilities of the different Danish ministries, the national system for this collaboration, as described here, needs no further “official approval”.

On an add hoc basis work plans, data collection processes, hearings etc. are approved by the relevant ministries and institutions as appropriate.

### ***Description of the information collection process***

For the reporting on policies and measures and greenhouse gas projections to the European Commission the Danish Ministry of Climate, Energy and Utilities collects information on policies and measures from the following ministries and institutions:

- Ministry of Environment and Gender Equality and the Environmental Protection Agency there under,
- Ministry of Green Transition and the Agency for Green Transition and Aquatic Environment and the Danish Nature Agency there under,
- Ministry of Transport,
- Danish Ministry of Taxation,
- Ministry of Industry, Business and Financial Affairs and
- Danish Ministry of Climate, Energy and Utilities and the Danish Energy Agency there under,

The same ministries and institutions are involved in developing policies and measures and in evaluations where relevant.

Consistency in the information collected for the reporting on policies and measures is ensured through the use of the tabular format to be used for the reporting this information to the EU under the Governance Regulation.

The overall process for the collection and use of data for projections is coordinated by the Danish Ministry of Climate, Energy and Utilities and involves collection and use of information and data from:

- Ministry of Environment and Gender Equality and the Environmental Protection Agency there under regarding waste and F-gases,
- Ministry of Green Transition and the Agency for Green Transition and Aquatic Environment and the Danish Nature Agency there under regarding agriculture and LULUCF,
- Ministry of Transport and the Danish Road Directorate and the Danish Civil Aviation and Railway Authority there under regarding transport,
- Danish Ministry of Taxation regarding taxes and duties,
- Ministry of Industry, Business and Financial Affairs regarding business,
- Ministry of Finance regarding economic growth and
- Danish Ministry of Climate, Energy and Utilities and the Danish Energy Agency there under regarding energy supply and energy demand.

The processes for collection and use of information and data necessary for the evaluation of policies and measures and the making of projections are consistent as all relevant contributors are addressed in such a way that the information and data provided, e.g. activity data projections, are consistent with the statistical activity data used for the elaboration of historic greenhouse gas inventories.

To the extent that the projection methodologies across different projected sectors are based on the same parameters and assumptions, consistency across the sector projections is ensured. When the main drivers behind the projections of activity data differ across different projected sectors, consistency in the presentation of results is ensured. E.g. in the sectors where, economic growth is one of the main drivers, the same assumption regarding future economic growth from the Ministry of Finance is used. But for the activities in the agricultural sector for example, the main drivers are assumptions regarding future regulation of milk production and future expectations for the number of animals, for the size of the arable land and for gains in efficiencies regarding milk production and cropland management. For all sectors it is ensured that the projection results in terms of greenhouse gas emissions are presented in a way that is consistent with the historic greenhouse gas inventories.

### ***Description of the process for selecting assumptions, methodologies and models for making projections of anthropogenic greenhouse gas emissions***

The process described here was used when Denmark's Climate Status and Outlook 2024 was prepared.

#### Introduction

In 2024, the 2024 baseline scenario with a projection of Denmark's greenhouse gas emissions 2023-2035/2040 – i.e. a with existing measures (WEM) or frozen policy scenario – was published by

the Danish Ministry of Climate, Energy and Utilities in Denmark's Climate Status and Outlook 2024 (CSO24). A supplemental documentation report in English was published in September 2024 by DCE, the Danish Centre for Environment and Energy at Aarhus University (Nielsen et al.).

The results from the 2024 WEM projection are shown in Annex B2.

Projection of the key indicator relevant to Denmark's contribution to the achievement of the EU joint NDC under the Paris Agreement – i.e. the projection of Denmark's total greenhouse gas emissions with LU-LUCF and with indirect CO<sub>2</sub> emissions is shown in Annex B3.

Information on key underlying assumptions and parameters used for projections are available in Annex B4.

Information about key facts and key models used in CSO24 are included in Annex B5.

The purpose of Denmark's Climate Status and Outlook 2024 (CSO24) is to explain the development of Denmark's greenhouse gas emissions from 1990 to 2022 and to estimate how emissions will develop until 2035. In addition, projection data are available until 2040. The annual climate status and projection thus forms the basis for assessing the extent to which the reduction targets laid down in the Danish Climate Act and the Danish EU climate commitments can be expected to be met through the climate and energy initiatives that have already been decided.

The CSO24 was prepared by the Danish Ministry of Climate, Energy and Utilities, including the Danish Energy Agency with the involvement of researchers from the Danish Centre for Environment and Energy (DCE) and the Danish Centre for Food and Agriculture (DCA) at Aarhus University as well as the Department of Food and Resource Economics (IFRO) and the Department of Geosciences and Natural Resource Management (IGN) at the University of Copenhagen. A number of ministries and agencies are also involved.

The methodology behind the projections in CSO24 is well-defined and is based primarily on technological costs and on the rational options and financial viability requirements of players in given markets. Large, existing projects are also included if there is an approved application or a funding commitment, for example for the conversion of a power plant from coal to biomass. The assumed 'policy freeze' pertains to climate and energy policy only and does not imply that development in general will come to a halt. For example, economic growth and demographic trends are not part of the freeze.

CSO24 thus serves to examine to what extent Denmark will meet its climate and energy targets and commitments within the framework of current regulation. Denmark's Climate Status and Outlook can be used as a technical reference when planning new measures in the climate and energy area, and when assessing the impact of such measures.

With the bill for a Climate Act (The Danish Government, 2020) agreed in the Danish Parliament in June 2020 and the December 2019 agreement behind the bill (The Danish Government et al, 2019), Denmark has decided to reduce emissions of greenhouse gases by 70% in 2030 compared with 1990 emissions.

The Climate Act establishes an annual cycle to ensure ongoing follow-up on whether climate efforts are supporting the fulfilment of the targets in the Climate Act.

According to this annual cycle, starting in 2021, Denmark's annual draft Climate Status and Outlook report will review the progress made towards reaching the climate targets each April - with a final version by June/July.

CSO24 focuses on the 70% greenhouse gas reduction target for 2030 in the Climate Act and presents the status for and projections of Denmark's greenhouse gas emissions in 2025 and 2030 in accordance with the UN's methodologies. The CSO24 explores Denmark's emission sources and provides detailed insight into the projected development of Denmark's emissions up to 2025/2030/2035 (and for the EU reporting purpose up to 2040/2045/2050/2055) in the absence of any new measures.

#### Calculations of greenhouse gas emissions

Calculations of greenhouse gas emissions in Denmark's Climate Status and Outlook report follow international standards originating from the United Nations Framework Convention on Climate Change. Pursuant to the Danish Climate Act, the calculation of emissions in connection with assessing the status for target fulfilment are based on the same methodology.

All emissions of greenhouse gases from Danish territory are included in the calculation, including emissions from consumption of fossil fuels, industrial gases and industrial processes, waste treatment, emissions from agriculture and emissions and removals stemming from forestry and other land use activities, primarily in agriculture. CO<sub>2</sub> emissions from consumption of biomass (burning of wood chips and wood pellets, for example) is considered greenhouse-gas-neutral where it is consumed and are therefore not included. Furthermore, emissions from international shipping and air transport are not included, as these sectors are dealt with under separate UN agreements with their own climate targets.

Greenhouse gases include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and fluorinated greenhouse gases (F gases). The gases have different greenhouse effects that are converted into CO<sub>2</sub> equivalents (abbreviated CO<sub>2</sub>-eq.) based on their Global Warming Potential (GWP) over a 100-year time period relative to CO<sub>2</sub>. In CSO24, GWP's from IPCC's AR5 have been used.

Emissions of greenhouse gases are not measured, but are calculated based on emission activity data, such as fossil fuel consumption, number of livestock in agriculture, land use and plant growth, decay and harvest.

The emission factors are regularly adjusted when new knowledge emerges. When this happens, not only the projections, but also the historical figures and the statistics are adjusted to produce a more correct presentation of historical emissions. This means that projections could vary solely on the basis of altered emission factors.

#### Data input, assumptions and models.

CSO24 was prepared by the Danish Ministry of Climate, Energy and Utilities, assisted by an inter-ministerial monitoring group comprising: the Danish Ministry of Climate, Energy and Utilities; the Danish Energy Agency; the Ministry of Finance; the Danish Ministry of Taxation; the Ministry of Transport; the Danish Road Directorate; the Danish Civil Aviation and Railway Authority; the Ministry of Environment; the Environmental Protection Agency; the Ministry of Food, Agriculture and Fisheries; the Danish Agrifish Agency; the Danish Ministry of Industry, Business and Financial

Affairs; and the Danish Nature Agency.

In order to qualify the methodological and technical-economic basis for the model analyses in CSO24, the Danish Ministry of Climate, Energy and Utilities has moreover consulted several experts and institutions. The Danish Energy Agency is responsible for the projected annual energy balances, while the Danish Centre for Environment and Energy (DCE) at Aarhus University is responsible for the projections of annual emissions.

The projections of emissions from agriculture are based on data from the Department of Food and Re-source Economics (IFRO, University of Copenhagen) in the form of projections of the number of livestock in agriculture and data on expected future land use (types of crops, for example). The projections of emissions and

removals from carbon stored in forests are based on a calculation by the Department of Geosciences and Natural Resource Management (IGN) at the University of Copenhagen. Based on the Danish Energy Agency's projections of annual energy balances and on data from the Danish Environmental Protection Agency, the DCE is also responsible for projecting other non-energy-related emissions, including F gases, and emissions from industrial processes, biogas production, extraction of oil and natural gas, and waste.

The Figure attached illustrates the overall model and data elements included in CSO24. Further information is available through the ministry's website:

<https://www.kefm.dk/klima/klimastatus-og-fremskrivning/klimastatus-og-fremskrivning-2024>

### ***Institutional administrative and procedural arrangements for domestic implementation of EU's NDC***

The domestic implementation of Denmark's contribution to the EU's nationally determined contribution under the Paris Agreement can be seen as Denmark's EU commitments under the Effort Sharing Regulation (50 % reduction in non-ETS emissions by 2030 compared with 2005). The additional domestic commitments adopted with the Danish Climate Act could also contribute to the EU's nationally determined contribution under the Paris Agreement (a target of reducing greenhouse gas emissions in Denmark by 70% by 2030 compared to a 1990 baseline and a long-term target for Denmark to be a climate-neutral society by 2050 at the latest).

The Climate Act targets, guiding principles and climate action plans at least once every five years  
The Climate Act mandates the setting of a new national climate target every five years, with a 10-year perspective. This means that a new legally binding climate target for 2035 must be set in 2025. At the same time, the Climate Act stipulates that a new climate target must be no less ambitious than the most recently set target. The Agreement on a Climate Act also sets out that in connection with the 2020 climate action plan, the Government must propose an indicative target for 2025.

The Climate Act requires the Government to present a climate action plan with a ten-year perspective, at least once every five years, and, as a minimum, in connection with setting the climate targets. The 2020 Climate action plan was published in December 2020.

The year wheel

The arrangement for implementing policies and measures and making projections for tracking progress follows the "year wheel" established by the Danish Climate Act:

February: Annual recommendations from the Danish Council on Climate Change

The Council on Climate Change will advise the Government on climate efforts. The Climate Act strengthens this role by requiring the Council to annually assess the Government's climate efforts and make recommendations on the action going forward. In each year's climate programme, the Minister for Climate, Energy and Utilities must report on these recommendations and state the Minister's position on the recommendations. The Council on Climate Change must also assess whether the Government's climate efforts make it probable that the climate targets will be reached.

April: Climate status and projection

The Danish Ministry of Climate, Energy and Utilities prepares each year a projection of the Danish green-house gas emissions. The climate status and projection will provide an overall situation report on the expected emissions after incorporating the measures decided in the past year and any new knowledge in the form of technological developments, framework conditions or new knowledge of the impact of activities on greenhouse gas emissions. The annual climate status and projection will include a separate global reporting on the international effects of the Danish climate effort.

September: Climate programme

The Climate Act requires the Minister for Climate, Energy and Utilities to annually present a climate programme to the Danish Parliament.

Autumn: Finance Act process

The climate programme will be presented to the Danish Parliament in September to enable it to be taken into consideration during Finance Act deliberations.

December: Report to the Danish Parliament

After the annual Finance Act agreement, the Minister for Climate, Energy and Utilities must present a report on the effects of the Government's climate policy and, in this connection, answer questions at an interpellation debate in the Danish Parliament. This enables the Parliament to annually assess whether the Government's initiatives are sufficient for the Parliament to assess that the obligation to act is fulfilled.

## Formality

### *Legal arrangements*

The collaboration between the Danish Ministry of Climate, Energy and Utilities and the contributing ministries and the institutions there under is based on the common understanding that the collaboration is an obligation for the involved ministries according to the royal resolutions defining the responsibilities of the different Danish ministries. The current resolutions are the legal arrangement in place for the collaboration.

Relevant knowledge from universities or other institutions are drawn upon by the ministries through general or specific contracts or through public consultation or hearing processes.

For the domestic reporting on climate policies and measures as well as greenhouse gas projections

the legal arrangement in place is the Danish Climate Act from June 2020.

For Denmark's reporting of policies and measures and greenhouse gas projections to the European Commission the legal arrangement in place is the Governance Regulation and the related Implementing Regulation - both directly applicable in Denmark in accordance with the above-mentioned royal resolutions defining the responsibilities of the different Danish ministries – i.e.:

- The Danish Ministry of Climate, Energy and Utilities is responsible for the reporting of information on policies and measures and greenhouse gas projections and is the authority responsible for the reporting of greenhouse gas inventories (in practice the inventory reporting is carried out by Aarhus University under an authority service contract),
- The Ministry of Environment and Gender Equality is responsible for the reporting of information on adaptation, and
- The Ministry of Foreign Affairs is responsible for the reporting of information on support for developing countries.

## Alignment with other reporting frameworks

### *GHG inventory reporting*

For all sectors it is ensured that the projection results in terms of greenhouse gas emissions are presented in a way that is consistent with the historic greenhouse gas inventories.

The alignment is ensured through the involvement of DCE in the projection work. DCE is the single national entity responsible for elaborating and submitting annual GHG emission inventories to the EU and under the UNFCCC and the Paris Agreement.

### *Article 17 of the Governance Regulation (EU) 2018/1999 (NECPR)*

As the information on climate relevant policies and measures and greenhouse gas projections to be reported biennially from 2023 pursuant to Art. 17 of Regulation (EU) 2018/1999 will be the same as information on climate relevant policies and measures and greenhouse gas projections to be reported biennially from 2021 pursuant to Art. 18 of Regulation (EU) 2018/1999, there will not be two different arrangements – i.e. the arrangement described here will be used for elaborating the same information to be reported pursuant to Articles 17 and 18 of Regulation (EU) 2018/1999.

## Accountability and transparency

### *Quality control activities*

The quality assurance and quality control activities are carried out by all the involved ministries and institutions – e.g. through the above-mentioned inter-ministerial monitoring group.

## Public participation



### ***Stakeholder engagement***

With the Danish Climate Act from June 2020 a new framework for climate policy making in Denmark has been established. The Danish Climate Act is available in English here: [https://en.kefm.dk/Media/1/B/Climate%20Act\\_Denmark%20-%20WEBTILG%C3%86NGELIG-A.pdf](https://en.kefm.dk/Media/1/B/Climate%20Act_Denmark%20-%20WEBTILG%C3%86NGELIG-A.pdf)

In parallel, the business sector (through 14 Climate partnerships), the public and all parties in the Danish Parliament are involved in climate policy making and kept informed about projections through the annual climate status and projection.

### **Contact information for entities with overall responsibility for National Systems**

In Denmark, the Danish Ministry of Climate, Energy and Utilities is the national entity entrusted with the overall responsibility for the national system for monitoring and reporting on climate relevant policies and measures and initiating projections of anthropogenic greenhouse gas emissions. In practice, energy policy evaluations, energy projections and compilations of greenhouse gas projections will be carried out in col-laboration with the Danish Energy Agency under the ministry and in collaboration with other ministries and institutions (cf. below).

Contact information:

Danish Ministry of Climate, Energy and Utilities: [kefm@kefm.dk](mailto:kefm@kefm.dk)