

## Research notes for short listed jurisdictions:

A landscaping review of approaches used to develop national plans to implement climate mitigation commitments, Appendix 3.

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September 2019

### 1 Germany

#### 1. Date of publication

- Climate Action Plan 2050 published November 2016:  
[https://www.bmu.de/fileadmin/Daten\\_BMU/Pools/Broschueren/klimaschutzplan\\_2050\\_en\\_bf.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Pools/Broschueren/klimaschutzplan_2050_en_bf.pdf)
- Climate Action Plan 2020 published December 2014:  
[https://www.bmu.de/fileadmin/Daten\\_BMU/Pools/Broschueren/aktionsprogramm\\_klimaschutz\\_2020\\_broschuere\\_en\\_bf.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Pools/Broschueren/aktionsprogramm_klimaschutz_2020_broschuere_en_bf.pdf)
- Energiewende (the country's planned transition to a low-carbon, nuclear-free economy was launched to support the objectives set out in the Energy Concept (2010):  
<https://cleanenergyaction.files.wordpress.com/2012/10/german-federal-governments-energy-concept1.pdf>

#### 2. Level of ambition

Source: ClimateXChange (2017) International climate change target frameworks:

[https://www.climateexchange.org.uk/media/1325/international\\_climate\\_change\\_target\\_frameworks.pdf](https://www.climateexchange.org.uk/media/1325/international_climate_change_target_frameworks.pdf)

- In 2010, Germany announced (in its Energy Concept document) the following GHG emissions targets (compared to 1990 levels): 40% reduction by 2020; 55% reduction by 2030; 70% reduction by 2040; 80-95% reduction by 2050. The 2016 Action Plan reaffirms the targets set in 2010, and Germany's Paris Agreement commitment.
- Absolute target

#### 3. Legal basis

Source: Federal Ministry for the Environment, Nature Conservation, Building & Nuclear Safety (2016) Climate Action Plan: Executive Summary

[https://www.bmu.de/fileadmin/Daten\\_BMU/Download\\_PDF/Klimaschutz/klimaschutzplan\\_2050\\_kurz\\_en\\_bf.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/klimaschutzplan_2050_kurz_en_bf.pdf)

- Climate Action Plan 2050 - provides guidance to all areas of action in the process to achieve domestic climate targets in line with the Paris Agreement.

- The Climate Action Plan 2050 is able to build on a climate policy that is already well developed and uses a broad mix of instruments. In particular, it can build on the experience and success of Germany's Energiewende and on the comprehensive measures that began to be put in place back in December 2014 as a result of the Climate Action Programme 2020.

#### 4. Transparency

Source: Federal Ministry for the Environment, Nature Conservation, Building & Nuclear Safety (2016) Climate Action Plan: Executive Summary

[https://www.bmu.de/fileadmin/Daten\\_BMU/Download\\_PDF/Klimaschutz/klimaschutzplan\\_2050\\_kurz\\_f.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/klimaschutzplan_2050_kurz_f.pdf)

- Yes – well documented carbon budgets and good availability of data on CO<sub>2</sub>e (eg. P4)

#### 5. Stakeholders

Source: Federal Ministry for the Environment, Nature Conservation, Building & Nuclear Safety (2016) Climate Action Plan: Executive Summary

[https://www.bmu.de/fileadmin/Daten\\_BMU/Download\\_PDF/Klimaschutz/klimaschutzplan\\_2050\\_kurz\\_f.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/klimaschutzplan_2050_kurz_f.pdf)

- The German government will set up a commission for growth, structural change and regional development. This commission will be based at the Federal Ministry for Economic Affairs and Energy and will work together with other government ministries as well as with the Länder, municipalities, trade unions and representatives of affected businesses, branches of industry and regional stakeholders. Realistic prospects for the necessary transformation process need to be established for affected businesses and regions.

#### 6. Coverage

Source: Federal Ministry for the Environment, Nature Conservation, Building & Nuclear Safety (2016) Climate Action Plan: Executive Summary

[https://www.bmu.de/fileadmin/Daten\\_BMU/Download\\_PDF/Klimaschutz/klimaschutzplan\\_2050\\_kurz\\_f.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/klimaschutzplan_2050_kurz_f.pdf)

- Areas of action are energy, buildings, transport, trade and industry, agriculture and forestry

#### 7. Modelling approach

No information

#### 8. Support for plan development

Source: [https://en.wikipedia.org/wiki/German\\_Climate\\_Action\\_Plan\\_2050](https://en.wikipedia.org/wiki/German_Climate_Action_Plan_2050)

- The Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), led the development of the German Climate Action Plan 2050.

#### 9. Sub-national links

See no. 5

#### 10. Monitoring

Source: Federal Ministry for the Environment, Nature Conservation, Building & Nuclear Safety (2016) Climate Action Plan: Executive Summary.

[https://www.bmu.de/fileadmin/Daten\\_BMU/Download\\_PDF/Klimaschutz/klimaschutzplan\\_2050\\_kurz\\_f.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/klimaschutzplan_2050_kurz_f.pdf)

- The status of implementation of the respective programs of measures will be presented in the annual climate action report, first submitted in 2015, thus allowing swift policy adjustments to be made if necessary.

#### 11. Innovation

Source: Climate Action Plan 2050 (November 2016)

[https://www.bmu.de/fileadmin/Daten\\_BMU/Pool/Broschueren/klimaschutzplan\\_2050\\_en\\_bf.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Pool/Broschueren/klimaschutzplan_2050_en_bf.pdf)

- The German government's Green IT initiative represents the ambition of the federal administration to make the use of information technologies energy efficient and sustainable. The initiative has already reduced energy consumption by IT operations in all federal departments by 40 percent compared with the year of maximum consumption prior to 2009. The government will continue the initiative.

Germany's Energiewende and the gradual restructuring of its energy supply towards more renewable energy and a higher level of energy efficiency has set the course for future development. Despite the associated structural adjustments and "learning costs" new economic opportunities have evolved and innovations have been developed. Renewable energy accounted for 32 percent of electricity demand in 2015, the majority coming from wind power (13.3 percent) and photovoltaics (6.5 percent). That makes renewables the most important source of electricity in Germany.

## 2 Baden Württemberg

#### 1. Date of publication

- Act Governing the Mitigation of Climate Change in B-W (2013) [https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/4\\_Klima/Klimaschutz/Klimaschutzgesetz/20131009\\_KSG\\_englisch.pdf](https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/4_Klima/Klimaschutz/Klimaschutzgesetz/20131009_KSG_englisch.pdf)

#### 2. Level of ambition

Source: The Climate Group, 2019 <https://www.theclimategroup.org/partner/state-baden-wuerttemberg>

- Low - reduction of GHG emissions by approximately 25% by 2020 (compared to 1990 levels).
- High - 90% by 2050 (compared to 1990 levels). Absolute target.

#### 3. Legal basis

Source: Seventh National Communication on Climate Change (2017).

[https://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/26795831\\_germany-nc7-1-171220\\_7\\_natcom\\_to\\_unfccc.pdf](https://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/26795831_germany-nc7-1-171220_7_natcom_to_unfccc.pdf)

- Baden-Württemberg has adopted its own primary legislation on climate change.
- On 15 July 2014, Baden-Württemberg adopted an Integrated Energy and Climate Strategy (IEKK). The Strategy fleshes out the climate targets laid down in Baden-Württemberg's 2013 Climate Change Act on the expansion of renewable energy, energy saving and raising energy efficiency up until 2020 while also considering the security and economic efficiency of energy supply.
- Primary legislation related to adaptation - State spatial planning act (Landesplanungsgesetz).

#### 4. Transparent plan

- Well documented processes, but a lack of available data and modelling strategies.

## 5. Stakeholders

Source: Seventh National Communication on Climate Change (2017).

- Constant communication takes place between the federal government and Germany's 16 Länder in the context of work on the government's two most climate important programmes and strategies, the Climate Action Programme 2020 and the Climate Action Plan 2050.

## 6. Coverage – sectors & gases

All

## 7. Modelling approach

None found

## 8. Support for plan development

Source: The Climate Group: The State of B-W (2019)

<https://www.theclimategroup.org/partner/state-baden-wuerttemberg>

- While lacking in natural resources, it has developed into a technology hub, with a high density of research institutions and high employment in high-tech and future technologies including green jobs and climate policies.

## 9. Sub-national links

Source: Seventh National Communication on Climate Change (2017).

- All 16 German Länder have their own climate action concepts and programmes - described in detail in the 6NC.

## 10. Monitoring

Source: Seventh National Communication on Climate Change (2017).

- Reporting to become mandatory in 2016 (Article 9, Climate Change Act)
- Implementation of the IEKK is kept under review by means of quantitative and qualitative monitoring. The short monitoring reports for the 2014 and 2015 reporting years were published on the Ministry of the Environment, Climate Protection and the Energy Sector's website. The monitoring report for 2016 is intended to form the basis for updating the Integrated Energy and Climate Strategy in 2019.

Source: Act Governing the Mitigation of Climate Change in B-W (2013) [https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/4\\_Klima/Klimaschutz/Klimaschutzgesetz/20131009\\_KSG\\_englisch.pdf](https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/4_Klima/Klimaschutz/Klimaschutzgesetz/20131009_KSG_englisch.pdf)

- Monitoring shall include the following reports:
  - Annual brief extracts, starting from 2014, covering: development of GHG emissions in B-W taking account of the reduction impact of European wide emissions trading, development of the framework conditions for the energy sector & energy policy, as well as a short assessment of the findings.
  - A summary report every three years, starting from 2016, including: degree of implementation of important targets and measures, substantial impact of climate change for B-W as well as the implementation and effect of important adaptation measures, and proposals for the further development of the Integrated Energy and Climate Protection Plan.

## 11. Innovation

Source: The Climate Group: The State of B-W (2019)

<https://www.theclimategroup.org/partner/state-baden-wuerttemberg>

- New and innovative financing tools are playing an important role by implementing renewable energies as well as improving energy efficiency. Particularly for public buildings the state of Baden-Württemberg supports finding new financing systems and e.g. with private investors to improve the energy balance of buildings.

## 3 Sweden

### 1. Date of publication

Source: <http://www.lse.ac.uk/GranthamInstitute/country-profiles/sweden/>

- Sweden submitted its NDC as part of the EU in March 2015 (UNFCCC, 2015)
- Ricardo, 2018, Sweden – Energy and Carbon Tax policies for Energy Systems Catapult:
- Energy tax was levied in 1930s
- Carbon tax introduced in 1991
- 2011 - EU ETS companies become exempt of carbon tax

### 2. Level of ambition

Source: Swedish Ministry of Environment and Energy, 2017.

<https://www.government.se/495f60/contentassets/883ae8e123bc4e42aa8d59296ebe0478/the-swedish-climate-policy-framework.pdf>

- EU NDC target: The EU and its Member States are committed to a binding target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990
- By 2030, emissions from domestic transport, excluding domestic aviation, will be reduced by at least 70 per cent compared with 2010.
- By 2030, emissions in Sweden in the sectors that will be covered by the EU Effort Sharing Regulation<sup>2</sup> should be at least 63 per cent lower than in 1990.
- By 2040, emissions in Sweden in the sectors that will be covered by the EU Effort Sharing Regulation should be at least 75 per cent lower than in 1990.
- By 2045, Sweden is to have zero net emissions of greenhouse gases into the atmosphere and should thereafter achieve negative emissions. However, emissions from activities in Sweden must be at least 85 per cent lower than in 1990.
- Type: Absolute target

### 3. Legal basis

Source: Swedish Ministry of Environment and Energy, 2017.

<https://www.government.se/495f60/contentassets/883ae8e123bc4e42aa8d59296ebe0478/the-swedish-climate-policy-framework.pdf>

- In 2014, Government announced a climate policy framework would be launched
- In June 2017, Sweden's Riksdag decided by a large political majority to introduce a climate policy framework with a climate act for Sweden.
- From 1 January 2018, the Climate Act established the following:
  - The Government's climate policy must be based on the climate goals and how work is to be carried out.
  - The Government is required to present a climate report every year in its Budget Bill.
  - Every fourth year, the Government is required to draw up a climate policy action plan to describe how the climate goals are to be achieved.
  - Climate policy goals and budget policy goals must work together

Link: <https://www.aktuellhallbarhet.se/wp-content/uploads/2018/03/energi-och-klimatplan.pdf>

In addition, "to provide a clear structure for environmental efforts in Sweden, the Riksdag has adopted 16 environmental quality objectives. One of these, Reduced Climate Impact, forms the basis for climate change action in the country. The interpretation of the objective is "Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels. Sweden will work internationally for global work to address this goal." (Govt. Bill 2016/17:146)"

#### 4. Transparent plan

- Yes
- Clear methodology:
- Plans for policies to be implemented in various sectors published here in table 2: <https://www.aktuellhallbarhet.se/wp-content/uploads/2018/03/energi-och-klimatplan.pdf>
- Well-documented processes: Yes, progress reported in national communications to UNFCCC. Last one in 2017.
- Availability of underlying data: mostly available.
- Under Climate Act government is expected to report every four years on progress and plans to achieve objectives.

#### 5. Stakeholders

- Active engagement (stakeholders were actively involved in development of the plan).

Source: [Sweden's Seventh National Communication on Climate Change](#) (2017):

“Swedish government agencies communicate on climate issues based on their extensive experience of using knowledge and communication as policy instruments. The agencies involve all relevant stakeholders in activities on climate change education, training and public awareness. Non-governmental organisations, networks and knowledge centres help to build awareness by promoting dialogue on climate change solutions. Generous material on various climate scenarios is provided, including maps, tools and information that helps different stakeholders to reduce emissions and cope with a changing climate. A majority of municipalities have energy and climate advisers who support households and businesses.”

- Main organisations listed in document include:
  - Swedish environmental protection agency
  - Swedish Energy Agency
  - Swedish Meteorological and Hydrological institute
  - Swedish Transport Administration
  - Swedish Consumer Agency
  - Fossil Free Sweden Initiative
  - Etc.
  - This source also describes past stakeholder engagement in the development of the carbon tax: Kaineg, R (2013). Carbon Taxes: Key Considerations For Policymakers And Stakeholders. Thomson Reuters.
  - From: <https://www.2050pathways.org/wp-content/uploads/2018/05/Sweden.pdf>
  - Experience with and lessons learned from cross parliamentary committee:
    - Working procedures and stakeholder engagement monthly meetings
    - Started off with a set of knowledge building meetings
    - The presence of the NGOs and experts gave the politicians courage
    - The industry realized that the politicians were serious and started to turn around from being protective towards looking at possibilities
    - This created trust within the committee
- #### 6. Coverage
- Economy-wide. Goal to become net zero.
  - Gases: All (Climate Act)

## 7. Modelling approach

- The Seventh National Communication on Climate Change reports that TIMES-NORDIC energy system model was used to assess the impact of economic instruments on Swedish stationary energy emissions.
- Swedish literature on modelling approach includes: Profu (2017a). Beräkningar med TIMES-NORDIC-modellen inför Sveriges klimatrapportering (NC7). Mölndal. Profu i Göteborg AB. Profu (2017b). Analys av historiska åtgärdskostnader för reduktion av koldioxid. Mölndal. Profu i Göteborg AB.

## 8. Support (technical, financial, other) for plan development

- From the ESC case study for the carbon tax:
- The Swedish Ministry of Finance determine the tax rates, exemptions, reductions and the dates of implementation and policy changes. New environmental laws such as taxes involve all political parties and follow a standard parliamentary process and timescale. Typically, it can take one year from proposal to approval. The enactment of new taxes involves stakeholder engagement and public consultation to address commercial and private concerns. Additionally, close cooperation with the ministries of Industry, Transport, Agriculture and Environment is maintained.”

Source: <https://www.2050pathways.org/wp-content/uploads/2018/05/Sweden.pdf>

The development of the proposal for the climate policy framework was carried out by a cross-parliamentary committee:

The cross-parliamentary committee consisted of: • One president • Politicians from 7 political parties (all but one were represented) • Experts (30 people): – Environment and energy ministry – NGOs – Business/Industry – Trade unions • Secretariat (10 people)

## 9. Sub-national links

No

## 10. Monitoring

Source: [Ministry of Environment and Energy](#):

“The third pillar of the framework is a climate policy council. The climate policy council will be tasked with supporting the Government by providing an independent assessment of how the overall policy presented by the Government is compatible with the climate goals. The council will evaluate whether the direction of various policy areas will increase or reduce the likelihood of achieving the climate goals.”

## 11. Innovation

Yes, innovative elements from Swedish approach include:

- Very ambitious targets
- Government tasked cross-parliamentary committee to propose climate policy framework and climate strategy

Independent climate policy council tasked to assess whether the government’s policy in all areas is compatible with Sweden’s climate goals.



## 4 New Zealand

1. Date of publication
  - NDC published 2015
  - Zero Carbon Bill was proposed in 2017, consulted on 2018 and passed into law in 2019 [Climate Change Response \(Zero Carbon\) Amendment Act 2019](#).

2. Level of ambition

Source: <http://www.lse.ac.uk/GranthamInstitute/country-profiles/new-zealand/>

- NDC target is: New Zealand commits to reduce greenhouse gas emissions to 30% below 2005 levels by 2030.
- The Climate Change Response (Zero Carbon) Amendment Act commits New Zealand to zero carbon by 2050.

3. Legal basis

- Ministry for the Environment. (2018). New Zealand Emissions Trading Scheme: About the New Zealand Emissions Trading Scheme. Available from: <http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealand-emissions-trading-scheme> [accessed on 05/03/2018].
- Climate Change Response Amendment Act (2008) legislates the New Zealand ETS, the principal policy on climate change
- Climate Change Response (Zero Carbon) Amendment Act 2019

The Act requires the establishment of a Climate Change Commission with responsibilities that include reviewing targets, providing advice on emissions budgets and advice on the preparation of emissions reductions plans.

4. Transparent plan

Yes.

From Climate Action Tracker:

- Clear methodology in place for decisions to be made.
- All public consultations and developments are published online as well as modelling results.

5. Stakeholders

- Active engagement (stakeholders were actively involved in development of the plan).

Example associated with the Zero Carbon Bill public consultation:  
<http://www.mfe.govt.nz/sites/default/files/media/Consultations/FINAL-%20Zero%20Carbon%20Bill%20-%20Discussion%20Document.pdf>

6. Coverage

Source: [New Zealand UN Nationally Determined Contribution](#):

- Economy-wide
- All gases

7. Modelling approach

From [Climate Action Tracker](#):

- CGE modelling is used
- The [Productivity Commission](#) (2018) has undertaken modelling to examine pathways from current levels to two alternative long-term targets: a 60% reduction from 1990 levels (around

26 MtCO<sub>2e</sub> including LULUCF in AR4 GWPs) and a more ambitious target of net-zero emissions by 2050. The main conclusion of the modelling exercise is that under all the scenarios modelled both targets are feasible, but immediate action is needed to increase their feasibility.

Source: <https://www.vivideconomics.com/wp-content/uploads/2019/08/Net-Zero-in-New-Zealand-Summary-Report-Vivid-Economics.pdf>

The findings of the Productivity Commission confirm previous results by other modelling groups that conclude that in order to be on a trajectory toward emission-neutrality around mid-century, substantial strengthened action in the agriculture and forestry sectors is needed in addition to efforts to decarbonise the energy system further (Vivid Economics, 2017).

- Vivid uses: an Excel-based tool that calculates the impact of various emission reduction opportunities on emissions, demand for fuels, the size of certain industries, and land-use patterns
8. Support (technical, financial, other) for plan development
- As above, Vivid Economics support for net zero approach

Source: Catapult Energy Systems case study ([Catapult Energy Systems – New Zealand Emissions Trading System](#), 2018):

The new government that came in place in 2017 established an interim Climate Committee. The role of this committee is to give expert advice on target setting for the ETS to make sure that New Zealand is on track to achieve zero carbon status. In addition, the Climate Committee acts as an independent watchdog to keep the government to account on an annual basis.

The Climate Committee has announced that in 2018 it will provide advice on supply management of allowances in the New Zealand ETS and on auctioning mechanisms. The committee will thereby be responsible for setting an absolute, domestic cap on emissions in New Zealand moving forward. The section on “Linkage to Kyoto mechanisms” below explains how the government has put in place a system that gives the government the ability to intervene when circumstances change, but also ensure policy certainty over time.

In addition to establishing the Climate Committee, both interviewees report that the government is also aiming to increase its stakeholder engagement for the planned changes in the ETS. The independent review in 2015 was for example also used as a stakeholder engagement tool to increase acceptance of the New Zealand ETS, as reported by the interviewee from the Ministry for Environment.

9. Sub-national links
- No

10. Monitoring

- From Catapult Energy Systems case study:

The system has been subject to several reviews and amendments. The first amendment was in 2009. The first independent review was carried out in 2011 focused on the development of the New Zealand ETS after 2012 in the absence of an international climate agreement, after which it was amended in 2012. A second independent review in 2015 focused on aligning the New Zealand ETS with New Zealand’s commitments under the Paris agreement to reduce GHG emissions by 30% below 2005 levels by 2030. The lessons learned from the independent reviews will be discussed in the next chapter.

- From 7NC also regular monitoring of waste minimisation act, sustainable land management, new Zealand agriculture GHG research centre, EECA's programme.

## 11. Innovation

Yes

- Only country considering covering all sectors in ETS
- Carbon budget approach
- Establishment of climate committee that can endure political cycles
- Stakeholder engagement quite unique:  
<http://www.mfe.govt.nz/sites/default/files/media/Consultations/FINAL-%20Zero%20Carbon%20Bill%20-%20Discussion%20Document.pdf>
- You have a part to play in deciding how New Zealand responds to climate change.
- Online engagement portal.

## 5 Belgium

### 1. Date of publication

Belgium is part of the EU NDC:

- EU NDC (2015)
- Country goal was published on 4 December 2015

### 2. Level of ambition

Source: <http://www.vlaamseklimaatop.be/hoe-worden-de-2020-doelstellingen-verdeeld-binnen-belgi%C3%AB>

Belgium has a target of 15% reduction by 2020 compared to 1990

In addition to regional measures, the federal government is taking effort to implement policy measures to reduce emissions by 7000 kilo tonnes CO<sub>2</sub>e by 2020 compared to 2005

[http://www.vbo-feb.be/actiedomeinen/energie-mobiliteit--milieu/klimaatverandering/doelstelling-van--35-co2-uitstoot-voor-belgie-tegen-2030-bevestigd\\_2018-01-10/](http://www.vbo-feb.be/actiedomeinen/energie-mobiliteit--milieu/klimaatverandering/doelstelling-van--35-co2-uitstoot-voor-belgie-tegen-2030-bevestigd_2018-01-10/)

For non ETS sectors it has been agreed emissions need to go down by 35% by 2030. This has been determined by 'solidarity' measures and cost-efficiency (big difference in Belgium between the two).

Absolute target

Source: <http://www.vlaamseklimaatop.be/hoe-worden-de-2020-doelstellingen-verdeeld-binnen-belgi%C3%AB>

14.7% by 2020

EU NDC goal: 40% reduction by 2030 compared to 1990

### 3. Legal basis

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

Federal laws sets out how the various responsible authorities should cooperate with each other on this subject. Article 92bis of the Special Act on Institutional Reform empowers the various local authorities to conclude cooperation agreements on the joint exercise of their own powers. General climate governance in Belgium is done through such agreements.

The cooperation agreement of 14 November 2002 created the National Climate Commission (la Commission nationale Climat or CNC) in order to develop national plans and propose draft cooperation agreements to the Concertation Committee (the Concertation Committee consists of Ministers from the federal government and the governments of communities and regions). More generally, the CNC is responsible for internal coordination, monitoring and evaluation of the National Climate Plan and the proper implementation of European and international reporting obligations. It is composed of representatives of the federal government and the three regions.

On the basis of these three regional Energy & Climate Plans, the Concertation Committee adopted the first version of the National Energy & Climate Plan on 19 December 2018, which is a compilation of the three regional plans and which will be submitted to the European Commission and subject to public and stakeholder consultation.

<http://www.lse.ac.uk/GranthamInstitute/country-profiles/belgium/>

'Agreement on cooperation'

#### 4. Transparent plan

The Flemish government published all plans up to 2030 online:

<http://www.vlaamseklimaatop.be/klimaattoelstelling-vlaamse-overheid-2030>

- Clear methodology for accounting and adjusting of plans based on findings.
- Well-documented processes
- Data underlying scenarios for each year are published on Government website.

#### 5. Stakeholders

Seventh National Communication on Climate Change 2017 (p56):

[http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf)

- In January 2017, the Federal Minister in charge of Energy and Environmental matters launched a national debate on carbon pricing in the non-ETS sector. The debate aims at exploring the options for implementing a carbon price in the sectors that are not part of the EU emissions trading system. The process, which involves all stakeholders, runs over the year 2017.

#### 6. Coverage

From Flemish government website:

Sectors – economy-wide

Gases – All

#### 7. Modelling approach

- Belgium's Seventh National Communication on Climate Change 2017 (p8 in presentation: [http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf)) states that the Federal Planning Bureau carried out modelling using a macro-sectoral top-down econometric model (HERMES).
- P 60: OFFREM model: used by all regions for off-road sectors;
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#### 8. Support (technical, financial, other) for plan development

- Supported by VITO: [https://emis.vito.be/sites/emis.vito.be/files/articles/2115/2014/Flemish\\_climate\\_policy\\_plan\\_2013\\_2020.pdf](https://emis.vito.be/sites/emis.vito.be/files/articles/2115/2014/Flemish_climate_policy_plan_2013_2020.pdf)
- 7NC p70: VITO projections for road transport.

#### 9. Sub-national links

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

Source: Seventh National Communication on Climate Change 2017 (p46):

[http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf)

Yes, very strong links to Flanders, Walloon, but also Brussels capital region.

#### 10. Monitoring

Source: Seventh National Communication on Climate Change 2017 (p48 in presentation:

[http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf)

In accordance with the cooperation agreement of 14 November 2002, the Regions and the Federal state are committed to yearly evaluate the progress and implementation of their policies and measures, in a harmonized way, including by estimating their impact in terms of GHG emission reductions. Methodologies vary depending on the domain targeted and the availability of data, but should at best be harmonized among the different entities, in order to ensure comparability and the ability to identify the most efficient measures

Socioeconomic impact of some federal PAM has also been evaluated. The most recent study (“Development of impact assessment methods for policies and measures carried out within the framework of the federal climate policy - Evaluation of emission reductions Report”, ICEDD - Aether - TML – TNO) was finalised in June 2017. A key methodological difficulty in such an evaluation is to disentangle the impact of a given federal measure from a regional one when both types of measures do target the same sector and the same action. The way federal and regional measures are linked to and complement each other is therefore a central issue. In any case, global effects of PAMs developed by different entities and targeting a given sector apply to the whole country, so the difficulty to calculate the shares of the different entities should not hamper their analysis in the context of this report.

A new federal MRV law<sup>6</sup> was recently adopted (October 2016). It puts in place the framework for the reporting, monitoring and evaluation of federal policies and measures in the field of climate change and ozone layer protection. According to the law all entities and departments of the federal authority in possession of relevant data and information shall communicate them annually in order to guarantee the timeliness, transparency, accuracy, consistency, comparability and completeness of the information reported.

## 11. Innovation

Sources: <http://www.flanderstoday.eu/politics/regions-agree-burden-sharing-2020-climate-and-energy-goals>

<http://www.vlaamseklimaattop.be/hoe-worden-de-2020-doelstellingen-verdeeld-binnen-belgi%C3%AB>

<https://www.tandfonline.com/doi/full/10.1080/1943815X.2015.1093508>

Yes, targets set on a regional basis with Brussels on its own as well. Targets are set based on potential for mitigation and level of income.

## 6 Flanders

### 1. Date of publication

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

- 1 December 2016: Flemish Climate and Energy Pact adopted, recognising the text of the Paris Agreement
- The Flemish Climate Policy Plan 2021-2030 and draft Flemish Energy Plan 2021-2030 were approved by the Flemish Government on 21 July 2018.

### 2. Level of ambition

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

- 40% by 2030 and 80 – 95% by 2050 compared to 1990
- Plans in place for 35% reduction by 2030.

Source: <http://www.vlaamseklimaatop.be/hoewordende2020doelstellingenverdeeldbinnenbelgi%C3%AB>

- 15.7% reduction by 2020

### 3. Legal basis

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

In the Flemish region, the Flemish Government adopted the Flemish Climate and Energy Pact on 1 December 2016 in which it endorses the text of the Paris Climate Agreement and recognizes the need to limit the global temperature increase to well below 2°C compared to pre-industrial levels, and to make efforts to limit the increase to 1.5°C compared to pre-industrial levels. The Flemish Government supports the objective of reducing greenhouse gas emissions by at least 40% by 2030 and by 80 to 95% by 2050 (compared to 1990). In this context, the draft Flemish Climate Policy Plan 2021-2030 and the draft Flemish Energy Plan 2021-2030 were approved by the Flemish Government on 21 July 2018, with the objective of reducing its emissions by 35% by 2030.

### 4. Transparent plan

Source: <https://www.lne.be/vlaams-klimatebeleidsplan-2021-2030>

Yes, for plans up to 2030.

### 5. Stakeholders

Source: Seventh National Communication on Climate Change 2017 (p54):

[http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf)

- Flanders organised multisectoral climate summits in 2016 (including stakeholder consultations and involving every single minister) to work towards an integrated climate and energy plan for the period 2021-2030 and towards a long term climate strategy (2050). The process in 2016 was concluded with the signing of the Flemish Climate and Energy Pact on the Flemish Climate and Energy Summit of December 1st, 2016. This pact consists of a declaration of commitment by the Flemish Government, an overview of new policy commitments by all the members of the Flemish Government, and a list of the commitments handed in by the stakeholders. The process will continue in 2017 and 2018.
- Active engagement (stakeholders were actively involved in development of the plan).

## 6. Coverage

All.

## 7. Modelling approach

Source: Seventh National Communication on Climate Change 2017 (p60):

[http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf)

- The models used by the different entities are:
  - Flemish energy and greenhouse gas simulation model: used by the Flemish Region; –
  - OFFREM model: used by all regions for off-road sectors;
  - Flemish energy and GHG simulation model, p164 of Seventh National Communication on Climate Change.
  - A new Flemish simulation model has been developed in 2014 (and is continuously updated since) to construct short term projections for Flanders. The simulation model is a projection model for energy demand, greenhouse gas emissions and emissions of air pollutants (SO<sub>2</sub>, NO<sub>x</sub>, PM and VOC) that covers most of the relevant emission sectors (energy sector, industry, waste, agriculture, residential and commercial buildings). This simulation model works as a “bottom-up” type, i.e. explaining energy consumptions and emissions from activity variables expressed as far as possible in physical units, and the main determining factors of the evolution of energy demand and emissions.
8. Support (technical, financial, other) for plan development
- Support from KU Leuven and VITO cited in 7NC of Belgium.
9. Sub-national links
- No, Flanders itself is the sub-national link.
10. Monitoring
- As described for Belgium, annual reporting is required.
11. Innovation
- No



## 7 Wallonia

### 1. Date of publication

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

- Walloon Climate Decree of 20 February 2014
- Draft Walloon Air Climate Energy 2030 plan was approved on 19 July 2018

### 2. Level of ambition

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

- Walloon region:
- 30% reduction of CO<sub>2</sub> by 2020 and 80 to 95% by 2050

### 3. Legal basis

Source: <https://www.stibbe.com/en/news/2019/january/belgiums-energy--climate-plan>

At regional level, in the Walloon Region, the Walloon Climate Decree of 20 February 2014 sets the greenhouse gas emissions reduction targets at a reduction of 30% CO<sub>2</sub> by 2020 and 80 to 95% CO<sub>2</sub> by 2050. This Decree also indicates the instruments that would be implemented to achieve these objectives, including the Air Climate Energy Plan, which is to be developed by the Walloon Air and Climate Agency, in consultation with the Walloon Government. The draft Walloon Air Climate Energy 2030 plan was approved on 19 July 2018, with the objective of reducing its emissions by 35.9% by 2030.

### 4. Transparent plan

Yes.

### 5. Stakeholders

Source: Seventh National Communication on Climate Change ([http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf))

- Only communications found, not actual engagement: Passive engagement

### 6. Coverage

Sectors – economy-wide

Gases – Climate decree states CO<sub>2</sub> only.

### 7. Modelling approach

Source: Seventh National Communication on Climate Change: [http://unfccc.int/files/national\\_reports/annex\\_i\\_natcom/application/pdf/7319685\\_belgium-nc7-br3-1-nc7\\_en\\_lr.pdf](http://unfccc.int/files/national_reports/annex_i_natcom/application/pdf/7319685_belgium-nc7-br3-1-nc7_en_lr.pdf)

- The models used by the different entities are: – EPM: used by the Walloon Region; – OFFREM model: used by all regions for off-road sectors (p60);
- EPM (Energy/Emissions Projection Model) is a projection model for energy demand and atmospheric emissions that covers all relevant emission sectors (energy sector, industry, residential, commercial, transport). It has been developed progressively by ECONOTEC since 1993 within the framework of a number of studies performed for public authorities at both the regional and the national level. Given the heterogeneity of sectors such as the iron & steel industry, the chemical sector or the residential sector, it is necessary to take into account

internal structural effects, i.e. distinct evolutions according to sub-sectors if these sub-sectors have different levels of specific consumptions or emissions. EPM is a simulation model of the “bottom-up” type, i.e. explaining energy consumptions and GHG emissions from activity variables expressed as far as possible in physical units, and containing a detailed representation of emission sources and the main determining factors of the evolution of energy demand and the various types of emissions (p165).

8. Support (technical, financial, other) for plan development
  - None found
9. Sub-national links
  - No, Wallonia itself is the sub-national link (see Belgium)
10. Monitoring
  - Annual reported as stated for Belgium
11. Innovation
  - No

## 8 Netherlands

### 1. Date of publication

Source: EU Nationally Determined Contribution (NDC) (2015).

<https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Latvia/1/LV-03-06-EU%20INDC.pdf>

- Dutch Climate Plans first published in 2018, still up for changes and developments in 2019. This is an agreement between government and business, including around 600 measures and initiatives to achieve the Dutch climate commitments.
- Energie akkoord (Energy Agreement for Sustainable Growth) was published in 2013.

### 2. Level of ambition

- EU NDC goal: The EU and its Member States wish to communicate the following INDC. The EU and its Member States are committed to a binding target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990.

Sources: <https://www.rijksoverheid.nl/onderwerpen/klimaatverandering/klimaatbeleid>

<http://www.lse.ac.uk/GranthamInstitute/country-profiles/netherlands/>

- Court decided goals for 2020 should be 25% reduction in comparison to 1990
- Proposal of climate law submitted in June 2018 which proposes 95% reduction in GHG in 2050 and 49% in 2030 (compared to 1990), approved by parliament in December 2018
  - Absolute target

### 3. Legal basis

Source: <https://www.rijksoverheid.nl/onderwerpen/klimaatverandering/klimaatbeleid>

- Klimaatwet (climate law) approved by parliament in 2018.

### 4. Transparency

Source: <https://www.ad.nl/politiek/planbureau-onder-vuur-om-oude-cijfers-voorspellen-is-superingewikkeld~a8e35b8e/>

- Approach by Netherlands Environmental Assessment Agency (PBL) has been heavily criticized in public media for use of old data and not sufficient modelling (too little resources)
- Discussions between business and government have not been transparent.

### 5. Stakeholders

- Active engagement (stakeholders were actively involved in development of the plan). This is still an ongoing process.

### 6. Coverage

- Sector (all), plan separated for: Electricity, Built environment, Industry, Agriculture and land use, and Mobility/transport.
- Gases - all

### 7. Modelling approach

Source: [Seventh Netherlands National Communication on Climate Change under the United Nations Framework Convention on Climate Change:](#)

- PBL is responsible for all calculations on which policies and measures and climate commitments for each sector depend.

- Use of ETM (Energy Transition Model by Kalavasta) transition model.
- Most estimates are extrapolation of potential in various sectors.

#### 8. Support for plan development

Source: [Seventh Netherlands National Communication on Climate Change under the United Nations Framework Convention on Climate Change](#):

- PBL is responsible for all calculations on which policies and measures and climate commitments for each sector depend
- They have received support for technical analysis, especially for the transport sector, from TNO and CE Delft. CPB (Netherlands Bureau for Economic Policy Analysis) has supported calculations around implications to the government budget.
- Ecofys has supported the methane emissions research for the agriculture sector.

#### 9. Sub-national links

- No strong mandate

#### 10. Monitoring

Source: <https://www.klimaataakkoord.nl/klimaataakkoord/borging-en-governance>

- Proposal for monitoring of new climate accord: Annual reporting in the 'Klimaat en Energie Verkenning (KEV) (October) where estimates of emissions in 2030 will be reported and that will feed into the updating of plans.

#### 11. Innovation

Source: <https://www.rvo.nl/onderwerpen/duurzaam-ondernemen/duurzame-energie-opwekken/aardgasvrij>

- A lot of the plans are linked to the government's plans to also become completely independent from natural gas in 2050, due to earthquakes in the north of the Netherlands.