

NORWAY: Instruments of Climate Mitigation and Energy Transition

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1. Political Situation

Views on EU climate policy and key policy controversies: EU climate policy seems to be viewed increasingly critically in the national political context of Norway. In my view, this seems mostly to be due to two dilemmas facing Norwegian politicians. The first is how to balance our duties to phase down or out fossil fuel production against our role as a main supplier for fossil fuels to the EU. The second is related to Norway's political sensitivities regarding high electricity prices and loss of biodiversity against EU's significant demand for electricity. The political balancing acts needed given these dilemmas make it increasingly hard for the politicians to identify effective and politically acceptable ways in which to implement EU legislation on climate mitigation.

Developments of Norwegian policy: The opposition to the development of large scale new renewable energy production is sustained. There is not sufficient political support for the phasing down or out of petroleum production. Major new policy initiatives include a focus on LULUCF in terms of forestry, nature restoration and protection of wetlands, electrification of the construction sector, and improved public transportation. There are also initiatives to increase the contribution of municipalities to achieve national goals.

Norwegian policies regarding energy transition have been relatively successful, much due to low electricity prices and easy access to hydropower. As the energy transition has mostly happened in the transport sector and heating, we could have expected significant lowering of emissions in these sectors. However, the energy transition in the road transport sector does not seem to have lowered the level of emissions (7.4 mill ton in 1990 vs. 7.5 mill ton in 2024). This might mainly be due to significant overall increase in transport. For heating, transition seems to have had a significant effect (2.8 mill ton in 1990 vs. 0.5 mill ton in 2024).¹

Prospects for future political developments: In the short term, i.e. 2030, Norway is very likely to depend on funding reduction of GHG emissions elsewhere to be able to fulfil legal commitments. The most important uncertainty in this regard seems to be how Norway can calculate sinks related to forests and wetlands. We may expect significant policy initiatives for these sectors. In the medium term, Norway may be able to accelerate production of renewable energy by adding offshore wind production and increasing solar power. This production is likely to contribute to electrification of petroleum production (currently Norway's largest emitter of GHG with 11 mill ton).

The role of courts: The role of courts has been relatively important in the public debate. Mostly, the courts have been engaged in cases related to impact assessment of production of petroleum²

¹ <https://www.ssb.no/natur-og-miljo/forurensning-og-klima/statistikk/utslipp-til-luft/artikler/klimagassene-13-prosent-lavere-enn-i-1990>.

² One case that has been decided by the Supreme Court on 22 December 2020 (HR-2020-2472-P). This case was also brought before the European Court of Human Rights, which rendered its decision on 28 October 2025 (Application no. 34068/21). A follow-up case regarding the implementation of the Supreme Court decision is still pending in the Norwegian judiciary. As part of this case, the EFTA Court delivered an advisory opinion on impact assessment in support of the complainants on 25 May 2025 (E-18/24).

and renewable energy.³ Despite many years of court proceedings, we do not yet see any significant change in how public authorities deal with relevant cases. The shifting governments have been consistent in their fight against such changes before the courts.

2. Overall Climate Policy Targets

Fulfilment of climate targets: According to the Norwegian legislation implementing the EU targets, Norwegian targets exist for 2030, 2035 and 2050.⁴ Since 2015, Norway has finally achieved a sustained trend towards reduction of GHGs, from 54.3 mill ton in 2015 to 44,6 mill ton in 2024.⁵ However, the emissions were higher in 2015 than in 1990 by more than 3 mill ton. Moreover, the extent to which the downward trend will persist is associated with many uncertainties. Against this background, Norway will almost certainly fail to achieve the target to reduce by 55 per cent by 2030 and 70-75 per cent by 2035.

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3 and 4. Emission Trading System I (Industry) and II (Buildings and Road Transport)

Norway has implemented ETS I and II. These are appropriate in the sense that they provide incentives for reduction of GHG emissions within relevant sectors. However, Norway has consistently had higher emissions than emission allowances. During the period from 2009 to 2024 Norwegian allowances represented on average only 58 % of emissions. From 2013 to 2021, there was a trend towards lower reliance on buying allowances from other countries, but this has to some extent been reversed from 2022 to 2024.⁶

EU ETS II has been implemented in the Norwegian regulatory regime. Achieving reductions in the road transport sector seems to be the most challenging. Information on GHG emissions from buildings and road transport is included above.

5. Double regulation?

The closest we get to a debate regarding double regulation in the Norwegian context relates to the petroleum sector. There has been some discussion concerning the resource tax applicable to the petroleum sector in accordance with the Petroleum Taxation Act. This is, however, neither a tax on GHG emissions from production nor on GHG emissions from exported petroleum products. Nevertheless, during the COVID pandemic the petroleum sector achieved tax benefits for 2020 and 2021 due to loss in income and as an incentive to increase investment in new production. These temporary benefits were to some extent continued through amendments to the Petroleum Taxation Act in 2022.⁷ The fact that the petroleum sector is subject to the ETS and has extensively relied on purchasing allowances have been significant arguments for a more

³ The main cases are two cases regarding wind power developments in Sami areas. The first was decided by the Supreme court on 11 October 2021, and found that the establishment of the wind power development had been in violation of Sami rights according to article 27 of the International Covenant on Civil and Political Rights (HR-2021-1975-S). The second case is brought by the Sami Parliament and concerns electrification of petroleum activities which will lead to major windpower developments in the county of Finnmark. The case is pending before the appeals court.

⁴ Climate Act 2017 no. 80, §§ 3 to 5.

⁵ <https://www.ssb.no/natur-og-miljo/forurensning-og-klima/statistikk/utslipp-til-luft/artikler/klimagassene-13-prosent-lavere-enn-i-1990>.

⁶ <https://www.norskeutslipp.no/no/Komponenter/Klimakvoter/Kvoteutslipp/?ComponentType=kvoteutslipp&ComponentPageID=1103&SectorID=90>.

⁷ <https://www.skatteetaten.no/en/business-and-organisation/reporting-and-industries/industries-special-regulations/oil-and-gas-exploration-and-petroleum-tax/the-petroleum-tax-office-and-the-petroleum-tax-system/petroleum-tax-regulations/>.

beneficial tax regime. Moreover, the ETS has also been a significant reason why the Norwegian government facilitates electrification of this sector.

6. Effort Sharing

Norway has a deficit of approximately 6.9 mill ton CO₂ for the years 2021 to 2025 under the ESR 2018/842.⁸ This was expected to increase to a deficit of 13 mill ton CO₂ in the period to 2030 based on Norway's current commitment under the ESR to reduce by 40 % by 2030.⁹

Norway is currently counting on reaching a new agreement with EU in accordance with Regulation 2023/857 and is preparing to undertake a commitment of 50 % reduction. Based on an updated assessment in accordance with this commitment, Norway has a deficit of approximately 6.9 mill ton CO₂ for the years 2021 to 2025 and expects this deficit to increase 13.3 mill. ton by 2030.¹⁰ This estimate takes into account effects of planned mitigation measures. The current annual domestic electricity consumption in Norway approximately

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The main challenges facing Norwegian authorities in achieving the targets of the ESR can be summarized as being the economic and political costs of additional measures to reduce GHG emissions. Some of the planned measures have been scaled back due to such costs, in particular GHG-taxes on waste incineration and long-distance fishing, and mandatory increases in use of biofuel. The weakness of the minority government, which is dependent on reaching compromises with a number of other parties, adds to the challenges of implementing effective policies. Moreover, the Norwegian authorities have been too optimistic in their scenarios regarding the status of emissions and phasing in and effects of policy measures. Finally, Norway has not succeeded in reaching any agreement with the EU regarding deduction of carbon capture and storage, which is still in its infancy despite having been high on the political agenda for two decades.¹¹

In order to compensate for the deficit, Norway has secured access to credits worth 5.8 mill ton from the EU ETS.¹² Estimations indicate that Norway will have to more than double the GHG-taxes in order to close the remaining deficit of 7.5 mill ton.¹³ The government has therefore announced that it will reinforce its effort to purchase emission credits from other countries within EU.

7. Renewable Energy

Norwegian electricity production has traditionally been solely based on hydropower. Major efforts in the early 2000s to establish natural gas-based power production were aborted. The annual production of electricity in Norway is currently estimated to be 157 TWh, generated by hydropower (88 %), wind power (10 %), thermic power (1.6 %, mostly natural gas), and solar

⁸ Klima- og miljødepartementet, Regjeringens klimastatus og -plan (Grønn bok), særskilt vedlegg til Prop. 1 S (2025-2026). p. 100.

⁹ Klima- og miljødepartementet, Regjeringens klimastatus og -plan (Grønn bok), særskilt vedlegg til Prop. 1 S (2024-2025). p. 123.

¹⁰ Klima- og miljødepartementet, Regjeringens klimastatus og -plan (Grønn bok), særskilt vedlegg til Prop. 1 S (2025-2026). p. 100.

¹¹ See <https://ccsnorway.com/the-project/>.

¹² Klima- og miljødepartementet, Regjeringens klimastatus og -plan (Grønn bok), særskilt vedlegg til Prop. 1 S (2025-2026). p. 103.

¹³ Ibid. p. 104. The Norwegian government of Jens Stoltenberg launched CCS as the "Norwegian moon landing mission" in the fall of 2006. Ironically, it has so far had a fate as other moon landing projects.

(0.4 %).¹⁴ The current annual electricity consumption is about 140 TWh. Norway is actively exporting and importing electricity through cables to other EU countries and the UK. The prices achieved are high due to the ability of Norwegian hydropower to increase production when external demand is high and/or production is low. This has consequences for internal electricity prices in Norway. Consequently, local electricity prices are heavily subsidised.

The projection for 2050 is an increase in energy production to a total of 205 TWh, mainly through increased land-based wind power, supplemented by some increase in offshore wind power and solar power starting from 2030. There is no expected increase in hydropower or thermal power and no specific plans for nuclear power.¹⁵ There is some debate regarding the latter.

Some individual projects have produced their own energy based on fossil fuel. The main example is the petroleum sector. There is currently significant debate regarding electrification of this sector and whether such electrification should be based on electricity from land-based production or whether the sector should secure its own renewable energy by establishing offshore floating wind power projects. One pilot offshore wind power project was successful, but very expensive to the government.¹⁶ Subsequent projects seem to be very reliant on significant government subsidies in the foreseeable future.¹⁷ Hence, the short-term electrification of this sector is based on increased use of land based electricity production. This has led to a major and highly controversial initiative to significantly increase wind power production in Norway's northernmost county, Finnmark.¹⁸ The major alternative considered was CCS of the current energy production, which was rejected due to high costs.

Subsidies have been the most important regulatory measure to transform the energy market. In terms of production, they have been scaled back in relation to land-based wind power and are currently significantly increasing in relation to offshore wind power and CCS. Subsidies of electricity for consumption have undermined expansion of solar power and small-scale wind power.

In terms of consumption, subsidies have largely been scaled back in relation to electrification of ordinary road traffic and increased in relation to electrification of road-based transport of goods and passengers, as well as ferries. Subsidies related to public procurement is also used actively to promote electrification of the construction sector.

Regulatory reforms of the Planning- and Building Act have been important in order to facilitate regional development of large-scale land-based wind power projects. These have been supplemented by introduction of local tax regimes to secure local benefits from such projects. To avoid negative land-use effects, legislation has been introduced to prevent loss of wetlands.

¹⁴ See <https://www.nve.no/energi/energisystem/kraftproduksjon/>.

¹⁵ NVE, Langsiktig kraftmarkedsanalyse 2025. Energiomstilling i urolige tider, Report no. 15/2025, p. 51.

¹⁶ See <https://www.equinor.com/energy/hywind-tampen>.

¹⁷ The main example is the project Sørliche Nordsjø II, see <https://www.regjeringen.no/no/tema/energi/fornybar-energi/havvind/sorlige-nordsjo-ii/id2967231/>.

¹⁸ This initiative led to the case brought by the Sami Parliament against the Norwegian government, the Melkøya case, mentioned in footnote 3 above, which is associated with the significant increase in Norwegian export of LNG to Europe.

Norway's primary concerns regarding EU legislation seems to concern the electricity market, where national sovereignty and local flexibility are the main concerns, and lack of progress regarding CCS.

8. Land Use

Norwegian reports regarding the land-use sectors are prepared by NIBIO, a research institute provided with administrative functions on behalf of the Ministry of Agriculture and Food.¹⁹ The recording of emission and uptake of GHGs is divided into seven topics: forest land, harvested wood products, cropland, grassland, wetlands, settlements, and other land. The basic document on GHG emissions and sinks from 1990 to 2022 was published in 2024.²⁰ This document contains the basic documentation of the LULUCF sector.

The basic trends that are documented in the document show a very significant net uptake of CO₂ within the forest sector throughout the period, which significantly outweighs the combined emissions from other land use categories. The uptake peaked with as much as 32 mill ton CO₂ in 2010 and has since been reduced to an annual uptake at about half of this amount.²¹ This negative trend in uptake of CO₂ in the forest sector is the major land use challenge for Norway.

The main strategy takes as its starting point a framework that builds on the three concepts “avoid”, “move” and “improve”. The first priority is to avoid unnecessary land-use changes and, e.g. by using existing buildings and infrastructure. The second priority is to move developments to areas where such developments have already occurred, e.g. by co-locating functions and services. The third priority is to improve processes involving necessary land-use change, e.g. through nature restoration and improved impact assessments. Recent initiatives include legislation to avoid construction on wetlands and improvement of assessment of land-use issues in impact assessments.²²

Norway has calculated its deficit under the LULUCF to amount to 36.4 mill ton CO₂ for the period 2021-2025. This calculation has a high degree of uncertainty. Regardless of these uncertainties, Norway must be prepared to purchase forest credits from other countries, and the Ministry for Climate and Environment has proposed to budget for up to 3 000 mill NOK for such purchases. Norway has also entered into a tentative cooperation agreement with Denmark.²³

For the period 2026-2030, there exist estimates that the total deficit for Norway will be reduced to 1.4 mill ton CO₂. However, these estimates are conditional and have very high uncertainty. Norway is currently unable to predict effects on GHG emissions and uptake of its current plans for this period.²⁴

¹⁹ <https://www.nibio.no/en/subjects/environment/greenhouse-gas-accounting-for-land-use-land-use-change-and-forestry>.

²⁰ Norwegian Environment Agency, Greenhouse Gas Emissions 1990-2022. National Inventory Document (2024).

²¹ Ibid. p. 6-2.

²² Klima- og miljødepartementet, Regjeringens klimastatus og -plan (Grønn bok), særskilt vedlegg til Prop. 1 S (2025-2026). pp. 74-75.

²³ Ibid. p. 104.

²⁴ Ibid.

Against this background, the LULUCF and deforestation regulations constitute major challenges for Norway.

9. Special National Strategies, Programmes, and Ideas

Nothing to report.

10. Social and Regional Compensation Mechanisms

The most important compensatory mechanism is related to increased electricity prices associated with export of electricity and electrification. This has led to the introduction of “Norgespris”, which allows private consumers to opt for a predetermined price per kWh of 0.5 NOK. This mechanism is available until the end of 2026. This has become very expensive for the government and undermines incentives for private households to save energy and install small-scale energy production. There is also exemption from VAT on electricity in the three northernmost regions of Norway.²⁵

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11. Adaptation

Norwegian governments have issued two white papers on climate adaptation in 2013 and 2023. So far there has not been any national programme for climate adaptation. Responsibility for climate adaptation has been with the agency whose activities are affected by climate change. The Ministry of Climate and Environment has been responsible for ensuring necessary coordination among public authorities. Plans and programmes have been adopted at municipal and regional levels.

The government’s white paper for 2023 announces that it will introduce an improved governance system at the national level. Two key elements of this system are the publication of a national climate vulnerability analysis every four years, starting from 2027, and the issuing a new white paper on climate adaptation the same year.

12. New liability/compensation regime in the Air Quality Directive (2024/2881) and the amended IE Directive (2024/1784)

Norway considers the new Air Quality Directive and the amendments to the IE Directive to be relevant under the EEA Agreement and acceptable. The Air Quality Directive will be implemented through amendments of the Pollution Control Regulation chapter 7. The preliminary assessment is that general rules on enforcement and liability under the current legislation is sufficient for the purpose of implementing the directive.²⁶ The IE Directive will be implemented through amendments of the Pollution Control Regulation and Waste Regulation, as well as through the issuing of new or revised permits to relevant enterprises.²⁷

²⁵ <https://www.nve.no/reguleringsmyndigheten/kunde/stroem/dette-er-norgespris/>.

²⁶ <https://www.regjeringen.no/no/sub/eos-notatbasen/notatene/2025/avg/nytt-luftkvalitetsdirektiv/id3117200/>.

²⁷ <https://www.regjeringen.no/no/sub/eos-notatbasen/notatene/2021/sep/revisjon-av-industriutslippsdirektivet/id2879500/>.