



NEO WP3

Norwegian NECP

Background

- **Norway is not obligated to submit any NECP to the EU as informed by The Ministry of Climate and Environment (Klima- og miljødepartementet)**
 - As part of the European Economic Area (EEA) agreement, Norway participates in the EU's internal energy market and therefore co-operates closely with the EU on energy and climate matters
- **In 2019, the Norwegian Government presented a national plan complying with the obligations in regulations for non-ETS sectors and LULUCF**
 - Norway's National Plan related to the Decision of the EEA Joint Committee No. 269/2019 of 25 October 2019 -> was submitted on a voluntary basis
 - Norway has an agreement with the EU to participate in EU climate legislation for the period 2021–2030
 - closer collaboration between Norway and the EU on fulfilling their respective greenhouse gas emission reduction targets for 2030
 - commitment to cut emissions from transport, construction, waste and agriculture by 40% by 2030 compared with the 2005 level
 - Norway is required to report emissions accounts to ESA
 - every two years projections and descriptions on actions taken to meet our obligations under the agreement will also be reported

Background

- In 2021, a more comprehensive climate plan (white paper) for Norway for the period between 2021–2030 was issued, including more detailed plans across the different sectors and technologies
 - the plan outlines how Norway can achieve its target to reduce emissions by at least 50% and towards 55% by 2030, compared to 1990
 - mainly targets an increase in greenhouse gas taxes
 - Norway's main target regarding energy efficiency is to reduce the overall energy intensity of the economy by 30% by 2030, compared to 2015

Measures to improve energy efficiency in the building sector

- **The building sector accounts for 36% of the domestic energy use in mainland Norway**
 - Therefore, the building sector can significantly contribute to energy conservation and GHG emissions mitigation via energy efficiency measures and decarbonization of the energy supply
- **The Norwegian Government has concluded that the Energy Efficiency Directive (2012/27/EU) should be incorporated into the EEA agreement with the necessary adaptations**
 - Although Norway is not an EU member state, it has also chosen to collaborate with EU in the adaption of Energy Performance of Building Directive (EPBD) 2010/31/EU
- **The Norwegian Government has also put forward a regulation on the banning of use of mineral oil (fossil oil) for heating of buildings from 2020**
 - According to current regulation it is not permitted to install heating systems using fossil fuels (both fossil oil and gas)
- **The climate plan also underlines the need for utilization of existing building stock via renovations**
 - The current political goal is to reduce energy use by 10 TWh in the existing buildings by 2030, compared to the 2016 level
 - Assumed to contribute also to material efficiency through recycling and reuse of materials
- **The main energy efficiency measure related policies in the building sector are based on standards for new buildings, investment subsidies, metering systems and energy performance labelling and certificates**
 - E.g., energy efficiency improvements in new buildings are considered in updated building standards (e.g., TEK 17)
- **Planning and Building act promotes sustainable development, with emphasis on long-term solutions**
 - Cross-sectoral viewpoint rather than just specifically building sector

Insights from the NEOs WP3 work

- The potential for energy efficiency measures are significant for buildings for a wide range of measures for energy saving and flexibility
- However, the rate of energy renovations in the existing buildings can significantly impact the degree and pace to which this potential can be realised
- Therefore, more stringent energy efficiency policy planning that address the historically low energy renovation rates (incl. clear energy renovation targets, monitoring and supporting measures) can be beneficial for the Norwegian Government to realise the estimated energy savings potential in the building sector
- Some of the investments are cost-effective only when applying a social discount rate. If a higher private discount rate is applied, investments are reduced especially for single-family residential buildings
 - Financial barriers (e.g., access to capital, lack of profitability and high investment requirements) can also limit the adoption of energy efficiency and conservation measures, especially in the residential buildings
- The energy efficiency policies related financial support (incl. information, improved awareness of available funding, low interest loans) for energy renovations can increase the adoption of energy efficiency measures in the building sector

Measures to improve energy efficiency and conservation in industry

- The process industry is responsible for about 23% of the total Norwegian Emissions.
- The CO2 emission tax is the most important policy measure to accelerate the transition to zero-emission society
 - In the climate plan it is recommended:
 - to increase CO2 tax to 2000 NOK per tonne in 2030.
 - Ban burning of fossil fuels in industry.
- **Additional governmental measures to stimulate investment and research in industry:**
 - Norwegian Research Council, Gassnova, Innovasjon Norge, Norwegian Catapult and Innovation Centres, Pilot-E, Grønn platform



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Insights from the NEOs WP3 work

- Cross-sectorial coupling becomes increasingly more important.
- A more detailed representation of waste heat utilization and connection between source and sink improves the assessment of its potential.
 - Excess heat utilization technologies: heat pumps are significant, heat to power does not carry same effect on national level
 - More information about excess heat in industry is needed.
 - Clustering of industries can enable more energy efficiency measures
- A common aligned approach for reporting and data collection of, e.g. excess heat and possibly material streams, in the Nordic will improve predictions also considering future focus on a circular economy.



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Teknologi for et bedre samfunn