Norwegian climate policy

Ukrainian CCS forum 28 Oct 2016

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Which sources contribute most to the emissions?

Oil and gas extraction is the main contributor to greenhouse gas emissions, and made up **28 per cent** of the total emissions in 2015. Annual emissions from oil and gas extraction have increased by 83 per cent since 1990.

Some main sources have shown a significant increase in annual emissions since the reference year 1990. The remaining sources have shown a significant decrease since 1990.

Source: www.ssb.no/en/klimagassn
Energy balance, 2015, *preliminary figures*

**Primary energy production**
Primary energy products are extracted or obtained directly from the environment and have not been transformed from other energy sources.

- **Natural gas** 2,397 TWh (45.6%)
- **Crude oil** 973 TWh (19.9%)
- **Hydroelectric and wind energy** 135 TWh (2.7%)
- **Other** 212 TWh (4.3%)

**Supply**
Total energy supply

- **Exports** 2,140 TWh
- **Imports** 89 TWh

**Net domestic energy consumption**
Net domestic energy consumption mainly includes the consumption of secondary energy products as well as end use of biofuels, natural gas, coal and NGL/ethane.

- **Incl. raw materials** 236 TWh
- **Excl. raw materials** 213 TWh

**By user group**
Manufacturing, mining and quarrying:
- **67 TWh** (-0.1% since 2014)

Transport:
- **57 TWh** (+1.5% since 2014)

Other user groups:
- **89 TWh** (+2.5% since 2013)

**Energy consumption broken down by energy products**

**How much is actually 1 TWh?**
1 terawatt hour (TWh) is one billion kilowatt hours (kWh). An average Norwegian household uses around 20,000 kWh per year (2012).

Source: www.ssb.no/en/energibalanse
Figure 1.1: State organisation of energy and water resources activities.

The Storting (Parliament)

The Government

Ministry of Petroleum and Energy
  - Norwegian Water Resources and Energy Directorate
    - Enova SF
    - Statnett SF

Ministry of Finance

Ministry of Climate and the Environment
  - Norwegian Environment Agency
    - Directorate for Cultural Heritage

Ministry of Trade and Fisheries
  - Statkraft SF

Source: MPE
A carbon neutral Norway in 2050

2020
• Parliament’s Climate Agreement (2012)
• Kyoto commitment
• Contribute to lowering global emissions
• 30%

2030
• Paris Agreement
• Common emission obligation with the EU
• 40%
A carbon neutral Norway in 2050

2020
Renewable energy target: 67.5%

One full scale CCS project

Ban on oil furnaces

50,000 EVs by 2017

Technology

Biogas

EU ETS

Rain forests

Mechanisms
Green certificates

CLIMIT, TCM, funding over state budget

Legislative

Tax breaks +++

Climate Technology Fund, Enova

Enova

Brussels

REDD+
A carbon neutral Norway in 2050

2030

Non-ETS (transport, buildings, waste, agriculture): 40 %

ETS

CCS

????????