



Riksrevisjonen

Office of the Auditor General of Norway

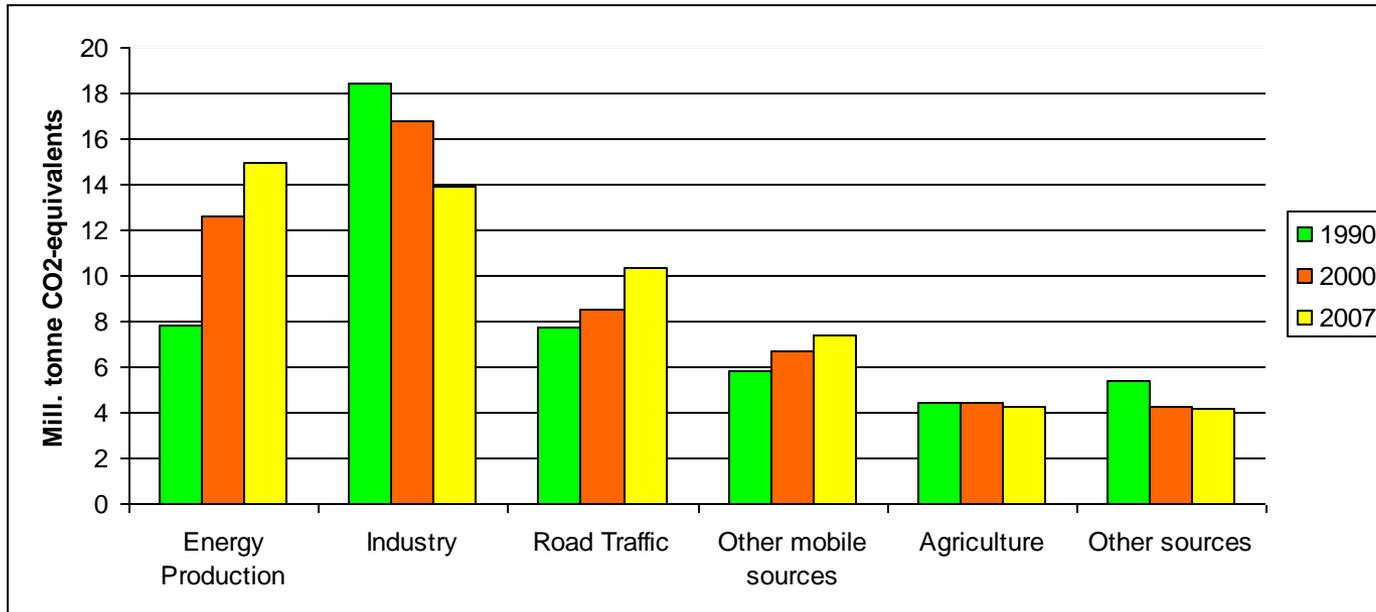
Synergies between energy and climate in Norwegian climate policy

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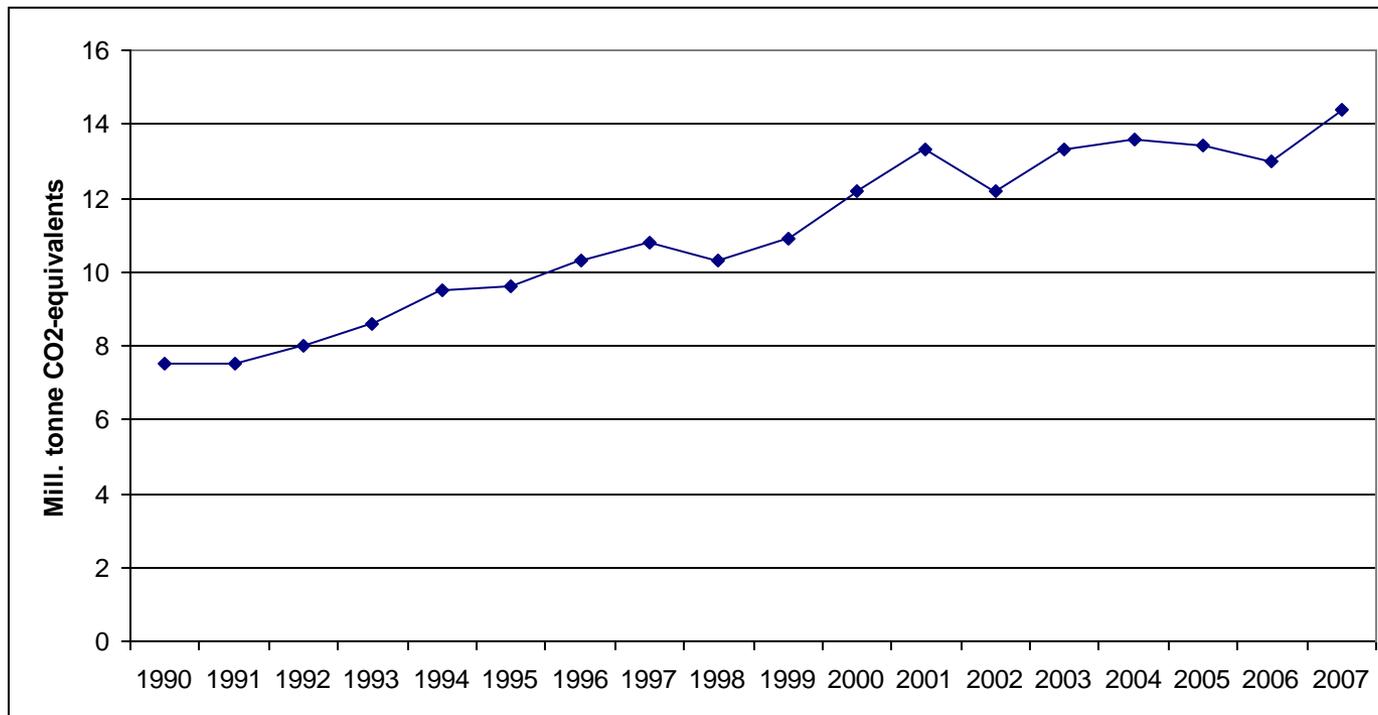
Background

- The Office of the Auditor General of Norway has performed an audit on goal attainment in Norwegian Climate Policy
- The audit was conducted with a cross-sectoral approach, examining all important emission sectors
- Norwegian parliament has ratified the Kyoto Protocol, and has also set a national reduction goal for 2020

Norwegian emission trends



Petroleum activities offshore responsible for majority of energy-related emissions



Audit Criteria for the energy sector

- The responsible ministry for the petroleum sector has not set quantified reduction emission targets
- Through the Agreement on Norway's climate policy there was set quantified emissions reduction targets for the emission sectors
- 3-5 mill. tonne CO₂-equivalents reduced GHG emissions by 2020 in the petroleum- and energy sector
- Other energy targets are not directly linked to GHG emissions but may affect results

Policy instruments in the energy sector

- The sector mainly has economic policy instruments
 - CO₂- tax on petroleum activities and heating oil
 - The petroleum sector included in the Norwegian emission trading system
 - Tax on electrical consumption
 - Subsidies for production of wind power, renewable heating systems etc.
 - Plan for Development and Production is also an important policy tool which allows government to regulate technical solutions and developers must consider power supply to offshore installations from mainland renewable electricity rather than gas turbines

Audit findings in the mainland energy sector

- The target of 3 TWh wind power production annually by 2010 was not met
- Also a target for renewable heating solutions of 4 TWh increased consumption by 2010
- Energy consumption is increasing in most sectors, rather than declining
- Government does not have good result indicators on energy consumption

The Norwegian commitment on CCS

- The development offshore creates a need for consumption of more natural gas, liquefied natural gas, LNG
- Gas-fired power plants has been presented as a solution also to secure energy supply in areas with weak transmission grids
- Gas-fired power plants cause large point emissions, therefore such energy production requires mitigating efforts
- Carbon Capture and Storage has been presented as the solution. Government has set a target of establishing CCS on a Combined Heat and Power plant by 2014

A sustainable energy sector requires

- Development and deployment of new technology
- Steady funding and efficient subsidies
- Commitment to development and maintenance of infrastructure
- Good strategies for long term planning and conduction
- Adequate performance monitoring system

A cross-sectoral approach to connect climate and energy

- A cross-sectoral approach gives an over-view of the overall energy use including mobile sources, and how new mitigating solutions might require renewable energy as a part of the solution. This makes the connection between energy and climate more visible, and also emphasises the necessity of government seeing the energy sector in connection with other emission sectors, to be one step ahead of the future needs.
- Example: Electrical cars need electricity – where should this come from when there is no surplus in the current domestic renewable energy production?

Thank you for your attention

- The climate change guidance paper can provide you with tips related to a cross-sectoral approach, integrating energy and climate.
- The Norwegian climate audit will be presented to Parliament April 15th 2010.
- - Any questions?