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*Royal Norwegian Ministry of the Environment*

# The Norwegian Emissions Trading System

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Presentation to ICAO Workshop:  
Aviation and Carbon Markets

Montreal, 18 June 2008



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## Political context

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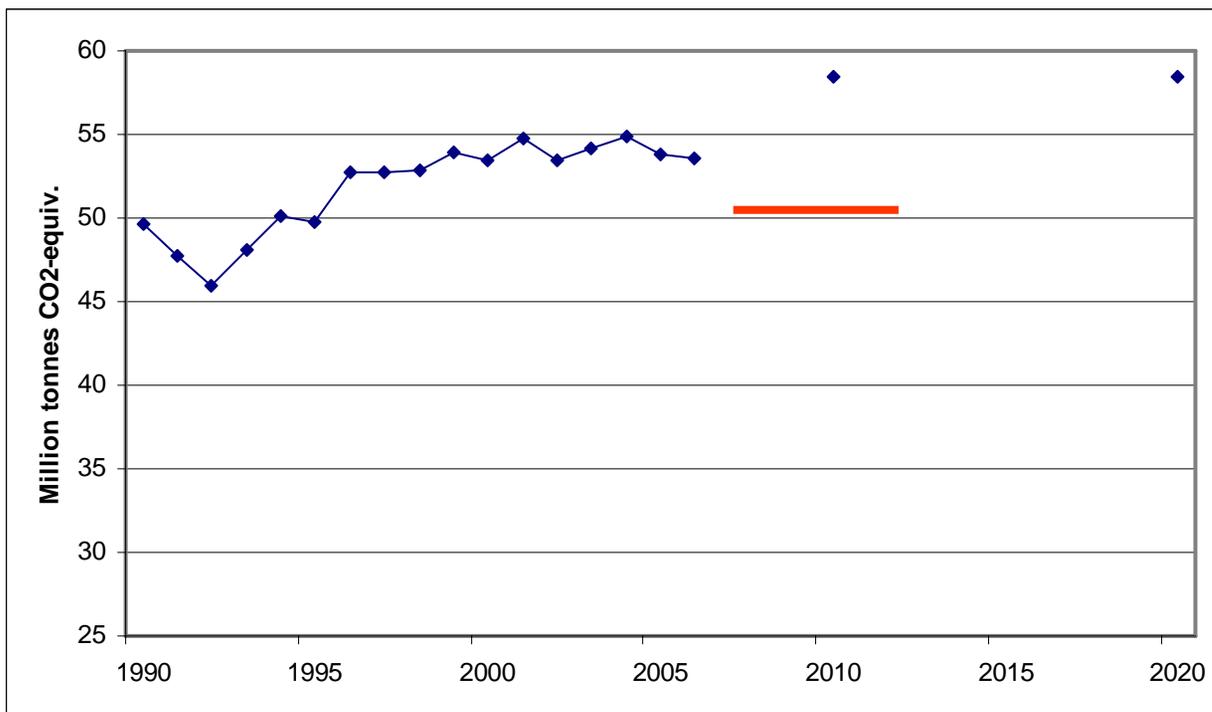
- Active climate policy since late 1980's
- Focus on economic measures (CO<sub>2</sub> tax 1991, flexible mechanisms under the Kyoto Protocol, national emission trading system)
- Emission trading vital part of the Norwegian efforts to reduce emissions and ensure compliance with the Kyoto Protocol



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## Emissions and projections 1990-2020



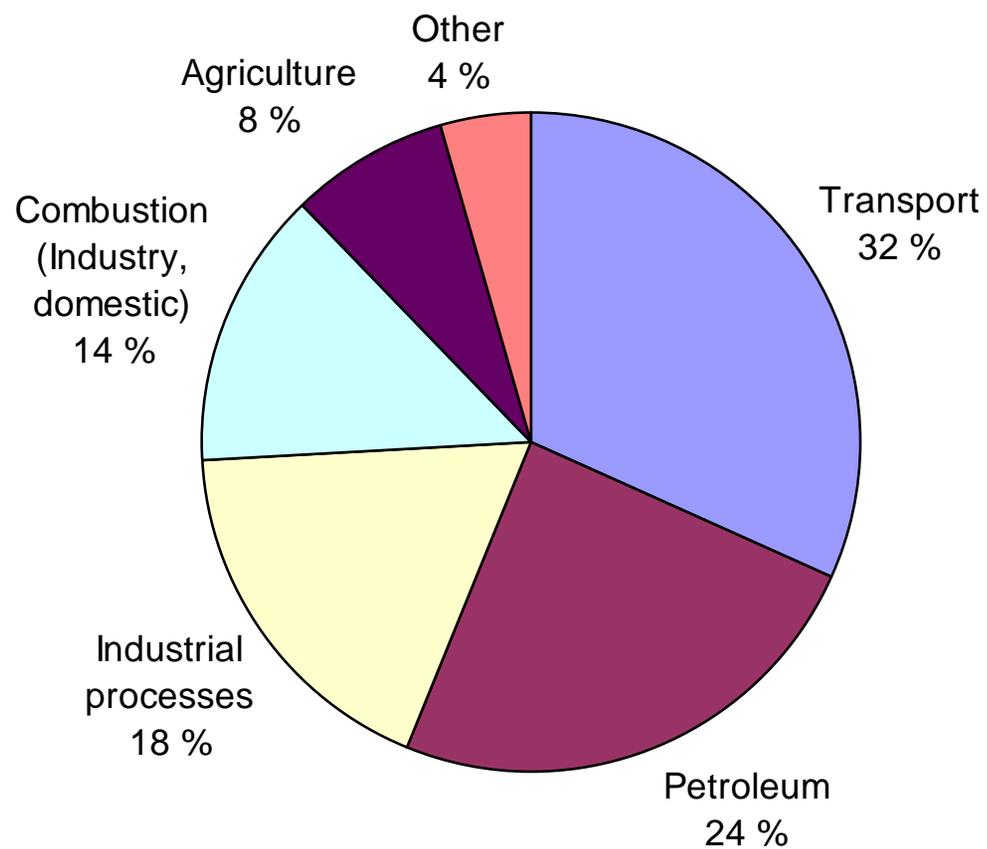


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## Emission distribution 2006

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## **Ambitious national targets**

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- Target reflecting objective of the UNFCCC: Limit global temperature increase to 2 °C compared to pre-industrial level
- Exceed Kyoto commitment by 10 percentage points
- Reduce global emissions by the equivalent of 30 per cent of its own 1990 emissions by 2020.
- Substantial emission reductions in Norway: 15-17 Mt CO<sub>2</sub>e by 2020, including 3 Mt from forestry.
- Reduce emissions by 100 per cent by 2030, provided a global and ambitious climate agreement



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## **Emission trading in Norway: 2005-2007**

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- Domestic emission trading scheme from 2005-2007
- Covered ~10 % of national emissions – mainly industry
- Not connected with EU ETS
- Supply exceeded demand – price went to zero
- Valuable experience with technical aspects of emission trading: allocation, monitoring, reporting, verification etc.



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## **Emission trading in Norway: 2008-2012**

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- Norwegian ETS linked with EU ETS from 2008
- EU ETS Directive applies in Norway with a few adaptations



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## Norwegian ETS 2008-2012

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- Scope identical to EU ETS Directive:
- 110-120 installations covering ~40 % of total emissions
- Strong emphasis on environmental integrity:
  - Total quantity of allowances: **~14 Mt**
  - Verified emissions 2005: **18 Mt**
  - Projected emissions 2010: **21 Mt**
- Unilateral inclusion of N<sub>2</sub>O emissions from nitric acid production
- Considering unilateral inclusion of other sectors and gases

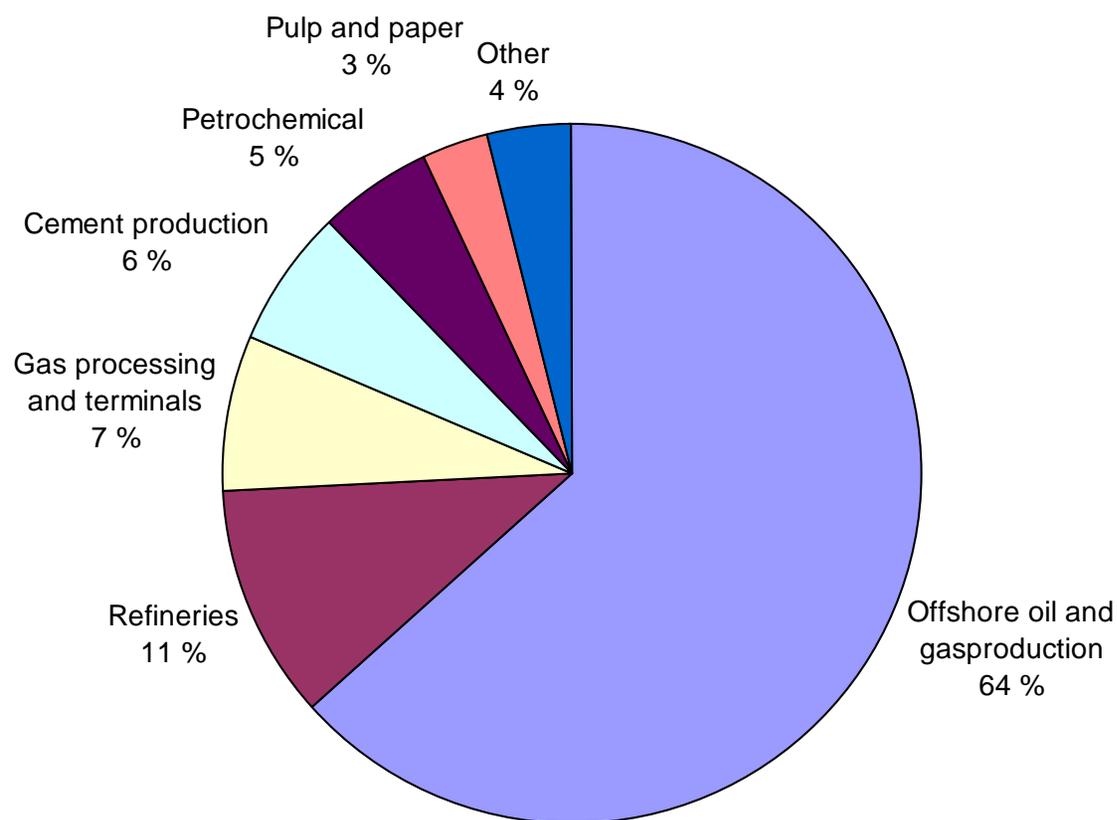


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## ETS emission distribution 2005

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## **Allocation - background**

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- All installations should in principle face the full environmental cost of their activities in accordance with the Polluter Pays Principle
- Norway would like to see full auctioning in all sectors from 2013
- 2008-2012: ~50 % of the Norwegian allowances may be sold through auction or by other means at market conditions
- 2008-2012: ~30 % of the Norwegian installations' estimated emissions could be covered from allowances allocated free of charge



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## Allocation – petroleum sector

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- The petroleum sector represents 64 % of the emissions covered by the scheme (2005)
- No allocation free of charge
- Installations in the petroleum sector must purchase all their allowances in the market



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## **Allocation – land based industry**

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- Allocation free of charge to land based industry based strictly on the installations' actual emissions in fixed historic period (1998-2001).
- Allocation free of charge based on 87 % of energy related emissions and 100 % of process related emissions in base period:
  - 5.8 million tonnes of CO<sub>2</sub> per year
  - 92 % of installations' emissions during base period
  - 80 % of verified emissions in 2005
- N<sub>2</sub>O emissions from nitric acid production: Allocate 50 % of N<sub>2</sub>O emissions in base period (1998-2001)



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## **New entrants reserve**

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- No general reserve for new entrants or increased activity at existing installations
- A reserve for “highly efficient combined heat and power plants” and “gas-fired power plants based on CCS technology” (9 Mt 2008-2012)
- Facilitate development of new technologies and the use of clean and energy efficient technologies
- Allocation free of charge: 80-83 % of expected emissions



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## **Use of flexible mechanisms under Kyoto Protocol**

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- Installations may use flexible mechanisms – credits from projects
- Quantitative limitation: 13 % of surrendered allowances. Ensure domestic reductions.
- Same qualitative limitations as in EU ETS:
  - No nuclear projects
  - No sinks
  - Large hydro power



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## **Monitoring and reporting - Norwegian ETS**

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- Use EU Monitoring and Reporting Guidelines
- Annual reports to Pollution Control Authority by 1 March
- PCA verifies figures, incl. on site inspections
- PCA can demand third party verification
- Sanctions include ia. suspension



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## **Other features – Norwegian ETS 2008-2012**

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- Permits (as EU)
- Registry: GRETA software
- Sanctions:
  - 100 euro/ton (as EU)
  - Administrative sanctions depending on gravity of incident