The path to an NZETS

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New Zealand Government
Presentation overview

1. Background to the development of the NZETS
2. ETS in summary
3. ETS developments in other countries
Climate change challenge – reducing emissions in NZ and globally
Projected greenhouse gas emissions in the context of international agreements

- Net projected emissions* (under BAU)

* Includes removals from post-1989 afforestation
The Challenge

• NZ target under the Kyoto Protocol is to reduce our GHG emissions between 2008-2012 to 1990 levels or take responsibility for them

• NZ emissions under BAU scenario projected to be 45.5Mt CO2e over this period

• This represents a cost to the NZ economy of $1 billion @ 22 tonne

• The Challenge
  – Control our own emissions
  – Support international action
  – Prepare for the impacts of climate change
  – At the lowest long-term cost to the NZ economy
Process to date

• Consultation in 2002 on climate change policies (included agriculture and forestry)
  – Deforestation cap
  – Agriculture not to face price measures before 2013, provided adequate research

• 2005 major review of policies

• December 2006 – March 2007 consultation on Sustainable Land Management and Climate Change, NZ Energy Strategy, NZEECS, Post 2012

• In September 2007 Government proposed an economy-wide ETS
2007 Consultation – what people said

• **Agriculture**
  – support for research, technology transfer, and incentives
  – opposed nitrogen charge and regulations
    BUT some support for trading regimes in long-term

Overall farmers and foresters wanted more incentives and land use flexibility
Why emissions trading?

• Least cost
• Flexible
• Effective
• Businesses’ most preferred option
• Consistent with international developments
NZETS Overview
Objective of the NZ ETS

That a New Zealand ETS support and encourage global efforts to reduce greenhouse gas emissions by:

• reducing New Zealand's net emissions below business-as-usual levels; and
• complying with our international obligations, including our Kyoto Protocol obligations;

while maintaining economic flexibility, equity, and environmental integrity at least cost in the long term.
Core design features of the NZETS

• All sectors - all gases over time
• Obligation on absolute emission levels
• The units of trade - New Zealand Unit (NZU)
• Each NZU to be backed by a Kyoto unit
• NZUs convertible to Kyoto Protocol units (with some limits) and Kyoto units may be used to meet NZETS obligations
• Self-reporting system with severe penalties
## Entry to the ETS by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Commencement of obligations</th>
<th>End of initial compliance period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry (includes deforestation of pre-1990 forest land and afforestation post-1989)</td>
<td>1 January 2008</td>
<td>31 December 2009 (first compliance period for deforestation two years)</td>
</tr>
<tr>
<td>Stationary energy (includes coal, natural gas and geothermal)</td>
<td>1 January 2010</td>
<td>31 December 2010</td>
</tr>
<tr>
<td>Industrial process (non-energy) emissions</td>
<td>1 January 2010</td>
<td>31 December 2010</td>
</tr>
<tr>
<td>Liquid fossil fuels (mainly transport)</td>
<td>1 January 2011*</td>
<td>31 December 2011</td>
</tr>
<tr>
<td>Agriculture (includes pastoral and arable farming and horticulture)</td>
<td>1 January 2013</td>
<td>31 December 2013</td>
</tr>
<tr>
<td>Waste and synthetic gases (HFCs, PFCs)</td>
<td>1 January 2013</td>
<td>31 December 2013</td>
</tr>
</tbody>
</table>
Managing the Transition

• Staggering the entry of different sectors into the scheme

• Allocation of free NZUs to forestry, agriculture and industry
  – Pre-1990 forests: one off allocation of 55 million units
  – Industry and agriculture: annual allocation equivalent to 90% 2005 emissions up to 2018, phase out to zero by 2030

• Review prior to 2013 to consider action of trading partners and mitigation potential
Current greenhouse gas emissions by sector

Energy 33,481.7 Gg, 43.4%
Industrial Processes 4,336.7 Gg, 5.6%
Solvents 48.4 Gg, 0.1%
Waste 1,847.1 Gg, 2.4%
Agriculture 37,445 Gg, 48.5%

New Zealand Government
• Methane and nitrous oxide from livestock and synthetic fertiliser
• Bill provides options for points of obligation
  – Company, farmer, hybrid
• Free allocation to sector for non-CO₂ emissions – 90% 2005 emissions
• Voluntary reporting from 2011
• Mandatory reporting from 2012
Timelines

- Second Reading – yesterday
- Progresses to the Committee of the Whole – next week
- Administration, and forestry enacted
- Agriculture Technical Advisory Group reports back October 2008
- Development of Allocation Plans 2008-2010
- Development of Regulations for other sectors 2009
NZETS Overview
ETS developments in other countries

- NZ and Australia part of a leading group of countries developing ETSs:
  - European Union (27 countries)
  - Switzerland
  - Norway
  - USA
  - Japan
Australian Carbon Pollution Reduction Scheme

- Core coverage begins in 2010 – covers 75% of Australia’s emissions
- The scheme is an absolute, rather than an intensity-based approach
- Includes all 6 Kyoto Protocol gases from commencement
- Includes emissions from transport, stationary energy industrial processes, waste and fugitive emissions from oil, gas and coal production
Australian Carbon Pollution Reduction Scheme

- Afforestation is included on a voluntary basis
- Deforestation is excluded
- Deferral of a decision on agricultural emissions until 2013, with any coverage starting no earlier than 2015
- Earlier liabilities for the transport, waste and synthetic gas sectors relative to NZ
• Federal Cap and Trade Legislation
  – Both Presidential candidates support an ETS
  – The Lieberman – Warner Bill failed to progress to pass a vote in the Senate
  – The Democrats have announced that the legislation will be reintroduced in 2009.

• Regional Schemes
  – Chicago Climate Exchange
  – Regional Greenhouse Gas Initiative - 1 Jan 2009
  – Western Climate Initiative - 1 Jan 2012
EU ETS description

- The EU ETS is a classic cap-and-trade system but with a decentralised structure.
- It has only partial coverage: CO$_2$ only for power and industrial sectors (recently expanded to include aviation and will include additional GHGs in phase 3).
- Sequential trading periods out to 2020.
- CDM / JI Units allowed up to a limit.
Not all the details of the scheme were perfect from the beginning and this did not hamper its effectiveness

Emergence of a transparent and widely accepted price for CO₂ in Europe

A price of CO₂ affects business decisions

No evidence of leakage

A mechanism for long-term control of GHG emissions

Abatement in line with modest initial ambition
Questions?