

The Post-Kyoto challenges: The implications of the ETS for the New Zealand oil and gas industry

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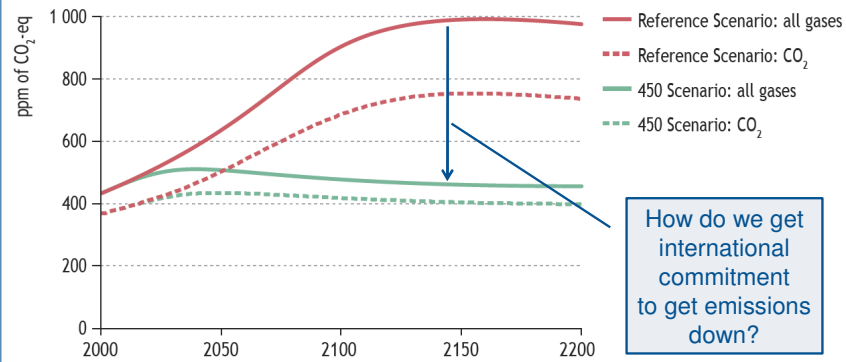
✦ Topics

- What is it all about?
- Copenhagen 2009 - International Agreements
- Regional and National Policies
- Oil and Carbon Price Linkage
- The NZ ETS

Common Theme : Uncertainty

What is it all about? – the task

Figure 5.1 • Greenhouse-gas concentration trajectories by scenario



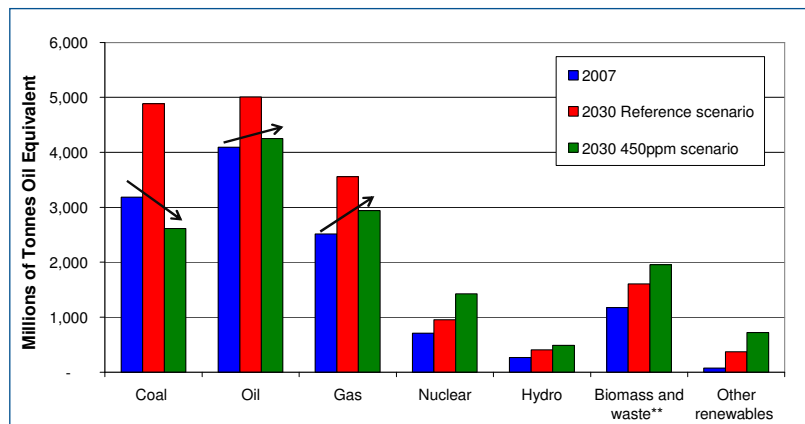
Source: IEA analysis using the MAGICC (version 5.3) and ENV-Linkages models.

OECD/IEA Source World Energy Outlook 2009



What is it all about? – primary energy shifts

- World primary energy demand by fuel: OECD/IEA WEO 2009 Scenarios

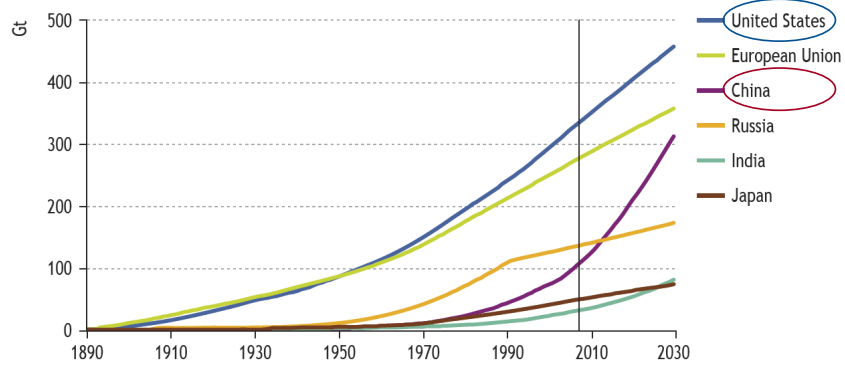


Data Source: OECD/IEA Source World Energy Outlook 2009



What is it all about? – commitment required

Figure 4.9 • Cumulative energy-related CO₂ emissions since 1890 in the Reference Scenario



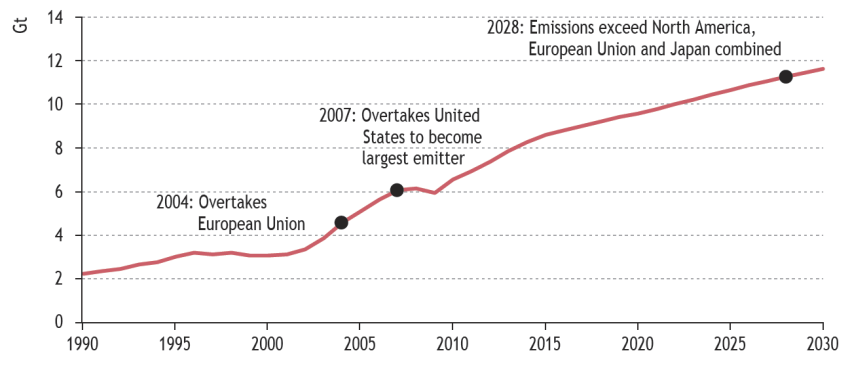
Sources: IEA databases and analysis; Marland *et al.* (2006).

OECD/IEA Source World Energy Outlook 2009



What is this all about? - China in focus

Figure 4.12 • China's energy-related CO₂ emissions in the Reference Scenario



OECD/IEA Source World Energy Outlook 2009



❖ Copenhagen 2009 (7-18 December 2009)

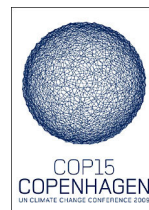
- UNFCCC + Kyoto Protocol negotiations

"It is easily the most complex piece of diplomacy ever devised.."

"A set of interlocking negotiations taking place on parallel tracks, ranging from aviation to trade and forests to adaptation, finance and science."

"It's quite possible it will all collapse under its own weight"

- British diplomat.



❖ Copenhagen 2009 (7-18 December 2009)

- The Challenge:

1. How much are the industrialized countries willing to reduce their emissions of greenhouse gases?
2. How much are major developing countries such as China and India willing to do to limit the growth of their emissions?
3. How is the help needed by developing countries to engage in reducing their emissions and adapting to the impacts of climate change going to be financed?
4. How is that money going to be managed?



"If Copenhagen can deliver on those four points I'd be happy," says Yvo de Boer.



❖ Copenhagen 2009 (7-18 December 2009)

Challenge 1: QELROS

“Quantified Emissions Limitation and Reduction Objectives”

Industrialized countries reduction commitments

- Required:
 - For a stabilization target of 450ppm CO₂
25-40% reduction on 1990 emissions by 2020
- Collective offers to date:
 - 16-23% on 1990 (US not yet included)
 - 11-18% on 1990 (if US included)
- Challenge:
 - Comparability (what is fair?)
 - Conditionality (if you do it then I’ll do it)



❖ Copenhagen 2009 (7-18 December 2009)

Challenge 2: NAMAs

“Nationally Appropriate Mitigation Actions” for Developing Countries.

- Focus on China and India but also on Brazil, Mexico, S Korea and other rapidly developing economies
- Challenge:
 - How to define to satisfy US and others
 - How are NAMAs “locked in” ?
 - How are NAMAs quantified to allow verification and review?

❖ Copenhagen 2009 (7-18 December 2009)

Challenge 3: Adaptation Funding

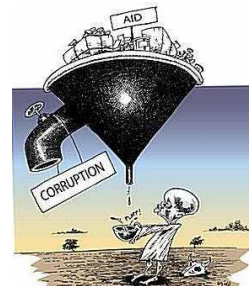
- Developing countries demand funds for:
 - climate impact adaptation
 - technologies to adapt from fossil fuel based growth
- Quantum:
 - G77 + China seeking US\$200bn-US\$400bn p.a.
 - EU agreed €100bn (\$148bn) p.a. by 2020, and would pay its "fair share" conditional on other nations.
- Mechanism:
 - Carbon Markets (revised CDM)
 - Direct Funding



❖ Copenhagen 2009 (7-18 December 2009)

Challenge 4: How is that money going to be managed?

- Who gets what?
 - Basis for allocation
- Who administers the funds?
 - UN
 - World Bank
 - Individual / Regional Nations



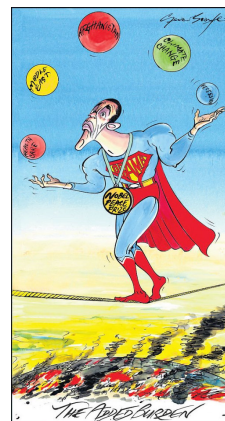
❖ Copenhagen 2009 (7-18 December 2009)

Some Added Complications:

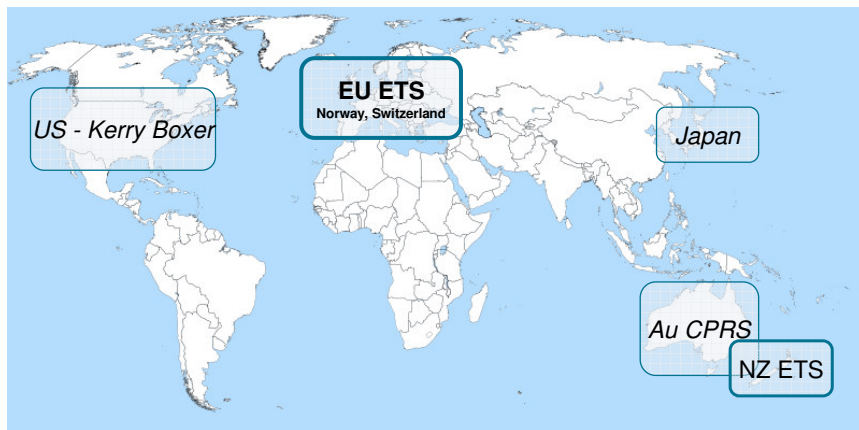
- Legal Form of New Agreement?
 - Kyoto Protocol or
 - New UNFCCC implementing agreement
- Base Year decisions
- How many years in next commitment period?

❖ Copenhagen 2009 (7-18 December 2009)

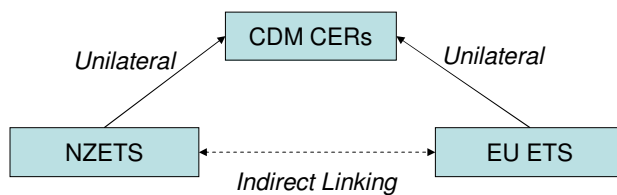
- What can be achieved?
 - Broad post-2012 Framework
 - Not a signed Treaty
- What will it take?
 - US engagement
 - \$ and emissions reductions
 - Developing country commitments
- What then?
 - 2010+ put flesh on the bones...



Regional and National Policies



Linking Between Schemes



Although schemes may not be directly linked, the schemes' prices may be linked if units are allowed from other schemes.

Linking Between Schemes

Regime :	Kyoto	EU ETS	NZ ETS	AU CPRS
Domestic Units				
• EUA		X		
• NZU			X	
• AEU				X
Kyoto Units				
• AAU	X		X (restricted)	
• CER	X	X	X	X
• I-CER	X			
• t-CER	X			
• ERU	X	X	X	X
• RMU	X		X	X



THOMSON REUTERS

EUAs	12-Nov
BlueNext SPOT	€13.31
ECX Dec-09	€13.31
ECX Dec-12	€14.86
Reuters CER Index	
Dec-09	€12.48
09-12 Strip	€12.49
Dec-12	€12.43
Exchange CERs	
BlueNext SPOT	€12.44
ECX Dec-09	€12.31

schematic only and does not take into account price control restrictions that are contemplated in the early years of the NZ ETS and Au CPRS.

- International benchmark prices exist



Carbon and Oil Price Linkage

Medium to long term

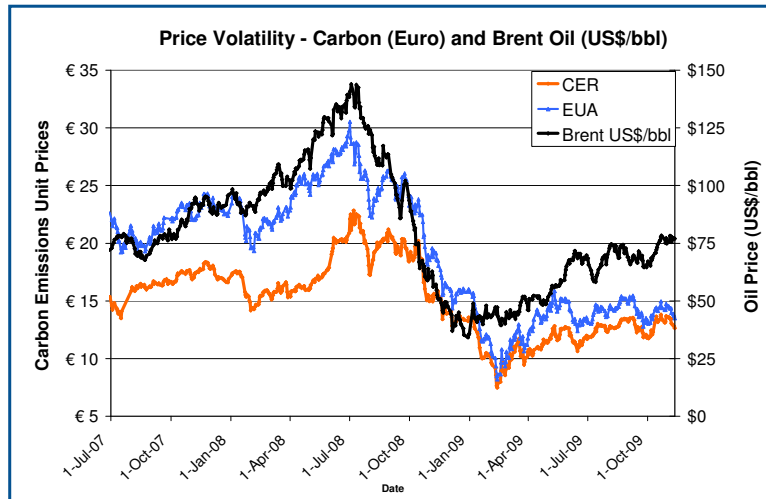
- Economic growth drives demand for energy
 - Oil price rises
- Economic growth drives industrial output & emissions
 - Emission unit price rises

Short to medium term

- Oil price rises drives gas price up
 - Coal prices slower to react
- EU generators fuel switch from gas to coal
 - Increased emissions from coal requires more emission units
- Emission unit price rises



Carbon and Oil Price Linkage



New Zealand & Australian Policy Overview

New Zealand ETS



- Status:
 - Legislated Sep 08 (CCRA)
 - Moderated Emissions Trading Amendment Bill still to be passed
- Start Dates for Oil and Gas:
 - 1-Jan-2010 for reporting
 - 1-Jul-2010 for surrender obligations
- Price Controls (2010-12)
 - 1 unit for 2 tCO₂e obligation }\$12.5/t
 - NZ\$25 price cap
 - Post 2012 A\$40 ?

Australian CPRS



- Status:
 - Introduced to Parliament May 09
 - Still to pass in the Senate with negotiations ongoing
- Start Dates for Oil and Gas:
 - Now for reporting (NGERS)
 - 1-Jul-2011 for surrender obligations
- Price Controls
 - A\$10 fixed price 2011/12
 - A\$40 price cap 2012-2015

❖ NZ ETS Price Impacts

- Price Increases in Common Units @ NZ\$12.5/tCO₂e

Energy Source	Increase	Units
Electricity (NZ)	0.7	NZ cents/kWhr
Diesel	3.3	NZ cents/litre
Natural Gas (Spec Gas)	1.1	NZ\$/GJ
Coal (Bituminous) (Assume 30GJ/Tonne)	33.1	NZ\$/tonne

- In the first period (1-Jul-10 until 31-Dec-12) there is a 2-for-1 (Emit 2 units of carbon : Pay for 1 unit of carbon) obligation.
- This effectively converts the capped cost of NZ\$25/t into a cost of NZ\$12.5/t.



❖ NZ ETS in Detail – The Legislation

- Primary Legislation for Oil and Gas Sector
 - Climate Change Response Act 2002
 - Climate Change (Moderated Emissions Trading) Amendment Bill
- Regulations directly relevant to Oil and Gas Sector
 - Climate Change (Liquid Fossil Fuels) Regulations 2008 (SR 2008/356)
 - Climate Change (Stationary Energy and Industrial Processes) Regulations 2009 (SR 2009/285)
 - Climate Change (Other Removal Activities) Regulations 2009 (SR 2009/284)
 - Climate Change (Unique Emissions Factors) Regulations 2009 (SR 2009/286)
 - Climate Change (Unit Register) Regulations 2008 (SR 2008/357)



❖ NZ ETS in Detail – Gas Miner Example

very high level only...

- A gas miner is a mandatory participant
 - Stationary Energy Industrial Processes sector
- Must surrender emission units to cover:
 - Emissions from own activities (flaring, venting etc)
 - Downstream end use emissions of gas sold
- No free allocation of units
 - Assumed can pass cost through to customer
- May be opted-in on
 - Downstream entity takes over obligations (>2PJ)



❖ NZ ETS in Detail – Gas Miner Key Dates

very high level only...

Date	Description
1-Jan-2010	Stationary Energy Industrial Processes enters ETS <ul style="list-style-type: none"> • Mandatory reporting period begins • Must register as a participant within 20 working days (by 1-Feb)
1-Jul-2010	Unit surrender obligation period begins
31-Dec-2010	End of 1 st year compliance period <ul style="list-style-type: none"> • 1-Jan-2010 to 31-Dec-2010 for reporting • 1-Jul-2010 to 31-Dec-2010 for unit obligations
1-Jan-2011	Commence filing emission returns for 2010
31-Jan-2011	Deadline for application to use unique emission factors
31-Mar-2011	Deadline for filing emission returns for 2010
31-May-2011	Deadline for surrendering units for 2010



❖ NZ ETS in Detail – The Journey to Trading



❖ NZ ETS in Detail – The Journey to Trading

1. Understanding Emissions Trading

- Trading scheme fundamentals
- Global trends
- NZ ETS specifics
- Au CPRS and other schemes



❖ NZ ETS in Detail – The Journey to Trading

2. Developing the Corporate Strategy

- Emissions inventory
- ETS implications
- Potential \$ exposure
- Risk and opportunity assessment



❖ NZ ETS in Detail – The Journey to Trading

3. Implementing the Strategy

- Mitigating the emissions exposure
- Addressing the remaining exposure
- Project planning



❖ NZ ETS in Detail – The Journey to Trading

Compliance Activity (ongoing)

- Measurement, reporting, verification (MRV)
- ETS obligations
- Governance of trading mandate
- Audit requirements
- Financial reporting standards
- Tax requirements



❖ NZ ETS in Detail – The Journey to Trading

Trading Activity (ongoing)

- Trading position tracking
- Trading strategy
- Trading risk management



NZ ETS - Trading Strategy Considerations

ETS as a tax



- Pay capped price at end of surrender period
 - No trading risk, no traders, minimal compliance...
 - No experience gained...

ETS as an opportunity



- Seek units from

Industry



NZUs

Forestry



NZUs
AAUs

Offshore (CER arbitrage)



- Buy when under NZ\$25
- Sell or hold if they rise >NZ\$25

Post 2012, a floating price and a more liquid market are likely.
Who will be better prepared?

More Information: www.frazerlindstrom.com

Monday, November 16, 2009

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We are experts in climate change policy, emissions trading and the energy sector. [+] More

Our People:
We have more than 55 years' of combined relevant professional experience. [+] More

Our Clients:
We advise a wide range of business sectors and central government [+] More

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We provide high quality strategic advice in climate change, emissions trading and energy to businesses and governments in New Zealand and Australia.

Emissions Trading Advice :

For many businesses, emissions trading is both complex and new.

We have the experience and expertise to help your business.

Find out more here:

- The Journey to Trading
- The ETS Basics
- ETS Design Parameters
- Emission Units and Pricing
- New Zealand ETS Policy
- Australian CPRS Policy

Latest Policy Developments :

NZ ETS Amendment Bill reported back unchanged by Select Committee.

Select Committee Report

"We were unable to reach agreement on whether the Bill be passed... We could not agree on the kind of amendments from which the bill might benefit if it were to be passed" - 16 November 2009.

[+] More Details