



A Comparison of
The EU ETS
and the proposed NZ ETS

An Analysis from Holcim (New Zealand) Ltd
and Frazer Lindstrom Ltd

EMISSIONS TRADING IN
NEW ZEALAND



Foreword

On 7 April, 2008, Holcim (New Zealand) Ltd formally presented its submission on the draft *Climate Change (Emissions Trading and Renewable Preference) Bill* to the New Zealand Parliament's Finance and Expenditure Select Committee (FESC).¹

At the conclusion of its hearing of the Holcim New Zealand submission, the Select Committee noted that Holcim had, almost uniquely, attempted to provide it with a 'hard' comparison of certain features of the design of the proposed NZ ETS and the design of the EU ETS – albeit, related specifically to the cement industry. The Committee then asked if Holcim was in a position to provide it with a further and broader comparison of the design of the EU ETS and the proposed NZ ETS that might more generally inform its deliberations.

This *Digest* has been compiled as a response to that request.

This is the fourth in a semi-regular series of *Holcim Climate Change Policy Digests* published by Holcim New Zealand. In this instance, the *Digest* is drawn very substantially from work commissioned to Stuart Frazer of Frazer Lindstrom in early 2008 (see also *Acknowledgements*, below). In consequence, Stuart's name properly appears here as author.

The information compiled here is accurate to the best of our ability². As always, we welcome any and all discussion of our views in this important national debate on responses to climate change.

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¹ This oral presentation to the Select Committee spoke in support of a detailed written submission. This written submission comprises the text of both *Holcim Climate Change Policy Digest No. 2* and *No.3* and is available at www.holcim.com/nz (select *Sustainable Development/Climate Change*).

² However, original sources can be viewed at <http://ec.europa.eu/environment/climat/emission.htm> (for the EU ETS) and at http://www.parliament.nz/en-NZ/SC/Papers/Summaries/2/5/6/48SCFEsummaryCCETRP_1-Climate-Change-Emissions-Trading-and-Renewable.htm for the NZ ETS. The supporting *Framework* document and a range of other documents for the NZ ETS can be viewed at <http://www.climatechange.govt.nz/nz-solutions/trading-scheme-reports.shtml>.

Acknowledgements

The information contained in this *Digest* is largely adapted from a document prepared in January 2008 by Stuart Frazer (of Frazer Lindstrom Ltd) under a joint commission from Holcim (New Zealand) Ltd and eight other established and respected New Zealand businesses. We gratefully acknowledge those other businesses, all of whom have kindly given their permission for this version of the document to be published under the imprint of Holcim.

The draft of this document was reviewed in detail by Dr. Bruno Vanderborght, Adrienne Williams and Lorenz Koch of Holcim Ltd's global climate change team in Switzerland. We thank them for their knowledgeable and practical suggestions for improving the accuracy of the detailed description of the EU ETS.

Table of Abbreviations

AAU	Assigned Amount Unit. An AAU is equivalent to one tonne of CO ₂ emission. At the end of the commitment period, Annex 1 Nations must surrender AAUs (and other recognized emissions allowances: see CER and ERU) in an amount equal to their actual covered emissions over the period. Annex B Parties that have ratified the Kyoto Protocol can exchange AAUs through emissions trading.
CDM	Clean Development Mechanism (as in “CDM project”).
CER	Certified Emission Reduction – a “carbon credit” arising from CDM projects.
CH ₄	Methane – a greenhouse gas.
CO ₂	Carbon dioxide – a greenhouse gas.
CP1	Commitment Period One – the 5-year period from 2008-12. A Kyoto Protocol term.
ERU	Emissions Reduction Unit – a GHG reduction of one tonne achieved under a JI project. A tradable unit in an ETS or a compliance unit for an Annex B nation.
EU ETS	European Union Emissions Trading Scheme.
GHG	Greenhouse gas.
HFC23	Hydrofluorocarbon – a class of greenhouse gases.
JI	Joint Implementation. A scheme for <i>developed</i> countries, or companies from those countries, to cooperate on projects to reduce greenhouse gas emissions and share the emissions reduction units (ERUs).
LULUCF	Land Use, Land-Use Change and Forestry.
NAP	National Allocation Plan. In the EU ETS, EU Member States produce a national allocation plan detailing the implementation of the scheme at the domestic level by sector and facility.
N ₂ O	Nitrous oxide – a greenhouse gas.
NZ ETS	New Zealand Emissions Trading Scheme.
NZU	New Zealand Unit. The domestic unit of trade of the NZ ETS – equivalent to one tonne CO ₂ .
RMU	Removal Unit. A reduction of one tonne of CO ₂ by means of LULUCF.
SF ₆	Sulphur hexafluoride – a greenhouse gas.
t/d and t/h	<i>tonne per day</i> and <i>tonne per hour</i> . Units of production rate from industrial facilities. Used in the EU to determine facilities that qualify for participation in the EU ETS.

Executive Summary

On the 23rd of January 2008, the European Commission released proposals to revise the EU Emissions Trading System (EU ETS) for the period 2013-2020 (Phase III).

This *Digest* compares these proposed changes against the operation of the existing EU ETS and against the proposed New Zealand Emissions Trading Scheme (NZ ETS).

Whilst not exhaustive, some key comparators have been identified:

1. Even with the revisions to the EU ETS, the NZ ETS remains far more ambitious in terms of scope and significantly differs in the choice of point of obligation.
2. The EU recognises the risk of carbon leakage as an ongoing issue; some installations may require longer term safeguards through up to 100% free allocation to ensure equitable treatment of domestic producers and importers. The NZ ETS fails to recognise this issue to the same extent.
3. The EU ETS continues to have a new entrant reserve to encourage investment through comparable allocation to new installations. The NZ ETS has no such provision.
4. The EU's decisions on linking in the absence of a post 2012 global agreement, may reduce CDM project development and lead to a high EU allowance price (€48 has been forecast by Fortis Bank). Any decision to limit NZ ETS utilisation of AAUs and / or direct linking to the EU ETS, should take into account the "loss of sovereign control" on the cost to the New Zealand economy that may result from European Commission decisions on allowance availability and prices.

Introduction

On the 23rd of January 2008, the European Commission released proposals to revise the EU Emissions Trading System (EU ETS) for the period 2013-2020 (Phase III).

This report compares these proposed changes against the operation of the existing EU ETS and against the proposed New Zealand Emissions Trading Scheme (NZ ETS).

An *ETS Parameters* framework has been used to help identify the proposed changes for Phase III of the EU ETS and highlight the differences with the NZ ETS that remain.

EU materials reviewed include:

1. "Proposal for a Directive of the European parliament and of the Council amending Directive 2007/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community", Brussels, 23.01.2008, COM(2008) 16 provisional.³
2. "Questions and Answers to the Commission's proposal to revise the EU Emissions trading System", Brussels, 23.01.2008, MEMO/08/35.⁴
3. "20 20 by 2020: Europe's Climate Change Opportunity", speech to the European Parliament by José Manuel Durão Barroso (President of the European Commission), Brussels, 23.01.2008, SPEECH/08/34.⁵

NZ materials reviewed include:

1. "The Framework for a New Zealand Emissions Trading Scheme", 20th of September, 2007.⁶
2. Draft Legislation; "Climate Change (Emissions Trading and Renewable Preference) Bill" - introduced 4th of December 2007.⁷

In order to keep the comparison table a manageable size, only key elements are documented. The source materials above should be referred to for definitive statements.

ETS Design Parameters

Table 1 below presents those emissions trading scheme/system parameters that have been assessed, while Table 2 compares the specific parameters for the EU ETS (current and proposed revision) and NZ ETS (proposed).

³ http://ec.europa.eu/environment/climat/emission/pdf/com_2008_16_en.pdf

⁴ <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/35&format=PDF&aged=0&language=EN&guiLanguage=en>

⁵ http://ec.europa.eu/environment/climat/pdf/com_2008_30_en.pdf

⁶ <http://www.climatechange.govt.nz/files/ets-executive-summary-complete.pdf>

⁷ Bill is available at http://www.parliament.nz/en-NZ/PB/Legislation/Bills/c/0/4/00DBHOH_BILL8368_1-Climate-Change-Emissions-Trading-and-Renewable.htm

TABLE 1: EMISSIONS TRADING SCHEME PARAMETERS

No.	Parameter	Brief Description
1.	Sectoral Coverage	Which sectors / sub-sectors are covered? What plans are there for expansion and how is this proposed to be done?
2.	Gases	Which greenhouse gases are included?
3.	Point of Obligation	At what point in the raw fuel to final emissions supply chain is the obligation placed?
4.	Emissions Cap (target)	How is the overall cap on emissions set?
5.	Initial Allowance Allocation	<ul style="list-style-type: none"> • How are allowances allocated? • Gratis vs. auctioned? • Where gratis, how is the baseline set? <ul style="list-style-type: none"> - historical - forecast - benchmarked • How does the regulator control stringency? • Is ex-post adjustment of allocation allowed? • How are new entrants and closures dealt with?
6.	New Entrant / Exit	Are allowances reserved for new entrants? What happens to allowances on firm closure (exit)?
7.	Credit for Early Action	Is this recognised and how?
8.	International Coverage and Competitiveness	If the scheme is domestic or limited to a few countries within a trading bloc, how are “competitiveness at risk” or “trade exposed” sectors dealt with?
9.	International Linkage	Will the scheme be linked to international schemes and how?
10.	Offsets	Are offsets allowed and how are these defined?
11.	Trading Period Duration	Over how many years is each allocation period valid? Is there any long term indication of stringency?
12.	Banking & Borrowing	Can allowances be banked and carried forward to meet future liability? Alternatively, can you borrow from a future allocation period to meet a current liability?
13.	Penalty	What penalties are there for non-compliance?
14.	Regulatory body and compliance	Who manages the emissions registry, who sets the compliance requirements and what are the standards for reporting?

TABLE 2: COMPARISON OF THE TRADING SCHEMES

No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS								
1.	Coverage	<p>43% coverage of EU emissions.</p> <p>Covers industrial installations:</p> <ul style="list-style-type: none"> • Combustion installations > 20 MW. • Mineral oil refineries. • Coke ovens. • Metal ore (including sulphide ore) roasting or sintering installations. • Pig iron or steel production including continuous casting, with a capacity > 2.5 t/h. • Installations for the production of cement clinker in rotary kilns with a production capacity > 500 t/d or lime in rotary kilns with a production capacity > 50 t/d or in other furnaces with a production capacity > 50 t/d. • Glass manufacture of glass with a melting capacity > 20 t/d. • Ceramic products manufacture by firing: roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain, with a production capacity > 75 t/d, and/or with a kiln capacity > 4 m³ and with a setting density per kiln > 300 kg/m³. • Pulp from timber or other fibrous materials. • Paper and board with a production capacity > 20 t/d. 	<p>50% coverage of EU emissions.</p> <p>Coverage extended to include:</p> <ul style="list-style-type: none"> • aviation (entry towards the end of Phase II – targeted for 2011), • petrochemicals sectors. • aluminium, and • ammonia producers. <p>Thresholds adjusted to reduce number of small installations:</p> <p>Installations with:</p> <ul style="list-style-type: none"> • thermal input rated at below 25MW, and • emissions lower than 10,000 tonnes CO₂ per annum (in each of 3 years prior to application), <p>may opt out of EU ETS (subject to alternative reduction measures being in place).</p>	<p>100% coverage of NZ Emissions.</p> <p>Covers all sectors of the economy.</p> <p>Phasing of sectors as follows:</p> <table border="1" data-bbox="1532 456 2045 959"> <tbody> <tr> <td data-bbox="1532 456 1700 667">1 Jan 2008</td> <td data-bbox="1700 456 2045 667"> <p>Forestry:</p> <ul style="list-style-type: none"> • pre-1990 compulsory • post 1989 opt-in basis </td> </tr> <tr> <td data-bbox="1532 667 1700 715">1 Jan 2009</td> <td data-bbox="1700 667 2045 715">Liquid fossil fuels (transport)</td> </tr> <tr> <td data-bbox="1532 715 1700 810">1 Jan 2010</td> <td data-bbox="1700 715 2045 810"> <p>Stationary energy</p> <p>Industrial processes</p> </td> </tr> <tr> <td data-bbox="1532 810 1700 959">1 Jan 2013</td> <td data-bbox="1700 810 2045 959"> <p>Agriculture</p> <p>Waste</p> <p>Import of SF6</p> </td> </tr> </tbody> </table> <p>Criteria for minimum thresholds are detailed under point of obligation.</p>	1 Jan 2008	<p>Forestry:</p> <ul style="list-style-type: none"> • pre-1990 compulsory • post 1989 opt-in basis 	1 Jan 2009	Liquid fossil fuels (transport)	1 Jan 2010	<p>Stationary energy</p> <p>Industrial processes</p>	1 Jan 2013	<p>Agriculture</p> <p>Waste</p> <p>Import of SF6</p>
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No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS
2.	Gases	<ul style="list-style-type: none"> • carbon dioxide (CO₂). 	<p>New gases include:</p> <ul style="list-style-type: none"> ○ nitrous oxide (N₂O) from production of nitric, adipic and glyoxylic acids. ○ perfluorocarbons (PFCs) from aluminium sector. 	<p>All greenhouse gases however note</p> <ul style="list-style-type: none"> ○ agricultural methane (CH₄) and nitrous oxide (N₂O) from 2013. ○ sulphur hexafluoride (SF₆) from 2013.
3.	Point of Obligation	<ul style="list-style-type: none"> • The EU-ETS has a downstream point of obligation approach, with emitters responsible for holding and surrendering allowances. • For electricity, it is the thermal generators who are the point of obligation (i.e. with no pass through of obligation on electricity users to hold allowances). 	<p>Downstream Point of Obligation for all new activities to be covered.</p>	<p>Energy & Industry:</p> <ul style="list-style-type: none"> • Upstream point of obligation for energy emissions: <ul style="list-style-type: none"> ○ Liquid fuels (finished) – point of import or ex refinery. ○ Natural gas / LPG – importer or mining (domestic well head). ○ Coal – import or mining for domestic use. • Downstream point of obligation for Industrial Processes <ul style="list-style-type: none"> ○ Cement plant, smelter etc. • Hybrid point of obligation remains an option under Opt-In provision subject to calendar year thresholds: <ul style="list-style-type: none"> ○ Jet Fuel users > 10 million litres. ○ Coal purchasers >250 ktonnes. ○ Gas purchasers > 2PJ. <p>Agriculture:</p> <ul style="list-style-type: none"> • Decisions still to be taken on whether upstream (farmer) or downstream (processor).

No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS																		
4.	Emissions Cap (target)	<ul style="list-style-type: none"> The EU-ETS is clearly linked to the overall EU Kyoto Protocol obligation; however each EU member has significant discretion in the interpretation of the high level target (under the Burden Sharing Agreement) and its determination of allocations to sectors and ultimately installations. This discretion is enabled by the EU ETS only covering a limited portion of the economy. Clear criteria are set for National Allocation Plans (NAPs) – including total number of (national) allowances. Member states are obliged to demonstrate consistency with obligations under the “Burden Sharing” agreement. 	<p>One EU-Wide emissions cap replaces 27 individual national caps (NAPs abolished):</p> <ul style="list-style-type: none"> 21% below 2005 levels (max of 1720 million allowances by 2020) for EU ETS-sector emissions. Total number of emission allowances in circulation at end 2012 to be reduced by 1.74% annually. Capped figures by year are as follows: <table border="1" data-bbox="990 593 1503 1139"> <thead> <tr> <th>Year</th> <th>Mio t CO₂</th> </tr> </thead> <tbody> <tr><td>2013</td><td>1,974</td></tr> <tr><td>2014</td><td>1,937</td></tr> <tr><td>2015</td><td>1,901</td></tr> <tr><td>2016</td><td>1,865</td></tr> <tr><td>2017</td><td>1,829</td></tr> <tr><td>2018</td><td>1,792</td></tr> <tr><td>2019</td><td>1,756</td></tr> <tr><td>2020</td><td>1,720</td></tr> </tbody> </table> <ul style="list-style-type: none"> These figures do not include aviation sector, or emissions from Norway, Iceland and Liechtenstein. 1.74% reduction figures will determine caps beyond Phase III. 	Year	Mio t CO ₂	2013	1,974	2014	1,937	2015	1,901	2016	1,865	2017	1,829	2018	1,792	2019	1,756	2020	1,720	<p>NZ ETS does not have an absolute cap; instead NZ ETS operates within the overall (Annex 1) Kyoto Protocol CP1 cap.</p> <ul style="list-style-type: none"> Domestic emissions that exceed New Zealand’s allocation under the Kyoto Protocol (including units issued for removals by forest carbon sinks) must be matched by emission units purchased internationally from within the Kyoto cap on emissions. If no post-2012 international agreement but international market exists, New Zealand would restrict NZU issuance to average of the prior 5 years NZU issuance. No cap exists as unconstrained linking with nominated allowance types continues.
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No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS
5.	Initial Allowance Allocation	<p>Allocated primarily free of charge via grandfathering i.e. based on <i>verified</i> historical emissions, but taking into account projections of future energy use and economic activity.</p> <p>Allowed to auction up to five per cent of allowances in Phase I and up to ten per cent in Phase II but auctioning has not been employed to the extent allowed:</p> <ul style="list-style-type: none"> • Phase I – of the 25 Member States, only 4 (Denmark, Hungary, Lithuania and Ireland) used auctioning. • Phase II – in a sample of 18 Member States’ National Allocation Plans, 7 include auctioning ranging from a share of 0.5% in Ireland and Flanders to 7% in the UK. The quantity of allowances to be auctioned corresponds to 1.3% of emissions trading budgets (including reserves) for the Member States surveyed. <p>UK and other member states weighted allocation in favour of trade exposed firms at the expense of the power sector.</p>	<p>Auctioning to be increased – likely to cover approximately 60% of total allowances by 2013.</p> <p>Power Sector:</p> <ul style="list-style-type: none"> • Full auctioning (no gratis allocation) from 2013. <p>Other industrial sectors + aviation:</p> <ul style="list-style-type: none"> • Initial allocation of 80% of share of emissions with step up to full auctioning (free allocations to be gradually phased out) between 2013 and 2020. <p>Certain energy-intensive sectors:</p> <ul style="list-style-type: none"> • may continue to receive up to 100% free allocation if “there is a significant risk of carbon leakage (EU Commission). • electricity consumption may be taken into account in the assistance package. • sectors affected yet to be determined - to be finalised by mid 2010. <p>Furthers shift towards benchmarking for allocation of free allowances, in preference to historical emissions based allocation (grandparenting).</p> <p>No ex-post adjustments to be allowed.</p>	<p>Free Allocation restricted to:</p> <ul style="list-style-type: none"> • Pre-1990 Forest: <ul style="list-style-type: none"> ○ 21million NZUs 2008-2012. ○ 34 million 2013-2024. • Industrial users: <ul style="list-style-type: none"> ○ Pool capped at 90% 2005 emissions from those eligible industrial producers. ○ Prescribed threshold may apply. ○ Coverage restricted to direct use of coal, natural gas, and geothermal energy, process emissions, and indirect emissions associated with the consumption of electricity. ○ Trade exposure test, based on a comparison of costs and ability of the firm to pass those costs through due to competitive forces. • Agriculture: <ul style="list-style-type: none"> ○ Pool capped at 90% of 2005 emissions. ○ No trade exposure test for agriculture. <p>All free allocation to be phased out linearly to 0% from 2014 (first year of reduced allocation) to 2025. Subject to ongoing review/stakeholder consultation.</p> <p>Provisions for auction of allowances (“public tender” in the Draft Bill) retained as an option in future.</p>

No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS
6.	New Entrants / Exits	<ul style="list-style-type: none"> 5% New Entrant Reserve was mandated by Commission. Accordingly, all member states set up reserves for new entrants and most used benchmarking to allocate allowances free of charge. Firms retain allocation on closure, to the end of calendar year. No further allocation thereafter. 	<ul style="list-style-type: none"> 5% of total allowances set aside for New Entrants. Allocations from this will (proportionately) mirror allocations to existing installations. Closure rules remain unchanged. 	<ul style="list-style-type: none"> No New Entrant Reserve - new entrants in free allocation period will not receive allowances. Firms lose any allocation on closure.
7.	Credit for Early Action	<p>The EU Emissions Trading Directive specifically recognises early action and two solutions:</p> <ul style="list-style-type: none"> selection of an appropriate historic base year for allocation; or use of benchmarking for allocation. 	Increased use of benchmarking in allocation decisions.	Not recognised with exception of potential flexibility to assign allowances disproportionately within 90% of 2005 cap.
8.	International Competitiveness	<p>The EU Emission Trading Directive recognises issues of “Competition from outside the Union”.</p> <p>“If competition from outside the Union is taken into account in the national allocation plan, the criterion should only be applied in determining the quantity of allowances allocated at activity level, without a change in the total quantity of allowances. If a Member State deems it necessary to take account of competition from outside the Union, it should also consider applying other options outside the national allocation plan.”</p>	<p>Proposed amendment to Directive notes that status depends on status of international agreements post-2012.</p> <ul style="list-style-type: none"> Commission Review on competitiveness expected in 2011. “Carbon Equalisation System” (incl. possible additional free allocation, or requiring 3rd-country producers importing carbon-intensive goods to participate in EU ETS) may be introduced in absence of international agreement. Refer also to allocation above. 	<p>Safeguard for international competitiveness restricted to free allocation.</p> <ul style="list-style-type: none"> Bill default position is phase out of allocation regardless of international agreement status or comparative stringency of trade competitors.

No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS
9.	International Linkage	<ul style="list-style-type: none"> • Linking to other Kyoto compliant tradable emission units is facilitated through the Linking Directive. • Limited to unilateral linking of JI ERUs and CDM CERs within quantitative constraints. 	<ul style="list-style-type: none"> • Linking with other mandatory emissions trading systems capping absolute emissions⁸ in third countries or administrative entities and whose design elements would not undermine the integrity of the EU ETS. • If no post-2012 international agreement: <ul style="list-style-type: none"> ○ only CER & ERUs issued for 2008-12 period may be used; and ○ Post-2013 allowances under bilateral agreements with least developed countries may also be eligible. • If international agreement reached: <ul style="list-style-type: none"> ○ CERs and ERUs eligible up to quantitative limit of 50% of reduction target. ○ EU reduction target is 30% (cf. 1990) under this scenario. 	<ul style="list-style-type: none"> • International Kyoto linking is included. <ul style="list-style-type: none"> ○ AAUs, CERs, ERUs and RMUs allowed. ○ ICERs tCERs and nuclear CERs are disallowed. Option reserved to exclude other sources of CERs and ERUs in future. ○ Default position is to include CERs from HFC23 projects. ○ Inclusion of AAUs subject to review. • Provisions within the Bill strongly suggest that linking with EU ETS is being considered by officials. Potential barriers include: <ul style="list-style-type: none"> ○ Trading with AAUs (e.g. former Soviet Union hot air) is not included within EU ETS⁹. ○ Forestry credits not allowed in EU ETS. ○ NZ ETS does not have an absolute cap.

⁸ Note NZ ETS would not be included as it does not have an absolute cap. However, political expediency may override this concern. NZ ETS inclusion of AAUs would remain an obstacle.

⁹ Note that signatory *nations* (including the EU States and New Zealand) are able to purchase and trade AAUs to meet their overall obligations. It is only *market participants* that are not permitted to trade AAUs in the EU ETS.

No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS
10.	Offsets	<ul style="list-style-type: none"> • No domestic offset allowances allowed. 	<ul style="list-style-type: none"> • Proposed that projects in EU Member States which reduce GHG emissions not covered by the ETS could issue credits. • Common “domestic offset credit” provisions are still to be developed. • Emissions sequestered through CCS technology face no liability under EU ETS. 	<ul style="list-style-type: none"> • No domestic offset allowances allowed. • The NZ ETS could potentially be augmented by an offsets mechanism, which would allow people without ETS obligations to earn emission credits for activities resulting in a reduction of total greenhouse gases being released into the atmosphere.
11.	Trading Period Duration	<ul style="list-style-type: none"> • Phase I of 3 years: 2005-2008; and • Phase II of 5 years: 2008-12, this reflecting the CP1 period. • Surrender of allowances is on an annual basis. 	<ul style="list-style-type: none"> • Phase III extended to 8 years duration, 2013 to 2020. • It is anticipated that there will be a “Phase IV” thereafter – i.e. no sunset clause. • Surrender of allowances is on an annual basis. 	<ul style="list-style-type: none"> • No fixed phases for the scheme are defined. • Surrender of allowances is on an annual basis.
12.	Banking & Borrowing	<ul style="list-style-type: none"> • Allows for banking between years within each phase. • A Phase I EUA-2007 cannot be carried through to Phase II (from 2008) due to the anticipated increased stringency of the latter phase. • No borrowing is allowed. 	<ul style="list-style-type: none"> • Banking is allowed: <ul style="list-style-type: none"> ○ Phase II allowances not surrendered or retired can be used at their face value in phase III. ○ This includes CDM/JI allowances. • Borrowing is not allowed. 	<ul style="list-style-type: none"> • Banking is allowed (no restrictions). • Borrowing is not allowed.

No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS
13.	Penalty	<ul style="list-style-type: none"> • Phase 1 penalty = €40 /tCO₂. • Phase 2 penalty = €100 /tCO₂. • Make good required (i.e. allowances must still be surrendered to meet shortfall). 	<ul style="list-style-type: none"> • €100 /tCO₂ penalty, increasing annually with EU inflation rate. 	<ul style="list-style-type: none"> • Cash fines for various offences by participants, to do with misrepresentation of allowances, failing to keep proper records or maintaining confidentiality, etc. • Example: Strict Liability offences: <ul style="list-style-type: none"> ○ First conviction: Fine of up to \$8,000. ○ Second conviction: Fine of up to \$16,000. ○ Every subsequent conviction: Fine of up to \$24,000. • Additional penalties in certain cases, relating to failure to surrender units: <ul style="list-style-type: none"> ○ a requirement to make up any surrender shortfall within 90 days of a determination by the administering agency that a participant is in breach, at a ratio of 1:1. ○ a financial penalty of NZ\$30 per tonne of emissions for which emission units have not been surrendered (i.e., the surrender shortfall) - but not in the first year of operation. ○ the publication of the participant's identity and the nature of the compliance failure. • Review and appeals process incorporated in the Bill.

No.	Parameter	Current EU ETS	Proposed Revised EU ETS for Phase III, [2013-2020]	Proposed NZ ETS
14.	Regulatory body and compliance	<ul style="list-style-type: none"> • National registries. • Requirement for monitoring and reporting according to plans agreed with local competent authorities, in accordance with EU-level guidance document. • Requirement for third party verification of annual emissions prior to surrender of allowances. 	<ul style="list-style-type: none"> • Community registry to replace national registries for allowances issued from 1 Jan 2013. • Plans to adopt a new Regulation governing monitoring and reporting of emissions from Annex I activities. 	<ul style="list-style-type: none"> • An administering agency will be established. • NZ ETS will utilise the existing New Zealand Emission Unit Register (NZEUR) as amended to include required NZ ETS functionality. • The compliance system will be based on the “self-assessment” model like that used in the New Zealand tax system.

ANALYSIS

In this section we highlight some of the issues identified through the comparison that might be considered in any submissions on the draft NZ ETS Legislation.

Coverage, Gases and Point Of Obligation

Although the proposals for Phase III of the EU ETS increase the coverage of sectors and gases, the focus remains primarily on stationary energy and chemicals manufacture. The exception is aviation emissions. In all cases the point of obligation is on the end emitter.

The EU ETS will cover 50% of EU greenhouse gas emissions in 2013.

The NZ ETS by comparison is clearly more ambitious with all sectors and all gases (i.e. 100% of greenhouse gas emissions) from 2013. The choice of an upstream point of obligation for primary energy is also without precedent.

Clearly the economies of the EU and New Zealand have different characteristics, warranting differences in ETS design. Irrespective, the risks in New Zealand of doing something new are high. For example, the application of upstream points of obligation may function in practice as a kind of “tax” – with consequences for the environmental objectives of the scheme (that is, a weakening of emissions reduction).

Allocation and International Competitiveness

For Phase III, the EU has (as expected) indicated increased auctioning of allowances with a commensurate reduction in allocation.¹⁰

Closer evaluation reveals significant commonalities with the approach taken in the NZ ETS design:

- For the power sectors (electricity generation) both the revised EU and proposed NZ ETS designs provide no allocation.
- For general industry and aviation, the EU proposes a phase out of gifted allocation from 80% of emissions in 2013 to zero by 2020. This is in many ways comparable to the NZ ETS approach for trade exposed and agricultural sectors.

But there is also a significant difference:

- The EU identifies that some ETS participants may warrant longer term safeguards:
 - *“installations in sectors judged to be at significant risk of ‘carbon leakage,’ meaning that they could be forced by international competitive pressures to relocate production to countries outside the EU that did not impose comparable constraints*

¹⁰ However, it is very evident from public statements that the issues of auctioning, allocation reductions and leakage measures remain hotly debated amongst EU member states.

on emissions. This would simply increase global emission without environmental benefit.”

- *In this respect, the Commission will assess among other things the cost of allowances compared to production cost and the exposure to international competition. Installations in these sectors will receive up to 100% of their allowances for free.*
- *Under an international agreement which ensures that competitors in other parts of the world bear a comparable cost, the risk of carbon leakage may well be negligible. Therefore, by 2011, the Commission will carry out an in-depth assessment of the situation of energy-intensive industry and the risk of carbon leakage, in the light of the outcome of the international negotiations and also taking into account any binding sectoral agreements that may have been concluded. The report will be accompanied by any proposals considered appropriate. These could potentially include maintaining or adjusting the proportion of allowances given free of charge to industrial installations that are particularly exposed to global competition or putting in place an effective carbon equalisation system to neutralise any distorting effects from imports, e.g. by including importers of the products concerned in the ETS.”¹¹*

Such an approach is similar to that advocated by many New Zealand firms formerly identified as being “Competitiveness at Risk” (or, trade-exposed) under the prior Negotiated Greenhouse Agreement policy.

In conclusion, it would seem that:

1. The EU has particular concern for the issue of carbon “leakage” from trade-exposed sectors;
2. The EU has a specific approach to allocation phase-out for trade-exposed industry (that is distinct from the approach for aviation and general industry);
3. The EU is retaining the options of:
 - a. longer term retention of allocations, at higher levels; and
 - b. evaluating “equalisation systems” or “equal treatment” systems that may have different forms – such as, border tariff adjustments or inclusion in the EU ETS of import installations (with equal rights and obligations) – in order to prevent leakage or export of emissions.

Examples of analysis of competitiveness have been published by the UK Government’s Carbon Trust¹² and by Climate Strategies¹³ just prior to the EU announcements. Both reports present analysis of UK industry exposure (as a proxy for the EU as a whole). Although these

¹¹ “Questions and Answers on the Commission’s proposal to revise the EU Emissions Trading System”, European Commission, Europa, 23 January, 2008, MEMO/08/35 Q&A (p.5, question 15).

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/35&format=HTML&aged=0&language=EN&guiLanguage=en>.

¹² “EU ETS impacts on profitability and trade”, Carbon Trust, 2007.

<http://www.carbontrust.co.uk/publications/publicationdetail.htm?productid=CTC728>.

¹³ “Differentiation and Dynamics of EU ETS Industrial Competitiveness Impacts”, Climate Strategies, 2007.

http://www.climate-strategies.org/uploads/ClimateStrategies_competitiveness_final_report_140108.pdf.

reports note that “only a few activities are potentially exposed”, the nominated exposed activities largely comprise New Zealand’s manufacturing base: cement, lime, steel, aluminium, pulp and paper, nitrogen fertilizer – all of which are classified as particularly exposed, with others including oil refining being vulnerable.

New Entrant Reserve

The EU ETS continues to maintain a New Entrant Reserve to encourage investment through comparable allocation to new installations.

New Zealand seems to be alone in not providing for new entrants or expansion of existing facilities.

International Linking and Allowance Price Impacts

In the event that there is no global agreement post-2012, the revised EU ETS will not allow any post-2012 CERs into the scheme.

Market commentators have highlighted the following potential impacts:

- The CDM market could be “chilled” as developers formerly assumed that the EU ETS demand would remain while international agreement discussions continued;¹⁴ and
- The EU ETS price is predicted to rise to €48/tCO₂ at the end of Phase II¹⁵. For Phase III, several price scenarios are being discussed. Most of these range upwards from €50/tCO₂.

Both of these impacts could be strongly negative for NZ ETS participants with obligations:

- Firms seeking to meet obligations through the CDM market may find the supply side is more constrained; and
- Any direct linking to the EU ETS would expose NZ firms to potentially very high (NZ\$100+) allowance prices.

This issue highlights the risks of any aspiration to link with the EU ETS to gain liquidity, noting that NZ would have to forgo the use of potentially low cost AAUs to achieve this.

¹⁴ “Commission proposals could chill CDM market”, Carbon Finance, 23 January, 2008. Available at <http://www.carbon-financeonline.com/index.cfm?section=lead&id=10983&action=view&return=home>

¹⁵ “The Global Carbon Market: CDM/JI and the interaction with the EU-ETS”, Kris Voorspools, Fortis Bank, January 2008. Presentation to the Flexibility Mechanisms Workgroup, Flemish Dept. of Environment, Nature and Energy. Available at <http://www.lne.be/themas/klimaatverandering/klimaatconferentie/vlaamseklimateconferentie/werkgroepen-1/strategie/werkgroep-flexibiliteitsmechanismen-januari-2008/Presentatie%20Kris%20Voorspools.pdf>.

NOTES

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Seeking More Information?

This *Digest* is No. 4 of a series that is intended to explore in detail the design and operation of an emissions trading scheme, as it might apply in New Zealand. For more information on this *Digest* and views of Holcim expressed in it, please contact:

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This *Digest*, with a variety of other materials, is also available online at www.holcim.com/nz. Limited print copies are also available by contacting the above address with full mailing details.

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