

# Regulatory Impact Statement:

## Regulatory Impact Statement

### Proposal to Restrict the Surrender of HFC-23 and N<sub>2</sub>O Industrial Gas CERs in the NZ ETS

#### Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry for the Environment. It provides an analysis of options to address risks associated with a particular type of international emission unit currently used for surrender in the New Zealand Emissions Trading Scheme (NZ ETS). Responding to a request by the Minister for Climate Change Issues, Cabinet gave approval to consult on a *proposal to ban* the international emission units of concern from the NZ ETS. Although all possible options were not fully explored in the consultation document, several possible options were identified and submission of other options was invited. As a result several new options were put forward by submitters and are analysed here.

Significant time constraints (due to the timeframes for implementing some of the options considered) have meant that the Ministry for the Environment has had limited time to analyse submissions on this policy proposal. However, officials believe all the major points from submitters are covered in this Regulatory Impact Statement. Some of the ban options presented here will impose additional costs on businesses and may affect private property rights in relation to international emission units purchased in good faith. There are also risks associated with developing regulations and implementing a ban in such a short time period. These include:

- *Lack of time to consider all of the market implications that may arise from restricting the units eligible for surrender in the NZ ETS*
- *Lack of time to undertake economic modelling on likely effect of restrictions on the NZU price*
- *Difficulty for both participants and the NZEUR in identifying any banned Industrial gas CERs, this may lead to additional administrative burden on the NZEUR as under s 30G(3) we cannot penalise participants for surrendering units held in the NZEUR at the time the regulations come into force.*
- *Manual enforcement may lead to some ineligible units being submitted without detection during the first year of operation or there may be a lag in detection of non-compliance.*
- *Increased risk of errors and unintended consequences in the regulations due to drafting timeframes*
- *Depending on the option, there may be additional administrative burden on the NZEUR to administer an exemption for forward contracts*
- *Eroding market confidence in the regulatory certainty of the NZ ETS with a resulting impact on general levels of market confidence and/or participation.*

Libby Masterton, Manager, ETS Operational Policy

[Signature of person]

[Date]

## Status quo and problem definition

1. The New Zealand Emissions Trading Scheme (NZ ETS) requires those carrying out activities resulting in greenhouse gas emissions to pay for those emissions by surrendering carbon credits. Predominantly, participants use New Zealand Units (NZUs) to meet surrender obligations. NZUs make up 94.8% of all units that have been surrendered to date. However, participants are also able to surrender, subject to some restrictions, international units generated under the Kyoto Protocol. These include:
  - *Assigned Amount Units (AAUs)*: Assigned to countries under the Kyoto Protocol. AAUs make up 3.17% of all units surrendered to date.
  - *Emission Reduction Units (ERUs)*: Generated under the Kyoto Protocol by carrying out joint implementation projects. No ERUs have been surrendered to date.
  - *Certified Emission Reduction units (CERs)*: Generated under the Kyoto protocol by carrying out clean development mechanism (CDM) projects – projects in developing countries to reduce emissions. CERs make up 1.6% of all units surrendered to date.
2. There are some existing restrictions on international units that can be surrendered for domestic compliance. For example, participants cannot surrender imported AAUs (only New Zealand AAUs). The NZ ETS also does not accept CERs from nuclear or forestry CDM project activities.
3. Currently, the most common types of CERs in the global market are those generated from projects that destroy industrial gases, in particular those which destroy HFC-23 (trifluoromethane) and N<sub>2</sub>O-adipic acid (nitrous oxide produced from adipic acid). HFC-23 and N<sub>2</sub>O are powerful greenhouse gases with high global warming potentials. Projects which destroy these industrial gases therefore serve to decrease net global emissions. It has been estimated that such projects account for around 67 percent of all CERs issued to date.
4. Recently concern has been raised about CERs generated from HFC-23 and N<sub>2</sub>O industrial gas destruction projects (“industrial gas CERs”). Some sources have suggested the economics of these destruction projects may create perverse incentives to increase production of these gases.
5. There is a further concern that profitability from HFC-23 destruction projects creates a perverse incentive to increase production of HCFC-22, a precursor of HFC-23. HCFC-22 is an ozone depleting gas which also has a high Global Warming Potential, and is being phased out under the Montreal Protocol.
6. Under the Kyoto Protocol, CERs may be issued only for projects which lead to emission reductions that are additional to what would have happened anyway. Given the perverse incentives described above, there is concern that this criterion may not be met. The CDM Executive Board, which governs the approval of CDM projects, is taking steps to revise the methodology which governs the generation of CERs from HFC-23 destruction projects. A new methodology could be applied post-2012 to projects as they reach the end of their current crediting period – so it would apply to future units issued in relation to existing projects as well as new projects.

7. A change in the methodology may significantly reduce the number of CERs from industrial gas projects in the medium term. However the impact of a new methodology is uncertain and a large number of CERs generated from projects before any new methodology entered into force would remain in circulation.
8. The European Union have already taken steps to ban the surrender of CERs and ERUs from HFC-23 and N<sub>2</sub>O industrial gas destruction projects in Phase 3 (2013-2020) of the European Union Emissions Trading Scheme (EU ETS). The recently announced Australian Carbon Pricing Mechanism will also prohibit the surrender of these units for domestic compliance when the scheme enters its flexible price period in 2015.
9. In September 2011 Cabinet agreed the Minister should undertake a short, targeted four-week consultation on a proposal to ban the surrender of industrial gas CERs in the NZ ETS [Cab Min (11) 34/15]. Cabinet also agreed that two timing options should be consulted on – 1 January 2012 and 1 January 2013.

### **Problems to be solved**

10. As a result of the issues associated with industrial gas CERs mentioned above, three concerns emerge for the New Zealand carbon market:
  - Concerns about environmental integrity
  - Concern about risk of oversupply in NZ ETS
  - Concern about prospects for future linkage with overseas trading schemes
11. Some of these concerns were raised by submitters during the consultation to the NZ ETS Review earlier this year. The submissions led the NZ ETS Review Panel to recommend in their final report that *“the Government should urgently consider whether HFC CERs pose a significant risk and whether a time limit should be imposed on their eligibility”*.
12. In addition, the NZ ETS Review Panel noted that *“if the Government decides these units should be ineligible then the Panel believes that a reasonable notice period should be given so that businesses which have already bought these units in good faith have an opportunity to surrender them. In deciding what a reasonable notice period is, consideration should be given to whether other options are available to businesses to dispose of these units”*.

### **Concerns about environmental integrity**

13. Concern about the environmental integrity of industrial gas CERs is one of the principal reasons both the European Union and Australia are instituting or proposing a restriction on their use. The core of the issue is that the relatively low cost of these destruction projects have resulted in a perverse economic incentive whereby the money received for CERs through HFC-23 destruction is greater than the money received for the original HCFC-22 product. According to one report, the CDM transformed overnight refrigerant manufacturing in some countries into a venture that primarily generated large volumes of CERs, with only a sideline in the manufacture of industrial gases.<sup>1</sup>

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<sup>1</sup> Wara, M.W. and Victoria, D.G. *A Realistic Policy on International Carbon Offsets*, Program on Energy and Sustainable Development Working Paper 74, Stanford University (April 2008), p. 11.

14. This has led to accusations that instead of encouraging a reduction in these industrial gases, the production of gases such as HCFC-22 may have actually increased in China, India and South America. As Michael Wara from Stanford University notes “...a developing world producer of HCFC-22 can earn nearly twice as much from its CDM subsidy than it can gross from sale of its primary product”.<sup>2</sup> It also appears at least some of the HCFC-22 plants that participate in the CDM appear to have ramped up production during the baseline period for the CDM (2000-2004) of around 25 percent, far beyond the expected 15 percent growth rate of the sector as a whole. While it is impossible to say with certainty whether these plants increased production due to a demand for HFC-23 or in anticipation of higher CER revenue, this suggests HCFC-22 producers elected to add capacity at existing plants during the CDM baseline period in order to take advantage of CDM revenue, rather than building new plants to cater for increased demand.<sup>3</sup>
15. Further to this there is an efficiency concern. Some countries such as the EU and its member states have sought to have HFC-23 abated under other agreements, such as the Montreal Protocol, as it is seen as more cost-effective and efficient compared to CDM. It has been estimated the amount expended through the CDM process totals approximately €4.7 billion, when including payments to refrigerant manufacturers, the Chinese government (which heavily taxes these CDM projects), and to carbon market investors by governments and compliance buyers. The estimated cost of abatement however, is likely to be less than €100 million.<sup>4</sup>
16. The environmental integrity concerns about N<sub>2</sub>O-adipic acid CERs are less pronounced than those about HFC-23 CERs, however many of the same issues still apply. Like HFC-23 destruction projects, the revenue available through the CDM for the destruction of N<sub>2</sub>O from adipic acid production outweighs the value from N<sub>2</sub>O production itself.
17. Not only does this create a perverse economic incentive, it also grants a competitive advantage to those adipic acid producers who participate in the CDM by allowing them to produce it below the cost of their competitors. This could result in carbon leakage of adipic acid production away from some Annex 1 countries to those facilities in non-Annex 1 countries who also participate in the CDM. There is a danger, therefore, that greenhouse gas emissions could increase globally if production shifts from Annex 1 countries that have emissions reduction targets to non-Annex 1 countries who participate in the CDM with any emission mitigation obligations.<sup>5</sup>
18. Despite the success the CDM has achieved in reducing emissions, channelling public sector investments and assisting with sustainable development, industrial gas destruction CDM projects continue to attract criticism for the perverse economic incentive they create. This imports a level of risk to the perceived environmental integrity of the NZ ETS and to New Zealand’s international reputation. It could also

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<sup>2</sup> Wara, M.W., *Measuring the Clean Development Mechanism’s Performance and Potential*, Program on Energy and Sustainable Development Working Paper 56, Stanford University (July 2006), p. 30.

<sup>3</sup> Wara (2006), p. 28.

<sup>4</sup> Wara (2008), p. 12.

<sup>5</sup> Schneider, L.et al., *Industrial N<sub>2</sub>O Projects Under the CDM: Adipic Acid - a Case of Carbon Leakage*, Stockholm Environment Institute - Working Paper WP-US-1006, (October 9, 2010)

lead to a New Zealand carbon market that is not fit for purpose and achieving environmental objectives.

***Concern about risk of oversupply in NZ ETS***

19. An estimated 470 million CERs come from HFC-23 and N<sub>2</sub>O destruction projects. The European Union and the EU ETS provide the largest demand for CER offset credits, and as such play a key role in defining the market price for CERs. As participants in the NZ ETS are permitted to use an unlimited amount of CERs to meet their obligations, the price of these units essentially drives the market clearing price in New Zealand.
20. **[ Paragraphs 20–23 withheld under the sections 9(2)(f)(iv), 6(a), 9(2)(j) and 9(2)(d) of the Official Information Act 1982**

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24. If a price divergence does occur, this may depress prices in the NZ ETS below the non industrial gas CER price and allow NZ ETS participants to stockpile these units while they are inexpensive. Here the concern is the need to avoid prices in the New Zealand carbon market becoming artificially low, in which case they will not be incentivising behaviour change.
25. Stockpiling of these units could result in a vast proportion of surrendered units being industrial gas CERs. These units will still be able to be surrendered by New Zealand to meet its Kyoto commitments. As such, there is not considered to be any cost to the government.

***Concern about prospects for future linkage with overseas trading schemes***

26. Because these units will not be acceptable for use within the EU ETS after 2013 or in Australia Carbon Pricing Mechanism in 2015, continued acceptance of industrial gas CERs for use in the NZ ETS may prove problematic for bilateral or regional linking with other emissions trading schemes. If New Zealand wishes to link schemes bilaterally with either of these countries (with the Australian scheme being the most likely),

continued use of these units in the NZ ETS may provide an obstacles for to this, as it would mean these units could be available for purchase by domestic participates in the EU or Australia. This would be, in effect, a way around the proposed ban in those countries.

27. Bilateral or regional linking is likely to become of increasing importance to New Zealand after 2012, given the slow progress being made in negotiations through the UNFCCC and the uncertainty this creates about the future of the Kyoto Protocol flexible mechanism. Without access to a strong supply of international units through the CDM, bilateral or regional linking is likely to be the best way to ensure there are markets for New Zealand forestry units and opportunities for low cost abatement for ETS participants, as well as reducing NZU price volatility.

## Objectives

28. Primary objectives against which options were assessed are as follows:

- To support the environmental integrity of the NZ ETS amidst growing concern that units generated from HFC-23 and N<sub>2</sub>O industrial gas destruction projects provide limited environmental benefits and may be associated with adverse environmental outcomes.
- To mitigate the risk of global oversupply of these units impacting the price in the NZ ETS.
- To improve prospects for future links between the NZ ETS and other emissions trading schemes that prohibit these units.

29. The environmental integrity objective relates to the overall objective of the NZ ETS to help deliver emission reductions at least cost. This includes allowing the opportunity for least cost abatement.

30. Secondary objectives against which options were assessed are as follows:

- To minimise costs to businesses (including compliance costs and costs of surrender obligations)
- To maintain market confidence and regulatory certainty in relation to the NZ ETS
- To minimise risk of stockpiling of industrial gas CERs, as a perverse outcome of the proposal to ban them.
- To minimise costs to government (taking into account fiscal costs, implementation timeframes and administrative complexity)

31. The first three of the secondary objectives were incorporated in the options analysis due to concerns raised by submitters. Concerns included that particular courses of action, such as immediately banning industrial gas CERs without providing an exemption for forward contracts (contracts in place for future delivery of CERs), would decrease confidence and regulatory certainty in the market, and may also prejudice property rights. It was also submitted that there would be significant cost to business from having to unwind these forward contracts. More weight was put on the primary objectives than the secondary objectives. As not all objectives are likely to be met by any one option, the secondary options became particularly important where an option meets the primary objectives.

## Regulatory impact analysis

32. Following the October consultation, it became apparent that there are four main options available, which involve either retaining the status quo, or some form of regulation ranging from partial restriction to complete ban. With respect to one particular ban option, there are a further five sub-options which relate to timing. These options and sub-options are discussed below.

### ➤ Option 1: Status quo

33. The status quo would be to retain the ability of participants in the NZ ETS to surrender an unlimited amount of international units, with no limit on type.
34. Eight out of 52 submitters were in favour of retaining the status quo, either indefinitely or at least until further economic analysis is carried out. The main reasons put forward were:
- An early ban would increase the costs of complying with the NZ ETS.
  - The issue should be considered in light of other NZ ETS design parameters such as current price control and allocation settings, which are currently under consideration post-ETS review.
  - The Government should not implement a ban unless it is following a UNFCCC decision due to risk to New Zealand's international reputation if it is seen to be taking unilateral action.
35. There are enough environmental concerns to justify a ban on these units, and it is important to ensure that the units surrendered into the NZ ETS represent valid emissions reductions. The CDM executive board, which is responsible for approving the methodologies for CDM project activities, has put the HFC-23 methodology (AM0001) on hold due to the environmental integrity concerns.
36. However the issue for New Zealand is compounded by the fact the EU ETS is a 'deep liquid' market for these CERs, and when the EU ban comes into force industrial gas CERs will inevitably flood into the New Zealand carbon market. This is because if the status quo remains New Zealand will be the only remaining mandatory domestic emission trading scheme after April 2013.
37. This option would not meet any of the primary objectives outlined. As such, officials consider the status quo is not a viable option post-April 2013.

### ➤ Option 2: Restrict the number of international units that can be surrendered

38. One option would be to cap the number of CERs, or specifically industrial gas CERs, that could be used for surrender purposes. Both the EU and Australia have adopted a quantitative restriction in the use of international units, requiring participants to source a minimum of 50 percent of their units for compliance from domestic sources. This will mean that in those schemes, a maximum of 50 percent of units surrendered will be allowed to be international units, most likely CERs. However, there other drivers for EU and Australia to adopt this approach and it should be noted that both of these schemes include the auctioning of units, which will ensure a stable domestic supply of units. In addition both countries are still completely banning industrial gas CERs.
39. Adopting this approach would effectively be a compromise position and will not solve the policy problem in its entirety. Although it may help to reduce the likelihood of a price



collapse, it will not address the underlying environmental integrity concern relating to industrial gas CERs. Furthermore, it is likely to be more administratively complex to apply a quantitative restriction and would require other design changes to the ETS to ensure participants are still able to access lowest cost abatement. As such it would not meet the objective of minimising cost to government.

➤ **Option 3: Ban the surrender of industrial gas CERs**

40. Under this option, a ban would be placed on surrender of industrial gas CERs only. CERs from other projects would still be eligible. This would achieve all three of the primary objectives outlined above.

41. Forty-two submissions were generally supportive of a ban on industrial gas CERs. They agreed that the environmental integrity of the units generated from these projects was questionable, and the reputation of the NZ ETS could be damaged if these units were continued to be accepted into the scheme.

42. However there are various options around the timing of the ban. These options involve trade-offs between the risk that a large amount of industrial gas units could be surrendered to the Crown, against minimising costs to participants, ensuring stability in the market and maintaining regulatory confidence in the NZ ETS.

**Description of ban sub-options and timings**

<b>Proposed ban (option 3):</b>	<b>Participants <u>may not use</u> industrial gas CERs that enter the NZEUR after this date:</b>	<b>For the purpose of surrender after this date:</b>	<b>Exemption for forward contract (participants)?</b>
<b>Option 3a</b>	<b>1 January 2012 or earlier</b>	<b>1 January 2012</b> ( <i>ban applies to surrenders for current year's emissions &amp; onwards</i> )	<b>No</b>
<b>Option 3b</b>	<b>1 January 2012 or earlier</b>	<b>1 January 2012</b> ( <i>ban applies to surrenders for current year's emissions &amp; onwards</i> )	<b>Yes</b>
<b>Option 3c</b>	<b>23 December 2011</b> ( <i>immediately</i> )	<b>1 June 2012</b> ( <i>ban applies to surrenders for 2012 emissions &amp; onwards</i> )	<b>No</b>
<b>Option 3d</b>	<b>23 December 2011</b> ( <i>immediately</i> )	<b>1 June 2012</b> ( <i>ban applies to surrenders for 2012 emissions &amp; onwards</i> )	<b>Yes</b>
<b>Option 3e</b>	<b>31 December 2012</b>	<b>30 April 2013</b> ( <i>ban applies to final month of surrenders for 2012 emissions &amp; onwards</i> )	<b>No</b>

## Ban sub-options and assessment against policy objectives

	<u>Option 3a</u> Ban units that enter 1 January 2012 (or earlier) from surrender from 1 January 2012, <i>no exemption</i> for forward contracts	<u>Option 3b</u> Ban units that enter 1 January 2012 (or earlier) from surrender from 1 January 2012, <i>with exemption</i> for forward contracts	<u>Option 3c</u> Ban units that enter after 23 December 2011 from surrender from 1 June 2012, <i>no exemption</i> for forward contracts	<u>Option 3d</u> Ban units that enter after 23 December 2011 from surrender from 1 June 2012, <i>with exemption</i> for forward contracts  [PREFERRED OPTION]	<u>Option 3e</u> Ban surrender from 30 April 2013, <i>no exemption</i> for forward contracts
<b>Primary objectives</b>					
Support environmental integrity of the NZ ETS	✓	✓	✓	✓	✗
Mitigate risk of global oversupply of these units impacting price in the NZ ETS.	✓	✓	✓	✓	✗
Improve prospects for future links with other schemes.	✓	✓	✓	✓	✓
<b>Secondary objectives</b>					
Minimise cost to business	✗ ✗	✗ ✗	✗	✓	✓ ✓
Minimise cost to government	✓	✗ ✗	✓	✗	✓
Maintain market confidence and regulatory certainty	✗ ✗	✓ / ✗	✓ / ✗	✓	✓
Minimise risk of stockpiling	✓	✓	✓	✓	✗

## Estimated Costs for Sub-options<sup>1</sup> over the next two years

Option	CERs currently in the NZEUR (million units) <sup>2</sup>	CERs in contracts 2012 (million units) <sup>3</sup>	CERs in contracts 2013 (million units)	Cost of unwinding contracts (\$1 per unit) <sup>4</sup>	No of non-forestry NZUs surrendered <sup>5</sup>	Required remaining units	Cost of purchasing additional units <sup>6</sup> LOW scenario (\$1 per unit)	Cost of purchasing additional units <sup>5</sup> HIGH scenario (\$5 per unit)	Total Cost (\$ million)
3a. 1 January 2012 - no exemptions	1	5	5	10	8	27.9	27.9	139.5	37.9 - 149.5
3b. 1 January 2012 – exemption until 1 June 2012	1	5	5	5	8	22.9	22.9	114.5	27.9 – 119.5
3c. 1 June 2012 - no exemptions	1	5	5	5	8	13.6	13.6	68	18.6 - 73
3d. 1 June 2012 - including exemptions	1	5	5	0	8	8.6	8.6	43	8.6 - 43
3e. April 2013 (in line with EU ETS)	1	5	5	0	8	17.9	0 <sup>7</sup>	0	0

<sup>1</sup> All costs based on a total of 36.9 million units being surrendered over the next two years - 18.3 million in 2012 (for obligations in 2011) and 18.6 million in 2013 (for obligations in 2012)

<sup>2</sup> Number in registry at 1 November 2011

<sup>3</sup> A total of 10 million CERs are estimated to have been purchased under forward contracts in equal amounts over the two years (5 million in 2012 and 2013)

<sup>4</sup> The costs of unwinding the contract include the costs of selling it back to the market (the bid-offer spread and the credit spread) These costs would be upwards of 50c per unit. An estimate of \$1 has been used, but this assumes that all contracts can be resold and potential buyers are willing to cooperate.

<sup>5</sup> All non forestry NZUs are assumed to be surrendered in the period they are allocated. This assumption may not hold as the ban may provide an incentive for participants to surrender CERs in 2012 and hold onto NZUs for future periods. Forestry NZUs are assumed to be carried over to future periods.

<sup>6</sup> The cost of purchasing additional units is the cost of obtaining a green CER over an industrial gas CER. This is a minimum of 30c, but could rise over time. The cost is difficult to estimate, so two scenarios are provided – a low scenario of \$1 and a high scenario of \$5.

<sup>7</sup> There is no cost of the option of aligning with the EU ETS, because participants will be able to use industrial gas CERs for both years and will not have to pay the premium for green CERs.

The costs incurred by participants include the cost of unwinding forward contracts (if no exemption is provided) plus a premium for purchasing green CERs over industrial gas CERs for all additional units that are required to meet their obligation.

The largest participants in the Stationary Energy and Industrial Processes (SEIP) and Liquid Fossil Fuels (LFF) sectors were contacted and asked if they held forward contracts for CERs, and if so the number of CERs that have been purchased under these contracts. The companies that responded make up 88% of emissions from these sectors. These are the only sectors (apart from potential deforestation) that have surrender obligations for 2011 and 2012, so this represents 88% of the total surrender obligation. The participants that responded have purchased a total of 8.4 million CERs under forward contracts for delivery in 2012 and 2013. As not all participants responded, officials estimate that roughly 10 million CERs will be delivered under forward contracts in 2012 and 2013, accounting for approximately 30% of the total surrender obligation in both years.

The cost of exiting a contract is made up of the following components:

- Bid- ask spread – this is the difference between what you can buy and sell at in the market. This is currently around NZ 20c to 30c per unit.
- Credit spread – this is the price a counterparty will charge to transact without margining (i.e. it takes account of the fact that a counterparty may default and the forward agreement not be honoured). This would be upwards of NZ 20c per unit.
- Calendar spread – this is the cost incurred to bring forward the delivery date of the units.

An estimate of \$1 has been used for the total of all three components, based on limited information provided by market participants. This cost assumes that potential buyers will be willing to cooperate to purchase the existing contracts. The holder of the contract would be in a poor negotiating position as they have no option but to sell the units, this could add to the transaction costs.

If a ban is brought in ahead of the EU ETS ban on 30 April 2013, all additional CERs purchased between the NZ ban date and the EU ban date (that are not exempt) must be “green” CERs and will be purchased at a premium. This will include the units that have to be re-purchased after unwinding contracts. This premium would be a minimum of 30c and is likely to increase over time as we move closer to the date of the EU ETS ban. It is difficult to estimate the extent of this price divergence, so a range of \$1 to \$5 has been used. There is no cost of the option of aligning with the EU ETS, because participants will be able to use industrial gas CERs for both years and will not have to pay a premium for ‘green’ CERs.

The costs above assume that all non-forestry NZUs will be surrendered in the period in which they are allocated. This assumption may not hold as it is possible that participants may surrender CERs in 2012 (while the industrial gas CERs are still eligible) and hold onto the NZUs for surrender in future periods when they may be more valuable. This behaviour would increase the total number of CERs that are surrendered in 2012, but would not increase costs to participants as they would only do this if it's to their benefit.

The fiscal implications of these options are nil. Under each option the Government receives the same amount of emissions units, the difference is the type of unit. In the Crown accounts NZ ETS revenues and expenses are valued at the current CER price in the European ETS market. Therefore there is no price difference in the units.

***Option 3a: Ban surrender from 1 January 2012 (or earlier), no exemption for forward contracts***

43. Seven submitters supported banning the surrender of industrial gas CERs from 1 January 2012, or sooner, without providing any exemption for units purchased under forward contracts. However eight submitters said they had forward contracts to purchase CERs for delivery between December 2012 and May 2013. These submitters (and other large ETS participants) were subsequently contacted to obtain more information on the number of CERs that have been purchased under forward contracts. The companies that responded make up 88% of the total surrender obligation for 2012 and 2013.
44. The participants that responded have purchased a total of 8.4 million CERs under forward contracts for delivery in 2012 and 2013. As not all participants responded, officials estimate that roughly 10 million CERs will be delivered under forward contracts in 2012 and 2013 (in roughly equal amounts each year), accounting for approximately 30% of the total surrender obligation in both years.
45. Industrial gas CERs will still be able to be held in the NZEUR and traded. So if no exemption was provided for these contracts, participants could sell the industrial gas CERs into the European market where they are still eligible. However participants would incur transaction costs and would have to purchase alternative units to meet their obligation which would be more expensive.
46. Submitters' views varied on the impact that this option would have on compliance costs. Westpac submitted that there would be a lack of liquidity in the NZ market until it aligns with Europe as the contracts offered by European exchanges are in accordance with the EU ETS rules and contain a mix of "grey" and "green" CERs. NZ ETS Participants would be able to purchase contracts, but at a premium, as they would have to be tailored to contain "green" CERs only.
47. Submitters also expressed concern that bringing in regulations at short notice, particularly where participants have transacted in good faith according to the existing rules could undermine confidence in the NZ ETS. Participants could be wary of entering forward contracts in the future, which could affect future investment decisions as well as limiting their ability to comply with NZ ETS obligations at least cost.
48. This option carries significant risks. In particular, failing to provide an exemption for forward contracts would significantly undermine confidence in the regulatory certainty of the NZ ETS which is important to ensure the market operates effectively in the future. It would also lead to increased business costs for NZ ETS participants.

***Option 3b: Ban surrender from 1 January 2012 (or earlier), with exemption for participants with forward contracts***

49. Fourteen submitters supported banning the surrender of industrial gas CERs from 1 January 2012, provided there was some sort of exemption for units purchased under forward contracts that are in place at the time the regulations come into force. Some submitters did not support a blanket exemption and thought there should be some restrictions. For example the exemption could be limited to particular surrender periods (units could be used for surrender until May 2012 or May 2013) or there could

be a restriction on the number of units surrendered, (e.g. 50 percent of a participant's obligation).

50. Allowing an exemption for units purchased under forward contracts incurs a risk that participants could falsify contracts. This could be mitigated by providing a one month window after the regulations come into force for participants to supply proof of the contract to the Government along with a signed declaration confirming the legitimacy of the contract. If these conditions are set out in the regulations, the fraud provisions under s30J of the CCRA would apply.
51. A ban coming into force on 1 January 2012 with an exemption for contracts does not completely mitigate the risk of reducing confidence in the market as the regulatory environment will change at short notice. It would prevent some ETS Participants f(without forward contracts) from using grey CERs to meet their surrender obligations. A ban will increase the price of NZUs and 'green' CERs relative to 'grey' CERs, and it is likely to be the small to medium participants who do not have forward contracts who will face these increased costs in 2012.
52. Although there are risks and implementation issues associated with providing and exemption for units purchased under forward contracts, officials consider that there is a strong case for such an exemption in order to maintain market confidence and stability. Limiting the exemption to units delivered up to April 2013 would allow the majority of units purchased under these contracts to be used.
53. If the regulations are enacted on 1 January 2011 there will be a small window between the notification of the regulations and the enactment date which could provide participants with an opportunity to stockpile units in the registry for future use. To mitigate these risks the regulations could be enacted the day after being published in the New Zealand Gazette. However this does not provide the market with much notice and could affect market confidence.
54. This option would involve high government costs (relative to the other options), due to the extra work associated with exempting contracts and the short implementation timeframe for having both the ban and exemption system in place.

***Option 3c: Ban surrender from 1 June 2012, no exemption for forward contracts***

55. Two submitters were in favour of banning the surrender of units from 1 June 2012 as it allowed some opportunity for participants to use industrial gas CERs purchased under forward contracts.
56. This option would allow participants to use industrial gas CERs that they currently hold in the NZEUR or have purchased under contracts for delivery prior to 31 May 2012. However, it would not however provide any protection for participants with contracts for delivery after 1 June 2012.
57. The ban could be enacted on 23 December 2011 (day after gazette date), to ban from 1 June 2012 the surrender of industrial gas CERs imported into the NZEUR after 23 December 2011. This would prevent participants from using the period 18 November 2011 – 1 June 2012 to stockpile units that could be used for surrender beyond 1 June 2012.

58. This ban would still precede the EU ETS ban, so there may be market implications associated with lack of liquidity. However it would give participants more time to work out how to meet their surrender obligation in 2013 with eligible units and it should smooth the increase in prices.
59. As with option 3a, failing to provide an exemption for forward contracts under this option would undermine confidence in the regulatory certainty of the NZ ETS which is important to ensure the market operates effectively in the future.

***Option 3d: Ban surrender from 1 June 2012, with exemption for participants with forward contracts (preferred option)***

60. This option is the same as option 3c but allows an exemption for forward contracts with a delivery date after 1 June 2012. It is considered preferable as a decision not to provide an exemption could undermine participants' future ability to undertake hedging strategies to source lowest-cost abatement, and could result in a legal challenge.
61. This is the preferred option as it allows one more surrender period for all NZ ETS participants to adjust to the new regulations, and honours all existing contracts that were in place prior to the ban being enacted. It thereby enables a ban to be implemented without damaging participant's confidence in the NZ ETS. The risk is that a greater number of CERs will be surrendered than under options 3a, 3b and 3c. However it protects against the risk of stockpiling for future use as units that enter the registry after November 2011 will only be able to be used until 1 June 2012 (unless a contract is in place).
62. Allowing one more surrender period before the ban comes into effect will provide some time for the market to adjust to the new rules and for participants to work out how to meet surrender obligations in 2013. It also provides time for officials to implement the changes, particularly the exemption for forward contracts.
63. As with option 3b, this option would also increase government costs, due to the extra work associated with exempting contracts and the short implementation timeframe for having both the ban and exemption system in place. However, timeframes are more manageable here than under option 3b.

***Option 3e: Aligning with the EU ETS ban***

64. Thirteen submitters, primarily from the energy, industrial and financial services sectors generally favoured an implementation date that aligns with the EU ETS ban. This would involve:
- Banning the surrender of industrial gas CERs for NZ ETS liabilities accrued after 31 December 2012
  - Banning the surrender of industrial gas CERs after 30 April 2013 (for 2012 obligations)
  - Restricting the surrender of Industrial Gas CERs that are issued to CDM projects for emission reduction activities that occur after 31 December 2012.
65. Submitters in favour of this date believed that the price of industrial gas CERs and other CERs would not materially diverge prior to the EU ETS ban [Westpac, Z

Energy]. Westpac submitted that stockpiling of units will only occur if entities can use industrial gas CERs after 30 April 2013 when liable entities in the EU ETS can no longer use them. They submit that there is currently no evidence of a significant price differential between industrial gas CERs and other CERs (the spread is around 30c) and this is the same across the forward curve, indicating that the market does not expect a price divergence in these units before April 2013.

66. Although there may only be a small difference in the price of industrial gas and non-industrial gas CERs, there is currently a price difference of about \$1.65 between spot NZUs and spot CERs. Therefore a later implementation date could provide an incentive for participants to swap out of NZUs into cheaper industrial gas CERs. This could result in most of the units surrendered in 2012 and 2013 being industrial gas CERs.
67. This option also reduces the need for exemptions for units purchased under forward contracts, as submitters have indicated that the majority of contracts are due for delivery prior to May 2013.
68. Some submitters considered that environmental integrity is not a concern that needs to be addressed prior to the EU ETS ban coming into force. In analysing this option, officials disagree and consider that environmental integrity is an immediate concern unrelated to the timing of the EU ETS ban. The longer a delay is banned, the more industrial gas CERs will be surrendered. As these CERs will not be representing real abatement, environmental integrity of the NZ ETS is thereby breached. Furthermore, where there is a price divergence, delaying a ban until April 2013 would only serve to incentivise surrender of industrial gas CERs. Indeed, submissions were received which stated that 'swap-out' is already occurring. As such, this option is considered to fail the objective of supporting the environmental integrity of the NZ ETS.

➤ **Option 4: Ban the surrender of all CERs or international units**

69. Another option considered was a ban not just on industrial gas CERs, but on all CERs or all international units. This would mean the participants in the NZ ETS would only be able to surrender NZUs and New Zealand AAUs (and ERUs in case of ban on CERs only). No submissions were received on this option and discussions with stakeholders indicated this was not considered to be viable for the NZ ETS. The decision to allow international unit into the NZ ETS was made for several important reasons, including to:
  - Reflect consistency with New Zealand's obligations under the Kyoto framework,
  - Provide NZ ETS participants with access to the lower cost form of abatement, and
  - Provide liquidity and to reduce price volatility in the small New Zealand carbon market.
70. These are still relevant and important considerations. Banning CERs/international units would carry significant risk of illiquidity in the NZ ETS, and could significantly increase compliance costs for participants. However, due to failure of countries to meet an agreement on a second commitment period under the Kyoto Protocol there is a need to assess the validity of the above considerations. This will be undertaken as part of post-ETS review work and is not relevant to this issue. Officials consider that such a restriction for the purpose of this issue would be unjustified and not in line with New Zealand's current position in the international climate change arena.



## Consultation

71. A consultation document on proposals to restrict the use of industrial gas CERs was released on the Ministry for the Environment's Website on 31 September 2011. It was also emailed to all NZ ETS participants in the NZEUR.
72. Several of the above options were outlined in the consultation document, including:
- Continue to allow industrial gas CERs
  - Ban the surrender of industrial gas CERs (as of 1 January 2012 or 1 January 2013)
  - Other qualitative or quantitative restrictions on CERs
  - Banning all international units
73. The consultation document also invited other options to be submitted, which officials may not have considered. As a result, several other options that are considered here were put forward.
74. In total 52 submissions were received, including 18 from the forestry sector (including consultants), 16 from the energy and industrial sectors and 4 from the financial services sector. 14 submissions were received from iwi, NGOs, individuals and other sectors.

## Key concerns raised

75. Most of the key concerns raised during consultation have been addressed in the assessment above. Other key submitter concerns, that were noted but not taken into account are as follows:

- a. *There appears to be a lack of full and proper analysis of all the risks associated with banning industrial gas CERs and as such, it may be premature to do so.*

Officials acknowledge that the analysis undertaken on this issue has been under significant time constraints. However this is considered to be outweighed by the concerns, particularly around potential oversupply, and the need for prompt action in relation to this policy problem.

- b. *Environmental integrity and global oversupply only a valid concern in 2013, as this is when the EU ban comes into force.*

Officials acknowledge the risk to the NZ ETS reputation may be low before the EU ETS ban comes into effect. However, there is still a valid environmental integrity concern if a ban is not implemented earlier. NZ ETS participants will be surrendering CERs which do not represent real reductions elsewhere and as such, emissions in New Zealand will not actually be offset. The argument for least cost abatement does not apply where there is no real abatement. Option 3e was analysed on this basis. In relation to the global oversupply being a valid concern prior to 2013, the reasoning behind those submissions is based on the view that there will not be a significant price divergence in CERs before the EU ban comes into effect. Officials noted this but adopted a conservative approach and attached some weight to other submissions which considered there may be price divergence, as well as the ICF report discussed above (from paragraph 20).

- c. *The objective of maintaining prospects for future linking with other schemes is not an appropriate criterion for introducing restrictions in the near term.*

Officials accept that there is merit to this argument. However, near term actions which are contrary to potential linking partners will have consequences in the long

term which should be considered. The options analysis cannot be blind to long term goals.

- d. *The ban being proposed is not being driven by environmental integrity concerns, but rather the desire to avoid low prices. This is contrary to core principles of international action – alignment with UNFCCC processes and access to international units for the purpose of least cost abatement.*

As has been discussed, environmental integrity is not the sole concern but it certainly is an important underlying concern. Protecting against oversupply is also another valid concern. Alignment with UNFCCC processes and allowing participants access to least cost abatement opportunities are important considerations, but not at the expense of an NZ ETS that is fit for purpose and achieving environmental objectives as agreed at the international level.

- e. *Environmental concerns should be addressed at the UNFCCC level and there is a risk to New Zealand's international reputation from taking a unilateral decision such as a ban.*

Although the risk to New Zealand's international reputation is acknowledged, it is not considered to be significant in light of action being taken in the EU ETS and in the Australian Carbon Pricing Mechanism.

## Conclusions and recommendations

76. Officials' preferred option is a ban on surrender from 1 June 2012, of industrial gas CERs that enter the NZEUR after 18 November 2011, with an exemption for participants with forward contracts in place at the date of gazetting of the proposed regulations (Option 3e).

## Implementation

### Process for restricting units through regulations

77. Section 30G(1)(c) of Act states the Governor-General may, by Order in Council made on recommendation of the Minister, make regulations to prescribe matters in respect of the holding, surrender, conversion, and cancellation of units, including restrictions.
78. If section 30G of the Act is used to make such a recommendation, then section 30H outlines that the Minister must consult with those groups likely to be substantially affected by any regulations made in accordance with such a recommendation.
79. Section 30H(3) of the Act states that regulations made in this way come into force three months after the date of their notification in the *Gazette*. Subsection 30H(4) of the Act notes that this requirement does not apply in respect to any regulations if the Minister considers it in the national interest that they be made urgently.

### Administration

80. Due to the immediate nature of the proposed ban, there is not sufficient time to set up an automated system which would block industrial gas CERs from being able to be surrendered in the NZEUR. This will mean reliance on a manual enforcement system for the first year at least, and a compliance check will have to take place post-surrender. This will consist of checking industrial gas CERs that have been surrendered against a snapshot of CERs that were in the NZEUR on the date of the

ban. This check will be carried out by the Environmental Protection Authority, as by this time it will be the organisation responsible for the NZEUR.

81. For future years, it is expected the NZEUR system will flag banned CERs and/or not accept them in the surrender account, as is currently the case for imported AAUs.
82. To assist with these transitional arrangements, guidance will be published to help participants identify industrial gas CERs they may bring in to the NZEUR for surrender after the date of ban. This guidance will contain the list of banned project codes which they can cross-reference with codes on CERs they hold.
83. Participants with forward contracts in place to which the exemption would apply will have to submit evidence of these contracts within one month of the regulations being enacted. They will also have to sign a declaration that the contract was entered into in good faith and is not a product of fraud.

## Penalties

84. Most submitters were either in favour of penalties for non-compliance (with some notice period provided to participants) or they thought that the NZEUR should automatically reject non-compliant units.
85. If a ban is implemented in November 2011, the onus will be on participants to identify Banned CERs and ensure they are not surrendered (as is the case with complying with the NZ ETS generally). However this places a complex identification exercise on the participant which could result in significant penalties for errors through section 134 of the Act.
86. If non-compliance is discovered (i.e. industrial gas CERs used to surrender) then we propose:
  - There would be a one month period to surrender appropriate units. The existing discretion under s134 is seen as inadequate, as it requires voluntary disclosure on part of the participant in order to avoid significant penalties. As there will be no automated system in operation and the only assistance participants will receive is in the form of guidance, officials consider that an opportunity to rectify non-compliance (in relation to surrendering industrial gas CERs only) should be given.
  - If non-compliance was not rectified in that one month then the surrender would be treated as if it had never happened. This non-compliance would then trigger the s134 penalty regime.

## Monitoring, evaluation and review

87. Certain NZ ETS-related information is already being collected for each surrender period, for the purpose of the annual Chief Executive's Report, as required under section 89 of the CCRA. One such piece of information is the number of participants who failed to comply with their surrender obligation.
88. The Environmental Protection Authority, which will in future be responsible for collecting this information, commits to collecting and storing information relating to this proposal. This information will include:
  - The number of participants who surrendered banned CERs and how many they surrendered.

- The number of participants in non-compliance due to the fact that they surrendered banned CERs and did not replace them within the one month grace period.
  - Number of participants against which enforcement action is taken due to their surrender of banned CERs.
89. This will allow the proposed ban to be monitored, to make sure participants are not using banned CERs to meet their surrender obligations under the NZ ETS.