Regulatory Impact Statement

Climate Change (Synthetic Greenhouse Gases) Regulations 2010

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry for the Environment. It provides an analysis of policy options for resolving issues that were identified from consultation on draft regulations, which provided for importers, exporters, manufacturers and destroyers of synthetic greenhouse gases to estimate their greenhouse gas emissions, thereby fulfilling part of their obligations under section 62 of the Climate Change Response Act 2002 (CCRA). The work has benefited from submissions, further conversations with stakeholders, and interdepartmental analysis.

Because of the limited information on the number of persons importing or exporting synthetic greenhouse gases contained in goods, the policy proposals advanced by this statement contain gaps, uncertainties and assumptions. Further policy development to assist the implementation of regulations will be targeted at filling in information gaps and testing assumptions, where possible.

The policy proposals will not impair private property rights, market competition, or override fundamental common law principles.

There are compliance costs on participants who import and manufacture synthetic greenhouse gases as they have mandatory obligations under the CCRA. Voluntary compliance costs will exist for participants who export or destroy synthetic greenhouse gases as those activities are not mandatory. The policy proposals contained in this statement reduce potential compliance costs to the minimum while providing positive incentives for businesses to innovate and invest, in line with the objectives of the CCRA.

There are no implementation risks. Implementation engagements and communications will assist people who will be voluntarily reporting in 2011 to understand the regulations.

Kevin Currie, Director

25/8/2010

Status quo and problem definition

Status Quo

1. The Crown is required to manage national greenhouse gas emissions under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol.
2. The Kyoto Protocol requires the Crown to control emissions over the 2008 to 2012 period to be no more than five times 1990 emissions, or purchase emission units to make up for any excess emissions. The synthetic greenhouse gas (SGG) sector does not have unit surrender obligations under the NZ ETS until after the Kyoto period 2008 to 2012. However for the assessment of fiscal costs this analysis assumes a continuation of the Kyoto commitment after 2012. So, if net national emissions from SGG activities as reported in the New Zealand Greenhouse Gas Inventory ("Inventory") are more than the total emissions as reported from SGG participants under the NZ ETS, there is a fiscal cost to the Crown[1].
3. The SGG emissions reported in the Inventory and covered under the Kyoto Protocol are:
    - Sulphur hexafluoride (SF_6); used as an insulator for high voltage electrical equipment. The majority of SF_6 is used in electrical equipment, particularly electricity generation, transmission and distribution.
    - Perfluorocarbons (PFCs); NZ's main source is the Tiwai Point aluminium smelter (these emissions are included in the aluminium smelting industrial processes sector). Some very small amounts are used in stationary refrigeration.
    - Hydrofluorocarbons (HFCs); mainly used in the stationary and mobile refrigeration industries. They are also used in specialist aerosol applications and in fire protection equipment.
4. Emissions of SGGs reported in the Inventory in 2008 were 830,000 tonnes of carbon dioxide equivalent (t CO_2-e) and valued at $42 million (at $50 per emission unit[2]).
5. Although they are chemically similar and used in similar applications, ozone depleting substances controlled by the Montreal Protocol are not included in the NZ ETS.
6. There are multiple sectors involved in importing and exporting SGGs, potentially involving many thousands of participants. The majority of these participants are involved in importing used vehicles which have small charges of HFC contained in their air conditioning systems. Much larger amounts of HFCs are imported in bulk containers for use in manufacturing industries, as well as contained in commercial refrigeration and air conditioning equipment. A much smaller number of participants are involved in the importation of SF_6.
7. The Climate Change Response Act 2002 ("CCRA") imposes mandatory requirements on persons manufacturing or importing SGGs either in bulk or in equipment from 1 January 2012. There are exemptions for medical uses (for example asthma inhalers) and when the gases are contained in imported equipment that is accompanied by the owner and not intended for sale or gifting.
8. The CCRA permits persons to apply to be a participant for the export or destruction of SGGs from 1 January 2012. These activities are described as 'removal activities' as they result in the removal of potential emissions from New Zealand.

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[1] The Inventory estimates actual emissions that arise from the use of synthetic greenhouse gases. Users of these gases are not necessarily the same people who will be reporting on activities in the NZ ETS, hence the Inventory and the NZ ETS will report different activity.

[2] $50 per emission unit is used consistently through this paper, as this is the standard price for all analysis of post 2013 NZ ETS sectors

9. At the current time, there is no manufacture or destruction of SGGs in New Zealand. Any destruction of SGGs is performed in Australia. Removing those waste SGGs for destruction falls into the activity description of exporting.

10. Section 62 of the CCRA states that a participant must calculate the emissions and the removals from the activity in accordance with the methodologies prescribed in regulations made under the Act. Regulations, as allowed under section 163 of the Act, will prescribe the data or other information that must be collected, as well as the methodologies that must be followed to calculate greenhouse gas emissions or removals. This the authority for the regulations that this regulatory impact statement is considering.

11. Section 60 of the CCRA permits exemptions to be made by Order in Council. Before recommending the making of an Order in Council exemption, the Minister must be satisfied that it will not materially undermine the environmental integrity of the NZ ETS, and that the costs of the Order do not outweigh the benefits.

12. Persons with obligations, including those who have applied to become participants in respect of their removal activities, are required to report on their 2012 calendar year activities by 31 March 2013. Persons with obligations are required to report on their 2013 calendar year SGG importing or exporting activities by 31 March 2014 and either surrender the necessary number of emission units by 31 May 2014 or be awarded emission units for removal activities.

13. There is a need to establish practical and accurate methods in regulations so SGG participants can meet their reporting obligations under the NZ ETS. The requirements for data collection and verification are intended to provide the right balance between simplicity and the robustness of emissions returns. It is important that emissions returns are robust as both the liabilities of SGG participants to surrender emission units, as well as the Crown's liability to transfer units for removal activities, are based upon their emissions returns.

14. The Act provides for voluntary reporting of SGG activities from 1 January 2011. Promulgation of regulations in 2010 will enable voluntary reporting to be undertaken with an understanding of the requirements that will apply when reporting becomes mandatory. Voluntary reporting allows participants to trial the prescribed methods and their internal data collection and management systems without penalty for non-compliance.

15. An agreed RIS that accompanied Cab Min (10) 19/7 contained analysis on policy problems and solutions. It was agreed that regulations would be developed for consultation that prescribed methodologies, allowed for some exemptions, minimised underreporting, and managed administrative and compliance costs for participants and the Crown.

16. The draft regulations:

    a) Provided default methodologies for calculating emissions and removals from importing and exporting synthetic greenhouse gases based on a simple quantity multiplied by the global warming potential of the chemical

    b) Provided certain exemptions from obligations that were mirrored in the removals regulations for activities such as importing planes or ships that were travelling as part of an international journey, or goods for personal non-business use

    c) Provided a threshold for importing synthetic greenhouse gases contained in motor vehicles of 100 t CO_2-e so that if a person imported less than this amount in a year, then that person would not be a mandatory participant in the NZ ETS.

17. Submissions on the draft regulations and subsequent analysis identified the need for additional policies to be reflected in the regulations to address particular problems. This RIS analyses those policies against the original set of objectives.

Problems to be solved

18. The threshold of 100 t CO_2-e of synthetic greenhouse gas contained in imported motor vehicles, as mandated by Cab Min (10) 19/7, creates two distortions. Firstly, unlike other sectors, motor vehicles importers a highly varied in size[3]. It is inevitable that a number of people will be competitively disadvantaged by the threshold where they are only slightly above it. Such impacts are not realised in other sectors where thresholds have been set according to reasonably well know 'steps' between sizes of participant activity. The second part of the issue is it is well known that motor vehicle importers are able to change corporate structures rapidly in order to take advantage of thresholds. Such behaviours undermine the environmental integrity of the NZ ETS.

19. As the regulations are currently drafted, any person importing a particular synthetic greenhouse gas mixture (HFC 245fa/365mfc) will be a full participant in the NZ ETS. Very small quantities of this mixture are imported into New Zealand for use in the manufacture of insulation foam. However, emissions from using this mixture are not included New Zealand's obligations under the Kyoto Protocol and should not therefore be part of the NZ ETS.

20. The final problem is that consultation has identified that most ships and planes that are imported contain very little synthetic greenhouse gases in their air conditioning or refrigeration systems (below 3 t CO_2-e). Consequently it is probable that persons importing ships or planes will experience high compliance and administrative costs relative to the total emissions from the activity.

Objectives

21. The objectives of any intervention is to:
    a) Align the methodologies that participants will use to calculate their emissions or removals under the NZ ETS, as closely as practicable, to the principles and methodologies used to calculate the Inventory thus avoiding fiscal risk to the Crown;
    b) Minimise transaction and compliance costs to participants in terms of the information that must be collected and reported;
    c) Minimise administrative costs, including costs associated with verification and ensuring compliance, for the NZ ETS administrator;
    d) Provide the best price signal including if possible, incentives for improved emissions efficiency, and avoid creating perverse incentives;
    e) Provide participants with certainty so that the methodologies are known ahead of time.

22. The regulatory impact analysis is grouped into the three policy problems for discussion.

Regulatory impact analysis

Problem 1 – impacts from threshold

23. Submissions on the 100 t CO_2-e threshold for SGG imported in motor vehicles noted the perverse incentive for importers to restructure operations in order to fall below the

[3] Using 2007 Customs New Zealand and Ministry of Transport data, 32 people imported more than 1000 motor vehicles in the calendar year, whereas nearly 4400 people imported just a single motor vehicle. 308 people imported between 50 and 500 motor vehicles.

threshold. This is apparently easily and commonly performed by motor vehicle importers. Submissions also noted the inequitable effect of the threshold on persons whose activity was just above it.

24. One policy solution to those issues is to remove the threshold. However this would create significant administrative and compliance costs for both the Crown and the sector, as there are many thousands of motor vehicles importers. A full analysis justifying the threshold is set out in the RIS for Cab Min (10) 19/7.
25. A second policy solution is to allow a deduction of 100 t CO_2-e for any person who imports SGG contained in motor vehicles. This will reduce the incentives to restructure operations and prevents inequitable treatment.
26. This policy solution will result in fiscal risk for the Crown. Such a deduction will have a fiscal impact of about $1 million per year from 2013, assuming $50 per emission unit. The threshold itself is forecast to have a fiscal impact of $1.5 million per year.
27. Assessing this policy solution against the objectives indicates that objectives (b) and (c) are met, in that the policy solution will further reduce administrative and compliance costs for the NZ ETS administrator and for participant. While there will be the same number of participants, there will be less emission units required to be purchased and surrendered.
28. Objective (d) is partially realised by this policy solution. It will reduce perverse incentives and not create additional ones however it will result in a reduced price signal particularly for those participants slightly above the threshold.
29. Objective (e) is certainly met, in that these regulations will be promulgated at least a year before they are required to be used in mandatory reporting.
30. This policy solution does not change the achievement of objective (a) by the methodologies as set out in the draft regulations. The methodologies, as discussed in the RIS for Cab Min (10) 19/7, are necessarily different to the methods used in the Inventory. The Inventory reports actual emissions, whereas the NZ ETS imposes a cost on potential, rather than actual, emissions.
31. In conclusion, while the second policy solution has flaws, particularly in not meeting objective (a) and partial achievement of objective (d), , it is the best option for managing the policy problems.

Problem 2 – HFC 245fa/365mfc mixture

32. As identified in the problem description, some very small quantities of the SGG mixture HFC 245fa/365mfc are imported into New Zealand for use in the manufacture of insulation foam. It has not had a global warming potential assigned to it by the Intergovernmental Panel on Climate Change and emissions are not included in New Zealand's obligations in the Kyoto Protocol. Including this mixture within the NZ ETS[4] risks imposing a financial cost on persons, when the government has no requirement to manage those emissions under the current international framework.
33. The clear policy solution is to exempt persons who import this HFC mixture from NZ ETS obligations. This policy solution will meet all the objectives, but will result in a small fiscal cost compared to inclusion of these emissions in the NZ ETS, because emission units will not be surrendered for the activity. The Inventory noted approximately 800kg of

[4] Under the Climate Change Response Act 2002, any person who imports HFC in bulk or inequipment is a mandatory participant. Certain exemptions are prescribed, but are not relevant to this mixture.

emissions of this mixture in 2008, or 760 t CO_2-e. At $50 per emissions unit, this is a fiscal cost of $38,000 per year.

34. As per problem 1, objectives (b), (c) and (e) are met, there is no impact on objective (a), and partial achievement of objective (d).

Problem 3 – Ships and planes and the 100tCO_2e threshold

35. As noted in paragraph 17 above, the threshold of 100 t CO_2-e for SGGs contained in or attached to vehicles was consulted on. Submissions noted that in respect of this threshold, a broader definition of 'vehicle' could encompass ships and aeroplanes. Very few aircraft and ships are imported into New Zealand annually, and those that do usually contain only very small amounts of SGG.

36. Regarding objectives (b) and (c), the threshold will minimise administrative and compliance costs through reducing the number of potential participants. Extending the coverage of the threshold to aircraft and ships further reduces these costs, and has no impact on the environmental integrity of the NZ ETS primarily because emissions from those sources are not currently estimated in the Inventory as the sources and amounts of potential emissions are so small and uncertain.

37. Such an extension of the coverage of the threshold will have some fiscal cost. However, this is impossible to estimate as there is no knowledge of the amount of synthetic greenhouse gases that enter NZ contained in the air conditioning or refrigeration of aircraft or ships. One aviation industry submission on the draft regulations stated that they knew of no-one that undertakes that activity. A second submitter noted that only a few aircraft are imported that contain synthetic greenhouse gases, and that those amounts are small[5]. An exemption to this background is the importation of offshore fishing boats into New Zealand for the first time. It is possible that such boats contain quantities of synthetic greenhouse gases greater than the threshold, and therefore the person undertaking the activity would be a mandatory participant in respect of the gas.

38. For objective (d), extending the threshold this way would reduce some price impacts on participants. However, given the likely purchase cost of the aircraft or ship, the price incentives of the NZ ETS were expected to be of minimal importance to affected participants and would represent unwanted administrative costs.

39. Objective (e) is met.

40. Comments in paragraph 29 on objective (a) also apply to this problem.

41. There would no perverse incentives or competitive distortions from such an extension due to the small amounts of synthetic greenhouse gases involved and their specific uses.

42. In conclusion and as per problems 1 and 2 above, objectives (b), (c), and (e) are met, while there is no impact on objective (a) and partial achievement of objective (d).

Consultation

43. Consultation after Cab Min (10) 19/7 on draft regulations was performed over four weeks from the end of June 2010. Submissions were received from most of the potential participants (or their representative associations). All submissions have been published on the Ministry for the Environment website. That consultation has given rise to the policy problems identified above.

[5] Civil Aviation Authority noted that a 19 passenger Beechcraft 1900DT would be likely to contain about 2.7 tCO2e

44. There were many more issues raised in consultation that were outside the scope of the draft regulations. Motor vehicle importing associations and bodies were especially interested in alternative policies to the NZ ETS, including a fixed charge per vehicle on border entry, using existing levy collection systems. Matter such as these cannot be considered and developed by this set of regulations as they are outside the scope of the original policy problems and the Climate Change Response Act 2002.

45. A draft of this RIS was circulated to the following departments for comment: the Treasury, the Ministry for Agriculture and Forestry, the Ministry of Economic Development, the Ministry of Foreign Affairs and Trade, the Ministry of Transport and Te Puni Kokiri. The Department of Prime Minister and Cabinet was informed. Departments agree with the preferred options.

Conclusions and recommendations

46. This RIS considers three problems that have arisen from consultation on draft regulations. It weighs possible policy solutions to those problems using the same objectives that were used in the development of the methodologies and policies for the draft regulations.

47. The conclusions of the analysis are that:

    a) The first 100 t CO_2-e of synthetic greenhouse gases contained in imported motor vehicles will not be counted in the emissions returns of a person who carries out that activity

    b) Persons who import HFC 245fa/365mfc will be exempt as participants in respect of that activity

    c) The threshold of 100 t CO_2-e of synthetic greenhouse gases contained in imported motor vehicles will be extended to include persons who import synthetic greenhouse gases contained in the air conditioning or refrigerations systems of aircraft or ships

Implementation, Perverse Outcomes and Risks

Perverse outcomes

48. The policy recommendations above will have no perverse outcomes.

Implementation risks

49. The policy recommendations above will have no implementation risks other than through explanations to stakeholders on the outcomes of their submission points.

50. In particular, many submitters on the draft regulations wished to see the 100 tCO2e apply across all importing synthetic greenhouse gas activities. As was noted in the RIS that accompanied Cab Min (10) 19/7, such a threshold would have potentially significant competitiveness impacts on domestic manufacturers in the New Zealand market. Consequently, such extension is not recommended by this RIS.

51. Exempting persons who import the synthetic greenhouse gas mixture HFC 245fa/365mfc has a risk in that future international agreements may require the government to include any emissions of the mixture in its international accounting. Consequently, if this occurs then there should be a reconsideration of this exemption.

52. Pending Cabinet approval, the NZ ETS Synthetic Greenhouse Gas Regulations and amendments to the other Removals Activities Regulations will be promulgated by 1 October 2010. Following this, there will be a period of targeted stakeholder engagement with the sector to inform them of the final design of the regulations. This will include the development and dissemination of guidance materials, regional workshops for all participants and individual case management for certain participants. The NZ ETS Synthetic Greenhouse Gas Regulations and related amendments to the other Removals Activities Regulations will come into effect on 1 January 2011.

Monitoring, evaluation and review

53. Compliance and enforcement of the regulations will be in accordance with the Subpart 4 of Part 4 of the Act that sets out the provisions relating to offences and penalties. The proposed regulations are to be administered by the chief executive of the Ministry of Economic Development as part of his role in administering the Act.

54. The government can review regulations at any time. Furthermore, the regulations may be reviewed in the context of the scheduled reviews of the operation and effectiveness of the NZ ETS, as required by section 160 of the Act. The first review is to be completed by the end of 2011.