Unclassified

Office of the Minister for Climate Change Issues

Industrial Allocation under the New Zealand Emissions Trading Scheme: Group One Activities

Proposal

1. This paper seeks agreement to the following:
    a. Providing allocation to specific eligible industrial activities.
    b. Rates of assistance for eligible industrial activities.
    c. Electricity allocation factors used to calculate emissions per megawatt hour of electricity used.

Executive summary

2. From 1 July 2010 the surrender obligations under the NZ ETS will apply to the stationary energy and industrial processes sectors. As a result, firms will face costs in respect of greenhouse gas emissions. The Climate Change Response Act 2002 (the Act) provides for industrial allocation to lessen the impact of the NZ ETS on the firms most heavily affected by the introduction of a price on carbon. The Act prescribes initial levels of assistance of 90% for highly emissions-intensive activities and 60% for moderately emissions-intensive activities.[1] This paper proposes activities that should be eligible for industrial allocation and rates of assistance for those activities.

3. Section 161A of the Act provides for regulations to be made prescribing activities that are eligible for industrial allocation. Industrial allocation provides firms with certainty of the cost impact of the NZ ETS before the surrender obligations come into force on 1 July 2010. This will facilitate a smooth transition to a low carbon economy and prevent the loss of competitiveness of emissions-intensive, trade-exposed firms through providing emission units to partially offset cost increases resulting from the New Zealand Emissions Trading Scheme (NZ ETS). This paper proposes that the following activities (Group One activities) should be prescribed as eligible industrial activities under the Act. The paper also makes proposals regarding specific matters relating to each activity, as well as electricity allocation factors that apply more widely.

Aluminium	Burnt Lime	Carbamide (urea)	Cartonboard
Caustic soda	Ethanol	Hydrogen peroxide	Market pulp
Methanol	Newsprint	Packaging paper	Tissue paper

4. Group One activities represent the first tranche of activities for which industrial allocation regulations will be proposed. It is estimated that Group One activities represent 52% of the number of units that will initially be allocated for eligible industrial activities. Further Cabinet papers will follow in August and September

[1] An activity is classified as highly emissions-intensive if it generates more than 1,600 tonnes carbon dioxide equivalent (tCO_2-e) per million dollars revenue; and moderately emissions-intensive if it generates between 800 and 1,600 tCO_2-e per million dollars revenue.

covering further activities that meet the emissions intensity threshold for eligibility for industrial allocation.

5. Industrial allocation regulations must prescribe an activity description[2] for each eligible industrial activity and the products to be used as the basis for an allocation.[3] I propose that the activity descriptions and prescribed products set out in the proposed regulations should be the same in substance as those previously used in notices issued under the Act to collect data on these activities (as set out in Appendix 3). Any significant change to activity descriptions and prescribed products is likely to require further consultation and a further data collection process.

6. In order to qualify for industrial allocation, activities must be moderately or highly emissions-intensive (as defined under section 161C(1)) and satisfy the trade exposure test set out in section 161C(1)(c) of the Act. I am satisfied that the activities for which regulations are proposed satisfy these requirements.

7. The rate at which a firm carrying out an eligible industrial activity will receive units depends on the activity's emissions intensity classification[4] and allocative baseline(s).[5] I propose that the regulations prescribe the emissions intensity classifications and allocative baselines set out in Appendix 1 calculated from data submitted by firms for this purpose. The initial per annum fiscal cost of industrial allocation for Group One activities (excluding aluminium smelting) is estimated at $36m (for a full year of production).

8. The Act allows the regulations to prescribe electricity allocation factors, which are used to calculate 'emissions' per megawatt hour of electricity used. Electricity allocation factors have already been used for the purposes of data collection and will be incorporated into the proposed allocative baselines to be prescribed in the regulations. At this point in time, the electricity allocation factor does not need to be specified as the regulations do not use an Australian eligible industrial activity as a basis for the proposed New Zealand eligible industrial activity. However, it is desirable in the interests of transparency for electricity allocation factors to be prescribed in the regulations. I propose a factor of 1 tCO_2-e/MWh to calculate emissions intensity for the purposes of eligibility, and a factor of 0.52 tCO_2-e/MWh for calculating allocative baselines.

9. The Act contains the ability to adjust allocative baselines where particular electricity supply arrangements affect the electricity price increase a particular firm faces. Information obtained from New Zealand Aluminium Smelters Limited (NZAS) enables electricity pass-through costs that NZAS faces for 2010 to be determined with reasonable certainty at this point. The information also indicates that these costs will potentially vary significantly from year to year. I propose that an allocative baseline of 2.556 tCO_2-e / basis of allocation applies

[2] A firm must carry out an activity as set out in an activity description in order to be eligible for industrial allocation.

[3] The product(s) for each activity sets out the unit for measuring production volume, upon which number of units allocated in a year is based.

[4] The Act provides that an activity qualifies for an initial 90% level of assistance if it generates more than 1,600 tonnes carbon dioxide equivalent (tCO_2-e) per million dollars revenue; and an initial 60% level of assistance if it generates between 800 and 1,600 tCO_2-e per million dollars revenue.

[5] An allocative baseline is a benchmark rate of emissions per unit of production that is used to calculate the amount of allocation for an activity.

to NZAS' provisional allocation for 2010. I also propose that the number is used as a placeholder for the 2010 final and 2011 provisional allocations, but propose that these factors be revisited with a view to updating the regulations each year. I intend to present an approach to ongoing updates to NZAS' baselines to Cabinet shortly. The fiscal cost of allocation for aluminium over the 1 July 2010 to 31 December 2010 period is estimated at [Deleted] (for six months of production).

10. In general, the proposals in this paper represent the technical application of the industrial allocation provisions of the Act. I do not anticipate that there would be any significant stakeholder reaction to these proposals.

Background

Industrial allocation

11. From 1 July 2010 the surrender obligations under the NZ ETS will apply to the stationary energy and industrial processes sectors. As a result, participants in these sectors will face obligations and a price on emissions. In many cases this price will be passed through to consumers through higher energy prices.

12. The NZ ETS provides for industrial allocation to facilitate the smooth transition towards a carbon free economy and to lessen the impact on the firms most heavily affected by the introduction of a price on carbon. These are firms that face a large increase in costs as a result of the scheme (because they are emissions-intensive), but will not be able to pass on those costs through higher prices (because they are trade-exposed). Firms may be unable to pass on costs in light of competing firms that are not subject to a comparable cost on emissions in their home countries.

13. Some of the firms to which industrial allocation applies will have obligations as participants in the NZ ETS. Other firms will not face direct obligations but will be subject to energy price increases from 1 July 2010 (e.g. increased electricity, natural gas and coal prices). These price increases are expected to arise through participants passing on the costs of obligations under the scheme to consumers.

14. On 14 September 2009, Cabinet agreed the major design parameters for industrial allocation [CAB Min (09) 33/9 refers]. Among other things, Cabinet decided that:

    a. Eligible activities will be required to meet trade exposure and emissions intensity tests.

    b. Allocation will be based on industry average emissions intensity for each activity.

    c. Industrial allocation should only be provided for emissions from coal, natural gas, geothermal fluid, used oil, waste oil, steam generation and electricity.[6]

[6] Cabinet agreed that industrial allocation should be provided for emissions from liquid fossil fuels if an activity's eligibility is based on eligibility in Australia. However, this approach for developing regulations is not applicable at this time.

Content of regulations

15. On 7 December 2009, the major design parameters for industrial allocation were enacted through the Climate Change Response (Moderated Emissions Trading) Amendment Act 2009. The Climate Change Response Act 2002 (the Act) provides that regulations may be made prescribing eligible industrial activities for the purposes of allocation and prescribing, as appropriate, the elements in respect of each activity that qualifies for industrial allocation, including the following:

    a. **Activity description.** A description of the input(s), transformation, and output(s) that constitute a specific activity.

    b. **Prescribed products.** Units for measuring production volume, which determine the number of units a firm receives in a given year.

    c. **Emissions intensity classification.** Classification that determines the level of assistance for which an activity qualifies.

    d. **Allocative baseline(s).** Benchmark rate of emissions per unit of production that is used to calculate the amount of allocation for an activity.

Data collection process

16. In order to determine the proposed emissions intensity classifications and calculate proposed allocative baselines, it was necessary to collect data for each activity under section 161D of the Act. This required the development of activity descriptions and prescribed products for each activity.

17. Section 161E of the Act required certain matters to be considered before setting activity definitions. Section 161F(2) also required consultation on activity descriptions and prescribed products prior to requesting data from firms. On 27 October 2009, Cabinet authorised the publication of a consultation document on the details of industrial allocation [CAB Min (09) 38/7 refers]. The industrial allocation consultation document was released in December 2009.[7]

18. The consultation document proposed activity definitions for the purposes of data collection. Each activity definition included a description of the activity, prescribed products, types of emissions to be included in data submitted and types of emissions to be excluded. Proposed activity definitions were based on those developed in Australia for assistance under the proposed Carbon Pollution Reduction Scheme.

19. Following consultation, activity definitions for the purposes of data collection were finalised. Calls for data for the following Group One activities were issued under section 161D of the Act and published in the *New Zealand Gazette* on 26 March and 31 March [10-B-00502 and 10-B-00643 refer]:

Aluminium	Burnt Lime	Carbamide (urea)	Cartonboard
Caustic soda	Ethanol	Hydrogen peroxide	Market pulp
Methanol	Newsprint	Packaging paper	Tissue paper

[7] Ministry for the Environment. 2009. *Development of Industrial Allocation Regulations under the New Zealand Emissions Trading Scheme: Consultation Document.* Wellington: Ministry for the Environment.

20. Group One activities represent the first tranche of activities for which industrial allocation regulations will be proposed. It is estimated that Group One activities represent 52% of the number of units that will initially be allocated for eligible industrial activities. Group One also covers the majority of highly emissions-intensive activities (that are expected to be eligible for an initial 90% level of assistance). It was initially anticipated that Group One activities would represent well over 80% of the number of units initially allocated for eligible industrial activities. However, the process has been slower than expected for two highly emissions-intensive activities - iron and steel manufacturing from iron sand and production of cement - due to issues in defining activities and the time requested by firms to collect data.

21. Data has now been received from firms carrying out Group One activities. The provision of data by firms was based on a self-assessment model. There were no requirements for mandatory third-party audits or verification. However, the Act specifies a series of offences and penalties for providing altered, false, incomplete or misleading information. All data submitted by firms has been subject to a process to assess the risk of errors or inaccuracies associated with data resulting in incorrect emissions intensity classifications or allocative baselines.[8]

22. Data collection has been, or is currently being, undertaken for the following further activities (Group Two activities) to assess whether they meet the emissions intensity threshold to qualify for industrial allocation:

Brick making	Capsicums	Carbon steel	Cement
Cucumbers	Gelatine	Glass containers	Iron & steel
Lactalbumin	Lactose	Milk minerals	Protein meal
Roses	Tomatoes	Whey cheese	Whey powder
Whey protein	Wood panels		

23. A slower timeframe has been necessary in respect of Group Two activities. Some of them are New Zealand-specific activities that had not been identified prior to the December 2009 publication of the industrial allocation consultation document. Therefore, further consultation was required in defining activities. Furthermore, for some activities firms required a longer period to collect data on emissions and revenue. Further Cabinet papers will follow in August and September covering these and any further activities that meet the emissions intensity threshold for eligibility. There may also be proposals for any new activities that emerge and meet the eligibility requirements under the Act.

Electricity allocation factors

24. The Act provides for regulations to specify electricity allocation factors to calculate 'emissions' per megawatt hour of electricity used. Where particular electricity supply arrangements apply, the Act also provides for the regulations to take these into account in prescribing relevant allocative baselines.

[8] The Ministry for the Environment contracted PricewaterhouseCoopers to check a complete set of data was submitted by each firm and assess the risk of errors or inaccuracies associated with data resulting in incorrect emissions intensity classifications or allocative baselines.

Comment

Activity descriptions and prescribed products

25. Under the Act, firms are entitled to allocation if they carry out an eligible industrial activity. The Act provides that regulations may prescribe eligible industrial activities and other elements relevant to those activities, including as appropriate, a description of the input(s), transformation, and output(s) that constitute a specific activity. Regulations may also prescribe the products to be used as a basis for allocation for a specific activity.

26. With the exception of the activities of carbamide (urea), cartonboard, market pulp, and packaging and industrial paper, stakeholders did not raise significant issues with activity definitions proposed in the consultation document. Accordingly, activity definitions used to collect data for most activities were consistent with those proposed in the consultation document. Appendix 2 sets out issues raised, and amendments made in response to submissions, in respect of carbamide (urea), cartonboard, market pulp, and packaging and industrial paper.

27. I propose that the activity descriptions and prescribed products set out in regulations should be the same in substance as those used to collect data on activities. Any significant change to activity descriptions and prescribed products is likely to require further consultation and a further data collection process. There was full consultation under the Act prior to the activity and product descriptions being included in the calls for data and the information gathered is specific to those descriptions. Furthermore, there has been no feedback following the issuing of the calls for data that would provide grounds for the activity and product descriptions to be changed.

28. In respect of some activities, firms have indicated that their production of certain products was zero during the 2006/07 – 2008/09 period. Furthermore, it is my understanding that firms do not currently produce these products. Where this is the case, I propose that the relevant products should not be prescribed in regulations as there is currently no data available to calculate relevant allocative baselines.

29. Proposed activity descriptions and prescribed products are set out in Appendix 3.

Trade exposure

30. In order to qualify for industrial allocation as a prescribed eligible industrial activity, an activity must be trade-exposed. Section 161C(1)(c) of the Act provides that an activity is trade-exposed unless, in the Minister's opinion,-

    a. there is no international trade of the output of the activity across oceans; or

    b. it is not economically viable to import or export the output of the activity.

31. I am satisfied that the outputs for all proposed Group One activities are internationally traded across oceans and could viably be economically imported or exported. Therefore, these activities should be classified as trade-exposed.

Emissions intensity classifications and allocative baselines

32. As outlined above, firms are entitled to allocation if they carry out an eligible industrial activity. The number of units a firm receives for production in a given year is calculated using the following formula:

    Allocation = Level of Assistance × Quantity of Production × Allocative Baseline

33. The Act provides for initial levels of assistance of 90% for highly emissions-intensive activities and 60% for moderately emissions-intensive activities. An activity is classified as highly emissions-intensive if it generates more than 1,600 tonnes carbon dioxide equivalent (tCO_2-e) per million dollars revenue; and moderately emissions-intensive if it generates between 800 and 1,600 tCO_2-e per million dollars revenue. Allocative baselines are based on historic data and are calculated from total emissions divided by total production.

34. Based on the data submitted by firms, I propose the emissions intensity classifications and allocative baselines set out in Appendix 1 are prescribed in regulations.

35. The allocative baselines for aluminium smelting conducted by New Zealand Aluminium Smelters Limited (NZAS) are subject to adjustments that account for the impact of electricity contracts. This is discussed in detail below.

Electricity allocation factor

36. The Act allows the regulations to prescribe electricity allocation factors, which are used to calculate 'emissions' per megawatt hour of electricity used. Electricity allocation factors have already been used for the purposes of data collection and will be incorporated into the proposed allocative baselines to be prescribed in the regulations. At this point in time, the electricity allocation factor does not need to be specified as the regulations do not use an Australian eligible industrial activity as a basis for the proposed New Zealand eligible industrial activity. However, it is desirable in the interests of transparency for electricity allocation factors to be prescribed in the regulations.

37. An electricity allocation factor of 1 tCO_2-e/MWh has been used to calculate emissions intensity for the purposes of eligibility. This factor was used to ensure comparability with activities that would have received assistance under the proposed Australian Carbon Pollution Reduction Scheme. An electricity allocation factor of 0.52 tCO_2-e/MWh has been used to calculate proposed allocative baselines. This was the factor proposed in 2008 by the Stationary Energy and Industrial Process Technical Advisory Group (SEIP TAG) to offset the expected increase in electricity price as a result of the introduction of the NZ ETS. This factor was intended to reflect increases in electricity price to the end of 2012 and will need to be periodically updated. I propose that these factors are published in regulations.

Aluminium

38. Specific electricity supply arrangements mean it is appropriate to prescribe specific allocative baselines for aluminium smelting. The Act contains the ability to adjust allocative baselines where particular electricity supply arrangements affect the electricity price increase a particular firm faces. The rationale for this

power is to prevent large over-allocations where electricity related contracts prevent a full pass-through of electricity costs.

39. The industrial allocation consultation document on industrial allocation was used to identify large electricity users (those who use greater than 2000 GWh in a year at a single site) conducting potentially eligible industrial activities. This process identified one entity, New Zealand Aluminium Smelters Limited (NZAS).

40. I have since used my powers under section 161D of the Act to request electricity contracts and related information from NZAS. [Deleted] In particular the analysis suggests:

    a. An average pass-through of electricity costs to NZAS during the transition phase (until 2013) of [Deleted] compared with the pass through of 0.52 tCO_2-e/MWh that would otherwise be assumed.

    b. Using the default pass-through of 0.52 tCO_2-e/MWh would result in an average over-allocation to NZAS of [Deleted] during the transition phase.

    c. The actual pass-through to NZAS during the 2010 to 2012 period is likely to be significantly higher or lower than the average value above.

41. The implication of this analysis is that, to reflect the actual electricity costs to NZAS, the allocative baseline for NZAS would need to be amended at the beginning of 2011, 2012 and 2013 to ensure that final allocations more accurately reflect the pass-through of electricity costs to NZAS.

42. To achieve this, I intend to seek Cabinet policy agreement that mechanical amendments to the industrial allocation regulations be proposed every year via a paper to Cabinet Legislation Committee that contains updated allocative baselines calculated using an algorithm derived from the analysis of NZAS' electricity contracts. Officials are currently in the process of finalising an algorithm in consultation with NZAS.

43. It is proposed that regulations would need to be updated promptly at the start of each year to ensure that there is time for NZAS to apply for, and receive, allocation. In the event that regulations cannot be updated at the start of a given year, the approach contains "placeholder" baselines for future years. This will allow the transactions required by the Act to be completed with a view to any corrections being made subsequently.

44. In the meantime, I propose that regulations are made covering NZAS' provisional final allocation for 2010. This can be completed now because the structure of NZAS' contracts means that electricity price pass-through for NZAS in 2010 can be determined with a large amount of certainty at this point (officials estimate this as [Deleted]).

45. This results in a baseline for NZAS of 2.556 tCO_2-e/basis of allocation for 2010. I also propose that a placeholder baseline of the same value is included for NZAS 2011 provisional allocation to ensure that NZAS can complete all required transactions in 2011 in the event that updating regulations are delayed.

Consultation

46. This paper was prepared by the Ministry for the Environment. The Ministry of Agriculture and Forestry, Ministry of Economic Development, Ministry of Foreign Affairs and Trade, Ministry of Transport and the Treasury were consulted and concur with the content of this paper.

47. The Department of the Prime Minister and Cabinet was also informed.

48. Section 161F of the Act prescribes consultation requirements that must apply prior to determining activity definitions for the purposes of issuing notices for the purposes of data collection under section 161D. These consultation requirements have been complied with in relation to each of the proposed eligible industrial activities set out in this paper. Accordingly, the activity descriptions and prescribed products proposed in this paper have been subject to consultation.

Financial implications

49. The Climate Change Response Act 2002 provides for allocation to people who carry out eligible industrial activities and appropriations broadly account for this fiscal cost. Determining eligibility, emissions intensity and allocative baselines for specific activities will affect the overall fiscal cost for industrial allocation. Based on the emissions intensity classifications and allocative baselines outlined in this paper, the fiscal costs of industrial allocation for each activity are estimated as follows:[9]

Activity	Fiscal cost ($m)				
	2010/11	2011/12	2012/13	2013/14	2014/15
Aluminium	[Deleted]				
Burnt lime					
Carbamide (urea)					
Cartonboard					
Caustic soda					
Ethanol					
Hydrogen peroxide					
Market pulp					
Methanol					
Newsprint					
Packaging paper					
Tissue paper					

[9] Estimates are based on the 50% progressive obligation and a carbon price of $25 per unit to the end of 2012, and a full obligation and carbon price of $50 per unit after 2012. [Deleted]

Activity	Fiscal cost ($m)				
	2010/11	2011/12	2012/13	2013/14	2014/15
Total (excluding Aluminium)	**53.8**	**35.9**	**143.4**	**143.4**	**143.4**

50. The fiscal cost of allocation for aluminium over the 1 July 2010 to 31 December 2010 period is estimated at [Deleted] (for six months of production). Given specific electricity supply arrangements, the electricity price increases affecting NZAS may vary significantly from year to year. I intend to seek Cabinet policy agreement to amend regulations prescribing allocative baselines annually. This means the fiscal cost of allocation for aluminium may vary significantly from year to year. Initial estimates indicate that these fiscal costs could range between [Deleted] per annum to the end of 2012 and between [Deleted] per annum after 2012.[10] Although the approach to allocation to NZAS generates uncertainty as to fiscal costs from year to year, it is preferable to applying a fixed allocative baseline for NZAS which would be likely to result in significant under- or over-allocation.

51. Under the Act, firms may apply for provisional allocation at the beginning of a calendar year (or half year in the case of 2010). Provisional allocation is provided in respect of upcoming production for the year in which it is provided, and is subject to a true up at the end of a specified year whereby the number of units transferred is reconciled with actual production. Due to the commencement of surrender obligations for the stationary energy and industrial processes sectors from 1 July 2010, there will be two sets of provisional allocation transactions in the 2010/11 financial year. Therefore, costs incurred in 2010/11 represent allocation in respect of production from 1 July 2010 to 31 December 2011. The final accounting treatment of these provisional allocation transactions is being considered by the Treasury and the Ministry for the Environment. The initial per annum fiscal cost of industrial allocation for Group One activities (excluding aluminium smelting) is estimated at $36m (for a full year of production).

52. Based on data received for Group One activities, it is estimated that the overall fiscal cost of industrial allocation will be slightly less than previously estimated. I currently estimate that I will not need to seek any increase above total appropriations for NZ ETS allocations as a result of these costs, and related costs for Negotiated Greenhouse Agreements (NGAs) that Cabinet agreed to charge against the same appropriation on 26 May. However, due to the timing of provisional allocation transactions outlined above, the timing of appropriations may need to be adjusted and agreed by Cabinet.

53. In addition to the activities outlined above, further activities are also being assessed to determine their eligibility for industrial allocation. The overall fiscal cost of industrial allocation will depend on the eligibility and rates of assistance

[10] Estimates are based on the 50% progressive obligation and a carbon price of $25 per unit to the end of 2012, and a full obligation and carbon price of $50 per unit after 2012.

for further activities. Any final appropriation timing changes required will be set out in the third Cabinet paper for industrial allocation.

54. In the Crown's financial statements, NZ ETS revenue and expenses have been modelled as neutral for the years post-2012 as New Zealand currently has no international commitments post-2012.

55. Furthermore, even once eligibility and rates of assistance have been established for Group One and further activities, the precise fiscal cost of industrial allocation will be uncertain. Given industrial allocation is intensity-based, the precise fiscal cost depends on the volume of production from each firm. It will also depend on the applicable allocative baseline for NZAS in each year. As a result of these factors, costs associated with industrial allocation could fluctuate by tens of millions of dollars from year to year. I intend to update Cabinet annually on estimates of the fiscal cost of industrial allocation and any relevant impact on appropriations.

Human rights

56. There are no inconsistencies between the proposal and the Human Rights Act 1993.

Legislative implications

57. Prescribing specific activities as eligible industrial activities for the purposes of allocation of New Zealand units under the Act requires regulations to be made under section 161A of the Climate Change Response Act 2002. I recommend that drafting instructions for regulations to achieve this purpose be issued to the Parliamentary Counsel Office (PCO). Because of the complex nature of the technical issues in these proposed regulations and the proposed timeframes, preliminary drafting instructions have been issued to PCO.

Regulatory impact analysis

Regulatory Impact Analysis requirements

58. The Regulatory Impact Analysis requirements apply to the proposal. A Regulatory Impact Statement (RIS) has been prepared and is attached.

Quality of the Impact Analysis

59. The Regulatory Impact Analysis Team (RIAT) has reviewed the RIS prepared by the Ministry for the Environment and associated supporting material, and considers that the information and analysis summarised in the RIS meets the quality assurance criteria.

Consistency with Government Statement on Regulation

60. I have considered the analysis and advice of my officials, as summarised in the attached Regulatory Impact Statement and I am satisfied that, aside from the risks, uncertainties and caveats already noted in this Cabinet paper, the regulatory proposals recommended in this paper:

    - are required in the public interest
    - will deliver the highest net benefits of the practical options available, and

- are consistent with our commitments in the Government statement "Better Regulation, Less Regulation".

Publicity

61. It is important to provide firms with maximum certainty about the amount of allocation they will receive as soon as practicable. In order to achieve this I propose that this Cabinet paper is proactively released with sensitive information withheld consistent with the Official Information Act 1982.

62. Subject to approval of the matters above, I propose to bring a further paper to Cabinet shortly recommending that regulations be made prescribing eligible industrial activities for the purposes of industrial allocation under the New Zealand Emissions Trading Scheme. Once regulations have been made and notified in the *New Zealand Gazette* I propose to directly notify firms carrying out eligible industrial activities of their entitlement to apply for industrial allocation.

Recommendations

63. The Minister for Climate Change Issues recommends that Cabinet:

1. Approve the making of regulations under section 161A of the Climate Change Response Act 2002, prescribing the following activities as eligible industrial activities and approve the activity descriptions, prescribed products, emissions intensity classifications and allocative baselines in Appendices 1 and 3 for each of the following activities:

1.1. Production of burnt lime

1.2. Production of carbamide (urea)

1.3. Production of cartonboard

1.4. Production of chlorine gas and sodium hydroxide (caustic soda) solution

1.5. Production of high purity ethanol

1.6. Production of hydrogen peroxide

1.7. Production of market pulp

1.8. Production of methanol

1.9. Production of newsprint

1.10. Production of packaging and industrial paper

1.11. Production of tissue paper

2. Approve the electricity allocation factor of 1 tCO_2-e/MWh for the purposes of determining eligibility

3. Approve the electricity allocation factor of 0.52 tCO_2-e/MWh for the purposes of determining allocative baselines (the factor proposed in 2008 by the Stationary Energy and Industrial Processes Technical Advisory Group for use until the end of 2012, which will need to be periodically updated)

4. Approve the activity description, prescribed product and emissions intensity classification for aluminium smelting

5. Approve the allocative baseline of 9.687 tCO2-e/basis of allocation for aluminium smelting not conducted by New Zealand Aluminium Smelters Limited

6. Approve the following initial allocative baselines for aluminium smelting conducted by New Zealand Aluminium Smelters Limited:

    6.1. Baseline applying to 2010 provisional allocation: 2.556 tCO2- e/basis of allocation

    6.2. Baseline applying to 2010 final allocation: 2.556 tCO2-e/basis of allocation

    6.3. Baseline applying to 2011 provisional allocation: 2.556 tCO2-e/basis of allocation

7. Note the Minister for Climate Change Issues intends to seek Cabinet agreement to an approach for making mechanical annual updates to allocative baselines for New Zealand Aluminium Smelters Limited to reflect the operation of their electricity contracts

8. Note the initial per annum fiscal cost of industrial allocation for Group One activities (excluding aluminium) is estimated at $36m (for a full year of production); the overall fiscal cost will depend on eligibility and rates of assistance for further activities that are also being assessed

9. Note it is estimated that the overall fiscal cost of industrial allocation will be slightly less than previously estimated, but the precise cost is uncertain due to its dependence on production volumes for each activity and the need to annually calculate the allocative baseline for New Zealand Aluminium Smelters to reflect electricity supply arrangements

10. Note changes to the timing of appropriations may need to be made and these will be submitted to Cabinet at a later date

11. Note the fiscal cost of allocation for aluminium over the 1 July 2010 to 31 December 2010 period is estimated at [Deleted] (for six months of production)

12. Agree that the Minister for Climate Change Issues may issue drafting instructions to Parliamentary Counsel Office to draft regulations

13. Invite the Minister for Climate Change Issues to present a further paper to Cabinet shortly seeking approval of regulations prescribing eligible industrial activities under the Climate Change Response Act 2002

14. Agree that this Cabinet paper should be proactively released with sensitive information withheld consistent with the Official Information Act 1982

15. Authorise the Minister for Climate Change Issues to directly notify firms carrying out eligible industrial activities of their entitlement to apply for industrial allocation and to undertake any other necessary publicity for this purpose

16. Invite the Minister for Climate Change Issues to present further papers to Cabinet seeking agreement to providing industrial allocation to further activities that satisfy emissions intensity and trade exposure tests under the Climate Change Response Act 2002

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Hon Dr Nick Smith
Minister for Climate Change Issues
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Appendix 1: Emissions intensity classifications and allocative baselines

Activity	Emissions intensity	Product	Allocative baseline
Aluminium	High	Primary aluminium (other than NZAS)	9.687
		Primary aluminium (NZAS 2010 provisional allocation)	2.556
		Primary aluminium (NZAS 2010 final allocation)	2.556
		Primary aluminium (NZAS 2011 provisional allocation)	2.556
Burnt lime	High	Burnt lime	1.428
Carbamide (urea)	High	Carbamide (urea)	1.620
Cartonboard	High	Cartonboard	1.117
		Pulp from woodchips / sawdust	0.4633
		Pulp from recovered paper	0.3183
Caustic soda	High	Caustic soda	1.606
Ethanol	Moderate	Ethanol	1.465
Hydrogen peroxide	High	Hydrogen peroxide	1.381
Market pulp	High	Low yield pulp	0.5853
		High yield, low freeness pulp	1.338
		High yield, high freeness pulp	1.014
Methanol	High	Methanol	0.7847
Newsprint	High	Newsprint	0.4911
		Pulp from woodchips / sawdust	1.323
Packaging paper	High	Packaging paper	0.4558
		Pulp from woodchips / sawdust	0.5100
		Pulp from recovered paper	0.0934
Tissue paper	Moderate	Tissue paper	1.197
		Pulp from woodchips / sawdust	0.7646

Appendix 2: Main issues associated with activity descriptions and prescribed products

Carbamide (urea)

1. The industrial allocation consultation document contained a proposed activity description for the production of carbamide (urea) from ammonia. An activity description for the production of ammonia was subsequently released in Australia. Ballance Agri-Nutrients (Kapuni) Limited submitted that ammonia and urea production should be treated as a single, integrated activity.

2. Following consultation, I issued a call for data for the integrated activity of ammonia and urea production. My preference for an integrated activity was based on its consistency with the matters under section 161E of the Act, as technical advice indicates that it would be unlikely for bulk ammonia to be tradable in New Zealand in the foreseeable future. Furthermore, in the absence of any trade in bulk ammonia, I consider that the competitiveness of ammonia production is directly dependent on urea production and vice versa. [Deleted]

Cartonboard, market pulp and packaging and industrial paper

3. The proposed activity descriptions for cartonboard, market pulp and packaging and industrial paper specified inputs as wood chips, sawdust, wood pulp and/or recovered paper. Carter Holt Harvey submitted that logs should also be specified as an input for all of these activities. I decided not to make this amendment to the activity description on the basis that this would include the process of making wood chips, which are considered to be an intermediate product that can be substituted for bought-in inputs. However, where ground wood pulp is produced through an integrated process from log billets, no saleable intermediate product (such as wood chips) is produced. Therefore, I decided to modify the cartonboard activity description to accommodate this.

4. Following consultation, I decided to amend the market pulp activity description proposed in the consultation document to reflect the nature of the pulp products produced in New Zealand.

5. I decided to alter the market pulp activity description to provide for three allocative baselines (one for each type of pulp) under the one pulp activity definition. This decision represents a compromise between the key parts of the industry and ensures allocation reflects the different emissions intensities of the different types of pulp, but also that no producer is significantly disadvantaged in moving away from the activity definition proposed in the consultation document (which was based on the activity definition under the proposed Australian Carbon Pollution Reduction Scheme).

6. I also decided the moisture content range of the pulp was expanded following industry submissions. Again, this reflects the nature of the New Zealand market pulp industry.

Multiple allocative baselines

7. Some industry members questioned whether the use of multiple allocative baselines for a single activity is allowed, from a legal perspective. This issue is

relevant to market pulp, as well as cement, carbon steel, cartonboard, newsprint, packaging and industrial paper and tissue paper. [Deleted] Accordingly calls for data and prescribed products proposed in this paper incorporate the use of multiple allocative baselines.

Appendix 3: Activity descriptions and prescribed products

Aluminium smelting (Aluminium)

Activity description

The physical and chemical transformation of alumina (aluminium oxide, Al2O3) into saleable aluminium metal (Al) where:

(a) the output of this activity is saleable aluminium metal.

Product(s)

Tonnes of primary aluminium (Al) as weighed after electrolysis but before casting with a purity equal to or greater than 98 per cent, and which result from carrying out the activity as defined.

Production of burnt lime (Burnt lime)

Activity description

The physical and chemical transformation through the calcining process of calcium and magnesium sources (eg, calcium carbonate ($CaCO_3$) and magnesium carbonate ($MgCO_3$)) into saleable burnt lime where the output is:

(a) burnt lime with a calcium oxide (CaO) and/or magnesium oxide (MgO) mass content equal to or greater than 60 per cent.

Product(s)

Tonnes of burnt lime with calcium oxide (CaO) and/or magnesium oxide (MgO) mass content equal to or greater than 60 per cent which result from carrying out the activity as described and are of saleable quality.

Production of carbamide (urea) (Carbamide (urea))

Activity description

The production of carbamide (urea) by the chemical transformation of hydrocarbons (or other hydrogen and carbon feedstocks) and nitrogen to produce carbamide solution ($CO(NH_2)_2$(aq), urea), where the concentration of carbamide ($CO(NH_2)_2$, urea) is greater than or equal to 80 per cent with respect to mass, and subsequent production of the following outputs:

(a) carbamide solutions ($CO(NH_2)_2$(aq), urea); and/or

(b) saleable granulated, prilled or other solid forms of carbamide ($CO(NH_2)_2$(s), urea).

Product(s)

The total tonnes of dry weight carbamide ($CO(NH_2)_2$, urea) that are:

(a) produced by carrying on the activity; and

(b) of saleable quality.

Production of cartonboard (Cartonboard)

Activity description

The physical transformation of wood chips, sawdust, log billets, wood pulp and/or recovered paper to produce rolls or sheets of cartonboard, where:

(a) the outputs of this activity are saleable cartonboard which has a grammage range of 150 g/m^2 to 500 g/m^2, a moisture content in the range of 4 to 11 per cent by weight, and be generally used as a cartonboard product such as kraft liner, multiply and other paperboard.

Product(s)

(a) tonnes of rolls or sheets of coated or uncoated cartonboard where the product has a grammage range of 150 g/m^2 to 500 g/m^2, a moisture content in the range of 4 to 11 per cent by weight, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

(b) air dried tonnes (90 per cent bone dry fibre, 10 per cent moisture content) of equivalent pulp produced directly from wood billets, from wood chips and/or sawdust and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

(c) air dried tonnes (90 per cent bone dry fibre, 10 per cent moisture content) of equivalent pulp produced directly from recovered paper, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

Production of chlorine gas and sodium hydroxide (caustic soda) solution (Caustic soda)

Activity description

The production of chlorine gas and sodium hydroxide (caustic soda) solution by the chemical transformation of sodium chloride solution (NaCl(aq), brine) to chlorine (Cl_2(l,g)) and sodium hydroxide solution (NaOH(aq), caustic soda solution) where the sodium hydroxide (NaOH) production is 1:1.13 times the production of chlorine (Cl_2) by mass, where the outputs include:

(a) chlorine (Cl_2(l,g)); and

(b) sodium hydroxide solution (NaOH(aq), caustic soda solution), which must have a concentration of sodium hydroxide (NaOH) equal to or greater than 14 per cent with respect to mass.

The chemical reaction involved in this chemical transformation is:
$2NaCl(aq) + 2H_2O(l)$ _ $2NaOH(aq) + Cl_2(g) + H_2(g)$

Product(s)

The total tonnes of 100 per cent equivalent dry weight sodium hydroxide (NaOH, caustic soda) that are:

(a) produced by carrying on the activity;

(b) not recycled back into the activity; and

(c) of saleable quality.

Production of high purity ethanol (Ethanol)

Activity description

The production of high purity ethanol by the chemical transformation of fermentable sugars (such as $C_6H_{12}O_6$ or $C_5H_{10}O_5$ or $C_{12}H_{22}O_{11}$ or $C_{18}H_{32}O_{16}$) to ethanol (C_2H_5OH) and the subsequent purification process to obtain a solution of high purity ethanol where the outputs include:

(a) high purity ethanol, which must have a concentration of ethanol (C_2H_5OH) equal to or greater than 95 per cent with respect to volume.

Product(s)

The total kilolitres of 100 per cent ethanol (C_2H_5OH) equivalent at 20°C assuming a density of ethanol (C_2H_5OH) of 789.24 kg/m^3 at 20°C that are:

(a) produced by carrying on the activity; and

(b) of saleable quality.

Production of hydrogen peroxide (Hydrogen peroxide)

Activity description

The production of hydrogen peroxide by the chemical transformation of hydrogen (H) feedstocks and oxygen (O) feedstocks to produce a crude aqueous hydrogen peroxide solution where the concentration of hydrogen peroxide (H_2O_2(aq)) is equal to or greater than 39 per cent with respect to mass, and subsequent production of saleable aqueous hydrogen peroxide solutions where the outputs include:

(a) aqueous hydrogen peroxide solutions, which must have a concentration of hydrogen peroxide (H_2O_2(aq)) equal to or greater than 34 per cent with respect to mass.

Product(s)

The total tonnes of 100 per cent equivalent hydrogen peroxide (H_2O_2)) that are:

(a) produced by carrying on the activity; and

(b) of saleable quality.

Production of market pulp (Market pulp)

Activity description

The physical transformation of wood chips, sawdust, wood pulp and/or recovered paper to produce rolls and/or bales of market pulp, provided that the market pulp must be dried to a moisture content of 4 to 20 per cent by weight and be generally used in paper manufacturing, fibre cement products and/or in the production of sanitary products, where the outputs include:

(a) low yield pulp with a fibre recovery less than or equal to 80 per cent bone dry (BD) fibre by mass on dry (BD) wood input and a moisture content of 4 to 20 per cent by weight; and/or

(b) high yield and low freeness pulp with a fibre recovery greater than 80 per cent bone dry (BD) fibre by mass on dry (BD) wood input, a Canadian Standard Freeness of less than 150 millilitres and a moisture content of 4 to 20 per cent by weight; and/or

(c) high yield and high freeness pulp with a fibre recovery greater than 80 per cent bone dry (BD) fibre by mass on dry (BD) wood input, a Canadian Standard Freeness of greater than or equal to 150 millilitres and a moisture content of 4 to 20 per cent by weight.

Product(s)

Equivalent air dry tonnes (ADT ie 90% dry fibre,10% moisture) of:

(a) low yield pulp with a fibre recovery less than or equal to 80 per cent bone dry (BD) fibre by mass on dry (BD) wood input and a moisture content of 4 to 20 per cent by weight; and/or

(b) high yield and low freeness pulp with a fibre recovery greater than 80 per cent bone dry (BD) fibre by mass on dry (BD) wood input, a Canadian Standard Freeness of less than 150 millilitres and a moisture content of 4 to 20 per cent by weight; and/or

(c) high yield and high freeness pulp with a fibre recovery greater than 80 per cent bone dry (BD) fibre by mass on dry (BD) wood input, a Canadian Standard Freeness of greater than or equal to 150 millilitres and a moisture content of 4 to 20 per cent by weight that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

Production of methanol (Methanol)

Activity description

The production of methanol by the chemical transformation of one or more of hydrocarbons, hydrogen feedstocks, carbon feedstocks, and oxygen feedstocks to produce liquid methanol (CH_3OH) where the outputs include:

(a) liquid methanol (CH_3OH), which must have a concentration equal to or greater than 98 per cent with respect to mass.

Product(s)

The total tonnes of 100 per cent equivalent methanol (CH_3OH) that are:

(a) produced by carrying on the activity; and

(b) of saleable quality.

Production of newsprint (Newsprint)

Activity description

The physical transformation of any or all of wood chips, sawdust, wood pulp and/or recovered paper to produce rolls of uncoated newsprint,
where:

(a) the output of this activity is uncoated newsprint that has a grammage range of 30 g/m^2 to 80 g/m^2, a moisture content in the range of 6 to 11 per cent by weight, and is generally used as a newspaper product.

Product(s)

(a) tonnes of rolls of uncoated newsprint, where the product must have a grammage range of 30 g/m^2 to 80 g/m^2, a moisture content in the range of 6 to 11 per cent by weight, and be generally used as a newspaper product that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

(b) air dried tonnes (90 per cent bone dry fibre, 10 per cent moisture content) of equivalent pulp produced directly from wood chips and/or sawdust, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

Production of packaging and industrial paper (Packaging paper)

Activity description

The physical transformation of wood chips, sawdust, wood pulp and/or recovered paper to produce rolls of uncoated packaging and industrial paper, where:

(a) the output of this activity is uncoated packaging or industrial paper that has a grammage range of 30 g/m^2 to 500 g/m^2, a moisture content in the range of 4 to 12 per cent by weight and be generally used as a packaging or industrial paper product such as kraft liner; recycled or multiply liner; medium, sack and bag papers; wrapping papers; plasterboard liner; horticultural paper; building papers; but excluding cartonboard as defined in the Call for the Provision of Data (Production of Cartonboard) Notice 2010.

Product(s)

(a) tonnes of saleable rolls of uncoated packaging or industrial paper that has a grammage range of 30 g/m^2 to 500 g/m^2, a moisture content in the range of 4 to 12 per cent by weight, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

(b) air dried tonnes (90 per cent bone dry fibre, 10 per cent moisture content) of equivalent pulp produced directly from wood chips and/or sawdust, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

(c) air dried tonnes (90 per cent bone dry fibre, 10 per cent moisture content) of equivalent pulp produced directly from recovered paper, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

Production of tissue paper (Tissue paper)

Activity description

The physical transformation of wood chips, sawdust, wood pulp and/or recovered paper to produce rolls of uncoated tissue paper, where:

(a) the output of this activity is uncoated tissue paper that has a grammage range of 13 g/m^2 to 75 g/m^2, a moisture content in the range of 4 to 11 per cent by weight, and is generally used as a tissue paper product such as facial tissue, paper towel, bathroom tissue or napkins.

Product(s)

(a) tonnes of rolls of uncoated tissue paper where the product has a grammage range of 13 g/m^2 to 75 g/m^2, a moisture content in the range of 4 to 11 per cent by weight, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.

(b) air dried tonnes (90 per cent bone dry fibre, 10 per cent moisture content) of equivalent pulp produced directly from wood chips and/or sawdust, and that is:

(i) produced by carrying on the activity as described; and

(ii) of saleable quality.