

**TECHNICAL ADVISORY GROUP  
STATIONARY ENERGY AND INDUSTRIAL  
PROCESS COMPONENT  
OF THE  
NEW ZEALAND EMISSIONS TRADING SCHEME**

INTERIM REPORT

9 July 2008

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## Summary

### Purpose of this interim report

This report is an interim progress report from the SEIP TAG to the government. The paper sets out:

- a) progress to date
- b) outstanding issues
- c) next steps

### Role of the SEIP TAG

The SEIP TAG was established to provide guidance and advice on technical design elements of the stationary energy and industrial process emissions components of the NZ ETS. The SEIP TAG comprises 16 experts, including government officials (three) and industry experts (see membership list in Annex I).

The key task of the SEIP TAG is to provide advice to the government **on options for providing assistance to industry.**

Some clarification is warranted at the outset as to what is meant by assistance to industry in this context and related terminology, for example, free allocation. One of the key principles underlying the proposed ETS legislation is that emitters face the full cost of their emissions. Firms face this full cost through the obligation to surrender NZUs for every tonne of their emissions. Most New Zealand firms will face increased costs of production under the ETS due to either being required to surrender NZUs to cover their emissions or due to facing higher energy and fuel costs. Many firms will be able to pass a portion of these costs down the supply chain to their customers. However many firms, typically those in trade exposed sectors, will not be able to pass the bulk of these costs on. **To reduce the impacts on firms unable to pass these costs on**, two forms of assistance were considered by the Government in its Framework Document of 2007. The first being through the provision of free allocation and the other through a progressive obligation (the focus of a separate sub group discussed further on). Both of these options and related design issues were referred to the SEIP TAG for further evaluation.

Specific issues related to this task are:

- a) Defining and evaluating different options for free allocation or other assistance.
- b) As part of the above, defining thresholds (size and scope) for assistance, rules for entry, trade exposure tests, recognition of early action etc
- c) Defining activity data and emission factors to assess the basis for free allocation or other assistance
- d) Defining points of obligation and in particular advising on whether and how to administer opt ins/carve outs
- e) Advising on specific issues about electricity – how to assess the impacts of emission prices on costs of electricity, as an input to options for assistance

The Terms of Reference of the TAG do not extend to design features that are specifically addressed as provisions in the Bill, for example the definition of emission obligation. For this reason participation in the TAG is in no way indicative of support by members of the TAG for the design features of the ETS laid out in the Bill.

What has become apparent from the work of the TAG over recent months is that it will not be possible to achieve unanimity on all issues. As is highlighted later on in this report, some

industry members and officials on the TAG have, in some cases, clearly stated differing positions on the implications of the legislative framework in which the TAG is working. It is also evident from the work of the regulations sub-group that differing commercial opinions will inevitably lead to contrasting views on a number of issues. This is also expected to arise to some extent as the TAG advances its work on allocation methodologies. While the TAG has agreed to seek unanimity to the extent possible, where this is not possible, reservations from individuals or groups of members will be duly noted.

## **Progress to date**

The SEIP TAG has now met on nine occasions. The TAG has set up a number of work streams/sub-groups to progress issues in more detail. These include:

1. **Data requirements**
2. **Methodologies (Regulations) sub-group**
3. **Eligibility sub group**
4. **Allocation sub group**
5. **Progressive obligation sub group and**
6. **Sub-group on electricity market price effects**

Informed by the work of sub groups the TAG has reached a number of provisional recommendations and mapped out a work programme for the next 3 months. **All recommendations are provisional.** The TAG has agreed that no recommendations are final until their work is completed.

### **1. Data issues**

Much of the focus of the TAG to date has been on the need for good quality firm specific data. While progress has been made in accessing existing databases, concerns remain about the adequacy of existing data as a basis for comparing the different allocation methodologies. As a consequence the TAG is looking to complement existing data with a search for new additional data including projections.

### **2. Methodologies**

The Methodologies (Regulations) sub-group was tasked with developing methodologies for the activities related to the:

- Stationary Energy and Industrial Process sector, Schedule 3, Part 3 and 4
- Opt in for stationary energy, Schedule 4, Part 4
- Other removal activities, Schedule 4, Part 2, Subpart 1

The methodologies sub-group, after reviewing the provisions of the draft Bill, has systematically examined each activity listed under the stationary energy, industrial processes and opt in sections. The group has summarised its work in a final report, attached in Annex III to this report.

### **Next steps**

Officials anticipate releasing an exposure draft of the SEIP Regulations by the end of July.

### 3. Eligibility

Informed by the work of the sub group on eligibility the TAG has provisionally recommended that the primary rationale for providing assistance in the form of free allocation of NZUs is to avoid *economic regrets*<sup>1</sup>. Consequently the TAG provisionally agrees that the key criterion for defining eligibility should be a measure of trade exposure.<sup>2</sup>

There should also be the application of a *materiality threshold* (i.e. being trade exposed is of itself not sufficient to be eligible to receive free units). The proposed approach to determining eligibility would be a two step process: A firm/process/product should be eligible if they are:

Firstly trade-exposed and

Secondly their emissions are

- a) above a specified threshold (e.g., 5,000, 10,000, or 50,000 tonnes<sup>3</sup>), or
- b) their emissions costs are greater than a specified proportion of production costs.

A number of members of the TAG have expressed a preference for a low threshold, but a recommendation on this will not be made until analysis of the available data is complete.

### 4. Allocation

The TAG has identified five methodologies, in effect two broad options and a number of variants as set out in Table 1.

**Table 1** Allocation Options

	Emissions-based	Output-based
Initial basis	<b>1(a) Historical emissions</b> Percentage of emissions in historical year(s)	<b>2(a) Historical output</b> Percentage of output in historical year(s) times an agreed benchmark emissions factor
New entrant reserve	<b>1(b) Historical emissions + new entrant reserve</b> As above, plus a separate new entrant reserve	<b>2(b) Historical output + new entrant reserve</b> As above, plus a separate new entrant reserve
With Updating		<b>2(c) Updated output</b> Percentage of output in a recent year times an agreed benchmark emissions factor

Work on issues associated with a New Entrants Reserve (NER) has commenced.

#### **Next steps**

- Summary paper on the trade exposure test (late July)
- Draft paper on issues relevant to the design of a New Entrant Reserve (late July)

<sup>1</sup> Economic regrets are largely associated with the closure or reduction in output from trade-exposed firms.

<sup>2</sup> It should be noted that some industry members have raised concerns that trade exposure is too narrow a definition of competitiveness at risk. Those members consider that competitiveness at risk should encompass firms that suffer an adverse impact on profits from investments that were made prior to the introduction of the ETS

<sup>3</sup> Note some TAG members have concerns with specifying a threshold at any level.

- Further evaluation of the links between allocation methodologies and choice of eligibility criteria e.g. whether allocation should be on the basis of firm/plant/sector/product/process
- Road testing of allocation methodologies
- Day meeting of the eligibility/allocation sub group on 22 July

## **5. The Progressive obligation**

The TAG has concluded a progressive obligation would not adequately target competitive at risk firms. The progressive obligation option was also considered to be more difficult to administer in an ETS employing an upstream point of obligation. As a consequence the TAG recommends no further work on this option.

## **6. Electricity market price effects**

The price impacts of the NZ ETS on firms with emission intensive processes that produce trade exposed products can occur from direct use of fossil fuels or indirectly via other energy inputs, in particular electricity. For some of these firms, e.g. in aluminium smelting, mechanical pulping and steel recycling, the price impact is expected to be predominately via an increase in the cost of electricity. The SEIP TAG is in the process of establishing a sub-group to advise on how this anticipated increased electricity cost may be quantified.

### **Progress to date – summary**

Overall most progress to date has been in the methodologies work. Evaluation of the progressive obligation as an alternative to the free allocation model and the subsequent recommendation not to proceed with this option is another significant output from the TAG to date.

Work in the eligibility and allocation sub groups has to some extent been held back due to concerns about the availability (or lack of) of relevant firm-specific data to inform recommendations. Much of the focus of the TAG during the past six months has consequently been on data requirements. The TAG generally considers that these issues have now been addressed to a point sufficient to enable the TAG to proceed to the next steps of road testing eligibility criteria and allocation methodologies.

It is relevant also to note that most of the TAG's work to date has proceeded in parallel with the select committee process. Many of the TAG members have been strongly committed in terms of time and resources to that process. With the Select Committee now having reported back to Parliament, and as mentioned above the resolution of some of the data issues, the TAG now expects to be able to proceed into a more intensive phase of work with the focus very much on allocation. TAG members note however, that some changes to the Bill made by the select committee, in particular changes to the legislation enabling new entrants, add another level of complexity to the issues the TAG is addressing.

## Outstanding Issues/Concerns

Industry members of the SEIP TAG have during the past six months raised a number of concerns that are generally specific to key elements of the draft legislation. As such, many of these issues have been raised with and discussed by Select Committee. These issues, while largely outside of the Terms of Reference of the SEIP TAG, are noted here.

- **Concern about the ability to develop an allocation plan within the constraints of the legislation:** Specifically while a number of industry members of the TAG agree that there should be a new entrant reserve, and that intensity based allocation is a good option at this stage of the ETS, these members consider that to do either or both of these within a cap set by 90% of TE 2005 emissions is not feasible, or even logical. Their strong view is that it is not possible to develop a plan that prevents leakage and economic regrets if a new entrant reserve and/or intensity based allocation is provided within the 90% cap. However, the TAG as a group has not yet considered in detail or reached any decisions on the issue of a new entrant reserve or intensity based allocation methodology within the 90% of 2005 emissions cap.
- **Concern about the availability and quality of firm specific data:** Allocation planning requires data and information, particularly with regard to emissions and the risks of leakage. The SEIP TAG's work programme commenced prior to this data being available. Some data, particularly with regard to emissions, is now available. However, more data is required.
- Concern that 90% of 2005 emissions corresponds to significantly less than this level for companies that have increased emissions since 2005, and that setting the cap at this level will result in an insufficient level of free allocation to prevent closure for some firms.
- Concern that liquid fossil fuels used in the stationary energy and industrial process sector do not receive a free allocation. The view held by some industry members is that this 'omission' in the legislation will lead to economic regrets.
- Concern that current drafting in the Bill precludes persons who opt-in under schedule 4, part 4 from receiving a free allocation (even though they could be eligible to receive an allocation because of their increased costs if they did not opt-in).
- Concern that persons who use industrial heat or steam including that from co-generation plants (as a substitute for direct use of coal or gas) are also precluded from receiving a free allocation.
- While the majority of the TAG has reached a provisional agreement that the key criterion for defining eligibility should be a measure of trade exposure, some industry TAG members have raised concerns that trade exposure is too narrow a definition to fully encapsulate the Government's economic regrets criteria. These members consider that competitiveness at risk should encompass firms that suffer an adverse impact on profits from investments that were made prior to the introduction of the ETS (leading to stranded assets).
- A concern has been expressed from some (but not all) industry members that current draft legislation ties a person's ability to opt-in to having purchased coal or gas directly from participants who mined the coal or natural gas. However, other industry members believe the issue of gas market complexity is the reason why opt in for the gas sector is necessarily restricted to direct contractual relationships with the miner to prevent compliance uncertainty.

### *Comment from government members of the SEIP TAG:*

*The Terms of Reference (TOR) of the SEIP TAG do not extend to design features of the NZ ETS that are specifically addressed as provisions in the draft legislation, for example, the size of the total pool of free allocation for industry, and the phase out of free allocation. The reason for defining the TOR of the SEIP TAG in this way is because high level design decisions of this nature involve trade-offs that have equity and economic implications for all sectors of society. The pros and cons of the draft legislative framework for an allocation plan to industry sectors, for example, is of interest to a wide variety of stakeholders and not only those represented on the SEIP TAG.*

*Most of the outstanding issues/concerns listed above relate to design features of the ETS that are set out in the draft legislation and therefore are outside of the TOR of this group. These concerns are duly noted. Industry members of the TAG have made it clear from the outset that their acceptance of the TOR does not imply their acceptance of design features of the proposed NZ ETS contained in the draft legislation. However, as these issues largely fall outside the TOR of the TAG, government officials have not responded to them in the context of this report. Officials on the TAG note that the government's rationale for these high level design decisions has been well explained over an extensive period of consultation and engagement. Furthermore, officials note that the Climate Change Leadership Forum (CCLF) was specifically set up to provide advice to the government on these high level design issues. Finally, officials note that the majority of these issues have been raised before the Finance and Expenditure Committee in submissions from industry stakeholders and have been taken into consideration in their deliberations and the report back from the Committee.*

### **Next steps for the SEIP TAG**

1. First meeting of the electricity emission factor sub group on 1 July
2. Allocation/eligibility sub group full day meeting on 22 July
3. Next full SEIP TAG meeting on the 5<sup>th</sup> of August
4. Further SEIP TAG meetings scheduled for 2 and 30 September
5. Preliminary report on recommendations pertaining to an allocation plan (date tbc)
6. Final report from the SEIP TAG 30 September

## Purpose of this paper

This report is an interim progress report from the SEIP TAG to the government. The paper sets out:

- a) progress to date
- b) outstanding issues
- c) next steps

## Role of the SEIP TAG

The SEIP TAG was established to provide guidance and advice on technical design elements of the stationary energy and industrial process emissions components of the NZETS. The Terms of Reference of the TAG (see Annex II) do not extend to those design features that are specifically addressed as provisions in the draft legislation, for example, the definition of emission obligations, the base year for allocation, and the phase out of assistance. For this reason, participation in the TAG is in no way indicative of support by TAG members for the design features of the ETS as laid out in the Bill.

Parallel technical advisory groups have also been established to provide guidance and advice to the government on technical matters related to the liquid fuels sector and the agriculture sector

## Membership

The SEIP TAG comprises 16 experts, including government officials (three) and industry experts (see Annex I membership list). The TAG is co chaired by Chris Baker (Saunders Unsworth) and Mark Storey (Emissions Trading Group)

## Key Tasks

The Key tasks of the SEIP Tag have been identified as:

1. **To advise on options for providing assistance to industry.** Specific issues related to this task are:
  - a) Defining and evaluating different options for free allocation or other assistance;
  - b) As part of the above, defining thresholds (size and scope) for assistance, rules for entry, trade exposure tests, recognition of early action etc;
  - c) Defining activity data and emission factors to assess the basis for free allocation or other assistance.
2. To advise on other technical design issues to be addressed by the TAG:
  - d) Defining points of obligation and in particular advising on whether and how to administer opt ins/carve outs;
  - e) Advising on specific issues about electricity – how to assess the impacts of emission prices on electricity prices, as an input to options for assistance.

## Progress to date

The SEIP TAG has now met on nine occasions. The TAG has set up a number of sub-groups to progress issues in more detail. These include:

1. **Data requirements**
2. **Methodologies (Regulations) sub-group**
3. **Eligibility sub group**
4. **Allocation sub group**
5. **Progressive obligation sub group**
6. **Sub-group on electricity market price effects**

The need for adequate data to support the TAG's analysis of allocation methodologies has been a significant focus of the TAG to date. While there has not been a specific group set up to address these issues they have been discussed in the wider TAG meetings and in the eligibility sub groups.

Groups 2 (Eligibility) and 3 (Allocation) have merged because of the close overlaps between the issues and the group membership.

The structure of this interim report is based around these **six areas** of work.

### 1. Data issues

The need for comprehensive firm level data has been identified by the TAG as a key requirement for understanding the implications of different eligibility and allocation methodologies.

Focus over the last two months has been on securing access to the Statistics NZ ("SNZ") dataset "Manufacturing Energy Usage Survey 2006" ("MEUS"). SNZ have already supplied some high level analysis to the TAG based on the MEUS data (refer to table 1, in Annex IV). This has enabled us to identify the number of firms and tonnes of emissions at various threshold levels.

However, the TAG also needs to see some more detailed impacts on a sector by sector basis. SNZ cannot currently provide this with the MEUS data because firm confidentiality must be maintained, and a sectoral analysis will enable the usage of some of our major emitters to be identified by deduction (e.g. Rio Tinto in the aluminium sector). To circumvent this issue, SNZ have sent letters to 18 of our major emitters, asking for permission to release their MEUS data to the TAG. This process is currently underway, with the letters sent by SNZ last week. Once these letters have been signed by all the major emitters, we can perform a more detailed sector by sector analysis of the MEUS dataset (see table 2.1 in Annex IV).

There are some other concerns that the MEUS data will not be able to satisfy the specific requirements of the TAG.

- The MEUS data covers stationary energy ("SE") only, so does not include Industrial Process ("IP") emissions. However, MED collects IP data and has been able to estimate the total (SE+IP) emissions (refer to charts 3.1 to 3.3 in Annex IV).
- The MEUS data is only for the single year (ended March 2006). So we are unsure how the 2003 and 2004 years look and also how the industries may have grown since 2005/06. Concern has been expressed about the need for emissions projection information to better improve the group's understanding of how the

different allocation methodologies would impact on growth versus static growth firms, in this regard it has been suggested that the focus should be on the top twenty firms (they account for around 80% of emissions).

- The MEUS data is dominated by a small group of large emitters, so the impact of allocation methodologies on Small to Medium enterprises (“SME’s”) may be more difficult to assess. However, EECA collects “Energy Audit” data for SME’s, and this dataset could be used to supplement the MEUS analysis.
- We also need to consider the Trade exposure test. One approach is to subset the MEUS data using only Industry groups we consider would be trade exposed.

Because total emissions are dominated by a small group of large firms, MED has also been able to source publicly available information on energy usage by these firms. This has enabled some high level analysis of how different allocation methodologies could affect each of these major emitters.

Summing up, the Co-Chair noted that:

- i. MED’s work was proceeding satisfactorily
- ii. The need for an additional survey of smaller firms remained an open question and
- iii. There was high interest in emission projection information for the larger emitters especially

### **Next steps**

- Follow up authorisation letters from major emitters to enable SNZ to produce MEUS threshold tables by industry groups (refer to tables in appendix IV)
- Produce MEUS threshold tables with only trade exposed industry groups included
- Produce growth estimates for top 20 energy emitters
- Review allocation methodology work with MEUS data for major emitters
- Progress other potential data sources such as EECA energy audit database

## **2. Methodologies**

The Methodologies (Regulations) sub-group was tasked with developing methodologies for the activities related to the:

- Stationary Energy and Industrial Process sector, Schedule 3, Part 3 and 4
- Opt in for stationary energy, Schedule 4, Part 4
- Other removal activities, Schedule 4, Part 2, Subpart 1

The sub-group is chaired by Carmen Blackler of Contact Energy and includes representatives from the energy and industrial sectors plus officials experienced in energy and emission reporting matters.

### **Point of obligation and opt in**

An upstream point of obligation is adopted in the draft Bill as was previously outlined in the government consultation document “*The Framework for a New Zealand Emissions Trading Scheme*” published in September 2007. In the stationary energy sector large downstream

users of coal or natural gas may choose to opt in, and become the point of obligation for the coal or natural gas they purchase directly from a mandatory participant.

The NZ ETS framework needs to manage matters like: the export and import of fuels, downstream fuel sales, the potential for orphan carbon liabilities, and situations where the carbon from fuels is embodied in products such as methanol. When products permanently embed emissions or where products temporarily embed emissions and are exported, they do not result in emissions within New Zealand, and therefore, if certain criteria are met, the participant carrying out the embedding will receive an NZU for each tonne of emissions embedded. Complexities in downstream product flows in the gas market in particular make it important to ensure any point of obligation other than at the miner creates no ETS liabilities to unintentionally remain with the miner or any infrastructure owner (e.g. Unaccounted for Gas derived from metering errors etc in the gas transmission system).

### ***Matters considered by the sub-group:***

The methodologies sub-group, after reviewing the provisions of the draft Bill, has systematically examined each activity listed under the stationary energy, industrial processes and opt in sections.

The methodologies sub group has, alongside officials, developed the attached documents:-

- Table of methodologies by activity including point of measurement
- Diagrams (hand drawn) to demonstrate the point of measurement along the supply chain
- Emissions factor table (values to be added by MED)

In addition, the group has summarised its work in a final report, which is also attached for reference (Annex III).

### ***Next steps (for officials)***

Officials anticipate releasing an exposure draft of the SEIP Regulations by the end of July.

## **3. Eligibility**

The Eligibility sub-group, chaired by Hans Buwalda of Fletcher Building, is working on criteria to determine who would be eligible to receive a free allocation of units. The sub group is focusing on a targeted free allocation model – targeted at identifying firms who are trade exposed.

The subgroup on eligibility recommends that the primary rationale for providing assistance in the form of free allocation of NZUs is to avoid economic regrets<sup>4</sup>. Consequently the majority of the TAG has reached a provisional agreement that the key criterion for defining eligibility should be a measure of trade exposure.

Note, some industry members have raised concerns that trade exposure is too narrow a definition to fully encapsulate the government's economic regrets criteria. These members consider that competitiveness at risk should encompass firms that suffer an adverse impact on profits from investments that were made prior to the introduction of the ETS (leading to stranded assets).

Trade exposure has been defined as:

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<sup>4</sup> Economic regrets are largely associated with the closure or reduction in output from trade-exposed firms.

*“Firms that are subject to a high degree of international competition on export markets and/or from imports (or the threat of imports), and the prices they receive for their goods and services do not reflect the cost of carbon”.*

International competition is taken to mean that the goods and services are traded and priced internationally, and the ability for New Zealand firms to pass on costs is constrained.

Incorporation of a carbon cost in prices could be determined either from independent assessment of commodity prices or an assessment of the climate change policies and emissions price of competing countries (Annex I or otherwise).

The eligibility sub group also recommends the application of a materiality threshold (i.e. being trade exposed is of itself not sufficient to be eligible to receive free units). The sub group’s preliminary thinking is that a firm should be eligible for a free allocation if they are:

Firstly trade-exposed and their emissions are:

- Above a specified threshold (e.g., 5,000, 10,000, or 50,000 tonnes<sup>5</sup>), or
- Their emissions costs are greater than a specified proportion of production costs.

The sub-group’s preliminary recommendation is that, in order to ensure administrative transactional efficiency, the absolute threshold in the materiality test should take priority. The implication of this is that an absolute threshold should be set that most of the potentially-eligible trade-exposed would pass (while being certain that it is not so low that it would pass firms that are not energy / emissions-intensive). There will still be some small firms that pass the trade-exposure test, are energy/emissions intensive, yet do not have absolute emissions above the threshold. For these firms, eligibility would need to be established using the test of the materiality of their energy/emissions costs on their manufacturing production costs.

This two-step process to determining eligibility would, if implemented, go some way to addressing the concerns of small businesses that they could meet eligibility requirements. Although the two fundamental tests for eligibility (trade exposure and materiality) are separate, they may be mixed in the decision-tree contained in an on-line application process.

Another option being considered is that if one firm from a sector is eligible, then all other firms in that sector would also be considered eligible. Outstanding issues, depending on the method chosen, include whether eligibility is assessed at a firm or plant level.

An alternative approach being explored by this sub-group is whether the trade exposure test could be based on a product or sector basis (rather than at the firm or plant level). This approach could see certain industrial classification codes (i.e. Australia New Zealand Standard Industrial Classification (ANZSIC)) being listed and eligibility being determined on this basis. This discussion has since been taken up by the Allocation sub-group.

The sub-group now intends to further develop and test proposed criteria using real data. A major issue that has been raised during discussion of the sub group’s work in the TAG is the impact of different eligibility criteria (and tests) on small and medium size businesses.

### **Next steps**

This work programme has now been merged with the work programme on allocation discussed below

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<sup>5</sup> Note some TAG members have concerns with specifying a threshold at any level.

#### 4. Allocation

##### **The Government's rationale for providing assistance to firms in the form of free allocation.**

One of the key principles underlying the proposed ETS legislation is that emitters face the full cost of their emissions. Firms face this full cost through the obligation to surrender NZUs for every tonne of their emissions. Most New Zealand firms will face increased costs of production under the ETS due to either being required to surrender NZUs to cover their emissions or due to facing higher energy and fuel costs. Many firms will be able to pass a portion of these costs down the supply chain to their customers. However many firms, typically those in trade exposed sectors, will not be able to pass the bulk of these costs on. To reduce the impacts on firms unable to pass these costs on, two forms of assistance were considered by the government in its Framework Document of 2007. The first being through the provision of free allocation and the other through a progressive obligation (the focus of a separate sub group discussed further on). Both of these options are being evaluated by the SEIP TAG.

The sub-group on allocation, chaired by Ray Deacon (Rio Tinto), has the task of defining and evaluating different allocation options.

Based on this work the TAG has identified five methodologies, in effect two broad options and a number of variants.

- *allocation on the basis of historical emissions; and*
- *output (i.e. production levels) times some benchmark emissions factor (e.g. tCO<sub>2</sub>/t of product). The benchmark would reflect best practice.*

As variants on this approach we include the potential addition of:

- *a new entrant reserve that would make additional emission units available to new entrants that did not have emissions or output in a historical year; and*
- *an intensity-based approach that uses updated production data as the basis for the level of free allocation.*

Evaluation criteria were presented as follows:

- *Efficient incentives for emission reduction*
- *Incentives for efficiency improvement*
- *Disincentives for leakage with economic regret*
- *Rewards for early action*
- *Certainty*
- *Data availability*
- *Administrative requirements*

In comparing these options it is assumed (as set out in draft legislation) that there is a pool of allowances for free allocation that is fixed. This paper discusses how that pool might be distributed.

The five approaches are set out in Table 2.

**Table 2** Allocation Options

	Emissions-based	Output-based
Initial basis	<b>1(a) Historical emissions</b> Percentage of emissions in historical year(s)	<b>2(a) Historical output</b> Percentage of output in historical year(s) times an agreed benchmark emissions factor
New entrant reserve	<b>1(b) Historical emissions + new entrant reserve</b> As above, plus a separate new entrant reserve	<b>2(b) Historical output + new entrant reserve</b> As above, plus a separate new entrant reserve
With Updating		<b>2(c) Updated output</b> Percentage of output in a recent year times an agreed benchmark emissions factor

Work on issues associated with a New Entrants Reserve (NER) has commenced. Issues identified include:

- Defining what plant is eligible (expansion versus stand alone new capacity)
- Basis for allocation
- Treatment of the carry-forward of emissions from a de-commissioned plant
- Recognition of fuel availability and fuel-switching

#### **Next Steps**

- Summary paper on the trade exposure test (late July)
- Draft paper on issues relevant to the design of a New Entrant Reserve (late July)
- Further evaluation of the link between allocation methodologies and choice of eligibility criteria e.g. whether allocation should be on the basis of firm / plant / sector / product / process
- Road testing of allocation methodologies (late July)
- Day meeting of the eligibility/allocation sub group on 22 July

### **5. Progressive Obligation**

The Progressive obligation sub-group, chaired by Craig Palmer of Solid Energy, has concluded that a progressive obligation would not adequately target competitive at risk firms. The progressive obligation option was also considered to be more difficult to administer in an ETS employing an upstream point of obligation. As a consequence the sub-group recommended no further work on this option. This recommendation was agreed to by the TAG.

### **6. Electricity market price effects**

The price impacts of the NZ ETS on firms with emission intensive processes that produce trade exposed products can occur from direct use of fossil fuels or indirectly via other energy inputs, in particular electricity. For some of these firms, e.g. in aluminium smelting, mechanical pulping and steel recycling, the price impact is expected to be predominately via an increase in the cost of electricity. The SEIP TAG is in the process of establishing a sub-group to advise on how this anticipated increased electricity cost may be quantified (refer to attached charts 3.1 and 3.3, which outline the potential impact of electricity emissions factors) and to consider the process of how the allocation of emission units for such firms might work.

The issue has previously been considered as part of the proposed carbon tax process of 2005. It is envisaged that the material and analysis produced at that time will be made available to the group, and will be utilised to inform the debate. Provision of this background material will be supplied to the sub group before its first meeting on Tuesday, 1 July 2008.

### **Progress to date – summary**

Overall most progress to date has been in the methodologies work. Evaluation of the progressive obligation as an alternative to the free allocation model and subsequent recommendation not to proceed with this option is another significant output from the TAG to date<sup>6</sup>.

Work in the allocation sub groups has to some extent been held back due to concerns about the availability (or lack of) of relevant firm specific data to inform recommendations. Much of the focus of the TAG during the past six months has consequently been on data requirements. The TAG generally considers that these issues have now been addressed to a point sufficient to enable the TAG to proceed to the next steps of road testing eligibility criteria and allocation methodologies.

It is relevant also to note that most of the TAG's work to date has proceeded in parallel with the select committee process. Many of the TAG members have been strongly committed in terms of time and resources to that process. With the Select Committee now having reported back to Parliament, and as mentioned above the resolution of some of the data issues, the TAG now expects to be able to proceed into a more intensive phase of work with the focus very much on allocation. TAG members note however, that the some changes to the Bill made by the select committee, in particular change to the legislation enabling new entrants add another level of complexity to the issues the TAG is addressing.

### **Outstanding Issues/Concerns**

Industry members of the SEIP TAG have during the past six months raised a number of concerns that are specific to key elements of the draft legislation. As such, many of these issues have been raised with and discussed by Select Committee. These issues, while largely outside the Terms of Reference of the SEIP TAG, are noted here.

A number of concerns have been raised by industry members of the SEIP TAG to date:

- **Concern about the ability to develop an allocation plan within the constraints of the legislation:** Specifically while a number of industry members of the TAG agree that there should be a new entrant reserve, and that intensity based allocation is a good option at this stage of the ETS, these members consider that to do either or both of these within a cap set by 90% of TE 2005 emissions is not feasible, or even logical. Their strong view is that it is not possible to develop a plan that prevents leakage and economic regrets if a new entrant reserve and/or intensity based allocation is provided within the 90% cap. However, the TAG as a group has not yet considered in detail or reached any decisions on the feasibility of a new entrant reserve or intensity based allocation methodology within the 90% of 2005 emissions cap.
- **Concern about the availability and quality of firm specific data:** Allocation planning requires data and information, particularly with regard to emissions and the risks of leakage. The SEIP TAG's work programme commenced prior to this

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<sup>6</sup> It is noted that proceeding with the progressive obligation would have required changes to the draft legislation

data being available. Some data, particularly with regard to emissions, is now available. However, more data is required.

- Concern that 90% of 2005 emissions will correspond to significantly less than this level for companies that have increased emissions since 2005, and that setting that the cap at this level will result in an **insufficient level of free allocation** to prevent closure for some firms.
- **Concern that liquid fossil fuels used in the stationary energy and industrial process sector do not receive a free allocation** The advice from some industry members is that this 'omission' in the legislation will lead to economic regrets,
- Concern that current drafting in the Bill precludes persons who opt-in under schedule 4, part 4 from receiving a free allocation (even though they could be eligible to receive an allocation because of their increased costs if they did not opt-in).
- Concern that persons who use industrial heat or steam including that from co-generation plants (as a substitute for direct use of coal or gas) are precluded from receiving a free allocation.
- While the majority of the TAG has reached a provisional agreement that the key criterion for defining eligibility should be a measure of trade exposure some industry members have raised concerns that trade exposure is too narrow a definition to fully encapsulate the government's economic regrets criteria. These members consider that competitiveness at risk should encompass firms that suffer an adverse impact on profits from investments that were made prior to the introduction of the ETS (leading to stranded assets).
- A concern has been expressed from some industry members (but not all) that current draft legislation ties a person's ability to opt-in to having purchased coal or gas directly from participants who mined the coal or natural gas. In their view this does not reconcile with the Select Committee recommendation that 'current opt-in provisions do not adequately reflect the complexity of the gas market, and specifically that the ability to opt-in only one step down the supply chain is too restrictive'. The Select Committee has recommended that this problem be resolved by allowing persons to opt in if they purchase from a wholly owned subsidiary of the miner. However the concern of some industry members is that this does not solve the problem, as the wholesalers are not wholly owned subsidiaries of the miner. However, other industry members believe the issue of gas market complexity is the reason why opt in for the gas sector is necessarily restricted to direct contractual relationships with the miner to prevent compliance uncertainty.

*Comment from government members of the SEIP TAG:*

*The Terms of Reference (TOR) of the SEIP TAG do not extend to design features of the NZ ETS that are specifically addressed as provisions in the draft legislation, for example, the size of the total pool of free allocation for industry, and the phase out of free allocation. The reason for defining the TOR of the SEIP TAG in this way is because high level design decisions of this nature involve trade-offs that have equity and economic implications for all sectors of society. The pros and cons of the draft legislative framework for an allocation plan to industry sectors, for example, is of interest to a wide variety of stakeholders and not only those represented on the SEIP TAG.*

*Most of the outstanding issue/concerns listed above relate to design features of the ETS that are set out in the draft legislation and therefore are outside of the TOR of this group. These concerns are duly noted. Industry members of the TAG have made it clear from the outset that their acceptance of the TOR does not imply their acceptance of design features of the proposed NZ ETS contained in the draft legislation. However, as these issues largely fall outside the TOR of the TAG, government officials have not responded to them in the context of this report. Officials on the TAG note that the government's rationale for these high level design decisions has been well explained over an extensive period of consultation and engagement. Furthermore, officials note that the Climate Change Leadership Forum (CCLF) was specifically set up to provide advice to the government on these high level design issues. Finally, officials note that the majority of these issues have been raised before the Finance and Expenditure Committee in submissions from industry stakeholders and have been taken into consideration in their deliberations and the report back from the Committee.*

## **Next steps for the SEIP TAG**

1. First meeting of the electricity emission factor sub group on 1 July
2. Allocation/eligibility sub group full day meeting on 22 July
3. Next full SEIP TAG meeting on 5 August
4. Further SEIP TAG meetings scheduled for 2 and 30 September
5. Preliminary report on recommendations pertaining to an allocation plan (date tbc)
6. Final report from the SEIP TAG 30 September

## **Annex I: Members of the SEIP TAG**

- Carmen Blackler, Contact Energy
- Chris Baker, Saunders Unsworth
- Craig Palmer, Solid Energy
- David Fletcher, Anzco Foods
- Doug Watson, Fonterra
- Ewan Gebbie, Vector
- George Riddell, Business New Zealand
- Hans Buwalda, Fletcher Building
- James Flexman, Carter Holt Harvey
- John Carnegie, Genesis Energy
- Mark Storey, Emissions Trading Group
- Michael Rynne, Holcim
- Philip Millichamp, Ministry for the Environment
- Ray Deacon, Rio Tinto
- Roger Fairclough, Ministry for Economic Development
- Stuart Frazer, Frazer Lindstrom

## Annex II: Terms of Reference

### TECHNICAL ADVISORY GROUP STATIONARY ENERGY AND INDUSTRIAL PROCESS COMPONENT OF THE NEW ZEALAND EMISSIONS TRADING SCHEME

#### Background

The government has decided in principle that stationary energy and industrial process emissions will be brought into the New Zealand Emissions Trading Scheme (NZETS) on 1 January 2010.

Including stationary energy and industrial processes in the NZETS presents a number of challenges which need to be worked through. Many of these challenges are highly technical in nature, and are attributable to issues such as the complex and specialised nature of industrial processes, complexities in markets and distribution networks for electricity and gas, associated issues of measurement and verification, and economic issues. The Emissions Trading Group (ETG) are therefore seeking a high degree of technical and specialist input from the relevant sectors in developing the policy to implement the stationary energy and industrial process components of the NZETS.

The General Manager<sup>7</sup> (GM) of the Emissions Trading Group is establishing a Technical Advisory Group (TAG) to act as the principal tool for engaging the energy and industrial sectors on the technical design elements of this component of the NZETS. The TAG will comprise technical and policy specialists from the industry and energy sectors, science/technical community and government. The goal is to ensure that the NZETS functions in a sensible and practical manner for the stationary energy and industrial process sectors.

The TAG will contribute to the development of the NZ ETS and via this to outcomes under the New Zealand Energy Strategy. A copy of the government documents *The Framework for a New Zealand Emissions Trading Scheme* and *The New Zealand Energy Strategy* are attached for reference.

#### Membership

The TAG will comprise twelve or fewer technical and policy experts from within industry, government, and the scientific/technical community, with a Chair appointed by the General Manager ETG. Membership shall include:

- One member from the Emissions Trading Group;
- One member from the Ministry of Economic Development;
- One member from the Ministry for the Environment;
- Members with expertise/knowledge in electricity generation or the electricity sector more generally;
- Members with expertise/knowledge of issues relevant to major energy users;
- Members with expertise/knowledge of issues relevant to industrial process emitters;
- Members with expertise/knowledge of issues relevant to Small and Medium Enterprises;

All members of the TAG will be appointed by the General Manager of the ETG. These members will be selected to provide specific technical and/or policy expertise rather than to represent particular interests or interest groups. In deciding the make-up of the TAG a balance of skills will be sought.

The TAG may invite others with relevant expertise to attend meetings from time to time and join sub-groups as necessary.

<sup>7</sup> Note that this role may transfer to the General Manager, Central Government Policy Group, Ministry for the Environment, during 2008.

## Role

The role of the TAG is to provide guidance and advice on technical design elements of the stationary energy and industrial process emissions components of the NZETS. The Terms of Reference of the TAG do not extend to those design features that are specifically addressed as provisions in the Bill, for example, the definition of emission obligations, the base year for allocation, and the phase out of assistance.

(1) A key task of the TAG is to advise on options for providing assistance to industry. Specific issues related to this task are:

- f) Defining and evaluating different options for free allocation or other assistance.
- g) As part of the above, defining thresholds (size and scope) for assistance, rules for entry, trade exposure tests, recognition of early action etc.
- h) Defining activity data and emission factors to assess the basis for free allocation or other assistance

Other technical design issues to be addressed by the TAG include

- i) Defining points of obligation and in particular advising on whether and how to administer opt ins/carve outs
- j) Advising on specific issues about electricity – how to assess the impacts of emission prices on electricity prices, as an input to options for assistance

Other roles of the TAG include:

- (2) Peer review the findings of technical/policy reports and perform a general quality assurance role;
- (3) Participate in a series of wider stakeholder seminars/workshops;
- (4) Facilitate the delivery of a report to ETG outlining key technical considerations and recommendations for areas relevant to the stationary and industrial process sectors, including:
  - Methodologies and processes for monitoring, reporting and verification of emissions;
  - Accounting for mitigation behaviour on site; and
  - Work required for implementation.

In fulfilling its roles, the TAG will uphold the broad NZETS core design/objectives and allocation principles.

## Secretariat

The TAG will be serviced by a special secretariat that will perform both an administrative role and an analytical role. Administrative functions include:

- (1) Coordinating TAG meetings and recording minutes;
- (2) Compiling and distributing meeting papers;
- (3) Coordinating and managing a series of wider stakeholder workshops on the stationary energy and industrial process component of the NZETS; and
- (4) A general facilitation role and other roles.

## Deliverables

The delivery of a report(s) to the General Manager ETG outlining key technical considerations and recommendations for areas relevant to the stationary energy and industrial process sectors as described above.

The Chair of TAG will be invited to report bi-monthly to the ETG.

Reports from the TAG will be forwarded to Ministers and the Climate Change Leadership Forum (CCLF).

Information made available to the TAG or produced by the TAG will be made publicly available at an appropriate time as defined by the Chair in consultation with the General Manager ETG. The ETG retain full privilege to accept or reject the recommendations of the TAG.

### **Meeting process**

The TAG will meet on a monthly basis or more or less frequently as determined by the Chair. A quorum will be half plus one member.

Sub -groups working on specific tasks may be established.

Substitution of membership is allowable with the prior permission of the Chair.

In the absence of the Chair of the TAG, the Chair will appoint an acting Chairperson who will be a member of the TAG.

Members will notify the secretariat within a reasonable time frame if they are unable to attend a meeting.

If a member is absent for more than three meetings without approval of the Chair, their position may be considered vacant.

Minutes of the meeting will be recorded and circulated to members within ten working days of the meeting.

Once endorsed by the TAG, minutes of meetings will be publicly available.

### **Resources**

In addition to the Secretariat' resources some funding for independent analytical work (including joint funding) will be made available subject to budget constraints.

### **Duration**

The TAG will submit a final report on the stationary energy and industrial process emission component of the NZETS by end of September 2008.

The TAG will be deemed to have fulfilled its role upon the delivery of this report, or on the decision of the GM ETG and will disband at that point.

### **Participation in good faith**

The primary role of the TAG is the provision of independent technical and policy advice. Members are therefore expected to participate without prejudice to the policy outcome. Members of the TAG are required to act in good faith and on a 'no surprises' basis.

Information prepared for the TAG or by the TAG will be of interest to member organisations and wider stakeholders. Where information has been made available to members, they may only circulate it where prior approval has been obtained from the Chair.

## **Review / assessment of performance**

The Chair of the TAG in consultation with other members of the group, will conduct a self assessment of performance after four meetings.

The results of the assessment will be forwarded to the General Manager ETG along with any recommendations for revising the terms of reference for the group.

## **Annex III: Summary Report from the Methodologies (Regulations) sub-group**

Members: Carmen Blackler (Chair), Craig Palmer, John Carnegie, James Flexman, Ewan Gebbie, Sara Arhaim (MED, Robin Brasell (MFE)

Contributors: Kennie Tsui, Jim Miller, Ray Deacon, Hans Buwalda, Michael Rynne, David Fletcher

### **Objectives**

The TAG SEIP Regulations sub-group was tasked with developing measurement methodologies for the activities related to the Stationary Energy Industrial Process sector set out in Schedule 3, Part 3 and 4 and Schedule 4, Part 4, and the other removal activities set out in Schedule 4 Part 2, Sub-part 1.

### **The Approach**

In terms of delivering on this objective, the sub-group sought to map the relevant process, and develop formulae that appropriately reflected the point of measurement that would deliver on the goals of the emissions trading scheme. However, it was important to first determine the criteria that would be used in order to ensure that the point of measurement for which formulae were to be developed was appropriate. The sub-group discussed criteria such as:

- Least cost
- Coverage
- Administrative simplicity
- Verifiability
- Transparency
- Consistency
- Non-distortionary
- Fairness

Ultimately, these criteria boiled down to seeking to ensure that the methodologies were efficient – both in a productive and dynamic sense – and that this needed to be balanced against the goal of accuracy of measurement. This balance, or trade-off, was considered to be a pragmatic response to an otherwise potentially enormously complex area.

It is acknowledged that as a result, the proposed methodologies may not be 100% perfect. This is considered appropriate as a starting point and furthermore, until any methodology is implemented, it is difficult to determine in advance whether it is the most appropriate for the situation.

However, in light of this acknowledgement, the sub-group agreed that any regulations developed needed to incorporate some checks and balances to ensure that they continued to evolve over time in a manner that ensured that the trade-off between least cost/simplicity and accuracy remained appropriate. The nature of the checks and balances is set out below.

### **The Output**

The industry representatives, alongside officials have developed the attached documents:-

- Diagrams (hand drawn) to demonstrate the relevant process and the appropriate point of measurement along the supply chain; and
- A table of methodologies by activity including point of measurement

The sub-group has developed the methodologies with the information that has been made available to it. The sub-group acknowledges that its membership did not encompass sufficient understanding to complete some of the methodologies (e.g. Refining Petroleum). In addition, with changes to the Climate Change (Emissions Trading and Renewable Preference) Bill, there are some methodologies which were not previously required which will now have to be developed (e.g., Coal Seam Methane). These methodologies will be considered and consulted on by officials and others as per normal process.

While the specifics of the methodologies as attached are reasonably self-explanatory, there are five aspects associated with their development that warrant particular mention.

### Emission Factors

At this point it is worthwhile making the observation that in developing these documents, the sub-group has not focused on the specifics of the emission factors and what they should be. Instead, the sub-group determined that the development of the methodologies should – in the pursuit of the balance between least cost/simplicity and accuracy - be generic to the activity and only broken into a further level of specificity where perceived additional value or clarity in doing so.

To this end, the sub-group's preference – initially at least, was to have generic emission factors rather than ones specific to mines or gas fields unless there is clear evidence of differences in emission factors. The Kapuni and Kaimiro gas fields and potentially imported coal are cases in point.

The group discussed whether the emission factors used for each activity should be determined by volume (tonnage) or by energy content of the fuel. The group was comfortable with utilising either emission factor. It was agreed, however, that utilisation of energy based emission factors was more accurate, and therefore the methodologies have been developed on this basis. For example, in determining the emissions of coal, which is measured in tonnes, it was agreed that the formula should use the energy based emission factor for the type of coal multiplied by the actual calorific value of the coal. This produced a more accurate emission calculation, and decreases the variance within classes of products, e.g. variances within sub bituminous coal.

In respect of activities relating to gas, the initial preference of a generic "spec" gas emission factor was considered appropriate for all gas fields within a defined tolerance level (say 5%). However, when considering the impact under the "opt in" provision, two views emerged:-

- The first, interprets the opt in provision as the obligation for emissions of only gas purchased which is by nature "spec gas" delivered through the gas transmission network
- The second interprets the opt in provision as being the carve out of the "total" obligation relating to the gas field, from the mining participant (including any obligation relating to sourcing the gas from a high CO<sub>2</sub> field)

This difference of view was not resolved by the group. Despite this, it was agreed that the formulas were unaffected by the choice of the emission factor, and that when emission factors were derived and consulted on, this issue would be further debated.

The above issues also included discussion around the Part 4 Schedule 4 not enabling large gas purchasers to opt in where they had purchased from a gas aggregator/wholesaler. The

group acknowledged that this was an issue related to the drafting of the Act, and did not impact on the development of the methodologies, but was worth noting.

### Stockpiling and Storage

The group acknowledged that for a number of the activities it was likely that some sort of stockpiling or storage of fuel was likely, and that emissions would not result as a function of the stockpiling or storage activity in itself. The group considered how best to incorporate this into the formulas, and agreed that some stockpile/storage adjustment was required.

Initial thoughts suggest that the methodologies should utilise “opening stockpile” and “closing stockpile” figures. However, there is still some work to be carried out on how best to achieve the desired outcome. Additionally, the group notes that in year 1 (year ending 31 December 2010), any opening stockpile calculation should be set to zero. This recognises that the stockpile at this point in time represents coal or gas mined &/or imported in a prior period (where no obligation was applicable).

The group discussed the issues raised when dealing with mixed stockpiles, e.g. bituminous and sub bituminous coal. It was agreed that a proportioning methodology would be used to determine the grades of coal coming off the stockpile.

### Checks and Balances

This led to the sub-group consideration of the need for a process by which the methodologies could continue to evolve in a manner that ensured emissions were being appropriately measured and reported. To this end, the sub-group proposes a “tolerance level” of 5% whereby any participant whose actual emissions fall outside the tolerance level can apply for a unique emission factor (UEF)<sup>8</sup>.

This is considered by the sub-group to be an appropriate balance to the Crown’s right to audit and review participants’ emissions and change the emission factors to ensure that all emissions are being reported. The industrial representatives within the group agreed that the commercial drivers (specifically the penalty regime) more than adequately incentivised the participants to measure and report emissions accurately.

It should be noted that the process for applying for the UEF has not been developed by the group at this point. Officials have indicated that they are considering how this would work from a governance and administration perspective. In particular, officials will need to be cognisant of the adoption of UEFs and what that means for those who continue to use generic emission factors.

### Unaccounted-for-Gas

One issue which was debated at some length was the treatment of emissions for “unaccounted for gas” (UFG) in both the gas transmission pipeline and the gas distribution networks. The sub-group initially determined that UFG should be assigned a unique emission factor to account for the higher methane component related to gas losses. However, while this was theoretically possible for purchasers of natural gas (opt-in participants), it became practically difficult for these participants, and is complex for the mandatory participants. Furthermore to include it in the opt-in provision but not the mandatory obligation was inconsistent and inequitable both across the supply chain and across the sector.

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<sup>8</sup> It should be noted, that this does not prevent a participant “within the 5% tolerance level” applying for a unique emission factor should they deem it worthwhile. The tolerance level proposed is to discourage people from applying where the difference is minuscule and the benefit is outweighed by the administrative cost.

Discussion with officials' highlighted that the issue of UFG is related to the transmission of gas, and the associated "losses" which escape directly into the atmosphere (as these have higher methane content). It was agreed, however, that these direct losses into the atmosphere were negligible on the "transmission pipeline" and therefore the increased cost in administrative complexity of separating out direct losses (from UFG) for the small increase in accuracy was unwarranted.

The sub-group agreed that while theoretically imperfect, it was pragmatic to account for UFG using the same emission factor as the "purchased spec gas" when applying the methodological (volume \* emission factor) principle. Furthermore it is envisaged that UFG emissions would be allocated using the same process as that used to allocate payment for UFG within the gas market. That is, participants will receive invoices detailing their purchased gas and their proportion of UFG. Participants would then be required to "pay for" emissions for all the purchased gas (including UFG) in accordance with the invoice. This is likely to be an area of some focus during the eventual consultation round on the methodologies.

The group acknowledges that this is an area for improvement; however, the group considered that to introduce the associated level of complexity for this activity would be detrimental to the implementation process and therefore recommends that a specific emission factor for UFG be considered in the first review period of the ETS.

### Removal Activities

Due to the large differences between entities carrying out removal activities, the sub group favoured a process approach over detailed methodologies.

Officials will develop a process which entities can follow to establish they are carrying out a removal activity and to establish the amount of emissions embedded. This process will involve using a lab or a verifier to establish the relevant emission factor for each activity. There will be no default emission factors provided in the regulations.

### **Contrasting Views**

Finally, there was the matter for the sub-group of how to accommodate different views in the development of the methodologies. While the sub-group sought unanimity, this was not possible in all instances. Differing commercial interests (as opposed to differing operational circumstances which have led to more than one formula in certain circumstances) between sub-group members have, in some instances, lead to contrasting views as to how the methodologies should be set.

By way of example, as mentioned previously, some members had a differing view to the balance of the sub-group with regard to the methodologies developed for mining gas and the "opt in" provision.

Similarly, the officials' within the group had a differing view to the preference to use a standard "spec gas" emission factor for opt in and mandatory participants with a 5% tolerance level. The concern was whether this approach would provide enough accuracy to align with the New Zealand's obligations as reported in its inventory. The sub-group recognises that officials may choose to use field specific emission factors, in preference to generic ones.

Noting this difference in view, the sub-group is comfortable that the methodologies are developed in such a way that they are still valid whether the emission factor is generic or by field.

Where sub-group members have differing views, and unanimity was unable to be achieved, these have not been included in the attached documentation. In preference to having

multiple formulas in the tables, the sub-group essentially sought to develop a 'base-line' formula. This approach is largely in recognition that there is a substantial amount of work yet to go under the bridge before these methodologies are finalised – both by officials before being consulted on and as a result of the consultation process itself. It is also likely officials will consult on the differences in approaches in order to be assured an appropriately informed final view is reached.

### **Next Steps (for officials)**

Officials anticipate releasing an exposure draft of the SEIP Regulations by the end of July.

### **Recommendations**

It is recommended that the SEIP TAG:

- a. **Agree**, subject to any amendments discussed at the SEIP TAG meeting, that this report and the attached tables be provided to the ETG as the SEIP TAG's views on the methodologies for the measurement of emissions from activities related to the stationary energy industrial process sector set out in Schedule 3, Part 3 and 4 and Schedule 4, Part 4, and the other removal activities set out in Schedule 4 Part 2, Sub-part 1.
- b. **Agree**, that exposure draft Regulations be reviewed by the SEIP TAG when released

## Annex IV: MEUS Data

**Table 1: MEUS data\* already supplied by Statistics NZ**

Threshold (tonnes CO2)	# firms	Electricity			kt CO2e
		PJ	Coal PJ	Gas PJ	
50,000	27	40.0	14.5	22.2	9,129
20,000	55	43.4	16.9	23.9	9,990
10,000	80	44.9	17.2	25.3	10,351
5,000	137	46.4	17.8	27.0	10,738
0	3900	52.8	18.3	29.2	11,992

Note:

\* Excludes industrial process emissions of around 3.5mt and NZRC refinery gas

\* Assumes electricity factor of 600tCO2/GWh

### Tables 2.1 to 2.4: breaking down table 1 into industry groups (to do)

**Table 2.1: all firms above 50mt threshold**

ANZSIC code	# firms	Electricity			kt CO2e
		PJ	Coal PJ	Gas PJ	
Wood and paper product					
Food, beverage and tobacco					
Metal products					
Petroleum, coal, chemical					
Non-metallic mineral product					
Textile, clothing, footwear, and leather					
Machinery and equipment					
Printing, publishing and recorded media					
Other manufacturing					

***Is dependent on  
StatsNZ receiving  
authorisation letters  
from top 18 firms***

**Table 2.2: all firms above 20mt threshold**

(by ANZSIC code as in table 2.1)

**Table 2.3: all firms above 10mt threshold**

(by ANZSIC code as in table 2.1)

**Table 2.4: all firms above 5mt threshold**

(by ANZSIC code as in table 2.1)

**Charts 3.1 to 3.3: including Industrial Process emissions in the MEUS data, and sensitivities around electricity emissions factor**

Note: all data is provisional

