



## The New Zealand Emissions Trading Scheme

# Consultation on proposed updates to ETS operational regulations

### Purpose of this factsheet

The purpose of this consultation factsheet is to:

- provide information on a number of proposed changes to regulations that would affect New Zealand Emissions Trading Scheme (ETS) emissions reporting and UEF applications relating to calendar year 2013 and subsequent years
- seek your views on the significant decisions that need to be made on how to implement some of these changes.

The changes will affect participants in the liquid fossil fuels, waste, stationary energy and industrial process sectors.

This consultation will close on 17 May 2013 and regulation amendments will be published in the *New Zealand Gazette* in August 2013.

### Scope

The Climate Change (Emissions Trading and Other Matters) Amendment Act 2012 was passed by Parliament in November 2012 (2012 Amendment Act). It amended the Climate Change Response Act 2002 (the Act) to make a number of changes to the ETS. In addition, Cabinet has agreed to some minor and technical changes to the ETS. Some of these changes need to be given effect by amending regulations made under the Act.

This consultation discusses changes to emissions reporting, Unique Emissions Factors (UEFs), and the option for some liquid fossil fuel purchasers to become voluntary ETS participants.

Other consultation documents cover changes that affect :

- [updates to ETS allocative baselines](#)
- [regulations for the synthetic greenhouse gases \(SGG\) levy.](#)

### Summary of proposed changes

Regulation changes are proposed which will:

1. Specify thresholds for large purchasers of liquid fossil fuels (LFFs) to opt in to the ETS. This will provide the basis for large purchasers and retailers of diesel and petrol to become voluntary ETS participants.
2. Change the Global Warming Potential (GWP) assumed for methane, from 21 as enabled by previous legislation, to 25 (as required due to the 2012 Amendment Act). This means all emissions factors that include methane will increase. Also change the GWPs applied for other non-CO<sub>2</sub> greenhouse gases due to the 2012 Amendment Act. A number of emissions factors used in the energy sector will change slightly.
3. Introduce a size threshold for the activity of 'Producing iron or steel' in Schedule 3 of the Act, so that foundries (which have extremely small process emissions) are not inadvertently considered mandatory ETS participants.
4. Enable new participants to report emissions following the addition of the own-use of crude oil or other liquid oil products as a new activity to Schedule 3 of the Act.



The level of thresholds set for diesel and petrol purchasers to opt-in to the ETS will have implications for the operation of the fuel market.

There are no other significant technical options to consider how changes to GWPs are implemented through regulation. Setting a threshold for iron and steel manufacture is intended to exclude trivial emission sources.

## 1. Opt in for liquid fossil fuels

### The status quo

Under existing legislation, the status quo is that only purchasers of jet fuel are able to opt in to the ETS, with a threshold of 10 million litres of fuel per year. Purchasers of other liquid fuels, in particular diesel and petrol, cannot opt in.

There have been developments in the liquid fossil fuel market since this rule was established as part of the Act. Significant volumes of petrol and diesel are now bought and on-sold by retailers. Currently the major oil companies, who are ETS participants, under the status quo must retain the ETS obligations for fuel whether it is sold directly to the market or through a retailer.

This creates a potential market distortion since fuel users can buy fuels either from ETS participants or from other retailers. Also, a retailer or other business, may import fuel but not be the mandatory participant because it is a supplier who 'removes the fuel for home consumption' as required by the Act.

An amendment will come into force on 1 July 2013 in 2012 to allow opt in for all LFFs, and thus remove this difference in the treatment of oil companies versus retailers.

### Problem definition

The policy aim for this change to the Act was to eliminate a potential market distortion between 'upstream' participants in the liquid fuels market – oil companies and retailers.

If regulations are not made in order to introduce thresholds, in principle any small purchaser of a liquid fossil fuel (including petrol, diesel, or aviation fuel) will eventually be able to opt in. The only restriction on opting in would be that the

opt-in participant must buy fuel directly from a mandatory participant.

This would introduce a new distortion, in which fuel users who buy directly from oil companies can opt in, but those buying from retailers cannot.

Gas and coal purchasers are already able to opt in. However, they are only able to do so if they buy a very large amount of fuel each year. These thresholds were set because:

- opting in involves significant administrative costs for the Crown
- opting in places some costs on upstream mandatory ETS participants. They must account for the fuel they sell to any opt-in participants and deduct it from their surrender obligations, but still manage their remaining obligations
- for small fuel purchasers, it is likely that the benefits of opting in would be minor and would be outweighed by the costs.

For all of these reasons, the Government is considering setting significant annual threshold amounts that must be met before petrol, diesel and other liquid fossil fuel purchasers can apply to opt in.

### How a threshold is set

Jet fuel purchasers are existing voluntary participants who applied for, and received, the right to opt in using the current threshold of 10 million litres per year. There is no policy intention to change the threshold for jet fuel and remove these existing participants from the ETS.

The Government intends to set new thresholds for the other fuel types: petrol, diesel, fuel oil, aviation gasoline and any new fuels that might be introduced to the market in the future.

A separate threshold could be set for each of these fuel types. As an example, there could be a requirement for 20 million litres of diesel to be purchased before a business can opt in as a diesel purchasing participant.

Alternatively, a single new threshold could be set so that if a business buys more than the threshold volume of all LFFs combined, say 100 million litres, then it is able to opt in for all LFFs. This would

operate in parallel with the threshold for jet fuel. For example, a business could opt in either:

1. as a jet fuel participant if it buys more than 10 million litres of jet fuel in a year, or
2. for all LFFs if it buys more than 100 million litres of all LFFs combined.

### Level of threshold or thresholds

A threshold or thresholds could be set high, to limit the number of opt-in participants, or it might be set lower to allow more purchasers the ability to opt in.

For comparison existing thresholds for voluntary participation in the ETS are:

- the existing threshold for jet fuel, ie, 10 million litres per year
- the opt-in threshold used for gas, ie, 2 petajoules (PJ) per year which is equivalent to about 60 million litres of LFFs
- the opt-in threshold used for coal, ie, 250,000 tonnes per year which is equivalent to more than 100 million litres of LFFs.

The current threshold for jet fuel is much lower than the thresholds used for gas and coal. This low threshold was set in response to the particular structure of the New Zealand airline industry. Airlines requested to be able to opt in at the level of subsidiary companies (effectively regional airlines) as nominally separate voluntary participants. The total volume of fuel that an airline uses is much more than the threshold amount.

### Options for the threshold

Options for new LFF threshold(s) are described below. Four options are being considered:

1. a low threshold for each fuel, similar to the existing jet fuel threshold
2. a low combined threshold for all fuel other than jet fuel
3. a higher threshold for each fuel type other than jet fuel
4. a higher combined threshold for all fuel other than jet fuel.

An option to take no action would mean no threshold applies for any fuel type. This is not considered viable as, in principle, any individual fuel user can opt in.

### Option 1: Low threshold for every fuel

A threshold of 10 million litres per year could be set for every LFF – the same as the current threshold for jet fuel. This would likely mean some diesel and fuel oil users would be able to opt in. Unlike the airline case, this would include independent firms buying relatively small volumes of fuel.

### Option 2: A low combined threshold

A low combined threshold for all fuels could be set, for example, a total of 35 million litres per annum. However, purchasers who would be enabled to opt in under a relatively low threshold, or who would be on the margin, would be fuel users who were not in the business of buying a mix of fuels. Trucking firms buy only diesel, and industrial users buy nearly all fuel oil.

As a result, a combined threshold appears to have the same effect as setting a higher threshold for each fuel type. The threshold would effectively apply to a single fuel type, and smaller users of that fuel would be excluded.

### Option 3: A high threshold for each fuel other than jet fuel

A threshold for each of the other fuel types could be set at a higher level, essentially aimed at ensuring retailers would be able to opt in if they bought a large volume. This could mean buying 30–40 million litres of each fuel type per year and therefore, fuel users would be unlikely to become opt-in participants.

However, retailers buy a mix of fuels, so the use of separate thresholds for each fuel type would mean there would be a chance of a retailer being eligible to opt in for some, but not all, of the fuels they sell. This would reduce the value of opting in, for no clear benefit.

### Option 4: A high combined threshold

A threshold comparable to those used for gas and coal would mean a purchaser could opt in if they bought approximately 100 million litres of fuel per year. This option would meet the original policy intent of the Act amendment by ensuring large retailers would be able to opt in. It is much less likely that any petrol and diesel users, such as trucking firms, would meet the threshold.



If a retailer or other large purchaser was eligible to opt in at all, it would be able to do so for all fuel that it bought and would not leave the upstream supplier with residual obligations for some of its fuel.

## Brief assessment of options

### Assessment criteria

In order to develop effective regulations, the Government has established the following criteria as a code of practice:

- efficiency – adopt and maintain only regulations for which the costs on society are justified by the benefits to society
- effectiveness – regulation should be designed to achieve the desired policy objective of reducing a distortion
- transparency – the regulation-making process should be clear
- clarity – regulatory processes and requirements should be as understandable and accessible as practicable
- equity – regulation should be fair and treat those affected equally
- environmental integrity – the environmental integrity of the ETS should be maintained.

All of these options are equivalent in terms of environmental integrity and transparency. Total emissions for the LFF sector will be reported with similar integrity and transparency under any option.

In terms of effectiveness, all options would achieve the policy objective, but Options 1 and 2 (low thresholds) would go beyond the change required to achieve it and potentially bring in additional participants, not contemplated when the policy decision to allow opt in for all LFFs was made.

Options 3 and 4 (high thresholds) appear better in terms of efficiency, because they would have less impact on the efficient operation of the market for liquid fuels. They would reduce any distortion between classes of wholesale fuel companies.

Setting the threshold at a low level as in Options 1 and 2 would risk creating a new distortion due to different treatment of customers who buy their fuel from different suppliers.

Options 3 and 4 also seem to be better in terms of equity. LFF purchasers would have similar opt-in

opportunities to coal or gas purchasers. Different classes of wholesale participants in the liquid fossil fuels market, as well as different classes of fuel users, would be treated equally.

A combined threshold for all LFFs (Option 4) would have advantages in terms of clarity as well as efficiency. The requirements for opting in would be simple and straightforward as possible, minimising any impact on the liquid fossil fuels market.

### Preferred option

As indicated by the discussion above, the Government's preference is Option 4: setting a threshold of 100 million litres of all LFFs, while retaining a separate option for jet fuel purchasers who buy over 10 million litres.

### Impact assessment

This proposal affects wholesale and large liquid fuel wholesale and retail.

## 2. New global warming potentials

### Status quo

All of New Zealand's international reporting obligations, as well as emissions accounting in the ETS, use 100-year Global Warming Potentials (GWPs) to translate amounts of the various greenhouse gases into equivalent amounts of carbon dioxide (CO<sub>2</sub>).

For all emissions reporting up to and including calendar year 2012, the GWP for methane (CH<sub>4</sub>) has been specified as 21, ie, each tonne of methane emitted is the equivalent of 21 tonnes of CO<sub>2</sub>. The GWP for nitrous oxide (N<sub>2</sub>O) has been 310. These numbers derive from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report, which was published in the mid-1990s.

### The required changes

Updated GWPs were published in the IPCC Fourth Assessment Report in 2007, and will be used for all international reporting from 2013 onwards. The Act specifies the same updates are to be applied in ETS emissions reporting.

This means the GWP for CH<sub>4</sub> is increased from 21 to 25, and the GWP for N<sub>2</sub>O is reduced from 310 to 298. This change has a significant impact on

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surrender obligations for waste and coal mine methane. Other impacts are minor.

All relevant regulations now need to be amended to change the emissions factors based on these GWPs. This will result in significant changes to both default and unique emissions factors for waste (landfill methane), agriculture and underground coal mining.

The Act does not allow any discretion in the way the new GWPs are implemented in the regulations. However, the Government is interested in your views on whether the changes proposed will result in accurate and appropriate emissions reporting.

### Waste sector (landfill methane)

The default emissions factor (DEF) for waste will increase from 1.10 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e) per tonne of waste disposed, to 1.31 tCO<sub>2</sub>e per tonne of waste disposed. The same number will need to be used, where relevant, in calculating all Unique Emissions Factors (UEFs). In particular, a UEF based on landfill gas collection and destruction will now be calculated as shown below, where C is as it is defined in regulation 23C of the Climate Change (Unique Emissions Factors) Regulations 2009 (the UEF Regulations):

$$UEF = 1.31 \times (1 - C)$$

In the calculation of a UEF based on waste composition, multipliers are used to estimate the contributions of various waste components to methane emissions. These will change as shown in the table below:

Component	Existing multiplier	New multiplier
Garden waste	1.26	1.50
Nappy and sanitary	1.512	1.80
Putrescibles other than garden waste	0.945	1.125
Paper	2.52	3.00
Sewage sludge	0.315	0.375
Timber	2.709	3.225
Textile	1.512	1.80

Some other factors such as those used in Schedule 3 of the UEF regulations may also change to ensure they are consistent with the new DEF.

### Coal mining

The emissions factors that relate to fugitive coal seam gas – in table 3, Schedule 2 of the Climate Change (Stationary Energy and Industrial Processes) Regulations 2009 (the SEIP Regulations) – will increase to account for the higher GWP for methane.

### Other energy

Minor changes will be made to DEFs and the UEF regulations to account for the changed GWPs for the small amounts of methane and N<sub>2</sub>O released during combustion of gas, coal, and industrial waste products. It is estimated these changes will be of low economic significance.

### Agriculture

The agriculture sector reports two greenhouse gases, methane and nitrous oxide. Emissions factors (expressed as tCO<sub>2</sub>e) will need to change to reflect the revised GWP for methane and nitrous oxide.

## 3. A threshold for the production of iron or steel

The activity of *Producing iron or steel* in Schedule 3 of the Act makes iron and steel producers mandatory participants in the ETS. Their reporting and surrender obligations relate only to process emissions on site, not to the indirect impact of their energy use.

This simple activity definition could be interpreted as meaning an iron and steel foundry is a mandatory participant, which was never the original policy intent. The Government intends to introduce a threshold for this activity, to clarify that foundries are not to be considered mandatory ETS participants.

Foundry emissions are extremely small at a few tens of tCO<sub>2</sub>e per annum. A threshold of 200 tCO<sub>2</sub>e per annum is proposed. This will ensure no existing foundries will be considered mandatory participants, while not being high enough to exclude existing or new steel-making activities.



The Government is interested in the impact of implementing a threshold for this activity and whether the proposed threshold of 200 tCO<sub>2</sub>e per annum is appropriate.

#### 4. Reporting own-use oil

The activity of “using crude oil or other liquid hydrocarbons (other than obligation fuel or as specified in Part 3) where any prescribed threshold is met” has been added to Schedule 3 of the Act. Inclusion of an activity in Schedule 3 means those undertaking the activity are mandatory ETS participants.

This means regulations must be made to enable any new ETS participants undertaking this activity to report their emissions and then meet the corresponding surrender obligations.

It is proposed the Stationary Energy and Industrial Processes (SEIP) regulations be amended to add a simple methodology for reporting own-use oil emissions. This would require a participant to report the number of tonnes of oil used, and the fraction of carbon in the oil.

A threshold will also be required to ensure any small-scale use of oil, for which transaction costs could exceed the benefits of inclusion in the ETS, is not included.

A threshold of 1500 tonnes of oil per annum is proposed, this is the same threshold applied to the combustion of waste oil.

#### Consultation

Please send your submission by email to:  
[etsconsultation@climatechange.govt.nz](mailto:etsconsultation@climatechange.govt.nz)

If you are unable to email your submission then please post it to:

ETS Regulations updates 2013  
Ministry for the Environment  
PO Box 10362, Wellington 6143

The closing date for submissions is:  
**5pm Friday 17 May 2013.**

#### Find out more

[www.climatechange.govt.nz/ets](http://www.climatechange.govt.nz/ets).  
Phone: 0800 CLIMATE (254 628)

#### Consultation questions

1. Do you agree with the Government’s proposed options for extending the ability to opt in to purchasers of all Liquid Fossil Fuels (LFFs)?
2. Do you agree with the Government’s assessment criteria of the options?
3. Do you agree with the Government’s preferred option for the introduction of a threshold of 100 million litres of all LFFs alongside the existing threshold for jet fuel?
4. How would you be affected by the Government implementing its preferred option for LFF opt in? Do you expect to become eligible to opt in to the ETS?
5. Will you be affected by the Government amending emissions reporting and Unique Emissions Factors (UEF) regulations in response to new Global Warming Potentials? Please describe this impact.
6. Would you be affected by the Government introducing a threshold for the activity of *Producing iron or steel* as a mandatory activity in the ETS?
7. Do you agree with the Government’s proposed threshold for this activity?
8. Are there any matters regarding the proposed methodology of reporting own-use of crude oil and other liquid fossil fuels that you would like to bring to the Government’s attention?
9. Do you agree with the Government’s preferred option for the introduction of a threshold of 1,500 tonnes per annum for own use of crude oil and other liquid fossil fuels?

## Next steps

The Ministry will present the results from submissions of the consultation to the Minister for Climate Change Issues. Based on the Minister's decisions, regulations will be drafted before 30 September 2013 to be in force before 1 January 2014. The regulations will apply retrospectively, and unless indicated otherwise, will apply for the 2013 compliance year. Regulations concerning liquid fossil fuel opt in are to come into force on 1 July 2013 and regulations concerning own-use oil from 1 January 2014.

## About submissions

The Ministry for the Environment may publish all or part of any written submission on the Government's climate change website. We will consider you to have consented to such publishing by making a submission, unless you clearly specify otherwise in your submission.

The content of submissions is subject to the Official Information Act 1982. Copies of submissions sent to us will normally be released in response to an Official Information Act request from a member of the public. If you object to the release of any information contained in your submission, please clearly state this in your submission, including which part(s) you consider should be withheld, together with the reason(s) for withholding the information. The Ministry will take into account all such objections when responding to requests for copies of, and information on, submissions to this document.

If you do not wish your name and any identifying details in your submission to be released in response to a request, please clearly state this in your submission. At your request, the Ministry for the Environment will make your submission anonymous before it is published on the climate change website. However, please note that the Ministry for the Environment will not be able to withhold any information if doing so would contravene the requirements of the Official Information Act.

**Published in April 2013**  
**by the Ministry for the Environment**  
**PO Box 10362, Wellington 6143**  
**Publication No: INFO 684**



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