

The New Zealand emissions trading scheme is part of the government's response to climate change. Emissions trading will help reduce emissions, encourage and support global action on climate change, and help put New Zealand on a path to sustainability.

This factsheet explains how emissions trading will affect industries importing, manufacturing, exporting, using and destroying 'synthetic' greenhouse gases.

Synthetic greenhouse gases in the emissions trading scheme

Factsheet 23



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Greenhouse gas emissions from synthetic gases

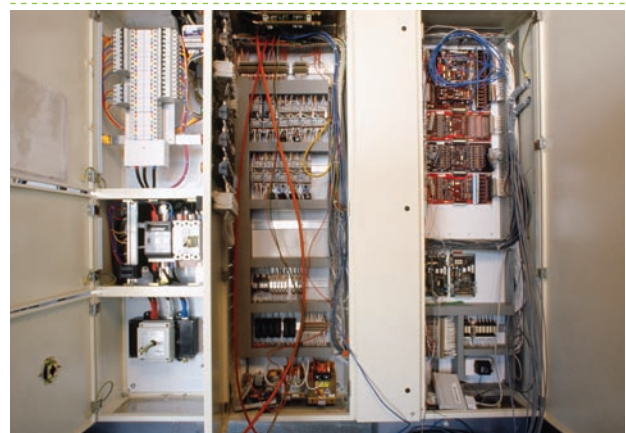
The 'synthetic' greenhouse gases included in the New Zealand emissions trading scheme are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). HFCs are used in the refrigeration/air-conditioning, aerosol, fire protection and foamblowing industries. PFCs are used in refrigeration/air-conditioning. SF₆ is used in electrical switching equipment and in scientific applications.

These synthetic greenhouse gases have very high global warming potentials, on average thousands of times the amount of an equivalent weight of carbon dioxide. In 2005 synthetic greenhouse gases accounted for approximately one percent of New Zealand's greenhouse gas emissions in carbon dioxide terms. Emissions from synthetic gases are expected to increase in the short to medium term.

Synthetic greenhouse gases are not currently manufactured in New Zealand but are imported for use in products and equipment. Some of these gases are then re-exported. PFCs are also produced and emitted as a by-product of aluminium smelting, but those emissions will be dealt with separately under the emissions trading scheme and are discussed in Factsheet 20 on industry.

What synthetic gas activities does the emissions trading scheme cover?

The emissions trading scheme covers importation of synthetic greenhouse gases either in bulk or in products (eg, synthetic gases contained in imported refrigerators or car air-conditioning units). Manufacture of synthetic gases is also covered, should this happen in New Zealand in future. Importers and manufacturers of synthetic gases would be required to surrender units to match expected emissions of those gases.



The emissions trading scheme also covers the export of synthetic gases in bulk or contained in products, or the destruction of synthetic gases in New Zealand. Those that export or destroy synthetic gases will be eligible to receive emission units for the reduction in emissions that would otherwise have occurred in New Zealand.

The use of HFCs in metered dose inhalers (eg, asthma inhalers) is excluded from the emissions trading scheme. This is in recognition of the importance of inhalers for public health, that there are no readily available substitutes for HFCs, and that the amounts of HFCs involved are relatively small.

When does the synthetic gas sector enter the emissions trading scheme?

Importation and manufacture of synthetic gases will be included in the emissions trading scheme from 1 January 2011, although full obligations for the surrender of emission units will only apply to these activities from 1 January 2013. Voluntary reporting of these activities will start on 1 January 2011 and mandatory reporting is required from 1 January 2012. Penalties under the Act may apply to any inaccurate reporting of these activities from 1 January 2012.

Exportation and destruction of synthetic gases will also be included in the emissions trading scheme from 1 January 2011, although participation will remain voluntary. Eligibility to receive emission units applies to these activities from 1 January 2013. Penalties under the Act may apply to any inaccurate reporting of export or destruction of synthetic gases from 1 January 2012.

How does the synthetic gases sector participate in the emissions trading scheme?

Importers and manufacturers of synthetic gases will be required to register as participants in the emissions trading scheme and report this activity. Importers and manufacturers will be required to surrender emission units for each tonne of carbon dioxide equivalent emissions attributable to synthetic gases imported or manufactured from 1 January 2013. Obligations to report and to surrender units will be on an annual basis.

Those that export or destroy synthetic gases will be able to voluntarily register in the scheme from 1 January 2011, and will be eligible to receive emission units for export or destruction of synthetic gases from 1 January 2013, in recognition of the reduction in emissions that would otherwise have occurred in New Zealand.

The government will develop methodologies and procedures for reporting synthetic gas activities in consultation with the sector over 2009 and 2010. These will be in the form of regulations under the Climate Change Response Act 2002.

Potential impacts of the emissions trading scheme on the synthetic gases sector

The cost of emission units for importers or manufacturers of synthetic gases is expected to be passed on to domestic customers who purchase synthetic gases, either as consumers of finished products or to use in manufactured products or applications. Exporters of synthetic gases will be able to claim a rebate of units for the amount of gases exported.

The government expects the increased cost of synthetic gases will provide incentives for switching from higher to lower global warming potential gases and technologies where these are available, and for better handling of synthetic gases to reduce leakage from equipment. The availability of emission units for export and destruction of synthetic gases will also create a financial incentive to increase collection and destruction of these gases.

Will the synthetic gases sector receive a free allocation of emission units?

No, importers and manufacturers of synthetic gases will not receive a free allocation of units because of price increases in synthetic gases. As noted above, these participants can pass on the costs of the scheme to their domestic customers and exporters will be eligible for rebates for synthetic gases contained in exported goods. This means the impact of the emissions trading scheme on the profits of synthetic gases sector participants will be limited.

However, participants in the sector may be eligible for allocations for other cost increases (including for direct use of electricity, coal and natural gas) under the emissions trading scheme, to the extent that they are trade-exposed and meet criteria set out in allocation plans.

Other government climate change initiatives relevant to synthetic gas emissions

In 2004, a non-binding Memorandum of Understanding (MOU) was signed between the Crown and users of imported SF₆ in the electricity sector. Major users were to be exempt from any climate change policy costs in return for meeting a specified target. All users agreed to adopt best practice in SF₆ management. This MOU covers the period to 31 December 2012. Importers and manufacturers of SF₆ will not have an obligation to surrender units for these activities until 1 January 2013.

Where to go for more information

For more information on the government's climate change work, including more information about the emissions trading scheme, visit www.climatechange.govt.nz or call 0800 CLIMATE (0800 254 628).