

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 industry.

Industry in the emissions trading scheme

Factsheet 20



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Greenhouse gas emissions from industrial processes

Industrial process emissions result when materials are transformed from one substance to another in an industrial setting. These emissions arise from non-energy uses of products.

The metal, mineral and chemical industries in New Zealand emit significant quantities of carbon dioxide. The products made by these processes include iron, steel, aluminium, clinker, burnt lime and glass. Limestone is the raw material for clinker and burnt-lime production. This use results in emissions of carbon dioxide that are included in the industrial process sector.

Non-carbon dioxide emissions from the industrial process sector include perfluorocarbons (PFCs) from aluminium smelting. The synthetic greenhouse gases PFCs, hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF₆) are also covered by the scheme when imported in bulk or in equipment. These emissions are treated separately from

industrial process emissions under the emissions trading scheme, and are discussed in Factsheet 23 on synthetic gases in the emissions trading scheme. Nitrogen oxide from the production of cables using the nitrogen cure process is also captured under industrial processes.

Emissions from New Zealand's industrial process sector represented six percent of total greenhouse gas emissions in 2006. These emissions increased by 40.9 percent from 1990 to 2007.

What industrial activities does the emissions trading scheme cover?

The emissions trading scheme covers:

- > carbon dioxide from producing iron, steel, aluminium, clinker, burnt lime, glass and gold
- > PFCs from producing aluminium
- > nitrogen from producing cables using a nitrogen cure process.



When does industry enter the emissions trading scheme?

Industrial process emissions will enter the emissions trading scheme on 1 January 2010.

How does industry participate in the emissions trading scheme?

For carbon dioxide emissions from the metal, mineral and chemical industries, and PFC emissions from aluminium production, the emissions trading obligation is placed on the emitter. Emissions are to be calculated by tracking the volume of products or 'emission sources' (which are purchased, produced or imported) and multiplying this volume of product by an emission factor, rather than by monitoring actual emissions. The methodologies for calculating emissions will be set out in regulations, which are being developed.

See Factsheet 19 for more information on the combustion of fuels used mainly for stationary energy (electricity generation and industrial heat). This covers coal, natural gas and geothermal resources.

Industrial process emitters who are large energy users (over 250,000 tonnes of coal or two petajoules of natural gas) can opt in to the emissions trading scheme to cover their use of coal and natural gas. They must buy their coal or natural gas from a miner of coal or natural gas and cannot take on obligations for coal or natural gas they purchase from a wholesaler.

Potential impacts of the emissions trading scheme on industry

Industrial producers are likely to face increased costs in three ways, as a result of the emissions trading scheme:

- > directly because they cause industrial process emissions
- > indirectly due to the increased costs of fuels used for feedstock or input into the industrial process, stationary energy and electricity
- > directly if they use fuels for stationary energy and if they opt in to the scheme as direct points of obligation.

Will industry receive a free allocation of emission units?

Trade-exposed participants and major energy users will receive an allocation of free emission units to compensate for the increased costs they will face as a result of the emissions trading scheme. They must first meet the allocation plan requirements and meet the eligibility criteria. They can sell these units to cover the increased costs, under measures to decrease the amount of emissions they produce (if a participant) or reduce their electricity use through energy efficiency measures.

Over the next year the government will develop an allocation plan for determining who will be entitled to receive an allocation of free emission units and the formulas for calculating how many units a firm will be entitled to receive. The government will notify the public of the opportunity to make submissions on a draft of this plan.



Other government climate change initiatives relevant to industrial process emissions

The Ministry for the Environment has produced a regularly updated document called *Guidance for Voluntary, Corporate Greenhouse Gas Reporting* for companies that want to voluntarily monitor and report their greenhouse gas emissions. This document has been published on the Ministry for the Environment's website at www.mfe.govt.nz/publications/climate

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).

For more information on Energy Efficiency and Conservation Authority programmes, visit:

- Improve: www.eecabusiness.govt.nz/improve/
- Energy Intensive Businesses: www.eeca.govt.nz/energy-intensive-businesses/index.html