



By-products ¹

The [Global reporting Initiative aspect](#) for EMISSIONS EFFLUENTS AND WASTE allows for the core indicators of;

- **Total direct and indirect greenhouse gas emissions by weight.**
- **Other relevant indirect greenhouse gas emissions by weight.**
- **Emissions of ozone-depleting substances by weight.**
- **NO, SO, and other significant air emissions by type and weight.**
- **Total water discharge by quality and destination.**
- **Total weight of waste by type and disposal method.**
- **Total number and volume of significant spills.**

And additional aspects of ;

- Initiatives to reduce greenhouse gas emissions and reductions achieved.
- Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.
- Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.

The [Carbon Disclosure Project](#) has a database of primary corporate climate change for more than 2,500 companies and work has been done to [link](#) the reporting codes of both the Global Reporting Initiative ¹ and the Project.

Greenhouse gases (GHG)

Greenhouse gases (GHG) are a natural part of the Earth's atmosphere, acting to absorb and re-radiate the sun's heat and so maintain the Earth's surface temperature at a level which supports life. GHG include carbon dioxide (CO₂), methane, nitrous oxide, perfluorocarbons, hydrofluorocarbons, and sulphur hexafluoride. For purposes of measurement, the emissions of these different gases are aggregated and converted to carbon dioxide equivalents (CO₂-e).

GHG emissions from human actions are contributing to a warming of the Earth's surface and climate change by increasing the concentrations of the gases that trap heat, resulting in an enhanced greenhouse effect and higher Earth surface temperatures. These actions include the burning of fossil fuels (coal, oil and natural gas), agriculture and land clearing.

Global average surface temperatures have increased by approximately 0.6 degrees Celsius over the last 100 years. Climate change effects include increased heatwaves, warming of the deep oceans, melting of glaciers, rising ocean levels and an increased incidence of floods and droughts in some regions. Human activities are estimated to have increased atmospheric concentrations of CO₂ by more than a third, nitrous oxide levels by about 17% and methane

¹ ¹ The ebb and flow of web information allows us to share and travel with it in a community-centered way. Feel free to agree or take issue with the contents of these papers. They are the Aptly "take" on information and thought developed over many years and rely heavily on work already done in the field and referenced throughout.

levels have doubled.

The [Australian Bureau of Statistics](#) reports that in 2004, Australia's total net GHG emissions, using Kyoto accounting provisions, were 564.7 mill. tonnes of CO₂-e. CO₂ accounted for 415.0 mill. tonnes of CO₂-e, or 73.5% of Australia's total net emissions, methane for 119.7 mill. tonnes of CO₂-e (21.2%), nitrous oxide for 24.8 mill. tonnes of CO₂-e (4.3%) and the other gases made up 5.2 mill. tonnes of CO₂-e (1.0%) of total emissions.

[Air quality](#) is an important factor in the quality of life in Australian cities. The main source of air pollution is motor vehicle emissions. Trends in pollution by fine particles and ozone (a component of photochemical smog) are presented for Australia's three largest cities by the Bureau of Statistics. Sulphur dioxide and lead can be emitted in relatively large quantities by mineral ore processing activities, and hence can become a health hazard over some regional centres. Trends in sulphur dioxide pollution over the mining towns of Port Pirie in South Australia and Mt Isa in Queensland are presented.

534 Australian companies collaborated to publish the [Carbon Disclosure Project 2010. Australia and New Zealand report](#).

A formula to limit emissions

Emissions trading is a market-based scheme for environmental improvement that allows parties to buy and sell permits for emissions or credits for reductions in emissions of certain pollutants. It allows established emission goals to be met in the most cost-effective way by letting the market determine the lowest-cost pollution abatement opportunities.

Under such a scheme, the environmental regulator first determines total acceptable emissions and then divides this total into tradeable units (often called credits or permits). These units are then allocated to scheme participants. Participants that emit pollutants must obtain sufficient tradeable units to compensate for their emissions. Those that reduce emissions may have surplus units that they can sell to others that find emission reduction more expensive or difficult.

In suitable cases, trading schemes offer significant advantages over other regulatory approaches, both in certainty of environmental outcome and the potential to minimise overall compliance cost.

Load-based licensing (LBL) provides the administrative infrastructure for wider use of emission trading schemes in NSW, through its robust calculation and annual reporting procedures, under conditions of high public accountability.

Trading schemes broaden the cost-saving potential of LBL from individual premises to the control of emissions from whole groups of licensees.

<http://www.environment.nsw.gov.au/licensing/emissionstrading.htm>

An alternative to the cap and trade emissions system is given at the [Story of Stuff](#).

Most specific regulatory information is available from State and Local web sources.

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By local area, your own local Council's water information can be searched at the [Australian Local Government Association](#) website.

Each Australian State has its own Department with responsibilities for Emissions, effluents and waste

[ACT](#)

[NSW](#)

[Northern Territory](#)

[Queensland](#)

[South Australia](#)

[Tasmania](#)

[Victoria](#)

[Western Australia](#)