



Carbon price opportunities and obligations for landfill managers

Under the Government's Clean Energy Future plan, a number of landfill facilities may have obligations under the carbon pricing mechanism from 1 July 2012, creating an incentive and opportunities for them to reduce emissions from landfill. This fact sheet provides information to local councils and landfill operators on the steps they should take to:

- determine whether they are liable under the carbon pricing mechanism
- explore options for reducing or avoiding liability through activities that reduce emissions, and
- estimate the true cost impacts of a carbon price on waste charges.

Step 1: Determine whether your landfill could be liable under the carbon price

Landfill facilities that emit 25,000 tonnes or more of carbon dioxide equivalent greenhouse gas emissions each year are liable under the scheme.

The carbon price will not apply to emissions from waste deposited prior to 1 July 2012 (known as legacy waste emissions), but legacy waste emissions do count towards determining whether a facility meets the participation threshold.

As a rule of thumb, a tonne of mixed waste deposited in landfill will emit approximately one tonne of carbon dioxide equivalent over many decades, peaking within the first few years after being deposited. However, there are opportunities to substantially reduce emissions from landfill.

How high are your emissions?

Does my landfill facility emit 25,000 tonnes or more of carbon dioxide equivalent greenhouse gas emissions each year?

- Councils that serve population centres with 20,000 people or more and operate landfill facilities should consider whether they will be liable for emissions from landfill waste under the carbon pricing mechanism.
- However, for any given population, actual emissions will vary greatly based on a range of factors, such as the volume of waste deposited, the organic content of that waste and its rate of decay. For these reasons, many landfills serving population centres with more than 20,000 people will not be liable under the scheme.



How much waste is received each year?

Waste is received from a variety of sources, including households, commercial and industrial sites. Rates of recycling and waste diversion differ greatly among councils.

- Recycling efforts and waste diversion to composting and other alternative waste treatment facilities can significantly reduce emissions at landfill, in many cases by 30 per cent or more.

How much landfill gas is captured and removed from the site?

Landfill gas capture is commonplace at major landfill sites across Australia, and is becoming increasingly economic at smaller sites. In many cases, the captured landfill gas is used as a resource to generate electricity.

- Landfill gas capture can reduce emissions substantially, with average capture rates around 50 per cent and best practice around 75 per cent.



Where is your landfill located?

Is the landfill facility located in a dry, cold area?

- Organic materials decay more slowly in cold and dry climates. In the early years, your emissions could be significantly lower than those from landfills of equal size but located in hotter, wetter climates.

Follow the rules for measuring and reporting emissions from waste

The National Greenhouse and Energy Reporting Scheme (NGERS) sets out the rules—known as a [Measurement Determination](#)—for calculating your waste emissions. The [solid waste calculator](#) provided on the Clean Energy Regulator's website, uses these rules to help landfill operators calculate their waste emissions and assess their carbon price liability. Under these rules, there are no reportable emissions in the year the waste is deposited. If your facility is above the threshold, you will only begin paying the carbon price on waste deposited in 2012–13 from June 2014.

Further [information about carbon price liability for landfill facilities](#) and the [National Greenhouse and Energy Reporting System](#) is available from the Clean Energy Regulator.

Step 2: If your landfill is liable, explore options to reduce or avoid cost impacts

There are a range of things you should consider when assessing the impacts of the carbon price on a landfill facility. It would be prudent to seek independent expert advice, rather than simply relying on estimates provided by suppliers, contractors and others.

Consider your options for reducing the extent of your liability before calculating your actual cost impacts. You may be able to reduce some or even all of your carbon price liability, including by taking advantage of Government incentives to support Australia's transition to a Clean Energy Future.

Reducing your carbon liability directly

Do you currently have, or could you put in place, systems to reduce carbon emissions by capturing landfill gas to generate electricity, flaring methane, waste diversion, recycling and composting?

- By reducing emissions, you can significantly reduce any carbon price liability you may have, and may even be able to bring a medium-size landfill below the 25,000 tonne threshold, eliminating the carbon price liability altogether.

Offsetting your carbon liability using carbon credits

You can offset your liability by reducing emissions from waste that has already been deposited (legacy waste) or through other land sector emissions abatement activities. Using the Australian Government's Carbon Farming Initiative, it may be possible to generate enough credits to offset your carbon price liabilities for many years to come. Carbon credits can also be sold to other entities wanting to offset their emissions, generating income for councils.

Generating Renewable Energy Certificates through the Renewable Energy Target (RET) scheme

Landfill operators could capture methane and use it to produce electricity, which is eligible for tradeable renewable energy certificates.

To find out more, see our fact sheets on [Emissions from landfill facilities](#) and [CFI Handbook](#). Information about the CFI and RET is also available from the [Clean Energy Regulator](#).

Step 3: Estimate the true cost impacts of a carbon price on waste charges

Having explored all options for reducing your liability under the carbon price, there are a number of key factors to consider in estimating your remaining liability under the carbon price and deciding on how much of this and at what point in time you might pass this onto customers.

You have options when meeting your carbon price liability

The carbon pricing mechanism has been designed to provide liable entities with flexibility, so they can meet their obligations at the lowest possible cost.

You can use carbon units issued under the carbon pricing mechanism or Carbon Farming Initiative carbon credits, also known as Australian Carbon Credit Units (ACCUs), or certain eligible international emissions units to meet carbon price liabilities.

- You can acquire carbon units in the relevant compliance year to meet carbon price liabilities during the fixed price period (1 July 2012 to 30 June 2015). These units cannot be banked for future use.
- You can acquire ACCUs and international units now. The Government will also auction carbon units under the carbon price mechanism before the start of the flexible price period (from 1 July 2015). None of these units have a 'use by' date—they can be banked.

You should take care when estimating future carbon price liabilities

Having estimated the lifetime carbon liability associated with a tonne of waste, you could charge for this up front, invest the money and then purchase credits in future, as your liabilities fall due.

If you choose to do this you should consider the following:

- It can be difficult to predict the price of carbon units into the future. If there are changes in the carbon price, you may find that you have charged more than necessary and set aside too much, or that you have not set enough aside to cover your future carbon liabilities. In either case, you may need to revise your future waste charges.
- If you decide to charge up front to cover long-term liabilities, you should account for the expected returns you will receive from investing this money when determining how much to charge customers.
- You should take into account the likelihood that gas capture equipment is or will be cost-effective for your landfill facility at the projected carbon price, if you are considering charging up front for all carbon price liabilities.

Alternatively, you could purchase carbon credits immediately and bank them for later use. This removes the risk of changes in the expected future carbon price.

You could also choose to adjust waste levies over time to cover the cost of carbon liabilities as they fall due. If you choose to do this, you should consider how you would manage future liabilities once the facility closes and you can no longer collect gate fees.

Any pricing strategy should take account of the opportunities to reduce emissions and offset carbon costs outlined above.

Consider your legal obligations when talking about carbon price impacts

The Australian Government does not prescribe the price landfills and councils charge their customers. However, the Australian Consumer Law protects customers from false, misleading and deceptive representations that may be made in the course of business. This means that claims of price increases attributed to the carbon price must be truthful and accurate.

The Australian Competition and Consumer Commission has developed [a guide to help businesses](#) understand their responsibilities when making claims about the impact of a carbon price. It focuses on prohibitions against misleading, deceptive or false claims under the [Australian Consumer Law](#).

Further information

For further information on the carbon pricing mechanism, NGERs, the CFI and the RET:

- visit www.cleanenergyregulator.gov.au or www.climatechange.gov.au/cfi
- call 1300 553 542 or email enquiries@cleanenergyregulator.gov.au

For further information about Australia's Clean Energy Future:

- visit www.cleanenergyfuture.gov.au or call 1800 057 590

Note

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