

Frequently Asked Questions on Kāpiti Coast District Council's CEMARS accreditation.

Last revised: 8 August 2013

What is CEMARS®?

CEMARS stands for Carbon Emissions Measurement and Reduction Scheme, and is a status awarded by the Enviro-Mark Solutions (a subsidiary of Landcare Research). Organisations that have CEMARS status have measured their greenhouse gas (GHG) emissions in compliance with the ISO 14064–1 standard and have made a commitment to managing and reducing their GHG emissions by creating an emissions management and reduction plan.

What are greenhouse gases and how do they cause climate change?

Greenhouse gases are those gases that trap heat from the sun in the Earth's atmosphere and make the Earth warmer than it would be if they were not present. Greenhouse gases include carbon dioxide, methane, nitrous oxides and synthetic gases like some refrigerants (e.g. R22). Extra GHGs in the atmosphere, put there by human activities such as burning fossil fuels, increase the amount of heat energy trapped near the Earth's surface. This extra energy is changing the earth's climate, contributing to ice loss, sea level rise and more extreme weather. Some of the extra carbon dioxide is absorbed from the atmosphere by the oceans and this is causing them to become more acidic.

Why did the Council get CEMARS certified?

The Council is committed to helping address the causes and effects of climate change, supporting the community to live in an environmentally sustainable way and the creation of a low carbon economy locally. As such, it wished to fully understand the sources of climate-change causing greenhouse gas emissions that it is responsible for, and put an effective plan in place to reduce them. It wanted to do this in a way that was wholly transparent to its community and others and identified seeking to become CEMARS certified by the carboNZero programme as the best way to do this.

How are greenhouse gas emissions measured?

The common unit of all different GHGs is 'carbon dioxide equivalent' (CO₂e). This is the amount of CO₂ gas it would take to cause the same amount of global warming as the gas in question. This accounts for the fact that some GHGs have a more powerful warming effect than others, and allows an entity like the Council to express its total 'carbon footprint', or contribution to climate change, as a single figure.

What did the Council have to do to get CEMARS certified?

The Council needed to create inventories of all its GHG emissions sources for the 2009-10 and 2010-11 financial years, which run from July to June (the inventory for 2011-12 is presently being prepared). These sources included all fuel and electricity it used in Council operated facilities and vehicles, waste it was directly responsible for disposing of, any losses of refrigerants from its heating and cooling systems and business travel in taxis, private cars and aircraft. The Council also had to calculate its carbon liabilities, which are the stock of GHGs that it owns that could escape – namely refrigerants and the carbon locked up in its forests.

These inventories were externally audited to independently confirm they were complete and correct and met the international standard.

What is the council's carbon footprint?

In the 2009-10 financial year it was 12,610 tonnes CO₂e. In the 2011-12 financial year it was tonnes 9,183 CO₂e, a reduction of 27%. The reduction was mainly due to the end of the practice of using greenwaste as a mixing agent for sewage sludge disposal and the heat source for sewage drying at the Paraparaumu Waste Water Treatment Plant being converted from diesel to wood fuel.

Why have the emissions totals for 2009-10 and 2010-11 changed in the latest inventory report (for 2011-12)?

Improvements to the method for calculating sewage sludge totals, along with the inclusion on litter bin waste disposal were changes made in the process of producing the 2011-12 GHG inventory. To ensure reporting on progress against targets is based on the best possible data and not affected by this change of accounting practices, the 2009-10 and 2010-11 inventories were adjusted to be consistent with 2011-12. The details of the adjustments are given in the 2011-12 GHG Emissions Inventory Report and have been certified by Enviromark.

Why isn't X included in the Council's carbon footprint?

The ISO standard has clear rules for deciding whether an emissions source is the responsibility of the organisation being audited. Generally something is included if the organisation is directly responsible for it (i.e. it is the purchaser of a service that causes emissions or the one that directly emits it in the execution of its functions). Some emissions sources that do fit this definition are still excluded because of their small size relative to the total footprint and the effort needed to account for it.

The Council says it plans to reduce its emission by 45% in 2014-15 and 80% in 2021-22 compared to its baseline year of 2009-10. How will it cut emissions by so much?

The Council has already cut emissions significantly. As well as converting sewage drying to wood fuel, it has stopped the practice of mixing green waste with dried sewage sludge when it is buried in the Otaihanga landfill. These measures alone put it on track for the 2014-15 target.

The Carbon and Energy Management Plan contains further measures that if all implemented should take the Council beyond its 80% target. The single most critical measure is to eliminate emissions from sewage sludge disposal by capturing the methane gas it generates or composting the sludge so no methane is created to begin with. Other energy saving and renewable energy measures make an important contribution to the target but more significantly to reducing energy costs.

Will it cost ratepayers more to achieve these targets?

The measures in the Carbon and Energy Management Plan have been included because it is likely that they can be implemented without requiring any rates funding additional to that already included in the 2012 Long Term Plan. It is intended that existing budgets are used, including energy and maintenance savings generated by the projects themselves. In the long run the Carbon and Energy Management Plan should return net savings to rate payers.

I've heard the price of carbon in the Emissions Trading Scheme is very low at the moment. How does this affect Council's plans?

While the carbon price is currently low, there is no guarantee it will stay low in the long term. The 20-year projections used for the Council's plan assume the carbon price rises to \$25/tonne, which is the same assumption used by the Government for their national energy use forecasts. However, the vast majority of savings expected from the carbon reduction plan come from operating costs like energy and maintenance, not carbon. Therefore the current low price does not have a strong bearing on the Council's plans.

Has the Council considered offsetting its emissions to become 'zero carbon'?

Any offsets that the Council could currently purchase such as tree planting or renewable energy projects are outside the Kāpiti Coast district or outside New Zealand altogether. Council decided not to go down this route, as there would be no direct benefits to residents for the money spent. However, the Council is going to explore increasing the amount of native forest restoration it enables within the district as a means of offsetting its GHG emissions. This approach would bring a number of direct benefits to the district, such as improving biodiversity, land stabilisation, water quality, economic activity, tourism, recreation and general amenity. Any effects of this kind of offsetting have not been included in the Council's carbon reduction targets yet, pending further assessment.

Where can I find Council's greenhouse gas emissions inventories, emissions reduction plan and more information on CEMARS?

On the Council's website at www.kapiticoast.govt.nz/CEMARS.