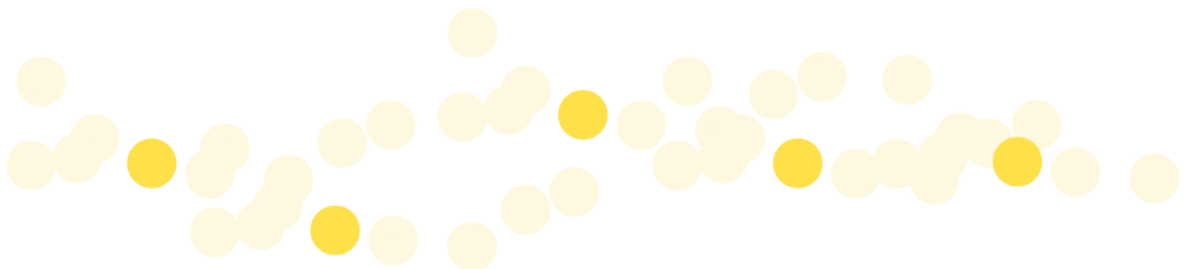


**Carbon Neutrality
Framework
for Local Government
Australian version**

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**Prepared for the
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for Climate Protection
by
ICLEI Oceania**



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Carbon Neutrality Framework for Local Government

Australian Version

Introduction

This paper describes the parameters of carbon neutrality frameworks established by local governments. It is important that any proposal for carbon neutrality be considered within the context of the policy environment created by other spheres of government. In particular, the move toward emissions trading as a key policy mechanism in both Australian and New Zealand may affect approaches to carbon neutrality.

The role of voluntary carbon reductions within a compliance regime is the subject of current debate. While it is likely that the mandatory and voluntary approaches will co-exist, the interaction between the two depends on the specifics of the final emissions trading scheme design. In particular, the sectors covered by emissions trading, the extent of free permit allocation and the treatment of emission reductions from international markets are key aspects that affect domestic voluntary approaches.

The framework below describes the elements that need to be addressed when a claim of carbon neutrality is made and the process that should be followed. Although carbon offsets are likely to form part of the process toward achieving neutrality, the use of offsets should not be the focus of the approach. Given that it is primarily the carbon offset market that is affected by emissions trading scheme design, uncertainty around the implications of emissions trading need not affect other elements of the approach.

ICLEI will keep AMCCP participants informed of any significant issues related to the impact of emissions trading on proposals by local government for carbon neutrality. However, we encourage the AMCCP to continue to implement emission reduction policies irrespective of market-based approaches developed by national governments.

Carbon neutrality concept

Carbon neutrality can be defined as a state where no net greenhouse emissions are produced by a particular entity or activity during a particular time period.

In recent years carbon neutrality has been advocated by a large number of governments and private sector organisations. However there is currently no single independent global standard for carbon neutrality that can be referred to in support of a claim of neutrality.

The concept of carbon neutrality can be applied to an entire organization, a particular event that the organisation is responsible for, goods that the organisation produces or services it delivers. Carbon neutrality may also be referred to by equivalent terms such as *zero net emissions*.

In practical terms, carbon neutrality involves achieving a state where any greenhouse gas emissions produced by an organisation or event are counteracted by equivalent external emission reductions, such that the effect of any greenhouse emissions from the organisation or event is neutralised.

Elements

Three aspects of the quantification and reporting of greenhouse gases are important when defining a state where no net greenhouse gas emissions are produced. These elements, which must be considered when defining carbon neutrality, are:

- Boundaries
- Scope
- Timeframe.

Boundaries

Carbon emissions can be assessed from several perspectives. Local governments typically assess the emissions from their own corporate operations and those from the community in their local government area so there are also two potential ways for a local government to frame neutrality:

- *Carbon neutral council* – addressing emissions that are the result of council operations;
- *Carbon neutral community* – addressing emissions from both council operations and the municipality.

There are other occasions where the boundary of assessment may be smaller than the entirety of council operations or the local government area:

- *Particular events organised by the local government, or that are held within the local government area;*
- *Specific services delivered by the local government, such as library services or parks maintenance.*

Any of these can be validly used in a claim of carbon neutrality, but the boundary must be clearly stated in order to avoid misleading the public.

It is important to note that, because greenhouse gases mix in the global atmosphere, the location of greenhouse gas emissions and emission reductions is of no consequence. Emissions occurring in one area can be neutralised by activity that occurs anywhere in the world, so the emission and the reduction activity do not necessarily need to occur in the same area.

Scope

A carbon neutrality claim must cover all significant sources of greenhouse gas emissions within the selected boundary. The use of emission scopes helps to attribute responsibility for those emissions so that the party implementing a carbon neutral strategy can properly identify the quantity of emissions that they need to neutralise. The degree of responsibility for an emission of greenhouse gases is reflected in the scope of the emission.

See *Appendix* for the definition of scopes used by the *International Local Government GHG Emissions Analysis Protocol*. The scopes definitions used for government operations are consistent with those used by the GHG Protocol Initiative *Corporate Accounting and Reporting Standard*, the *Australian National Greenhouse and Energy Reporting Act* and the *New Zealand Guidance for Voluntary, Corporate Greenhouse Gas Reporting*.

An organisation should take responsibility for both scope 1 and scope 2 emissions resulting from its activities¹. Employee travel for business purposes, when not using a mode of transport owned or operated by council, is classified as scope 3 but, because the extent of those emissions depends on the mode of travel chosen, it is within the ability of the organisation to reduce those emissions.

¹ See Appendix for emission scope definitions.

A claim of carbon neutrality *must* cover, at a minimum, scope 1 and scope 2 emissions from all emission sources within the boundary of the assessment. In addition, scope 3 emissions from business travel *should* be included, while other scope 3 emissions *may* be included, in recognition of the importance of those emissions in many cases. Scope 3 emissions include those from activities for which the organization has a legislative responsibility, and retains a degree of control, but has contracted out to others.

However, it must also be recognised that scope 3 emissions, from the perspective of one organisation, are scope 1 or scope 2 emissions for another organisation². Attempting to include all scope 3 emissions in the assessment used to support a claim of carbon neutrality can, therefore, lead to the potential for the same emissions to be offset twice if the supplier is also neutralising their scope 1 and scope 2 emissions. Adopting the preferred approach described above, of limiting the inclusion of scope 3 emissions to business travel, will minimise the potential for unnecessary expense to be incurred.

Timeframe

In accordance with the international approach adopted by the UN Framework Convention on Climate Change, all greenhouse gas emissions accounting is annual. Just as emissions accounting is annual, so should a commitment to neutrality be explicit regarding the year to which the claim refers. Where it is intended that a short term event be carbon neutral, the commitment must cover all emissions produced due to staging the event, whether they occur before, during or after the event.

Most pathways to carbon neutrality will involve the use of *offsets*, which are intended to compensate for an organisation's emissions by reducing emissions elsewhere. Many offset programmes allow future emission reductions to be brought forward and sold as soon as the offsets are accredited, as a method of project financing. This approach is commonly used by schemes that allow the use of biosequestration and can result in up to 30 years of future carbon uptake by vegetation being used to offset current emissions.

Regrettably, the use of future emission reductions to compensate for current emissions results in the actual reduction in emissions being delayed for many years. The Intergovernmental Panel on Climate Change has stressed the importance of reducing atmospheric carbon levels as soon as possible, so it is recommended that preference be given to offsets from emission reductions that are realised within a year of the emission that is being offset.

Therefore, a claim of carbon neutrality that utilises offsets should ensure that those offsets reduce emissions by the required amount *within 12 months of the emission occurring*.

Pathways

There are several aspects that a council embarking on a pathway to carbon neutrality needs to consider:

- What does council want to achieve?
- How is council going to get there?
- When does council want to get there?
- How will council know if it is on the right track?
- How will council demonstrate that it has achieved its goal?

² For example, electricity used to produce goods used by a local government results in scope 2 emissions for the manufacturer but the same emissions are scope 3 for the local government.

Commitment/claims

A council intending to embark on a pathway to carbon neutrality needs to be clear about the elements above – the boundary, the scope and the timeframe of the claim.

Carbon neutrality claims must include a clear statement of the entities or activities covered by the claim. The claim must cover at least scope 1 and scope 2 emissions from all significant emission sources within the boundary of assessment. The year by which neutrality will be reached, and maintained thereafter, must be stated.

Process

Three steps are required of a council proposing to deliver on a claim of carbon neutrality:

1. An accurate assessment of relevant emissions
2. A detailed assessment of the mitigation options that will be used
3. Sourcing acceptable emission reductions to offset residual emissions.

These steps are necessary in order for council to find the most economic path to neutrality. Cost-effective mitigation options should be pursued first, using the following standard hierarchy as a guide:

1. Avoid emissions by modifying behaviour
2. Improve energy efficiency
3. Increase renewable energy generation.

Offsets are likely to be required in most cases, but should be used to offset any residual emissions rather than being used as a primary approach. Annual expenditure on offsets is unlikely to lead to a sustainable reduction in emissions in the longer term, due to it relying on political support for an expense that provides no financial return to council.

If a council decides to use offsets, a number of factors should be considered. The primary consideration must be ensuring that the vendor of the offsets is reputable and uses a registry that is externally audited. Independently-verified offsets will help ensure that the offsets purchased by council actually contribute to a reduction in global greenhouse gas emissions³. An equally important consideration for many councils will be a preference for offsets from projects that bring financial or social benefits to the local community that hosts the offset project.

Timeline

A council should allow sufficient time for carbon neutrality to be achieved in a cost effective way. While it is possible to immediately purchase sufficient offsets to be carbon neutral in the short term, this can divert funds needed for longer term capital works capable of delivering long-term sustainable emission reductions. A more considered approach involves an initial investment in infrastructure that will deliver on-going financial benefits and emission reductions, with any expenditure on offsets deferred until all attractive investment opportunities have been exhausted.

³ The carbon offset products accepted as greenhouse gas emission reductions for CCP Australia reporting are listed in the CCP Australia Offsets Policy, which can be accessed from the Resources/Carbon Offsets section of the CCP Australia website, www.iclei.org/index.php?id=9117.

Useful guidance on a potential sequence of investments is provided by considering the marginal cost of abatement applicable to a particular council. The most cost effective approach to achieving carbon neutrality involves taking advantage of abatement opportunities with a low cost per tonne of greenhouse gas reduction and then progressively implementing options with higher marginal costs. At the point where the marginal cost does not meet the investment criteria of the particular council, it may be appropriate to purchase offsets to cover the remaining emissions.

Monitoring

Regularly assessing progress toward the stated commitment of neutrality will help ensure that the aim is achieved. Several elements of a council's carbon neutrality work should be monitored, as outlined below.

An annual inventory of relevant emission sources should be conducted to ensure that emissions are decreasing in response to actions being taken. Identifying progress allows the results to be communicated to those who have adopted new work practices, or otherwise modified their behaviour, in an effort to reduce emissions. It can also be used to demonstrate the benefit of any expenditure on energy efficiency that has been made to support the carbon neutrality goal.

As the number of councils and organisations committed to carbon neutrality grows, networks and information sources need to be used to ensure that the most cost-effective mitigation options are identified. Technological developments can result in rapid shifts in the economics of options, such that a previously uneconomic option can become beneficial for council to pursue.

Councils are likely to use a retail market to purchase offsets from existing projects, so it is also important to monitor carbon markets to ensure that the selected offsets represent lower cost emission reductions than council could achieve by implementing mitigation projects itself.

Evaluation/accreditation

Certified claims of carbon neutrality will be strongest if supported by external evaluation or verification. Guidance that could be used for evaluation or verification can be found in:

- *International Local Government GHG Emissions Analysis Protocol* (available at www.iclei.org/index.php?id=8154)
- *ISO 14064-1 Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*
- *GHG Protocol Corporate Accounting and Reporting Standard*.

Summary

The design of a carbon neutral framework developed by a council will benefit from careful consideration of the following steps:

1. Choose your boundary – what activities will your carbon neutral work apply to?
2. Understand your scopes – what emissions are you responsible for?
3. Decide on your timeline – what strategy best suits your circumstances?
4. Develop a monitoring process – what systems will you need to track progress?
5. Ensure that your work complies with an evaluation system.

Appendix

The *International Local Government GHG Emissions Analysis Protocol* defines three scopes for each of local government operations and the community.

	Scope	Definition	Example
Government	1	Direct emission sources owned or operated by the local government	Emissions from natural gas used to heat council buildings; Emissions from council's vehicle fleet
	2	Indirect emission sources limited to electricity, district heating, steam and cooling consumption	Emissions from electricity used to light council buildings
	3	All other indirect and embodied emissions over which the local government exerts significant control or influence	Emissions generated during the production of goods used by council; Emissions from business travel, on transport not owned or operated by council
Community	1	All direct emissions sources located within the geopolitical boundary of the local government	Emissions from road transport within the council area
	2	Indirect emissions that result as a consequence of activity within the jurisdiction's geopolitical boundary limited to electricity, district heating, steam and cooling consumption	Emissions from electricity used by residents and businesses within the council area
	3	All other indirect and embodied emissions that occur as a result of activity within the geopolitical boundary	Emissions from waste disposed to landfills outside the council area

For further detail on scopes or any other aspect of greenhouse gas emissions accounting for local governments, please refer to the *International Local Government GHG Emissions Analysis Protocol* available at <http://www.iclei.org/index.php?id=8154>.