
REPORT 2
(1215/52/IM)

TOWARDS CARBON NEUTRALITY - A CLIMATE CHANGE VISION FOR WELLINGTON

1. Purpose of Report

To propose that the Council agrees that its vision responding to climate change for Wellington City is **carbon neutrality**. This aspirational vision would be supported by revised emission reduction targets and a new work programme, reflecting a heightened priority of climate change as a strategic issue for the Council and the community.

2. Executive Summary

The overwhelming global scientific view is that climate change is real, and that human activity is the cause. Potentially unmanageable levels of global warming and sea level rise are expected within this century unless global greenhouse gas emissions are stabilised within the next decade and reduced 50-85% by 2050. The initial costs of achieving this reduction are expected to be greatly outweighed by the long-term economic benefits, as well as the social and environmental benefits.

Even if today's scientific consensus turns out to be inaccurate, the economic reality is that political leaders and global markets have accepted these predictions as a given and are adjusting their policy and behaviour accordingly. Irrespective of the actual medium to long-term climate impacts on Wellington, the city is going to be significantly affected in the short-term by:

- current and future international treaties
- a proposed cap-and-trade system in New Zealand that would place a price on carbon
- increasing consumer demand for low-emissions products and destinations
- political and corporate positioning towards a climate-friendly stance.

To future-proof the city against the environmental, social and economic threats of climate change, and to take advantage of emerging opportunities, the Council needs a highly visible, proactive approach to climate change. A leadership approach would position Wellington as a catalyst at the forefront of climate change action.

Increasing the Council's commitment to mitigating climate change requires three steps:

1. Set an aspirational vision, **carbon neutrality**, for both Council operations and the city as a whole, to galvanise support and inspire action. This is consistent with the Government's aspiration for New Zealand to become carbon-neutral.
2. Set new short, medium and long-term emission reduction targets in line with both the Council's new vision and with what is required to keep global warming at a level which can be reasonably managed.
3. Scope a detailed work programme that is likely to achieve each target. This work programme will provide practical and quantifiable benefits to the Council and the city.

This report deals primarily with the vision (Step 1). If Council agrees to the vision, potential revised short, medium and long-term emissions reduction targets (Step 2) will be presented to Committee later this year, along with supporting preliminary estimates of the cost of achieving these reductions and offsetting any remaining emissions. Based on the agreed targets, a detailed work programme (Step 3) would then be developed to inform the 2008/09 Draft Annual Plan, prioritising activity based on cost-benefit analysis, and including climate change adaptation as well as emissions reduction.

Because of its understanding of concepts like environmental sustainability and energy efficiency, the Council has already been involved in activities that reduce climate-changing emissions. Examples include planning for a compact city, promoting the use of public transport, and working to reduce the Council's energy consumption. Climate change provides impetus for an expanded, integrated work programme responding specifically to climate change. This programme would coordinate existing and new projects and programmes across a range of areas and activities including energy, transport, urban development, water management and waste management.

One potential relationship which could be an effective way to help establish Wellington as New Zealand's centre point for climate change action is partnership with the International Council for Local Environmental Initiatives (ICLEI), which runs the Communities for Climate Protection (CCP-NZ) programme.

The Council's strategic direction provided by its seven strategies will need to be reviewed through the LTCCP process to put a stronger emphasis on climate change.

3. Recommendations

It is recommended that the Committee:

1. *Receive the information.*
2. *Note that the Management Board has agreed to a Local Action Plan for the effective and efficient management of the Council corporate energy*

consumption, and to the necessary steps the Council must take to minimise its greenhouse gas emissions.

3. *Note that the imperatives for a clear, strong Council response to climate change include increased awareness and understanding of climate change issues, combined with mounting evidence that business-as-usual is likely to result in serious environmental, economic and social impacts.*
4. *Agree that an officer working group will be formed to report back to the Committee by September 2007 on a set of options for carbon reduction targets and carbon offsetting measures, including a preliminary cost-benefit analysis of the types of projects and initiatives that could support these options.*
5. *Agree that officers enter a memorandum of understanding with ICLEI's New Zealand office to establish Wellington as its base location and Wellington City Council as its key council partner for New Zealand, and that the consequent costs to Council be met from within existing financial baselines.*
6. *Recommend to Council that it agree to the aspirational vision of carbon neutrality for Wellington City Council and the city as a whole.*

4. Background

4.1 August 2006 Committee report

A report to the Strategy and Policy Committee 24 August 2006 outlined climate change developments and the Council's responses to date.

The Committee agreed that climate change impacts would be considered in LTCCP implementation work, and any future reviews of the Council's seven strategies. The Committee also agreed that officers would review the Council's policy responses to the threat of climate change and related energy issues. The need for the prioritisation of renewable energy, as well as energy efficiency and conservation, was noted.

4.2 Draft Annual Plan (DAP)

As part of the DAP deliberations earlier this year, Councillors discussed Wellington becoming a carbon-neutral city. This was seen as an ambitious but worthy aspiration which requires a long-term commitment from the Council. Councillors asked for a comprehensive and sustainable approach for responding to climate change, rather than proceeding with a potentially disjointed set of new initiatives or ideas.

4.3 Climate change science

This report is not revisiting the science or the causal factors behind climate change as the Committee agreed in August 2006 that the current understanding justifies action. A summary of the science was provided as background for the

Elected Members Briefing of 22 May 2007, at which there was opportunity for Elected Members to raise questions. In brief:

- The scientific consensus is that the world's climate is warming and greenhouse gas emissions ('emissions') from human activities are contributing significantly to this warming.
- Regardless of the action taken now, due to a lag in climate processes, warming of at least 1 degree Celsius and resulting sea level rise of at least 0.5 metres is predicted by 2100.
- If no action is taken and emissions continue at current rates, the effects are likely to be much greater, increasing the temperature by 2 – 6 degrees Celsius by 2100 with potentially irreversible climatic effects.

The growing weight of evidence supports the conclusions drawn by the vast majority of scientists. However, there is a body of thought that disagrees with these conclusions, including the argument that human activity is a significant contributor to global warming and therefore to climate change. A summary of these views is presented at Appendix 1.

4.4 Climate change terminology

Carbon neutrality refers to a situation where emissions are reduced as much as practical and any remaining emissions (usually expressed as CO₂-equivalents, hence the 'carbon' terminology) are balanced, or *offset*, in some way. This may be by conducting or financing activities that absorb greenhouse gases, such as the planting of forests or the creation of other *carbon sinks* that remove carbon dioxide from the air. The financing of emissions reduction elsewhere, for example through the purchase of *carbon credits*, can also contribute to off-setting. These credits could be obtained either directly from an organisation that has reduced its emissions or through a *carbon trading* scheme such as the voluntary one recently proposed by the New Zealand Stock Exchange. Other carbon trading schemes include the voluntary Chicago Climate Exchange and the mandatory European Union Emission Trading Scheme. Meridian Energy is a local example of an organisation that has recently achieved carbon-neutral status for all its operations by making offsetting payments.

Carbon neutrality does not mean 100 percent reduction in emissions. An entity could reduce its emissions by 50%, or even increase its emissions, and achieve carbon neutral status through the implementation or purchase of carbon offsets, but that entity would still have emissions.

Regardless of how carbon neutrality is achieved, the effect on the climate is the same, and it involves a significant commitment of financial and organisational resources. Many experts believe, however, that it is often better financially and environmentally to reduce emissions as much as possible (by reducing energy consumption or using renewable energy sources, for example) before purchasing offsets. Reasons include that energy savings usually result in cost savings, and that there is a finite amount of land that can be converted to carbon sinks while still meeting other land use demands.

Another important consideration for emission reductions is the starting baseline that is used. One organisation might reduce its emissions by 50 percent, but still

have higher overall emissions than another organisation that did not reduce its emissions at all.

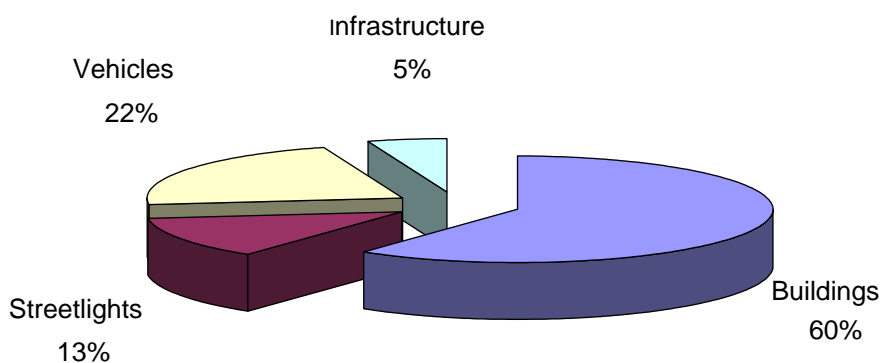
4.5 Existing Council commitments and carbon footprint

Under the Kyoto Protocol, New Zealand has committed to stabilising its emissions at 1990 levels by 2012. While the New Zealand government has centralised the nation's liability under the Kyoto Protocol and has not devolved this liability or responsibility to companies or local authorities, New Zealand as a whole cannot meet its Kyoto obligations unless all cities or districts play their part. In fact, the Government reports that New Zealand has so far failed to stabilise emissions, and it predicts that it will owe more than \$500 million as a result.

To do its part, the Council has committed to emission reductions through the CCP-NZ programme. There are two aspects for the Council to consider, the corporate emissions and the community emissions. As agreed in November 2005, the Council is aiming to stabilise its **corporate** emissions at 2003 levels by 2010, and to reduce its emissions by 20% below 2003 levels by 2020. Corporate emissions include all of those emissions the Council creates in the course of its business, including community facilities and services.

In 2003, the Council's corporate emissions were approximately 12,000 tonnes of CO₂-equivalent, and by 2006 these had increased to approximately 13,000 tonnes. Electricity use is the main source of the Council's emissions (54%), followed by natural gas (25%) and diesel (17%) use. In terms of where this energy is used, buildings remain the main contributor to the Council's emissions, followed by vehicles and streetlights, as shown in the figure below.

Figure 1: Council greenhouse gas emissions by sector, 2006



Part of the CCP-NZ programme involves a commitment to a **community** reduction goal as well – that is, a goal for the entire city of Wellington. In November 2005, the Council agreed in principle to a preliminary target of stabilising at 2001 levels by 2010 (roughly one million tonnes of CO₂-equivalence) and then reducing these emissions by 10% by 2020. This target will be the subject of community consultation and is being proposed as an indicator for the LTCCP's community outcomes. The community's emissions are largely from petrol use, followed by electricity and diesel use.

The CCP-NZ programme provides a milestone framework for both the corporate reduction goals and the community reduction goals. Council and community progress with the five milestones is as follows:

Milestone	Council	Community
1. Complete emissions inventory	Achieved	Achieved
2. Set goals	Achieved	
3. Develop an action plan	Pending	
4. Implement savings opportunities from the action plan		
5. Monitor and report		

At present, the Wellington Council has completed Milestone 1 for the community and Milestone 2 for the corporate outcomes. In March 2007, a Local Action Plan for Climate Change and Energy Management for corporate operations and activities was presented to and agreed by the Council's Management Board. The plan, attached as Appendix 2, documents a clear set of steps the Council must take towards effective and efficient management of its corporate energy use, meeting requirements for corporate Milestone 3.

It is important to note that the CCP-NZ programme is focused on emissions reduction, and that neither the corporate nor the community emissions goals for Wellington include any commitments to offset remaining emissions as a means to achieving carbon neutrality. Work is currently being undertaken to estimate the area of Kyoto compliant land held by the Council that may be eligible for offsets.

4.6 New developments

Several high-profile external factors and events have changed the policy context since the adoption of the Council's CCP-NZ targets in 2005 and the August 2006 Committee report.

The events that have led to stronger media interest in the topic, increased public awareness of climate change issues, and greater understanding of climate-related threats and opportunities include:

- the success and publicity surrounding the film "**An Inconvenient Truth**" by former US Vice President Al Gore
- the **Stern Report** for the UK Government released in October 2006, which focused on the economic costs of inaction on climate change and emphasised the need for action. Its widely publicised conclusions are that one percent of global GDP should be invested in order to avoid the worst effects of climate change, and that this investment could prevent global GDP dropping by at least five percent per annum.
- the release of several **central government strategy documents**, including a draft New Zealand Energy Strategy and several discussion documents on climate change, in December 2006. The Council's Strategy and Policy Committee received a summary of these on 1 March 2007 and agreed to four submissions on behalf of Council. Decisions on these are expected from Government later this year

- the **Government's Statement to Parliament** on 13 February 2007, in which it highlighted the critical importance of climate change as an issue for New Zealand and stated its aspiration for New Zealand to become carbon-neutral. Interest across all political parties is high. The leader of the opposition, for instance, committed on 14 May 2007 to honouring the Kyoto Protocol and to reducing emissions 50 percent by 2050
- Further scientific evidence and consensus that human activities are leading to significant climate change, as reported by the **Intergovernmental Panel on Climate Change (IPCC)** through a series of reports in the first part of 2007
- high-profile **New Zealand-based science and policy research**, such as that done by NIWA and by Victoria University's Institute of Policy Studies
- the 2 May 2007 announcement by the **New Zealand Stock Exchange** that it is developing a New Zealand-based emissions trading platform (Time Zone One – 'TZ1') for the Asia-Pacific region.

4.7 Assessment of Wellington's existing targets

The recent developments described above suggest that a re-assessment of the Council's existing CCP-NZ targets is appropriate.

It is becoming apparent that Wellington's existing targets are not at the level required globally to stabilise the Earth's climate within reasonably manageable limits. The emerging consensus (as per the latest IPCC report) is that 50 – 85% emissions reduction by 2050 will be required to stabilise the increase at 2 – 2.4 degrees Celsius, thereby avoiding the worst effects of climate change. Many experts suggest that developed countries like New Zealand must cut emissions even more (for example, 90%), given their starting point as heavy emitters. While New Zealand contributes only 0.2 percent of global emissions, our per-capita rate is very high in global terms. Wellington has not adopted a 2050 long-term emissions reduction goal, but the intermediate 2020 reductions of 20% for the Council and 10% for the community appear modest in comparison to what is eventually required.

In comparison, several cities around New Zealand and the developed world have taken a lead in adopting bold visions and emission reduction targets. Examples of these commitments and actions are presented in Table 1 below, and in more detail at Appendix 3.

Table 1: Other city's targets

City Council	Target	Date by	Status	Base year
Wellington	Council only stabilise	2010	Agreed	2003
	20% reduction	2020		
	Community stabilise	2010	Draft	2001
	10% reduction	2020		
Kapiti Coast	Council only 15% reduction	2010	Agreed	2001
	Community stabilise	2010	Agreed	2001
	20% reduction	2015		
Auckland	Council only Carbon Neutral	No date set	Agreed	1990
New York	Citywide 30% reduction	2030	Agreed	1990
UK Climate Change Bill	Whole of UK 26-32% reduction	2020	Agreed	1990
	60% reduction	2050		
Brisbane	Citywide Carbon Neutral	2050	Proposed	1990
Melbourne	Citywide 20% reduction	2010	Agreed	1996
	Carbon Neutral	2020		
	Council only 30% reduction –	2020	Agreed	1996

In short, Wellington's existing CCP-NZ commitments for the Council and the community are a modest start but appear inadequate to meet the recommended reductions required to stabilise the climate at a manageable level. They also lag behind the targets and visions of some other high-profile cities.

4.8 Imperatives

The need for a strong Council response to climate change is driven by a range of imperatives and opportunities. The increased public and political interest in climate change issues is clearly one factor. Beyond this, and perhaps more important, is the mounting evidence that business-as-usual is likely to result in serious environmental, economic and social impacts globally, nationally and locally. These impacts can be summarised briefly as:

- **environmental impacts**, such as increased air temperatures, sea level rise, droughts in some areas, and increased frequency of extreme storms in other areas, causing degradation of Wellington's coastlines and other natural environments and ecosystems, and increased infrastructure and maintenance costs to the Council

- **economic impacts**, such as the cost of adapting to impacts like sea level rise, increased costs of disaster relief from floods, droughts and storms, increased costs associated with technologies that reduce emissions, higher costs of food production, and higher insurance costs to the Council, businesses, residents and visitors
- **social impacts**, which include the fact that developing countries are more at risk from the effects of climate change (e.g. less able to afford higher costs or to relocate), and that New Zealand is a likely destination for future climate refugees from flood or drought-stricken areas, with consequent implications for Wellington's social infrastructure and costs to the Council.

Aside from the impacts of climate change itself, there are likely to be impacts resulting from the following policy and market responses to climate change:

- **price signals** likely to emerge from central government policy. A price on carbon through carbon trading, for example, would increase the cost of using carbon-based fossil fuels such as oil and coal, as well as electricity derived from those sources
- **consumer preferences**. People are likely to want to live in or visit climate-friendly cities, buy from climate-friendly firms and work for climate-friendly organisations. New Zealand's isolated position means that some visitors and goods must travel many carbon-emitting air miles – a potential drawback in terms of public perception and economic competitiveness.

Both price signals and changing consumer preferences could result in negative economic outcomes for the Council and Wellington City if business-as-usual approaches were taken, but they also present significant opportunities.

Price signals will provide opportunities for innovation. For example, firms developing energy-efficient technology would reap the benefits of greater product demand. Similarly, changing consumer preferences could work to Wellington's advantage if it positions itself convincingly as a climate-friendly city.

4.9 Opportunities

The opportunities for Wellington are not limited to the economic area. Overall, Wellington has a clear opportunity, as a large and progressive capital city, to be in the vanguard for responding to climate change issues and to demonstrate high-level leadership. Its strengths include:

- the city's existing reputation as a centre of innovation and excellence, with an evident willingness to develop new technologies and embrace change
- its capital city status, with attendant proximity to central government and academic and political expertise
- sufficient critical mass, within a compact, accessible footprint, allowing cross-sectoral engagement across a full range of climate change issues and opportunities
- locational opportunities for wind, marine and solar energy generation

- the possible location of a carbon trading centre in Wellington, as proposed by the New Zealand Stock Exchange
- a wide range of existing Council initiatives, described later in this report, to which further targeted activities can be added to build a full work programme that optimises outcomes from investment.

The imperatives and opportunities outlined above suggest that Wellington should continue to work on three fronts:

- **Research**, in partnership with local universities and other research institutions, on the potential local impacts of climate change and the best ways to mitigate and adapt to those impacts
- **Mitigation** - the prevention or reduction of impacts through reduced emissions
- **Adaptation** to impacts that are unavoidable regardless of emission reductions undertaken.

While adaptation is essential to protect the wellbeing of current and future Wellington residents, and it fits well with traditional local government responsibilities such as flood protection and sea walls, mitigation is equally necessary to prevent potentially more serious long-term consequences. Despite the fact that Wellington is a relatively small player in the global emissions framework, it has the potential to be very influential. The rest of this paper focuses on the potential for Wellington to seize this opportunity as a leader in climate change mitigation.

4.10 The option of non-action

A minority of scientists question the findings, such as in the IPCC reports, that human activities are contributing to global warming. There is also an argument that the relative size of New Zealand's contribution to global emissions implies that the relative value of taking any action is minimal. Such arguments become moot for the Council in light of the:

- financial savings that can be produced through energy efficiency projects
- level of New Zealand Government and cross-party commitment, specifically on areas such as introducing an emissions cap-and-trade system and committing to emissions reductions targets
- international response within New Zealand's trading and tourism markets and consequent economic implications of inaction.

These factors suggest that a strong climate change response still makes financial, economic and political sense.

5. Discussion

5.1 The proposal

Officers recommend that the Council increases its commitment to mitigating climate change. The following three steps, explained further below, are proposed:

- 1. Set an aspirational vision.** An aspirational vision can be useful in galvanising support and inspiring action. For example, the Government has stated its aspiration for New Zealand to become carbon-neutral in the longer-term. Such a vision for Wellington could have value and would provide a framework for intermediate targets.
- 2. Consider an increase to existing targets.** As stated earlier in this paper, the Council's existing emissions reduction targets are modest, both in comparison to those of other cities, and to what is eventually required to keep global warming at a level which can be reasonably managed. Targets for the short-term (2010), and medium-term (2020) should be re-evaluated, and a long-term target (2050 or beyond) should be set that approaches the aspirational vision.
- 3. Scope a work programme.** The chosen set of intermediate targets to achieve an aspirational vision will need to be supported by a detailed work programme that is likely to achieve each target. This will provide practical and quantifiable benefits to the Council and the city.

The following sections propose an approach for dealing with these three steps.

5.1.1 A proposed climate change vision for Wellington City: Carbon Neutrality

It is recommended that the Council adopts a **long-term vision of carbon neutrality**, for both Council operations and the city as a whole. This will be supported by further work and decisions on intermediate targets towards this vision.

An aim of carbon neutrality positions Wellington City as a catalyst for climate change action in New Zealand and internationally. Wellington could be seen as an innovative capital city that stands by and acts on its convictions, and a champion for collaboration across local authorities, and the research and business sectors.

The vision needs to be supported by several elements:

- **Determination.** While responding to climate change can be seen as an opportunity, it is not likely to be easy. Difficult decisions and trade-offs on the allocation of resources may be required.
- **Inspirational marketing** to grab the hearts and imagination of businesses, residents and visitors alike, developing shared values and a collective ethos.
- **Strengthening Wellington's reputation** as a leader in sustainability on a variety of fronts, not only climate change.
- **Partnership** across all sectors and all activities in the Council and the city, including financial institutions, academic and research institutions, central government agencies and other local government partners (potentially through the Wellington Regional Strategy).

5.1.2 Revised targets

Further work is required to better understand whether more ambitious targets than Wellington's current CCP-NZ commitments are possible, and what these might be. The time frames to be considered include the short-term (2010), medium-term (2020) and long-term (2050 or beyond). The targets might include not only emissions reduction but also commitments towards carbon neutrality through offsetting any remaining emissions.

If Council agrees to the aspirational vision of carbon neutrality, officers propose a further report to Committee by September 2007 on a set of potential revised emission reduction targets for the Council and the wider Wellington community. The revised targets will aim to move Wellington towards carbon neutrality within a tighter timeframe. To enable an informed choice of targets, that report will include a preliminary cost analysis of the range of projects required to achieve each target, as well as the estimated cost of achieving carbon neutrality by offsetting the remaining emissions for each target.

5.1.3 The current and proposed work programme

Both the vision and these targets will require an integrated work programme. This will require coordination of existing and new projects and programmes, across a range of areas and activities, including energy, transport, urban development, water management (drinking, waste and stormwater), and waste minimisation.

The principles of environmental sustainability and energy efficiency are not new concepts. Much of the Council's planning and project activity already contributes to mitigating the effects of climate change, because it makes sense to be sustainable and reduce energy consumption. Current activity includes projects to position the Council as a corporate leader, such as:

- in-house Energy Management Planning through the appointment of an Energy Manager
- development of Sustainable Building Guidelines for Council buildings
- waste management initiatives including partnering with Nova Gas to generate electricity from landfill gas.

There are also a number of projects that extend beyond the Council organisation to the wider community, such as:

- development of Sustainable Building Guidelines for the wider community
- urban development and transport planning around a compact growth spine
- travel demand management and bus priority planning
- asset management and water conservation planning to adapt to potential climate change impacts.

In effect, a range of effective practices that have been implemented for economic or other reasons, now have the additional rationale of their contribution to climate change response.

To build on this work it will be critical for the Council to prioritise any additional activities. This prioritisation will be based on a cost-benefit analysis so that investments are targeted to achieve the most cost-effective response. That is, activities will be ranked by their level of contribution to reductions in relation to their cost. Both benefits and costs will need to be examined over the long-term as well as the short-term.

At the global level, the latest IPCC report says that stabilising the Earth's climate at a 2 degree Celsius temperature increase is likely to decrease GDP by less than 0.12 percent per year to 2050, or 5.5% overall.

At the local level, some emission reduction activities, such as energy efficient behaviour, will result in immediate cost savings. Other activities, however, such as investment in solar water heaters, will require some upfront investment that will pay off over a longer term, and still others are likely to have net *financial* costs over time. Similarly, achieving carbon neutrality through offset activities, such as tree planting, or offset purchases, such as carbon trading, will also have financial costs. While the overall benefits of action are likely to exceed costs in the long-run, there are likely to be significant financial implications in the short-run, and these need to be quantified to support prioritisation.

The proposed work programme will result in a set of new initiatives for the 2008/09 Annual Plan, potentially addressing adaptation as well as mitigation.

To support the proposed vision and targets, the Council's strategic direction provided by its seven strategies will need to be reviewed to put a stronger emphasis on climate change. Beyond the 2008/09 Annual Plan, the next LTCCP (2009/19) will need to incorporate this shift in strategic direction.

5.2 Dependencies

There are limits to what the Council can achieve on its own in terms of reducing emissions, particularly with regard to the community's emissions.

The primary ways in which the Council has influence on the community's emissions are:

- developing a compact urban form and a supporting transport system that reduces the need for automobile trips
- leadership, persuasion and facilitation through potential demonstration projects and educational activities.

Beyond this, the Council must rely in part on the community, including the business sector, to take ownership of its climate goals. Concerted business effort could significantly impact on emissions. Supporting community engagement will require effective consultation and communication as part of setting targets and developing a work programme.

Much also depends on action taken at a national level by central government, within an international context. A number of important central government policy decisions have been made recently or are expected to be made soon, in the wake of several discussion documents on energy and climate change referred to earlier in this paper. These decisions cover such issues as:

- **A price on carbon.** The Government has recently signalled its preference for a cap-and-trade carbon trading system, in which emitters would be required to purchase carbon credits for emissions above an agreed baseline.
- **Better building standards.** The Government announced in May 2007 that the Building Code will incorporate tougher insulation requirements (such as mandatory double glazing in most parts of the country), requirements for energy efficient lighting in new and retrofitted commercial buildings, and a Compliance Document making it easier to install solar water heating systems. Further changes are expected to improve the energy efficiency of domestic hot water systems and HVAC (heating, ventilation and air-conditioning) systems in new commercial buildings.
- **Mandatory biofuels targets.** The Government has already announced a requirement that biofuels make up 3.4% of all fuel sales in New Zealand by 2012.
- **Public transport funding.** The Government is making available significant funding for public transport improvements in the Wellington region.
- **Research and technology funding.** For example, the Government's draft Energy Strategy proposes a contestable fund to encourage the deployment of marine power.
- **Government operations.** The Government announced in February 2007 that all 34 core public service departments would have plans by 2012 for carbon neutrality, with 6 departments developing plans by early 2008. With the public service having such a large presence in Wellington, this could greatly reduce the city's net emissions.

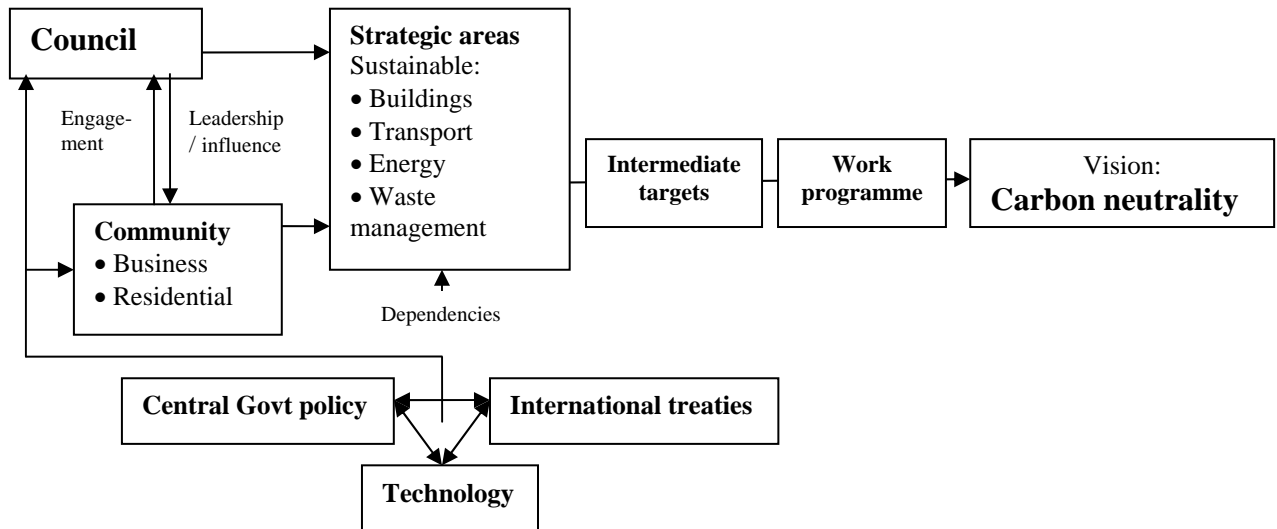
All these government decisions should assist Wellington to reduce its emissions within a national framework.

The international framework after the Kyoto Protocol (post-2012) and the development of financial frameworks like the carbon trading platform recently announced by the New Zealand Stock Exchange also provide an important supporting context for any Wellington actions.

Beyond the national and international policy context, much is also dependent on technological innovation to reduce emissions in areas such as solar and marine power, biofuels, vehicle efficiency, hydrogen cells, 'clean' coal, and carbon sequestration. The Council can be a champion for such innovation and can provide some assistance through partnership approaches.

Figure 2 below shows how the elements can fit together.

Figure 2: Overview of components contributing to achievement of the vision



5.3 Potential partnership with ICLEI

A potential partnership which could benefit the Council in its drive towards carbon neutrality and sustainability is with the Australia-New Zealand branch of ICLEI: Local Governments for Sustainability¹, which runs the CCP-NZ programme. Representatives from ICLEI have approached the Council with a proposal to base ICLEI's New Zealand operations in Wellington under a hosting arrangement with the Council. Such a partnership has worked well in Australia, making Melbourne a focal point for leadership in that country. A similar memorandum of understanding with ICLEI for Wellington is seen as an effective way to help establish Wellington as New Zealand's centre point for climate change action. This relationship would support Wellington as:

- the venue of choice for national and international conferences
- a desirable location for pilot studies and trials for new technologies
- a focal point for knowledge creation and sharing
- a centre for excellence in climate change activity, when combined with other institutions like the TZ1 carbon trading platform and the nearby academic and research institutions.

It is recommended that the Council examines the potential to enter a memorandum of understanding with ICLEI to establish Wellington as its base location and Wellington City Council as its key Council partner for New Zealand, and that the consequent costs to Council be met from within existing financial baselines.

¹ ICLEI is an acronym for International Council for Local Environmental Initiatives.

6. Conclusion

This report proposes an aspirational vision of carbon neutrality for the Council and Wellington City as a whole. This requires a shift in priorities and needs to be supported by a detailed work programme tying together new initiatives and existing projects. Such a work programme would inform the 2008/09 Draft Annual Plan and would follow a report to Committee outlining a range of potential revised climate targets for the short, medium and long-term. The Council's strategic direction provided by its seven strategies will also need to be reviewed to put a stronger emphasis on climate change.

The Council has an opportunity to take a stand on climate change and to adopt a leadership approach, positioning Wellington as a catalyst at the forefront of climate change action.

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Supporting Information

1) Strategic Fit / Strategic Outcome

This report relates to several long-term outcomes from the Council's overall strategic direction, as reflected in the LTCCP, including:

More Sustainable

More Compact

Safer

Healthier

More Competitive

More Prosperous.

*This report also relates to several three-year priorities from the LTCCP, including:
Energy efficiency and conservation, energy security, renewable energy, and leadership in this area*

'Growth spine' planning

Travel demand management

Bus priority measures

Strengthening the city's status as a centre of creativity and innovation.

2) LTCCP/Annual Plan reference and long term financial impact

This report has no financial implications. Future decisions on climate change targets may result in future new initiatives for the 2008/09 Draft Annual Plan

The report proposes a review of each strategy in the LTCCP, to take place for the 2009/19 LTCCP.

3) Treaty of Waitangi considerations

This report has no Treaty implications.

4) Decision-Making

This report does not require a significant decision to be made.

5) Consultation

a) General Consultation

Input has been sought from the Environment Reference Group and a range of experts. Further consultation on specific work items will occur as part of the 2008/09 Draft Annual Plan.

b) Consultation with Maori

Climate change and sustainability are of interest to Maori. Input has been sought from the Wellington Tenth Trust and Te Runanga O Toa Rangaria.

6) Legal Implications

Council is required to take the effects of climate change into consideration when making decisions under the RMA Climate Change Amendment Act (2002). There are no legal implications from this report.

7) Consistency with existing policy

This report is consistent with the outcomes and priorities of the Environment Strategy and Transport Strategy as reflected in the LTCCP. The advice provided supports existing policy and planning work to implement the Council's strategic direction, such as travel demand management, compact growth, and energy

management planning.