Draft Low Carbon Capital Plan

A CLIMATE CHANGE ACTION PLAN FOR WELLINGTON 2016-2018

Have your say 29 March-29 April



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Introduction

Climate change is without a doubt the great challenge of our time. As noted in the Intergovernmental Panel on Climate Change's fifth assessment report:

"Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen."

In December 2015, 200 countries came together in Paris to set a pathway for unprecedented collective action to reduce the amount of greenhouse gases entering the atmosphere and further mitigate impacts of climate change on the planet. These 200 countries signed up to mitigation goals aiming to limit warming across the climate system to 2 degrees Celsius or less by the end of the century. This agreement shows that belief that we need climate action is no longer the exception but the standard.

Cities have a strong role to play as the source of 70% of greenhouse emissions and with 90% of them vulnerable to coastal impacts. Wellington City is no exception and we have already positioned ourselves as a leader on climate change with the lowest per capita emissions in Australasia. The council has pioneered innovative programs like the Smart Energy Challenge and the Smart Buildings Challenge, as well as being one of the only cities in the southern hemisphere to host a Climathon in partnership with Europe's Climate-KIC. We have promoted climate action between local government and partners in the private sector — with both entrepreneurial start-ups and large businesses. The city is home to two wind farms that provide enough electricity to power all our residential homes, and we have the highest active and public transport use in the country. In addition, we own substantive forestry holdings and are aiming to plant 2 million trees across the city by 2020.

But it isn't just these outstanding features and efforts that make us a climate centre of action – we are a member of the Rockefeller Foundation's 100 Resilient Cities Network, and have recently joined the global Compact of Mayors. The City, and region, is home to

multiple universities and research institutes specialising in climate change including the Climate Change Research Institute at Victoria University of Wellington, the New Zealand Centre for Sustainable Cities at Otago University, and a number of Crown Research Institutes.

However we need to keep moving forward by setting ambitious science-based targets and identifying a pathway to meet them. This is what the 2016 Low Carbon Capital plan aims to achieve. We have invested significantly in improving the information that underlies our action planning with by updating our greenhouse gas inventory for the city, achieving Certified Emissions Management And Reduction Scheme (CEMARS) certification for the Council's corporate emissions, and launching the Wellington 2050 Energy Calculator. Building on the success of the 2013 Climate Change Action Plan Low Carbon Capital aims to continue some programs while adding significant action in three key areas: greening Wellington's growth; changing the way we move; and leading by example.

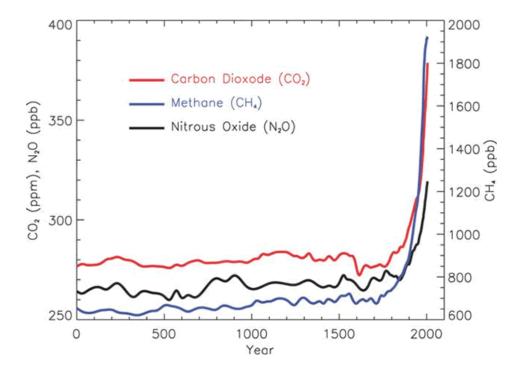
Above all, it is important to keep in mind that reducing emissions is just one reason to invest in carbon-friendly action. Wellington consistently places high in quality of life measures, the highest in New Zealand by some surveys, partially because of its compact and liveable city centre. By investing in climate-friendly infrastructure, we can further promote compact, healthy, and liveable communities which also benefit our economy.

Meeting our ambitious goals will take a concerted effort of tailored investments and initiatives in partnership with the private sector and central government that help promote our weightless knowledge economy while reining in our carbon output.

Momentum for climate action across the globe is building and Wellington is well-positioned to capitalise on its past successes to lead in many areas – not just by continuing its existing programs but by breaking new ground.

Background

Climate change is now a clear and present global threat. Globally significant and sustained changes to the climate system are being driven by human activities – such as farming, driving, burning fossil fuels for electricity, and deforestation – pumping greenhouse gases like carbon dioxide, methane, and nitrous oxide into the atmosphere, where they gather and trap heat. Since the industrial revolution we have seen significant increases in greenhouse gas emissions unseen in millennia.



With 90% of global cities on the coast, vulnerable to threats driven by climate change like sea level rise and increasingly severe storms, it is imperative that we act to limit the damage caused by climate change. Closer to home, Wellington City has already seen the recent impacts of severe storms with the destruction of the Island Bay sea wall, the disruption of roads along the south coast, and the impact of washouts on the rail corridor north, particularly in the June 2013 storms.

However as a city that emits just 5.32 tCO2e per person, the lowest in Australasia, Wellington is starting from a strong base. We have windfarms at our doorstep which supply

enough power to power all of Wellington City's residential homes. We have the highest rates of active and public transport in the country. We enjoy a compact, vibrant and liveable city centre. These existing assets provide a solid base that will act as a springboard to help us achieve our ambitious goals.

Action on climate change is not just good for mitigating emissions, or preventing negative impacts in the future. Acting to reduce emissions helps the city as a whole. Promoting a future-proofed knowledge economy to support the growth of the city and overall wellbeing; supporting the health and wellness benefits that come from active lifestyles and cleaner air; and promoting the vibrant liveable city centre that will result from a compact development profile are all examples of why climate change action is smart for the city.

The global context

Wellington City Council has led on climate change and resilience for many years. Now the Low Carbon Capital plan, combined with membership in the 100 Resilient Cities network funded by the Rockefeller foundation, aims to solidify that leadership position. Wellington aims to be low carbon, liveable and fundamentally resilient to both the stresses and potential shocks that the city will face as a result of climate change.

Since our 2013-15 Climate Change Action Plan was released, the global context has seen a significant shift in its approach to a changing climate. The IPCC Fifth Assessment Report was released in late 2014, warning in the strongest terms:

"Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen."

"The Paris Agreement is a monumental triumph for people and our planet."

 United Nations Secretary-General Ban Ki-Moon In late 2015, countries met in Paris for the 21st Conference of the Parties (COP21). As a result nearly 200 countries signed a commitment, and many issued reduction pledges, to reduce emissions enough to limit global temperature increases to a maximum of 2 degrees Celsius by the end of the century. With large global emitters such as the United States and China pledging meaningful reduction targets the

mood remains positive that we may finally be reaching a tipping point for concerted global action to address climate change.

Domestically central government is currently undertaking a major review of the Emissions Trading Scheme (ETS) and foreshadowing more support for initiatives such as electric vehicles (EVs), cycle ways, and public transport.

Why cities?

Globally cities consume two-thirds of the world's energy and create over 70% of global greenhouse gas emissions. Over 90% of all urban areas are coastal, putting most cities on Earth at risk of flooding from rising sea levels and powerful storms. Ultimately, every city and state is responsible for contributing to climate mitigation if we are to meet the ambitious goals the world has set in the most recent climate summit. Cities emerged out of COP21 in Paris as the key non-state stakeholders in meeting our global carbon challenge.

Wellingtonians each contribute 5.32 tonnes of CO_{2eq} each year. By lowering our carbon impact we contribute to the future-proofing of our city against the most negative impacts of climate change, whilst at the same time improving liveability and competitiveness by leveraging all the co-benefits that come with investing in climate-friendly policies, goods,

and services. We also have an opportunity to show leadership in the reduction of our own corporate emissions.

We will continue to identify opportunities to partner with Central Government, the private sector, universities and research institutes, and NGOs in order to maximise our

"There is no single solution for solving global climate change, but cities have the ability, capacity and will to lead."

C40 Cities Initiative

collective funding capability and ensure no duplication of services.

Wellington City has a proud history of commerce, culture, and innovation. We have the talent, the ideas, and the will to make a meaningful contribution to the global effort on climate change.

The current government response

The New Zealand Emissions Trading Scheme (ETS) is the country's key central government response to combat carbon emissions. The ETS creates a market incentive through by pricing carbon. Emitters must surrender carbon credits to meet their greenhouse gas emissions liability while activities that remove carbon from the atmosphere, such as forestry, are awarded carbon credits. These credits can be freely traded. Most parts of the economy are covered by the ETS with the exception of agriculture which makes up nearly 50 percent of New Zealand's emissions. Trade-exposed industries are allocated free credits to help them transition into the scheme.

For most of the time since the ETS was implemented in 2008 the price of carbon has been so low that it has not made a meaningful difference in terms of driving low-carbon choices in the market. There is currently a review of the emissions trading scheme underway that may address some of these issues resulting in a more robust central government response to the need for decarbonisation.

Co-benefits of climate action

Climate action doesn't just benefit the environment it also benefits the economy and contributes to Wellington's liveability:

- Greater health and wellness, particularly from active transport
- A more livable city with vibrant centres, particularly from compact development
- More affordable and accessible housing due to more space-efficient development
- A more vibrant economy due to an emphasis on "weightless," knowledge-intensive businesses.
- Cleaner air, water and natural environment

The state of play

Wellington City's emissions profile

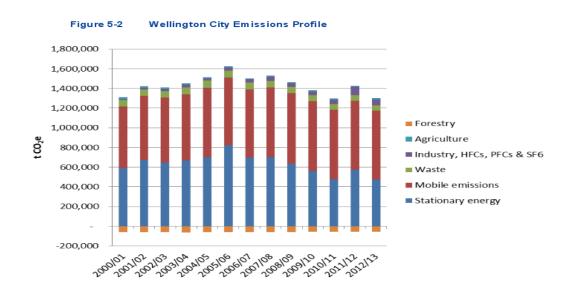
1,084,979

tonnes CO₂ equivalent

 Wellington's 2014/15 total emissions per GHG inventory Wellington City's production emissions are dominated by two key sectors – transport and stationary energy, which combined account for more than 90% of the city's emissions.

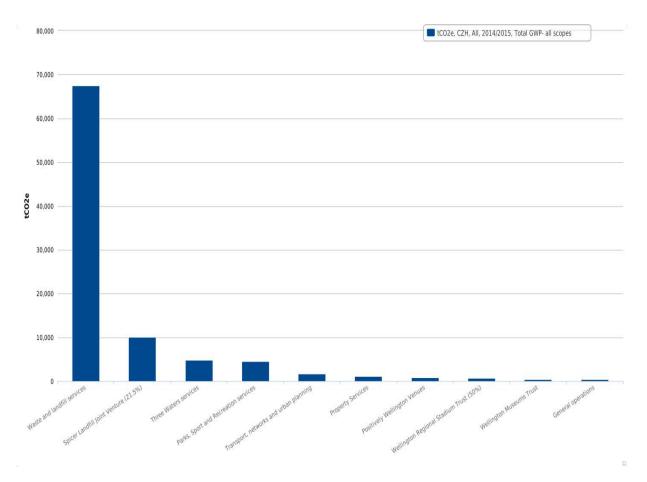
Wellington's emissions profile does not contain substantial agricultural and forestry components as is the norm in most other parts of New Zealand. However Wellingtonians do consume significant amounts of agricultural

products which add to demand for production elsewhere. On the other hand, we have a major international airport within the city limits, so we are credited with the emissions of nearly all of the region's domestic air travel. This creates multiple complex challenges — with less forestry we aren't able to offset as much; and with aviation being a substantial contributor to our transport emissions, greenhouse gas reductions will be driven by the availability of international solutions for aviation such as biofuels or gains in aircraft efficiency. That said there are many opportunities where we can make a difference today — mostly in building energy use and private transport.



Wellington City Council's Emissions Profile

Wellington City Council's recently-audited greenhouse gas emissions inventory is remarkably different from that of the city. As an organisation, waste deposited at our two landfills accounts for more than 80% of the organization's overall emissions. This poses a challenge for the council, as much of the emissions come from private waste deposited at our publicly-operated landfills. Whilst waste dominates our emissions profile there are still significant gains that can be made across the rest of Council operations and CCOs.



The challenges so far

Linking targets to mitigation action

This is not a challenge unique to Wellington City. Governments, Councils, and businesses worldwide have been grappling with the difficulties of setting ambitious but realistic targets and then laying out clearly how they intend to achieve those targets.

Whilst we implemented or completed nearly every action point in the 2013-15 Climate Change Action Plan we still failed to meet our targets. This implies that our targets were not

sufficiently linked to the actions that were chosen, and we need better information to help us identify the actions with the greatest potential to achieve the emissions reductions required to meet our targets.

The development of the 2050 energy calculator and the tools now available to us through our CEMARS certification will assist us to better align targets with pathways to meet those targets.

30 out of 34 actions

completed in the 2013-15 Climate Change Action Plan

The levers we have available to us are limited

Most of the available levers to really accelerate action on climate change mitigation lie with central government. The price of carbon, further greening of the national grid, and accelerating the production and uptake of biofuels are all examples of central government policies over which we have no control that could significantly impact our city and Council emissions. However we do have a strong role to play in advocating on behalf of our community for policies and initiatives which drive down emissions across the city and the country as a whole. This also provides an even greater incentive to make maximum use of the levers which are available to us.

Managing legacy infrastructure and climate change adaptation

Even if the world were to drastically reduce emissions overnight we are still locked into at least two degrees of warming by the end of the century. This will mean changes in weather patterns, temperature, and sea level rise.

One of the most challenging aspects of climate action is likely to be the management of legacy infrastructure. Much of the infrastructure with us today will still be in use fifty or

0.5 to 0.8m Sea level rise local councils are asked to plan for by central government.

over the next coming years.

even a hundred years from now, particularly housing, transport and water infrastructure. Managing this infrastructure in the face of rising seas, more severe storms and a significantly changing climate will be no small feat. Our membership in the 100 Resilient Cities network and the upcoming Resilience Plan will offer an opportunity to elucidate how we plan to manage this infrastructure

Mainstreaming climate change policy and action

Action on climate change mitigation and adaptation makes sense economically as well as environmentally. As such climate change policy shouldn't exist in a vacuum siloed away from all other areas of Council policy.

There are also many actions that might only result in small reductions in greenhouse gas emissions, but that have many other co-benefits which on balance make them worthy of support. An example of this would be home insulation, which also results in warmer healthier homes, or residential solar which with fast-developing battery technology increases resilience.

Our current targets

Wellington City Council has adopted two separate target pathways out to 2050 – one for Council operations and the other for the city as a whole. The targets were set in 2007 and based on recommendations for cities from ICLEI (International Council for Local Environmental Initiatives) due to a lack of Wellington specific data at the time.

Greenhouse gas emissions-reduction targets for Wellington City and Wellington City Council

	BASE YEAR	2010 (2009–2010)	2013 (2012–2013)	2020 (2019–2020)	2050 (2049–2050)
Wellington City	2001 (2000–2001)	Stabilise (0% increase)	-3%	-30%	-80%
Wellington City Council	2003 (2002–2003)	Stabilise (0% increase)	NA	-40%	-80%

Since that time we have implemented and delivered three key projects.

- The first is a Greenhouse Gas Inventory for Wellington City. The inventory measures
 emissions generated directly and indirectly by the communities of Wellington City
 across a number of different sectors including transport, waste, stationary energy,
 agriculture and forestry. With the release of our latest Greenhouse Gas Inventory in
 early 2016 we are now able to assess our citywide performance against our targets.
- The second is a city-wide energy calculator. The calculator allows users to explore how energy and transport choices shape Wellington city's carbon emissions footprint and discover which interventions would have the highest impact based on scientific data. Users can vary 31 'levers' that affect how energy is used and produced in the city— such as improving public transport or increasing the number of solar panel installations. The calculator will allow Wellington City Council to prioritise areas with the highest potential for emission reductions and use that data to inform future city targets.

The third is the attainment of CEMARS

(Certified Emissions Management and Reduction Scheme) certification for Wellington City Council – only the third Council in New Zealand to do so.

Council achieved CEMARS certification in December 2015 following a two day audit of the energy and emissions data collected by Wellington City

"Our emissions profile will now be regularly audited and includes all city Council emissions to international certified standards. This is a significant step and puts emissions into a category as important as an accurate balance sheet."

Council and CCOs. Certification means that we can now have confidence that the data we collect is accurate and comprehensive and a precise measure of how we are performing. This enables us to start measuring our energy and greenhouse gas emissions reduction progress against this original audit or 'baseline' year and make more informed decisions about our energy management and emissions reduction work programmes. These work programmes will inform the setting of future targets for Council Operations.

So what do these tools tell us?

1.8% reduction in citywide CO_2e between 2000/01 and 2014/15

30% target reduction by 2020

Based on the information in our updated Greenhouse Gas Inventory, Wellington City emissions have decreased by 1.8% between our base year of 2000/01 and 2014/15.

However we failed to meet our 2013 target of a 3% reduction in emissions with the city registering a 1.5% increase for that period.

Similarly using our energy calculator we can predict that it is highly unlikely that we would

be able meet our current target of a 30% reduction in city-wide emissions by 2020.

More importantly however it is still possible, with a concerted and sustained effort, to meet our 2050 target of an 80% reduction in city-wide emissions relative to 2001. It is the 2050

target that is critical and so while it is disappointing to not meet the 2013 or 2020 targets it is merely the trajectory that has changed, not the goal itself. We also now have comprehensive information that was not available back in 2007 to inform the setting of future targets and identify the interventions that will yield the greatest reductions in greenhouse gas emissions.

When it comes to the measurement and setting of targets for Wellington City Council's corporate emissions we also have historically had to rely on data that was compromised due to numerous changes in methodologies and unaudited emissions reporting going back to the base year of 2003. Gaining CEMARS accreditation has rectified this situation and given us a comprehensive standardised platform for our emissions reporting and management. As a result it is necessary to reset our base year to 2014/15 – the first year for which we have a complete audited set of data right across Council and CCOs. Achieving the current

82.4% of Wellington City

Corporate emissions come from

Waste to landfill – CEMARS audit

target of a 40% reduction in Council emissions by 2020 compared to the new base year would be extremely difficult. As with the City-wide emissions reduction target we believe it makes the most sense to focus on achieving the 2050 target and set the emissions reduction trajectory, and interim targets, accordingly based on the new information we now have available.

We now have an opportunity to utilise the three tools that have been developed to inform Wellington-specific emission reduction targets rather than continuing to use the ICLEI default targets. In doing so we acknowledge achieving our targets will require significant central and regional government support and action and will work collaboratively with our partners to achieve this.

With this in mind, we recommend the following targets be adopted for our citywide emissions reductions. The base year for the city is 2000/01.

2020: 10-15%, recommended target 10%

2030: 30-60%, recommended target 40%

2040: 50-80%, recommended target 65%

2050: 80%, reconfirmed.

Scenario modelling to test these targets can be done at http://climatecalculator.org.nz
Targets for Council's corporate emissions will be set in conjunction with the development of our CEMARS emissions management plan.

Identifying areas of greatest potential

With the development of the Wellington 2050 Calculator and our latest Greenhouse Gas Inventory, we now have much better information available to us to analyse the potential impact of different interventions and their overall potential for emissions reduction given various levels of effort. By far the most impactful areas of potential are:

- 1. Electrification of the vehicle fleet
- 2. Biofuels for liquid fuel replacement
- 3. Further increasing the percentage of renewable electricity generation nationally
- 4. Reduced emissions from refrigerants and other product use.

From this information we have identified a mix of proposed activities for Wellington City Council comprising both direct actions and strengthened advocacy roles.

There is enormous opportunity to bring central government, the private sector and local government together to deliver strong results for the climate in these and other areas.

The calculator will allow people to see the impact of their choices on Wellington's emissions pathway, based on scientific data. It covers all parts of the economy and all greenhouse gas emissions released in the city, including non-energy-related emissions.

Wellington Mayor Celia
 Wade-Brown

What this action plan does not cover

There is enormous crossover between climate change mitigation and adaption and officers continue to work closely together. After all, mitigation is first line of defence when it comes to adapting to a changing climate. If we don't stop creating the problem then our adaptation challenges become even more difficult. However this action plan will not lay out a strategy for climate change adaptation for Wellington City. That work is being carried out as part of our membership of 100 Resilient Cities and will be consulted on separately. As such this action plan's focus is solely on climate change mitigation.

The three pillars of climate change action for Wellington

Greening Wellington's growth

Wellington City is widely recognised as a liveable city renowned for its high quality of life.

Wellington already has the country's highest proportion of people walking, cycling and using public transport for journeys to and from work. Wellington has a head start on the rest of

70% of the infrastructure that will exist in cities by 2050 hasn't been built yet.

Rockefeller Foundation 100
 Resilient Cities Global
 Trends

New Zealand in responding to climate change, with a lower carbon footprint due to its compact urban form, higher rates of public and active transport, access to significant renewable energy resources, and a growing creative and knowledge-based, "weightless" economy.

Wellington City's population is conservatively expected to grow from the current 200,000 to approximately 250,000

over the next 30 years.

Wellington's Urban Growth Plan aims to ensure that as the city's population increases, new houses, transport networks, infrastructure and services are developed sustainably and in areas that benefit the city the most so that residents continue to enjoy a world-class quality of life and:

- maintain the city's liveability the features that support our high quality of life and the city's character
- keep the city compact, walkable and supported by an efficient transport network
- protect the city's natural setting nested between our green hills and coastline,
 contributing to our distinctive character

- make the city more resilient to natural hazards such as earthquakes and the effects of climate change.
- instead of being a separate standalone strategy the Low Carbon Capital plan will form part of the early implementation of the Urban Growth Plan.

To continue reducing our city-wide greenhouse gas emissions we will maintain the compactness of our city as our population grows; and invest in our public transport network, footpaths and cycleways to reduce car use and car ownership and improve travel efficiency. We will continue to encourage lowemission economic development, building efficiency, water conservation and waste reduction.

40.6% increase in population in Te Aro and Wellington Central between 2006 and 2013 censuses

Long term goals:

- Our building stock is more energy efficient due to improvements such as better insulation in homes, and more efficient lighting, cooling and heating systems in residential and commercial buildings.
- An increasing proportion of the energy we use to power the city's homes, buildings
 and transport comes from local renewable sources wind, solar, tidal and wave
 energy, as well as biomass energy from waste.
- The city has a comprehensive network of natural assets parks, gardens, coastline,
 Town Belt and reserves. Wellington City Council also has investments in PFSI
 (Permanent Forest Sinks Initiative) and ETS (Emissions Trading Scheme) forests.
 These help to support biodiversity, absorb carbon emissions, and form part of
 Wellington's green infrastructure.
- We use water more efficiently and minimise waste production.

- We manage the risk of sea-level rise and extreme weather events through mitigation and adaptation, including ensuring infrastructure can cope with these effects.
- Our planning documents reflect the risks associated with climate change, for example, controlling housing and infrastructure development in places susceptible to flooding, and areas prone to slips or coastal erosion.

Investigate phasing out the Minimum Parking Requirement (MPR)

MPRs are rules in District Plans that require developers to build a minimum number of offstreet car parks with any new development – usually one or two parks per dwelling. While

there is no MPR for developments within Wellington's CBD, MPRs do apply across the rest of the city.

We propose exploring the phase out of the minimum parking requirement where it makes sense - starting in parts of the city where car ownership rates are already low and comparable to CBD levels.

Number of households with 2 or

3 or more cars has decreased between the 2006 and 2013 censuses

Around 1 in every 7 Wellington households

already lives without a car. More than 10,000 households in total have no car, and this number rose by more than 1100 households since the last census. The highest concentration of no-car households is in the CBD and surrounding suburbs. We would prioritise looking at removing MPRs for these suburbs and increasing the provision of alternative transport choices. For some places, for example the northern suburbs, it is evident that the requirement is a necessity. But in places close to the CBD it may serve only to limit sustainable development potential which is undesirable given the city expects to add a minimum 50,000 more residents by 2043. It is also important to acknowledge the complex nature of MPRs and ensure that any decisions to remove them is done in full cognisance of the impact on other important transport modes such as public and active transport. For example MPRs may be necessary on arterial routes where parking competes for space with cycle lanes or bus lanes.

By phasing out this requirement we can enable greater transport choice and allow developers, both commercial and residential, to build parking as needed to meet demand rather than creating excess capacity with a compulsory regulation that incentivises car ownership over other transport choices. This has been the practice in Wellington's CBD for

around 20 years, with positive development outcomes. Developers are already incentivised to provide adequate parking in order to maximise the value of their investment. However, with car ownership decreasing on a per-capita basis across the city, and with increasing numbers of Wellingtonians taking advantage of the growing range of alternative transport choices on offer, it makes sense to let the market define what the optimal use of any given space is; be it car parking or some alternate land use.

When: 2017/18

Cost: to be met from within existing budgets

Continue the Smart Energy Challenge

Wellington City Council has been partnering with Enspiral and a range of other partners to deliver the Smart Energy Challenge. The Challenge brings to life smart energy projects that benefit Wellington and contribute to the city's liveability and sustainability to life. The challenge also engages Wellington's innovative social entrepreneurs and helps build capacity within the sector whilst at the same time providing practical support through dollar-for-dollar fund matching for successful projects.

Two Smart Energy Challenges have been successfully run to date resulting in initiatives such as Mevo – an EV car-sharing scheme to be launched in 2016 – and the Wellington Smart Building Challenge (see page 26). A Climathon event was also run the winner of which was

2nd place finish at

COP21 for PoOol, the winner of the Wellington Climathon

selected to present at the COP21 in Paris last year and placed second out of more than a hundred teams globally.

We are working with Enspiral to advance the next phase of the Smart Energy Challenge to continue to cultivate our local entrepreneur community and support the three pillars of this climate change action plan.

When: 2016/17

Cost: to be met from the existing Smart Energy Capital Fund (\$160k)

Investigate incentives for sustainable building solutions

With Wellington City's population set to grow by circa 50,000 residents over the next 30 years, and a focus on growth in the CBD, we want to ensure that effective incentives are in place for new building developers, and owners of existing buildings, to provide facilities which add to the sustainability of that growth.

Over the next two years, we will investigate what incentives, financial or otherwise, could be effective in ensuring the provision of services including, but not limited to, recycling and food waste collection, electric vehicle charging infrastructure, green roofs and access to building car-share schemes.

When: 2016-18

Cost: to be met from within existing budgets

Investigate alternatives for sewage sludge disposal

One of the practical challenges that a growing Wellington City will face is how to deal with accompanying increase in wastewater being treated and then sent to the Southern landfill as sewerage sludge.

The amount of sewerage sludge going to landfill has climate change implications in two respects - the greenhouse gas effects of the sludge itself; and the potential impact on the landfill's emissions-reducing waste

15,000 tonnes

production of sewage sludge disposed of in the southern landfill, just under 20% of total waste minimisation programmes given the requirement for every tonne of sludge to be mixed with

four tonnes of municipal waste.

Wellington Water commissioned a Regional Biosolids Strategy in late 2015 to set a regional

direction for management of the Biosolids generated by the four wastewater treatment

plants that they manage. The Biosolids strategy considered a range of sludge treatment

technology and potential end uses, in particular potential beneficial uses (such as disposal to land or

energy recovery). In terms of timing any change in sewage sludge treatment at the Southern landfill

would best line up with the expiry of the treatment plant operating contract in 2020. We propose

working with Wellington Water to discuss options for the treatment of sewage sludge to reduce

landfill emissions.

When: 2016 -18

Cost: investigations to be met from within existing budgets

Home Energy Saver

The Home Energy Saver scheme offers a free home energy audit to Wellington

homeowners, landlords, and tenants. Following the audit participants are eligible for a 50%

discount on certain energy saving products up to a limit in order to reduce their energy use

and carbon footprint. Since 2011 more than 2000 homes have received upgrades through

this program. We are currently in discussion with the provider of the scheme, Sustainability

Trust, and Victoria University to carry out an evaluation of the scheme in order to ascertain

its effectiveness in driving behaviour change when it comes to energy use.

When: 2016-18

Cost: \$60k per year – already funded through the 2015-25 Long Term Plan

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Warm Up Wellington

Warm up Wellington is a subsidiary of the Government's Warm up New Zealand (WUNZ) scheme. WCC in partnership with EECA, Sustainability Trust, Capital and Coast District

1,400 retrofits through the Warm Up Wellington program since 2011

Health Board, and Hutt Mana Charitable Trust provides insulation services to low-income homes. WUNZ is a three-year programme with a target of insulating 46,000 homes across New Zealand.

The programme targets households exhibiting, or at risk of developing, respiratory disease and other health conditions linked to poor housing.

Eligibility for the WUNZ programme is limited to households that:

- Householder or head tenant holds a Community Services Card and,
- someone living in the home is under 18 years of age or over 65, or
- someone living in the home has a housing-related health condition.

More than 1400 retrofits have been undertaken in Wellington City since 2011. Central government funding, which provides the bulk of the subsidy via EECA, expires at the end of June 2016. WCC's continued role in this area will be depend on whether or not EECA funding is extended beyond this financial year and we will be monitoring developments closely. We propose providing funding of \$60,000 for Warm up Wellington for the next financial year.

When: 2016/17

Cost: \$60,000

The Smart Buildings Challenge

The Smart Buildings Challenge is a collaboration between Wellington City Council, EECA, Microsoft, Switch Automation, Vector AMS and the Energy Management Association of New Zealand to pilot an energy management tool for commercial building owners. The challenge aims to provide a user-friendly platform which enables building owners to manage and reduce their own energy costs whilst at the same time reducing the carbon footprint of Wellington's commercial building sector. We currently have 20 commercial buildings entered into the challenge including WCCs Central Library Building.

Challenge participants sign up to an aspirational goal of a 10% reduction in energy usage over the first year and work towards achieving NABERS NZ accreditation.

The Smart Buildings Challenge is a pilot and has funding through 2016/17. We will monitor the progress of the scheme and investigate opportunities to extend the programme to a larger number of building owners as well as their tenants.

38% of emissions in the

Wellington City Council boundaries are from stationary energy – such as commercial buildings heating and cooling

When: 2016/17

Cost: to be met from the existing Smart Energy Capital Fund (\$160k)

Solar Power

Currently residential solar does not have a large impact on emission reductions given New Zealand's already high levels of renewable electricity generation currently sitting at around 80%. Solar is also at its most effective during the day when electricity demand is lower. However, battery storage technology is rapidly improving and as it improves the potential for solar installations to help reduce the City's greenhouse gas emissions increases.

There are also co-benefits of promoting solar in Wellington City. Homes and businesses are more resilient if they have the ability to generate and store their own electricity in the event

of an outage. And in order to accommodate the desired uptake of electric vehicles across

New Zealand we will need to increase electricity generation nationally so investment in solar
could also be considered as investment in future EV charging infrastructure needs.

We propose looking for opportunities to increase the uptake of solar in Wellington by working with solar providers and utilities in both residential and commercial contexts.

When: Ongoing

Cost: To be met from within existing budgets

Changing the way we move

In order to meet Wellington's climate transport challenges we must make it easier for Wellington City residents to either not own a personal vehicle, or to own personal vehicles which operate on sustainable alternatives to fossil fuels.

Mobile emissions make up the largest segment of Wellington City's emissions profile. Having a high-quality diverse transport system is key to Wellington's economic, environmental and social success as well as meeting our climate change targets.

56% of emissions in the Wellington City Council boundaries are from transport

Wellington has many existing advantages.

The city is compact, many people work in the CBD, and we have a comparatively young, educated population who have demonstrated they are open to change and new transport experiences. We have a good public transport system, and car ownership is relatively low by national standards. Walking as a transport mode is very high (17 percent of journeys to work) by national and

international standards. There has also been a large recent rise in the number of people cycling despite a current lack of supporting infrastructure.

As a city we must recognise the important role our public transport system plays in moving people around the city and the wider region and increase availability and quality of service, foster the safe and convenient development of walking and cycling, and support the provision and uptake of car-sharing and ride-sharing services and disruptive technologies such as electric and autonomous vehicles.

Draft Implementation Plan 2016 – 2018

Support car sharing and electric vehicle charging

Over the next three years we propose to identify up to 100 car parks citywide (suburbs 70%/CBD 30%), with an early focus on the CBD, to be made available based on demand for car-sharing operations, electric vehicle charging infrastructure, or any other service which reduces the need to own a car or makes it easier to shift to sustainable transport fuels. This kind of support is in line with support we offer to other providers of valuable transport options. Public transport and taxis enjoy substantial road space across the city, including in high-value areas, so we merely are looking to extend this provision to other services. This will also be done in an integrated way being cognisant of the impact on other important transport modes such as walking, cycling, and public transport.

These parks will only be offered where demand can be demonstrated. In the case of car sharing adding car share vehicles in the City could potentially free up parking space given recent research from Australia showing that for every car sharing vehicle in operation an average of 10 private vehicles are removed from city streets¹. Research out of the USA shows as many as 15 can be removed.

We will also develop a policy (currently out for consultation in relation to car-sharing) to outline the conditions under which public spaces will be made available and the guiding principles for granting such access. This will be an enabling policy with a focus on reducing compliance and cost particularly for small start-up companies. In addition to the policy, guidelines will be drawn up to identify the level of subsidy needed to grow electric vehicle infrastructure and car-sharing take-up, and the point at which they no longer need subsidised Council car-parking.

Car sharing

Council has supported car sharing in one form or another since 2008. We will now look to accelerate that support to enable greater provision of car-sharing services across the city and particularly in the CBD. This will primarily be in the form of provision of parking spaces which will initially be free. It could also be through initiatives such as the Smart Energy Challenge. We propose to build on the learnings of the current car sharing trial and develop

¹ Philip Boyle & Associates, (2015), *The Impact of Car Share Services in Australia*, 7 January 2016

a strategy that is enabling, effective, and responsive to the needs of car share providers. We also propose working with other Councils to develop region-wide car-sharing capability.

When: 2016-18

Forgone revenue: up to \$150k by year three of the plan

Promote Electric vehicle uptake

Increasing the number of electric vehicles as a proportion of Wellington's transport fleet would have a significant impact on the city's greenhouse gas emissions. EVs also make sense for New Zealand given 80% of our electricity is currently generated from renewable sources. Cost remains a barrier to the uptake of electric vehicles; however prices continue to fall with an increasing number of products being made available in

"Electric vehicles can drive us into a cleaner, more sustainable energy future. The IEA has shown that if global warming is to be limited to 2 degrees, at least a fifth of all vehicles on roads by 2030 should be electric."

- Fatih Birol, Executive Director of the International Energy Agency

the New Zealand market. As uptake of EVs increases so does the potential for a decent sized second-hand market at prices which rival those of conventional vehicles.

The other barrier to uptake of EVs is the lack of charging infrastructure around the city, particularly in the CBD, and in neighbouring cities in the Wellington region. This exacerbates "range anxiety" which may deter otherwise motivated car owners from going down the EV path. Wellington also has a higher than average number of residential properties without garages for overnight charging which makes provision of charging near place of work a

specific challenge for Wellington City.

""Zero Emissions Vehicles will also reduce local air pollution in cities that is causing immense damage to health and the economy. The uptake of electric-mobility will be more feasible and also fruitful if cities adopt compact planning and measures to improve public transport."

- Joan Clos, Executive Director UN-

As well as providing access to public spaces, including carparks, for the provision of EV charging infrastructure Council can also play a critical role in ensuring the consenting processes for the installation of chargers are as streamlined and affordable as possible.

We are currently working with a number of private sector partners and key stakeholders to progress this work with a view to producing an easy to understand guide for those looking to install chargers on public and private land within Wellington City, from the standard three pin socket (slow-charger) to the 50kWh fast chargers.

We will investigate removing the requirement for a resource consent for EV charging infrastructure right across the city. In order to facilitate the uptake of EVs by those without access to a garage it will also be important to investigate options for suburban on-street slow-charging.

We will also investigate the potential within council owned car parking buildings for low-cost EV standard chargers to immediately be introduced in order to get a basic level of public EV charging infrastructure into the CBD.

We will continue to work with Central
Government, other councils, utilities providers,
and other key stakeholders such as Drive Electric
to progress the rollout of an integrated EV fast
charging network across the country. By taking a

"The new blueprint is ... not anticar. It's prochoice."

Janette Sadik-Khan, Former
NYC Transportation
Department Head

leadership role in Wellington City we will then be in a position to share experiences and assist others to do the same.

When: 2016-18

Cost: Investigations to be funded from within existing budget

Invest in active and public transport modes

Wellington City Council in partnership with the New Zealand Transport Agency and Greater Wellington Regional Council will fund a significant expansion of our cycling and public transport network in the coming years. To make the most of the improved cycling network,

we will explore opportunities to establish a bike share scheme and identify public spaces that could be used to support such a scheme.

When: 2016-18

Cost: Investigations to be funded from within existing budget

Advocating for lower fares across our Public Transport network

Wellington City Council is aware of the critical impact public transport has on creating a balanced, low carbon, well-functioning transport network. We are also aware that while we don't control the public transport network we have a strong advocacy role to play for our residents; especially vulnerable users who rely on public transport because they have no alternative. We view public transport fares as one of the key areas of action because while Auckland Council recover just 44% of their operating costs through public transport fares, and Environment Canterbury just 38%, Wellington recovers 57% of their operating costs through public transport fares. Greater Wellington Regional Council analysis indicates that while residents of other territorial authorities are paying between 10-40c/km, residents of Wellington City are paying as much as \$.60-1.80/km. Given this imbalance, we believe we have a strong role to play in advocating for more reasonable fares across the Wellington City public transport network. We can't deliver on lowering fares ourselves but will continue to work with Greater Wellington Regional Council to explore the possibilities through programmes like our discounted public transport fares piloted over the past Christmas period.

Advocate for greater support for the development of biofuels

New Zealand is uniquely placed to be able to produce ample sustainably produced bioenergy to begin replacing both solid and liquid fuels across the country. With adequate support from central government it could also create opportunities for greater carbon offsetting through forestry.

Recently biofuel production has been a source of contention globally with concerns raised around the displacement of food sources, impacts on biodiversity, and the carbon footprint

of some forms of biofuel. New Zealand is in the fortunate position of having forestry and agricultural sectors which produce waste by-products which could be used for sustainable biofuel production, as well as substantial potential for planting new forests to supply a growing biofuel industry.

The private sector is beginning to act in this area in spite of little government support. Z Energy recently announced the construction of a biofuel plant that will run on beef tallow as a feedstock. Air New Zealand and Virgin Australia recently released a request for information to the market to try and support the creation of an Australasian biofuel market for jet fuel. This is a great start and greater central government support could progress the sector even further.

An effective price on carbon through the emissions trading scheme as well as regulatory or financial support from central government for greater biofuel production presents one of the greatest opportunities to make a meaningful difference in Wellington's emissions profile. Council will continue to advocate to Government for progress to be made in this area.

3. Leading by example

Wellington City Council owns, manages, and provides a range of services that directly or indirectly produce greenhouse gas emissions. The main sources of emissions for Council operations are landfills and the energy used in our offices, pools, water treatment and pumping, street lighting and vehicle fleets. Wellington City Council continues to deliver an energy data monitoring and energy management programme through our Energy Manager. In this climate change action plan we propose to build on this work and take it to the next level.

Wellington City Council currently has a target of a 40% reduction in emissions by 2020 and an 80% reduction by 2050. As we have reset our baseline year to 2014/15 it will be extremely difficult to achieve a 40% reduction in less than four years. However we are on track to meet our 2050 target. We propose to reset our interim targets using the comprehensive data now available to us through our CEMARS accreditation.

Draft Implementation Plan 2016 - 2018

CEMARS certification

Wellington City Council achieved CEMARS certification in December 2015. Certification means that we can now have confidence that the data we collect is accurate and comprehensive which for the first time gives us an exact measure of how we are performing as an organisation in reducing our greenhouse gas emissions.

Now that certification has been achieved we move to the next phase of CEMARS and will be setting emission reduction targets for the next five years across Council and CCOs for all major emission sources. These will be audited annually to monitor progress leading up to our next full audit in 2020. This enables us to start measuring our energy and greenhouse gas emissions reduction progress against this original audit or 'baseline year' and make more informed decisions about our energy

"Council is showing what can be done and now has the opportunity to inspire and influence suppliers and other organisation's to reduce their emissions."

Dr. Ann Smith, Chief
 Executive of Enviro-Mark
 Solutions (CEMARS)

management and emissions reduction work programmes.

When: Ongoing

Cost: \$30k per year

14% potential energy savings identified since CEMARS certification through the energy management programme

Invest in energy savings across the business

Wellington City Council is fortunate to have strong energy management capability with significant savings already being made despite no dedicated budget. We propose to invest in energy savings across the business over the next three years to take this to the next level. Projects have been identified which could result in significant

energy savings and greenhouse gas emission reductions with short payback times. We propose developing a business case over the next year for an energy management budget that would allow these larger energy saving projects to proceed. In the meantime we

propose allocating \$75,000 for the next financial year in order for work on these initiatives to begin.

We will also implement an Energy Management Strategy to reduce energy costs, optimise systems, and reduce emissions.

When: 2016/17

Cost: \$75,000

Council Vehicle Fleet

Wellington City Council currently has one fully electric vehicle in its fleet of 197 vehicles as well as four hybrids.

Council vehicles, on average, do not have extended driving profiles that would normally restrict the use of EV or alternate fuel vehicles. However, these vehicles currently attract an approximate 25% cost premium when compared to equivalent diesel or petrol cars, and whole life and residual value analysis is not readily available for these vehicles.

1 current number of fully electric vehicles in the Wellington City Council's vehicle fleet

Current policy states that if alternative fuel vehicles are to be considered then these

should be subjected to the same base analysis that current vehicles are assessed against. EV would require infrastructure changes to incorporate base charging facilities as well as battery replacements (recommended after six to eight years) when considering the overall whole of life cost analysis of these vehicles.

Where appropriate and practical, and in conjunction with the Councils ongoing commitment to lower its carbon footprint, Council will look to increase the percentage of its fleet that use alternative fuels and EV technology for its 'Type 1 - small car' and 'Type 2 - large car'

vehicles, and evaluate the new range of electric vehicles coming on stream over the next few years.

We will also be reducing the size of our light vehicle fleet and encouraging staff to walk, cycle, or take public transport.

We will also investigate over the coming year the potential for car-sharing to be incorporated into Council staff vehicle use.

When: Ongoing

Cost: To be met from within existing budgets

Deliver "Love Food, Hate Waste" with national partners

The average New Zealand household throws away \$563 worth of food every year because they buy too much, do not store it properly or do not use it well. While some is composted,

21% reduction in food waste in the United Kingdom since the introduction of "Love Food, Hate Waste"

most of the food ends up as organic waste in landfills adding to our greenhouse gas emissions. Households are responsible for 61 per cent of the country's food waste with supermarkets responsible for 7 per cent.

WasteMINZ, the waste sector industry body, is set to formally launch an anti-food waste campaign" *Love Food, Hate Waste*" in 2016. Wellington City Council will be delivering this education programme along with 56 other councils around New Zealand.

A similar campaign in England has reduced household food waste by approximately 20 percent since its launch in 2007. Such a reduction would amount to thousands of tons less organic waste for Wellington City, and would reduce our corporate emissions.

We will also be looking for any opportunity to build off of the "Love Food, Hate Waste"

campaign and further reduce the amount of food needlessly going to landfill.

When: Ongoing

Cost: To be met from within existing budgets

Procurement

Wellington City Council's Procurement Policy includes measures to support sustainable

business practices and minimise adverse environmental impacts of procurement decisions.

Under standard templates, bidders are asked to supply information about their

environmental/sustainability policies, strategies, and targets, including steps being taken to

reduce greenhouse gas emissions.

The Council's Travel Information Handbook for staff prescribe the purchase of offset units to

cover emissions associated with international air travel outside of the European Union, as

these emissions are not covered by either domestic or international emissions trading

legislation. The cost of offsetting is treated as part of the overall trip costs.

We will look for further opportunities to green the Council's supply chain by monitoring the

best available information regarding the sustainability of goods and services being

purchased and potentially using new tools available to us under CEMARS.

When: Ongoing

Cost: To be met from within existing budgets

Driving staff behaviour change

The enormous challenge of addressing climate change can be overwhelming. Individuals

often feel as though the problem is so huge that it can only be solved by governments or

large organisations. However there is much we can all do in our day to day lives to reduce

our own carbon footprints and collectively have a major impact on greenhouse gas

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emissions. What is currently lacking is simple and accessible information to inform those

decisions.

We will develop an in-house education programme designed to challenge and inform

Wellington City Council staff and drive behaviour change. As a part of this education

programme we propose developing an individual carbon calculator that would allow the

user to calculate their personal carbon footprint and measure the impact of various

potential lifestyle changes.

Our staff are also a potentially valuable resource for identifying wasteful practices and

proposing energy-saving ideas. We will investigate ways to tap into this resource and

develop mechanisms for feeding such information back to our Energy Manager.

When: Ongoing

Cost: To be met from within existing budgets

Making maximum use of the levers we do have

Council has substantial legal powers in areas like encroachments and bylaws. Where

possible, Council will investigate aligning these tools to our goals with respect to climate

change. Of particular note are areas like road reserve encroachments for garages, where we

can be more permissive with encroachments provided infrastructure like electric vehicle

charging stations will be installed. Council will investigate where and how these tools can be

best employed, and implementing changes where opportune.

When: Ongoing

Cost: To be met from within existing budgets

Carbon management policy and forestry

Wellington City Council produced a Carbon Management Policy in 2011 to guide

management of the Council's greenhouse gas emission liabilities from landfill and holdings

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under the New Zealand Emissions Trading Scheme (ETS) and the Permanent Forest Sinks Initiative (PFSI).

With major changes to the NZ ETS expected to be implemented over the next few years the price of carbon is likely to be highly volatile which will impact both the level of our liability and the value of the units we have earned through our forests or purchased to meet landfill obligations. An implementation plan for our Carbon Management Policy is currently being developed which will guide decisions in respect of all carbon unit activity and manage any financial risks.

35,000 emissions trading scheme units generated per year.

328,000 emissions trading scheme units banked.

We will continue responsibly managing our forests to reduce fire risk and continue our work to control browsing pest animals (such as possums or goats) to enable increased native regeneration and therefore increased carbon sequestration.

When: Ongoing

Cost: To be met from within existing budgets

Improving Consideration of Climate Issues

Currently, all policies, investments and actions that the council takes must be evaluated to determine whether or not there are climate change implications. We propose reviewing this practice to ascertain its effectiveness and identify any difficulties or barriers to accessing the required information to accurately evaluate climate change implications and whether there is currently the adequate resourcing to do so.

When: 2016/17

Cost: To be met from within existing budgets

Glossary

The Conference of the Parties (COP21) was the 21" annual meeting of international governments to address climate change held in Paris in December 2015. Base year The year off which targeted reductions are based – the baseline year of emission units are often referred to as carbon credits, allowances or offset credits. An emission unit can represent one metric tonne of carbon dioxide itself, or the equivalent of any other greenhouse gas (carbon dioxide equivalent or CO2 equivalent). The type of emission unit used in New Zealand to comply with the emissions trading scheme is called the New Zealand Unit or NZU. Sequestration occurs when carbon is removed from the atmosphere either through natural (forest), preventative (carbon capture) or engineering means. Certified Emissions Management And Reduction Scheme (CEMARS) Climate change diaptation An Enviro-Mark solutions scheme for measuring council or corporate emissions that audits emissions and holds participants accountable for meeting targets in greenhouse gas reductions. Climate change mitigation Climate change mitigation Climate-KIC (Knowledge Innovation Community) Climate-KIC (Knowledge Innovation Community) Climathon Climate-KIC (Knowledge Innovation Community) A European-initiated public-private partnership created by the EU to develop climate mitigation and adaptation ideas. A council-sponsored idea accelerator to develop climate-friendly initiatives that was run globally in concert with Climate-KIC climathons in other cities. Compact of Mayors Compact of Mayors Compact of Mayors A global agreement of mayors to mitigate the impacts of climate change by reducing their greenhouse gas emissions. Emissions released by Wellington City Council as an organisation rather than emissions released within the city's boundaries. A NZ Government mechanism which creates a trading market resulting in a price on carbon. Some participants are emitters (e.g., industry) and are therefore required to surrender units for their emissions. Others are producers		7 2 5 251 7 11 (22.25)
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City Council is both an emitter and a producer.	Scheme)	their emissions. Others are producers (e.g. forestry) and
		sequester or remove carbon from the atmosphere. Wellington
Green roof A roof sown with a number of plants for a variety of reasons		City Council is both an emitter and a producer.
	Green roof	A roof sown with a number of plants for a variety of reasons

	ranging from water management to building heating and cooling.
	Greenhouse emissions are gases that when released into the
Greenhouse emissions	atmosphere accumulate and trap heat raising the overall
	temperature.
Greenhouse gas	An assessment of the total emissions released in the city or
emissions inventory	released by the council.
,	A two-hour session with an energy efficiency expert to assess a
Home energy audit	home for energy efficiency ranging from shower flow to lighting
	quality to window sealing.
	A multinational panel of scientists convened to study climate
Intergovernmental Panel	change by the United Nations at the request of member
on Climate Change /	governments. Have recently released their fifth report on climate
IPCC	change.
	A sector of emissions that are released from mobile sources such
Mobile Emissions	as cars, trucks, aircraft and ships.
NADD/NA:	A requirement that developers of residential and commercial
MPR(Minimum Parking	property include a certain amount of parking based on the
Requirement)	number of dwellings or based on floor space.
NABERS NZ accreditation	A building accreditation framework which certifies buildings for
	high performance in relation to energy efficiency.
	Emissions can either be reduced directly or offset. Offsetting is a
Offsetting	practice whereby carbon sinks – such as forests – are planted to
0	offset the impact of an emissions source.
PFSI (Permanent Forest	A NZ Government programme to create permanent forests that
Sinks Initiative)	then yield carbon credits by planting or re-planting land.
	Range anxiety describes one of the key barriers individuals have
Danas ancieto	expressed to buying an electric car – worries driven by the fact
Range anxiety	that electric cars have a relatively short range before needing a
	recharge relative to their petrol-driven counterparts.
Rockefeller Foundation	A city membership network funded by the Rockefeller
	foundation. It aims to assess and increase resilience to shocks
100 Resilient Cities	and stresses through funding resilience staff and initiatives in
Network	100 member cities.
Shocks and Stresses	Shocks – intense and immediate negative impacts on a city or
Shocks and Stresses	area like earthquakes or severe storms.
Smart Buildings	A council-driven building energy efficiency challenge where
Smart Buildings	commercial building owners sign up to data analysis tools and
Challenge	commit to reducing energy use by 10% over one year.
Caraci Farana Challana	A council-driven business idea accelerator to bring blue-sky
Smart Energy Challenge	climate ideas to Wellington using crowdfunding and mentoring.
	A sector of emissions that are released from buildings or other
Stationary Energy	non-mobile sources – such as from heating, lighting or cooling
	buildings.
+CO20 / Tonnoc of CO2	Either direct carbon dioxide emissions or emissions of another
tCO2e / Tonnes of CO2	greenhouse gas expressed in equivalence to the impact of
Equivalent	released carbon dioxide.

Wellington 2050 Energy Calculator	A tool developed by the council that allows individuals to develop emissions reduction pathways based on 31 variable actions in order to meet our 2050 emissions reduction target.
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Have your say

The date for engagement and consultation on Annual Plan 2016/17 is from 29 March to 29 April 2016 at 5pm

Make a submission

You can email submissions to: BUSAnnualPlan@wcc.govt.nz

Alternatively, you can mail submissions to:

Attention: Neil McInnes Wellington City Council 101 Wakefield Street Wellington

Finally, you can visit the website to participate at: http://wellington.govt.nz/have-your-say/consultations

Consultation questions

- 1. Do you support Wellington City Council's aspiration to be the "low carbon capital"?
- 2. Will the activities proposed in the draft Low Carbon Capital plan contribute to a meaningful reduction in emissions? If not, what else could be done?
- 3. Do you agree with the recommended emission reduction targets for the city?

2020: 10% reduction

2030: 40% reduction

2040: 65% reduction

2050: 80% reduction

Council decision

The Council proposes to make a decision on this proposal in June 2016.