

## Climate Change Initiatives

### 1. The Proposal

Five climate change initiatives have been proposed for the 2010/11 Draft Annual Plan. Each of the initiatives supports a key element of the Council’s Draft 2010 Climate Change Action Plan. Further detail on each of the five new initiatives is provided in sections 5.1 to 5.5 below.

### 2. Proposal Costs

Outline project costs per year										
Project Component	Expenses \$000									
	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Vulnerability assessment (OPEX)	30	100								
Electric Vehicles Pilot (CAPEX)	50									
Council Energy Management Programme (CAPEX) (OPEX)	50 25	150 25								
Business Energy Programme – eMission (OPEX)	25	25								
Home Energy Saver Programme (OPEX)	50	100								
<b>Total</b>	<b>230</b>	<b>400</b>								
OPEX	130	250								
CAPEX	100	150								

### 3. Project Outline

The five new initiatives for climate change were presented and agreed by SPC as a package in December 2009. They represent a balance of research needs, leadership, and both organisational and city focus. It is recommended that these five initiatives continue to be considered together. In priority order, and indicating strategic linkages, the five projects are shown in the following table.

<b>Initiative</b>	<b>Strategic Importance</b>
Climate change vulnerability assessment	Protect sensitive natural areas and resources
Piloting electric vehicles	Reduce the city’s greenhouse gas emissions Rugby World Cup 2011 focus
Council Energy Management	Reduce the Council’s greenhouse

Programme	gas emissions
Business energy programme - <i>eMission</i>	Reduce the city's greenhouse gas emissions
Home energy saver programme	Reduce the city's greenhouse gas emissions

A comprehensive assessment process has been undertaken to develop the new initiatives proposed here, including consideration of the financial impact of the work. These projects were proposed following consideration of a broad range of initiatives by officers, prior to advice being presented to SPC in December. Examples of projects where additional funding has not been sought at this stage include developing thermal imaging to identify badly insulated buildings and investigating localised heating schemes. New initiatives have been selected based on evaluation against a range of criteria – including estimated benefits, value for money and collaboration and leadership opportunities. These five new initiatives, together with the actions in the draft 2010 Climate Change Action Plan provide the foundation for further advancing climate change work as part of the 2012/22 LTCCP.

### ***Consultation***

If agreed by councillors, consultation on all five new initiatives will be undertaken through the draft 2010 Climate Change Action Plan alongside the Draft Annual Plan 2010/11 consultation.

## **4. Recommendation**

It is recommended that the Committee support the package of five new climate change initiatives, to be consulted on as part of the 2010 Climate Change Action Plan and included in the DAP.

## 5.1 Assessing Wellington’s vulnerability to climate change

### 5.1.1 The Proposal

This project aims to commence an assessment of Wellington’s vulnerability to the impacts of climate change. This will allow for the development of informed strategic approaches on how best to consider, prioritise and respond to these impacts and make the most cost-effective investments in long-term assets.

### 5.1.2 Proposal Costs

Outline project costs per year										
Project Component	Operating expenses \$000									
	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Adaptation work	30	100								
Total	30	100								

### 5.1.3 Project Outline

#### **Background**

As a coastal city, Wellington will be exposed to the impacts of climate change, most obviously sea level rise. However, other likely changes include higher temperatures, more intense rainfall events and greater wind-speed. These changes could have significant consequences for low-lying, steep or otherwise exposed areas of our city. To maintain options and allow time for appropriate solutions to be developed, implemented and financed, it is important to commence this work early.

A comprehensive adaptation response involves: (i) collection and analysis of data; (ii) risk assessment; (iii) effective planning and response strategies; (iv) monitoring, evaluating and updating progress; and (v) building capacity and raising awareness.

As a lead-in to this project the Council investigated the impact of sea level rise on the Kilbirnie and Rongotai area – from Evans Bay to Lyall Bay in June 2009. This work proved valuable in identifying a workable approach, identifying a range of issues and potential response options, and demonstrated the value of similar work to be undertaken throughout the city.

#### **Approach**

This initiative involves identifying the vulnerabilities faced by Wellington city to climate change. The project would then seek to identify a range of response options for different scenarios – separated into hard solutions (ie, physical intervention in the form of engineering or infrastructure) and soft solutions (ie, planning tools, regulation, or incentivising changes in practice).

The overall objective of the project is to identify areas of Wellington city which are most vulnerable to climate change impacts, the nature of the impacts, and possible response options. Once these areas are identified, further detailed

assessments would be undertaken to establish the costs, constraints and feasibility of the responses.

This work would include two closely related and parallel workstreams.

1. The first workstream involves the Council contributing to a regional project to assess coastal conditions.
2. The second workstream involves assessment of vulnerable areas across the city followed by detailed studies to address specific issues as appropriate.

### ***Workstream 1 - Regional coastal study***

A large amount of property, recreational areas and critical infrastructure (eg, state highways, rail, water supply, electricity, gas, an airport) are situated in low-lying coastal areas. Coastal inundation will become more common as sea levels rise. Research into the vulnerability of our coastal areas is therefore a high priority.

The Council has been invited by Greater Wellington Regional Council (GWRC) to take part in a research project that will identify the areas of our coastline most vulnerable to inundation and erosion. The project will produce detailed information to be directly used in the management of our coastline including coastal and infrastructure planning and management, and Civil Defence.

Greater Wellington is taking the lead in managing and funding the project, with total project costs \$192,000, spread over three financial years (ie, 2009/10 to 2011/12). Greater Wellington has committed \$130,000 for the project to commence in early 2010 but is seeking partnership support from across the region to fund the balance. Preliminary results would be available by early 2011. The time taken to complete the work reflects the complex analysis, modelling and forecasting work needed to accurately assess likely long-term impacts on the coastal margin.

This study provides the opportunity to carry out a cost effective research project across the region with major benefits for Wellington city. Wellington City Council could contribute \$30k in 2010/11, with funding contingent on analysis and reporting results for Wellington City being completed first so that they can inform further assessment work. The work to be undertaken for the Wellington city area represents more than a third of the total project ensuring that value-for-money is achieved for the Council.

### ***Workstream 2 - Wellington city vulnerability assessment***

This work would build upon the work already completed investigating the impacts of sea level rise in the Kilbirnie area. Similar, but more in-depth scoping work would be carried out across the city.

Further climate change vulnerability assessments across Wellington would commence in July 2010, and be carried out within existing resources – led by the climate change office. It would take a phased approach, starting with the central city, the eastern suburbs, and the Hutt road, southern and western suburbs, etc. These vulnerability assessments will examine local conditions (e.g. the topography or infrastructure capacity of an area) and

apply various climate impact scenarios. From a scenario analysis, we can identify where vulnerabilities exist and likely response options. Where other party's infrastructure is likely to be affected, we would seek to involve these stakeholders in the assessment process. For example, NZTA regarding roading, KiwiRail regarding train lines, etc. It is anticipated that this process would develop into future partnership approaches to resolve issues, including how to fund appropriate solutions. In addition we would seek to take a collaborative approach across the region. For example, in addition to the regional coastal study outlined in Workstream 1, GWRC is seeking to carry out additional work to assess vulnerability across the region in relation to catchment flooding and erosion, impacts on biodiversity, and impacts on public health.

A sum of \$100k is sought in 2011/12 to carry out further, more detailed analysis for those areas identified as the most vulnerable locations. This would assess possible climate change impacts and response options involving studies, input and advice from experts such as engineers, hydrologists, climatologists, planners, iwi, community groups, etc. An example of detailed work which may be required is assessment of the options, relative merits and costs for infrastructure (such as sea walls, or pumping stations) to avoid flooding in low-lying coastal areas.

### ***Proposed next steps***

If approved, \$30k would be allocated to the Greater Wellington Regional Council in 2010/11 in support of the regional coastal project (Workstream 1). Regular updates would be sought as this work progresses. Internal work would continue throughout 2010/11 to assess the vulnerability of Wellington to climate change impacts (Workstream 2), with \$100k allocated in 2011/12 for detailed investigations of response options in our most vulnerable areas. Between March and June 2010 the Council will collaborate with experts from Victoria University, NIWA, the Ministry for the Environment, and others to define the parameters and scope of the project further.

## **5.1.4 Recommendation**

It is recommended that Council agree to consult on the proposal in the Draft Annual Plan.

Workstream 1 of the project would be completed in partnership with the Wellington Regional Council at a cost of \$30k in 2010/11. Detailed analysis across Wellington city, with particular focus on areas identified as most at risk would occur in Workstream 2, with specific risks and response options assessed involving input from expert consultants (\$100k in 2011/12). A comprehensive climate change response must consider how the city can adapt to the likely impacts. This initiative proposes that the Council commence a two stage programme of work aimed at identifying our city's vulnerabilities. This information will allow for considered and appropriate responses to be implemented over time. There is close alignment between the two workstreams which make it important that they be considered together. These detailed assessments in vulnerable locations will underpin effective planning and prioritising of a city response over the long-term.

## 5.2 Piloting Electric Vehicles

### 5.2.1 The Proposal

This project involves working with key stakeholders to develop a pilot for electric vehicles (EVs) in Wellington. The Council would play a key role in co-ordinating and facilitating the pilot.

### 5.2.2 Proposal Costs

Outline project costs per year										
Project Component	Capital expenses									
	\$000									
	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Electric vehicles pilot project	50									
Total	50									

### 5.2.3 Project Outline

#### ***Background***

The government has signalled a commitment to support EVs. In support of this goal, road user charges for EVs have been waived until 2013.

The private sector has so far lead development and promotion of electric vehicles, including vehicle manufacturers and electricity retailers. This has included work carried out by Meridian Energy, Contact Energy, Mitsubishi and Hyundai in Wellington. This pilot project would build upon the work already done, with the aim of Council facilitating the uptake of EVs.

Given that around two-thirds of New Zealand's electricity is generated from renewable sources, the emissions benefits associated with use of electric vehicles are far greater in New Zealand than for other countries. Wellington is well placed to take advantage and be an early adopter of electric vehicle technology due to short commute distances, the city's compact form, and growing inner city resident numbers.

Though dramatic uptake of EV technology may not occur for up to 10 years (given the shift in manufacturing and technology required) the Council can develop partnerships and policies that provide an encouraging environment for businesses to switch their fleet to electric vehicles.

The primary objectives of the pilot are:

- encouraging EV uptake in Wellington in order to influence medium to long-term reductions of greenhouse gas emissions from the transport sector
- positioning Wellington as a leader in responding to climate change
- gathering information and data about benefits, issues and risks relating to using EVs
- raising awareness and improving perceptions of EVs

- providing a welcoming environment and market for EVs
- supporting businesses taking a lead in environmental issues.

### ***Approach***

Although EV technology is evolving rapidly this has not yet led to production levels meeting demand. The initial challenge is therefore to get some EVs operating on our city's roads. Addressing this issue in partnership with vehicle manufacturers is a key priority for this project. It is proposed for the pilot project:

- EVs feature in selected company fleets
- EVs are made available for hire in prominent tourist localities, such as Wellington Airport and cruise ship terminals (in season), particularly in conjunction with RWC2011 (from Sept 2011).

Vehicles would be supplied from one preferred vehicle manufacturer, with the total number of vehicles to be arranged. Council would also lead a process to identify other organisations that wanted to participate in the pilot, targeting Wellington businesses, Government departments and other organisations. The Council could use EVs in its vehicle fleet to perform normal business functions (eg, Council staff travel from the Civic Centre to Council's satellite sites or for operational site visits).

Longer term implications of moving to EVs would be considered depending on the success of the pilot project. The Council could seek to establish appropriate support infrastructure for EVs, including working through solutions such as charging types, battery swap-out or recharge stations. Future options may involve linking to the trolley-bus network or establishment of prominent charging facilities linked to micro-wind energy. Another key component could be encouraging the development of an industry to maintain and support the technology (eg, working with educators in the electrical and engineering industries).

### ***Key parties and roles***

This pilot will only be successful through a partnership approach. It is important that that expectations and roles and responsibilities of parties involved with the pilot are clearly defined. The likely parties – still to be identified – and their probable contributions include:

<b>Party</b>	<b>Role</b>
Wellington City Council	Project management Coordination of consortium of EV users Utilisation of EVs in Council fleet Marketing and promotion of pilot Regulatory provisions (such as EV parking incentives) Development of public charging infrastructure
Vehicle manufacturer	Provision of EVs for pilot Marketing and promotion of pilot Coordination of vehicle maintenance and repair Advice on best-practice EV use and health and safety issues
Third parties	Utilisation of EVs in fleet

	Marketing and promotion of pilot Assistance with information collection on pilot Contribution of sponsorship funding or in-kind resources Expertise in energy generation/networks (eg, micro-wind, trolley bus network, etc)
EECA and MOT	Contribution of funding or in-kind resources Marketing and promotion of pilot Assistance with information collection on pilot Utilisation of EVs in fleet

### ***Council Role***

In addition to direct financial investment in the project, the Council could assist by regulating or subsidising (e.g., free parking spaces or use of transit lanes, etc), marketing and promotion. Charging facilities for pilot EVs could be installed in public spaces or private parking areas that are used by organisations involved in the pilot. For example if EVs were used in the Council fleet, we may seek to locate charging facilities in the basement car-park. In addition there may be opportunities to work collaboratively with other cities such as Auckland, Christchurch and Hamilton, who have indicated an interest in pursuing EV technology.

### ***Sponsorship funding***

Vehicles would be purchased or leased from the selected vehicle manufacturer. Further work is required to estimate contributions from interested parties – dependent on the number of parties, their respective roles, and costs for EV lease/purchase and other operating costs. Prominent signage would be placed on vehicles and in public parking areas to further promote the vehicles.

### ***Next steps***

The Council intends to run a workshop in June 2010, inviting interested stakeholders and seeking support for the project and the approach proposed. We would then proceed to requesting proposals and seeking formal expressions of interest to participate in the pilot. Timelines and implementation plans would be developed following these discussions.

## **5.2.4 Recommendation**

It is recommended that Council agree to consult on the proposal in the Draft Annual Plan. Interest in electric vehicles is growing and Wellington city is well placed to be at the forefront of this evolving technology. A key component of this project is working in successful partnerships with manufacturers, third parties and government agencies.



## 5.3 Council Energy management programme

### 5.3.1 The Proposal

This proposal involves further investment in energy efficiency initiatives with the objective of reducing energy consumption and greenhouse gas emissions associated with Council buildings and assets.

These initiatives form a part of the ongoing Energy Management Programme that has been running in Council since 2006/07. This proposal is one element of the Council's 2010 Climate Change Action Plan (CCAP) and is a critical component to aid the Council in achieving its strategic priority of reducing emissions.

### 5.3.2 Proposal Costs

Outline project costs per year										
Project Component	Operating expenses									
	\$000 10/11 11/12 12/13 13/14 14/15 15/16 16/17 17/18 18/19 19/20									
Technical studies and Data Management Services	25	25								
Total	25	25								

Project Component	Capital expenses									
	\$000 10/11 11/12 12/13 13/14 14/15 15/16 16/17 17/18 18/19 19/20									
Asset upgrades	50	150								
Total	50	150								

### 5.3.3 Project Outline

The Council's Climate Change Action Plan (CCAP) is underpinned by an approach that seeks to:

- have Council lead by example in relation to reducing emissions from its own operations
- manage and mitigate the Council's liabilities resulting from the New Zealand Emissions Trading Scheme (ETS)
- identify projects that deliver "co-benefits" and that deliver value for money.

The Energy Management Programme (EMP) is therefore a critical component for the successful delivery of the Council's CCAP. The agreed emission reduction goals for the Council will only be met through a whole-of-organisation approach to identify efficiencies in energy use throughout the Council's asset portfolio. The EMP also helps the organisation manage its exposure to an ever-moving utilities market in New Zealand and the impact of the Emissions Trading Scheme.

## **Background**

Significant work has taken place to improve the Council's understanding of its energy liabilities. The Council spends approximately \$6m on electricity and natural gas per annum and increases in energy costs have significant impacts. This impact is partially managed through electricity and natural gas contracts that incentivise energy reductions and provide competitive unit rates.

In 2006 Councillors agreed to establish an EMP with the objective of "controlling the Council's energy consumption". The EMP was to be trialled for a five year period and then reviewed for its effectiveness. As at December 2009 the programme had delivered approximately 95 tCO<sub>2</sub>-e/yr and \$60,000 in annual cost savings. The overall payback period of the programme is around three years (i.e. the project pays for itself through operational savings after this time).

The original EMP was developed as a five-year pilot and is scheduled to finish in 2010/11. This proposal extends funding so that the EMP can continue to deliver further benefits to the organisation and community.

## **Discussion**

A summary of current and proposed funding is provided in the following table:

		2009/10	2010/11	2011/12
Current	(CAPEX)	100	100	
	(OPEX)	25	25	25
Proposed	(CAPEX)		50	150
	(OPEX)		25	25
Total	(CAPEX)	100	150	150
	(OPEX)	25	50	50

The key components of the proposal include:

- strengthening the programme in 2010/11 (the final year of the existing programme) to leverage opportunities provided through the Rugby World Cup 2011, with a focus on key energy intensive facilities
- an ongoing commitment to funding the Energy Management Programme out to 2011/12 (currently capital expenditure ceases after 2010/11, leaving only operational funding of \$25,000 per annum)
- considering ways to improve on the existing energy management framework that exists for Council operations.

This proposal will involve an additional capital expenditure of \$50,000 over and above the current funding of \$100k in 2010/11 to reflect an increased priority to prepare Council facilities for Rugby World Cup 2011. This increases to \$150,000 in 2011/12 to fully replace the existing programme. This proposal also increases the operational expenditure of \$25,000 per annum by an additional \$25,000 per annum to be used solely for energy assessments, audits, design work and various other consultancy services that have been recognised as a shortfall in the current resourcing levels to the EMP.

The focus of the programme for 2010/11 will be on facilities to be used in the Rugby World Cup 2011 (in line with the Wellington Region's hosting agreement) and the Council's most energy intensive facilities. The Rugby World Cup is an opportunity to implement systems and retrofits for facilities such as the Stadium, Freyberg Pool, Rugby League Park and Newtown Park. These retrofits will have a long-term legacy of savings in energy costs and greenhouse gas emissions.

The programme would be delivered internally led by the Council's Energy Manager in conjunction with a team of Council officers responsible for the asset management plans of facilities and infrastructure that is energy intensive (e.g. pools, the Civic Complex, libraries, Convention centre's, pumping stations). All capital investment opportunities will be evaluated for financial return to the organisation so that the Council can continue to recognise significant savings in energy use, emissions and energy expenditure. Officers will also develop options for new tools, methods and frameworks to identify energy saving opportunities.

#### **5.3.4 Recommendation**

It is recommended that the Council agree to consult on the proposal in the Draft Annual Plan. The continuation of this project will demonstrate a commitment to energy efficiency in Council facilities and is a part of Wellington's environmentally sustainable commitment to host the Rugby World Cup 2011.

## 5.4 Business Energy Saver Programme – *eMission*

### 5.4.1 The Proposal

This proposal involves a programme to help Wellington businesses reduce resource consumption (including energy and the associated greenhouse gas emissions). It involves making a 2-year commitment to the *eMission* programme, which helps small to medium sized businesses measure, monitor and reduce energy, water and waste.

The proposal is one element of the Council’s Draft 2010 Climate Change Action Plan (CCAP) and helps the Council to achieve its strategic priority of reducing emissions and waste and managing demand for water.

### 5.4.2 Proposal Costs

Outline project costs per year										
Project Component	Operating expenses \$000									
	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Operational programme costs	25	25								
Total	25	25								

### 5.4.3 Project Outline

#### ***Background***

The Council has had involvement supporting *eMission* and its predecessor *EnviroSmart* as a pilot project for the past three years. The aims of the programme are to help businesses (mostly small to medium sized enterprises) measure, monitor and reduce energy, greenhouse gas emissions, waste and water as well as ensure they are legally complying to health and safety and environmental regulations.

The programme seeks to identify specific initiatives for participating businesses that both save resources and save money. Energy efficiency opportunities in commercial buildings (e.g. lighting, heating/ventilation and appliances) have been shown to provide high return on investment with regard to energy and greenhouse gas emissions reductions. Businesses are responsible for paying at least 50% of the costs of the programme.

Many businesses struggle to make progress on sustainability issues due to lack of guidance, information and tools while others simply do not have the resources to prioritise initiatives to minimise environmental impacts. By continuing to provide funding support to *eMission*, the Council would be:

- engaging Wellington businesses in the effort to reduce emissions and resource use
- positioning the city as a leader by facilitating a more sustainable business community
- achieving high return on investment and quantitative results on businesses efforts to reduce emissions and resource use
- establishing partnerships and sharing costs with regional partners

- using national or internationally recognised environmental certification standards
- developing ‘business leaders’ in the city that can help influence their respective sectors to adopt more sustainable practices.

The *eMission* programme is managed and implemented by the Greater Wellington Regional Council in partnership with the Wellington City Council, Hutt City Council and Porirua City Council. Greater Wellington are currently in negotiations with potential sponsors for the programme, which will provide further reductions in the programme costs for businesses and allow for more businesses to access the programme.

### ***Implementation***

The proposal involves collaborating with the Regional Council, other local authorities, businesses in the Wellington Region and potential public/private sponsors to establish a funding and implementation partnership.

Initially only one option was available to businesses enrolled in *eMission*, the Enviro Mark certification process. The programme has now been expanded so that *eMission* is the umbrella for three programmes targeting different business needs. This new format will start in 2010/11 and will see more flexible services offered to Wellington businesses. In addition, Council funding will now be stream-lined so that costs focus on facilitation and incentives such as running workshops, contributing to energy audits and marketing/resource materials. Previously Council funds have gone towards the Enviro Mark license fee but this arrangement will not be continued.

### ***Programme 1 – Enviro Step (beginner)***

Enviro Step is the basic start-up programme of *eMission*, designed for small businesses such as retail stores or offices. It starts businesses on the path of reducing resource consumption by providing assessments of their consumption patterns and discounted energy efficiency packages (including installation) such as efficient lighting and equipment controls. The aim is to get 15 Wellington businesses through the programme each year with a goal of reducing emissions by 5% per business by the end of the programme. Targets will also be established for waste and water.

<i>Programme</i>		<i>06/07</i>	<i>07/08</i>	<i>09/10</i>	<i>10/11</i>	<i>11/12</i>
<i>1 - Envirostep</i>	<i>Cost</i>	-	-	-	<i>\$1,500</i>	<i>\$1,500</i>
	<i>No. of businesses</i>	-	-	-	<i>15</i>	<i>15</i>
	<i>Cost per business</i>	-	-	-	<i>\$100</i>	<i>\$100</i>

### ***Programme 2 – Qualmark certification (hospitality focused)***

This programme – still under development – would target Wellington’s hospitality industry by developing and implementing a *Qualmark* tourism licensing programme to pilot on Wellington’s restaurants, cafes and bars. All businesses carrying the Qualmark logo are assessed on their environmental performance in five key action areas: energy efficiency, waste management, water conservation, community activities and conservation initiatives. The Qualmark agency is looking to expand its programme to include restaurants, cafes and bars and they believe

*eMission* would be a good place to develop and implement the environmental component of the programme. It is a particularly exciting initiative in the lead-in to the Rugby World Cup where Wellington and its hospitality industry will receive increased visibility. The aim is to get 25 Wellington restaurants, cafes and bars through the programme each year with a goal of reducing emissions by 5% per business by the end of the programme. Targets will also be established for waste and water.

<i>Programme</i>		<i>06/07</i>	<i>07/08</i>	<i>09/10</i>	<i>10/11</i>	<i>11/12</i>
<i>2 - Qualmark</i>	<i>Cost</i>	-	-	-	<i>\$10,000</i>	<i>\$10,000</i>
	<i>No. of businesses</i>	-	-	-	<i>25</i>	<i>25</i>
	<i>Cost per business</i>	-	-	-	<i>\$400</i>	<i>\$400</i>

### ***Programme 3 – Enviro Mark certification (advanced)***

The Enviro Mark certification programme helps businesses and organisations develop and implement environmental management systems (EMS). Businesses are then audited under the Enviro Mark certification programme, which is designed to ensure businesses are legally complying with legislation for health and safety and environmental issues (e.g. consent requirements for discharges to air), develop plans to measure and reduce emissions and other resources and establish procurement policies to influence supply chains. The aim is to get fifteen Wellington businesses through the Enviro Mark certification programme each year with a goal of reducing emissions by 5% per business by the end of the programme. Targets will also be established for waste and water.

<i>Programme</i>		<i>06/07</i>	<i>07/08</i>	<i>09/10</i>	<i>10/11</i>	<i>11/12</i>
<i>3 – Enviro Mark</i>	<i>Cost</i>	<i>\$7,800</i>	<i>\$10,400</i>	<i>\$10,400</i>	<i>\$13,500</i>	<i>\$13,500</i>
	<i>No. of businesses</i>	<i>6</i>	<i>10*</i>	<i>12*</i>	<i>15</i>	<i>15</i>
	<i>Cost per business</i>	<i>\$1,300</i>	<i>\$1,300*</i>	<i>\$1,300*</i>	<i>\$900</i>	<i>\$900</i>

*\* Council sponsored eight Wellington City businesses in 2007/08 and 2009/10 and the additional businesses were funded by the Regional Council.*

### ***Total Programme***

*eMission* is the first programme in New Zealand to offer this combination of services to businesses in a region and the model established in the Wellington Region could be expanded to other parts of New Zealand.

<i>Programme</i>		<i>06/07</i>	<i>07/08</i>	<i>09/10</i>	<i>10/11</i>	<i>11/12</i>
<i>Totals</i>	<i>Cost</i>	<i>\$7,800</i>	<i>\$10,400</i>	<i>\$10,400</i>	<i>\$25,000</i>	<i>\$25,000</i>
	<i>No. of businesses</i>	<i>6</i>	<i>11</i>	<i>13</i>	<i>55</i>	<i>55</i>
	<i>Cost per business</i>	<i>\$1,300</i>	<i>\$945</i>	<i>\$800</i>	<i>\$450</i>	<i>\$450</i>

## **5.4.4 Recommendation**

It is recommended that the Council agree to consult on the proposal in the Draft Annual Plan. The proposal involves providing \$25,000 per annum in

funding for two years to support the *eMission* programme to help to reduce emissions and resource use in the community.

## 5.5 Home Energy Saver Programme

### 5.5.1 The Proposal

This proposal involves providing incentives to households to allow for low-cost retrofits of energy saving technologies. The project would involve developing partnerships with individual homeowners, Government, private companies and community trusts to provide additional funding support, marketing and implementation opportunities.

The proposal is one element of the Council’s Draft 2010 Climate Change Action Plan (CCAP) and helps the Council to achieve its strategic priority of reducing greenhouse gas emissions in Wellington city.

### 5.5.2 Proposal Costs

The proposal would require \$50,000 in the first year, followed by \$100,000 in the second year, with an expectation of matching funding from key stakeholders. Options to reduce the amount of funding coming from general rates will be explored for the 2012/2022 LTCCP.

Outline project costs per year										
Project Component	Operating expenses \$000									
	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Residential energy saver programme	50	100								
Total	50	100								

### 5.5.3 Project Outline

#### **Background**

Studies consistently show that household and commercial building energy efficiency projects are the easiest and most cost-effective measures for reducing greenhouse gas emissions. This initiative aims to reduce emissions associated with household energy consumption by establishing a programme that would provide incentives to households for low-cost energy retrofits, namely:

- energy efficient lighting
- low-flow shower-heads
- hot water cylinder wraps.

These options have the highest payback of a range of potential household initiatives. Lighting replacements, in particular, pay for themselves within six months. The initial performance target being considered is to retrofit 1,000-1,500 homes per annum with at least one of the options identified above. The

households would purchase the energy efficiency products but would receive incentives through partial subsidies that cover part of the costs for the products and their installation. If 1,500 households were retrofitted annually from 2010/11, approximately 1,300 T-CO<sub>2</sub>-e would be saved per annum.

The programme would involve establishing partnerships with homeowners, Government, the private sector and regional partners. The Council is currently seeking to implement a pilot-project to install low-flow shower heads into Wellington homes. The final scope of the project is yet to be agreed with EECA but if it goes ahead, the pilot will be useful in assisting the Council to develop a marketing strategy and implementation plan for the more significant Home Energy Saver programme.

A residential energy efficiency programme would complement existing home energy programmes by providing options not currently available. The Government has put in place the "Warm Up New Zealand" scheme, involving improvements to home insulation and energy efficient heating. The scheme is designed to address the significant national problem of cold, damp and hard to heat homes. The Council has already agreed to allocate \$35k per annum over 3 years to leverage 3rd party funding (i.e. in partnership with businesses and others) and promote the Warm Up NZ programme in Wellington. Funding for this purpose for the 2009/10 year is to be used between March-June 2010.

### ***Project development and implementation***

If the Council agrees to consult on the initiative in the Draft Annual Plan, a number of issues would be developed to provide further details and information on the programme by June 2010. These include:

#### **Establishing partnerships**

The Council has discussed the concept and potential partnerships for this initiative with Government and private stakeholders (these stakeholders have similar objectives to the Council of engaging households and reducing energy and greenhouse gas emissions). The Council would need to develop sustainable funding partnerships to increase the scope of the programme and share the costs across multiple parties. Partnerships are essential to deliver the Climate Change Action Plan.

#### **Implementation plan**

The Council would work with existing insulation and heating providers as well as trade associations to identify a sustainable implementation plan. Similar household energy efficiency programmes exist in Australia and these implementation models will be researched to identify an efficient and practical system for all parties: the Council, households and service providers. One model being considered (much like EECA's Warm Up New Zealand scheme) is to establish contracts with multiple service delivery agents and have them invoice the Council monthly in respect to the services provided to households. This means communication can occur directly between the service provider and the household including the use of online technology. The goal for implementation would be to have the programme accessible to households by January 2010. As there will be up to a six-month



establishment period, the first year of funding for 2010/11 has \$50k in funding, which will be increased to \$100k in 2011/12.

### **Product partners**

The Council will liaise with product suppliers for energy efficient lighting, low-flow shower heads and hot water cylinder wrapping to identify partnership opportunities. Risks associated with the Council's investment with product promotion will be identified and managed.

### **Aligning with Warm Up New Zealand**

The Council will work with the Regional Council and EECA to ensure that the Home Energy Saver programme complements the Warm Up New Zealand scheme.

In addition, options to reduce the amount of funding coming from general rates will be explored for the 2012/2022 LTCCP. These include:

- the use of targeted rates for households interested in accessing the Home Energy Saver programme
- using revenue from forest sink credits towards climate change initiatives such as this project
- using savings from Council energy management projects towards community projects
- developing commercial partnerships with product suppliers to reduce the costs of products (e.g. light bulbs and shower heads).

If agreed, ongoing implementation of the initiative will be a visible demonstration of the Council's role and leadership in engaging the community to reduce greenhouse gas emissions.

### **5.5.4 Recommendation**

It is recommended that the Council agree to consult on the proposal in the Draft Annual Plan. The proposal involves providing funding to support the establishment and delivery of the Home Energy Saver programme which will help to reduce emissions in the community.