



# Draft Climate Change Mitigation Strategy 2050 Engagement Summary

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## Executive Summary

In August 2018, Conversation Caravan was engaged by City of Melbourne to conduct an engagement exercise to gauge community response to City of Melbourne's draft Climate Change Mitigation Strategy to 2050. The engagement took place in between September 11th and October 7th, 2018 and consisted of 11 4-hour pop ups at various locations across the city and on the Participate Melbourne, the City of Melbourne's online platform.

Pop ups were staffed with 2, 3 or 4 Conversation Caravan facilitators and a minimum of one City of Melbourne staff member providing technical support. A total of 664 people were engaged, 642 at the face-to-face pop-ups and 22 online.

Respondents were grouped according to their relationship with the City of Melbourne. The most common participants were Residents (36%), followed by City Workers (25%), Students (18%) and Visitors (16%). Previous awareness of the Climate Change Mitigation Strategy was also assessed with 23% of those engaged having prior knowledge of the strategy or of previous work in this space.

Participants at the pop ups were offered the following four activities:

- Four theme boards (Zero Emissions Buildings, 100% Renewable Energy, Zero Emissions Transport, Reduce Impact of Waste) - participants provided feedback about their current activity to mitigate climate change, barriers to doing more and suggestions and insights to enhance or strengthen impact in each area.
- Action Items - participants selected their preferred action from seven preselected actions and were asked to articulate why they selected this action and/or the benefit to the City.
- Healthy City - participants were asked to identify indicators of a healthy city and/or how they would know if the health of the City was improving.
- Commitment Board - participants were asked to make a commitment to reduce their impact on climate change within the next 12 months.

Participants were able to respond to one activity in around 60 seconds, all four took around 15 minutes. A large amount of raw data was collected with over 1450 individual responses and a wealth of conversation (distilled at debrief) over the 44 hours of pop-ups.

Analysis of the data demonstrated that participants in the engagement already take action to reduce their waste, recycle or make efforts to reuse. They prefer active and public transport, actively monitor their energy use and try to source renewable energy. Participants face many obstacles in trying to mitigate their impact on climate change such as restrictions placed on renters and apartment owners by landlords and body corporates, when trying to modify the environmental performance of buildings; required financial investment to consider energy saving modifications; safety concerns and inconvenience around active transport; lack of understanding about recycling and renewable energy products; and a lack of organic waste infrastructure for household composting.

Many suggestions and insights were generated for Council's consideration, among them:

- Reviewing planning controls around design and operation of new buildings.
- Incentivising renewable energy generation and energy saving measures.
- Reducing the number of cars in the CBD.
- Prioritising active and public transport.
- Making improvements to collection of green waste and education around recycling.



Strong support was demonstrated for most of the seven actions, particularly those seen to deliver more green space, prioritise active transport over cars, advocate for more renewable energy and assist or facilitate the transition to renewable energy.

Good insight was gained into what indicators the community might use to identify improvements in Melbourne's overall health, with more green space, improved human well-being, more active and public transport, fewer cars, less waste and cleaner air and water being key. This was reflected in the community's commitment to change their behaviour with changes to waste, transport, renewable energy and advocacy all rated highly.

Overall, engagement in this project reflected earlier research which showed a high level of interest in climate change. Similarly, there was strong support for the City of Melbourne in both advocating for change and taking direct action in mitigating the impacts of climate change. Participants provided considered responses based on personal experience and understanding and were supportive of the City of Melbourne carrying out this work.

Engagement on the draft Climate Change Mitigation Strategy has generated significant interest in the project with over 650 people involved both face-to-face and online. This does not include the number of people that walked past a pop up, read an online post or the 1019 people that viewed the project online.



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## 1. Introduction

Conversation Caravan were engaged by the City of Melbourne to test and strengthen its draft Climate Change Mitigation Strategy. Feedback collected through the consultation will be used to finalise the Strategy for Council consideration at its December Meeting and will help to inform ongoing implementation plans to work with community and stakeholders in this space.

This report presents data collected throughout face-to-face pop up events and the online engagement and summarises the key themes arising from this process.

### 1.1 Engagement Methodology

To reach a cross-section of the community and enable meaningful conversations to occur, a place-based approach to community engagement was undertaken with the aim of speaking with people as they go about their daily lives.

The place-based engagement was also complemented by online engagement that was promoted through Council's regular channels and at face-to-face engagement activities for anyone that did not have time to engage on the day.

### Overview of Face-to-Face Engagement

A series of 11 pop ups were delivered across the City of Melbourne between the 11th of September and 7th of October and were positioned in key attractions or high transit areas. A total of 642 people were spoken to across these pop ups. Pop ups were delivered across key suburbs and areas within Melbourne to maximise access to consultation.

The following pop ups were facilitated:

- Dock Library, Docklands
- Kensington Town Hall, Kensington
- Kathleen Syme Community Centre, Carlton
- City Library, Melbourne CBD
- Boyd Community Centre, Southbank
- Melbourne University Farmers Market, Parkville
- ANZ Docklands Collins St, Docklands
- Railway/Miller Hawke/Adderley Park, North Melbourne
- Yarra Promenade, Southbank
- Southern Cross Railway, Melbourne CBD
- Neil Street Reserve, Carlton North.

The engagement activities focused on understanding:

- Demographic Data:
  - Connection to the City of Melbourne (city worker, student, business owner, student, visitor, other (CALD and other categories).
  - Awareness of the Climate Change Mitigation Strategy.
- Areas of action and inaction across four Strategy Areas (Zero Emissions Buildings & Precincts, 100% Renewable Energy, Zero Emissions Transport and Reducing the Impact of Waste):
  - Do you currently take action to reduce your carbon footprint? What are those actions?
  - What prevents you from doing more?
  - What suggestions do you have that may help you to do more?



- Preference across seven preselected actions from the Strategy and why this would bring about the biggest change for Melbourne. The actions selected were:
  - Advocate and facilitate to transition from gas to electricity in buildings and precincts
  - Prioritise active and public transport through dedicated lanes, traffic light priorities, parking controls and road user pricing.
  - Advocate for more ambitious renewable energy targets
  - Demonstrate innovative carbon positive design and operation of council-owned buildings and precincts
  - Facilitate residential purchasing of renewable energy products
  - Reallocate road space to create more space for walking, cycling and green infrastructure
  - Facilitate a virtual power plant for residents
- How participants define a healthy city. What does a healthy city look like? How would you know things are changing?
- Individual commitment to further reduce your carbon footprint through an individual pledge.

### **Overview of Online Engagement**

Online engagement was open from the 6th of September to 9th of October 2018. A total of 22 participants engaged with the platform, 11 participants completed the survey, 3 participated in the survey and forum and 8 participated in the forum.

The questions were open ended and were accompanied by a Strategy online and a short video explaining climate change.

The engagement activities focused on understanding:

- What participant's connection was to the City of Melbourne (city worker, student, business owner, student, visitor, other).
- What the big opportunities for community involvement to reduce emissions.
- What is currently preventing participants from taking further action to reduce their impact on the environment.
- What participants saw as the opportunities for business and industry to further their contribution to Melbourne's effort to reduce emissions.
- Any other comments on the draft Climate Mitigation Strategy to 2050?

## **2. Participation across the City**

Pop ups were located across the City of Melbourne area and were held at varying days and times to maximise participation in the project. Pop ups were visually attractive and at some of the sites incentives were used to encourage participation.

Online engagement was promoted via Council's media channels, through Conversation Caravan social media and at pop up events. Online engagement was also supported with an engaging video about climate change.

### **2.1 11 Pop Ups across the City**

Where possible, pop ups were co-located within an existing attraction or event to capitalise on the existing audience. Other pop ups were located in high foot traffic areas or visible locations.



Pop ups that were co-located at an attraction or as part of a pre-existing event performed better than others, where compared to per capita participation. The Conversation Caravan Facilitators were also able to speak to participants for slightly longer, given participants had already planned time visiting the destination. Table 2 provides this demographic data.

Table 1 below summarises where the 11, 4-hour pop-ups were conducted across the City of Melbourne. The sites, times, type of display and any incentives offered as part of this consultation.

**Table 1 Pop Up Events Conducted**

Date/Location/Start	Set Up	Incentives
1. Dock Library Monday 11 <sup>th</sup> September 9.30am - 1pm	Full Caravan Display	Voucher for local coffee provider
2. Kensington Town Hall Sunday 16 <sup>th</sup> September 10am - 3pm	Full Caravan Display	Native Pot Plants
3. Kathleen Syme Monday 17 <sup>th</sup> of September 8:30am to 12:30pm	Full Caravan Display	Voucher for local coffee provider
4. City Library Monday 11 <sup>th</sup> September 2pm - 6pm	Modified - display boards	Voucher for local coffee provider OR Native Pot Plants
5. Boyd Community Centre Tuesday 18 <sup>th</sup> September 8.30am - 12.30pm	Full Caravan Display	Voucher for local coffee provider OR Native Pot Plants
6. Melbourne University Farmers Market Wednesday 19 <sup>th</sup> September 10.30am - 2:30pm (arrive 9.45am)	Full Caravan Display	Voucher for local coffee provider OR Native Pot Plants
7. ANZ Docklands Collins St Friday 21 <sup>st</sup> September 10am - 2pm	Full Caravan Display	None
8. Railway/Miller Hawke/Adderley Saturday 22 <sup>nd</sup> September 12pm - 4pm	Full Caravan Display	None

9. Yarra Promenade Tuesday 2 <sup>nd</sup> October 8.30am – 12.30pm	Full Caravan Display	None
10. Southern Cross Railway – Walkway Tuesday 2 <sup>nd</sup> October 2pm – 6pm	Modified Display	None
12. Neil Street Reserve Sunday 7 <sup>th</sup> October 11am – 3pm	Full Caravan Display	Bike & Blend Fruit Smoothies

## 2.2 Demographic Data Collected

As part of the face-to-face consultation, participants were asked two demographic questions to assist the City of Melbourne in understanding who was reached as part of this consultation:

1. Are you aware that City of Melbourne has a Climate Change Mitigation Strategy?
2. What is your relationship to the City of Melbourne?

Data was collected via six clear tubes relating to each of the categories of relationship to City of Melbourne (Resident, City Worker, Visitor, Business Owner, Student and Other). Each participant placed a coloured ball in the appropriate tube, a green ball for yes, they were aware of the strategy, or a yellow ball for no, they were not aware of the strategy. The demographic data collected at each site is shown in the Table 2 below.

A total of 642 people were engaged across the pop ups with an additional 22 people contributing online. The majority of participants (77%) did not have prior knowledge of the draft Climate Change Mitigation Strategy. The highest portion of participants were Residents (36%), followed by City Workers (25%) and Students (18%).

**Table 2 Demographic Breakdown by Pop Up**

Site	Number of people Engaged	Did you know about Strategy?		City Resident	Visitor	Student	City Worker	CBD Business Owner	Other*
		Yes	No						
Library at the Dock	42	14	28	16	5	6	12	1	2
Kensington Town Hall	72	9	63	40	24	4	2	2	0
Kathleen Syme	72	18	54	19	11	20	13	1	8
City Library	53	10	43	23	12	5	8	1	4



Boyd Community	54	1	53	28	7	0	19	0	0
MU Farmer Market	81	28	53	2	5	64	10	0	0
ANZ Concourse	71	11	60	12	3	0	52	3	1
West Melbourne	41	13	28	22	9	5	4	0	1
Southbank Promenade	43	13	30	3	19	2	14	0	5
Southern Cross	39	12	27	5	5	5	24	0	0
Neil St Reserve	74	20	54	55	8	6	3	0	2
Online engagement	22	NA	NA	11	1	2	7	1	0
Total	664	149	493	236	109	119	168	9	23
% of total	100%	23%	77%	36%	16%	18%	25%	1%	4%

\*Other = homeless, recently moved here, unwilling to identify with a category.

### 2.3 Barriers to participation

For some people, climate change is a complex and emotive topic to consider. There is much debate about the subject in the public sphere, both at a political and scientific level.

Furthermore, respondents self-selected to a degree, as they were able to opt-in to the activities. Therefore, it is to be expected that the degree of comprehension and enthusiasm for climate change mitigation may be stronger in this data than in the community overall, where apathy and lack of understanding may be more prevalent.

Similarly, the complexity of the project was felt online the project attracted over 1019 visitors, whereas only 2% participated in the project. On an online platform a conversion of 10% is considered average with anything higher or lower an indication of both interest and understanding. Complex plans that cover broad areas tend to attract less interest as opposed to projects that are specific in nature and are easy to participate in; that is, they do not require a lot of time, comprehension or reading.

Language barriers at the Dock Library, Boyd Community Centre and Neil Street prevented participation for some people. At these locations participation was aided by staff that had convened the activity (Story Time, English Class) or a child or family member that spoke English.



### 3. Engagement Findings

This section summarises the key themes and findings arising from the engagement. Findings are presented within the individual engagement activities. The engagement activities were aimed at testing and strengthening the draft Climate Change Mitigation Strategy:

- Activity 1 A closer look at the Strategy Areas
- Activity 2 A closer look at the Actions
- Activity 3 Participants view of a healthy city
- Activity 4 Individual commitment to reduce their carbon footprint.
- Online engagement

Activities were designed around capturing a respondent's interest for 60 seconds to 15 minutes.

#### 3.2 Activity 1. A closer look at the Strategy Areas

The draft Climate Change Mitigation Strategy has four main areas or themes. These are:

1. Zero Emissions Buildings and Precincts
2. 100% Renewable Energy
3. Zero Emissions Transport
4. Reduce the Impact of Waste

To examine community responses in relation to these areas, four theme boards were set up and participants were asked to consider three questions within each of the areas. Those questions were:

1. What do you currently do in this area to reduce your impact on climate change?
2. What are the barriers that prevent you from doing more?
3. Do you have any suggestions or insights into how these barriers might be overcome?

Comments and responses were noted down on the relevant board by either participant or facilitator and the results are presented in more detail in pages following. Overall, this activity generated 733 responses, the breakdown is shown in Table 4.

As anticipated, the areas of waste and transport, being the most visible in the public eye attracted the greatest number of responses. However, all four areas generated quality discussion and a strong depth of response. All comments can be viewed in the Appendix 2 - Raw Data, an overview and preliminary analysis is presented here.

**Table 4 - Activity 1 Participation Breakdown**

Area	Current Actions	Barriers	Suggestions Insights	Total	% of Total
Zero Emissions Buildings	35	25	67	127	17%

100% Renewable Energy	34	38	44	116	16%
Zero Emissions Transport	109	48	54	211	29%
Reduce the Impact of Waste	126	59	94	279	38%
Total	304	170	259	733	100%

### Area 1. Zero Emissions Buildings

There was a moderate response (17%) to this theme with people indicating that they are already considering the effects of the construction and operation of their own buildings on climate change. Most respondents in this section are conscious of their energy usage and many have already made alterations such as low energy lighting and more efficient appliances. There appears to be a fair to good understanding of the principles behind insulation, double glazing and use of natural heating and cooling by use of sun and shade and cross ventilation in both design and operation. Several participants stated that they no longer use heating or cooling unless absolutely necessary, both for financial and environmental rationales.

The primary barriers to people reducing the energy usage in their home vary, however some consistent themes emerge:

- **Difficult being a renter:** renters would generally like to do more to reduce their energy costs by installing insulation, double glazing or solar hot water, but are restricted by their landlords.
- **Environmental cost of large windows:** apartment dwellers are finding that highly glazed rooms are difficult to keep warm in winter and cool in summer and their energy consumption reflects this.
- **Financial restrictions:** investment required prevents homeowners from making significant improvements, many respondents are waiting/hoping for another round of solar panel installation subsidies and would be receptive to further insulation/double glazing schemes with financial rebates/incentives. Many respondents were considering the trade-offs around alterations that would make the biggest difference.
- **Body corporate restrictions:** renters and owners living in apartment buildings or on strata title would like to do more as a group, however the effort in coordinating home owners within their building or development is difficult. Many cited problems with permits, local and state laws and lack of clear direction (i.e. exactly how do we do this?), as the main reasons these ideas get pushed into the 'too hard' pile.

A typical comment is, "I'd love to put in solar panels, but it's expensive and by the time I made my money back, they'd need replacing", or "I want to retrofit insulation in my house, but it's just too hard and I'm not sure that it would make that much difference".



## Community Suggestions

Zero emission buildings generated a large number of community suggestions and insights that can be grouped into the following broad areas:

- **Incentivise use of ESD principles:** broadly speaking, make it easier for developers who are planning low environmental impact buildings and make it harder for developers who plan high energy/high waste generating buildings.
- **Follow up on new builds:** the perception is that builders and developers pay lip service to the concepts of environmentalism but do not deliver, particularly with regard to energy ratings and green space/landscaping post-build. Many, even construction workers, were dubious about buildings given five and six star ratings that still seem to lack basic energy-saving modifications.
- **Consider planning/compliance tools available:** to encourage new buildings to include some or all of the following:
  - Inbuilt passive ventilation.
  - Inbuilt renewable energy generation (wind or solar).
  - Battery storage banks.
  - Mandatory attached green spaces based on number of occupants.
  - Green roofs or walls where possible/practical.
  - Maximise use of natural light.
  - Design to incorporate best use of natural heating and cooling.
- **Encourage commercial buildings to reduce their power consumption:** by methods such as default to lights off at night, shut down floors/levels at times of low usage to decrease heating/cooling costs.
- **Support owners and operators:** and encourage them to retrofit domestic and commercial premises with insulation, double glazing, solar panels and other energy saving measures.

The City of Melbourne was viewed by participants as being a natural leader in demonstrating environmentally sensitive design in buildings and precincts, to show what is possible as well as enforcing permit conditions on the energy rating of new buildings.

## Area 2. 100% Renewable Energy

This area received moderate interest (16%) with many respondents already thinking about their energy mix. Solar generation was the most commonly referenced option with about half of all respondents in this area either already using their own solar system or intending to install one inside the next 12 months. There was some overlap with the Zero Emissions Buildings theme with several respondents here also referencing their energy reduction strategies.

A solid theme emerged of participants conscious of where their energy provider is sourcing their electricity with a number of people already choosing a renewable option where this is provided by the retailer, even if it costs a little more. Other comments indicate that respondents would prefer a sustainable energy mix provided it was no more expensive than their current bills.

Respondents can be separated into two main groups in this theme, those who wish to generate their own renewable power and those who wish to purchase renewable power from a third party.

In the first group, the overwhelming barrier is financial constraint. Most people see the benefit of and aspire to, installing their own solar system and battery storage, but the initial



cost of set up was the roadblock. This is coupled with scepticism around the reliability, efficiency and durability of this relatively new technology, in essence “is it reliable and is it worth it?”

In the second group, those who wanted to purchase renewable power, the main barriers were:

- **Availability:** my current retailer does not have a renewables option.
- **Scepticism:** my retailer does have a renewable option, but I am not sure if the energy really does come from a renewable source.
- **Constraint:** I am locked into a power purchase agreement with my apartment building or landlord.
- **Confusion:** I do not know how to go about sourcing renewable options for my power and/or changing retailers.

Again, cost was a large driver with most respondents interested in renewable options as long as it does not cost more. Many participants indicated that they would be receptive to advice and information about ethical and sustainable energy suppliers/retailers and that City of Melbourne would be a trusted source of this information.

### Community Suggestions

This area also generated many suggestions which can be grouped into the following four categories:

- **Generate renewable energy in the CBD:** consider other methods of renewable energy generation such as geothermal, micro pumped hydro, biofuels and hi-rise sewage along with expanding solar and wind generation in the CBD. More than one respondent suggested a design competition for creative power generation in new buildings.
- **Invest in and advocate for more renewable energy:** there is acknowledgment of City of Melbourne’s commitment to investing in 100% renewable energy for their own operations and a sense that this should be held as an example for corporations in particular to follow.
- **Assist and advise in the purchasing of renewable energy products:** some respondents even requested a list of energy retailers who are genuinely providing energy from renewable sources and whose operations are consistent with an environmentally sensitive approach.
- **Assist with the installation of renewable energy generation:** some residents and businesses sought assistance with the installation of renewable energy generation and storage equipment, particularly solar panels and wind turbines coupled with battery storage. Assistance sought ranged from financial incentives such as rates reductions and rebate schemes to simple advice and information on reliable products, suppliers and installers.

100% Renewable Energy also generated strong interest in and crossover with two of the action items from Activity 2 (#5 - Facilitate purchase of renewable energy products and #7 - Facilitate a virtual power plant).

In conversation around this topic, participants were excited about the concept of being able to access ‘ownership’ of renewable energy generation, particularly renters and apartment dwellers who previously thought this was unachievable. For example, “This sounds like a great idea, love the concept of renewable energy generated locally”.



City of Melbourne seems uniquely placed to develop models that facilitate this outcome. Such schemes would ideally be clearly defined, relatively easy to understand and at a minimum, cost-neutral to the consumer in the mid to long-term.

### Area 3. Zero Emissions Transport

This area was very popular, accounting for almost 29% of responses. The conversations demonstrated a solid, broad-based understanding of the impact of transport on the environment and the city experience. Virtually all respondents acknowledge the basic solutions of a reduction in fossil-fuel powered vehicles along with improved active and public transport. There is already a strong commitment to cycling and walking for short journeys and most participants either do not own a car or consciously limit its use.

Ride sharing and car-share schemes are common and the accepted norm in some areas. There is a high usage rate of public transport despite some barriers which are addressed below.

Barriers around Zero Emissions Transport can be grouped into three broad areas:

- **Barriers to Cycling:** overwhelmingly, safety is the primary barrier here. Many participants stated that they would cycle more if they felt safer. The primary fear is of motorised vehicles on the road, the main concern being that motorists do not respect cyclist space. Other barriers to cycling feed back into the safety theme, i.e. not enough bike lanes, lanes do not connect, cars parking in bike lanes, no separation of lanes, no bike route to my destination.
- **Barriers to Walking:** lack of time is the main barrier here with safety a lesser theme. Comments reference traffic light favouring motorists, congestion on footpaths and waiting times for public transport as the main reasons people end up driving in the city.
- **Barriers to Public Transport:** number of services and wait times are the main reasons given for not using public transport. Most participants acknowledge that tram and bus services in the CBD are quite good, but train services into and out of the city are too infrequent. Lack of parking at suburban stations is also mentioned often. Lack of comfort and safety are lesser, but still relatively common comments, with pricing a concern for only some respondents.

### Community Suggestions

As expected with such a high rate of participation in this theme, there were many suggestions addressing all of the barriers identified. These ideas can be grouped into the following areas:

- **Reduce the number of cars in the city:** this was a suggestion that was raised on numerous occasions. The Bourke and Swanston St pedestrian only areas were constantly referenced as great examples of improving the city experience. The benefits of cleaner air, reduced congestion and improved safety for pedestrians and cyclists were consistently mentioned. Suggestions ranged from the radical to the mild and include the following:
  - Ban all cars and trucks from the CBD grid.
  - No diesel vehicles in the CBD.
  - Reduce speed limit to 20kph for cars/trucks.
  - Electric or hybrid vehicles only and free electric vehicle charging.
  - No single occupant vehicles.
  - Halve the available parking spaces in the city.
  - Impose a congestion tax ala London.
  - Trial a no-car day once a week.



- **Improve cycling infrastructure:** this was largely driven by safety, as mentioned above, but convenience and time saving were also strong drivers. For example, several respondents identified the difficulty in cycling to and from various parts of the city due to a lack of direct bike routes or unconnected bike routes. One trip commonly referenced was the difficulty in accessing Docklands from North and West Melbourne by either bike or foot. Areas for improvement were as follows:
  - Create more direct cycling routes incorporating both dedicated lanes and new bike paths.
  - Connect existing bike routes to one another and to new routes.
  - Alter car street parking to separate cyclists from cars.
  - Change traffic light priorities to favour cyclists over cars.
  - Consider connections across adjoining municipalities (City of Yarra and Port Phillip).
  
- **Improve public transport:** tram and bus services in the city were generally well regarded when compared with trains in and out of the city, but were still considered to be under-supplied, overcrowded and uncomfortable. Accessibility was also an issue for some users with lack of low-rider trams and buses occasionally referenced. Most respondents considered the train and bus services in from the suburbs to be poorly resourced and many suggestions were focussed on this subsection of public transport. Areas for improvement were as follows:
  - Advocate for Metro Trains to increase the number of services on suburban train lines, thus reducing wait times.
  - Advocate to VicTrack to increase the amount of car and bicycle parking available at suburban hubs.
  - Advocate for City buses to be powered by renewable energy.
  
- **Improve the pedestrian experience:** participants expressed the need for more space for walking and for it to be more convenient and safer. The perceived solutions to achieve this and make it more desirable to walk are as follows:
  - Reduction of cars and other motor vehicles in the CBD.
  - More pedestrian-only areas such as Bourke and Swanston Streets.
  - Wider footpaths.
  - Improved public transport with shorter wait times and less congestion.
  - More green space and better building design for pedestrian access/walkthrough.

Overall, there is broad based support for a reduction of cars and trucks in the CBD with concurrent improvements to active and public transport. Expanding cycling and pedestrian infrastructure and improving safety are seen as key to achieving a significant reduction in transport emissions. Several participants referenced Denmark, Canada and the Netherlands as aspirational examples of active transport systems.

#### **Area 4. Reducing the Impact of Waste**

This area generated a very high level of interest and contributions accounted for about 38% of all responses in this activity. The vast majority of respondents were well educated in the reduce, reuse, recycle model and most have already incorporated some or all of this into their daily lives. Around 80% of participants here actively recycle and about 30% are composting food waste to some degree. Almost all have reduced or eliminated single use plastic bags and straws and reusable coffee cups are endlessly referenced. There is a very strong awareness of avoiding plastic packaging however many find this difficult.



Several respondents stated they were environmental vegetarians with significant numbers either growing or trying to grow vegetables and herbs in a high rise or apartment environment. Water management is referenced often. Also evident (although less obvious) is a shift in attitude towards community management of waste and resources. Participants commented they are taking action within their community “Live in a high rise, swap books, furniture and excess food”, “Vege garden in flats – shared arrangement”, “Share herbs, participate in clothes swap”, “Manage local compost and worm farm”, “Recycling program in apartment block” these comments indicate an interest in being environmentally and socially conscious.

When questioned about barriers to reducing waste, some very consistent themes emerged:

- **Perceived lack of education and comprehension about recycling:** this was a prevalent comment from apartment dwellers who felt that recycling streams were frequently contaminated. Several respondents felt that this was at least partly due to language and cultural barriers due to the relatively high proportion of international students and workers in CBD apartments.
- **Separation of waste and recycling too difficult:** many living in apartments spoke about rubbish chutes that did not allow for a separation of waste or recycling. Rather instead to recycle, residents needed to walk their rubbish into the compound.
- **Lack of green waste collection:** many participants stated that they have either no or insufficient green waste collection. Comments such as, “I only have a small garden, but still end up putting green waste into the regular bin”, were common. A potential link can be drawn here to those growing or attempting to grow vegetables and herbs in their apartments/flats.
- **Lack of composting facilities:** a high number of respondents felt that if there was somewhere to dispose of their food waste, they would do so. Many are already trying to compost in their apartments, but have nowhere to use the resulting mulch. Several participants at the Kensington market site and North Melbourne site participated in community managed worm farms with high-rise dwellers going out of their way to compost in the worm farms.

Other barriers referenced and likely outside City of Melbourne influence, are issues such as excessive packaging on retail items and food, limited recycling for soft plastics and disposable coffee cups, too much non-recyclable material in manufacturing, lack of e-waste disposal sites/bins and scepticism over what happens to recycling streams anyway, i.e. “It all goes to landfill”.

### Community Suggestions

As expected, this area generated a large number of suggestions of how to overcome these barriers. They can be loosely grouped into the following areas:

- **Education around recycling:** particularly in high density living spaces education would ideally be cross-cultural and backed up by the appropriate infrastructure. For example, consistently labelled recycling bins, easily available, including e-waste bins. One comment, “We have a large population of international students, who are well-educated but don’t understand waste management and recycling as it applies in Melbourne. We need to educate and make it easy for them to participate”.
- **Reintroduction and/or increased availability of green waste collection:** a consistent message throughout this theme, there was a sense of disappointment and confusion around the lack of service. More than one participant suggested green



waste collection at the street or community level would be a good compromise if household collection is deemed ineffective or otherwise unviable.

- **Introduction of composting facilities:** encouraging/facilitating composting of organic waste at the personal or building/complex level, and/or the provision of somewhere to use the resultant mulch. Requests for community gardens, vegetable patches and herb gardens were also made.
- **Incentivising local businesses:** to transition to reusable or compostable materials in their operations. Cafés and restaurants are the most commonly referenced businesses with suggestions ranging from coffee ground collection services and banning of disposable cups, to relaxing food safety regulations to allow greater redistribution of waste food.
- **Advocating and influencing for a reduction in packaging:** supermarkets and large retailers are the common targets here with City of Melbourne viewed as capable of influencing these business to minimise packaging or of making them responsible for the waste generated.

City of Melbourne is viewed as an integral player in waste management with the primary areas of influence being seen as education and increased availability around recycling; increased green waste collection; introduction of composting facilities and incentivising businesses to transition away from disposable plastics and excessive packaging.

### 3.3 Activity 2. A closer look at the Actions

From the draft Climate Change Mitigation Strategy seven from the 21 actions were chosen in conjunction with the City of Melbourne. The seven selected were considered broadly representative and had a direct impact on the community. Participants were asked to consider each action and select one or more, that they considered to be the most useful to them and/or broadly beneficial to the City of Melbourne community. They were then asked to comment on why they felt this way. The seven actions considered were:

1. Advocate and facilitate to transition from gas to electricity in buildings and precincts.
2. Prioritise active and public transport through dedicated lanes, traffic light priorities, parking controls and road user pricing.
3. Advocate for more ambitious renewable energy targets.
4. Demonstrate innovative carbon positive design and operation of council-owned buildings and precincts.
5. Facilitate residential purchasing of renewable energy products.
6. Reallocate road space to create more space for walking, cycling and green infrastructure.
7. Facilitate a virtual power plant for residents.

This activity required a deeper level of engagement and a higher degree of comprehension. A City of Melbourne staff member was on hand for this activity for the majority of the pop-ups and this was very advantageous in generating good understanding and meaningful conversation. Around half of all participants chose to do this activity and whilst the majority selected only one of the actions, several highly engaged individuals gave comment on two or more.

Overall, this activity generated 383 responses, spread across the seven actions as shown in the Table 4. Significant interest was given to prioritisation of active and public transport through road controls (Action 2) and reallocating road spaces for green spaces or wider walking areas (Action 6).



Again, all comments and feedback can be viewed in the Appendix 2 Raw Data, however an overview and preliminary analysis of the response to each proposed action is presented here.

**Table 5 Participation across the seven actions**

Proposed Action	Number of Responses	Percentage Of Total
1. Advocate and facilitate to transition from gas to electricity in buildings and precincts	30	8%
2. Prioritise active and public transport through dedicated lanes, traffic light priorities, parking controls and road user pricing	72	19%
3. Advocate for more ambitious renewable energy targets.	56	14%
4. Demonstrate innovative carbon positive design and operation of council-owned buildings and precincts	60	16%
5. Facilitate residential purchasing of renewable energy products	28	7%
6. Reallocate road space to create more space for walking, cycling and green infrastructure	105	27%
7. Facilitate a virtual power plant for residents	32	9%
Total	383	100%

**Action 1. Advocate and facilitate to transition from gas to electricity in buildings and precincts.**

This proposed action generated average support with 30 people choosing to comment. All were cautiously positive, around half cited price or pricing structures as a barrier and indicated that their support for the action would be conditional on electricity being cheaper or at least equal to the price of gas at the time. Other responses noted that this may require significant infrastructure alterations to properties (i.e. upgrade of power supplies, requirement for battery storage and removal of gas infrastructure), which may be time-consuming and expensive.

Overall, the reaction, whilst limited, was optimistic, with most participants understanding that removing gas from the energy mix would be a significant step towards a zero emissions target. The takeout message here can be paraphrased as, *If it was no more expensive to me, I would support the replacement of gas with renewable electricity.*

**Action 2. Prioritise active and public transport through dedicated lanes, traffic light priorities, parking controls and road user pricing.**

This action plan generated strong interest with 72 people choosing to comment. Responses were supportive of the action with interest divided into four main areas:



- **Improve Public Transport 36%:** suggestions were largely centred around frequency and number of services, with a general sense that whilst PT in the city (primarily tram services) was already good, it would be well-served by extra services and decreased wait times. Disabled access was also flagged by some respondents, citing a lack of low-rider trams and buses. Public transport into and out of the city (trains and buses) was viewed as lagging behind in terms of desirability. The main areas for improvement were viewed as increased number of services and/or decreased travel time and increased suburban station car parking. A number of respondents also voiced an interest in seeing public transport visibly running off renewables with suggestions of hydrogen powered buses and battery powered trams.
- **Improve Traffic Flow 30%:** was energetically discussed by many respondents with the overarching solution seen as a reduction of cars in the CBD. Various strategies were proposed to achieve this, in no particular order; a London-style congestion tax; banning of all fossil fuel vehicles; no single occupant vehicles; significant reduction of parking spaces; reducing speed limit to 20kph or lower; closing off more streets to vehicle access as in Swanston and Bourke; and altering traffic controls to prioritise pedestrians and electric vehicles. One respondent even suggested a 'no-car' day, which is apparently successful in Singapore.
- **Improve Cycling Infrastructure 16%:** improvements were strongly themed around safety, with most respondents suggesting they would cycle more if they felt safer. The most common suggestions were increasing the number of cycle only areas and separation of cyclists and motor vehicles either by barrier, parking restructure or redirection of motor vehicles. Others felt there were improvements to be made by increasing the number of viable cycling routes and by connecting existing routes to one another.
- **Improve Pedestrian Experience 18%:** many felt that the CBD was still too heavily geared towards vehicle access at the expense of the pedestrian. Suggestions for improvement were based around changing traffic lights to favour the pedestrian, ensure viable walking links to various parts of the city (i.e. Docklands is difficult to access by foot from several directions), increasing the number of pedestrian crossings, increasing the percentage of walking only zones and separation of pedestrians from vehicular traffic.

Overall, this action plan generated strong interest with broad support for fewer cars and trucks in the CBD, more frequent, accessible and comfortable public transport (especially to and from the city) and expansion of cycling and pedestrian infrastructure with concomitant improvements to the safety of all active transport groups.

### **Action 3. Advocate for more ambitious renewable energy targets.**

This action plan generated good interest with 56 responses. Several participants considered this action in conversation but felt that it was too far outside the scope of local government and declined to comment. Conversely, a significant portion of participants noted that the Federal Government was either inactive or too slow in this area and were supportive of local government taking action.

A strong theme was the acknowledgement that removal of brown coal as the primary source of electricity generation is the single most important factor in reducing emissions in the City of Melbourne. Most people who engaged with this action were conversant with the energy



debate and took the view that high-level policy change was the only sensible approach. Other respondents added that in addition to lobbying Federal and State Governments, City of Melbourne could also be actively driving investment in renewable energy schemes and incentivising local businesses and corporations to follow council's lead and adjust their own energy mix.

Overall, 87% of responses were positive about the action with most seeing the value in strong advocacy from a body as influential as City of Melbourne. Many participants noted the value of leadership in this area with comments such as, "Change will occur from the bottom up", "Local leadership will change the planet", and "Yes - educate and agitate for change", being representative.

#### **Action 4. Demonstrate innovative carbon positive design and operation of council-owned buildings and precincts.**

This action generated good interest with 60 participants choosing to comment. Roughly 60% of respondents felt that better design of new buildings and redesign of existing buildings was the main priority. City of Melbourne was seen as a leader in this area with several comments (in other areas also) referencing CH2 and the Library @ The Dock as examples of leading design. There was also strong interest within these responses around incorporating energy generation into building design, with technologies such as solar panels, solar glass, paint and roof tiles, and rooftop wind turbines repeatedly discussed. A significant portion of respondents also referenced green walls and rooftops as a method of reducing heating and cooling emissions, a theme which is persistent across several areas of this report.

Approximately 40% of comments were about building operation with the main theme being reducing the 'dead' time of buildings and decreasing energy consumption at times of low/no use (i.e. switching off lighting and climate controls when building not occupied). A typical comment referenced the high proportion of lights shining from CBD commercial buildings throughout the night with positive comment going to buildings such as ANZ Docklands where staff are 'hot-desked' to one floor at times of low usage, enabling the shutdown of climate control and lighting in large parts of the building.

Some felt that energy saving design and operation was too difficult or expensive to achieve and would push the cost of home ownership up in an already costly market. These participants felt that council could positively influence this by expediting permit approval to buildings demonstrating low energy design and creating administrative barriers to developers and builders who wish to proceed with high energy/high waste designs.

Overall, reaction to this action was strongly positive with numerous respondents already viewing council as an obvious natural leader in this space. Stronger controls around new building design (including materials used), encouraging integrated energy generation and incentivising low energy operation were seen as the main areas open for City of Melbourne influence.

#### **Action 5. Facilitate residential purchasing of renewable energy products.**

This action generated much discussion but also a degree of confusion about what was meant by 'renewable energy product', which may have contributed to a relatively low response rate with only 28 participants choosing to comment. There was some conflation with Action 7 - Virtual Power Plant, some who may have commented here have instead preferred to respond to Action 7 instead. Responses fell into two main categories which are representative of the misinterpretation:

1. Those who would like assistance or advice to purchase physical renewable energy equipment such as solar panels, solar hot water systems, battery storage, etc.
2. Those who would like assistance or advice to purchase 'green' energy products from electricity retailers.

In the first category, many people expressed how confusing this space can be and confessed to not knowing the first thing about installing renewable energy generation or storage on their own home or business. Virtually all of these people felt that assistance from City of Melbourne of any kind, be it in the form of subsidies or simply advice and information, would be most welcome. The areas of most interest to people were solar panel installation and battery storage systems.

Of the second category, there was a degree of cynicism and apathy around so-called 'green energy' from retailers, questioning whether there is a genuine commitment from energy companies to transition to renewable sources. These people indicated that they would welcome advice around how to identify genuine renewable products from energy retailers that also offer good value.

Regardless of the assumptions around exactly what products would be offered, the majority of respondents indicated that they would be interested in assistance from City of Melbourne in any form. The City of Melbourne was seen as not having a financially motivated agenda and therefore as a trusted source of information and assistance.

#### **Action 6. Reallocate road space to create more space for walking, cycling and green infrastructure.**

This action generated extremely high interest with 105 people choosing to respond. Comments were overwhelmingly supportive of the action with only one person noting the likely negative impact on motorists. There was significant overlap in content of responses, with several participants referencing all of walking, cycling and green space in their conversation and comments. The main areas discussed are as follows:

- **The city needs more green space to thrive:** 41% of responses cited the need for more green space in the city with numerous suggestions such as: redevelopment of roads into parkland (such as Dynon Rd underpass in West Melbourne), more vegetation along roadways and median strips and a commitment to green walls and vertical and rooftop gardens. There is a relatively high level of education and sophistication around this topic with many respondents concerned about flash-flooding in the heavily paved CBD and the heat-trapping effect of non-reflective surfaces. Increased commitment to green space is viewed positively as an appropriate response to these issues.
- **This will improve cycling:** improved cycling infrastructure was directly referenced in 45% of responses with safety and access again the main themes. A strong support for more bike lanes on public roads and better protection/separation from vehicular traffic was seen as a priority. Traffic lights on bike lanes was also a relatively common suggestion. At the more extreme end were suggestions of making some CBD roads exclusive to cycle traffic. Numerous people commented in both this and other areas that Melbourne has much in common with some European cities (Copenhagen and Amsterdam were the most often cited) in terms of geography (i.e. largely flat), relatively mild climate and a generally active population, thus making it cycle-friendly. These people suggested that Melbourne could benefit from reviewing how these cities manage their cyclists and cycling infrastructure.



- **Prioritise people over cars:** 36% of respondents focussed on pedestrian access and safety, illustrated by comments such as, “prioritise people over cars, the city should be human friendly”. This view was echoed across multiple conversations with the majority seeing a reduction of cars in the CBD as a solution. Prioritising pedestrians through alterations in traffic flow and pedestrian only areas such as Bourke and Swanston Streets were viewed positively and as good examples of how the city should be structured.

Overall, this action generated very strong interest and a high level of support for reallocation of road space away from vehicles to the benefit of pedestrians, cyclists and green infrastructure. When taken in context with “Action #2 - Prioritise active and public transport through dedicated lanes, traffic light priorities, parking controls and road user pricing”, and the Zero Emissions Transport theme, a very consistent message emerges which is again reinforced in Activities 3 and 4.

### **Action 7. Facilitate a virtual power plant for residents.**

This was the most complex of the seven actions as it was not immediately obvious to most participants what was meant by ‘virtual power plant’. Once explained however, the concept generated much discussion and moderate response with 32 people choosing to comment. 100% of respondents felt it was a good idea in principle with around 60% stating they would sign up if it was available now. In particular, apartment dwellers and renters were the two main interested groups, viewing this as a way to be part of renewable energy generation that is currently denied to them.

This action was favoured for two main reasons; 1) giving a renewable energy generation choice to those living in high-density dwellings, and 2) the utilisation of local, currently unused space to generate power. Several people saw this as an opportunity for apartment building body corporates and strata title owner corporations to generate their own power and/or sell power to other consumers under this type of structure. Others suggested partnering with business with large roof spaces i.e. supermarkets, hardware stores, in this type of project. Still more noted the potential side benefits of education and sophistication around how electricity is generated and used that would be engendered by such a program.

Visitors to Melbourne also commented on expanding this action into rural areas as a way of generating employment opportunities and making use of existing infrastructure (i.e. Loy Yang) as an incentive to phase out coal.

The primary concerns aired by respondents were:

1. Pricing structure and a full disclosure of costs.
2. Individual access to such a program.

As with other Action 5 (purchasing of renewable energy products), several respondents suggested that their participation in a virtual power plant would be conditional on pricing being at least equivalent to current models.

Overall, the response to this action was strongly positive. When considered alongside Action #5 - Facilitate residential purchasing of renewable energy products, this type of concept was of interest to around 16% of participants in this activity. Negative/neutral comments were limited to the practical implementation and there was strong support for local government taking the lead in this area.



One respondent suggested a pilot program in a community such as West Melbourne where residents are already taking a progressive and environmentally sensitive approach to many of the challenges addressed in this strategy.

### 3.4 Activity 3. Participants view of a healthy city

In this activity, participants were invited to consider what key factors make up a healthy city and how they would know if changes were taking effect. This made for some interesting conversations with quite widely ranging opinions on what was considered to be a key indicator of a healthy city. There was solid interest with over a quarter of all participants (26%) choosing to give feedback. Table 5 summarises the key themes emerging from this activity.

**Table 6 Indicators of a healthy city**

Indicator of a healthy city	Percentage of Responses
1. More green space including community, vertical and rooftop gardens, increased biodiversity.	26%
2. Healthy, happy, educated, connected people, engagement with Aboriginal and Torres Strait Islander peoples, embracing multiculturalism.	17%
3. Better, cheaper and more comfortable public transport, more and safer active transport (bike lanes, ped access).	14%
4. Less waste, better recycling, no plastic.	13%
5. Better planning/architecture and integrated clean energy generation.	10%
6. Fewer or no cars, less congestion.	10%
7. Clean air and water.	10%

Broadly speaking, these responses and their relative frequency is largely consistent with the responses collected in the other activities.

Overall green space (including community gardens, trees, vertical or rooftop gardens, reclaimed streetscapes) is given a high priority and that is reinforced in this activity with over one quarter of participants rating an increase in green space as the primary indicator of a healthy city. Improvements to public and active transport were also strongly supported with over 14% citing transport improvements as a key sign of a healthy city. If you consider less cars/reduced congestion as a natural extension of transport improvements, that number rises to almost 25%.

Waste carried less weight in this activity however is still significant with 13% of participants considering the absence of litter and a robust waste management system to be the hallmark of a healthy city.



The primary deviation from the results of the other activities is in the human factor, that is, considering the health, well-being, connectedness and happiness of the cities inhabitants as a guide to the city's overall health. Here, in the Healthy City activity, the open question shows a significant lean towards human health, well-being and safety as a key indicator in the overall health of the city. Comments such as, "Discover your neighbour!", "A healthy city is educated, sensitive and aware", and, "City would be obviously multicultural, accessible to all abilities ... high visibility of marginalised sections of community" are typical of this theme which accounted for almost 17% of responses.

Of the other responses, 1 in 10 people felt that the most significant indicator for them would be in changes to the built environment, citing more people-friendly and environmentally considered architecture and planning. Included in this was the integration of renewable energy generation in new and remodelled buildings. The remaining 10% of participants cited clean air and water as their primary indicator, with comments such as, "I want to open the window and smell fresh air", and "I'd like to be able to swim in the Yarra", typical to this group.

Overall, this activity generated strong interest and acts as a reliability check on the data collected from other activities. It demonstrates a high appetite for more green space in the City of Melbourne whether it be incorporated into the streetscape or the skyline. Furthermore, it shows the importance of the health, safety, connectedness and happiness of Melbourne's inhabitants. It reinforces the support for actions demonstrated elsewhere in this engagement, such as reducing building emissions, reducing cars, improving active and public transport, improving air and water quality and improved waste management.

### **3.5 Activity 4 Individual commitment to reduce their carbon footprint.**

In this activity, participants were presented with a large poster and asked to consider the following question:

What is your personal commitment to further reduce your carbon footprint in the next 12 months?

This activity was quite popular, particularly with younger participants and the more highly engaged. Participants were encouraged to write their commitment to change and sign it with a thumbprint. 158 people or 25% of participants chose to do this activity. Responses varied from the fairly benign, "I'll try to recycle more", to the fairly extreme, "I won't have children". As with the other activities however, the responses can be grouped into some broad categories and are represented in Table 7.

The results here show a strong personal interest in reducing waste, accounting for 37% of responses, very similar to what was seen with the theme boards. This again demonstrates the effectiveness of recent awareness campaigns (War on Waste), the visibility of waste and tangible solutions for people to make. There was a high level of sophistication, with participants differentiating plastic and non-recyclable waste from organic waste and demonstrating strong comprehension of the reduce/reuse philosophy.

The next most popular personal commitments centred around transport choices, primarily prioritising active and public transport over personal car use. This accounted for around 20% of responses which correlates strongly with both the theme boards and the action plan activities. The situation is similar with energy commitments which account for 12%, again very similar to other activities. The most common statement here relates to reducing personal energy use, but a significant number also are committed to installing their own renewable energy in the next 12 months.



In addition, a significant number (11%) intended to change their diet, grow their own food and purchase only ethically sourced food.

Those already engaged and doing all they felt was currently possible, made a commitment based around educating others, raising awareness, advocating for sustainable systems or pushing themselves into the political sphere through joining a representative committee. This supports the trend noted in the Healthy City activity where significant numbers view connection with their community, leading by personal example and personal communication as valuable aspirations. These groups indicate that there is a substantial section of the City of Melbourne community who are strongly enthusiastic about climate change mitigation and who are very receptive to initiatives such as this project.

Overall, this activity confirmed that waste reduction is a popular or easy choice for individuals to focus and act on. It also demonstrated that there is a strong commitment to change around transport options in the CBD and that people are enthusiastic about changes to their energy mix. It also highlights a significant cohort of City of Melbourne stakeholders who are committed to making an active contribution to climate change mitigation.

**Table 7 Personal Commitment to Reducing Carbon Impact**

<b>Personal commitment to further reduce your carbon footprint in the next 12 months.</b>	<b>Percentage of Responses</b>
1.Waste reduction commitment – reduce waste, especially plastics, improve recycling, use reusable cups/bags, reduce overall consumption.	37%
2.Transport commitment – use PT, active transport, reduce car use.	20%
3.Energy commitment – decrease energy use, install renewable energy.	12%
4.Advocacy commitment – educate, advocate, promote, politicize.	11%
5.Food commitment - growing own food, using farmers markets, vegetarianism.	11%
6.Organic commitment – composting, community garden, tree planting.	7%
7.Other commitment – no family, save water, divest from fossil fuel investment.	2%

### 3.6 Online engagement

Summarised below are the responses to the online engagement. The questions, therefore the responses differ from the face-to-face engagement as there was more opportunity face-to-face to delve deeper into the context.

The questions asked in the online engagement were as follows:

- What do you see are the big opportunities for community involvement in emissions reduction actions?



- What is currently preventing you from taking further action to reduce your impact on the environment?
- What do you see are the opportunities for business and industry to further their contribution to Melbourne’s effort to reduce emissions?
- Do you have anything else you would like to say about the Draft Climate Mitigation Strategy to 2050?

Although 22 participants responded with 20 people providing a full written response. A total of 124 responses make up the data set from the four questions, with some respondents providing two or more answers to a given question. These responses are best divided into two main areas: barriers to taking further action; and opportunities for community, business and industry to reduce emissions.

As with the pop-ups, all comments received can be found in Appendix 2: Raw Data, but an overview and preliminary analysis is presented here.

### 3.6.1 Barriers to further action

Barriers to action accounted for about 20% of all responses and can be grouped into common themes as per the table 8 below.

**Table 8 Barriers to further action**

Barrier	Percentage
Financial (cost of renewable upgrade, building modification)	22%
Renting or living in apartment therefore restricted from modifications	22%
Lack of time, convenience or apathy	22%
Lack of safe active transport options	13%
Lack of composting/green waste	13%
Lack of education around options/methods	8%

Allowing for the small sample size, similar themes can be seen when compared with the data from the face-to-face pop-ups. In particular, renting or apartment dwelling is a significant barrier when it comes to making energy-saving upgrades with landlords and body corporate restrictions commonly cited. The financial imposition of installing renewable energy generation or purchasing an electric vehicle was also a significant barrier for some respondents. Some felt that they would do more if it was easier, faster or more convenient to do so. Safe active transport was prioritised by 13% and a similar number desired more availability of composting and green waste disposal.

### 3.6.2 Opportunities for community, industry and business to reduce emissions.

Responses to the opportunities questions generated around 80% of the comments online. As most contributors responded in a block, referencing all of community, business, industry and politics intermittently, it is more useful to group the responses by theme rather than by what subsection of the community they may have been intended for. This can be seen in the table below.

**Table 9 Opportunities for emissions reductions for business, industry and the community**

Opportunity for emissions reduction	Percentage
Transition to renewable energy source	21%
Improvements to transport (fewer cars, more electric vehicles, better active transport)	18%
Improvements in energy efficiency	16%
Improvements to waste management including green waste	16%



Advocacy and policy change at state and federal level	12%
Education and awareness around climate change	9%
Changes to the growing, marketing and retail of food	4%
Increasing available green space in the CBD	4%

The strongest theme was the view that improving energy efficiency (particularly with regard to buildings and commercial operations) and transitioning to renewable energy sources were the greatest opportunities currently presenting themselves to the City of Melbourne community, accounting for 37% of comments. For example, “solar panels on every roof top and public building, including educational institutions” and “apartment owners in the CBD improving the energy efficiency and installation of on-site renewables in their buildings via their body corporates.” This is a somewhat larger proportion when compared with the face-to-face responses.

Improvements to transport systems were also regarded as impactful, with 18% of comments referring to a reduction of cars (especially fossil-fuel powered vehicles), improvements to the safety of cycling and a commitment to incentivising the use of electric vehicles. This is in line with the analysis from the pop-ups, with slightly less emphasis on public transport in the online responses.

Advocacy for policy change at a higher level accounts for 12% of comments which is very consistent with the data collected elsewhere in the engagement. There is general support for City of Melbourne to be a leader and advocate, for example “I’m thrilled that the City of Melbourne is taking this initiative. Demonstrating that these goals are achievable sets an excellent model for other councils, states and the federal government.”

Education and awareness around climate change is identified as an opportunity in 9% of comments, again consistent with other parts of the engagement. One comment provides an interesting support of a suggestion provided earlier in the report “I’m an international student at the University of Melbourne and I realized that there are many more like me... my education didn’t have much of a consideration of climate change... (and) climate change was not part of their education. I think it would be worth (targeting) international people to provide them with the knowledge to take action.”

The remaining responses concerned issues around the sourcing, packaging and waste management of food (about 4%), and the desire for more green space to be incorporated into the CBD (again about 4%). This is a significant deviation in terms of percentages when compared to the pop-up data, however the online questions did not directly reference green space.

Overall, responses online are roughly consistent with what is seen in the report as a whole. Online responses demonstrate a strong appetite for transition to renewable energy and support for energy efficiency measures. Reducing cars, incentivising electric vehicles and advocating for changes to state and national energy policy all have support from online respondents.

