

Setting Australia's post 2020 targets on Greenhouse Gas Emissions

City of Melbourne Submission to Australian Government, Department of Prime Minister and Cabinet

1. Australia's post 2020 target

City of Melbourne is committed to transitioning towards a low carbon economy, as expressed through our Zero Net Emissions by 2020 strategy.

(https://www.melbourne.vic.gov.au/Sustainability/CouncilActions/Documents/zero_net_emissions_update_2014.pdf)

The strategy outlines all the actions the City of Melbourne will take to contribute to a carbon neutral city. Deep carbon reductions are required to achieve this target. It acknowledges that City of Melbourne is unable to achieve this target alone. It requires action from all sectors of the community, and in particular strong leadership and action by the Federal Government.

In the recent review of the strategy, a marginal abatement cost curve was developed for the reduction opportunities available using readily available technology. This analysis showed 80 per cent of the reduction opportunities would deliver a cost saving across the economy.

CoM recommends the Australian Government adopt a target for 2030 commensurate with a pathway towards deep economy wide carbon reduction by 2050. The report produced by ClimateWorks and others, *Pathways to Deep Carbonisation by 2050*, written to inform the development of the Sustainable Development Goals, illustrates the opportunities and how Australia can prosper in a low carbon world.

2. The impact of a target

Globally and in Australia, city governments have set ambitious deep carbon reduction targets as illustrated in Figure 1. City of Melbourne has set such ambitious targets to play a leadership role in minimising our impact and to contribute to maintaining a safe climate, which is critically linked to the prosperity of our city.

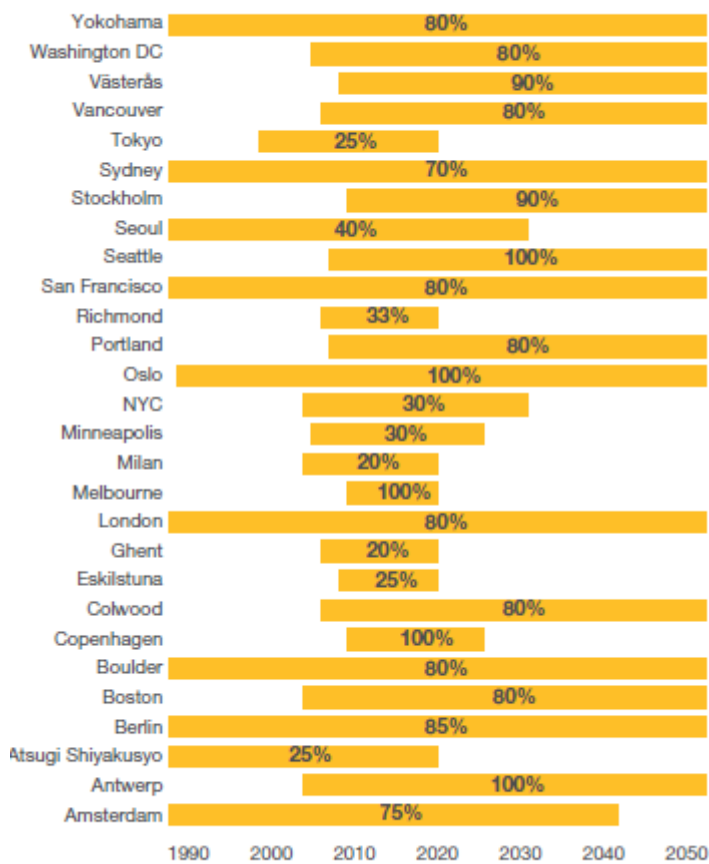
Because city actions are rarely captured in national goals and targets, cities can partner in meeting ambitious goals. Realising the full potential of urban GHG emissions abatement opportunities requires bold and swift action by cities. To achieve these goals however, action is required at the national level to identify and deploy new sources of finance and supportive national policy. As such the impact of a strong emissions reduction target at the national level will support the prosperity of cities, and therefore nations, particularly Australia.

Cities can contribute significantly to emissions reduction globally required to minimise global warming to 2 degrees. With emissions reduction potential of up to two-thirds the impact of recent national policies and actions, global urban actions could decrease global greenhouse

gas (GHG) emissions by 3.7 GtCO₂e below what national actions are currently on track to achieve in 2030, and by 8.0 GtCO₂e in 2050¹.

Significant commitments towards greenhouse gas (GHG) reduction have already been made by cities around the world: 228 global cities, representing 436 million people, have already set GHG reduction goals and targets. The greatest impact of these cumulative commitments will be felt in the period 2030 – 2050. The cumulative savings in 2050 are equivalent to the combined current annual emissions of China and India, while the annual savings are equivalent to the current annual emissions of South Africa².

Figure 1 – Representative Sample of Emissions Reduction Targets by City (% Planned Reduction)



¹ Advancing climate ambition: Cities as partners in climate action. Michael R Bloomberg, UN Special Envoy for cities and climate change

² Global Aggregation of City Climate Commitments by C40 Cities Climate Leadership Group (C40) and Arup, in partnership with ICLEI-Local Governments for Sustainability (ICLEI), United Cities and Local Governments (UCLG), UN Habitat, the UN Secretary- General’s Special Envoy for Cities and Climate Change and the World Resources Institute.

3. Additional policies the Australian Government should consider.

Support growth in renewable energy through a mandatory target

Increasing the proportion of renewable energy in the electricity supply system improves energy resilience for consumers in the long term by lowering wholesale energy prices, reducing peak demand and easing demand on the network, improving the reliability of electricity supply during heatwaves, and reducing the exposure of hundreds of Melbourne residents and businesses to electricity price increases.

The Renewable Energy Target is an existing mechanism to support transition of the electricity fuel supply.

The City of Melbourne has a target to obtain 25 per cent of the municipality's electricity from renewable sources by 2018.³ The RET plays a critical role in the City of Melbourne's efforts to achieve this goal and has been factored into the calculations that determine our renewable energy target is possible.

Utility-scale renewables can contribute to deep emission cuts by 'greening the electricity grid'. City-scale projects that diversify our energy supply (and support business and financial innovation) need to be incentivised to: foster an environment that builds demand for business investment; significantly reduces city-wide emissions; and creates skilled jobs

Strengthen building energy efficiency requirements for existing buildings

In City of Melbourne, existing buildings contributes over 50 per cent of the carbon emissions. It is also the sector where there are significant cost savings available across the economy. To advance retrofit activity, City of Melbourne has been delivering 1200 Buildings, a voluntary information and education program to drive the retrofit of existing buildings for 5 years.

The 1200 Buildings Retrofit Survey undertaken in 2013, shows that 560 buildings have retrofitted since 2010. The survey shows the most common type of upgrade is lighting, and the main driver is when the asset is due to be replaced. However voluntary action is not delivering deep carbon reductions available. The disperse nature of energy efficiency opportunities for business means it is still low on businesses priorities, particularly those that don't have premium tenants. This market segment, which makes up approximately 50% of the floor space, is not motivated by brand, has limited corporate capability or time and is often not accessible through Melbourne networks.

The City of Melbourne is an active member of the C40 Energy Efficiency Network. The experience of this network shows that mandatory measures coupled with voluntary measures and support leads to progress within shorter timeframes. Many cities around the world have mandatory measures, such as audit and upgrade requirements within a set period, to achieve the efficiency opportunities available in the existing building stock.

³ Zero Net Emissions Update 2014, City of Melbourne, http://www.melbourne.vic.gov.au/Sustainability/CouncilActions/Documents/zero_net_emissions_update_2014.pdf

City of Melbourne is a strong supporter of the Building Energy Efficiency Act and through 1200 Buildings and the national CitySwitch Green Office Program has been actively working to support and activate disclosure of performance since the Commercial Building Disclosure (CBD) Program became mandatory in 2012. Based on our strong engagement with the commercial building sector we recommend the following:

- **require monitoring and disclosure of energy performance:** monitoring and disclosure is a prerequisite to action remains sound and vital to delivering cost effective performance improvements in commercial buildings; mandate periodic reporting of energy performance (every 3 years) irrespective of sale or lease;
- **retain, strengthen and expand the CBD Program:** a significant amount of technically feasible and cost effective energy efficiency potential remains available in the commercial office market (tenant and base building). The CBD Program that seeks to address key barriers to the implementation of this potential is starting to prove effective and should be retained and enhanced in all its aspects. Disclosure should be extended to include smaller tenancies over time first 1000sqm and then 500sqm.
- **Support communication campaigns to tenants regarding the benefits of high performance workspaces:** further communication campaigns should be undertaken to inform tenants about the productivity and direct utility savings from choosing a high performance workspace;
- **undertake more research on the tenancy lighting assessment:** prior to any decision being made about the impact or potential positive economic impacts of the tenancy lighting assessment (TLA), undertake research to understand what long term benefits might be realised by building occupants (and owners) of excellent lighting and controls, and to quantify any upgrades that may have resulted from a lease negotiation that have not yet be picked up through a second TLA rating as the tenant remains in occupancy;
- **commonwealth partner with and resource CitySwitch Green Office program to help educate the market and deliver action as a result of disclosure;**
- **commonwealth evaluate opportunities to move to periodic reporting for whole buildings outside of the sale or lease cycle.** This could include follow up TLA assessments (every 3 years) and/or periodic reporting of NABERS Energy for Tenancies or other device to create a whole building view of the performance of commercial office buildings and to enable international benchmarking.
- **develop a NABERS tool for apartment buildings to promote retrofit action and contribute value in the market for energy efficient assets.** Capital cities could use the national Smart Blocks program to accelerate use of the tool to support the achievement of these outcomes.
- **Require improved environmental standards for new and existing apartments**

Through good design, construction and operation, new buildings can have a significant impact in reducing greenhouse gas emissions, water use and waste production. The City of Melbourne has recently introduced an Energy, Water and Waste Efficiency local planning policy (Clause 22.19) into the Melbourne Planning Scheme that seeks to ensure that all new buildings, including residential developments, achieve high environmental standards.

The policy applies specific industry recognised standards for energy, water and waste efficiency with required performance levels depending on use and size of the proposed building.

Zero Net Emissions by 2020 recognises that the environmental performance of many new homes has significant room for improvement, most notably in high-rise apartment developments. It identifies the need to establish a baseline and develop a long-term target for energy performance of apartment buildings in the first year of the implementation plan.

Poor design quality combines to result in poor environmental performance as more energy is required to provide mechanical ventilation and artificial light. Common property, particularly long internalised corridors without access to natural light and ventilation, car parking and added 'luxuries' such as gyms and swimming pools can account for half the energy attributed to a high rise resident, who on average consume 25 per cent more energy than those in a detached dwelling (NSW Department of Infrastructure, Planning and Natural Resources, 2005)⁴.

This doesn't mean we should be building more low rise dwellings, rather we need to start building better quality more energy efficient apartments. This could also help improve the affordability of housing, as the management, maintenance and energy bills of poorly performing apartments and buildings can add significantly to the cost of living.

It is widely acknowledged that the quality and amenity of apartments in NSW has noticeably improved since the introduction of State Environmental Planning Policy No 65 – Design Quality of Residential Flat Development (SEPP 65) and the Residential Flat Design Code in 2002. The Council of Australian Governments Reform Council recognised SEPP 65 as a best practice approach to apartment design.

⁴ NSW Department of Infrastructure, Planning & Natural Resources, 2005,