

Report to the Future Melbourne Committee

Agenda item 6.5

Victorian Government Inquiry into Renewable Energy in Victoria

9 November 2021

Presenter: Tiffany Crawford, Co-Director Climate Change and City Resilience

Purpose and background

1. The purpose of this report is to seek the Future Melbourne Committee's endorsement of a submission to the Victorian Parliament Inquiry into Renewable Energy in Victoria (Attachment 2).
2. The Victorian Parliament's Environment and Planning Committee is inviting submissions on an Inquiry to Renewable Energy in Victoria. Comment is specifically being sought on the terms of reference of the inquiry, including:
 - 2.1. measures to enable Victoria to transition to 100 per cent renewable energy
 - 2.2. jobs and economic benefits and implications of Victoria transitioning to 100 per cent renewable energy
 - 2.3. investment, both public and private, required to achieve 100 per cent renewable energy generation in Victoria, including investment in grid infrastructure and energy storage
 - 2.4. further opportunities for Victoria to reduce emissions, including through finding alternatives to industrial and household gas consumption
 - 2.5. government investment or action that would be needed to support workers in impacted industries to facilitate a just transition and ensure workers and communities are not left behind as Victoria transitions to 100 per cent renewable energy
 - 2.6. the economic risks of not urgently reducing emissions by transitioning to 100 per cent renewable energy.

Key issues

3. Council's leadership on climate action, particularly as it relates to accelerating the uptake of renewable energy, is highlighted through the Melbourne Renewable Energy Projects and Power Melbourne initiative.
4. A City of Melbourne submission (refer Attachment 2) has been prepared based on Council endorsed policy including the Council Plan 2021-2025, the Climate and Biodiversity Emergency Response 2020 and the Climate Change Mitigation Strategy 2018.
5. The key recommendations made in the submission include:
 - 5.1. Accelerate investment in infrastructure that enables 100 per cent renewable energy and build a clean energy economy for Victoria.
 - 5.2. Update regulations to ensure they facilitate greater uptake of renewable energy and support community batteries such as the Power Melbourne Initiative.
 - 5.3. Accelerate investment in energy efficiency and electrification pathways.
 - 5.4. Support vulnerable communities in the transition.
 - 5.5. Accelerate divestment from fossil fuel energy supply.
6. The Victorian Government has also recently announced public consultation on "Powering Business in Victoria". This consultation relates to renewable energy purchasing by large businesses. A City of Melbourne submission will be prepared, drawing on experience from delivering the Melbourne Renewable Energy Project 1 and 2 and aligned with Priority 6 in the Climate and Biodiversity Emergency response (Accelerate renewable energy purchasing by business and residents).

Recommendation from management

7. That the Future Melbourne Committee:
 - 7.1. Notes the importance of initiatives such as Melbourne Renewable Energy Project 1, 2 and Power Melbourne as supporting our objective to enable 100 per cent renewable energy and build a clean energy economy for Victoria
 - 7.2. Notes Melbourne's reputation as a centre for clean energy innovation with the potential for up to 123,000 jobs to be created across Victoria in renewable energy projects and the supply chain.
 - 7.3. Endorses the City of Melbourne submission to the Victorian Parliamentary Inquiry to Renewable Energy in Victoria (refer Attachment 2).
 - 7.4. Authorises the General Manager Strategy, Planning and Climate Change to make any further minor editorial changes.

Attachments:

1. Supporting Attachment (Page 3 of 10)
2. Submission (Page 4 of 10)

Supporting Attachment

Legal

1. There are no direct legal implications arising from the recommendation from management.

Finance

2. There are no financial implications for the City of Melbourne related to the recommendation.

Conflict of interest

3. No member of Council staff, or other person engaged under a contract, involved in advising on or preparing this report has declared a material or general conflict of interest in relation to the matter of the report.

Health and Safety

4. In developing this proposal, no Occupational Health and Safety issues or opportunities have been identified.

Stakeholder consultation

5. External stakeholder consultation has not been undertaken in relation to this submission, however it is reflective of Council Plan 2021–2025 and the Climate Change Mitigation Strategy 2018 which have undergone extensive consultation.

Relation to Council policy

6. The Recommendation is consistent with Council Plan 2021-2025, the Climate and Biodiversity Emergency Response 2020 and the Climate Change Mitigation Strategy 2018.

Environmental sustainability

7. The Recommendation will support improved environmental outcomes for the City of Melbourne through supporting Council Policy of achieving a city powered by 100 per cent renewable energy by 2030.

Inquiry into Renewable Energy in Victoria

City of Melbourne Submission to
Parliament of Victoria
November 2021

The Secretariat
Legislative Council Environment and Planning Committee
Parliament House, Spring Street
EAST MELBOURNE VIC 3002

To Parliament of Victoria

RE: INQUIRY INTO RENEWABLE ENERGY IN VICTORIA

Introduction

This submission is provided by the City of Melbourne and has been endorsed by Council's Future Melbourne Committee.

The City of Melbourne welcomes the opportunity to provide input into the Inquiry into Renewable Energy in Victoria and the Victorian Government's commitment to accelerating the transition to renewable energy. Council has made strong commitments to renewables and this is reflected in its Council Plan 2021-2025.

We commend the Victorian Government for the commitments made under the Victorian Renewable Energy Target, its energy sector pledge and for progressing the development of renewables to transition away from fossil fuels and towards a net zero economy. We also commend the Legislative Council for requiring the Environment and Planning Committee to consider the issues highlighted in the Terms of Reference as transitioning our energy system to renewable energy is an issue that is of critical importance to all Victorians.

City of Melbourne has a strong track record supporting the transition to renewable energy.

The **Melbourne Renewable Energy Projects 1 and 2** bought together buying groups to jointly develop Australia's first group Power Purchase Agreement. This initiative has achieved 5 per cent equivalent reduction in municipal emissions.

The Council's new initiative, **Power Melbourne**, will see the installation of a battery network across the city, with a focus on City of Melbourne existing infrastructure initially, with the potential to scale beyond the municipality through partnerships with neighbouring local governments as part of M9, universities, government and investors. A business case for the pilot battery network will be developed looking at a potential future capacity of 5MW by 2024. Power Melbourne would encourage greater uptake of renewables, create new opportunities for research, training and jobs in the green technology sector, and help build Melbourne's reputation as a centre for clean energy innovation. A key feature of the Power Melbourne vision is to engage our community and provide more affordable renewable energy.

Based on this track record, the City of Melbourne makes the following key recommendations to the Victorian Government:

- 1. Accelerate investment in infrastructure that enables 100 per cent renewable energy and build a clean energy economy for Victoria**
- 2. Update regulations to ensure they facilitate greater uptake of renewable energy and support community batteries such as the Power Melbourne Initiative.**
- 3. Accelerate investment in energy efficiency and electrification pathways.**
- 4. Support vulnerable communities in the transition.**
- 5. Accelerate divestment from fossil fuel energy supply.**

City of Melbourne Context

The City of Melbourne's Climate Change Mitigation Strategyⁱ [Climate Change Mitigation Strategyⁱⁱ](#) and Response to the Climate and Biodiversity Emergency 2020ⁱⁱ [Response to the Climate and Biodiversity Emergency 2020](#) outlines the Council's priorities for achieving zero emissions for Council operations, and for the municipality. Through these strategies, Council has committed to a goal of a city powered by 100 per cent renewable energy by 2030 and has already taken strong action in pursuit of this goal.

City of Melbourne Operations

We have reduced emissions by 76 per cent from our 2011–12 baseline and are powering all of Council's electricity from 100 per cent renewable sources through the [Melbourne Renewable Energy Project \(MREP\)](#).

As emissions from electricity sources have reduced, natural gas consumption has become more material as a proportion of our total emissions. Our focus has now shifted to how we can eliminate gas use through electrification of our assets and buildings. Other major emissions sources include those from major events, supply chain and embodied carbon in capital works. Council's recently adopted [Emissions Reduction Plan for Council Operations 2021-2026](#) sets out how we will continue to drive emissions reduction and innovation.

New buildings and precincts

The City of Melbourne is supporting our community to make the transition towards a clean energy future. Council's draft [Planning Scheme Amendment C376ⁱⁱⁱ](#) establishes environmentally sustainable design requirements to ensure that buildings are planned and designed to facilitate carbon neutral or carbon positive outcomes across construction and operational stages. The amendment will discourage development that incorporates infrastructure which is not aligned with a zero emissions future. This includes a recommendation that developments should not incorporate connections to gas services or other non-renewable energy.

By 2041 the City of Melbourne's population is expected to reach 384,000. Much of this growth is slated to occur in the urban renewal precincts of Arden-Macaulay and Fishermans Bend. The City of Melbourne is collaborating with the Victorian Government and the private sector to ensure we have the infrastructure and governance arrangements necessary to support these precincts to target zero emissions.

City of Melbourne supports changes that will ensure urban renewal precincts are enabled to be powered by 100 per cent renewables. The Draft Structure Planⁱⁱⁱ for the Arden urban renewal precinct calls for all-electric buildings and fossil-fuel free precinct infrastructure^{iv}. The Fishermans Bend Framework^{iv} includes similar strategies. This is challenging to implement due to the requirements of the current Victorian Planning Provisions.

There are limitations to the City of Melbourne's urban planning controls and City of Melbourne are in active discussions with the Victorian Planning Authority (VPA) and the Department of Environment, Land Water and Planning (DELWP) as part of the precinct planning process for urban renewals; specifically around which technologies and market mechanisms exist to achieve a zero carbon precinct.

The City of Melbourne cannot mitigate risk for the municipality effectively without supporting action from the Victorian Government.

Accelerating the adoption of renewable energy in the Victorian grid would support lower carbon outcomes in these new buildings and precincts.

Influencing businesses and residents to take action

The City of Melbourne also has a strong track record of working in partnership with the community and businesses. Our strategies include actions that influence businesses and the community to take climate-related action. Highlights of our partnership work include:

1. Managing the [Melbourne Renewable Energy Project](#) with some of Melbourne's leading businesses, universities, local governments and public institutions, to develop Australia's first group Power Purchase Agreement.
2. Piloting a network of community scale batteries in a new project named **Power Melbourne**.
3. Running the CitySwitch program, helping commercial office tenants to reduce their environmental footprint.
4. Facilitating Environmental Upgrade Agreements to provide building owners or managers with access to loans to upgrade a commercial building to maximise the building's energy efficiency.

These initiatives highlight that the investment required to decarbonise the Victorian economy can be shared by the public and private sector and that many corporates are already making significant investments in renewable energy and emissions reduction. This can be highlighted by the investment via Corporate Power Purchase Agreements over the past 5 years, with ~2000MW of renewable energy generation supported by Victorian businesses and Councils.^v

Recommendations

The City of Melbourne makes the following recommendations for consideration as part of this Inquiry:

1. Accelerate investment in infrastructure that enables 100 per cent renewable energy and build a clean energy economy for Victoria

Accelerating the transition to renewables by 2030 presents significant opportunities for Victoria to position itself at the forefront of low carbon business and innovation. Demonstrating innovative projects, continuing support for renewable energy and storage, whilst providing a clear pathway to 100 per cent renewable energy will enable economic and jobs opportunities through growth in a local supply chain. A steady investment stream in renewable energy in Australia and Victoria will support development of local industry and increase the economic benefits that could flow to Melbourne and Victoria in the transition. This translates to jobs in the entire supply chain, from engineering, finance, technology companies and manufacturing. Building the generation and storage infrastructure to deliver a Victorian grid powered by 100 per cent renewable energy would create an estimated 123,000 jobs^{vi}.

The Investor Group on Climate Change, which represents more than \$2.2 trillion in managed funds across Australia and New Zealand, estimates that transitioning to a sustainable economy will create \$1.1 trillion in investment opportunities – primarily in emerging sectors in renewable energy, hydrogen technology, and transport infrastructure.

The benefits of mitigating the impacts of climate change and its damages far outweigh the cost. Supported by economic modelling by EY, the City of Melbourne has estimated that the impacts of climate change and missed economic opportunities of transitioning to a low carbon economy will cost AU\$12.6 billion to the municipality's economy by 2050.

The City of Melbourne is seeking to unlock more investment in local storage and enable more renewable energy into the city through the **Power Melbourne** initiative. Power Melbourne will see the installation of a battery network across the city, with a focus on City of Melbourne existing infrastructure initially, with the potential to scale beyond the municipality through partnerships with neighbouring local governments as part of M9, universities, government and investors.

Power Melbourne would encourage greater uptake of renewables, create new opportunities for research, training and jobs in the green technology sector, and help build Melbourne's reputation as a centre for clean energy innovation. A key feature of the Power Melbourne vision is to engage our community and provide more affordable renewable energy.

AEMO's Integrated System Plan identifies the "Step change" scenario as the only option in line with a 1.5 degree pathway, which equates to increasing renewable energy to 83 per cent by 2030. The City of Melbourne has a target of a city powered by **100 per cent renewable energy by 2030**. A more ambitious renewable energy target would unlock greater opportunities in developing a world leading clean energy sector.

To achieve a transition of this scale and pace, Victoria will need to deploy a diverse mix of renewable energy generation, storage and poles and wires. No single approach or focus will deliver the best outcomes for Victorians. Key areas to consider include:

- Support the deployment of large and medium scale energy storage projects. In addition to grid scale storage, there are likely strong benefits in providing more support for mid-scale “neighborhood” batteries closer to consumers. Through promoting ambitious projects to grow local supply chains and scale-up solutions, Victoria could build a strong local workforce to deliver the services required to transition the state. This would establish the skills, expertise and professional services for Victoria to become a leading market for innovative climate change solutions. Committing to a pipeline of generation and storage projects will enable development of a local supply chain and optimise private sector investment in new generation and storage capacity.
- Support large scale renewable energy generation to smooth the costs of the transition as coal fired power generation exits the market.
- Continue to pursue opportunities to accelerate investment in the transmission network using Ministerial powers under the National Electricity (Victoria) Amendment Bill 2020.

2. Update regulations to ensure they facilitate greater uptake of renewable energy

Planning, building and plumbing regulations should remove mandatory requirements to connect to gas infrastructure so that new developments can achieve zero carbon. The City of Melbourne supports changes that will ensure new buildings and urban renewal precincts are not locked into natural gas infrastructure. These requirements should instead require zero emissions infrastructure and for new developments to achieve 100% renewables. In the context of all electric and zero carbon buildings, regulations should support the use of alternative approaches to meeting grid connection requirements, such as on site or community scale storage rather than traditional network augmentation.

3. Prioritise energy efficiency and electrification pathways

Adopting the principle of energy efficiency first will reduce the challenge of shifting to 100 per cent renewables.^{vii} Beyond energy efficiency, government policy should focus on fuel switching and electrifying residential and commercial buildings.

By far the most established technological alternative to gas is electrification. Electric alternatives exist for the majority of gas services. Electrifying the heat used in homes and commercial buildings is a huge opportunity for savings. For low temperature heat services, well-developed heat pump technology is commercially available and can significantly outperform existing gas boilers, offering more than three times as much heating or cooling per unit of energy input.^{viii}

The economic and environmental opportunities presented by electrification need to be backed by a high renewables grid in order to gain the most benefit, further strengthening the case for rapid deployment of renewable generation and storage.

4. Support vulnerable communities in the transition

Issues of social equity and affordability need to be considered to ensure that all communities benefit from the transition.

A strong pipeline of renewable energy projects and supporting infrastructure will minimise the chance of higher costs hitting households as coal fired power services retire. Targeting funding programs to low income households would reduce the upfront cost of transition for vulnerable households and would help ensure that the costs of any transition are borne equitably. Well-designed retrofit programs should be developed that create demand for energy efficient renewable powered retrofit services, enable supply chains to develop and mature, and generate employment opportunities for socially disadvantaged Victorians.

5. Accelerate divestment from fossil fuel energy supply

Continued exploration and extraction of fossil fuels is inconsistent with Victoria’s net zero goals. We encourage the Victorian government to consider a moratorium on new exploration.

Clear market signals and policy settings are needed to support businesses and investors to transition to a low carbon economy. Investment in new renewable energy is being driven by the commitments of the Victorian government, however without a clear commitment to transition the economy away from natural gas, the level of investment needed to meet the increased energy demand may be inadequate.

Policy certainty on gas will bolster investor certainty and speed the transition to a fully renewable energy system, avoiding the risk of stranded gas assets. Explicit policy directions from the Victorian government would assist businesses and investors to manage climate-related financial risks and meet their obligations to their stakeholders.

It is further noted that the International Energy Agency's roadmap for the global energy sector to reach net zero warns against new fossil fuel projects, stating that beyond 2021 there should be no new fossil fuel development and no new gas fields approved^{ix}. To this end, continued exploration and extraction of new gas is inconsistent with achieving the goals in the Paris agreement and with Victoria's net zero goals.

Conclusion

City of Melbourne is leading the transition to 100 per cent renewable energy through initiatives such as the Melbourne Renewable Energy Project and Power Melbourne. We applaud the ambition of the Victorian Government to date and note its substantial role in continuing to take action to support innovation and unlocking investment by others.

Accelerating the transition to renewables by 2030 presents significant opportunity for Victoria to position itself at the forefront of low carbon business and innovation. Embracing a rapid transition to renewable energy would enable new local employment, rapid electrification and unlock climate capital. Melbourne is already experiencing the impacts of climate change and the costs of delayed action will fall directly on our city.

The City of Melbourne thanks you for the opportunity to provide input into the Inquiry into Renewable Energy in Victoria and looks forward to continuing to work with you on innovations such as **Power Melbourne** and local policy reform.

Yours sincerely,

Sally Capp
Lord Mayor

CoM reference: 15025464

References

ⁱ City of Melbourne, 2018. Climate Change Mitigation Strategy [Online] Available at: <https://www.melbourne.vic.gov.au/sitecollectiondocuments/climate-change-mitigation-strategy-2050.pdf>

ⁱⁱ City of Melbourne, 2020. City of Melbourne's response to the Climate and Biodiversity Emergency Declaration. [Online] Available at: <https://www.melbourne.vic.gov.au/about-council/committees-meetings/meeting-archive/MeetingAgendaItemAttachments/886/15806/FEB20%20FMC2%20AGENDA%20ITEM%206.5.pdf>

ⁱⁱⁱ Victorian Planning Authority, 2020. Draft Arden Structure Plan [Online] Available at: https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.com-participate.files/9815/9315/6556/Draft_Arden_Structure_Plan_-_26_June_2020.pdf

^{iv} Department of Jobs, Precincts and Regions, 2018. Fisherman's Bend Framework [Online] Available at: <https://www.fishermansbend.vic.gov.au/framework>

^v Energetics, 2020. PPA Deal Tracker [Online] Available at: <https://www.energetics.com.au/insights/knowledge-centres/corporate-renewable-ppa-deal-tracker>

^{vi} Calculated based on AEMO Step Change scenario capacity in 2042, utilising data from Clean Energy Council, 2020. Accessed via <https://assets.cleanenergycouncil.org.au/documents/resources/reports/Clean-Energy-at-Work/renewable-energy-jobs-in-australia.pdf>

^{vii} Energy Efficiency Council, 2020. Energy Efficiency Council submission on Victoria's Draft Infrastructure Strategy [Online] Available at: <https://www.eec.org.au/uploads/submissions/EEC%20sub%20to%20Vic%20Infrastructure%20plan.pdf>

^{viii} Saul Griffith, 2020. *Rewiring America* Field Manual. [Online] Available at: https://static1.squarespace.com/static/5e540e7fb9d1816038da0314/t/5f21eda94f7832d9b1a31bf/1596059082636/Rewiring_America_Field_Manual.pdf

^{ix} International Energy Agency, 2021, Net Zero by 2050: A roadmap for the global energy sector [Online] Available at: <https://www.iea.org/reports/net-zero-by-2050>