Officer Recommendation

That Council:

1. Notes the summary of updated climate science and the advice regarding the extent of emissions reductions required by 2030 to keep the goal of limiting global warming to 1.5°C (above pre-industrial levels), alive.

2. Notes that the Zero Carbon Moreland (ZCM) 2040 Framework (ZCM Framework) and associated 5-year ZCM Climate Emergency Action Plan (endorsed in November 2019) are providing a solid foundation for Council to continue demonstrating local government leadership in responding to the climate crisis through:
   a) progressively eliminating emissions from Council’s own operations
   b) inspiring and enabling community and businesses to reduce emissions, with a focus on ensuring equity and co-benefits such as community health and resilience
   c) facilitating collective advocacy calling for urgent and effective action by state and federal government.

3. Endorses interim and aspirational ZCM targets for the Moreland community:
   a) 75 per cent emissions reduction by 2030
   b) Net zero by 2035
   c) Drawdown (‘negative emissions’) by 2040

4. Call on our community, businesses, state and federal governments to join Council in collective action towards these community targets and the safe and fair future that success would help to achieve.

5. Endorses the additional highly ambitious ZCM ‘target range’ for Council (corporate/operational) emissions:
   - 80 – 100 per cent emissions reduction by 2030 (*precluding offsets*, against 2011/12 baseline). Note: Council has taken significant actions to reduce its operational emissions by 70 per cent from the 2011/12 baseline and that Council has been certified as ‘carbon neutral’ (or ‘net zero’) since 2012 under the national Climate Active scheme, whereby Council annually purchases carbon offsets for all its remaining emissions.

6. Note the following conditions related to achievement of corporate emissions target:
   a) Achievement of 80 per cent emissions reduction by 2030 is contingent on additional funding allocation and re-s scoped capital works forward plan (to bring forward a transition of Council’s light fleet to zero emissions and converting approximately 27 Council buildings to ‘all electric’). High-level cost estimate to deliver these actions may be up to $16M over the 9 years to 2030.
   b) Progress beyond 80 per cent, towards 100 per cent reduction (the upper end of the target range) is also contingent on commercialisation and availability before 2030 of suitable new or emerging technologies (that is, zero emissions waste trucks and construction materials).
7. Pending adoption of corporate ZCM target range, develop business cases for referral to the 2022/23 budget process and consideration within Council’s long term financial plan (i.e., to enable accelerated transition to zero emissions light feet and accelerated transition off gas in Council buildings)

8. Endorse revisions to the ZCM Framework and Climate Emergency Action Plan as necessary to reflect the newly endorsed targets.

9. Acknowledges and thanks all community members, including those involved in the Moreland Climate Coalition, that are acting and advocating for the many local and regional and national systems changes required to ensure a safe, fair and resilient Moreland into the future.

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**REPORT**

**Executive Summary**

In response to the increasing focus and science-backed urgency for steep global emissions reductions by 2030, Council resolved to review its strategic goal for a Zero Carbon Moreland by 2040 and develop interim and more ambitious target/s for 2030.

This report outlines the merits of two ambitious **community targets for 2030**:

**Option 1** – 75 percent emissions reduction by 2030 (on 2011/12 baseline)

**Option 2** – Zero carbon by 2030 (that is, 100 percent reduction)

There is reasonable rationale for adoption of either target. They both clearly support and reflect a heightened ambition to see drastic emissions reduction this decade across Moreland and Australia, and they both align with climate science and climate justice principles.

Since the municipality’s emissions are primarily from energy (electricity, gas), transport (petrol, diesel) and waste (organics sent to landfill), achievement of either 2030 target will require very substantive action and system change by Council, our community and businesses as well as other levels of government and civil society.

Council’s own operational or corporate emissions are a small fraction of the municipal emissions. Nevertheless, these emissions are in our control and Council has been taking strong action to reduce our emissions for over a decade. Additionally, since 2012 Council has maintained annual certification as a ‘carbon neutral’ organisation by measuring our emissions and purchasing carbon offsets to equate to ‘net zero’.

Through taking direct action over the past decade, Council has reduced its emissions 70 percent below our 2011/12 baseline year. The ZCM Climate Emergency Action Plan commits Council to continue reducing its remaining sources of emissions. Existing plans and funding levels may deliver a further 3 – 4 percent emissions reduction by 2030. To inform Council consideration of a potential 2030 target for operation, two potential programs of action have been scoped:

1. Electrification of the light fleet (cars, utes, vans, small buses) – additional cost in vicinity of $2 million to 2030

2. Transition to all-electric Council buildings (transitioning majority of buildings\(^1\) that have gas) – additional cost in vicinity of $14 million to 2030

Pending funding allocation in annual Council budget processes (and any external grants/finance), modelling suggests implementation of these actions should result in Council achieving an 80 percent reduction in emissions (below baseline year) by 2030.

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\(^1\) Note that Council has approximately 28 buildings that have gas, 4 of these are aquatic centres with heated pools.
To clearly express Council’s ultimate ambition to eliminate our remaining emissions, Officers recommend a new Council ‘target range’ for 2030. This could be ‘To reduce Council’s operational emissions (pre-offsets) by 80 – 100 percent (below baseline year) by 2030.’

Achievement of corporate emissions reductions to meet this target range would be contingent upon allocation of resourcing and funds (to achieve lower end of range) as well as technology innovation and availability (to approach upper end of range).

Previous Council Decisions

NOM 8.2 Reviewing Moreland’s zero carbon emissions timeframes - June 2021

Given that the impacts of climate change are escalating, Moreland will review its Moreland Zero Carbon – 2040 Framework with a view to developing interim and more ambitious targets by 2030.

Note: Earlier at the same Council Meeting, a member of the public tabled a petition containing 137 signatures requesting Council adopt the target for a Zero Carbon Moreland by 2030.

1. Policy Context

The Moreland Zero Carbon – 2040 Framework (ZCM Framework) was adopted by Council in September 2018. It introduced Council’s acknowledgement that we are in a state of climate emergency and reflects the goal and vision for a zero carbon Moreland by 2040. The ZCM Framework clarifies three strategic directions:

1. Energy transition – Efficient and 100 per cent renewably powered energy;
2. Sustainable transport – Active or zero emissions transport; and
3. Waste and consumption – Circular economy with zero waste.

The ZCM Framework summary is provided as Attachment 1.


Council’s efforts to address the climate emergency are reflected in the Council Plan 2021 – 2025, in particular:

- ‘Theme 1: An environmentally proactive Moreland’, and associated strategic objective:
  
  To strive for maximum protection of people’s health, plants and animals through leading an urgent response to the climate emergency and a regeneration of our natural environment

- Theme 3: A healthy and caring Moreland, and associated strategic objective:
  
  To support Moreland to become a more inclusive, connected, healthy and caring community through providing equitable access to community facilities and services, facilitating local partnerships and programs, mitigating the effects of climate change and supporting the community to adapt and build climate resilience.

2. Background

Council’s endorsed ZCM targets for 2025

In addition to the Vision for a Zero Carbon Moreland by 2040, Council’s endorsed Climate Emergency Action Plan reflects medium-term goals and targets for 2025, including:

- 44MW of solar photovoltaic (PV) capacity across Moreland (Note: was 22MW in 2019, latest actuals reflect 41MW installed).
• 11MW of solar PV installed through Council-supported initiatives and services since 2014 (Note: 3.1MW as at early 2019).

• Council has played a leading role in Victorian local government efforts towards zero carbon buildings via Planning Scheme policies, enforcement and advocacy.

• Pending funding, home upgrades (for thermal comfort and/or solar PV) for around 500 social housing or low-income households across Moreland, reducing their exposure to energy poverty and extreme weather events.

• Council remains certified ‘Carbon Neutral’ for its operations and buys all its electricity from Crowlands Windfarm (in North-East Victoria).

• Percentage of people travelling to work by car (as driver) has decreased significantly (as mid-way progress towards MITS mode-shift goals for 2029).

• Average emissions across Council’s light vehicle fleet of less than 100g/km CO2-e (combined average as per Green Vehicle Guide).

• Increase in community-based ‘share economy’ groups/initiatives (e.g., tool libraries, food swaps, repair cafes etc).

• Council’s food and garden organics waste service is delivering ‘best in class’ outcomes in Victorian context.

**Climate Emergency - climate science update**

Acknowledgement of climate emergency in the ZCM Framework responded to community activism that has now seen over 106 local councils across Australia and some 2,037 jurisdictions around the world acknowledge or declare that we are in a state of climate emergency.

The Intergovernmental Panel on Climate Change’s (IPCC) recent report summary noted:

• Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate (high confidence);

• Limiting global warming to 1.5°C requires rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems (high confidence) (such as by 2030).

The Climate Council (a leading Australian climate communications organisation) recently published a report *Aim High, Go Fast: Why Emissions Need to Plummet this Decade*. It presents a science-backed vision for what Australia’s best effort could look like as a country with high emissions currently but rich in renewable energy resources. Amongst their key findings were:

• There is **no safe level of global warming**. Already, at a global average temperature rise of 1.1°C, we are experiencing more powerful storms, destructive marine and land heatwaves, and a new age of megafires.

• Multiple lines of evidence strongly suggest the global average temperature rise **will exceed 1.5°C during the 2030s**.

• Should temperatures spike above 1.5°C for a significant period of time, critical **ecosystems on which we depend would be even more severely damaged, or destroyed**.

• Action to **deeply reduce emissions this decade** will determine whether the climate system can or cannot be stabilised at warming of well below 2°C.
• Given Australia’s very high level of emissions and our huge renewable energy resources, **Australia should aim to reduce emissions by 75 per cent below 2005 levels by 2030 and reach net zero emissions by 2035.** This is a fair and achievable contribution to the global task and an imperative given our high vulnerability to escalating extreme weather.

Other civil society groups have joined the Climate Council in calling for Australia to adopt and act to reduce emissions by 75 per cent by 2030 and be net zero by 2035. These groups include the Climate Action Network Australia (CANA), Indigenous Peoples Organisation Australia and the Australian Youth Climate Coalition (AYCC).

At the recent United Nations Climate Change Conference 2021 (COP26) in Glasgow, countries were asked to come forward with ambitious 2030 emissions reductions targets and plans, to keep the (now aspirational goal) of limiting warming to 1.5 degrees within reach.

**Council’s operational emissions reduction – progress to date**

Each year since 2012, Council has undergone certification as carbon neutral under the Climate Active (previously NCOS) standard. This process entails reporting our carbon footprint and purchasing certified offsets to cover our emissions. As an organisation we are therefore responsible for ‘net zero emissions’.

While maintaining carbon neutral certification, Council has continued taking action to reduce its corporate (or operational) carbon emissions, prior to purchase of carbon offsets. Council’s actual carbon emissions have been reduced by 70 per cent compared to a baseline of 2011/12. This is a sector leading outcome achieved through multiple energy-efficiency projects, purchase of electric vehicles and, most significantly, a power purchase agreement to supply Council with zero-emissions electricity.

In 2019/20 Council’s remaining corporate carbon emissions were 6,562 tonnes CO₂e. As context, Australia’s per capita emissions are 17 tonnes CO₂e. The breakdown of Council’s remaining (or ‘residual’) corporate emissions is shown in Figure 1.

![Figure 1: Breakdown of Council’s 2019/20 corporate emissions. The six categories displayed account for 99 per cent of Council’s residual emissions.](image)
3. **Issues**

**Community Goal - two options for a more ambitious 2030 community target**

The ZCM Framework and Climate Emergency Action Plan acknowledge that realisation of a Zero Carbon Moreland by 2040 (current goal) requires urgent action by all levels of government, business and our community. While the Climate Emergency Action Plan includes targets for 2025, an interim / more ambitious municipal goal for 2030 could clearly express the need for drastic global emissions reductions this decade, to reduce the risk of catastrophic climate impacts in coming decades.

Two options for a new ZCM goal for 2030, are compared below with the current 2040 target:

1. **Option 1** – 75 per cent emissions reduction by 2030 (on 2018/19 baseline)
2. **Option 2** – Net zero by 2030

Refer to **Attachment 2** for a summary table comparison between the current 2040 target and these two more ambitious targets, including high-level pros and cons.

If Council were to adopt the goal of ‘75 per cent emissions reduction by 2030’, this goal could also be complemented by aspirations for ‘Zero carbon by 2035’ and ‘Drawdown (‘negative’ emissions) by 2040’. This possibility was raised by participants from Moreland Climate Coalition during a consultation workshop (see Section 4).

Adopting either of these highly ambitious 2030 targets for community emissions implies that Council will support maximum feasible action to reduce and eliminate emissions from sources within our control or direct influence (system changes to local services, policy and programs). Key examples include:

- Amendment of planning scheme to encourage shift off gas heating across Moreland towards electric heat pumps
- Service reforms to rapidly reduce and eliminate municipal organic waste sent to landfill as being considered by the current Kerbside Waste reform project.
- Rapid deployment of strategies and infrastructure to support transport mode-shift from reliance on private (internal combustion engine) vehicles and towards sustainable and/or zero emissions travel modes.
- Embedding ‘circular economy’ principles within our strategies and programs supporting local economic development and pandemic recovery.
- Action to eliminate Council’s remaining (residual) emissions from use of fossil fuel use (gas, petrol and diesel) and related to its supply chain (see below).

**Potential Council (corporate) emissions target (range) for 2030**

The Climate Emergency Action Plan includes programs and initiatives to continue efforts to minimise Council’s emissions from use of fossil gas, petrol and diesel. Under these programs and current funding levels, it is estimated Council could reduce our operational emissions (pre-offsets) by a further 3 – 5 per cent below our 2011 baseline (that is, achieving a 73 – 75 per cent reduction by 2030).

Assuming Council wishes to adopt an even more ambitious 2030 target for reducing our own remaining emissions (given Council has most control over these emissions), preliminary modelling has been undertaken to inform a potential 2030 target range.

The modelling tells us that by 2030, using existing technology, Council could reduce its corporate carbon emissions by as much as 10 per cent (enabling a total 80 per cent reduction on the 2011/12 baseline). However, this would require:

1. transitioning the entire light fleet (cars, utility vehicles, small buses) to electric, which should achieve 2 per cent reduction compared to baseline.
AND

2. moving all site heating, including three of the four heated aquatic centres, to zero-carbon electricity. This should achieve around 7 per cent reduction compared to baseline.

The combined up-front cost for these initiatives is in the order of $16M. Refer to Attachment 3 for modelling assumptions and Section 6 for Financial & Resource Implications.

Beyond these two very substantive actions, over the 8 years to 2030 there may be potential to reduce emissions from other sources (such as diesel used by our waste trucks, asphalt and other building materials). However, the extent of these emissions savings is uncertain and will require emerging technologies, such as zero emissions trucks, low emissions asphalt and green steel (for example), to be commercially available, fit for purpose and not cost-prohibitive. Global focus this decade on innovation to rapidly decarbonise our cities and economies will hopefully deliver emissions reduction opportunities that are beyond our current awareness.

Council could therefore adopt a corporate carbon reduction ‘target range’ of 80-100 per cent emissions reduction by 2030 (excluding offsets, against 2011/12 baseline). Such a target would reflect a leadership position for an Australian local government. The target range reflects strong ambition (to achieve at least an 80 per cent reduction or more) as well as the aspirational goal (pending external innovation, funding etc) of progressing to 100 per cent emission reduction by the end of this decade.

Human Rights Consideration

The implications of this report have been assessed in accordance with the requirements of the Charter of Human Rights and Responsibilities Act 2006. The Moreland Human Rights Policy provides an overarching framework for delivering accessible, equitable and inclusive programs, services and decision-making processes. As reflected in the Climate Emergency Action Plan, ‘the impacts of climate breakdown will not be borne equally or fairly, between rich and poor, women and men, and older and younger generations etc. Consequently, there is a growing focus on ‘climate justice’, which looks at the climate crisis through a human rights lens and on the belief that by working together we can create a better future for present and future generations’.

Specific Climate Emergency Action Plan initiatives with a social equity and climate justice focus include the Solar/Thermal upgrade grants program targeting low income and culturally and linguistically diverse (CALD) households and a 2021 pilot to assist low income renters improve the thermal comfort of their homes, delivered in partnership with Jesuit Social Services (JSS) Ecological Justice Hub.

4. Community consultation and engagement

A petition was submitted to the June 2021 Council Meeting requesting Council adopt a Zero Carbon Moreland target by 2030.

A further petition was submitted to the July 2021 Council Meeting requesting Council stop using gas to heat Moreland’s pools. In October 2021 Council Officers from the Sustainable Built Environment Unit and the Sustainable Communities Unit invited members of the Moreland Climate Coalition to an online briefing. This meeting was to discuss options and implications of more ambitious 2030 targets for community and Council emissions. The Coalition is a network of over 10 groups working on climate change, biodiversity and sustainability issues in the City of Moreland.
The presentation and discussion, involving five community participants and four Council Officers, was open and collaborative, with community participants reflecting a range of views in relation to the relative merits of different targets. The importance of adopting a 2030 target that adequately reflected the need for drastic emissions reductions this decade, and the importance of taking action aligned with short and medium-term targets, was undisputed. Refer to Attachment 4 for an informal summary of feedback and suggestions from the community participants.

5. **Officer Declaration of Conflict of Interest**

Council officers involved in the preparation of this report have no conflict of interest in this matter.

6. **Financial and Resources Implications**

Modelling of up-front costs for two key programs - that offer one pathway to an 80 per cent corporate emissions reduction (against 2011/12 baseline) by 2030 - is preliminary and indicative (refer Attachment 3). Where required, business cases will be prepared and referred to the 2022/23 budget process and consideration in the long term financial plan.

**Electrification of light fleet**

It is estimated that electrification of the light fleet will cost in the order of $2 million between 2021 and 2030 (average $260k additional Fleet budget per year). The light fleet (cars, wagons, vans, utility vehicles, small buses) is currently 135 vehicles, of which 26 are electric. The cost modelling assumes that the fleet size remains constant to 2030, however post-pandemic work arrangements suggest significant potential to optimise the size (and utilisation) of the passenger fleet.

**Transitioning Council building portfolio off gas to all-electric**

The estimated cost of moving all Council buildings to all electric is in the order of $14M. Achieving this would require additional budget for the Building Project Unit and Aquatics and Leisure team, averaged at some $1.7 million per year.

Modelling is conservative in that it assumes works are carried out as standalone retrofits. Aligning the transition off gas with boiler end-of-life and planned building refurbishments should reduce estimated costs.

Sustainable Built Environment can prepare a study of Council sites which consume gas, to better estimate when boilers are likely to reach end-of-life and confirm dates of planned refurbishments.

7. **Implementation**

Subject to Council’s decision in relation to revised ZCM targets, next steps include:

- Make necessary updates / addendums to the ZCM Framework and Climate Emergency Action Plan to reflect the adopted 2030 targets and publish.
- Communicate the newly adopted targets, and advocacy ‘calls to action’ (refer Attachment 5) via usual channels, including on the ZCM and MCC websites and social media, LG networks and alliances.
- Undertake further (internal) stakeholder communications/engagement and prepare budget bids relevant to accelerated transition to zero emissions fleet and all electric Council buildings.

**Attachment/s**

1. Zero Carbon Moreland 2040 Framework - one page summary D21/485968
2. Options comparison for ZCM 2030 community target D21/485930
3. Modelling assumptions for ZCM 2030 corporate target D21/486040
4. ZCM Targets review - stakeholder mtg 11 Oct - discussion notes D21/436876
5. Priority ZCM Calls to Action for 2030 - Advocacy D21/486172
Zero Carbon Moreland – 2040 Framework
By 2040 Moreland has transitioned to become a zero carbon community.

**Energy Transition:**
Efficient and 100% renewably powered energy

**Sustainable transport:**
Active or zero emissions transport

**Waste and consumption:**
Circular economy with zero waste

**Key priorities in Moreland**
- **2020–2025**
  - Increase environmentally sustainable design outcomes for energy efficiency and renewables via planning, enforcement and advocacy
  - Assist low income households and renters to overcome barriers to energy transition (e.g. test financial models and targeted programs)
  - Encourage switch from using gas for cooking and heating to high-efficiency electric alternatives
  - Continue reducing Council’s residual emissions: reduce electricity and gas use, only buy 100% renewable generated electricity, and continue installing rooftop solar
  - Test models for brokerage and aggregation of energy services that could be scaled
  - Support and showcase residents and businesses undertaking the energy transition
  - Lead the community conversation to drive local action

**Longer term**
- Develop a clean tech incubator hub
- Pursue a policy pathway for a Zero Carbon Moreland Planning Scheme
- Test new ideas for zero carbon buildings with developers
- Scale up effective models

- **2020–2025**
  - Transition Council’s fleet to low or zero emission vehicles
  - Invest in infrastructure to support active travel and public transport
  - Collaborate to deliver travel behavior change campaigns
  - Amend the Planning Scheme to reduce car parking requirements and enable funding for sustainable transport
  - Increase design standards in Planning Policy to create more walking and cycling friendly developments
  - Support public access to renewably powered electric vehicle charging

- **Longer term**
  - Disincentivise use of private cars
  - Reallocate space used for private vehicle travel and parking to support sustainable transport use and other purposes
  - Advocate to ensure new mobility technologies (e.g. autonomous vehicles) deliver broad environmental and social benefits
  - Explore options for digital delivery of relevant Council services (reducing unnecessary car trips)

- **2020–2025**
  - Drastically reduce the amount of organics sent to landfill
  - Ensure excellence in municipal waste service contracts
  - Assist Moreland food businesses to avoid and divert food waste from landfill
  - Drive down waste and increase use of recycled content products through Council’s procurement policy and practice
  - Foster expansion of local sharing groups
  - Engage and activate the community as conscious consumers
  - Support responsible waste management in new developments via Planning Scheme standards and enforcement

**Strategic direction and 2040 goals**
- **Work collaboratively and learn from others**
- **Build cohesive, healthy and sustainable urban systems**
- **Plan ahead and invest for the future**
- **Mobilising the community**
- **Leadership and innovation**
- **Advocacy**

**How we will increase our impact**
- **Facilitate a just and inclusive transition**

**Vision**
## Current ZCM 2040 Goal:
Zero emissions (100% reduction) by 2040

### What Does it Look Like? By 2040:
- 100% renewable energy for Council and community
- Energy Efficient Buildings and Homes
- No fossil gas connections
- Zero Emissions Vehicles only
- Public Transport runs on Renewables
- No organic waste to landfill

### What Does it Look Like? By 2030:
- 100% renewable electricity for Council and community
- 7-star ‘all electric’ buildings are the minimum
- Zero Emissions Vehicles are the norm
- Some sectors still transitioning (legacy gas, manufacturing, heavy vehicles).
- No organic waste to landfill

### Pros
- Ambitious, 10 years ahead of Victorian Gov’t (and Paris Agreement) target
- Acknowledges need for strong action by all levels of government, business and community.

### Cons
- Doesn’t communicate urgency for steep emissions reductions this decade.

## OPTION 1 (interim ZCM goal):
75% emissions reduction by 2030 (on 2018/19 baseline)

### What Does it Look Like? By 2030:
- 100% renewable electricity for Council and community
- 7-star ‘all electric’ buildings are the minimum
- Zero Emissions Vehicles are the norm
- Some sectors still transitioning (legacy gas, manufacturing, heavy vehicles).
- No organic waste to landfill

### Pros
- Very ambitious science-based ‘interim target’
- Council can still adopt an even more ambitious 2030 target for its own emissions.
- Matches national advocacy by Climate Action Network Australia (CANA), Climate Council, AYCC & Indigenous Peoples’ Organisation Australia.
- Highlights 2020s as ‘critical decade’
- Acknowledges real socio-technical challenges of the ‘zero by 2030’ timeline.

### Cons
- Not as simple to communicate (as ‘zero by 2030’)
- May be perceived by some as weaker position that a target of ‘zero by 2030’

## OPTION 2 (alternative goal):
Zero emissions by 2030

### What Does it Look Like?
- As per current 2040 Goal, but by 2030.
- Reflects ~11% reduction in community emissions each year between now and 2030

### Pros
- Most clearly & simply expresses our aspiration in the face of climate emergency
- Community Vision for 2031 includes reference to ‘carbon neutral’
- Clear and urgent ‘call to action’
- Aligns with recently adopted goals by some other LGs (eg Yarra, Darebin, Stonnington, Glen Eira)

### Cons
- Council lacks adequate control or influence over community emissions
  Outcome likely unachievable due to policy/political environment at a Federal level.
- Eliminating Council emissions by 2030 may not be feasible – extent of funds & new technology needed to eliminate fossil fuel use by 2030 (i.e. no gas petrol/diesel)
- Community expectation to maintain/improve services/facilities (in rate capped context). Unless this goal is embedded in all Council decisions, may be seen as tokenistic gesture?
Modelling for a 2030 target for Council emissions reduction - Assumptions

Two actions were modelled:
1. Electrification of light fleet
2. All-electric buildings (progressive replacement of gas)

Key assumptions / caveats used in the modelling are outlined below.

Electrification of light fleet

The 'light fleet' (cars, wagons, vans, utility vehicles, small buses) is currently 135 vehicles, of which 26 are electric.

Modelling assumptions:
- Electric cars, wagons and vans will reach price parity with fuel vehicles by 2027, and utility vehicles and buses by 2031
- Utility vehicles become available by 2024, with a 250% price premium. As context, electric cars currently have a 175% premium, while buses have a 250% premium.
- Purchase of electric vehicles is spread between now and 2030
- Fleet size remains constant. This is a conservative assumption, and optimisation of fleet size would reduce costs associated with electrification.
- Price of fuel and electricity remain constant
- Required electric vehicle models are available for purchase
- Passenger vehicles are replaced after five years, as laid out in Council's Light Vehicles Policy. Due to budget shortfall this period is currently being extended, slowing the adoption of electric vehicles.

Based on these parameters/assumptions, it is estimated that electrification of the light fleet will cost in the order of $2m between 2021 and 2030 (average $260k additional Fleet budget per year).

Transitioning Council building portfolio off gas to all-electric

Coburg Civic Centre has largely transitioned off gas, and Council has extensive experience installing electric heat pumps at pavilions and community centres. We have also prepared several studies on electrification of our aquatic centres, and an all-electric design for Fawkner Aquatic Centre’s refurbishment is currently out for community consultation.

Based on this experience, our working assumption is that all Council sites can move off gas. One caveat is that Coburg Aquatic Centre, accounting for 1% of the projected 10% reduction, is scheduled for knock-down and rebuild in 2035. This work would either need to be brought forward, or carbon savings achieved elsewhere. This cost is not included in the modelling.

Modelling assumptions:
- Coburg Leisure Centre is left untouched since it is due for rebuild in 2035.
- All-electric design for Fawkner Aquatic Centre goes ahead and Oak Park Aquatic Centre is moved off gas by 2030
- Price of gas and electricity remain constant
- Heat pumps do not require higher maintenance costs (higher than gas boilers)
- Additional solar photovoltaic is not installed on buildings moving off gas. This would slightly increase up-front cost but increase energy cost savings.
Attachment 3 – Modelling assumptions for potential ZCM corporate emissions actions and targets

- Cost of heat pump installations does not drop over time. This is a conservative approach.
- Gas is removed from heritage areas and is no longer used for food preparation.

The indicative costs of moving aquatic centres off gas are drawn from analysis and reports prepared by Smart Consult (all sites), BRT (Brunswick Baths) and Integral Consulting (Fawkner Aquatic Centre). These costs are estimated at $4m for Brunswick Baths, $3m for Oak Park Sports and Aquatic Centre and $2.4m Fawkner Aquatic Centre.

Indicative costs for moving the remaining 25 Council gas-heated sites off gas are drawn from work carried out by City of Melbourne. Costs are estimated purely on the level of gas consumption, and further analysis by consultants is required to prepare more accurate estimates. Estimated costs are $3m total for Walter St, Brunswick Town Hall, Coburg Library and Gowanbrae Community Centre; $1m total for Glenroy Library, Fawkner Community Hall, Bob Hawke Centre and Coburg Civic Centre; $0.5m for the remaining 17 sites.

Based on the above, the estimated cost of moving all Council buildings is in the order of $14m. Achieving this would require additional budget for the Building Project Unit and Aquatics and Leisure team, estimated at $1.7m per year.

Modelling assumes works are carried out as single refurbishments. Aligning the transition off gas with boiler end-of-life and planned building refurbishments would significantly reduce estimated costs. Sustainable Built Environment can prepare a study of Council sites which consume gas, to better estimate when boilers are likely to reach end-of-life and confirm the dates of planned refurbishments.

Other potential actions to reduce corporate emissions

Opportunities to reduce emissions beyond fleet electrification and moving off gas are being explored. However, certain categories require significant developments outside Council’s control to achieve reductions. These developments may occur, but this is not certain. For example, zero-carbon asphalt or water is not currently available. There is also a lack of zero-carbon models for heavy fleet vehicles, such as waste trucks. Heavy fleet is currently responsible for 85% of Council’s transport fuels emissions. Zero-carbon alternatives are likely to have a price premium, at least initially.

Contractor fuels is a significant element in Council’s reported footprint. Council will work to reduce these emissions however a proportion are due to heavy waste vehicles. As discussed above, there are currently limited zero-carbon alternatives for these vehicles. This category is modelled using assumptions, and further data-gathering will be carried out to improve data quality. Future contracts could require contractors to use zero-emissions vehicles where these are available. This would currently apply only to cars used by contractors.
ZCM 2030 targets review – Minutes of discussion

Meeting Online mtg between ZCM officers and members of Moreland Climate Coalition, Mon 11 October 2021

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<th>Attendees</th>
<th>Apologies</th>
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<td>John Englart, Convenor of Climate Action Moreland (CAM) and Moreland BUG</td>
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<td>Rhydian Cowley, member of CAM</td>
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<td>Andrea Bunting, CAM and Moreland Walks</td>
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<td>Relle Graefe, Neighbours United for Climate Action (NUCA)</td>
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<td>Ian Mack, Coburg Uniting Church</td>
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<tr>
<td>Michaela Skett, Unit Manager Sustainable Communities</td>
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<td>Victoria Hart, Unit Manager Sustainable Built Environment</td>
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<td>Donna Luckman, ZCM Campaigns Lead</td>
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<td>Paul Swift, ZCM Technical Lead</td>
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<th>Items discussed (list topics discuss, excluding welcome &amp; next meeting)</th>
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<tr>
<td>1 Officer presentation on ZCM Targets, with Q&amp;A and discussion (PPT presentation link, not for distribution)</td>
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Discussion notes relating to Council action on climate, gaps, opps, priorities:

Andrea Bunting – Keen interest in Sustainable Transport. Puts in submissions to budget each year but doesn’t see budget being developed / prioritised in a way to reflect the stated desire for mode shift / transformation. Not reflecting the urgent shift needed. Referred to Walking in Brunswick survey outcomes showing big opportunity for more walking in the south, but barriers including lack of shade, quality of footpaths, safety etc. Keen to see investment in the south (including road space reallocation) accelerate – people are supportive of it in the south and still lots of potential.

Rhydian Cowley:

Is there potential to get more support / funding from others levels of government to lower the capital costs of these projects? Eg sustainable transport infrastructure, heat pumps for pools, community batteries, de-gas etc?

Wants to see targets go ‘beyond zero’ for 2040, initiatives for drawdown to negative emissions.

Ian Mack:
Doesn’t see Council applying a common values based approach / framework across budgeting, projects etc in response to the Climate Emergency/Climate Change. He can see some teams (like ZCM) pushing hard to influence and get good outcomes but engagement with other parts of council is very mixed – they don’t seem to think it’s a priority just business as usual. How is climate confirmed as acting as a first order priority across council decision making (to avoid misaligned outcomes)? (examples, synthetic turf question going forward – should be banned, also how do we support/foster capacity of volunteer community groups eg free use of halls/spaces etc).

Believes critical focus for ZCM should be on community engagement / mobilisation (since without this, there is not the political will for systemic change).

Also keen for a ‘beyond zero’ / drawdown vision/path. Suggests biochar in Open space. Also mentioned BlueBox (AC/heat pumps?) as product to deliver energy efficiency benefits.

Relle Graefe:
On behalf of NUCA convenors she feels they would all want a ‘zero by 2030’ target adopted for community. Need to be aspirational and a target to aim for. Lots of residents in Coburg North are worried and supportive of action. Realise it is very ambitious but it is easy to communicate and feels like leadership position (she is proud of Moreland’s reputation as climate leader and we can continue to be influential to others).

Andrea:
Looking at the 2040 Framework, two items that are listed as ‘longer term priorities’ should be brought forward to this 5 years Action Plan:

- ‘reallocation of road space…
- ‘explore options for digital delivery to avoid car trips… (this issue/opportunity has been forced by Covid lockdowns, need to take advantage of momentum)

Agree there are x-council silos. Need to get all of Council on board. Different thinking within transport, planning, ecodev etc. All need to see climate response as foundational. Council budget needs to have a climate lens. Sceptical on targets (generally) if not backed by big shift in action.

John Englart:
Acknowledge that some members of Coalition and activist community are calling for ‘zero by 2030’ as Moreland goal. The current Council position is already 10 years ahead of state / 2050 global goal and it is important that Council/community can push Vic Gov to go harder / faster. Targets good incentive to take action.

Council has done well on corporate emissions and now we are at the ‘harder end’ (low hanging fruit is mostly done). Still need to push, almost on principle, for continued reductions across heavy fleet, gas out of aquatic (agree that this should tie in with other renewal / upgrade for CW efficiency), and other plant used for open space etc (mowers, street sweepers etc).

Feels there is some risk in adopting the even more ambitious ‘zero by 2030’ community target without a viable ‘roadmap to achieve’ (given broader political/technical constraints). Believes that a 75% reduction by 2030 community target would still be very strong/ambitious, still provide ability to push (good alignment with science re carbon budget for developed countries) and aligns with other key players eg Climate Council etc.

Rhydian:
If we aimed for 75% by 2030, could then seek zero by 2035 and Drawdown by 2040…

Summary outcomes:
Some differences of stakeholder views of 75% cut vs zero by 2030. Mixed support for 75% reduction target and expectation that if adopted, Council (corporate) target could be more than this (ie above 75% by 2030, given we currently at 70% and have operational control of this).

Name and title of Council officer completing record: Michaela Skett
### COMMUNITY/ BUSINESS ‘CALL TO ACTION’

**People Power**
- Participate in local groups / projects reducing emissions &/ or building resilience.
- Talk about climate with friends/family & colleagues.
- Join in collective action to advocate to your state or federal member.
- ‘Vote with your wallet’ and ‘divest’.

**Energy**
- Where possible, upgrade homes and businesses towards energy efficient ‘all electric’ and solar PV (help is available!)
- Where you can, buy 100% GreenPower.

**Transport**
- Choose to walk, cycle, car pool or catch PT where possible.
- Consider buying an EV or get a car share membership instead.

**Waste/Circular Economy**
- Be a waste-wise household (re-think, re-use, share/repair, recycle, compost etc)
- Adopt a more plant-based diet

### VICTORIAN GOVERNMENT ‘CALL TO ACTION’

**Energy**
- Raise (newly) legislated target of 45% - 50% emissions reduction by 2030.
- Minimum energy efficiency standards (and disclosure) for rental properties.
- Accelerate Zero Carbon pathways in Victorian Planning Scheme (incl no new gas connections).
- Large scale residential / commercial building retrofits.

**Transport**
- Accelerate transition to zero emissions network.
- Statewide EV charging network and EV incentives.

**Waste / Circular Economy**
- Enable/invest in statewide infrastructure to manage processing of organics and compostable packaging
- Greater investment in Recycling Victoria reforms / infrastructure and circular economy across retail and manufacturing sectors

### AUSTRALIAN GOVERNMENT ‘CALL TO ACTION’

**Energy**
- 80 - 100% Renewable Energy Target for 2030
- No new coal, oil or gas exploration / development
- Science-based national emissions reduction target and economy-wide policy/programs to decarbonise. 75% by 2030.
- Establish Climate Risk Disaster Levy (or similar)

**Transport**
- Introduce stringent fuel efficiency standards and future ban on sale of Internal Combustion Engine cars / trucks (eg UK 2030 for cars and 2040 for trucks)
- Reform FBT rules (eliminate incentive for purchase of large diesel utes etc)

**Waste / Circular Economy**
- Mandatory packaging industry targets/reform (instead of voluntary via APCO)
- Invest /procure for development Green Steel and Green Cement

**Drawdown**
- National mass-scale tree-planting roll-out