7.4.5 ZERO NET CARBON ACTION PLAN - CARBON OFFSET APPROACH

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RECOMMENDATION

That Council

1. **Allocates $45,000 to procure carbon offsets in the 2025/26 Budget, through a low relative cost offset approach and**
2. **Allocates $30,000 to investigate further financial implications for reducing emissions for budget consideration for future years, including an insetting approach and proposed capital allocations.**

INTRODUCTION

This briefing paper outlines the options considered and recommended for carbon offsetting and insetting to achieve the net zero target by December 2025.

COUNCIL PLAN STRATEGIC OBJECTIVES

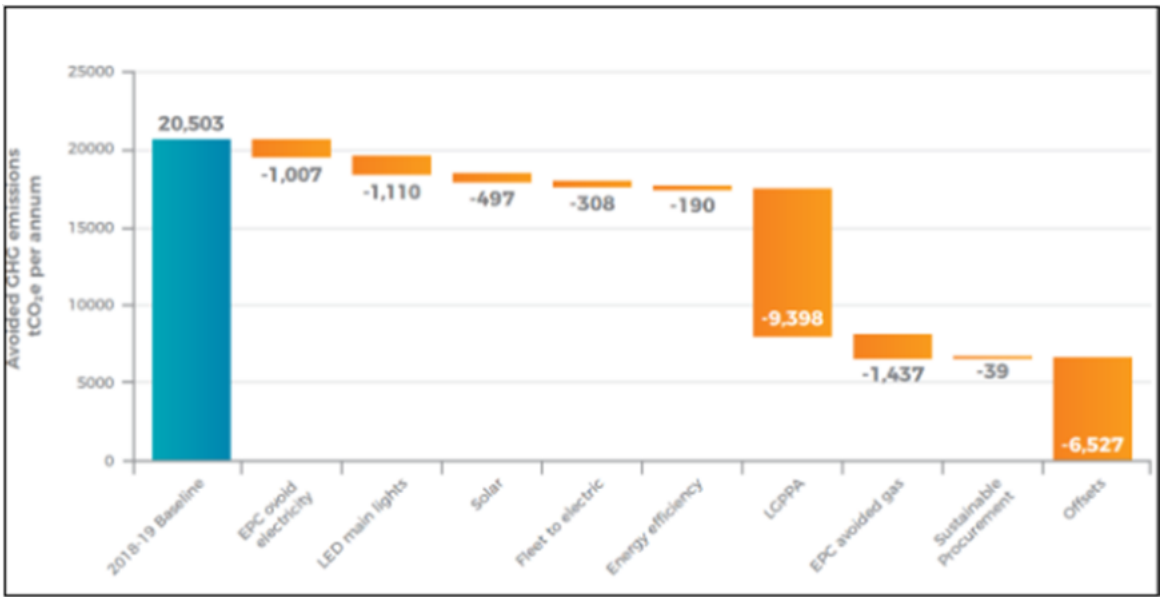
A city that promotes environmental sustainability
Where neighborhoods are designed and developed along environmentally sustainable development and urban design principles, in sympathy with the natural environment.

BACKGROUND

In February 2020, Monash Council set a target of zero net corporate greenhouse gas (GHG) emissions by 2025, and in August 2020, the Zero Net Carbon Action Plan 2020-2025 was endorsed by Council, providing a clear pathway to reach the 2025 net zero goal. Funding was first allocated to major energy efficiency projects in July 2021.

The development of the Zero Net Carbon Action Plan was underpinned by research and comprehensive independent modelling conducted by CarbonetiX and Ironbark Sustainability. This research determined the annual baseline for corporate GHG emissions generated by Council was 20,503 tCO2e in 2018/19 and guided the selection of suitable actions to minimise Council's environmental impact, provide positive return on investment, and achieve net zero by 2025. Although large savings were identified, the modelling assumed approximately 6,527 carbon offsets would be required in 2025 (Figure 1, page 27, ZNCAP).

Figure 1: Getting to Carbon Neutral by 2025



Source: Zero Net Carbon Action Plan 2020-2025, page 27.

In 2021/22 Monash Council signed a nine-year contract to source 100 per cent renewable electricity through the Victorian Energy Collaboration (VECO) for corporate buildings and lighting (over 180 sites).

Works to include environmentally sustainable design in planning and delivery of projects; increase degasification of council buildings; incorporate low emissions recycled content in concrete and asphalt across council projects; increase renewable energy on council buildings; transition the fleet to electric vehicles and install charging stations are all actions which continue to reduce the organisation's emissions.

Fundamentally, the above actions follow the approach which prioritises avoiding, reducing or insetting (reducing emissions along an organisations own value chain), replacing, and then offsetting emissions to achieve net zero.

With respect to carbon offsets, the Eastern Alliance for Greenhouse Action (EAGA), of which council is a member, commissioned the 'Collaborative Opportunities for Carbon Offsetting' Report in January 2024. This has provided insights into the approach to carbon offset opportunities and risks.

Additionally, the Northern Alliance for Greenhouse Action (NAGA) executive officer, Dean Thomson presented on carbon offset markets, projects and reporting mechanisms at the 12 August 2025 Council Strategy meeting.

DISCUSSION

Benefits of achieving net zero

Achieving net zero is important for Council and the Monash Community as it:

- Meets community expectations for Council to reduce greenhouse gas emissions and take responsibility for its contribution to climate change;

- Ensures Council's supply chain and procurement decisions support suppliers and contractors who actively minimise their greenhouse gas emissions; and
- Provides social and environmental benefits through the purchase of appropriate carbon offsets.

Progress towards net zero

To track our progress to net zero, an annual inventory of our GHG emissions has been undertaken. Our six-year progress from the baseline set in 2018/19 has been tracked below.

Table 1: Annual carbon inventory status

Year	GHG Emissions	
	tCO2e	% Reduction
2018/19 (baseline)	20,503	N/A
2019/20	18,869	8
2020/21	12,689	38
2021/22	4,537	78
2022/23	9,325	55
2023/24	8,136	60
2024/25	8,678	58

Whilst the above figures show a decrease in emissions since the VECO renewable energy contract was signed, and post COVID-19 restrictions lifting allowing full operation of council sites to continue, there are still opportunities to reduce or inset emissions.

Verification and Certification

The Climate Active Carbon Neutral Standard (CACNS) for Organisations is a voluntary standard to manage greenhouse gas emissions and to achieve certified carbon neutrality. Council can achieve net zero aligned with the approach Climate Active takes without official certification under the scheme. This would ensure integrity but not require extensive resourcing and additional costs associated with the program.

Carbon offsets and markets

As Council will still have GHG emissions from operations as inferred from Table 1, offsetting is therefore essential for the net zero goal to be met. This was modelled and endorsed as an action of the Zero Net Carbon Action Plan 2020-2025, adopted by Council in August 2020. Alongside the seven key actions to reduce or avoid GHG emissions, the Zero Net Carbon Action Plan sets out Council's approach to achieve net zero through offsets.

Factors to consider when selecting carbon offsets include:

- the number of offsets required (8,678);

- the standards used to determine the credibility of offsets (Australian Carbon Credit Unit, Verified Carbon Standard or Gold Standard VER);
- the location (location or international);
- vintage;
- types of offset projects (nature based, renewable energy, waste management or household devices); and
- the price of offsets (low, medium or high cost)

These factors will impact the cost, social and environmental outcomes of offsetting, and have the potential to enhance or impact Council's reputation.

Carbon markets experience significant changes as they evolve to the market settings based on the 'Paris Agreement' and with the introduction of the Carbon Offsetting Scheme for International Aviation. Whilst Council has no control over the markets from which it purchases carbon offsets, approaching the purchase of offsets using a range of pricing will ensure that net zero is achieved. Flexibility in the approach to purchasing offsets is required to adjust to unexpected changes in the market.

Noting Council's waste services contractor is obliged to procure 200% carbon offsets associated with their fuel usage in the current contract. The approach to Council's carbon offset procurement should be embedded in future contracts to ensure integrity principles are met and benefits are maximised.

In the 2024/25 financial year, Council received an income of $517,000 from the sale of Victorian Energy Efficiency Certificates (VEEC's) through the street lighting upgrades project. Depending on the final number and mix of offsets, this income could fund carbon offsetting and carbon insetting for 2025/26 and 26 /27 financial years.

Table 2: Carbon offsets options, provides an overview of low, medium and high carbon offset costs and some examples of carbon offset projects, including a range of locations. Noting the price and availability of such projects is indicative and subject to change based on supply and demand at the time of procurement.

Table 2: Carbon offset options

Relative Cost	**Standards**	**Locations**	**Example**	**Benefits**
Low (e.g. $5-9 per tonne CO_2e)	Purchased from a reputable supplier and/or project and there are no negative consequences to the project	Overseas e.g. China, Vietnam, Argentina, Uruguay	Overseas renewable energy projects, landfill gas recovery projects	Greenhouse gas emissions reductions, improvement of environmental outcomes and economic development in communities globally
Medium (e.g. $10.00 to	Purchased from a reputable supplier and	Overseas e.g. Tanzania,	Afforestation/ reforestation	Improved health, environmental and

$40.00 per tonne CO_2e)	the project provides other positive outcomes for the environment and communities	Nigeria, Sierra Leone, Cameroon Ecuador, Paraguay	projects, forest management projects, improved cooking practices projects, and landfill gas recovery projects	economic development in communities globally
High (e.g. $40.00 to $70.00 per tonne CO_2e)	Purchased from a reputable supplier and the project provides other positive outcomes for the environment and communities	Australia	Savanna fire management projects, environmental planting projects, soil carbon projects and landfill gas capture projects	Biodiversity improvement, investment in regional communities

Carbon insetting

The concept of carbon insetting was considered within the EAGA 'Collaborative Opportunities for Carbon Offsetting' Report. Despite a focus on nature-based projects, the inherent idea of carbon insetting relates to investing in actions which contribute to emissions reductions within organisations' boundaries. This leads to lower emissions and reduces reliance on procuring carbon offsets to maintain net zero. There is merit in this approach to signal genuine support for net zero ambitions. Further investigation will be undertaken to understand the financial implications for reducing emissions for budget consideration for future years.

Although the EAGA report focuses on nature-based projects such as street tree plantings or in parks and gardens, the following can be considered as carbon insetting actions which Council can continue to support*:

· Gas appliance conversions to electric in Council buildings

· Solar panel installation on Council facilities

· Investigate the opportunity for energy storage through community batteries

· LED lighting and switchboard replacement program

· Strengthen procurement and capital project delivery to maximise GHG emission reduction through implementation of the Monash Environmentally Sustainable Design (ESD) Policy

· Increase the use of lower emission materials in concrete and asphalt in roads and buildings or alternative approaches to reduce or offset use of these materials

· Preparation to undertake a staff green travel plan

· Improve water efficiency at Council open space assets

*Council has been successful to date in delivering these outcomes through the ZNCAP and establishing the upcoming Climate Resilience Plan with allocated capital budget to continue

funding these purposeful actions, will lead to reduced emissions and running costs and in turn reduce our reliance on procuring carbon offsets in future.

FINANCIAL IMPLICATIONS

The 2024 EAGA report provided an overview of the financial implications of procuring carbon offsets, *"over the past 3 years Councils may have been able to purchase a Verra VCU international credit may have cost as little as $3-5tCO2-e compared to an Australian credit (ACCU) between $33-38tCO2-e. Although some price differential is likely to continue, the market is likely to see continued price volatility for some time. For example, Bloomberg (2023) describes how future prices from the international voluntary market could range from as low as $13USDtCO2-e to $127USDtCO2-e depending on which policy scenarios play out."*

Based on the above estimates and indicative pricing in Table 2, that minimum prices for international offsets are $5 per tonne and certified Australian offsets could be as high as $70 per tonne in the coming years, if Council's emission profile remains similar or slowly reduces from the 2024/25 figure (8,678 tCO2-e), the budget range to meet net zero could be $43,390-$607,460 for 2024/25 financial year.

The cost will depend on Council's ability and willingness to invest in carbon-insetting, to continue to reduce emissions, and the preference for project location, project type and verification scheme.

POLICY IMPLICATIONS

Procurement of carbon offsets will achieve the target of zero net corporate greenhouse gas emissions by 2025, outlined in the Zero Net Carbon Action Plan.

CONSULTATION

Community consultation was not required.

SOCIAL IMPLICATIONS

While all carbon offsets reduce greenhouse gas emissions, some project types can provide social and natural environment benefits, both locally and globally. There is greater awareness regarding the impacts of climate change on community well-being. There is also a clear community expectation that Council will respond to this challenge and use its resources efficiently, now and into the future.

HUMAN RIGHTS CONSIDERATIONS

As carbon offset projects are undertaken within communities, there are safeguards in place to ensure human rights protections are upheld.

GENDER IMPACT ASSESSMENT

A GIA was not completed because this agenda item is not a 'policy', 'program' or 'service'.

CONCLUSION

This briefing paper outlines the best practice approach to achieving Council's net zero commitments. After careful consideration of several options (refer to below table), option 1 is the most balanced option, allowing for the allocation of funds in the 2025/26 budget to procure a mixed price range of carbon offsets, coupled with allocated capital budget to continue carbon insetting and to investigate further financial implications for reducing emissions to ensure Council's net zero commitment is met, and continued efficiencies and emission reductions are realised.

Option to achieve net zero	Summary	Funding
1 - Recommended	All carbon offsets purchased are of a low relative cost (i.e. $5.00 Overseas based – e.g. China, Vietnam, Argentina, Uruguay) and based on emissions in 2024/25. Allocate $50,000 to carbon offsets in the 2025/26 budget. Additionally, allocate $30,000 to investigate further financial implications for reducing emissions for budget consideration for future years, including an insetting approach and proposed capital allocations.	$45,000 allocated to purchase offsets to achieve Net Zero in 2025. Allocate $30,000 for investigation into future approach
2 - Considered	A mix of low relative and high relative cost carbon offsets are purchased. Allocate $100,000 to carbon offsets in the 2025/26 Budget. Additionally, allocate $30,000 to investigate further financial implications for reducing emissions for budget consideration for future years, including an insetting approach and proposed capital allocations.	$100,000 allocated to purchase offsets to achieve Net Zero in 2025. Allocate $30,000 for investigation into future approach.
3- Considered	All carbon offsets purchased are of a high relative cost (i.e. $70.00 - Local – Australia based) and based on provisional emissions in 2024/25. Allocate $607,460 in the 2025/26 budget for carbon offsets. Additionally, allocate $30,000 to investigate further financial implications for reducing emissions for budget consideration for future years, including an insetting approach and proposed capital allocations.	$607,460 allocated to purchase offsets to achieve Net Zero in 2025. Allocate $30,000 for investigation into future approach.

ATTACHMENT LIST

Nil