BENALLA
RURAL CITY COUNCIL

Council Meeting

Agenda

Date: **Wednesday 29 May 2024**

Time: **5.30pm**

Venue: **Civic Centre (Council Meeting Room)**
13 Mair Street, Benalla

Any person wishing to participate in Question Time or Public Submissions in accordance with Rule 7.2 and 7.3 of the *Governance Rules 2020* should contact the Council by emailing council@benalla.vic.gov.au or telephoning the Governance Coordinator Jess Pendergast on (03) 5760 2600.

In accordance with Rule 6.4 of the *Governance Rules 2020* the Council Meeting will be livestreamed via the Council's website and an audio recording will be made of the proceedings.

Members of the public are encouraged to watch the live broadcast of the meeting at www.benalla.vic.gov.au

PO Box 227
1 Bridge Street East
Benalla Victoria 3671
Tel: 03 5760 2600
council@benalla.vic.gov.au
www.benalla.vic.gov.au

Contents

Opening and Acknowledgment of Country **3**
Apologies **3**
Disclosures of Conflict of Interest **5**
Confirmation of the Minutes of the Previous Meeting **5**
1. Public Question Time **6**
2. Petitions **7**
Record of Committees **7**
3.1 Recommendations from Finance and Planning Committee *7*
3.2 Assemblies of Councillors, Advisory and External Committees *9*
Officer Reports **11**
4.1 Draft Benalla Rural City Council Climate and Environmental Strategy 2024-2029 ..... *11*
4.2 2023/2024 Quick Response Grants Program *15*
4.3 CEO Credit Card For The Quarter Ended 31 March 2024 ..... *19*
4.4 Councillor Expenses For The Quarter Ended 31 March 2024 ..... *21*
4.5 Mayor and Councillors' Attendance at Committees and Civic Functions *25*
4.6 Council Actions Pending *31*
5. Reports by Councillors **33**
6. Notices of Motion **33**
7. Notices of Rescission Motion **33**
8. Urgent Business **33**
Confidential Business **35**
9.1 Confidential Reports by Councillors *37*
9.2 Confidential Council Actions Pending *37*
10. Reopening of the meeting to the public **39**
Closure of the meeting **39**

Agenda

Chair	Councillor Danny Claridge (Mayor)	
Councillors	Councillor Peter Davis	
	Councillor Don Firth	
	Councillor Bernie Hearn	
	Councillor Punarji Hewa Gunaratne	
	Councillor Justin King	
	Councillor Gail O'Brien	
In attendance	Dom Testoni	Chief Executive Officer
	Robert Barber	General Manager Corporate
	Courtney Naughton	Manager Economic Development and Sustainability
	Tom Arnold	Community Development and Recreation Coordinator
	Nathan Gasperoni	Environmental Sustainability Coordinator
	Jess Pendergast	Governance Coordinator

Opening and Acknowledgment of Country

The Chair will open the meeting and recite the following Acknowledgement of Country.

We, the Benalla Rural City Council, acknowledge the traditional custodians of the land on which we are meeting. We pay our respects to their Elders past and present and to Elders from other communities who may be here today.

Apologies

Councillor Justin King has requested a leave of absence from 4 June 2024 to 11 June 2024.

Recommendation:

That a leave of absence be granted to Cr Justin King form 4 June 2024 to 11 June 2024.

Statement of Commitment

The Councillors will recite the following Statement of Commitment:

I declare,

that as a Councillor of Benalla Rural City

I will undertake on every occasion

to carry out my duties in the best interests of the community

and that my conduct shall maintain the standards of our Councillor Code of Conduct

so that I may faithfully represent

and uphold the trust placed in the Council

by the people of Benalla and District.

Governance Matters

This Council Meeting is conducted in accordance with the *Local Government Act 2020* and the Benalla Rural City Council *Governance Rules 2020*.

Recording of Council Meetings

In accordance with Rule 6.4 of the *Governance Rules 2020* the Council Meeting will be livestreamed via the Council's website and an audio recording will be made of the proceedings and made available for public access, with the exception of matters identified as confidential items in the agenda.

Behaviour at Meetings

Members of the public present at a meeting must remain silent during the proceedings other than when specifically invited to address the Committee.

The Chair may remove a person from a meeting for interjecting or gesticulating offensively after being asked to desist, and the chair may cause the removal of any object or material that is deemed by the Chair to be objectionable or disrespectful.

The Chair may call a break in a meeting for either a short time, or to resume another day if the behaviour at the Council table or in the gallery is significantly disrupting the Meeting.

Disclosures of Conflict of Interest

In accordance with the *Local Government Act 2020*, a Councillor must declare any Conflict of Interest pursuant to Section 130 of the Act in any items on this Agenda.

At the time indicated in the agenda, a Councillor with a conflict of interest in an item on that agenda must indicate they have a conflict of interest by clearly stating:

- the item for which they have a conflict of interest;
- whether their conflict of interest is general or material; and
- the circumstances that give rise to the conflict of interest.

Immediately prior to the consideration of the item in which they have a conflict of interest, a Councillor must indicate to the Meeting the existence of the conflict of interest and leave the Meeting.

Confirmation of the Minutes of the Previous Meeting

The minutes have been circulated to Councillors and posted on the Council website **www.benalla.vic.gov.au** pending confirmation at this meeting.

Recommendation:

That the Minutes of the Council Meetings held on 24 April 2024 and 1 May 2024 be confirmed as true and accurate records of the meetings.

1. Public Question Time

The Council's *Governance Rules 2020* provide the opportunity for members of the public to lodge written questions of broad interest to the Council and the community.

Questions of the Council will not be allowed during any period when the Council has resolved to close the meeting in respect of a matter under section 66 (1) of the *Local Government Act 2020* (the Act).

A question may be on any matter except if it:

- is considered malicious, defamatory, indecent, abusive, offensive, irrelevant, trivial, or objectionable in language or substance;
- relates to confidential information as defined under the Act;
- relates to the personal hardship of any resident or ratepayer; or
- relates to any other matter which the Council considers would prejudice the Council or any person.

No more than two questions will be accepted from any person at any one meeting. All questions and answers must be as brief as possible, and no discussion may be allowed other than by Councillors for the purposes of clarification.

Like questions may be grouped together and a single answer provided. The Chair may nominate a Councillor, the Chief Executive Officer or another member of Council staff to respond to a question.

Recommendation:

That the question(s) and answer(s) be noted.

2. Petitions

Record of Committees

3.1 Recommendations from Finance and Planning Committee

The recommendations of the Finance and Planning Committee meeting held on Wednesday 15 May 2024 are attached as **Appendix 1**.

Recommendation:

That the recommendations of the Finance and Planning Committee meeting held on Wednesday 15 May 2024 be adopted.

This page intentionally left blank

Business

1. Financial Report for Quarter Ended 31 March 2024

The report presented the financial result compared to budget for third quarter ended 31 March 2024 and presents outcomes from the 2023/24 third quarter budget review.

Cr Gunaratne / Cr Claridge:

That standing orders be suspended to allow for discussion on the item.

Carried

Standing orders were suspended at 6.11pm.

Cr Claridge / Cr Davis:

That standing orders resume.

Carried

Standing orders resumed at 6.27pm.

Cr Claridge / Cr Firth:

1. **That the report be noted.**
2. **That the Open Space Contribution of $375,000 be considered as a co-contribution towards the $300,000 allocation from the Victorian Government for the development of the pump track as part of the *2024/25 Budget*.**

Carried

2. Finance Department Activity Report For The Quarter Ended 31 March 2024

The report presented an overview of the functions of the Finance Department for the quarter ended 31 March 2024.

Cr Davis / Cr Firth:

That the report be noted.

Carried

3. Development Department Activity Report For The Quarter Ended 31 March 2024

The report presented the activities of the Development department for the quarter ended 31 March 2024.

Cr Gunaratne / Cr Firth:

That the report be noted.

Carried

4. Building and Planning Approvals – March 2024

The report detailed planning permit applications and building approvals for March 2024.

Cr King / Cr Claridge:

That the report be noted.

Carried

5. Community Department Activity Report For The Quarter Ended 31 March 2024

The report presented the activities of the Community Department for the quarter ended 31 March 2024.

Cr O'Brien / Cr Davis:

That the report be noted.

Carried

6. People and Performance Department Activity Report For The Quarter Ended 31 March 2024

The report presented the activities of the People and Performance Department for the quarter ended 31 March 2024.

Cr Davis / Cr Gunaratne:

That the report be noted.

Carried

7. Economic Development and Sustainability Department Activity Report For The Quarter Ended 31 March 2024

The report presented the activity of the Economic Development and Sustainability Department for the quarter ending 31 March 2024.

Cr Claridge / Cr King:

That the report be noted.

Carried

8. 2023/24 Major Event Funding Program

The report presented funding applications for the 2023/24 Major Event Funding Program.

Cr Firth / Cr Davis:

That the Finance and Planning Committee, acting under its delegated authority of the Council, approve a $2,000 grant from the 2023/24 Major Event Funding program to the Austin 7 Club.

Carried

9. Facilities and Information Technology Department Activity Report For The Quarter Ended 31 March 2024

The report presented the activities of the Facilities and Information Technology Department for the quarter ended 31 March 2024.

Cr King / Cr Gunaratne:

That the report be noted.

Carried

10. Assets and Infrastructure Department Activity Report For The Quarter Ended 31 March 2024

The report presented the activities of the Assets and Infrastructure Department for the quarter ended 31 March 2024.

Cr King / Cr Davis:

That the report be noted.

Carried

3.2 Assemblies of Councillors, Advisory and External Committees

Under Council's *Governance Rules 2020* the Chief Executive Officer is required to provide a written record of the Assemblies of Councillors at a scheduled Council Meeting.

The record of Assemblies of Councillors, Advisory and External Committees are attached as **Appendix 1**.

Copies of the Minutes from the following meetings have been provided to councillors under separate cover.

April 2024

3 April 2024	Communications Advisory Committee Meeting
3 April 2024	Assembly of Councillors – Business Review Meeting
8 April 2024	Benalla Local Safety and Traffic Liaison Committee Meeting
17 April 2024	Assembly of Councillors – Business Review Meeting
22 April 2024	Benalla Street Art Advisory Committee Meeting
24 April 2024	Assembly of Councillors – Business Review Meeting

Recommendation:

That the report be noted.

This page intentionally left blank

Appendix 1

Record of Assemblies of Councillors, Advisory and External Committees

April 2024

Communications Advisory Committee

1.30pm Wednesday 3 April 2024, Civic Centre (Council Meeting Room) 13 Mair Street, Benalla.

Chair	Councillor Danny Claridge (Mayor)	
Councillors	Councillor Bernie Hearn	
	Councillor Peter Davis	
In attendance	Dom Testoni	Chief Executive Officer
	Courtney Naughton	Manager Economic Development and Sustainability
	Grant Banks	Communications and Engagement Coordinator
	Tracey Beaton	Executive Coordinator
Apologies:	Councillor Peter Davis and Courtney Naughton	

Conflicts of Interest disclosed: Nil

Items discussed:

1. Review of actions from previous meeting
2. Media Highlights for the past month
3. Benalla Street Art Festival
4. General Business

Assembly of Councillors – Business Review

6pm Wednesday 3 April 2024, Civic Centre (Council Meeting Room) 13 Mair Street, Benalla.

Chair	Councillor Gail O'Brien	
Councillors	Councillor Danny Claridge (Mayor)	
	Councillor Peter Davis	
	Councillor Don Firth	
	Councillor Bernie Hearn	
	Councillor Punarji Hewa Gunaratne	
	Councillor Justin King	
In attendance	Dom Testoni	Chief Executive Officer
	Robert Barber	General Manager Corporate
	Cathy Fitzpatrick	Manager Finance
	Adrian Gasperoni	Manager Assets and Infrastructure
	Keith Biglin	Project Manager
	Stephen Dowe	Senior Projects and Technical Services Engineer
Apologies:	Cr Punarji Hewa Gunaratne and Cr Justin King.	

Conflicts of Interest disclosed: Nil.

Items discussed:

1. Proposed *2024/25 Budget*

Benalla Local Safety and Traffic Committee

2pm Monday 8 April 2024, Civic Centre (Council Meeting Room), 13 Mair Street, Benalla.

Chair:	Adrian Gasperoni	Manager Assets and Infrastructure
Committee:	Councillor Bernie Hearn	Council Representative
	Councillor Justin King	Council Representative
	Lisa Aitkinson	Victoria Police
	Mark Byers	Victoria Police
	Kylie Cotter	Benalla P-12 College
	Gavin Duncan	Victoria Police
	Shaun Mason	FCJ College Benalla
	David Morrow	Cooinda Village
	John Stafford	Regional Roads Victoria
	Cristy Webb	Regional Roads Victoria
In attendance:	Briana Beggs	Administration Officer
	Marty Nicholls	Victoria Police
Apologies:	Cr Justin King, Mark Byers, Kylie Cotter, Gavin Duncan, Shaun Mason and David Morrow.	

Conflicts of Interest disclosed: Nil

Items discussed:

1. Inland Rail Project Update
2. Review of Action Sheet
3. Project Updates
4. Opportunities to Work Together / General Business

Assembly of Councillors – Business Review

5.30pm Wednesday 17 April 2024, Civic Centre (Council Meeting Room) 13 Mair Street, Benalla.

Chair	Councillor Punarji Hewa Gunaratne	
Councillors	Councillor Danny Claridge (Mayor)	
	Councillor Peter Davis	
	Councillor Don Firth	
	Councillor Bernie Hearn	
	Councillor Justin King	
	Councillor Gail O'Brien	
In attendance	Dom Testoni	Chief Executive Officer
	Robert Barber	General Manager Corporate
	Courtney Naughton	Manager Economic Development and Sustainability
	Tom Arnold	Community Development Coordinator

Apologies: Cr Peter Davis.

Conflicts of Interest disclosed: Nil.

Items discussed:

1. Proposed *2024/25 Budget*
2. Draft Fair Access Policy
3. Benalla Art Gallery Committee Member Nominations
4. Audit and Risk Committee – Independent Members
5. Benalla Rural City Council Chief Executive Officer Employment and Remuneration Committee – Appointment of Independent Advisory

Benalla Street Art Advisory Committee

5.30pm Monday 22 April 2024, Benalla Art Gallery, Bridge Street West (Benalla Botanical Gardens)

Chair:	Raelene Stratton	Community Representative
Committee:	Councillor Don Firth	Council Representative
	Councillor Gail O'Brien	Council Representative
	Toby Benador	Community Representative
	Ian Gonzaga	Community Representative
	Alex Ross	Community Representative
	Joel Spencer	Community Representative
	Courtney Naughton	Manager Economic Development and Sustainability
	Catherine Macmillan	Business Development Coordinator
In attendance:	Eddie Zammit	Curator
	Charlie Vincent	Tourism North East Victoria
	Alison Angus	Tourism Coordinator
	Kate Nolan	Events Coordinator
Apologies:	Toby Benador	

Conflicts of Interest disclosed: Nil

Items discussed:

1. Festival Review
2. Other Business

Assembly of Councillors – Business Review

6.45pm Wednesday 24 April 2024, Civic Centre (Council Meeting Room) 13 Mair Street, Benalla.

Chair	Councillor Peter Davis	
Councillors	Councillor Danny Claridge (Mayor)	
	Councillor Don Firth	
	Councillor Bernie Hearn	
	Councillor Punarji Hewa Gunaratne	
	Councillor Justin King	
	Councillor Gail O'Brien	
In attendance	Dom Testoni	Chief Executive Officer
	Robert Barber	General Manager Corporate
	Cathy Fitzpatrick	Manager Finance
Apologies:	Nil.	

Conflicts of Interest disclosed: Nil.

Items discussed:

1. Proposed *2024/25 Budget*

Officer Reports

4.1 Draft *Benalla Rural City Council Climate and Environmental Strategy 2024-2029*

SF/1893
Courtney Naughton – Manager Economic Development and Sustainability
Nathan Gasperoni – Environmental Sustainability Coordinator

PURPOSE OF REPORT

The report presents the draft *Benalla Rural City Council Climate and Environment Strategy 2024-2029.*

BACKGROUND

The Council at its meeting on Wednesday 19 April 2023, resolved to develop a draft *Benalla Rural City Council Climate and Environment Strategy*, following the review of the Environment Strategy 2016-2020, and Climate Change Adaptation Action Plan 2013-2025.

Council officers began the development of the draft *Benalla Rural City Council Climate and Environment Strategy 2024 – 2029* (Climate and Environment Strategy) by holding community consultation and workshop session at the following locations:

- Baddaginnie Hall on 15 June 2023
- Swanpool Hall on 20 June 2023
- Goorambat Hall on 22 June 2023
- Benalla CWA Hall on 26 June 2023.

The draft Climate and Environment Strategy was also presented to the Full Impact Squad at its meeting on 20 July 2023.

Council officers met with members of the *Aboriginal Advisory Group*, local environmental groups and government agencies to discuss the development of the draft Climate and Environment Strategy during the month of July 2023. Outcomes from these meetings have been compiled into a report that supports the overall document (refer **Appendix 1**).

To support the development of the overarching draft Climate and Environment Strategy*,* Ironbark Sustainability was contracted to develop the *Benalla Rural City Council Corporate Greenhouse Gas Emissions Report* and draft *Benalla Rural City Council Net Zero Action Plan*.

This key document was formulated to document Council's Carbon Emissions and set a realistic Net Zero target for Council to achieve.

DISCUSSION

The draft *Climate and Environment Strategy* (refer **Appendix 2**) outlines the proactive and strategic approach to environmental matters and identifies priorities for management for Benalla Rural City over the next five years.

The strategic direction of the draft *Climate and Environment Strategy* is accompanied by key actions the Council will seek to take over the next five years as well as highlighting important recent projects within Benalla Rural City. It was important to deliver a strategy that is realistic, achievable, and flexible with the changing technologies and resources surrounding us.

The draft *Climate and Environment Strategy* reflects the input that was provided by the community, key stakeholders, and agencies, during the engagement and consultation process. This includes key actions, such as increasing canopy cover across the local government area, transitioning Council's fleet to low emission vehicles, and setting a Net Zero target for Council's corporate emissions.

The draft *Climate and Environment Strategy* is a Council wide document that will influence other key plans and policies, such as the *Council Plan*.

The draft *Climate and Environment Strategy* will have an impact across the Council, including in planning, procurement, capital works and resource recovery. The draft *Climate and Environment Strategy* also outlines key areas of collaboration with agencies and councils across the region.

The draft *Climate and Environment Strategy* is supported by two documents. The *Benalla Rural City Council Corporate Greenhouse Gas Emissions Report* (refer **Appendix 3**) and the *Benalla Rural City Council Net Zero Action Plan* (refer **Appendix 4**). The three documents were developed in consultation with Ironbark Sustainability.

The *Benalla Rural City Council Corporate Greenhouse Gas Emissions Report* purpose is to outline the Council's corporate emissions for the 2022/23 Financial Year.

The *Benalla Rural City Council Net Zero Action Plan* (Action Plan) outlines the plan for the Council to reduce its corporate greenhouse gas emissions to net zero by 2035/36 excluding landfill, and 2040/41 including landfill emissions.

COUNCIL PLAN 2021-2025 IMPLICATIONS

Community

- *A connected, involved and inclusive community.*

Environment

- *Healthy and protected natural environment.*
- *Sustainable practices.*

Leadership

- *Good governance.*
- *High performance culture.*
- *Engaged and informed community.*

COMMUNITY ENGAGEMENT

In accordance with the Council's *Community Engagement Policy*, it is recommended that the draft Climate and Environment Strategy be placed on public exhibition for at least 28 days with formal submissions called for to be considered by the Council.

Level of Public Participation	Promise to the community	Techniques to be used
Consult	We will provide information and consider feedback prior to making a decision.	▪ Draft strategy presented in a public report to the Council. ▪ Report and draft strategy published on Council's website. ▪ Public Notice published in *Benalla Ensign* ▪ Feedback on the strategy invited via Council's *Have Your Say* page.

It is proposed that community consultation on the draft Climate and Environment Strategy will open Thursday 30 May 2024 and close 5pm Friday 5 July 2024.

Community feedback will be invited via the Council's website and social media channels and through a formal public notice in the *Benalla Ensign*.

FINANCIAL IMPLICATIONS

Implementation of the actions recommended in the Action Plan should result in significant cost savings and emissions reduction over the lifetime of the Council's assets.

A cost-benefit analysis of identified actions was also undertaken as part of the development of the Action Plan. In total, the implementation of all actions within the Action Plan is estimated to require a capital investment of $3.2 million and return net savings of $6.8 million to the Council across the lifetime of all assets.

LEGISLATIVE AND STATUTORY IMPLICATIONS

It is considered that the report is consistent with the *Charter of Human Rights and Responsibilities Act 2006* and *Gender Equality Act 2020*.

OFFICER DECLARATION OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflicts of interest in this matter.

CONCLUSION

Submissions relating to the *Benalla Rural City Council Climate and Environment Strategy 2024-2029* will be heard at a Finance and Planning Committee meeting on 31 July 2024.

Recommendation:

That the *Benalla Rural City Council Climate and Environment Strategy 2024-2029* be endorsed and placed on public exhibition for a period of at least 28 days.

Climate and Environment Strategy Community Engagement Report

Introduction

This Community Engagement Report brings together the data collected from four community workshops, 61 submissions to the online Climate and Environment Survey, and submissions emailed directly to Council. The data was collected by Benalla Rural City Council Councillors and staff.

The four community workshops were held on the following dates at the following locations:

- Thursday 15 July 2023 – Jubilee Hall, Baddaginnie
- Tuesday 20 July 2023 – Swanpool Hall, Swanpool
- Thursday 22 July 2023 – Goorambat Hall, Goorambat
- Monday 26 July 2023 – CWA Hall, Benalla

Each workshop was held over one and a half hours with the purpose of:

- Informing residents of the closure of the Climate Change Adaptation Action Plan (20113-2025) and the Environment Strategy (2016-2020).
- To detail the development process of a new Climate and Environment Strategy.
- Ascertain the concerns of the community in relation to Climate Change and Environmental issues within the Benalla municipality.
- Seek input from the community on the actions to be taken by Benalla Rural City Council through deployment of the Climate and Environment Strategy.

Issues and Concerns

Emission Reduction and Net Zero

- Not enough leadership on Climate Change
- Acknowledgement of climate in a state of emergency
- Not enough support for ratepayers reducing their own emissions
- Not enough EV chargers around municipality – particularly smaller townships
- Landfill emissions
- Lack of trust in certain offset projects
- Slow transition to low carbon transport
- Continued use of fossil fuels, when renewable options are available
- The use of rural land for solar farms

Biodiversity and Regeneration

- Roadside management
- Not enough trees on roadsides and with parkland and reserves
- Not enough greenspace in new developments
- Weed control and spread of weeds through slashing (education on weed control for landowners)
- Use of herbicides and pesticides
- Invasion of introduced pest fauna and flora species
- Deforestation
- Allowing developers to buy out vegetation
- Lack of acknowledged significant trees in the municipality
- Clearing of trees for multiple reasons – houses, developments, solar farms etc
- Not enough support for vegetation in Planning Scheme
- Lack of support for endangered species
- Increasing amount of roadkill.

Circular Economy

- Solar panel recycling
- Chemical container recycling
- Silage wrap
- Green waste burning
- Electric Vehicle batteries
- Soft plastics
- Cost of waste disposal
- Littering – waste dumping
- Food waste from local business'
- Lack of knowledge of recycling drop off points
- Lack of available drop off points
- Over consumption of disposal and single use products.

Sustainable Communities

- Design of new residential developments
- Lack of environmental design considerations in new house
- Building of houses with dark roofs that attract the sun rather light coloured roofs to reflect it
- Waisted food
- Continuation of new houses built with gas connections
- Lack of environmental education
- Increasing population – demand on resources
- Lack of community connection
- Ageing community
- Below average household income
- Higher impact on lower socio-economic residents
- Lack of healthy local food options
- Cost of Living.

Water

- Water Contamination
- Plastic pollution
- Flooding
- Lack of water during drier & hotter periods
- Road damage
- Drainage in Rural towns
- Pollution in Lake Benalla and the surrounding rivers and creeks
- Stormwater management

Suggested Actions

Emissions Reduction and Net Zero

- Set Net zero target by 2050 if not before
- Declare a climate emergency/ Strong leadership
- Low carbon fleet
- Solar on Council all buildings
- Council plant and equipment to transition to low carbon
- EV charging stations
- Continual work with GMCA and informing of what the group is doing
- LGA's working together
- Explore opportunities for small scale local community batteries on Council facilities with provision for EV charging linked to the battery.
- Report progress on targets and action items from the plan on the Council website with updates
- Establish a Steering or Reference Committee
- Assess scope 3 emissions and develop sustainable procurement

Biodiversity and Regeneration

- Change the way Council assess 5 percent greenspace on developments
- Planning scheme changes to protect old/significant trees
- Vehicle hygiene training
- Promote more regeneration on adjoining private land
- Offset planting - Council to support tree planting projects/create community tree planting program
- Covenants to protect vegetation
- Identity signs on trees
- National tree day participation
- Work with Benalla Garden Club - weeding days etc
- Wildlife bridges (over roads)
- Include weed control information in welcome packs
- Enhance road reserves
- Encourage Farm forestry
- Develop strategic plan for management of biodiversity on Council land
- Increase biodiversity value of council reserve - more than just trees and grass
- Require developers to fulfill a 30 percent canopy cover in subdivisions to effectively reduce the urban heat island effect
- Regenerative agriculture opportunities should be explored with local farmers.

Circular Economy

- Community awareness
- Extension of greenwaste services for the rural communities
- Drop recycling off points (more options more awareness
- community cleaning days
- Waste reduction, reuse, and recycling strongly encouraged by council
- Tip shop
- Old solar panel recycling (stewardship)
- Advertise and improve Council waste app
- Centralised community recycling hubs
- Continue to work with and promote the Benalla Wastewise group
- Green/compost bins for businesses
- Assist businesses
- Waste levels reported on by council and targets created to reduce waste
- Capture methane from current waste sites
- Reduce Food waste by encouraging food system streams of food donation / processing by community groups.
- Keep abreast of and utilise research into recycling and reuse opportunities
- Investigate ways to incentivise cloth nappies and/or disincentivise disposable nappies
- Decrease tip fees to discourage illegal dumping
- More bins around the town

Sustainable Communities

- Improved subdivision planning process
- Advocation of ESD
- Support and promotion of the Food Co-op and Community Gardens.
- Education - schools - community groups
- Increased recycling capacities in public spaces
- Working with first nations people - Pro-active engagement pursued on relevant matters
- Increased alternate transport - bike tracks i.e., Benalla-Baddaginnie
- Refuse permits for inappropriate housing designs
- Working with Landcare and other local groups on community plantings
- Solar on social housing
- Environmental and climate in early education
- Attendance on environmental/sustainable focused events
- Explore opportunities to work with groups such as Renewable Energy Benalla to achieve greater renewable energy usage in Benalla.
- Lobby the Victorian Government seeking to elevate sustainability requirements for new buildings and subdivisions
- support programs to introduce heat pump hot water systems as the primary choice for households.
- initiate and support efforts to avoid installation of gas appliances in new builds and renovations.
- Initiate and support efforts to replace gas and old-style electric hotplates with induction cooktops.

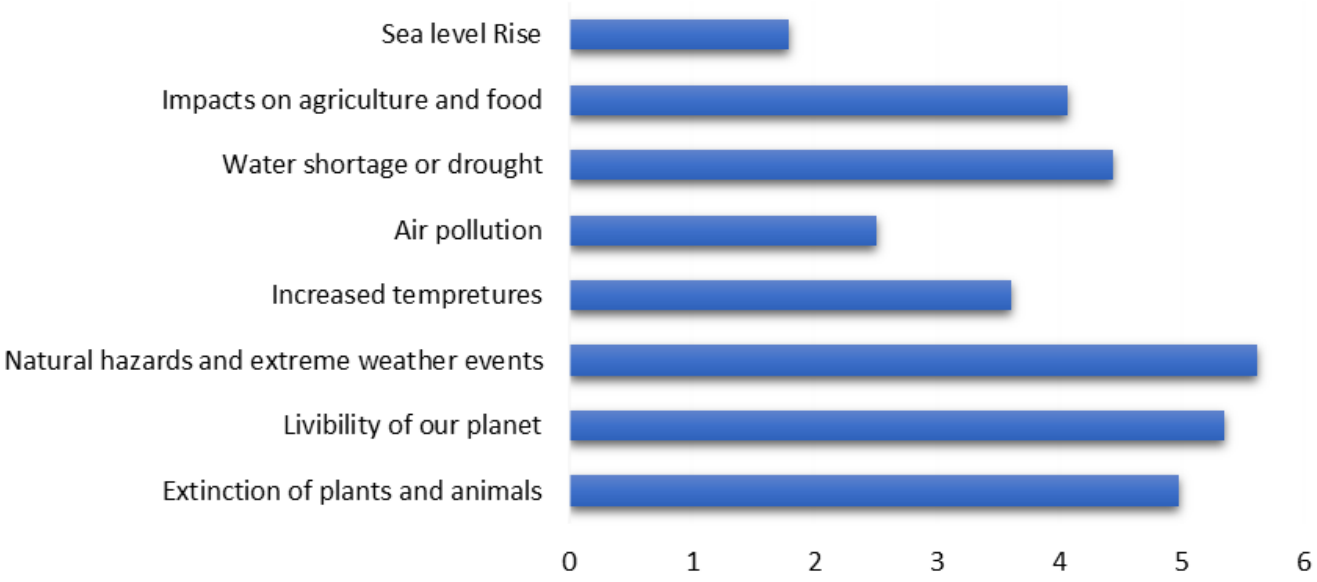
- Promote the small measures that can be undertaken by households to reduce their energy consumption
- Provide information and incentives for landlords to invest in solar panel installations on rental properties.
- Work with Benalla Food Network
- Include environmental wetlands in all new developments
- Council's strategies, plans and actions must recognise and respond directly to the threats posed by the changing climate.
- Explore opportunities to facilitate energy efficiency improvements to housing stock within Benalla Rural City

Water

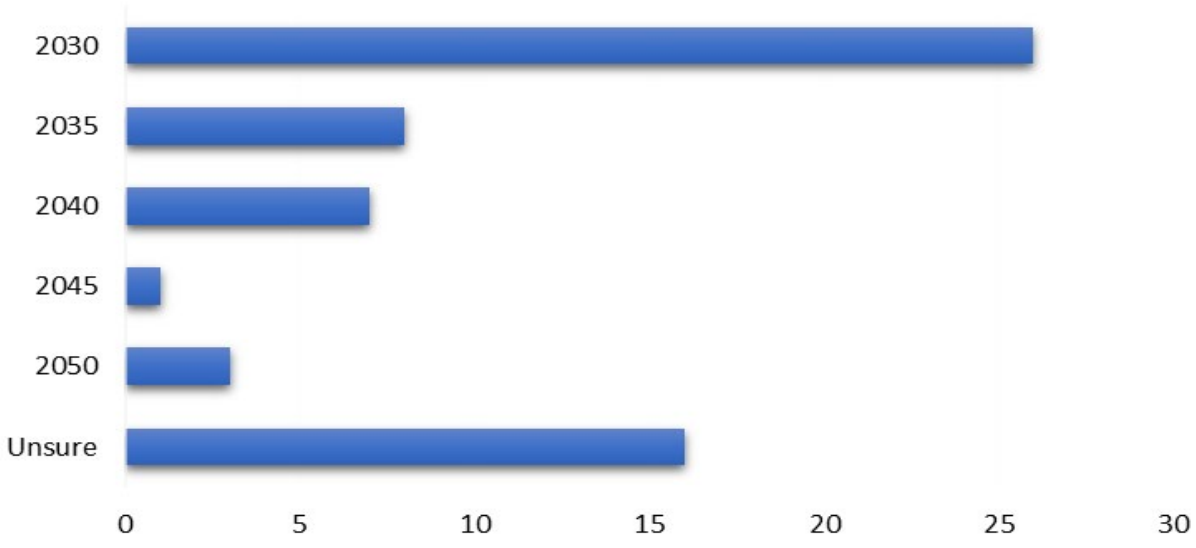
- Water collection at Council facilities
- Improved maintenance of drainage infrastructure
- Kits to test tank water - education on tank hygiene
- Upgrade road drainage infrastructure to cope with extreme rainfall events
- Broken River Review - be across it
- Improve septic tank management - regular inspections
- Better management of riparian zones to reduce erosion
- Planting on edge of waterways
- Gross pollutant trap to reduce rubbish entering waterways
- Assessment of water quality

Community Polls

Broader scale climate issues of most concern



Net-Zero Target



Appendix 2

BENALLA
RURAL CITY COUNCIL

BENALLA RURAL CITY COUNCIL

CLIMATE AND ENVIRONMENT STRATEGY

2024-2029

Contents

Acknowledgement of Country **3**
Message from the Mayor **3**
Executive Summary **3**
Introduction to the Strategy **4**
About Benalla Rural City Council **5**
Traditional Owners 7
Community Vision **7**
Internal and Strategic Context **8**
Alignment with the *Council Plan 2021-2025* 9
United Nation's Sustainable Development Goals 10
Environment Strategy Achievements 11
Environmental Context **12**
Landscape 13
Waterways 13
Bioregions 13
Flora and Fauna 15
Climate Change Context **16**
Key Areas **16**
Key Focus Area 1: Net Zero **17**
Case Study: EV Chargers and Council fleet 20
Key Focus Area 2: Increase Biodiversity **21**
Case Study: Hollands Bio Link Channel 23
Key Focus Area 3: Circular Economy **23**
Case Study: Clothes swap and textile recycling 26
Key Focus Area 4: Water Sensitive Communities **26**
Case Study: Cabomba in Lake Benalla 28
Key Focus Area 5: Sustainable Communities **29**
Case Study: Benalla Grow Your Own – Benalla Health 31
Action Plan: **32**
References **35**

Acknowledgement of Country

We acknowledge the traditional custodians of the land. We pay our respects to their Elders past and present and to Elders from any other communities.

Message from the Mayor

I am pleased to present Benalla Rural City Council's first *Climate and Environment Strategy 2024-2029* — a pivotal document that charts our course towards a more sustainable and resilient future. This strategy is a testament to our commitment to environmental stewardship.

The Council takes pride in our commitment to achieving net zero for corporate operations, enhancing biodiversity, and progressing towards a circular economy. Furthermore, our dedication to developing a water-sensitive community, fostering sustainability, and promoting inclusion reflects our collective vision for a resilient and harmonious community.

As part of our commitment, to deliver this strategy the Council will actively participate in regional partnerships, networks, committees, and groups focused on vegetation planning, land and biodiversity planning, waterway management, training, education, and community engagement.

I express my gratitude to the community members and stakeholders who have contributed their insights and feedback in shaping this Strategy. Your involvement has been invaluable and we are confident that, together, we can build a more sustainable, resilient, and inclusive Benalla Rural City.

Let us embark on this journey towards a greener and more sustainable future, hand in hand.

Executive Summary

The Benalla Rural City Council's *Climate and Environment Strategy 2024-2029* is a comprehensive strategy designed to address the environmental challenges and opportunities the area will face in the coming decades.

This Strategy was developed in consultation with the community of Benalla, agencies, stakeholders, and Council staff. The strategy is guided by extensive community consultation and feedback and aims to align with the Council Plan and the Community Plan, including the UN's Sustainable Development Goals and the wider goals of sustainability and climate resilience.

The first section of this Strategy details Benalla Rural City's environmental context, internal and strategic context, briefly discusses climate change in Victoria and the region specific to Benalla. It then identifies six key focus areas and delves deeper into Council's vision and commitment to each: achieving net zero for corporate operations, increasing biodiversity across the municipality, advancing towards a circular economy, developing a water-sensitive community, fostering a sustainable community, and promoting inclusion with the local Aboriginal Advisory Group. These focus areas were chosen as the most impactful and pressing issues by the community.

This strategy aims at achieving our community vision which is to: regenerate biodiversity in natural environment and green spaces, reach zero carbon emissions, create a circular economy, have an active and sustainable transport network, support sustainable food systems and have water sensitive places and communities. It sets a clear direction for the next five years, aiming to make Benalla Rural City a more resilient, sustainable, and inclusive community.

Introduction to the Strategy

This Climate and Environment Strategy (the Strategy) has been developed by Benalla Rural City Council (BRCC) as part of our role in protecting our environment and safeguarding its ability to support our community into the future.

To achieve this goal, the Strategy outlines a proactive and strategic approach to environmental matters and identifies priorities for management. In adopting this Climate and Environment Strategy, Council aims to respond to environmental concerns held by the community.

BRCC is involved in a number of regional partnerships, networks, committees and groups that aim to address environmental issues, responsibilities, deliver projects and meet environmental objectives that require a collaborative approach.

These groups focus on vegetation planning and retention controls, land and biodiversity planning, roadside and waterway management, training, education and skills development, and community engagement.

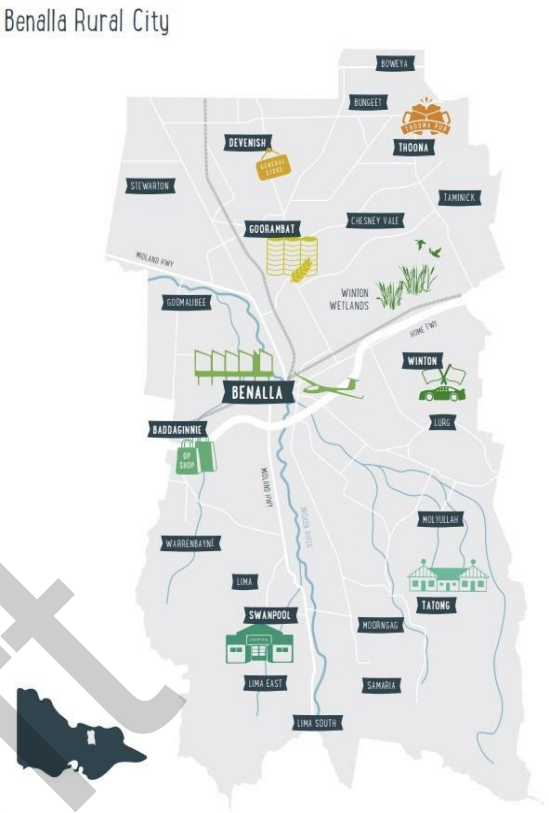
The many achievements to date are testament to the collaborative approach fostered within our region. Involvement in these groups has given the Council the opportunity to undertake activities that otherwise may not have been possible.

The Climate and Environment Strategy is a high-level Council strategic document, that identifies a number of key areas and actions that we plan to undertake over the next five years to meet the objectives of the Council Plan.

The Strategy has been developed using feedback and insights from community members and various stakeholders throughout the municipality.

About Benalla Rural City Council

Benalla Rural City is located in north-eastern Victoria, 193 kilometres north-east of the Melbourne CBD, and is centred in the Broken River valley. The population according to the latest Australian Bureau of Statistics (ABS) data from the 2021 census is 14,528, with approximately 9,000 living in urban areas and the remaining in and around the Benalla town.[1] The total land area is 2,352 square kilometres.



Benalla Rural City was established as an agricultural and pastoral district in the 1840s. The rural area was characterised by wheat, oats and potato growing, alongside some vineyards and mining. It was proclaimed a city in 1965 and Lake Benalla was artificially created in 1973.

The communities south of the freeway that makeup the LGA include those of Acherton, Baddaginnie, Boho South, Glenrowan West, Lima, Lima South, Lurg, Molyullah, Moorngag, Samaria, Swanpool, Tatong, Upper Lurg, Upper Ryan's Creek, Warrenbayne and Winton. The communities north of the freeway include Boweya, Boxwood, Broken Creek, Bungeet, Chesney Vale, Devenish, Goomalibee, Goorambat, Stewarton, Taminick, Tarnook and Thoona.

The area's economic sectors reflect Benalla's role as a regional centre: agricultural production, tourism and manufacturing. It is dominated by employment in the manufacturing, retail trade, health and community services sectors.

The proportion of people employed in agriculture is above the state average. The rural areas of the municipality are recognised for their quality soils and many areas have access to good irrigation.

The major agricultural industries are prime lamb and beef production, some dairying and broad acre cropping. Recent agricultural diversification has seen a rise in viticulture, more intensive forms of horticulture and forestry.

[1] Retrieved from the Australian Bureau of Statistics, https://abs.gov.au/census/find-census-data/quickstats/2021/LGA21010

The main tourism attractions include, but are not limited to, the Winton Motor Raceway, Winton Wetlands, State Gliding Centre (Benalla Airport), Benalla Gardens and Showgrounds, Aboriginal Gardens and the Benalla Art Gallery.

Figure 1: Winton Wetlands

Benalla Rural City offers a lifestyle that has a choice of primary and secondary schools, a TAFE college, comprehensive health services and a wealth of participation opportunities including theatre, sport, music, wine and art. Lake Benalla, with the surrounding Botanical Gardens and walking track, is a key attraction located within the town. Benalla Rural City has well developed disability, aged care and childcare services.

Traditional Owners

Benalla Rural City Council has recently submitted their first Reconciliation Action Plan (RAP) to demonstrate our commitment to reconciliation and to acknowledge the Traditional Custodians of the land on which we operate. We recognise the importance of building respectful relationships with Aboriginal and Torres Strait Islander peoples and promoting equality, inclusivity, and diversity within our organisation and the broader community.

Benalla Rural City was traditionally a meeting point for three distinct mobs, Yorta Yorta, Taungurung and Pangerang. They are the traditional custodians of this land, and Benalla Rural City Council recognises the importance of connection to Country and pay our respects to their elders past and present.

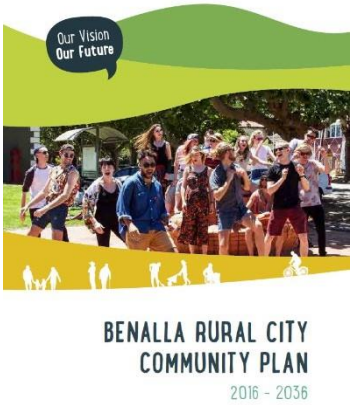
Promoting inclusion with the Benalla Aboriginal and Torres Strait Islander Advisory Group within Council operations will help strengthen this tie, as the First Nations peoples of this land have deep connections and commitments to the community which they represent. By working in partnership, Benalla Rural City and the Benalla Aboriginal and Torres Strait Islander Advisory Group can improve upon:

- employment and economic development
- health and wellbeing
- recognition and respect for individuals and communities
- civic participation.
- planning
- environmental protection
- reconciliation
- service delivery and access for Aboriginal people
- governance
- land management
- protection of homelands and cultural heritage.

We are thankful for the knowledge and insight that Traditional Owners and other Aboriginal and Torres Strait Islander people have contributed to this Strategy.

Community Vision

This strategy was developed in consultation with the community. Council staff made available multiple and varied avenues for the community to share their ideas and provide input. These opportunities included:



- Online survey on Council's Hive page.
- Four workshops at Baddaginnie, Swanpool, Goorambat and Benalla.
- Workshop held with the Full Impact Squad- a youth group supported by the Tomorrow Today Foundation.
- Workshop was also held with several members of the local Aboriginal Advisory Committee.

From this, Council staff received 61 submissions from the online survey and the workshops were well received with 90-100 attendees across all four workshops. The feedback provided invaluable information for the Environment team to structure this strategy and it also provided a welcoming and engaging conversation between Councillors, community members and Council staff.

Throughout this process Council sought input on five key focus areas. The most common and considered as significant input by the community were:

- net zero
- biodiversity and regeneration
- circular economy
- water sensitive communities
- sustainable communities.

Across the engagement there were several recurring themes and suggested actions. These included:

- Council to set a net zero target and acknowledge the climate is in a state of emergency.
- Transition Council's fleet to low carbon vehicles.
- Increase canopy cover.
- Increase biodiversity values across the municipality through direct intervention and community driven projects.
- Minimise the removal of existing vegetation.
- Increase protection and care for roadside vegetation.
- Increase education and awareness on all areas of waste and a circular economy.

Internal and Strategic Context

The Strategy is an extension of the Council's values and principles which will help shape Benalla Rural City as a leading partner in providing a healthier and cleaner environment for the Benalla community. As stated in the previous Environment Strategy, the Council will employee principles that accompany the Strategy, which will enhance the ability of Council to achieve its stated vision, goals and objectives outlined in this document. These same principles apply to this new Climate and Environment Strategy.

Council (as an organisation) will facilitate:

- **Participation:** Early and honest engagement with the community around significant actions and will participate in environmentally sustainable activities where appropriate.
- **Working together:** Development and maintenance of relationships to achieve our goals – includes using local service providers where possible.
- **Justifiable:** All works will consider the environmental impact and will be subject to Council risk assessment mechanisms and legislative requirements. This includes an environmental, social, cultural and economic analysis where appropriate (i.e. for projects likely to have significant impacts or costs).
- **Empowerment:** Education and information will be designed to support individuals to take action in their own way.
- **Respect:** Council will respect different views and ideas, try to accommodate them where possible, and provide a reasonable explanation where it's not possible.
- **Accountability:** Council will be accountable for the actions it delivers and the immediate outcomes that are expected to be attained.
- **Continuous improvement**: Council will show leadership in environmental sustainability, monitor its progress, report to the community, and involve the community in planning for improvement.

Councillors, staff, contractors and consultants will:

- Ensure that activities are conducted in accordance with this policy.
- Follow all departmental environmental procedures, signage and guidance.
- Foster a culture of environmental responsibility at work by reducing consumption of resources.
- Complying with environmental regulations.
- Reuse and recycle resources, where possible, to minimise waste-to-landfill and further reduce our impact on the environment.
- Limit our greenhouse gas emissions by minimising energy use in our offices and operations and making environmentally responsible travel decisions.
- Respect all natural and cultural heritage areas - threatened species and communities, historical, cultural and Indigenous heritage and areas of high conservation value.

Alignment with the *Council Plan 2021-2025*

The Benalla Rural City *Council Plan 2021-2025* is a guiding document that sets short- to long-term goals for Council and the community to works towards creating a vision for the future of Benalla Rural City. The Climate and Environment Strategy sits within the medium-term objectives of the Council Plan.

Collaboration with the community established five themes as the framework for the key objectives and strategies within the Council Plan. Each of these themes has a short-term objective to develop an action plan that will be reported on annually, with achievements and performance against key success measures communicated to the community.

This action plan can be found at the end of this document outlining the timelines for each action within the key focus areas demonstrating accountability for Council to meet its short-term objectives.

The key focus areas of the Climate and Environment Strategy are linked to these themes through actions that will help Council realise their goals and objectives. These themes are:

United Nation's Sustainable Development Goals

In 2015 the UN set 17 Sustainable Development Goals (SDGs) to provide a blueprint for peace and prosperity for people and the planet, now and into the future. The target to achieve these goals was set for 2030.

This is a call to the 193 countries who committed to the target to recognise that ending poverty goes hand-in-hand with strategies that improve health and education, reduce inequality and encourage economic growth – all while tackling climate change and working to preserve our oceans and forests.[2]

Figure 2: United Nation's Sustainable Development Goals (SDGs)

Australia is one of the 193 countries which have committed to the goals. It will require all stakeholders, state governments, LGAs and businesses to take action for Australia to meet the 2030 target.

To show Benalla's commitment to the SDGs, each key focus area has been linked to the relevant SDGs.

[2] Retrieved from the United Nation's Sustainable Development Goals, https://sdgs.un.org/goals

Environment Strategy Achievements

This is the third Climate and Environment Strategy that Council has developed in consultation with numerous stakeholders to deliver key actions to help Benalla Rural City tackle climate change.

The last strategy listed several key achievements that had been implemented since the last strategy was developed.

The actions that Benalla Rural City set out in the last Strategy that have been implemented are below:

- Developed a *Climate Change Adaptation Plan 2013-2025.*
- The RecLess: Less Water, Less Often, More Resilient Open Spaces Project. Partnership with Alpine Shire Council.
- The Goulburn Broken Greenhouse Alliance 'Watts Working Better' project was launched in 2014 to improve the efficiency of residential street lights across Benalla Rural City Council.
- Energy efficiency upgrades and solar PV at five Council buildings in 2018 and 2019.
- Net Zero Action plan developed in 2024.
- Working alongside the Goulburn Murray Catchment Authority (GMCA) on regional projects such as; Naturally Cooler Towns and Resilient Public Estate.

In addition to these key strategies developed the following actions have also been implemented:

- Tree planting day.
- Community environmental education programs such as clean up Australia Day.
- Key partnerships with other environmental agencies.
- Material recycling at the Resource Recovery Centre.
- Efficiency upgrades in Council buildings.
- Procurement of carbon accounting software to track its corporate emissions.
- Two electric vehicles to Councils fleet.

Environmental Context

Benalla Rural City has a diverse and varied landscape, with beautiful state and federal parks, numerous waterways and native plant and animal species. Council has implemented projects that have contributed to reducing carbon emissions that have an impact on the Benalla environment.

Our environmental context in numbers:

Insert Gaphic to show figures.

- **2472km** of managed road reserves.
- **155ha** of managed bush reserves.
- **1500** native plants planted on average per year.
- **1794** tonnes of FOGO diverted from landfill.
- **1809** native flora and fauna species of which **144** are threatened under the FFA and EPBC.
- **1277** of trees planted since the inception of the Street Tree Planting Program.
- **20** tonnes of donated textiles through the Textile Recycling Program since 2022.
- **120kW** of solar installed across five Council facilities, supplying **18 per cent** of Council annual electricity.
- **Nine per cent** of Council emissions come from electricity.
- **Four** hybrid and **two** electric vehicles in Council's light vehicle fleet.
- **Two** Council used electric vehicle charging station and **three** electric vehicle charging stations for public use.

Landscape

Benalla's central location in regional Victoria is divided by the Hume Freeway with hills, valleys, grazing land and forests to the south and plains and rolling hills used as cropping and grazing land to the north. The south, east and north-east landscape retains a greater native vegetation cover whilst land to the north-west and west supports dry land and irrigated cropping.

Situated around Lake Benalla, which is a significant natural feature of local and regional importance, Benalla has four major reserve areas; Mount Samaria State Park, Warby-Ovens National Park, Reef Hills State Park and the Winton Wetlands, these state parks comprise of roughly five per cent of the land area. It is a predominately rural area, with the majority of the land used for agricultural purposes, including wool and meat production, dairying and crop farming, followed by parkland and residential land.

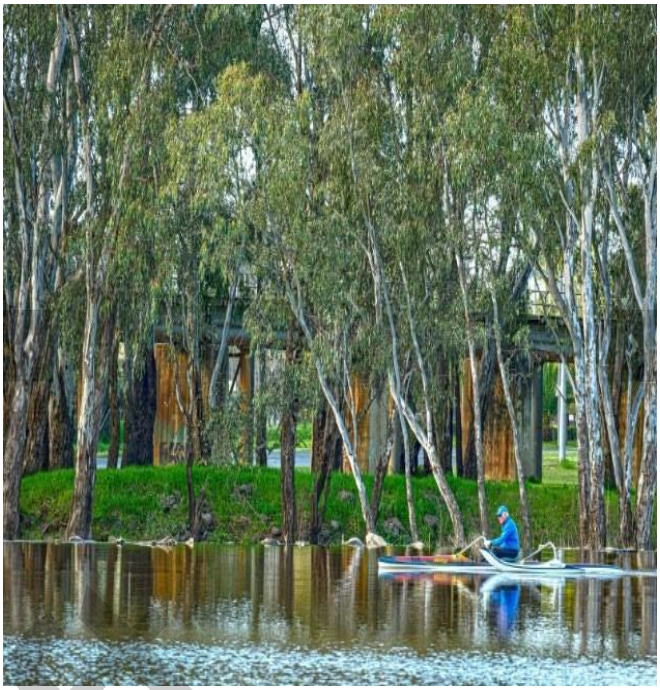


Figure 3: Lake Benalla

Thirty per cent of Benalla land is for public use, with three national parks comprising of 8,730 ha or 3.7 per cent of the total 235,264 ha of land (2,350 square kilometres). It sits within the Ovens Murray Region which borders the Murray River to the north, with access to Victoria's High Country.

Waterways

Benalla Rural City contains a number of tributaries of the Broken River and a significant portion of the Broken River itself, which is regulated by Lake Nillahcootie, to its southern border. The Broken River is a tributary of the Goulburn River, which flows into the Murray River.

The Broken Creek is also a significant system in the area that flows out of the Broken River and joins directly with the Murray upstream of the Goulburn River, making it a part of the Murray Basin.

Benalla's water is sourced from the Ryans and Whiskey Creeks, which fills the McCall Say Reservoir and the Loombah Reservoir. These reservoirs have a combined capacity of 1,747 megalitres, of which Benalla typically uses 1,400 megalitres each year.

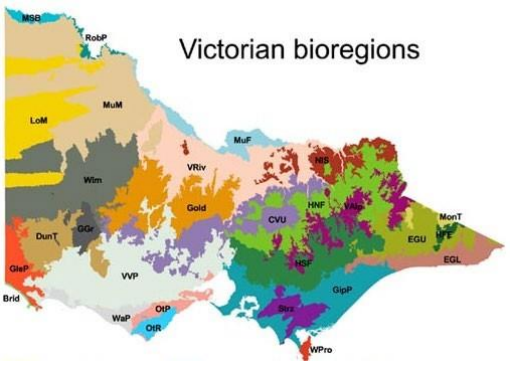
Bioregions

Biogeographical Regionalisation for Australia (IBRA) is a national planning framework and tool for identifying reservation targets, defining terrestrial habitats and ecoregions, and vegetation community and land system mapping to be used to identify regional ecosystems across Australia.[3]

[3] Retrieved from Department of Climate Change, Energy, the Environment and Water, https://www.dcceew.gov.au/environment/land/nrs/science/ibra/australias-bioregion-framework

It classifies the environment using a range of attributes such as climate, geomorphology, geology, soils and vegetation. In Victoria there are 28 bioregions. Of those, four bioregions makeup the landscape within Benalla's borders, which are:[4]

- Central Victorian Uplands (CVU)
- Highlands - Northern Fall (HNF)
- Victorian Riverina (VRiv)
- Northern Inland Slopes (NIS).



The CVU region, located in central Victoria, is dominated by Lower Paleozoic deposits (granitic and sedimentary terrain, old volcanic rock). The vegetation is made up of Grassy Dry Forest, Healthy Dry Forest, Herb-rich Foothill Forest and Shrubby Foothill Forest ecosystems.

The HNF region, located in the central part of East Victoria, is the northerly aspect of the Great Dividing Range. With moderate to steep slopes, high plateaus and alluvial flats, the geology is Palaeozoic deposits (sedimentary and granitic rocks). The vegetation is Herb-rich Foothill Forest, Shrubby Dry, Montane Dry Woodland, Heathy Dry Forest, Grassy Forest and Valley Grassy Forest ecosystems with major river valleys.

The VRiv, located north of the Great Dividing Range, is a flat to gently undulating landscape with evidence of former stream channels and wide floodplain areas associated with major river systems and prior streams. It's part of the Cainozoic period which dominates the Riverine Plain.

The vegetation is predominately Plain Grassy Woodland, Plains Grassland, Pine Box Woodland/Riverina Plain Grassy Woodland Mosaic, Riverine Grassy Woodland/Riverine Sedgy Forest/Wetland Mosaic, Plains Grassy Woodland/Gilgai Plains Woodland/Wetland Mosaic, Grassy Woodland and Wetland Formation ecosystems. It is associated with eight river basin tributaries of the Murray River.

The last bioregion is NIS, located in the northeast of Victoria, with foothill slopes and minor ranges separated by river valleys which drain from the High Country to the Murray River.

The vegetation is dominated by Grassy Dry Forest, Box Ironbark Forest, Granitic Hills Woodland, Heathy Dry Forest and, Shrubby Dry Forest ecosystems on the less fertile hills; Herb-rich Foothill Forest ecosystems on the more fertile hills and outwash; and Grassy Woodland, Valley Grassy Forest, Plains Grassy Woodland, Floodplain Riparian Woodland, Riverine Grassy Woodland, Riverine Sedgy Forest and Wetland ecosystems on the fertile plains and watercourses.

[4] Retrieved from the Victorian State Department of Energy, Environment and Climate Action, https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks

Flora and Fauna

The Benalla LGA is home to a number of rare and endangered species listed under the *Fauna and Flora Guarantee Act 1988* (FFG Act). Rare and endangered native fauna such as, Squirrel gliders, brush-tailed phascogales (Tuan) and bush stone curlews are all found within the Benalla Rural City municipality.

Figure 4: Grey-crowned Babbler

It's also home to species listed as endangered and critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This includes the Critically endangered Regent Honeyeater *Anthochaera Phrygia*, which is primarily a canopy bird and is reliant on select eucalypt and mistletoe species, including Mugga Ironbark, *Eucalyptus sideroxylon* and Yellow Box, *Eucalyptus melliodora*.

The Benalla Planning Scheme seeks to protect and stop the removal of native vegetation that support Regent honeyeater (Clause 42.02 Schedule 3). The Vegetation Protection Overlay (VPO) covers a large area of important vegetation for the Regent Honeyeater in the East side of the municipality.

Another endangered species supported by the Benalla Planning Scheme is the Grey-crowned Babbler (Clause 42.02 Schedule 2). The Grey-crowned Babbler's preferred habitat is significantly fragmented and why a VPO on the west side of the municipality is so important.

Protecting vegetation in key habitat areas such as Grey Box Grassy Woodland is crucial for the species.

The Lima stringybark Eucalyptus alligatrix subspecies limaensis, which is endemic to a small area near Swanpool and listed as endangered under the EPBCA Act. It is confined to a very small area and highly fragmented with higher-than-normal level of risk to common threats. Continued protection of existing mature trees and allowing for juvenile recruitment is required.

One of only a small number of remnant populations of Macquarie Perch exists within the Broken River and Hollands creek systems within Benalla Rural City. Macquarie Perch are also listed as endangered under the EPBC Act and FFG Act, after a long-term decline in abundance and a reduction in self-sustaining populations.

Climate Change Context

Victoria's climate has changed over the years due to changing weather systems, seasonal influences and large-scale climate drivers.

The state is becoming hotter and overall drier with extreme weather events shaping how Victorians must adapt. According to the Victorian Climate Science Report 2019, Victoria has experienced a temperature increase of over 1°C from 1910 to 2018, double the number of days over 35°C, a longer and more intense fire season and more days of heavy rain.[5] All of this is expected to continue to increase in the future if nothing is done to combat climate related disasters.

The area in which Benalla Rural City resides is in the Ovens Murray region. This region is also impacted by these extremes, with projections that indicate median maximum temperature rises of 1.4°C by the decade between 2030-2040 and 2.4°C by mid-century under high emission scenarios.[6]

This is expected to result in more extreme rainfall events, maximum daily temperature increases, and longer and earlier fires seasons since the mid-1900s. Overall, just like Victoria as a whole, the Ovens Murray regions is expected to become warmer and drier, with these changes largely contingent on future increases in greenhouse gas emissions (GHG).

There are actions that can be taken now to limit these extreme dangers and avoid the worst impacts of climate change. Under a low emissions scenario, Victoria's average temperature increase could be less significant and by 2050 the state's temperature rise could be kept to below 1.5°C and 1.6°C by 2070. To realise this lower temperature, rise scenario action must be taken now.

In recent years Benalla has taken out the number one position for storm hot spot in Victoria by the SES, with flooding incidents for 2022 to 2023 increased by 130 per cent to the previous financial year.

A changing climate poses risks to the key areas within this plan: biodiversity, water resources, sustainable and thriving communities and the economy.

Key Areas

In the table below Council has identified five key areas that will have the most significant gains in delivering this strategy. Each focus area has a vision and actions which Council will prioritise over the next five years.

The actions in each focus area align with the Council Plan on developing short-term action plans that sit within each theme to hold Council and the community accountable to progress in implementing these actions. The action plans will be updated to reflect any progress which has been made (Table 7). The key areas have also been linked to the UN Sustainable Development Goals (SDGs).

[5] Retrieved from Victoria's Climate Science Report 2019, https://www.climatechange.vic.gov.au/victorias-changing-climate

[6] Retrieved from the Ovens Murray Climate Projections 2019, https://www.climatechange.vic.gov.au/victorias-changing-climate

Table 1: Five Key Focus Areas

Net Zero
Biodiversity and Regeneration
Circular Economy
Water Sensitive Communities
Sustainable Communities

Key Focus Area 1: Net Zero

Net zero emissions means reducing the world's greenhouse gas emissions to as close to zero as possible with available technology. This means Australia must rapidly phase out fossil fuels (coal, oil and natural gas) and transition to renewable energy across all sectors of the economy.

Setting an aspirational net zero target is an approach taken by all levels of government. Be it federal, state or local government it establishes leadership and demonstrates commitment to actions based on factors such as available budget, political will or community expectations.

By establishing a net zero target councils can work with actions that are most pressing in reducing their emissions first, while working with key stakeholders and the community to reduce emissions from actions that require more long-term planning and budget.

Given recent instances of extreme temperatures (2023 being the hottest year on record), flooding, and wildfires across the global, the urgency for the Council to take action in reducing emissions and meeting net zero has never been greater. Relying solely on the purchase of carbon offsets is insufficient in the face of these extreme natural disasters.

The Victorian Government has a net zero target of 2045, with 75-80 per cent reduction by 2035. The Australian Government has set a net zero target of 2050, with an interim target of 43 per cent below 2005 levels in 2030.

Other councils around BRCC have set targets between 2030-2050. The Council has recently endorsed a Net Zero Action Plan which has set a net zero target for all corporate emissions excluding waste by 2035/2036 and including waste by 2040/2041. This Action Plan sits under the short-term planning objectives within the Council Plan.

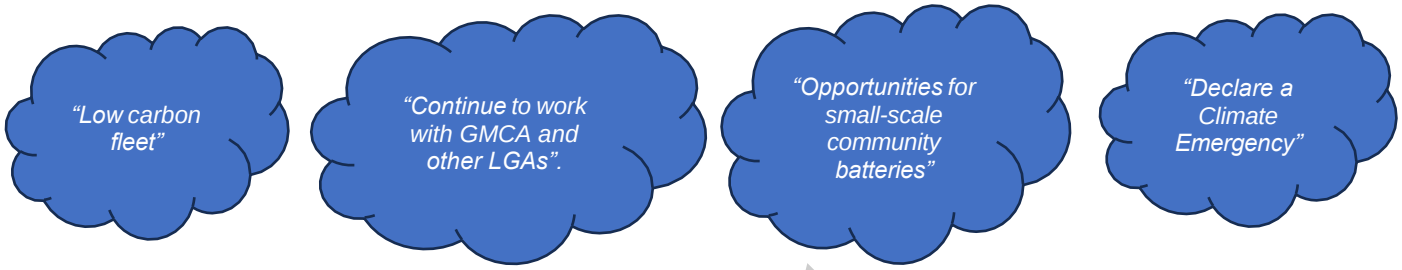


Figure 5: Feedback from community engagement

In response to workshops conducted earlier this year and feedback from the community, Council has set a vision to be net zero by 2040/41. Council has developed a Net Zero Action Plan in 2024 which aligns with this focus area. The actions in that plan have been added to provide continuity between the two documents.

Table 2: Net Zero Action Plan

Action Plan	Description	Financial year to be completed
Key Focus Area 1- Net Zero	Council to employ an Officer to a minimum of 0.6 FTE position to assist in the delivery of the Strategy and Net Zero Action Plan.	2025/26
	Transition to 100 per cent renewable energy (VECO 2.0).	2024/25
	Transition Council's passenger vehicle fleet to low carbon vehicles.	2029/30
	Transition Council's vans to low carbon vehicles.	2026/27
	Transition Council's utility vehicles to low carbon vehicles.	2032/33
	Review the current Fleet Strategy to include EVs in the replacement cycle.	2024/25
	Audit Council owned buildings to transition to net zero or lower emission buildings and facilities.	Ongoing
	Council to demonstrate leadership in response to Climate Change	Ongoing
	Install solar PV onto all suitable Council owned buildings.	2026/27
	Explore opportunities for a community battery or microgrid.	2025/26
	Ensure changing rainfall, flooding, bushfire and drought patterns are included in all Council strategies and asset management plans where applicable.	Ongoing
	Incorporate the new Climate and Environment Strategy in the review of the planning scheme to help inform our local policy in the planning scheme.	2026/27

Case Study: EV Chargers and Council fleet

There is a continual rise in Electric Vehicles (EVs) on roads and hence a rising need for places to charge them. EVs are becoming more and more popular as the need and want to reduce our emissions quickly grows.

One of the issues that has slowed the rate of EV adoption is the lack of charging infrastructure. Minimal charging infrastructure has been a deterrent for many who are wanting to transition to an EV. As support and demand has increased more charging options have begun to appear and substantially more are on their way.

Benalla Rural City sits an ideal location as the gateway to the North East and Goulburn Murray Regions and for travellers heading up and down the Hume. Furthermore, there is a growing need and want within the local community for EV chargers.

Currently, there are three chargers in the municipality open to the public with a dual charger located in the Denny Street Carpark in Benalla and another provided by Schnieder Electric available during certain times. Benalla Rural City will also be leasing a section of Carpark to Tesla for the purpose of installing 10 superchargers with another 10 to follow to meet with demand.

There is also a rise in accommodation providers in the municipality offering charging to tenants, providing visitors with the opportunity to charge their vehicles overnight while they stay. It is a fantastic incentive to attract more visitors to the region, and something that will hopefully become more common.

Furthermore, Benalla Rural City has brought its first EV into Council fleet in the last 12 months. This is the start of transition that will see more EVs enter Council fleet, reducing Councils future emissions.

Key Focus Area 2: Increase Biodiversity

Biodiversity defines all life on Earth, it provides basic necessities and essential resources and services to all people.[7] A study conducted by the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) found that up to one million of Earth's estimated eight million plant, insect and animal species are at risk of extinction within the next few decades.

Climate change has a major impact on biodiversity in Australia, one that harms Australians' air and water, energy and food, health and well-being and tourism to name a few. A lack of biodiversity affects our natural areas, parks and recreation that provide numerable benefits to society, the economy and the environment. Benalla Rural City Council contains high value flora (plants) and fauna (animals), including roughly 85 different species of fauna that are threatened.

The *Flora and Fauna Guarantee Amendment Act 2019* lists a number of threatening processes to biodiversity. The most significant issues for Benalla Rural City Council are invasive species, climate change and changes to land-use which is harmful to agriculture in the area.

The Victorian Government has enacted a plan to protect its environment through the *Biodiversity 2037 Plan*. This plan outlines ways communities can start planning and regenerating biodiversity loss by:[8]

- Managing threats such as further loss of habitat, weeds and pest animals and inappropriate regimes.
- Increase habitat quality and extent, creating additional habitat areas and connections.
- Enhance biodiversity by directly managing native species through numerous actions.
- Provide suitable habitat for species of conservation importance- both native and non-native.
- Promoting biodiversity benefits in human-centered settings, such as soil conservation practices, carbon sequestration, and stocking waterways with native fish for recreational fishing to name a few.

Benalla's Roadside Vegetation Management Plan recognises that a high priority will be given to retain existing native vegetation, prevent decline of indigenous vegetation communities, enhance priority habitats and improve connectivity. It further states that natural regeneration of indigenous vegetation will be protected and encouraged and a priority for natural regeneration and rehabilitation programs should be roadsides that form strategic biological corridors.

[7] Retrieved from the Royal Society of Victoria, Towards conservation & Recovery of Victoria's biodiversity.
[8] Retrieved from Victorian Government, Protecting Victoria's Environment- Biodiversity 2037

There are numerous councils within Victoria that are adopting biodiversity policies and toolkits to address this critical issue. BRCC has recently received a vegetation grant that can be utilised for biodiversity and regenerative projects.

In October the 2023 Street Tree Planting Program was completed, which saw 70 new trees planted in nature strips around Benalla.

The types of trees selected considered factors such as local conditions, climate and the existing streetscape. In addition, the trees planted are known for their resilience to pests and disease.

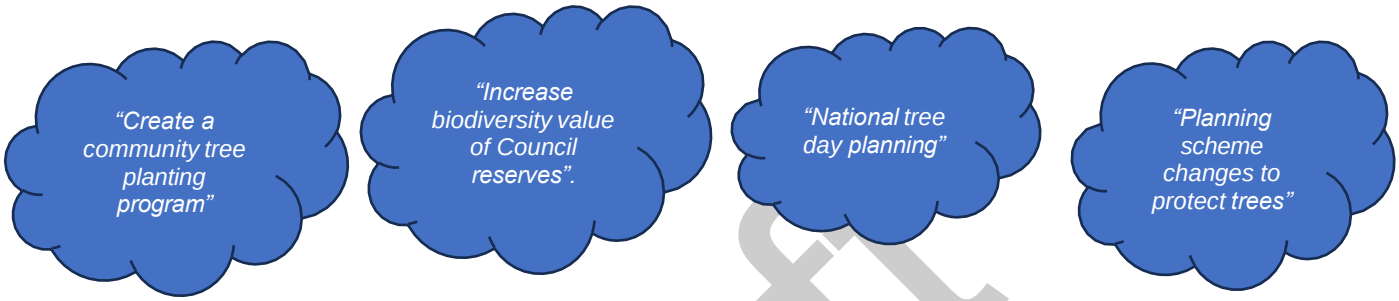


Figure 6: Feedback from community engagement

In response to workshops conducted earlier this year and feedback from the community, Council has set a vision to increase biodiversity across the municipality. In order to achieve this Council has identified the below actions to help progress in this focus area.

Table 3: Biodiversity Action Plan

Action Plan	Description	Financial year to be completed
Key Focus Area 2 – Increase Biodiversity	Council to increase tree planting program to create habitat for fauna and flora.	2024/25
	Council to review the roadside management plan with consideration to pest and weed control program.	2024/25
	Council to partner with other agencies to advocate and protect wildlife.	Ongoing
	Support the Winton Wetlands restoration project where possible.	Ongoing
	Council to continue to work on rehabilitating the Holland Bio Link.	Ongoing
	Council to deliver a New Pest and Weed Control Plan.	2023/24
	Map and register trees of cultural significance on public property.	2024/25
	Mapping of existing tree canopy in the Benalla Rural City.	Ongoing

Case Study: Hollands Bio Link Channel

In November 2014 Benalla Rural City, with the assistance of the Inlet Channel Management Plan Advisory Committee, developed the Holland Bio Link Reserve Management Plan. The Management Plan outlined the strategies and desired outcomes for the reserve that contained the decommissioned Mokoan inlet channel stretching from the Winton Wetlands (formerly Lake Mokoan) to Hollands Creek.

The entire approximately 13km by 110m reserve is classified as ecological vegetation class (EVC) 55 Plains Grassy Woodland. EVC 55 is classified as endangered within the Goulburn Broken Catchment and contains key canopy species such as Grey Box (*Eucalyptus macrocarpa*) and River Red Gum (*Eucalyptus camaldulensis*).

The reserve was split into three Zones with works to rehabilitate Zone 1 beginning in 2015. Around 12,000 plants have been planted in Zone 1 since the adoption of the management plan, with plants chosen based on species naturally found in Plains Grassy Woodland areas.

BRCC has been lucky to work with the Regent Honeyeater Project (RHP) throughout the life of the management plan. RHP and their volunteers, have been a major asset to have partnering with Council on this project. Support from the GB CMA has also been an important to the success of the project.

The next steps in this project include assessment and revision the Holland Bio Link Management Plan and beginning works in Zone 2 and 3 to join the corridor with Hollands Creek.

Key Focus Area 3: Circular Economy

A circular economy is centred on the idea of resources being kept as long as possible within the economic system, where materials that have undergone an entire lifecycle, from product to the end stage, are returned to that same system. It focuses on not only finding ways to keep products in production, but sourcing products that have a longer lifespan and are produced with less impact on the environment.

Councils and communities have an opportunity to make a difference in the quantity of waste being sent to landfill using the principles of the three Rs: Reduce, Reuse and Recycle. If Council and the businesses within the community replace the linear take-make-waste model with a circular model based on reused, recycled, or repaired materials and products, the amount of waste sent to landfill would drastically decrease.

With the Benalla Landfill and Resource Recovery site currently accepting waste from other councils, incorporating practices of a circular economy into not only Council's own operations, but mandating other Councils do the same is paramount.

Keeping materials and products in use and treating waste as a resource a circular economy in return will:

- Save costs (potentially boosts Victoria's economy by $6.7 billion by improving material and efficiency and recycling.[9]
- Minimise demand on resources.
- Lower carbon emissions.
- Reduce legacy landfill emissions and pollution.

In 2020, the Victorian Government set a progressive plan for a circular economy. From that plan there are five key takeaways that Council can do to start incorporating a circular approach to their waste. They are:[10]

- Provide a new four-stream waste and recycling system.
- A cash for cans scheme.
- A stronger waste and recycling industry.
- New recycling laws and governance.
- A statewide ban of single-use plastics.

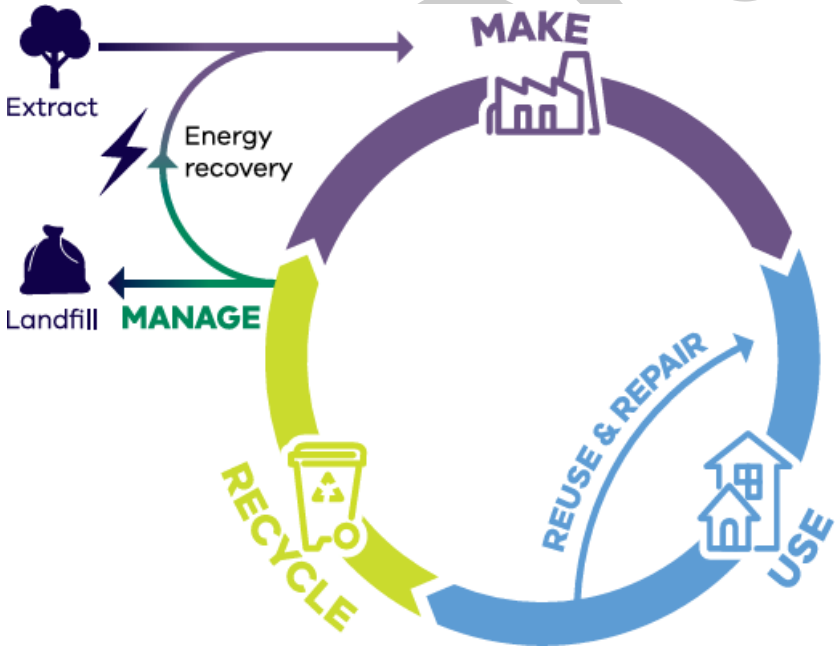


Figure 7: Resource flows in a circular economy

[9] Retrieved from the Victorian Government's circular economy policy and plan, https://www.vic.gov.au/victorias-plan-circular-economy

[10] Retrieved from the Victorian Government's circular economy policy and plan, https://www.vic.gov.au/victorias-plan-circular-economy

By implementing a more circular approach to waste Council will be able to benefit significantly. A few of those benefits are outlined below:

- Increase the quality and volume of recycling and reuse of our precious resources.
- Reduce waste, landfill and litter.
- Reduce emissions and contribute to Victoria's net-zero emissions by 2045.
- Create new jobs.
- Build a sustainable and thriving circular economy for a cleaner, greener Victoria.

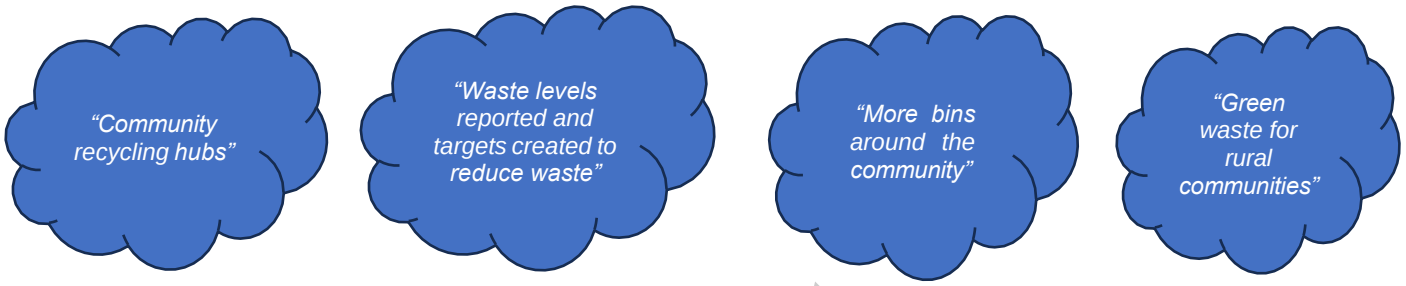


Figure 8: Feedback from community

In response to workshops conducted earlier this year and feedback from the community, Council has set a vision to take the lead and promote a more circular economy within the Benalla community. The actions have been identified in this action plan below.

Table 4: Circular Economy Action Plan

Action Plan	Description	Financial year to be completed
Key Focus Area 3 – Circular Economy	Provide educational programs in response to waste epidemic promoting reuse, recycle and repair.	Ongoing
	Council to conduct a feasibility study to go to fortnightly pickups of the red lid bin in the rural areas.	2025/26
	Council to implement a glass separation bin by 2027.	2027
	Council to consider the feasibility of organics waste bin for rural townships and properties enroute able to opt in.	2025/26
	Council to continue to attract business with a focus on renewable energy services.	Ongoing
	Council to work with businesses to promote the benefits of a circular economy.	Ongoing
	Council to attract business that can process problematic waste.	Ongoing
	Council to update procurement policy to include a focus on environment and sustainability in Council's capital works programs.	2025/26
	Council to increase resource recovery opportunities at Councils owned and operated Resource Recovery Centre, including the feasibility of a resale shop.	2026/27

Case Study: Clothes swap and textile recycling

In June 2022 Benalla Rural City teamed up with A Fitting Connection to host a Clothes Swap at the local CWA hall in Benalla. People could bring five items of clothing to donate and then exchange them for five new-to-them items. It was very well received by the community with around 50 attendees who wanted to see their clothes reused or appropriately recycled. A Fitting Connection works with a company called Upcycle4Better who provided a textile recycling bin at the clothes swap event for any item's leftover at the end.

Building on from this connection with Upcycle4Better a textile recycling program was then put in place at the Benalla Landfill and Resource Recovery Centre. It has been very well received with many people dropping their old clothes, shoes, soft toys, and other textiles off to be recycled or repurposed. The service is free for residents of Benalla to use. This new service means old and unusable textiles can now be diverted from landfill and repurposed or recycled.

Since installing the textile recycling unit at the Resource and Recovery Centre Council have received contact from multiple Victorian councils as well as some interstate Councils. The uptake of textile recycling within Benalla Rural City has been fantastic and will hopefully continue to grow, so less makes its way to landfill.

Key Focus Area 4: Water Sensitive Communities

Water is integral to communities throughout Australia, both in urban and rural landscapes. Having a healthy water system is crucial for human and ecological systems to thrive. It services a large range of activities, from daily residential and business uses to farmland and agricultural irrigation. Water is also a crucial resource for local flora and fauna to thrive and for sustaining our open spaces and natural environment the community uses on a daily basis.

The three most critical challenges Benalla and its surroundings face in managing water are a growing population with varied and changing lifestyles, climate change and a challenging economic environment.

Benalla Lake is a prominent feature of the town that is experiencing ongoing water quality issues from aging sewerage systems and septic tanks leaching into the lake. The flow on effect from the high nutrient loading into the system is water weed infestations and algae bloom outbreaks. Litter and supermarket shopping trollies are also an ongoing issue for the management of the lake. During flood and high rainfall events the lake experiences heavy siltation and further erosion of its banks.

A long-term goal for Benalla will be to become a water sensitive community. A water sensitive community is a place:[11]

[11] Retrieved from CRCWSC website, What makes a city water sensitive, https://watersensitivecities.org.au/what-is-a-water-sensitive-city/

- That has the potential to serve as water supply catchment, providing a range of different water sources at a range of different scales and uses.
- That provides ecosystem services and a healthy natural environment, thereby offering a range of social, ecological and economic benefits.
- Where community members have the knowledge and desire to make wise water choices.
- Address lake contamination and water quality.

[11] Retrieved from CRCWSC website, What makes a city water sensitive, https://watersensitivecities.org.au/what-is-a-water-sensitive-city/

Water sensitive communities can be described as resilient, liveable, productive and sustainable.

- In a water sensitive community, the way the community interacts with the water cycle plays a crucial part by[12]:
- Providing the water security essential for economic prosperity through efficient use of diverse available resources.
- Enhancing and protecting the health of waterways and wetlands and the river basins that surround them.
- Mitigating flood risk and damage.
- Creating public spaces that collect, clean and recycle water.

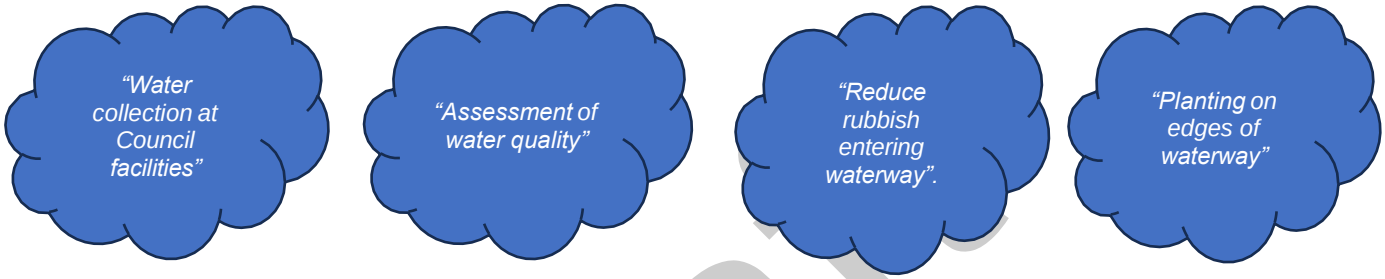


Figure 9: Feedback from community

[12] Retrieved from CRCWSC website, What makes a city water sensitive, https://watersensitivecities.org.au/what-is-a-water-sensitive-city/

In response to workshops conducted earlier this year and feedback from the community, the Council has set a vision to manage stormwater and water across the municipality. This is the first step needed in order to become a more water sensitive community, and the action outlined will help the Council achieve this vision.

Table 5: Water Sensitive Communities Action Plan

Action Plan	Description	Financial year to be completed
Key Focus Area 4 – Water Sensitive Communities	Council to create a stormwater management plan in response to the contamination, litter and weed issues in the town's lake.	2026/27
	Council to continue to promote water reduction activities.	Ongoing
	Council to partner with lead agencies on water related issues.	Ongoing

Case Study: Cabomba in Lake Benalla

Cabomba (*Cabomba caroliniana*) is an introduced aquatic weed that originated from South America. Cabomba is listed as a Weed of National Significance and regarded as one of the worst weeds in Australia. Cabomba spreads rapidly, reproducing vegetatively from stem fragments which easily break away from the parent plant. Cabomba was identified in Benalla in 1990 with major treatments done in 2009, 2010, 2012, 2018 and 2021. Past treatments have included a combination of drawing down the water level in Lake Benalla to allow the Cabomba to dry out, as well as mechanical removal.

Current treatment methods are expensive, weather dependent and aesthetically unpleasant. Due to this, new treatment methods are being explored with one currently being tested on a couple of sites in Queensland. The Cabomba weevil (*Hydrotimetes natans)* is an aquatic weevil that spends its entire lifecycle on Cabomba plants, causing substantial damage to the plant both in the adult and larval stages.

Trials are currently underway at multiple sites in Queensland and NSW following positive testing results from CSIRO. Although, the Cabomba weevil is unlikely to remove the weed altogether it may prevent the frequency of large infestations and keep Cabomba at more manageable levels.

Since the last drawdown in 2021, there have been no reports of Cabomba in the Lake Benalla area. However, it is unlikely Cabomba has disappeared altogether and will likely show up again. Benalla Rural City will continue to work closely with the GB CMA to monitor Cabomba in Lake Benalla and assess potential major infestations.

Key Focus Area 5: Sustainable Communities

A sustainable community takes into account the five capitals models which provides a framework for sustainability at all levels. It accounts for the human, social, natural, financial and manufactured capital of a society and makes sure all are addressed fairly and equitably, while ensuring resources to sustain a community are available now and for future generations. It's a place where diverse backgrounds and perspectives are welcomed, and where all groups within that society can come together to make decisions for the betterment of their community.

Sustainable communities require long-term planning, where the decisions we make as a society today will have major impacts decades later. One of the biggest threats to sustainable communities is climate change. To that end, action needs to be taken now to build upon the work Council has already undertaken to develop a sustainable and resilient Benalla.

The Green Building Council of Australia worked with local councils and key stakeholders to identify five principles that support the sustainable transformation for a society. The five principles are:[13]

- Demonstrate visionary leadership and strong governance.
- Enhance liveability.
- Create opportunities for economic prosperity.
- Foster environment responsibility.
- Embrace design excellence and innovation.

These principles require a collaborative approach from all sectors within Benalla's community to see this vision achieved.

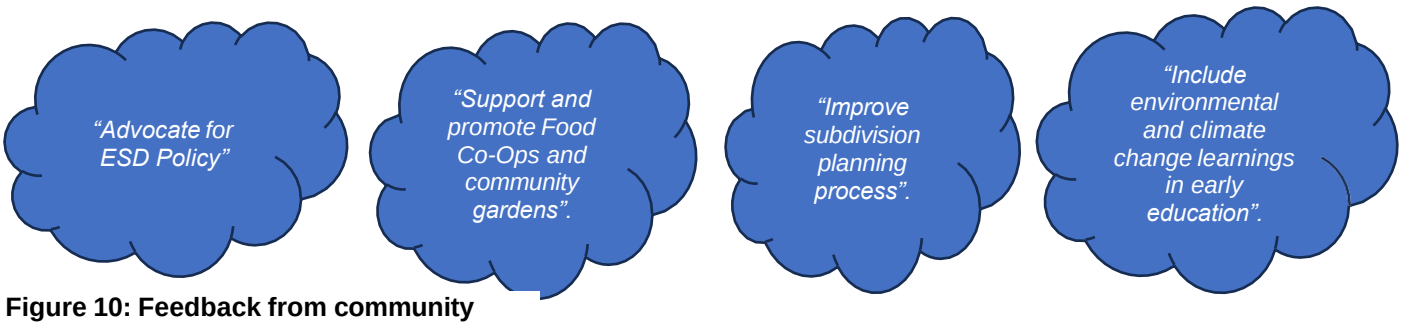


Figure 10: Feedback from community

In response to workshops conducted earlier this year and feedback from the community, Council has set a vision to become a more sustainable community. By incorporating these actions into this Strategy Council will be able to meet it's target and vision for this focus area.

[13] Retrieved from Green Building Council of Australia. Green Star- Communities Guide for Local Government

Table 6: Sustainable Communities Action Plan

Action Plan	Description	Financial year to be completed
Key Focus Area 5 – Sustainable Communities	Council to partner with health agencies to promote the benefits of home garden.	Ongoing
	Council to create a food share space	2025/26
	Consider the establishment of a native food garden.	2025/26
	Recognise and protect the integrity of traditional indigenous NRM knowledge, support traditional knowledge exchange and when permitted use it with respect.	Ongoing
	Embed Climate Resilient Infrastructure checklists into relevant processes for designing and maintaining infrastructure.	2025/26
	Embed Environmentally Sustainable Design (ESD) principles into all new developments.	Ongoing
	Council will look for opportunities to engage with those who are culturally and linguistically diverse (CALD) and those who are socially and economically disadvantaged, to build understanding and resilience to climate change.	Ongoing

Case Study: Benalla Grow Your Own – Benalla Health

Between 2016-19 the Benalla Grow Your Own (BGYO) project provided 74 wicking garden beds to vulnerable families living in Benalla. The garden beds were built in partnership with Benalla Health, St Vincent de Paul Society of Benalla, Beechworth Correctional Centre and Benalla Men's Shed.

The project was established in response to the growing issue of food insecurity from young families in Benalla. A food security scan prior to the project indicated 8.4 per cent of residents in Benalla had reported that they had run out of food and were unable to purchase more in the last 12 months. With food insecurity also correlated with low fruit and vegetable intake.

In 2021 a Survey was completed by 47.4 per cent of eligible participants to assess the results of the program. Of the surveyed, 93 per cent felt they were better able to provide for their family with 85 per cent indicating life was better because of the garden. Half indicated they had increased their gardening activities during the COVID-19 Pandemic and 63 per cent indicated improved mental health.

The garden beds continue to assist families save money, improve confidence growing their own food whilst improving nutrition, physical activity, social connection, and mental health outcomes.

Action Plan:

Table 7: Council Action Plan for Key Focus Areas

Action Plan	Description	Financial year to be completed	Progress made to-date
Key Focus Area 1- Net Zero	Council to employ an Officer to a minimum of 0.6 FTE position to assist in the delivery of the Strategy and Net Zero Action Plan.	2025/26	
	Transition to 100 per cent renewable energy (VECO 2.0).	2024/25	
	Transition Council's passenger vehicle fleet to low carbon vehicles.	2029/30	
	Transition Council's vans to low carbon vehicles.	2026/27	
	Transition Council's utility vehicles to low carbon vehicles.	2032/33	
	Review the current Fleet Strategy to include EVs in the replacement cycle.	2024/25	
	Audit Council owned buildings to transition to net zero or lower emission buildings and facilities.	Ongoing	
	Council to demonstrate leadership in response to Climate Change	Ongoing	
	Install solar PV onto all suitable Council owned buildings.	2026/27	
	Explore opportunities for a community battery or microgrid.	2025/26	
	Ensure changing rainfall, flooding, bushfire and drought patterns are included in all Council strategies and asset management plans where applicable.	Ongoing	
	Incorporate the new Climate and Environment Strategy in the review of the planning scheme to help inform our local policy in the planning scheme.	2026/27	

Action Plan	Description	Financial year to be completed	Progress made to-date
Key Focus Area 2 – Increase Biodiversity	Council to increase tree planting program to create habitat for fauna and flora.	2024/25	
	Council to review the roadside management plan with consideration to pest and weed control program.	2024/25	
	Council to partner with other agencies to advocate and protect wildlife.	Ongoing	
	Support the Winton Wetlands restoration project where possible.	Ongoing	
	Council to continue to work on rehabilitating the Holland Bio Link.	Ongoing	
	Council to deliver a New Pest and Weed Control plan.	2023/24	
	Map and register trees of cultural significance on public property.	2024/25	
	Mapping of existing tree canopy in the Benalla Rural City	Ongoing	
Key Focus Area 3 – Circular Economy	Provide educational programs in response to waste epidemic promoting reuse, recycle and repair.	Ongoing	
	Council to conduct a feasibility study to go to fortnightly pickups of the red lid bin in the rural areas.	2025/26	
	Council to implement a glass separation bin by 2027.	2027	
	Council to consider the feasibility of organics waste bin for rural townships and properties enroute able to opt in.	2025/26	
	Council to continue to attract business with a focus on renewable energy services.	Ongoing	
	Council to work with businesses to promote the benefits of a circular economy.	Ongoing	

Action Plan	Description	Financial year to be completed	Progress made to-date
	Council to attract business that can process problematic waste.	Ongoing	
	Council to update procurement policy to include a focus on environment and sustainability in Council's capital works programs.	2025/26	
	Council to increase resource recovery opportunities at Councils owned and operated Resource Recovery Centre, including the feasibility of a resale shop.	2026/27	
Key Focus Area 4 – Water Sensitive Communities	Council to create a stormwater management plan in response to the contamination, litter and weed issues in the town's lake.	2026/27	
	Council to continue to promote water reduction activities.	Ongoing	
	Council to partner with lead agencies on water related issues.	Ongoing	
Key Focus Area 5 – Sustainable Communities	Council to partner with health agencies to promote the benefits of home garden.	Ongoing	
	Council to create a food share space	2025/26	
	Consider the establishment a native food garden.	2025/26	
	Recognise and protect the integrity of traditional indigenous NRM knowledge, support traditional knowledge exchange and when permitted use it with respect	Ongoing	
	Embed Climate Resilient Infrastructure checklists into relevant processes for designing and maintaining infrastructure	2025/26	
	Embed Environmentally Sensitive Design (ESD) principles into all development	Ongoing	
	Council to engage with those who are culturally and linguistically diverse (CALD) and those who are socially and economically disadvantaged, to build understanding and resilience to climate change.	Ongoing	

References

Australian Bureau of Statistics. (2024). *Benalla 2021 Census*. Retrieved from https://abs.gov.au/census/find-census-data/quickstats/2021/LGA21010

Benalla Health. (2022). *Benalla Grow Your Own 5 Year Evaluation*. Benalla; 2022

Benalla Rural City Council. (2016). *Benalla Rural City Community Plan 2016-2036*. Retrieved from https://www.benalla.vic.gov.au/Your-Council/Council-Documents/Community-Plan

Benalla Rural City Council. (2021). *Benalla Rural City Council Plan 2021-2025*. Retrieved from https://www.benalla.vic.gov.au/Your-Council/Council-Documents/Council-Plan-2021-2025

Benalla Rural City Council. (2022). *Benalla Planning Scheme*. Retrieved from https://www.benalla.vic.gov.au/Your-Property/Building-Planning/Planning/Benalla-Planning-Scheme

Benalla Rural City Council. (2022). *Road Management Plan 2021-2025*. Retrieved from https://www.benalla.vic.gov.au/Your-Council/Council-Documents/Other-Plans-Strategies/Road-Management-Plan

Benalla Rural City. (2024) *Roadside Weeds and Pests Program Control Plan* 2023-2026. Retrieved from https://www.benalla.vic.gov.au/Your-Council/Council-Documents/Other-Plans-Strategies/Roadside-Weeds-and-Pest-Plan

Benalla Rural City Council. (2014). *Roadside Vegetation Management Plan*. Retrieved from https://www.benalla.vic.gov.au/Your-Council/Council-Documents/Other-Plans-Strategies/Roadside-Vegetation-Management-Plan

Brondizio, E. Diaz., S, Settele, J. & Ngo, H. (2019). *The global assessment report on biodiversity and ecosystem services*. *IPBES,1*, 56. https://doi.org/10.5281/zenodo.3831673

City of Greater Bendigo (2021) *Climate Change and Environment Strategy 2021-2026.* Retrieved from https://www.bendigo.vic.gov.au/about-us/plans-strategies-and-documents/climate-change-and-environment-strategy-2021-2026

Commonwealth of Australia. (2016). *National Recovery Plan for the Regent Honeyeater (Anthochaera phrygia)*. Retrieved from: https://www.dcceew.gov.au/sites/default/files/documents/national-recovery-plan-regent-honeyeater.pdf

Commonwealth of Australia. (2018). *National Recovery Plan for Macquarie Perch (Macquaria australasica)*. Department of the Environment and Energy. Retrieved from; https://www.dcceew.gov.au/sites/default/files/documents/recovery-plan-macquarie-perch-2018.pdf

Cooperative Research Centre. (2021). *Water Sensitive Cities*. Retrieved from https://watersensitivecities.org.au/what-is-a-water-sensitive-city/

Department of Sustainability and Environment, Victoria. (2003). *Flora and Fauna Guarantee Action Statement, Grey-crowned Babbler*. (*Pomatostomus* temporalis). Retrieved from: https://www.environment.vic.gov.au/__data/assets/pdf_file/0025/32866/Grey-crowned_Babbler_Pomatostomus_temporalis.pdf

European Commission. (2024). *Global climate highlights 2023*. Retrieved from https://climate.copernicus.eu/copernicus-2023-hottest-year-record

Greater Shepparton City Council (2014) *Greater Shepparton Environmental Sustainability Strategy 2014 – 2030*. Retrieved from https://greatershepparton.com.au/animals-environment-and-waste/environment#section-environmental-sustainability-strategy

Green Building Council of Australia. (n.d.) *Green star communities guide for local government*. Retrieved from https://new.gbca.org.au/policy/local-government/

Goulburn Broken Catchment Authority. (2021). *Goulburn Broken Regional Catchment Strategy 2021-27.* Retrieved from https://goulburnbroken.rcs.vic.gov.au/

Murphy, A.H. and Downe, J. 2006. *National Recovery Plan for the Lima Stringybark Eucalyptus alligatrix subspecies limaensis*. Department of Sustainability and Environment, Melbourne. Retrieved from: https://www.dcceew.gov.au/sites/default/files/documents/e-alligatrix.pdf

North East Water. (2024). *Water Supply*. Retrieved from https://www.newater.com.au/supply

Rural City of Wangaratta (2021) *Environmental Sustainability Strategy 2021-2026*. Retrieved from https://www.wangaratta.vic.gov.au/Your-Council/Policies-and-documents/Strategies-and-Plans

The Royal Society of Victoria (2022). *Towards conservation and recovery of Victoria's biodiversity: Report for changemakers.* Melbourne: The Royal Society of Victoria. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://rsv.org.au/wp-content/uploads/Towards-Conservation-Recovery-of-Victorias-Biodiversity-Report-for-Changemakers.pdf

United Nations Department of Economic and Social Affairs. (2024). *The 17 Goals*. Retrieved from https://sdgs.un.org/goals

Victoria State Government Department of Climate Change, Energy the Environment and Water. (2023). *Australia's bioregion framework*. Retrieved from https://www.dcceew.gov.au/environment/land/nrs/science/ibra/australias-bioregion-framework

Victoria State Government Department of Energy, Environment and Climate Action. (2019). *Victoria's Climate Science Report*. Retrieved from https://www.climatechange.vic.gov.au/victorias-changing-climate

Victorian State Government Department of Energy, Environment and Climate Action. (2023). *Bioregions and EVC benchmarks*. Retrieved from https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks

Victoria State Government Department of Environment, Land, Water and planning. (2017). *Protecting Victoria's Environment- Biodiversity 2037*. Retrieved from https://www.environment.vic.gov.au/biodiversity/biodiversity-plan

Victoria State Government Department of Environment, Land, Water and Planning. (2019). *Ovens Murray Climate Projections 2019*. Retrieved from https://www.climatechange.vic.gov.au/victorias-changing-climate

Victoria State Government Department of Environment, Land, Water and Planning. (2020*). Victoria's plan for a circular economy*. Retrieved from https://www.vic.gov.au/victorias-plan-circular-economy

Victoria State Government Department of Jobs, Precincts and Regions. (2020). *Victorian Aboriginal and local government strategy 2021-2026: Pathway to stronger partnerships*. Retrieved from https://www.localgovernment.vic.gov.au/our-partnerships/victorian-aboriginal-and-local-government-strategy

Yorta Yorta Nation Aboriginal Corporation. (2022). About the YYNAC. Retrieved from https://yynac.com.au/

BENALLA
RURAL CITY COUNCIL

Draft

Benalla Rural City Council
2024 - 2029

PO BOX 227
BENALLA VIC 3671

(03) 5760 2600
council@benalla.vic.g

ov.au

www.benalla.vic.go

v.au

Appendix 3

Ironbark Sustainability

Corporate Greenhouse Gas Emissions Inventory FY 2022/23

Benalla Rural City Council

BENALLA RURAL CITY

Prepared for
Benalla Rural City Council

Version	Author	Date	Description of changes
V0a-c	Sue Oliver	26/10/2023	First draft
V0d	Cece Hyslop	11/12/2023	Review
V1a	Sue Oliver	11/12/2023	Released to Council

Prepared by
Ironbark Sustainability
Suite 8, 70-80 Wellington St, Collingwood 3066
ABN: 51 127 566 090
Ph: 1300 288 262 | info@realaction.com.au | www.realaction.com.au

About Ironbark Sustainability
Ironbark Sustainability is a specialist consultancy that works with government and business around Australia by assisting them to reduce energy and water usage through sustainable asset and data management and on-the-ground implementation.

Ironbark has been operating since 2005 and brings together a wealth of technical and financial analysis, maintenance and implementation experience in the areas of building energy and water efficiency, public lighting and data management. We pride ourselves on supporting our clients to achieve real action regarding the sustainable management of their operations.

Our Mission
The Ironbark mission is to achieve real action on sustainability for councils and their communities.

Contents

1 Introduction 7
1.1 Benefits of Taking Action 7
1.2 Background 8
2 Best Practice in Corporate GHG Inventory Reporting 9
2.1 WRI Greenhouse Gas Protocol Corporate Standard 9
2.2 International Standard for GHG Emissions Inventories and Verification 10
2.3 National Greenhouse and Energy Reporting Guidelines 10
2.4 Climate Active 10
3 Methodology 12
3.1 Reporting Framework 12
3.2 Reporting Boundaries 12
3.2.1 Operational Boundary - Scopes 12
3.2.2 Organisational Emissions Boundary 13
3.2.3 Quantified Sources 13
4 Council's Corporate Emissions Inventory 15
4.1 2022/23 Emissions Summary 16
4.2 2022/23 Detailed GHG Emissions Inventory 18
4.3 Comparing FY 2016/17 and FY 2022/23 emissions 19
5 Council's Current Inventory Methodology 21
6 Addressing Data Gaps 22
7 Overview of Gaps by Emissions Source 23
7.1 Site List 23
7.1.1 Description 23
7.1.2 Data Quality and Issues 23
7.1.3 Recommendations 23
7.2 Electricity (Including Renewable) 23
7.2.1 Description 23
7.2.2 Data Quality and Issues 24
7.2.3 Recommendations 24
7.3 Natural Gas 25
7.3.1 Description 25
7.3.2 Data Quality and Issues 26
7.3.3 Recommendations 26
7.4 Bottled Gas (LPG) 26
7.4.1 Description 26

7.4.2 Data Quality and Issues 27
7.4.3 Recommendations 27
7.5 Transport and Stationary Fuels 27
7.5.1 Description 27
7.5.2 Data Quality and Issues 27
7.5.3 Recommendations 27
7.6 Waste disposal to Landfill 28
7.6.1 Description 28
7.6.2 Data Quality and Issues 28
7.6.3 Emission Factor 28
7.6.4 Recommendations 28
7.7 Water and Wastewater 29
7.7.1 Description 29
7.7.2 Data Quality and Issues 29
7.7.3 Recommendations 29
7.8 Contractor Fuels 30
7.8.1 Description 30
7.8.2 Data Quality and Issues 30
7.8.3 Recommendations 30
7.9 Fugitive Gases 31
7.9.1 Description 31
7.9.2 Data Quality and Issues 31
7.9.3 Recommendations 31
7.10 Lubricants 32
7.10.1 Description 32
7.10.2 Data Quality and Issues 32
7.10.3 Recommendations 32
7.11 Asphalt and other Construction Materials 32
7.11.1 Description 32
7.11.2 Data Quality and Issues 32
7.11.3 Recommendations 32
7.12 Office Paper 33
7.12.1 Description 33
7.12.2 Data Quality and Issues 33
7.12.3 Recommendations 33
7.13 Accommodation 33
7.13.1 Description 33
7.13.2 Data Quality and Issues 33
7.13.3 Recommendations 34
7.14 Air travel 34
7.14.1 Description 34

7.14.2 Data Quality and Issues 34
7.14.3 Recommendations 34
7.15 Hire Cars and Taxis 35
7.15.1 Description 35
7.15.2 Data Quality and Issues 35
7.15.3 Recommendations 35
7.16 Employee Commute 35
7.16.1 Description 35
7.16.2 Data Quality and Issues 35
7.16.3 Recommendations 35
Appendix 1: Glossary 37
Appendix 2: Relevance Test 39
Appendix 3: Inventory Data, Sources and Approaches 40
Appendix 4: Staff Commute Survey 47

Figures

Figure 1: Example of scopes of GHG emissions 12
Figure 2: 2022/23 Emissions profile summary by sector 17
Figure 3: Historical Trend over 2 financial years 19
Figure 4: Historical Trend over 2 financial years by sector 19

Tables

Table 1: Quantified, Non-Quantified, Excluded Emission Sources 14
Table 2: 2022/23 Detailed GHG emissions inventory 18
Table 3: Gap analysis of emissions sources included by Council in 2022/23 21
Table 4: Top 6 priority recommendations 22
Table 5: Glossary of Terms 37
Table 6: Climate Active Relevance Test for Emission Source 39
Table 7: GHG emission activity data, sources, and calculation approaches 40

1 Introduction

Benalla Rural City Council (BRCC) is committed to reducing its greenhouse gas emissions and energy costs and acting on climate change. The first stage in achieving this is to establish a greenhouse gas (GHG) emissions baseline for Council's corporate emissions, on the basis of which subsequent actions have been planned in a separate document, Benalla Rural City Council Net Zero Action Plan.

With assistance from Ironbark, Council previously developed a baseline corporate greenhouse gas (GHG) emissions inventory for financial year (FY) 2016/17 and a greenhouse reduction plan to guide Council in reducing its corporate emissions as part of Sustainability Victoria's Local Government Energy Saver (LGES) Program.

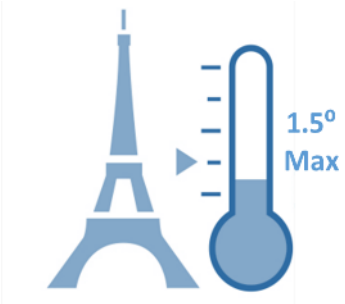
A GHG baseline is an inventory of GHG emissions from business & service activities as part of council responsibilities. This is typically a one (plus) year(s') snapshot that serve as a reference point for councils/organisations to understand and track their changing GHG emissions over time. A GHG baseline includes both direct and indirect emissions, also known as Scope 1, Scope 2 and Scope 3 emissions (more details on this are in section 3.2.1). A point worth noting is that this baseline is relative to the size of council operations, size of the region and the population it services.

This report presents Council's corporate inventory for the financial year 2022/23, establishing a reliable baseline upon which to measure emissions reductions year on year.

It should be noted that this report focuses on Benalla Rural City Council's organisational emissions which is a subset of the broader community (or municipal) emissions. Community emissions are not the focus of this report.

1.1 Benefits of Taking Action

For decades, Australian local governments have been at the forefront of climate action, even in the face of challenging federal and state policy environments. Councils have implemented energy efficiency and renewable energy projects that have resulted in millions of tonnes of GHG emissions abatement and have worked with and mobilised communities to join the challenge at the grass-roots level.



The international Paris Agreement adopted in December 2015 represented an historic turning point in the international fight against climate change. To date over 190 nations have ratified this agreement, including Australia. Central to the adoption of the Paris Agreement are items of critical importance to Australian councils. The first is around how Australian councils set localised emissions reduction targets that align with the Paris Agreement to limit the increase in global average temperature to below 2°C and as close to 1.5°C as possible. The second is that the Paris Agreement explicitly recognises and engages local and sub-national governments, which is a significant success for councils around the world.

Climate change poses a significant threat both to the environment and economy – with rising temperatures, increasing drought and higher energy costs being just some of the issues arising. In response there is a movement across the state which sees

local councils acting to ensure that they are contributing to global targets and building up the resilience of their communities to the impacts of climate change.

The benefits of taking action in the context of global climate change and its impacts on Victoria are two-fold. As well as the environmental benefits, improving resource efficiency within Council's operations will result in reduced costs, and improved energy security for Council, freeing up limited resources for use elsewhere. This ultimately benefits not only Council but also their community.

1.2 Background

The Benalla Rural City Council a local government area in the Hume region of Victoria, Australia, located in the north-east part of the state. It delivers a wide range of community services and maintains essential community infrastructure through:

- The provision of buildings and facilities and administration of council services
- Operation of a fleet of vehicles including street sweepers, trucks, tractors, passenger vehicles and utility vehicles
- The provision and maintenance of local roads, drainage, public lighting, parks and reserves and sporting facilities
- The provision of sports complexes, event facilities, libraries, arts centres
- The provision of Benalla Landfill and Resource Recovery Centre servicing Benalla and other neighbouring local governments

These services are the primary activities that result in carbon emissions from Council's operations.

2 Best Practice in Corporate GHG Inventory Reporting

This inventory has been developed in line with the Climate Active[1] Program and the National Greenhouse and Energy Reporting Scheme[2] (NGERs) guidelines. The following sections provide an overview of national and international best practice in GHG inventory calculation and reporting.

2.1 WRI Greenhouse Gas Protocol Corporate Standard

The World Resource Institute (WRI) GHG Protocol Corporate Accounting and Reporting Standard is *the* international standard for GHG reporting for companies and other organisations when preparing a GHG emissions inventory. The requirements and guidance provided in the protocol form the basis of many national reporting standards, including NGERs.

The WRI states that GHG accounting and reporting shall be based on the following principles:

Relevance

- Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users – both internal and external to the company.

Completeness

- Account for and report on all GHG emission sources and activities within the chosen inventory boundary. Disclose and justify any specific exclusions.

Consistency

- Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.

Transparency

- Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.

Accuracy

- Ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.

[1] https://www.climateactive.org.au/
[2] http://www.cleanenergyregulator.gov.au/NGER

2.2 International Standard for GHG Emissions Inventories and Verification

The International Standard for GHG Emissions Inventories and Verification or ISO 14064 standard (published in 2006) is part of the ISO 14000 series of International Standards for environmental management. The ISO 14064 standard provides governments, businesses, regions and other organisations with a complimentary set of tools to quantify, monitor, report and verify greenhouse gas emissions. Whilst a highly respected and internationally recognised standard, ISO is impractical for the majority of Australian councils.

The additional administrative overheads (in particular life-cycle analysis) are a large burden since data on life-cycle up/down stream emissions is scarce in Australia. ISO 14064 may be relevant for large major city councils such as Sydney, Brisbane or Melbourne. As they are participating in the international C40 council field, the standard would allow consistency and comparison with other leading cities worldwide. However, for other councils ISO 14064 is not a relevant standard.

2.3 National Greenhouse and Energy Reporting Guidelines

National Greenhouse and Energy Reporting (NGERs) guidelines is Australia's national framework (and Act) for reporting and disseminating organisational information about greenhouse gas emissions, energy production, and energy consumption. NGERs provides a common national reporting platform and tool for assessing corporate emissions.

NGERs was introduced in 2007 to provide data and accounting in relation to greenhouse gas emissions and energy consumption and production. The scheme's legislated objectives are to:

- inform policy-making and the Australian public
- meet Australia's international reporting obligations
- provide a single national reporting framework for energy and emissions reporting.

NGERs guidelines have been developed in line with the WRI GHG Protocol.

2.4 Climate Active

The Climate Active Certification for Organisations is a voluntary standard to manage greenhouse gas emissions and to achieve carbon neutrality. It is the Australian Government's new iteration of the carbon neutral certification previously known as NCOS. It provides best practice guidance on how to measure, reduce, offset, report and audit emissions that occur as a result of the operations of an organisation.

Climate Active provides the methodology for organisations voluntarily seeking to be carbon neutral and a benchmark on how to account for emissions. Climate Active sets minimum requirements for calculating, auditing and offsetting the carbon footprint of an organisation, product, service or event.

Climate Active NCOS is built on the NGERs guidelines and as such the requirements of the two are very closely aligned. For a Climate Active aligned inventory, you need a GHG emissions inventory that follows the NGERs guidelines plus additional requirements to state that Council is carbon neutral. Climate Active places emphasis on the same best practice carbon accounting principles as detailed in the WRI GHG Protocol and ISO 14064.

Should Council wish to pursue a carbon neutral target down the track, the 2022/23 inventory would provide a good foundation to meet Climate Active requirements for a GHG inventory.

3 Methodology

3.1 Reporting Framework

Council's corporate emissions have been calculated based on the guidelines provided by the Australian NGERs methodology and the WRI GHG Protocol Corporate Standard. To align with best practice and to set Council up for possible carbon neutral certification, the inventory has been developed with the view to meet Climate Active requirements as much as possible. As a result, it includes Scopes 1, 2 and 3 emissions, and has an emphasis on completeness.

3.2 Reporting Boundaries

3.2.1 Operational Boundary - Scopes

The operational boundary of Benalla Rural City Council is defined using the scopes framework. In line with NGERs, and the Global Greenhouse Gas Protocol, corporate emissions have been divided into three scopes:

- **Scope 1** emissions are defined as "direct emissions from owned or controlled sources" and are emissions created when Council burns a fuel in an owned asset such as fleet burning diesel, E10 or petrol or a building using natural gas.
- **Scope 2** emissions are defined as "indirect emissions from the generation of purchased energy" and include electricity purchased for Council-owned and operated assets.
- **Scope 3** emissions are defined as "all indirect emissions (not included in scope 2) that occur in the value chain of the reporting entity (Council)" these include electricity purchased for Council owned but not occupied buildings, electricity purchased for street lighting, emissions associated with concrete & asphalt and emissions from the extraction and production of fuels (including diesel, E10 or petrol, natural gas and electricity).

The three scopes are also described in Figure 1.

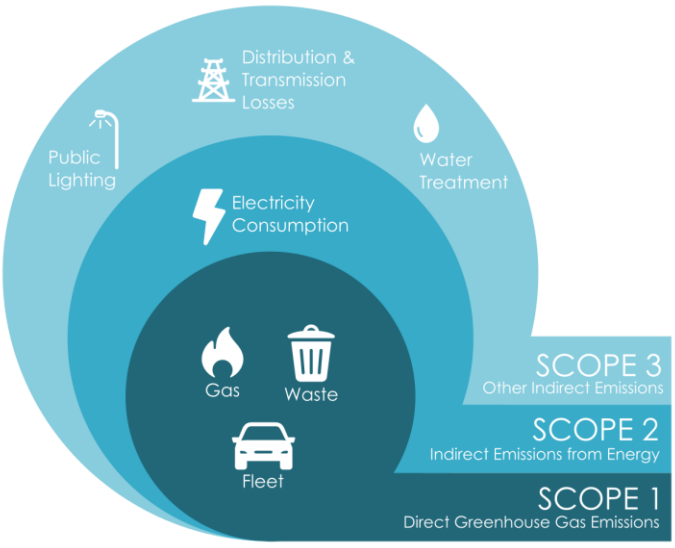


Figure 1: Scopes of GHG emissions

3.2.2 Organisational Emissions Boundary

The development of each corporate emissions inventory is based on Climate Active's guidance for setting an emissions boundary for organisations.

The control approach adopted for Council is the **Operational Control** approach to reporting.

Under the operational control approach, Council accounts for 100% (scopes 1, 2 and 3) of the GHG emissions from operations over which it has the ability to introduce and implement operating policies. Emissions from sites for which Council does not have operational control, such as many sites leased to third parties, will only be reported under scope 3.

Operational control can be defined according to whether Council:

- is paying the utility costs for the facility; and
- have the ability to set operating policies, health and safety policies and environmental policies

Operational control was assessed at all Council facilities and buildings which included:

- Council owned and operated facilities
- Council facilities leased out to third party
- Facilities Council leased from a third party
- All sites that are owned and operated by Council or are leased from third parties and operated by Council are under Council's control. Sites where Council facilities are leased to third parties were under Council's operational control only where Council was paying the utility costs.

For this inventory Council has focused on emissions sources where activity data is currently available. Moving forward, it is recommended to refer the Climate Active's relevance test (see Appendix 2 for details) to determine which emission sources can be excluded.

3.2.3 Quantified Sources

Council's emission sources can be divided into three categories:

- *Quantified* – sources inside the emissions boundary with complete data
- *Non-quantified* – sources inside the emissions boundary but are not included in the inventory due to lack of complete and reliable data
- *Excluded* – sources that have been excluded as they fall outside Council's reporting boundaries and have been assessed as not relevant according to Climate Active's relevance test (Appendix 2).

In developing a corporate inventory for councils, a balance must be struck between the materiality of a given emissions source and the resources required to compile the

emissions data on an annual basis. This saves resources that can ultimately be directed towards emissions reduction actions.

This inventory has adopted the approach to initially focus on and include significant emissions sources that Council can measure and mitigate. In assessing whether an emissions source should be included, if a source is negligible but requires substantial resources to quantify it will be categorised as a non-quantified emissions source.

Table 1 below depicts quantified sources[3], non-quantified sources and excluded sources.

Table 1: Quantified, non-quantified, excluded emission sources

Quantified	Non-quantified	Excluded
• **Fuels** (Transport) • **Waste to Landfill** • **Water and wastewater** • **Electricity** (Council) • **Electricity** (Street lighting) • **Natural G**as	• **Fuels** (Stationary) • **Fugative emissions** (Buildings) • **Fugitive emissions** (fleet) • **Lubricants** • **Contractor fuels** • **Construction Materials** • **Flights** • **Accommodation** • **Hire cars and taxis** • **Employee commute** • **Office Paper** • **LPG** • **Contracts and services**	•**Investments** •**Council** owned **properties** which are **leased out** where Council does not pay the bills •**Community emissions**

[3] Fuel data was provided, however could not be categorised into Transport and Stationary. All Fuel emissions have been captured in the inventories as "Transport Fuels"

4 Council's Corporate Emissions Inventory

Council's corporate emissions are those resulting from Council's own operations. The following emission sources have been grouped into meaningful sectors and are all possible emissions sources Council might report on in future inventories:

Electricity:

- **Electricity (Council):** emissions produced through the electricity used by buildings, facilities and assets that Council owns and operates.

Electricity Street Lighting:

- **Electricity (Street Lighting):** emissions produced through the electricity used by street lights for which Council pays the bills

Natural Gas:

- **Gas (Council owned/operated/occupied):** emissions created when Council burns a fuel in an owned asset.

Transport Fuel:

- **Transport (Diesel, Bio Diesel for fleet):** emissions created through the diesel or bio diesel fuel consumed by Council's fleet
- **Transport (Petrol for fleet):** emissions created through the petrol/unleaded fuel consumed by Council's fleet
- **Transport (Diesel, Bio Diesel for plant):** emissions created through the diesel or bio diesel fuel consumed by Council's plant
- **Transport (Petrol for plant):** emissions created through the petrol/unleaded fuel consumed by Council's plant

Stationary Fuel:

- **Stationary Fuels:** emissions from fuel consumption for electricity generation (diesel generators), fuels consumed in construction, and other sources like domestic heating.
- **Gas (LPG Bottles and Bulk for Buildings):** emissions created when Council burns a fuel in an owned asset: in this case a building using LPG.

Lubricants:

- **Lubricants**: emissions associated with petroleum-based oils and greases purchased by Council.

Water:

- **Water:** emissions from water supply and disposal. This includes water supplied to Council owned and controlled buildings & facilities.

Fugitive:

- **Fugitive:** emissions associated with refrigerant usage from HVAC in buildings and Council's vehicle fleet

Waste:

- **Waste**: Emissions created from the waste produced at Councils' sites.

Contractor Fuel:

- **Contractor fuels**: fuel emissions from other companies contracted by Council to undertake works

Construction Materials:

- **Construction Materials:** emissions associated with concrete, asphalt, cement/lime and gravel aggregate used for road reconstruction or road works which have been contracted by Council

Office Paper:

- **Office Paper:** emissions associated with office paper used by Council including emissions from manufacturing and transporting of paper products

Hire Cars and taxis:

- **Taxi/Uber/Car Hire:** emissions associated with car hire including taxis and uber

Accommodation:

- **Accommodation**: emissions generated from the energy consumed by accommodation used by council staff when travelling on business

Air travel:

- **Air travel:** emissions associated with air travel

Employee Commute:

- **Employee commute**: emissions associated with employee's commuting to and from work

4.1 2022/23 Emissions Summary

Council's total emissions for the period FY 2022/23 have been calculated as **10,960 tonnes of CO_2 equivalent (tCO_2-e)**. This includes an emissions gap or *other potential emissions* representing emissions not quantified and reported in this inventory due to incomplete or unavailable data. See Section 6: Addressing Data Gaps for more details. Recognising gaps in data and identifying processes to close these gaps is an important path to robust inventories moving forward. Future emissions inventories can be compared to this year in order to measure changes in Council's emissions. Figure 2 provides a complete overview of the inventory for Benalla Rural City Council by source.

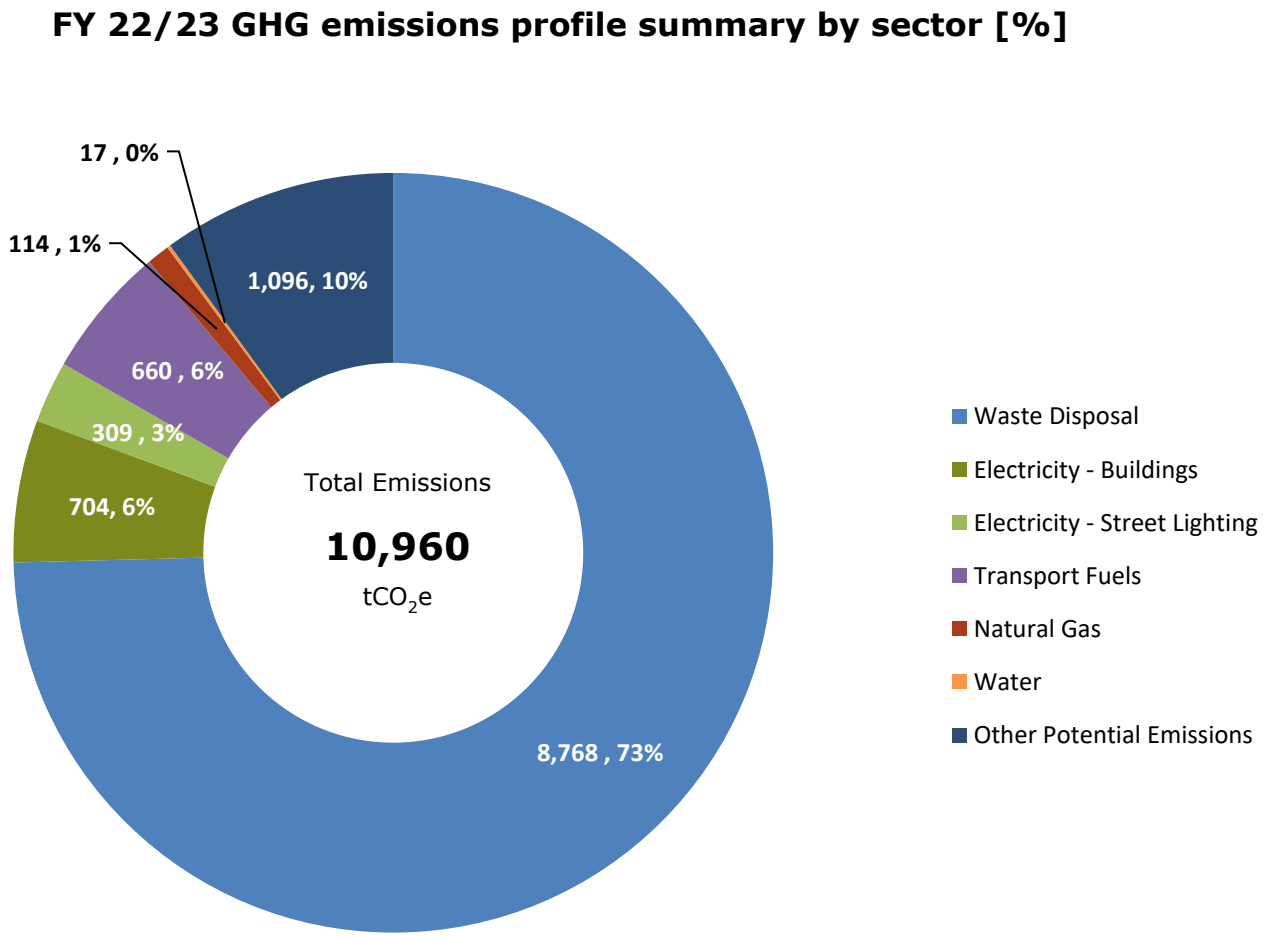
Emission sources include:

- **Waste disposal to landfill** (74%; 8,061 tCO_2e) | **Scope 1**
- **Electricity consumption** (9%; 1,013 tCO_2e) including buildings, street lighting, open space lighting | **Scopes 2 and 3**
- **Transport fuels** (6%; 660 tCO_2e) | **Scope 1 and 3**
- **Natural Gas** (1%; 114 tCO_2e) | **Scope 1 and 3**
- **Water supply and disposal** (<1%%; 17 tCO_2e) | **Scope 3**
- **Other potential emissions** (10%;1,096 tCO_2e)

Estimated *other potential emissions* have been included to account for the impact of incomplete or unavailable data of mostly Scope 3 emissions.

Table 2, provides a detailed breakdown of consumption, total emissions and Scope breakdown for BRCC in FY 2022/23.

Figure 2: 2022/23 Emissions profile summary by sector



4.2 2022/23 Detailed GHG Emissions Inventory

Table 2 shows the detailed breakdown of GHG emissions of Council corporate operations for 2022/23.

Table 2: 2022/23 Detailed GHG emissions inventory

Emissions Source	Consumption	Units	Emissions (tCO_2e)	% Total	Cost ($)
Direct emissions (scope 1)					
Transport - Diesel for fleet	84.26	kL	229.01	2.09%	$160,986
Transport - Diesel for plant	87.06	kL	236.60	2.16%	$165,273
Transport - Petrol for fleet	27.37	kL	63.30	0.58%	$45,897
Transport - Bio Diesel for fleet	1.29	kL	0.11	0.00%	$2,470
Transport - Bio Diesel for plant	2.65	kL	0.23	0.00%	$5,097
Natural Gas - Council owned/operated/occupied	2,050,322.47	MJ	105.65	0.96%	$24,740
Landfill fugitive emissions			8,061.00	73.55%	
TOTAL DIRECT EMISSIONS (scope 1)			**8,696**	**79.34%**	**$404,463**
Indirect emissions (scope 2)					
Electricity - Council owned/operated/occupied	765,014	kWh	650.26	5.93%	$211,671
TOTAL INDIRECT EMISSIONS (scope 2)			**650**	**5.93%**	**$211,671**
Indirect emissions (scope 3)					
Electricity - Street Lighting - DNSP owned	335,982	kWh	309.10	2.82%	$145,140
Water - Council owned/operated/occupied	9,968	tonne	16.88	0.15%	$45,908
Emissions from manufacture, transmission and other losses for electricity	765,014	kWh	53.55	0.49%	
Emissions from natural gas extraction, production and transport	2,050,322	MJ	8.20	0.07%	
Emissions from diesel extraction, production and transport for fleet & plant	171.32	kL	114.40	1.04%	
Emissions from petrol extraction, production and transport fleet	27.37	kL	16.10	0.15%	
Emissions from bio diesel extraction, production and transport fleet & plant	4	kL	-	0.00%	
Emissions Gap – other potential emissions		tonne	1,096	10.00%	
TOTAL INDIRECT EMISSIONS (scope 3)			**1,614**	**14.73%**	**$191,048**
TOTAL EMISSIONS (scope1+2+3)			**10,960**	**100.00%**	**$1,558,669**

4.3 Comparing FY 2016/17 and FY 2022/23 emissions

Figure 3 shows a significant increase in emissions from financial years 2016/17 to 2022/23 are mainly attributable to an increase in landfill and transport emissions. See Figure 4 for a breakdown according to sectors.

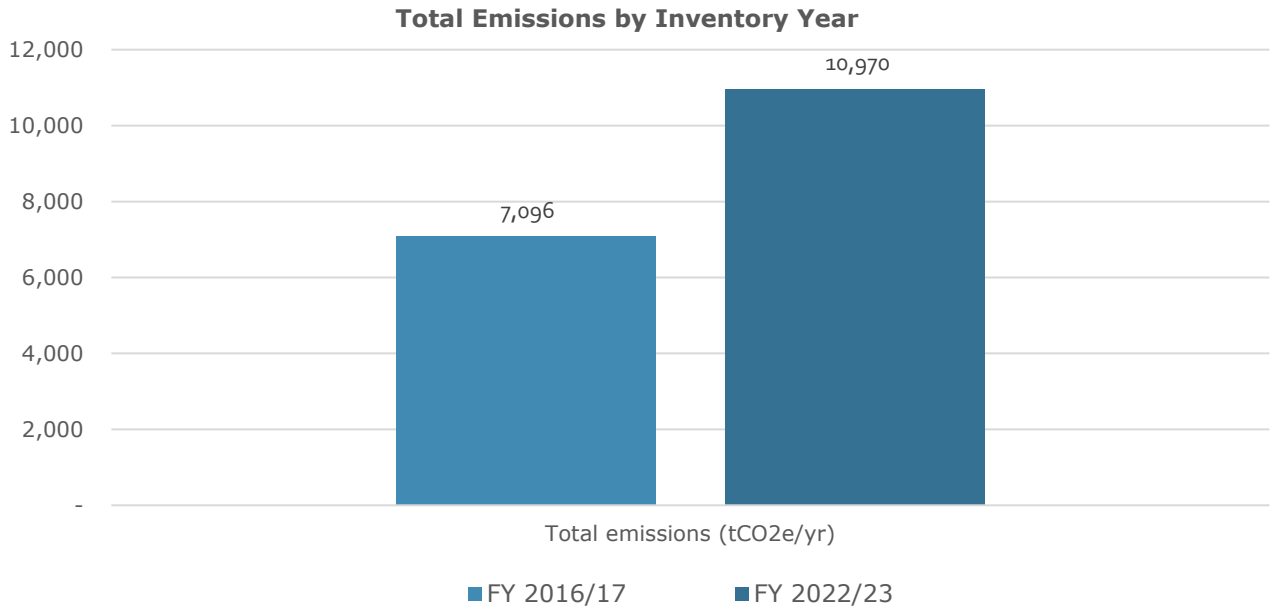


Figure 3: Historical trend over two financial years

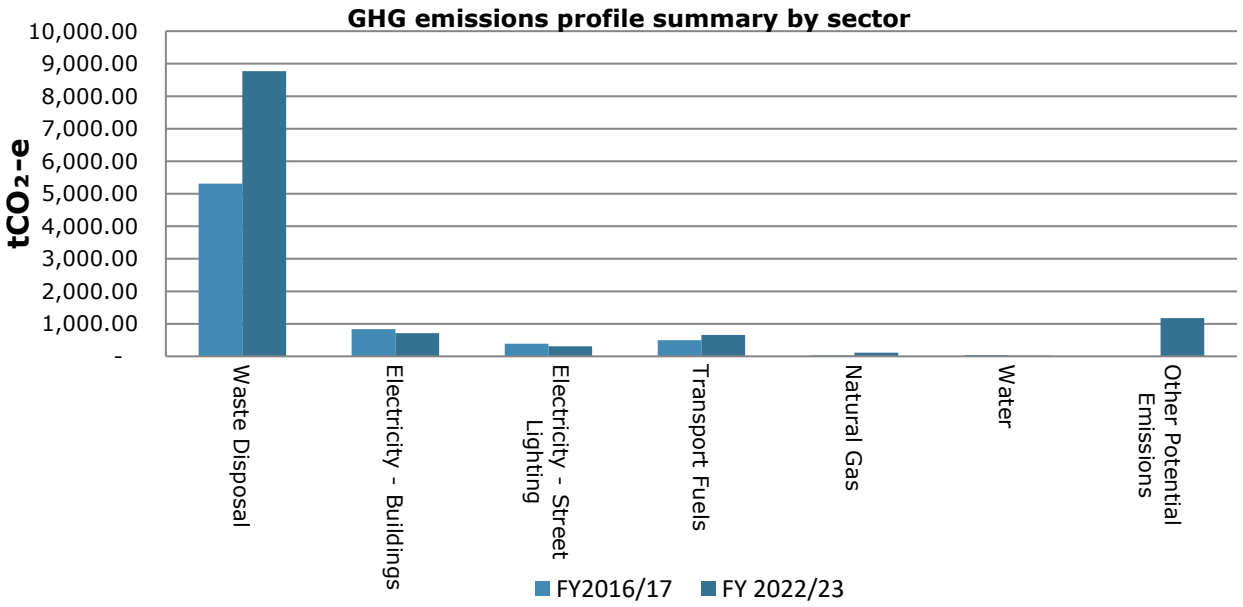


Figure 4: Historical trend over two financial years by sector

Identifying reasons for this increase requires further investigation and is not in the scope of this project. Possible justifications for increased emissions are outlined below:

- **Landfill** emissions increased from 5,311 to 8,061 tCO_2-e.
  - Accepting waste from neighbouring councils (to be investigated further)
  - Availability of more robust data due to improved data collection processes
- **Transport fuel** emissions increased from 496 to 660 tCO_2-e:
  - Availability of more robust data due to improved data collection processes
  - Expected rise in fleet/plant vehicles and fuel usage
- **Other potential emissions** of 1,096 tCO_2-e was included in FY2022/23 inventory to account for the impact of incomplete or unavailable data on the inventory.

5 Council's Current Inventory Methodology

Benalla Rural City Council 2022/23 corporate emissions inventory report on emissions that are under Council's operational control. The inventory is largely compliant with the NGERs framework and aligned to Climate Active.

Table 3 below summarises emissions included in Council's 2022/23 corporate inventory compared with what Council would need to report on to align with NGERS or Climate Active.

Appendix 3: Inventory Data, Sources and Approaches provides more detailed information on the required data, data sources and approaches for calculating emissions for each of the listed sources Table 3.

Appendix 2: Relevance Test provides a template to assess and record relevant emissions sources against the Climate Active Relevance Test.

Table 3: Gap analysis of emissions sources included by Council in 2022/23

Scope	GHG emissions sources	Benalla City Council reported emissions	To achieve minimal NGERS Compliance	Climate Active compliance (aligned or certified)
Scope 1	Transport Fuels (Bio Diesel, Diesel & Liquified Petroleum Gas)	✓	✓	✓
	Stationary Fuels (Gas, Diesel & Bottled Gas)	×	✓	✓
	Natural Gas	✓	✓	✓
	Fugitive Emissions (Refrigerants)	×	✓	✓
	Lubricants	×	✓	✓
	Waste - Landfill	✓	✓	✓
Scope 2	Electricity (Council)	✓	✓	✓
Scope 3	Electricity (Street Lighting)[4]	✓	✓	✓
	Water use (emissions produced through the processes associated with delivery of water to Council facilities, and disposal of wastewater)[5]	✓	✓	✓
	Concrete & Asphalt	×	×	✓
	Contractor Fuels	×	×	✓
	Accommodation	×	×	✓
	Air travel	×	×	✓
	Hire Cars and Taxis	×	×	✓
	Office Paper	×	×	✓
	Employee Commute	×	×	✓
	Transport Fuels (No operational control)	N/A	×	✓
	Stationary Fuels (No operational control)	N/A	×	✓
	Natural Gas (No operational control)	N/A	×	✓
	Lubricants (No operational control)	N/A	×	✓
	Electricity (No operational control)	N/A	×	✓

N/A – Not applicable

[4] Street lighting can be reported as a Scope 2 or 3 emission for councils depending on if they fall under council's operational control. Any metered open space lighting that Council owns and maintains is to be included as scope 2; however, all other streetlights owned by DNSP/DB is scope 3.

[5] Note that any council who is also a water retailer would report water emissions as scope 1 and scope 2, depending on the fuel/electricity usage associated with it.

6 Addressing Data Gaps

The greater the number of emissions sources reported, the greater Council's understanding of its impacts, and the greater opportunities for measurable reductions as Council moves towards emissions reduction action planning. Table 4 outlines the recommendations to focus on between now and the next inventory. These emissions sources represent the most significant emission gaps in Council's current inventory.

Table 4: Top 6 priority recommendations

Priority	Recommendation	Scope
1	Collection of electricity and gas data for all Council owned and managed facilities. Streamlining of NMI account names with asset names	2 & 3
2	Contractor Fuels	3
3	Concrete & Asphalt	3
4	Fugitive Emissions	1
5	Lubricants	1
6	Stationary Fuels	1

The data collection guide provided at the start of the project outlines the data requirements for each emission source. Refer to Appendix 3: Inventory Data, Sources and Approaches for more details.

7 Overview of Gaps by Emissions Source

This section provides an overview of each emissions source captured. Specifically, it provides:

- A description of the emissions source
- A summary of the data quality and issues
- Recommendations to improve emissions reporting going forward

7.1 Site List

7.1.1 Description

For data collection and tracking purposes it is important for Council to have a complete list of Council facilities along with the associated up to date data including connected electricity, gas and water data.

7.1.2 Data Quality and Issues

A site list was compiled using the utilities billing data provided by Council. Some issues were identified that may require further review:

- Asset names associated with the NMI, MIRN or Water meter, do not always align with the asset names in Council's asset register.
- Gas and electricity billing data was supplied for some sites that were not controlled or owned by Council. These sites included:
    - Gas billing data supplied for Benalla Timber Productions Pty Ltd
    - Electricity billing data supplied for Tafe Auditorium, 20 Bridge Street and 62 Nunn Street.

7.1.3 Recommendations

A key step to effective data management is having a comprehensive site/facility list. Ironbark recommends:

- Reviewing the site list annually to ensure each site includes the minimum data required: Site name; Site type; Address; Operational control (Council or other); Site category (Council, Community or Commercial); Account number; Identifier (NMI, MIRN, Water meter serial #).
- Ensure asset names align with the asset names in Council's asset register.
- Ensure Council is not receiving billing data or paying invoices for sites they do not operate or own.

7.2 Electricity (Including Renewable)

7.2.1 Description

Emissions from electricity fall under both the scope 2 and scope 3 emissions categories.

Scope 2 electricity defined as "indirect emissions from the generation of purchased energy" and includes electricity purchased for Council-owned and operated assets/occupied by community groups:

- Electricity (Council) – where Council owns and operates the asset
- Electricity (Community) - where Council owns a site, but it is occupied and operated by a community group

Scope 3 electricity emissions are calculated for the following emissions sources:

- Electricity (Street Lighting) – electricity consumption from street lighting
- Electricity (Commercial) - where Council owns a site, but it is occupied and operated by a business
- Electricity (Community) - where Council owns a site, but it is occupied and operated by a community group[6]
- Transmission and distribution – these are emissions that result from the manufacture, transmission losses and other losses of electricity consumed directly by all Council sites.

The emissions factors for electricity (both consumption and transmission) change year on year as they are calculated based on the energy mix and other factors which are highly changeable. This is in contrast to the emissions factors for some other sources such as fuels, which remain constant. Ironbark uses the emission factors published by the Federal Government in the National Greenhouse Accounts Factors documents for electricity emissions calculations.

7.2.2 Data Quality and Issues

Data quality for electricity based on billing data from electricity retailers; RedEnergy, AGL and Energy Australia. The category "Electricity - Council owned/operated/occupied" includes both lighting from buildings and from council-owned lighting such as security lighting and traffic lights. Street lighting is accounted for separately as a scope 3 emissions source as all street lights are DNSP owned and operated.

Behind the meter generated and consumed energy data was not available.

7.2.3 Recommendations

To improve the quality of future reporting Ironbark recommends an annual review of billing data:

- For the electricity accounts, as per NMI, it is recommended to check for 'leased properties' which Council is leasing out or leasing from third parties. Accordingly, Council should review and apply the Climate Active 'relevance test'.

[6] In special circumstances it can be argued that Electricity (Community) for a site falls under Scope 3 but this is rarely the case. Majority of Electricity (Community) sites fall under Scope 2.

- Currently all accounts where Council pays the bills are assumed to be under Council's "operational control". It is recommended that Council reviews the facilities that are leased and leased out and tag each account as:

    - Electricity (Council) – where Council, owns, operates, and occupies the site – reported as Scope 2
    - Electricity (Community) - where Council owns a site, but it is occupied and operated by a community group reported as Scope 2
    - Electricity (Commercial) – where Council owns a site, but it is occupied and operated by a business – reported as Scope 3

  From an organisational emissions perspective this will make no difference. However, for reporting purposes this will reallocate emissions to scope 3 and support prioritisation of emissions reduction actions.

- Perform an annual update on Council's site data to:

    - Review facilities are marked correctly as under Council operational control (Council control) or not under Council operational control (Other third-party control – Scope 3).
    - Ensure all NMIs which are being billed for are clearly linked to a council site.

- Establish a utilities billing review process to ensure bills are being received for all sites under Council control. If Council is receiving the electricity bills and then billing the tenant and Council does not control and implement key operational policies include a note and tag as not under Council operational control (Commercial).

- Ensure electricity data is being sourced from retailers. This is the preferred method of sourcing data as it includes more detail.

- Address any data gaps and ensure activity data covers 365 days for each NMI across small sites, large sites and street lighting. Many reasons can be attributed to incomplete utility data including disposed sites, closure of account or switching utility retailer. Where there is incomplete annual data, Council should investigate further each specific site – this will ensure inventory accuracy. If data gaps cannot not be reconciled, estimates should be made.

- Ensure activity data captures solar generation, self-consumption, and export to the grid (where relevant).

- Undertake a street light audit to develop a register identifying each light using either a nearby street address, or its GPS coordinates (e.g. for lights in parks).

7.3 Natural Gas

7.3.1 Description

Emissions from natural gas fall under both the scope 1 and scope 3 emissions categories.

Scope 1 emissions are defined as "direct emissions from owned or controlled sources" and are emissions created when Council burns a fuel in an owned asset: in this case a building using

gas. Scope 3 emissions are generated from the extraction, production and transport of gas for buildings.

Natural gas is largely consumed for heating or cooking so consumption is therefore heavily dependent on weather. For this reason, it is normal for gas consumption to fluctuate year on year. Variation of 10% between reporting periods is considered reasonable.

7.3.2 Data Quality and Issues

Gas data was based on Energy Australia and AGL billing data.

No distinction was made between sites that are Council occupied and those that are leased to community groups.

7.3.3 Recommendations

To improve the quality of future reporting Ironbark recommends an annual review of billing data:

- It is recommended that Council reviews the facilities that are leased and leased out and tag each account as:
    - Gas (Council) – where Council, owns, operates, and occupies the site – reported as Scope 2
    - Gas (Community) - where Council owns a site, but it is occupied and operated by a community group reported as Scope 2
    - Gas (Commercial) – where Council owns a site, but it is occupied and operated by a business – reported as Scope 3

  From an organisational emissions perspective this will make no difference. However, for reporting purposes this will reallocate emissions to scope 3 and support prioritisation of emissions reduction actions.

- Ensure all meters (MIRN) are clearly linked to a facility.
- Ensure bills are being received for all sites under council operational control, and that bills are not being received for sites which are not under Council operational control.
- Continue to address any data gaps and ensure activity data covers 365 days for each meter across sites. Any gaps that can't be reconciled should be estimated.

7.4 Bottled Gas (LPG)

7.4.1 Description

Emissions from LPG fall under the scope 1 and scope 3 emissions categories.

Scope 1 emissions are defined as "direct emissions from owned or controlled sources" and are emissions created when Council burns a fuel in an owned asset: in this case a building using LPG.

Scope 3 emissions are generated from the extraction, production and transport of LPG for buildings.

7.4.2 Data Quality and Issues

No LPG (Stationary fuel) data was available.

7.4.3 Recommendations

To improve the quality of future reporting Ironbark recommends an annual review of billing data:

- Council to ensure any LPG (Stationary Fuels) consumption data, including quantities, are stored at a central location.
- Ensure all purchases are clearly linked to a facility.
- Ensure bills are being received for all sites under Council operational control, and that bills are not being received for sites which are not under Council operational control.

7.5 Transport and Stationary Fuels

7.5.1 Description

Emissions from transport and stationary fuels fall under scopes 1 and 3:

- Scope 1 emissions cover emissions from the burning of fossil fuels (gasoline and diesel) by the fleet and plant under Council's direct control.
- Scope 3 emissions are generated from the extraction, production and transport of fuels.

Emissions from fuel consumption are divided into Fleet (Diesel and Petrol) and Plant (Diesel and Petrol):

- **Transport Fuels** covers Council's vehicle fleet, and off-road (plant) vehicles.
- **Stationary Fuels** includes emissions from fuel consumption for electricity generation (diesel generators), fuels consumed in construction, and other sources like domestic heating, and plant fuel consumption.

7.5.2 Data Quality and Issues

Council provided consumption data in litres for diesel, biodiesel and petrol across Council fleet. Data was provided in the form of a transaction spreadsheet and included plant and fleet data. It was difficult to determine if some of the data in the plant spreadsheet included stationary fuel. For the purpose of this inventory all petrol and diesel consumed is listed under transport fuels.

7.5.3 Recommendations

- To improve the quality of future reporting Ironbark recommends the following:
    - Continue requesting standard fuel consumption reports from the supplier and improve existing reporting systems for fuel consumption in litres ensuring fuel type and category (fleet or plant) are clearly marked, and costs are recorded alongside consumption volumes.
- To help identify available fuel alternatives and to improve the visibility of any savings we suggest Council distinguish fuel consumption using the following categories:

- **Passenger fleet vehicles**: this is basically staff cars - sedans, wagons, SUVs
- **Heavy fleet** Trucks, Buses
- **Light Commercial**: Utes, Vans
- **Plant**: excavator, grader, loader, backhoe, digger, roller, forklift, compactor, tractor, mower, sweeper, tipper, etc.
- **Stationary energy**: generator, boiler, hot water heater, oil heater, fuel stove.

Or at its simplest, separate out 'Plant' (diggers etc) from road vehicles 'Fleet'.

- It is recommended that Council maintain the fleet/plant list to capture all registration numbers and associated details.
- Ensure transport fuel consumption data quantities are captured and appropriately labelled.
- Ensure additional stationary fuel (other than LPG gas bottles) consumption data quantities are captured and appropriately labelled.

7.6 Waste disposal to Landfill

7.6.1 Description

As the landfill is under operational control of Council, emissions from waste to landfill are considered Scope 1 emissions. Waste disposal to landfill is one of the few emission sources that leaves legacy emissions (those incurred from waste deposited prior to the inventory year).

7.6.2 Data Quality and Issues

Data was provided of waste quantities being disposed to Benalla Landfill and Resource Recovery Centre across Municipal (M), Commercial & Industrial (C&I), and Construction & Demolition (C&D) from FY 2019/20 through to FY 2022/23. BRCC have had FOGO since 2015.

7.6.3 Emission Factor

For this emission source, NGER Solid Waste Calculator was used – which has inbuilt emission factors.

7.6.4 Recommendations

Council to continue the current practice of data collection, however, Council can establish a process to further split waste mix types across each stream type, i.e. food, paper & paperboard, garden & park, wood & wood waste, textiles, sludge, nappies, rubber & leather, and inert material (only if affordable to do so).

Ensure the following is captured:

- Quantities of waste being routed to biological treatment (either using compost or anaerobic digestion) – if applicable
- Capturing diversion of overall quantities towards organic/food/garden, recycling – wherever possible
- Total gas (m^3) being flared (CH4 only) at the active landfill site.

Ironbark also recommends Council uses the NGER Solid Waste Calculator to monitor emissions. The calculator can be found at: https://www.cleanenergyregulator.gov.au/DocumentAssets/Pages/NGER-Solid-Waste-Calculator-2022-23.aspx

7.7 Water and Wastewater

7.7.1 Description

Council's emissions from water supply and disposal fall under scope 3 indirect emissions. This figure includes water supplied to Council owned and controlled buildings and facilities. No differentiation has been made between Council's buildings and commercial or community buildings, nor for non-building consumption such as irrigation.

7.7.2 Data Quality and Issues

North East Water billing data consisted of individual invoices (.pdf format) supplied by Council. There are a few potential issues with the data which Ironbark has not been able to verify within the scope of this project:

- It is unclear if the data is only for Benalla Rural City Council owned, occupied and operated sites where Benalla Rural City Council has operational control or whether it includes sites that are not occupied by Benalla Rural City Council and if so whether the Council has operational control.
- It is unclear whether data covers all of Benalla Rural City Council water usage including water for irrigation or road works.
- Some water accounts did not have 365 days' worth of data - data was estimated to cover the full reporting period for these accounts. This amounts to less the 1% of Council's water consumption.

7.7.3 Recommendations

To improve the quality of future reporting Ironbark recommends an annual review of billing data:

- It is recommended that Council reviews the facilities that are leased and leased out and tag each account as:
    - Water (Council) – where Council, owns, operates, and occupies the site – reported as Scope 2
    - Water (Community) - where Council owns a site, but it is occupied and operated by a community group reported as Scope 2
    - Water (Commercial) – where Council owns a site, but it is occupied and operated by a business – reported as Scope 3
- Ensure all water consumption data, including quantities, water meter # and water account # are entered in a central location.

- Ensure all meters are clearly linked to a facility or site.
- Ensure bills are being received for all sites under Council operational control, and that bills are not being received for sites which are not under Council operational control.
- Continue to address any data gaps and ensure activity data covers 365 days for each meter across small sites, large sites and street lighting. Any gaps that can't be reconciled should be estimated.

7.8 Contractor Fuels

7.8.1 Description

Contractor fuels is a scope 3 emissions source and is related to contractor fuel consumption. The emissions total for Contractor fuels includes direct emissions from the burning of fuel and indirect emissions from production, and transportation. Examples are waste and road works contractors.

It is possible that Council hires a large number of contractors and often on an ad hoc basis, however, to begin with, Council could identify contractors that:

- provide services on a regular basis
- provide services that are typically delivered by Council but outsourced to a third party
- provide services where fuel consumption and emissions are likely to be significant

7.8.2 Data Quality and Issues

As data is not currently collected Contractor fuels and have not been included in the inventory. This has been recorded as a gap to be resolved in the next reporting period. Based on Ironbark's experience with peer Councils we would estimate emissions from contractor fuels to range between 500-3,000 tCO2-e.

7.8.3 Recommendations

To facilitate future reporting Ironbark recommends the following:

- Contact your contractors to provide details on the fuel type and litres of fuel consumed. See the Data Collection Guide provided by Ironbark for information on the fields required. It is recommended that Council discuss these reporting requirements with the appropriate team at the beginning of the reporting period to ensure the correct details are collected.
- Council identifies contractors that fit a certain (Council decided) criterion and informs the relevant contractors that they will be required to provide fuel consumption reports on a financial year basis.
- Work with the procurement team to ensure this requirement is included in future contracts. Additionally, this provides a valuable opportunity for Council to embed sustainability and emissions considerations into local decision making more broadly.

- Store Contractor fuel data in a central location.

7.9 Fugitive Gases

7.9.1 Description

Fugitive emissions are a Scope 1 emissions source and occur where refrigerants with a high Global Warming Potential leak into the atmosphere and can be grouped as:

- usage of refrigerants in heating ventilation and air conditioning (HVAC) systems in council owned and operated buildings
- refrigerant usage in vehicles

7.9.2 Data Quality and Issues

Fugitive gas usage data in Council's buildings (HVAC) and vehicle (fleet/plant) was unavailable and has been identified gap in the inventory.

7.9.3 Recommendations

To facilitate future reporting Ironbark recommends the following:

- For large heating ventilation and air conditioning systems, work with Council's building air conditioning maintenance team to record the type of refrigerant and the amount (kilograms) used each year for maintenance.
- For smaller reverse cycle air conditioners, record the number of units used in Council buildings and the type and charge of refrigerant used and apply standard yearly leakage factors.
- Similarly work with the team maintaining Council's vehicles to record the type of refrigerant and the amount (kilograms) used for vehicle maintenance.
- Record the number of fridges used in Council buildings and the type and charge of refrigerant used and apply standard yearly leakage factors.
- Store fugitive data in central location.

To improve the accuracy of this calculation, there are primarily two methods to calculate fugitive gases for buildings:

- Council's AC contractor provides actual tonnes of refrigerant gases by refrigerant type for the financial year.
- Deriving the refrigerant capacity from the label on the HVAC unit and applying a leakage rate to calculate the GHG emissions.

Suggested sources for activity data:

- For large heating ventilation and air conditioning systems / smaller reverse cycle air conditioners - building air conditioning maintenance team
- For refrigerant top-up in vehicles - team maintaining Council's vehicles

7.10 Lubricants

7.10.1 Description

Emissions from lubricants fall under scope 1 and scope 3. Scope 1 covers emissions from lubricant use by council, whereas scope 3 covers emissions from extraction, production and transport. There are two emissions factors available for lubricants: one for oils and one for greases. It is therefore important that the lubricant type is reported as well as the volume consumed.

7.10.2 Data Quality and Issues

No activity data was provided for lubricant consumption across Council corporate operations. This has been recorded as a gap to be resolved in the next reporting period.

7.10.3 Recommendations

To improve the quality of future reporting Ironbark recommends the following:

- Investigate ways to capture the use of both oil and greases within Benalla Rural City Council's operations from vehicle/plant servicing and depots ensuring lubricant types, oils or grease, and volume (litres and/or kgs) is specified.

7.11 Asphalt and other Construction Materials

7.11.1 Description

Councils are responsible for a wide range of hard surface infrastructure, construction, repair and specification, that includes

- Roads,
- Footpaths and driveway cross overs
- Shared paths
- Car parks
- Drainage and water infrastructure
- Outdoor sporting courts such as tennis, netball, basketball and skating

Asphalt & associated construction materials is a scope 3 emissions source and this covers concrete, asphalt and gravel aggregate used for road reconstruction or road works which have been contracted by Council during the reporting period. Concrete and asphalt use can vary significantly depending on the works executed during the reporting period. This emissions source may be significant in future years.

7.11.2 Data Quality and Issues

No activity data was available for construction materials across Council corporate operations. This has been recorded as a gap to be resolved in the next reporting period.

7.11.3 Recommendations

To facilitate future reporting Ironbark recommends the following:

- Inform the procurement or road projects team that they will be required to provide data (asphalt, concrete, other data for road construction, etc.) for Council reporting, on annual basis.

- Aim to get as much detail about the data as possible including the amount of crude oil used and the amount of aggregate and any information available about the aggregate such as recycled content.

- Ensure data collection includes information on other infrastructure emission sources, especially concrete (i.e., emissions from road building are typically 50% from concrete and 50% from the rest of the road building), land clearing (for new or expanded roads) and contractor vehicles.

7.12 Office Paper

7.12.1 Description

Office paper is a scope 3 emission source and includes all printer/copier paper purchased during the reporting period.

7.12.2 Data Quality and Issues

No activity data was available for construction materials across Council corporate operations. This has been recorded as a gap to be resolved in the next reporting period.

7.12.3 Recommendations

To facilitate future reporting Ironbark recommends the following:

- Establish reporting systems to request an annual report of paper consumption from the procurement team or paper supplier.

- Work with the procurement team to develop a report format on office paper usage (number of reams and paper type and size purchased during the reporting period), for Council reporting on an annual basis. Going further, the paper consumption can be captured across the different divisions, thereby further enabling actions to reduce consumption.

- Where budget and practicality allow, purchase Carbon Neutral certified paper.

7.13 Accommodation

7.13.1 Description

Accommodation is a scope 3 emission source and includes emissions generated from the energy consumed by accommodation used by Council staff when travelling on business.

7.13.2 Data Quality and Issues

Accommodation emissions data is not currently collected and has not been included in the inventory. This has been recorded as a gap to be resolved in the next reporting period.

7.13.3 Recommendations

To facilitate future reporting Ironbark recommends the following:

- Activity data to be collected (Refer the Data Collection Guide provided by Ironbark for information on the fields required)
    - The state or country in which accommodation is located and whether the location is regional or metropolitan
    - Star rating of accommodation
    - Number of nights stayed

- Suggested sources:
    - Committee Support Team or Finance Team
- Ensure all relevant details (as outlined in the Data Collection Guide provided by Ironbark) are included in reporting, across the areas where council has an operational control
- Work with and inform the finance or corporate strategy team that they will be required to provide detailed data annually in a standard format on accommodation for business travel for Council reporting.
- It is recommended that Council discuss these reporting requirements with the appropriate team at the beginning of the reporting period to ensure the correct details are collected.

7.14 Air travel

7.14.1 Description

Flights for business travel is a scope 3 emissions source and covers all flights taken by Council employees and non-council staff on Council business.

7.14.2 Data Quality and Issues

Flights emissions data is not currently collected and has not been included in the inventory. This has been recorded as a gap to be resolved in the next reporting period.

7.14.3 Recommendations

To facilitate future reporting Ironbark recommends the following:

- Activity data to be collected (Refer the Data Collection Guide provided by Ironbark for information on the fields required)
    - No. of passengers
    - Date of travel
    - Departure and arrival location
    - Single/return
    - Class (Economy/Business)
    - Cost
    - Distance (km)

- Suggested sources
    - Corporate strategy or finance team

- Ensure all relevant details (as outlined in the Data Collection Guide provided by Ironbark) are included in reporting, across areas where Council has an operational control

- Work with and inform the Finance or Committee Support Team that they will be required to provide detailed data annually in a standard format on flights including:
    - Departure and destination cities and class of travel for all flights.
    - Use the departure and destination cities to determine km travelled.

- Apply the relevant (DEFRA) emission factors for the km and class of travel.

- It is recommended that Council discuss these reporting requirements with the appropriate team at the beginning of the reporting period to ensure the correct details are collected.

7.15 Hire Cars and Taxis

7.15.1 Description

Hire cars and taxis are a scope 3 emissions source and covers taxi/cab travel by Council employees, and fuel used by hire cars.

7.15.2 Data Quality and Issues

Hire cars and taxis emissions data is not currently collected and has not been included in the inventory. This has been recorded as a gap to be resolved in the next reporting period.

7.15.3 Recommendations

Contact your finance team for a list of Council travel using hire cars, Ubers or taxis for the reporting period. Expand the data required under this category to include vehicle type, vehicle fuel type and charge ($).

7.16 Employee Commute

7.16.1 Description

Council employee commute between work and home is a scope 3 emissions source.

7.16.2 Data Quality and Issues

Employee commute data is not currently collected and has not been included in the inventory. This has been recorded as a gap to be resolved in the next reporting period.

7.16.3 Recommendations

To facilitate future reporting Ironbark recommends the following:

- Council conduct Annual Employee Survey to capture staff commuting patterns. See Appendix 3: Inventory Data, Sources and Approaches for a sample of Council staff data required.

- Survey to provide a snapshot of how staff commute to and from Council office locations over a defined period. This should include modes of transport, distance travelled, vehicle fuel efficiencies and fuel types (including electricity).

- An example Staff Survey Questionnaire has been provided. See Appendix 4: Staff Commute Survey

Appendix 1: Glossary

Table 5: Glossary of terms

Term	Definition
CCA	Climate Change Authority
CFL	Compact fluorescent lamp
CH_4	Methane
CMS	Carbon Management System
CO_2	Carbon dioxide
CO_2-e	Carbon dioxide equivalent. The universal unit of measurement to indicate the global warming potential (GWP) of each GHG, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate the climate impact of releasing (or avoiding releasing) different GHGs on a common basis.
COAG	Council of Australian Governments
DNSP	Distribution Network Service Provider, also known as Energy Distribution Business (DB) also known as distributors.
Emissions Factor (EF)	An emissions factor is a measure of the mass of Emissions relative to a unit of activity.
ERF	Emissions Reduction Fund
FOGO waste	Food and garden organic waste
GHG	Greenhouse gas
Greenhouse Gas Protocol	The Greenhouse Gas Protocol, developed by World Resources Institute and World Business Council on Sustainable Development, sets the global standard for how to measure, manage, and report Emissions.
Global Covenant of Mayors	Global Covenant of Mayors for Climate & Energy is a coalition of city leaders addressing climate change by pledging to reduce their greenhouse gas emissions, tracking their progress, and preparing for the impacts of climate change. It was formed through a merger of the Compact of Mayors and the Covenant of Mayors.
GWP	Global Warming Potential. The Global Warming Potential was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of one tonne of a gas will absorb over a given period of time, relative to the emissions of one tonne of carbon dioxide
ICLEI	International Council for Local Government Initiatives
IPCC	Intergovernmental Panel on Climate Change
kt	Kilotonne
MSW	Municipal solid waste - Solid waste generated from municipal and residential activities, and including waste collected by, or on behalf of, a municipal council. MSW does not refer to waste delivered to municipal disposal sites by commercial operators or waste from municipal demolition projects.
Mt	Megatonne
NA	Not available

Term	Definition
NGER	National Greenhouse and Energy Reporting Scheme
PV	Photovoltaic
SDT	Science-Derived Targets, sometimes also referred to as Science-"Based" Targets.
Street lighting	Street lighting found in residential streets and main roads
TS	Transfer Station – Facilities where collection vehicles deposit waste and/or recyclables collected from elsewhere. (Waste or recyclables are then put into larger transfer vehicles for transport to a landfill site, MRF or resource recovery facility.) Transfer stations may be used by both individuals and vehicles and may include recycling facilities and facilities for compacting and baling waste and recyclable materials.
UNFCCC	United Nations Framework Convention on Climate Change
Waste	Any discarded, rejected, unwanted, surplus, or abandoned matter including material intended for recycling, reprocessing, recovery, purification, or sale. In this document, the term 'solid waste' refers to non-hazardous, non-prescribed, solid waste materials ranging from municipal garbage to industrial waste.
WRI	World Resources Institute

Appendix 2: Relevance Test

Going forward, it is recommended to Council to refer to the below Relevance Test by Climate Active.

Table 6: Climate Active relevance test for emission source

Emission Source	Relevance Test (relevant if at least two of the following criteria are met)				
	The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions.	The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.	If key stakeholders deem the emissions from a particular source are relevant.	The responsible entity has the potential to influence the reduction of emissions from a particular source.	The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.

Appendix 3: Inventory Data, Sources and Approaches

Table 7: GHG emission activity data, sources, and calculation approaches

GHG Emission Source	Activity data to be collected	Suggested sources	Emissions Calculation Approach
Scope 1			
Transport Fuels (Petrol) Transport Fuels (Diesel) Transport Fuels (LPG) Stationary Fuels (Petrol) Stationary Fuels (Diesel) Stationary Fuels (LPG)	• Consumption/ quantity; OR • Fuel invoices	• Activity data from Fleet Management System • Fuel consumption reports from the supplier • Fuel consumption reports from Fleet Manager / Fuel Card • Fuel consumption reports from finance – bulk fuel from depot • Purchases of bottled gas – invoices/reports from supplier	**Approach #1** • Activity data (Consumption quantity) (x) Emission factor provided by National Greenhouse Accounts (Table 3: Fuel combustion emission factors) **Approach #2** • Fuel Spend ($) converted into fuel usage quantity using average $/litre (x) Emission factor provided by National Greenhouse Accounts (Table 3: Fuel combustion emission factors) **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national-greenhouse-accounts-factors-2021.pdf
Natural Gas	• Asset/ Account/ Type • MIRN/DPI • Bill Start Date (dd-mm-yyyy) • Bill End Date (dd-mm-yyyy) • Total Consumption [MJ] • Usage cost ($) • Total cost ($)	• Billing Data from Building Facilities Management team • Reports from suppliers	• Consumption quantity (x) Emission factor provided by National Greenhouse Accounts (Table 2: Emission factors for the consumption of gaseous fuels) • **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national-greenhouse-accounts-factors-2021.pdf
Fugitive Emissions (Refrigerants)	• For large heating ventilation and air conditioning systems - the type of refrigerant and the amount (kilograms or litres) used/top-up each year for maintenance. • For smaller reverse cycle air conditioners - number of units used in Council buildings and the refrigerant type and total charge (kg) in system – standard leakage rates can then be applied • For refrigerant top-up in vehicles - type of refrigerant and the kg/litres used/top-up for vehicle maintenance each year • Number of fridges used in Council	• For large heating ventilation and air conditioning systems / smaller reverse cycle air conditioners - building air conditioning maintenance team • For refrigerant top-up in vehicles - team maintaining Council's vehicles • Council procurement division	**Approach #1** • Refrigerant top-up quantities (x) DEFRA refrigerant unit conversion factors **Approach #2** • Default/Average Leakage Rate (either from equipment supplier or from Australian Institute of Refrigeration, Air Conditioning and Heating) (x) Refrigerant quantity (x) Global Warming Potential of Refrigerant • **Global Warming Potential (GWP)** of refrigerants can be accessed at www.awe.gov.au/environment/protection/ozone/rac/global-warming-potential-values-hfc-refrigerants

GHG Emission Source	Activity data to be collected	Suggested sources	Emissions Calculation Approach
	buildings and the type and charge of refrigerant used and leakage rates		
Lubricants (Oil)	• Volume (L) of oil used in the reporting period	• Council procurement division • Mechanics service provider who service Council vehicles and plant	• Consumption quantity (x) Emission factor provided by National Greenhouse Accounts (Table 3: Fuel combustion emission factors) • **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national-greenhouse-accounts-factors-2021.pdf
Lubricants (Grease)	➢ Weight (kg) of grease used in the reporting period	• Council procurement division • Mechanics service provider who service Council vehicles and plant	• Consumption quantity (x) Emission factor provided by National Greenhouse Accounts (Table 3: Fuel combustion emission factors) • **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national-greenhouse-accounts-factors-2021.pdf
Waste to Landfill	Refer to the data collection guide, BNL_STR_001_GHG_Inventory_Data_Collection_Guide_v1d	Council landfill and waste division	• Refer to the data collection guide, BNL_STR_001_GHG_Inventory_Data_Collection_Guide_v1d
Fugitive emissions of Landfill	Refer to the data collection guide, BNL_STR_001_GHG_Inventory_Data_Collection_Guide_v1d	Council landfill and waste division	• Refer to the data collection guide, BNL_STR_001_GHG_Inventory_Data_Collection_Guide_v1d
Wastewater treatment plant	Refer to the data collection guide, BNL_STR_001_GHG_Inventory_Data_Collection_Guide_v1d	Council wastewater treatment plant	• Refer to the data collection guide, BNL_STR_001_GHG_Inventory_Data_Collection_Guide_v1d
Scope 2			
Electricity (Council) *Emissions produced through the electricity used by buildings that Council owns and occupies*	• NMI • Bill start Date • Bill end Date (bill start date and bill end date should overall cover 365 days in the reporting period) • Total Consumption (kWh) • Usage cost ($) • Total cost ($)	• Utility bills from the electricity retailer or finance department (preferably a spreadsheet with all data for the financial year) • Utility Management System	• Activity data (Consumption quantity) (x) Emission factor provided by National Greenhouse Accounts (Table 46: Scope 2 and 3 emissions factors – consumption of purchased electricity by end users) • **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national-greenhouse-accounts-factors-2021.pdf
Scope 3			
Street Lighting[7] *Emissions produced through the electricity used by street lights that Council pays the bills for*	➢ Electricity consumption quantities are included in the bills provided by the retailer	➢ Electricity bills from the retailer	➢ Consumption quantity (kWh) (x) Emission factor provided by National Greenhouse Accounts (Table 46: Scope 2 and 3 emissions factors – consumption of purchased electricity by end users) ➢ **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national

[7] Street lighting can be reported as a Scope 2 or 3 emission for councils depending on if they fall under council's operational control. Any metered open space lighting that Council owns and maintains is to be included as scope 2; however, all other streetlights owned by DNSP/DB is scope 3.

GHG Emission Source	Activity data to be collected	Suggested sources	Emissions Calculation Approach
			-greenhouse-accounts-factors-2021.pdf
Electricity (Commercial) *Emissions produced through the electricity used by buildings that Council owns but does not occupy*	➢ Electricity consumption quantities are included in the bills provided by the retailer	➢ Electricity bills from the retailer	➢ Consumption quantity (kWh) (x) Emission factor provided by National Greenhouse Accounts (Table 46: Scope 2 and 3 emissions factors – consumption of purchased electricity by end users) ➢ **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national-greenhouse-accounts-factors-2021.pdf
Contractor Fuels *Where council contracts other companies to undertake works for them that use large amounts of fuel, Council should report the emissions for the fuel use as their Scope 3 emissions. Examples are waste and road works contractors.*	• Fuel type (ULP, Diesel, LPG) • Litres of fuel consumed of each type	• Contractors to collect fuel used on Council projects. • Procurement team	**Approach #1** • Fuel consumption quantity by fuel type (e.g. petrol, diesel) for each contractor or collectively * Emission factor provided by National Greenhouse Accounts (Table 3: Fuel combustion emission factors) **Approach #2** ➢ Fuel spend ($) converted into fuel quantity (x) emission factor provided by National Greenhouse Accounts (Table 3: Fuel combustion emission factors) **National Greenhouse Accounts Factors 2021** can be accessed at www.industry.gov.au/sites/default/files/August%202021/document/national-greenhouse-accounts-factors-2021.pdf **How to select which contractor to include?** • It could be decided internally; however, some suggestions are as follows: ○ Contractors with annual spend ($) > $100,000 ○ Top 3 Contractors in order of spend ($)
Water use *Emissions produced through the processes associated with delivery of water to Council facilities, and disposal of wastewater*	• Account # / meter serial # • Asset name • Bill start date • Bill end date • Water volume consumed (kL) • Usage charges ($) • Total charges ($)	• Utility bills from the water retailer or finance department (preferably a spreadsheet with all data for the financial year) • Utility Management System	If Water operations under Council Operational Control: • Emissions from water usage in the operations need to be reported as Scope 2 emissions If Water operations outside Council Operational Control: emissions from water usage to be accounted as Scope 3 (limited to water usage in Council owned and operated buildings). Water usage quantity x emission factor provided by the Bureau of Meteorology, as follows: • Bureau of Meteorology's National performance report 2019-20: urban water utilities. • Table 2.3 Average volume of residential water supplied per property (kL/property)

GHG Emission Source	Activity data to be collected	Suggested sources	Emissions Calculation Approach
			• Table 2.6 Total net greenhouse gas emissions per 1,000 properties (t CO2 equivalent/1,000 properties • Report can be accessed at www.bom.gov.au/water/npr/docs/2019-20/National_Performance_Report_2019-20_urban_water_utilities.pdf
Corporate Waste *Emissions created from the waste produced at Councils' sites* *If the landfill is not under Council's operational control, emissions from waste to landfill will be accounted as Scope 3 emissions.*	• Quantity of Municipal (MSW), Commercial & Industrial (C&I), Construction & Demolition (C&D) as broad waste stream category or bifurcated into composition categories (Mixed Waste, Asbestos, Veterinary Waste, Vegetation or Garden, Compost of Mulch, Soil, Bricks and Concrete, Plasterboard, Batteries, E-Waste, Ferrous (Iron or Steel), Oil, Mattresses, Tyres, Commingled Recyclables, Paper or Cardboard, Plastic, Glass) OR • Total quantities of waste going to landfill or recycling across MSW, C&I, C&D categories OR • Total quantities of waste going to landfill, recycling, green waste, food waste	• Waste activity data from Waste services • Kerbside waste audit report / Corporate Waste Team • Data from landfill on the disposed/received quantities	**Approach #1** • Quantity of waste by type (x) Emission factor provided by National Greenhouse Accounts (Table 47: Waste mix methane conversion factors) • Waste types o Food o Paper and cardboard o Garden and green o Wood o Textiles o Sludge o Nappies o Rubber and leather o Inert waste (including concrete/metal/plastics/glass) o Alternative waste treatment residues) **Approach #2** (if quantities of waste by types are not available) • Quantity of waste (x) Emission factor provided by National Greenhouse Accounts (Table 49: Waste emission factors for total waste disposed to landfill by broad waste stream category) • Waste quantities to be segregated by o Municipal solid waste o Commercial and industrial waste o Construction and demolition waste
Scope 3 components of Scope 1 and Scope 2 emissions • Electricity • Transport fuels • Natural Gas • Stationary fuels • Lubricants	Activity data to be sourced from Scope 1 and Scope 2 entries Activity data to be sourced from Scope 1 and Scope 2 entries		• Consumption quantities (x) Scope 3 Emission factors provided by National Greenhouse Accounts
Air travel *Flights for business travel is a scope 3 emissions source and covers all flights taken by Council*	• Passenger name (optional) • No of passengers • Date of travel • Departure and arrival location • Single/return • Class (Economy/Business)	Corporate strategy or finance team	• Distance (x) emission factor provided by UK Government GHG Conversion Factors for Company Reporting. www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021 • Emission factors: o Domestic economy: 0.24587 kgCO2e/passenger.km

GHG Emission Source	Activity data to be collected	Suggested sources	Emissions Calculation Approach
employees, and non-council staff on Council business.	• Cost • Distance (km)		○ Short-haul Economy: 0.15102kgCO2e/passenger.km ○ Short-haul Business: 0.22652 kgCO2e/passenger.km ○ Long-haul Economy: 0.14787 kgCO2e/passenger.km ○ Long-haul Business: 0.42882 kgCO2e/ passenger.km • Haul types are based on the following distances as guided by the United Kingdom (UK) Department for Environment, Food & Rural Affairs (DEFRA): ○ domestic: 0-500km ○ short-haul = 501-3,700km ○ long-haul > 3,700km.
Hire Cars and Taxis *Hire cars and taxis are a scope 3 emissions source and covers taxi/Uber travel by council employees, and fuel used by hire cars.*	• Taxi/Uber/Ride Share – $ spend • For hire cars need fuel type: Diesel, ULP, LPG and litres used or $ spend	Corporate strategy or finance team	**Approach #1** • Fuel consumption quantity (x) emission factor provided by National Greenhouse Accounts (Table 3: Fuel combustion emission factors) **Approach #2** • Spend ($) to be converted to Km using CBD average $ cost per km ○ Sydney - $2.26 ○ Melbourne - $1.73 ○ Brisbane - $2.17 ○ Adelaide - $1.96 ○ Perth - $1.72 ○ Hobart - $2.04 ○ Darwin - $1.67 ○ Canberra - $2.13 • Distance (km) (x) Emission factor provided by Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2020, National Transport Commission: ○ Table 16: Average emissions intensity and annual sales by detailed buyer type for the MA category, 202 • Emission factor for taxis EF = 0.102 (kg.CO2e/km)
Office Paper *Office paper is a scope 3 emission source and includes all printer/copier paper purchased across council operations during reporting period.*	• Stock description (type of paper/brand) • Base unit (ream, pack, box, etc.) • Quantity of base unit • Paper size (A4, etc.) • Recycled content (%) • GSM (weight of paper) • Whether paper is FSC certified or Carbon Neutral (optional)	Corporate strategy or finance team	• Paper consumption quantity (x) emission factor by EPA (1374.1: Greenhouse gas emissions factors for office copy paper | Environment Protection Authority Victoria) (www.epa.vic.gov.au/about-epa/publications/1374-1)
Employee commuting (vehicle)	• Employee Survey to be conducted to capture staff commuting patterns for a sample of Council staff.	• Employee survey	**Approach #1** • Fuel consumption quantity (restricted to employee commuting purposes only) by fuel type (e.g. petrol, diesel) * Emission factor provided by

GHG Emission Source	Activity data to be collected	Suggested sources	Emissions Calculation Approach
	• Survey to provide a snapshot of how staff commutes to and from Council office locations over a defined period. This should include modes of transport, distance travelled, vehicle fuel efficiencies and fuel types (including electricity).		National Greenhouse Accounts (Table 3: Fuel combustion emission factors) **Approach #2** • Distance (Km) converted into fuel consumption quantity via fuel efficiency of motorbikes/scooters/ cars (kWh/100km) **Reference Emission Factors (Source: EPA 2018-19); Unit (kg.CO2-e/km)** • Walk = 0, • Bike = 0, • Motorbike/scooter = 0.09, • hybrid car = 0.12, • small car = 0.17, • medium car = 0.23 • large car = 0.25
Employee commuting (public transport)	• Questions around staff travel in an appropriate annual Council staff survey. • Data required is km travelled for each mode of travel. Typically, surveys ask for main mode of travel, days/week used and estimate of km travelled. For e.g. ○ Travel card # ○ Date/Time ○ Transaction type: touch on / off ○ Service: Tram, Bus, Train ○ Zone ○ Cost	Corporate strategy team or finance team for council issued travel card records, or expenses information for council travel using public transport for the reporting period. If the travel card is registered to Council, this data should be available from the online account	**Approach #1** Passenger km (x) emission factors (Source: EPA 2018-19); Unit (kg.CO2-e/km) • tram = 0.12 • train (metro) = 0.02 • bus = 0.12 **Approach #2** Passenger km (x) emission factors (Source: Department for Business, Energy and Industrial Strategy - Greenhouse gas reporting conversion factors 2021; Government of UK); Unit (kg.CO2-e/km) • tram: 0.02813 • train: 0.03549 • bus: 0.10227
Asphalt/ Concrete			**Approach #1** • Refer Infrastructure Materials Calculator (www.iscouncil.org/is-v2-1/) **Approach #2** • Consumption quantities (x) emission factors provided by The Australian Life Cycle Inventory Database Initiative (auslci.com.au/index.php/Datasets) **Approach #3** • Council spend on contractor ($) (x) emissions factors provided by Climate Active (Climate Active emission factors are currently only available to certified councils; We suggest checking with Climate Active)
Accommodation *Accommodation is a scope 3 emission source and includes emissions generated from the energy consumed by*	• The state or country in which accommodation is located • Star rating of accommodation • Number of nights stayed • Region	Corporate strategy or finance team	**Total Energy Consumption:** Duration of Stay (x) Area of the room as per the Hotel/motel Star rating (x) Average Energy Intensity for each State Region(MJ/m2.a) accessible at www.energy.gov.au/publications/baseline-energy-consumption-and-greenhouse-gas-emissions-commercial-buildings-australia

GHG Emission Source	Activity data to be collected	Suggested sources	Emissions Calculation Approach
accommodation used by council staff when travelling on business.	• Hotel/motel room star rating		**Assumed electricity / gas consumption split:** 65:35 **Emissions from Electricity/gas Consumption:** Electricity/Gas consumption (x) Electricity/Gas emission factors from National Greenhouse Accounts **Electricity/Gas emission factors from National Greenhouse Accounts** • Table 3: Fuel combustion emission factors • Table 46: Scope 2 and 3 emissions factors – consumption of purchased electricity by end users **Area of the room (m2/room) as per Hotel/Motel room star rating** (www.abs.gov.au/statistics/industry/tourism-and-transport/tourist-accommodation-australia/latest-release): • 1-2 Star: 35 m^2 • 3 Star: 40 m^2 • 4 Star: 79 m^2 • 5 Star: 85 m^2https://www.energy.gov.au/publications/baseline-energy-consumption-and-greenhouse-gas-emissions-commercial-buildings-australia

Appendix 4: Staff Commute Survey

Benalla Rural City Council Staff Commute Form

This survey has been created to help us calculate the emissions associated with our staff's commute. We need to know this if we want to become carbon neutral.

Which area do you commute from? *

How many days per week do you usually work from home? *

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5

How many days per week do you usually work from the office? *

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5

On average, roughly how many km per week would you travel to/from work by walking: *

On average, roughly how many km per week would you travel to/from work by bicycle: *

On average, roughly how many km per week would you travel to/from work by bus: *

On average, roughly how many km per week would you travel to/from work by train: *

On average, roughly how many km per week would you travel to/from work by train: *

On average, roughly how many km per week would you travel to/from work by car: *

What fuel type does your car/motorbike use? *

On average, roughly how many km per week would you travel to/from work by motorbike: *

E-mail (optional, but will let us follow up if we have any data issue

Appendix 4

Ironbark Sustainability

Benalla Rural City Council Net Zero Action Plan

Prepared for
Benalla Rural City Council

Version	Author	Date	Description of changes
v0a	Cece Hyslop	13/11/2023	Initial draft
v0b	Sophie Beard	11/12/2023	Review
v1a	Cece Hyslop	15/12/2023	Final Draft Submission
v1b	Cece Hyslop	09/01/2024	Adjustments following Council review
v1c	Sophie Beard	12/01/2024	Review
v2a	Cece Hyslop	16/01/2024	Final Issue

Prepared by
Ironbark Sustainability
Suite 8, 70-80 Wellington St, Collingwood 3066
ABN: 51 127 566 090
Ph: 1300 288 262 | info@realaction.com.au | www.realaction.com.au

About Ironbark Sustainability
For nearly two decades, Ironbark Sustainability has worked with councils and their communities to reduce greenhouse emissions, tackle climate change and implement sustainability projects and programs. We bring together a wealth of technical and financial analysis, maintenance and implementation experience in the areas of building energy and water efficiency, climate action and strategy development, public lighting and data management. We pride ourselves on supporting our clients to achieve real action on sustainability.

Our Mission
The Ironbark mission is to achieve real action on sustainability for councils and their communities.

Ironbark is a certified B Corporation. We have been independently assessed as meeting the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose.

Contents

Acronyms 7

Executive Summary 9

Net Zero Pathway 10

1. Introduction 13

2. Actions Completed or Underway 14

2.1 Net Zero Target 2035/36 and 2040/41 15

3. Corporate Emission Inventory 16

3.1 Benalla Rural City Council's Current Inventory Methodology 18

3.2 Business-as-Usual Emissions Projections 19

4. Emissions Reduction Actions 20

4.1 Renewable Energy 21

4.1.1 Renewable Energy Power Purchase Agreement (PPA) 21

4.1.2 Behind the Meter Solar 23

4.1.2.1 Recommended Behind the Meter Solar 23

4.1.2.2 Solar PV Monitoring Portal 25

4.2 Streetlighting 26

4.2.1 Bulk Changeover Street Lighting to LED 26

4.2.2 Smart Lighting 27

4.3 Buildings and Facilities 28

4.3.1 Energy Usage Patterns 28

4.3.2 Funding Opportunities 30

4.3.3 Summary of Actions 30

4.3.4 Environmentally Sustainable Design Standards for New Build and Upgrades 32

4.3.5 Resource Efficient Technical Specifications 33

4.3.6 Efficiency Upgrades at Top Consuming Sites 34

4.3.7 De-Gasification at Benalla Art Gallery 35

4.3.8 Open Space Lighting 37

4.4 Hard Surface Circular Economy Standards 38

4.5 Fleet Transition 40

4.5.1 Current Fleet 41

4.5.2 Current Fleet Strategy 42

4.5.3 Light Vehicle Fleet Transition 43

4.5.3.1 Passenger Vehicle Transition 44

4.5.3.2 Utility Vehicle Transition 46

4.5.3.3 Charging Station Installation 48
4.5.4 Heavy Vehicles 50
4.5.5 Plant- Vehicles and Machinery 51
4.6 Waste.. 53
4.7 Future Opportunities 54
4.7.1 Future Opportunities at the Benalla Aquatic Centre 55
5. Net Zero Pathway Analysis 55
5.1 Benalla Rural City Council's Net Zero Pathway 57
5.2 Cash Flow 59
5.3 Offsetting 60
6. Next Steps 61
Appendix A 62
Appendix B 63

Tables

Table 1: Summary of recommended actions 10
Table 2: Actions completed or underway 14
Table 3: 2022/23 Detailed GHG emissions inventory 17
Table 4: Gap analysis of emission sources included by Council in 2022/23 18
Table 5: Cost benefit analysis metrics summary 20
Table 6: Summary of emission savings for VECO 2.0 22
Table 7: Impact of additional behind the meter solar 24
Table 8: Sites with the potential to install behind the meter solar 24
Table 9: Cost benefit analysis on streetlighting bulk change to LEDs 27
Table 10: Summary of "large" and "small" energy consuming sites 29
Table 11: Costed actions to transition to net zero buildings and facilities 31
Table 12: Impact of ESD standards for new builds and upgrades 33
Table 13: Impact of resource efficient technical specifications 33
Table 14: Top consuming sites 34
Table 15: Impact of efficiency measures 35
Table 16: Degasification action 36
Table 17: Impact of replacing gas equipment to electricity 36
Table 18: Impact of open space lighting upgrades 37
Table 19: Council ICEV fleet summary 41
Table 20: Electric vehicle alternatives for passenger vehicle types 44
Table 21: Phasing of passenger vehicle EV transition over six years 45
Table 22: Estimate BAU replacement and EV transition costs 45
Table 23: Example comparison of EV and ICEV running costs 46
Table 24: Electric vehicle alternatives for utility vehicles and vans 46
Table 25: Phasing of van and utes transition to EVs 47
Table 26: Estimate BAU replacement and EV transition costs 48
Table 27: Phasing of EV chargers in line with EV roll-out 49
Table 28: Impact of fleet transition actions 49
Table 29: Electric replacements for general construction and plant machinery 52
Table 30: Impact of landfill gas flaring 54
Table 31: Summary of recommended actions 56

Figures

Figure 1: Greenhouse gas emissions reduction hierarchy 9
Figure 2: Benalla Rural City Council pathway to net zero 2035/36 and 2040/41 12
Figure 3: Greenhouse gas emission reduction hierarchy 13
Figure 4: Net zero target years for 2035/35 (excluding waste) 2040/41 (including waste) 16
Figure 5: Benalla Rural City Council's 2022/23 corporate emissions profile 16
Figure 6: Business-as-usual emissions trajectory 19
Figure 7: VECO 2.0 indicative pricing template 21
Figure 8: RET and LGCs explanation 22
Figure 9: Senior Citizens Community Centre 23
Figure 10: Solar PV monitoring 25
Figure 11: Streetlight replacement 26
Figure 12: Building and facility electricity and gas emissions 28
Figure 13: Benalla Customer Service Centre 28
Figure 14: Ten highest emitting assets (tCO_2-e 2022/23) 29
Figure 15: Benalla Library Operations 32
Figure 16: Solar at Splash Park 34
Figure 17: Benalla Art Gallery 35
Figure 18: Benalla open spaces 37
Figure 19: BRCC road construction projects 38
Figure 20: EV charging station 40
Figure 21: Total carbon emissions per vehicle type (tCO_2-e per year) 41
Figure 22: Fleet strategy 42
Figure 23: BRCC light fleet transition- ICEV to EVs 42
Figure 24: Light vehicles transition 43
Figure 25: MG4 44
Figure 26: BYD ATTO 3 45
Figure 27: Ford F-150 Lightning Pro electric ute 47
Figure 28: Charging station 48
Figure 29: Ecanter FUSO electric truck 50
Figure 30: Current plant machinery 51
Figure 31: Benalla Landfill Resource & Recovery 53
Figure 32: ACCU explanation 54
Figure 33: Benalla Rural City Council pathway to net zero 2035/36 and 2040/41 58
Figure 34: Cash flow analysis 59
Figure 35: Climate Active emission reduction opportunities 60

Acronyms

Abbreviation	Definition
ACCU	Australian Carbon Credit Unit
AGL	Australian Gas Light
AUD	Australian Dollar
BAU	Business-as-Usual
BRCC	Benalla Rural City Council
C&D	Commercial & Demolition
C&I	Commerical & Industrial
CAPEX	Capital Expenditures
CEUF	Community Energy Upgrade Fund Program
CO_2	Carbon Dioxide
DNSP	Distributed Network Service Provider
ESD	Environmentally Sustainable Design
EV	Electric Vehicle
FBT	Fringe Benefit Tax
FOGO	Food Organiccs, Garden Organics
FTP	Fleet Transition Plan
FY	Financial Year
GHG	Greenhouse Gas
GST	Goods and Services Tax
HVAC	Heating, Ventilation and Air Conditioning
ICEV	Internal Combustion Engine Vehicle
IPCC	Intergovernmental Panel on Climate Change
kL	Kilolitre
kW	Kilowatt
kWh	Kilowatt Hour
LED	Light-emitting Diode
LGA	Local Government Authority
LGC	Large-scale Generation Certificate
LRET	Large-scale Renewable Energy Target
MJ	Megajoules
MSW	Municipal Solid Waste
MW	Megawatt
NABER	National Australian Built Environment Rating System
NGERS	National Greenhouse and Energy Reporting
NMI	National Meter Identifier
PPA	Power Purchase Agreement
PV	Photovoltaic
RET	Renewable Energy Target
RMIT	Royal Melbourne Institute of Technology
ROI	Retgurn On Investment
SRES	Smale-scale Renewable Energy Scheme

SUV	Sport Utility Vehicle
tCO_2-e	Tonnes Carbon Dioxide equivalent
ULP	Unleaded Petrol
USD	United Station Dollar
VCU	Verified Carbon Offsets
VECO	Victorian Energy Collaboration
WRI	World Resources Institute

Executive Summary

This Net Zero Action Plan presents Benalla Rural City Council's (BRCC) corporate greenhouse gas emissions inventory and maps out a practical plan for Council to further reduce their emissions and show leadership within the community to achieve net zero corporate greenhouse gas (GHG) emissions by 2035/36.[1]

In accordance with best practice national and international reporting, emissions within Council's organisational boundary are included in this inventory. Council's emissions are those originating from sources within Council's operational control and are linked to Council operations. Examples include emissions from fuel in fleet and plant, services provided by business units such as landfill operation, and electricity procured to power Council owned buildings, facilities, and street lighting. Emissions from the broader community are excluded from this document.

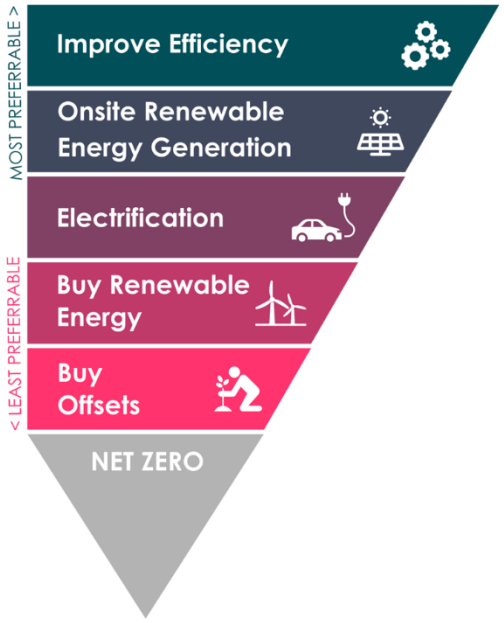


Figure 1: Greenhouse gas emissions reduction hierarchy

The inventory reviews Council's current emissions, based on data collected by Council in 2022/23. The plan sets out emissions reduction opportunities for Council by utilising the greenhouse gas emissions reduction hierarchy in Figure 1. Implementation of the actions recommended in this plan will result in significant cost savings and emissions reduction over the lifetime of Council's assets. The emissions reduction trajectory established in this plan will take Council to net zero emissions by 2035/36 excluding landfill, and 2040/41 including landfill emissions. This plan will align with Council's Climate and Environment Strategy, which will be developed at the beginning of 2024. It is recommended that this document is reviewed and updated at least every four years to take advantage of the emergence of new technologies and opportunities that may allow for a quicker and most cost-effective transition to net zero emissions.

[1] [1] Net Zero Target 2035/36 is for all emissions excluding waste and 2040/41 net zero target including waste

Net Zero Pathway

To develop Council's net zero action plan, Ironbark analysed opportunities against key emissions sources within Council's inventory. Opportunities were assessed against total emissions abatement, cost of implementation (above business-as-usual capital expenditure) and potential lifetime net savings. Actions were prioritised where a meaningful reduction in emissions could be made at an acceptable return on investment, typically less than 10 years.

Table 1 provides a summary of actions recommended for Benalla Rural City Council to implement over the rest of this decade to be on a trajectory to achieve net zero emissions by 2035/36 (excluding landfill) and 2040/41 (including landfill). The impacts of these actions have been modelled to 2035/36. The lifetime savings for each action represents financial savings across the expected lifespan of each action, for example 25 years for solar panels.

Table 1: Summary of recommended actions

Actions	Refer to Section	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings ($)
100 per cent renewable PPA	4.1.1	2024/25	130	Cost Neutral	
Rooftop solar	4.1.2	2024/25	35	$325,000	$1,108,000
ESD standards for new builds and upgrades	4.3.4	2024/25	55	$410,000	$1,349,000
Resource efficient technical specifications for equipment	4.3.5	2024/25	7	$85,000	$114,000
Efficiency upgrades at top consuming sites (>30,000kWh/p.a.)	4.3.6	2023/24	10	$120,000	$200,000
Art Gallery degasification	4.3.7	2026/27	93	$102,000	$641,000
Open space lighting	4.3.8	2024/25	8	$300,000	$315,000
Upgrade remaining streetlights to LED including SMART capabilities	4.2	2024/25	25	$992,500	$1,966,000
Transition all passenger vehicles (19) to EVs by 2029/30	4.5.3	2024/25	76*	$74,000	$330,000
Transition all vans (1) to EVs by 2026/27	4.5.3	2026/27	5*	$1,000	$33,000
Transition all utes (19) to EVs by 2032/33	4.5.3	2026/27	140*	$341,000	$777,500
Install sufficient charging stations for all passenger vehicles and vans	4.5.3	2024/25	-	$257,000	-
Install sufficient charging stations for all utes	4.5.3	2026/27	-	$230,500	-
Landfill gas flaring	4.6	2025/26	2,455	Not Modelled**	
		Total	**3,039**	**$3.2M**	**$6.8M**

**Assumes electric vehicles charged by 100% renewable energy, for example, through a 100% renewable PPA.*
#Costs and savings for landfill flaring not included in cash flow analysis

Achieving net zero emissions will require Council to procure electricity generated by renewables. It is recommended that Council opts into the Victorian Energy Collaboration (VECO) 2.0 starting in 2024/25 which presents an opportunity to purchase 100 per cent renewable energy at a competitive price. The contract should include all electricity assets, including streetlighting. Committing to a 100 per cent renewable electricity in 2024/25 has been modelled in Table 1. Emissions abated by the 100 per cent renewable energy assumes all energy efficiency and renewable energy actions recommended before the start date have been implemented first, thereby reducing Council's overall electricity demand.

Based on the above recommended actions, Benalla Rural City Council is estimated to be able to abate over 3,000 tCO_2-e per year by 2035/36 compared to business as usual (BAU) emissions projections. Council's residual emissions in 2035/36 will be just over 7,000 tCO_2-e, representing a reduction in GHG emissions of around 35 per cent before offsetting compared to 2022/23 levels. In 2040/41 Council will have reduced emissions by a further 2,800 tCO_2-e bringing emissions in that year to roughly 5,800 tCO_2-e.

Figure 2 is Council's pathway to net zero. Ironbark analysed opportunities against key Council emissions sources. Assessments were conducted based on overall emissions reduction, implementation costs (beyond business-as-usual capital expenditure), and potential long-term savings. Actions were prioritised where a meaningful reduction in emissions could be made at an acceptable return on investment.

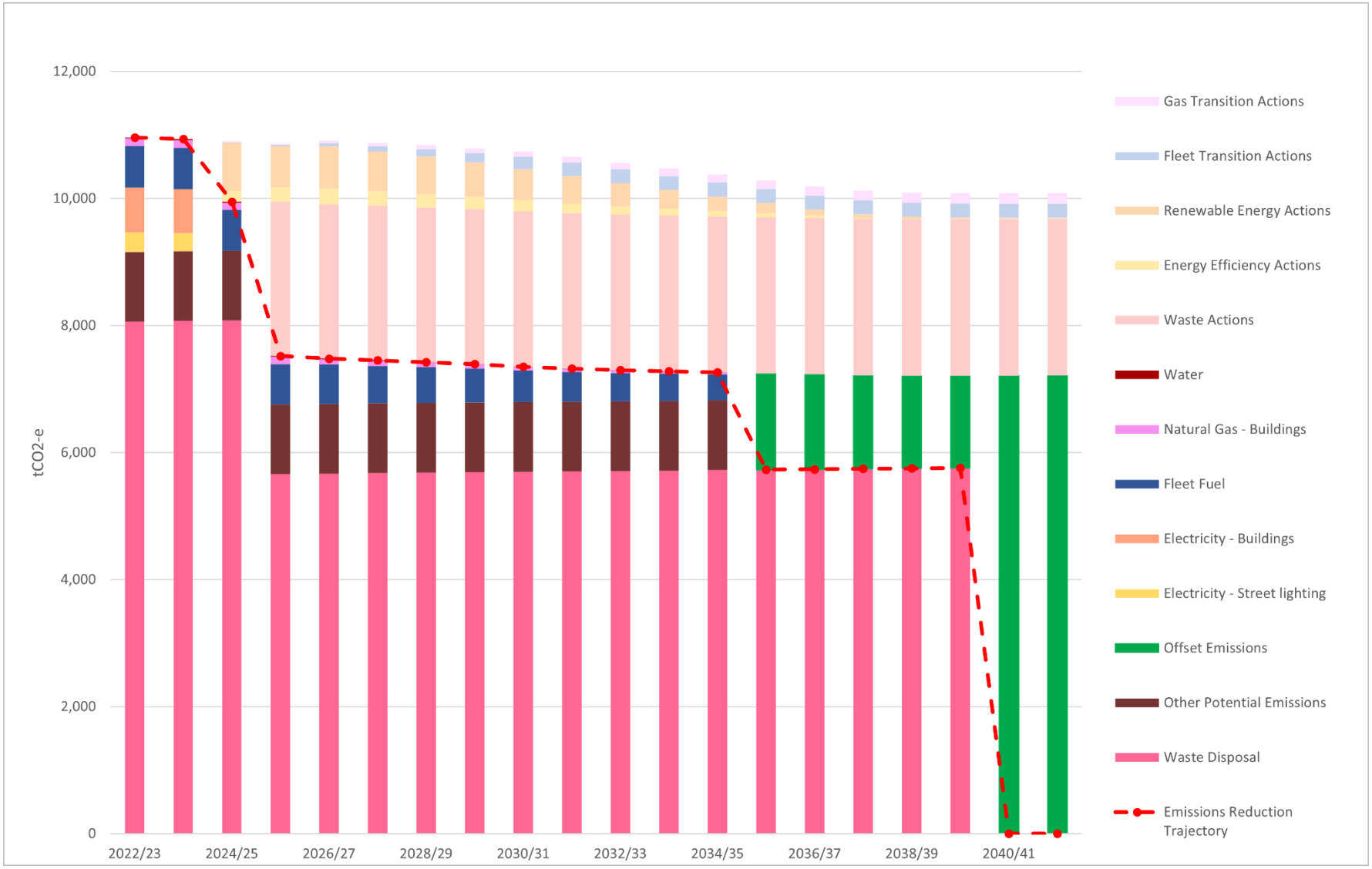


Figure 2: Benalla Rural City Council pathway to net zero 2035/36 and 2040/41

1. Introduction

Benalla Rural City Council (Council) is committed to mitigating climate change by reducing greenhouse gas emissions. The Victorian and Australian governments have a net zero emissions target of 2045 and 2050, respectively. With BRCC's net zero target of 2035/36 excluding waste, and 2040/41 including waste, this puts Council on a path of exceeding both state and federal government targets. This Net Zero Action Plan provides Council with actions to be implemented within this decade to achieve net zero by 2035/36 (excluding landfill) and 2040/41 (including landfill).

Underlying this plan is an inventory of Council's corporate greenhouse gas emissions. This has been developed using Council's operational data of energy and emissions in the 2022/23 financial year. The results and key finding of the emissions inventory have been summarised in Section 3, with a full inventory report in Appendix A.

Section 4 presents the emissions reduction opportunities available to Council within the next decade. All actions identified are intended to commence before 2035, however the full implementation of some actions may extend beyond this timeframe, depending on technology availability. The impact of these actions has been modelled in Council's emissions reduction trajectory. This trajectory is intended as a practical roadmap for Council to achieve its 2035/36 and 2040/41 net zero emissions targets, utilising the greenhouse emissions reduction hierarchy shown in Figure 3.

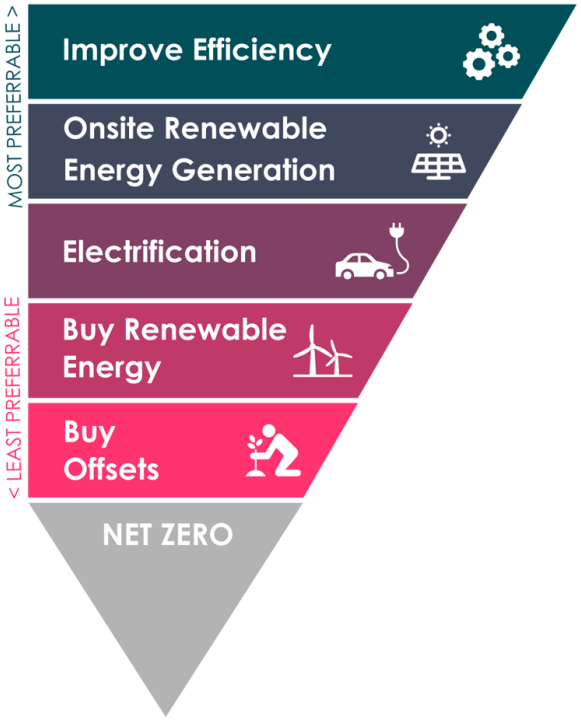


Figure 3: Greenhouse gas emission reduction hierarchy

The plan has assessed opportunities within the following key areas of Council's operations: energy efficiency improvements in buildings and street lighting, onsite renewable energy generation, low emissions technology upgrades in buildings and fleet, renewable energy procurement, and minimising emissions from landfill. Whilst there is a particular focus on climate change mitigation (avoiding catastrophic climate change by reducing carbon emissions), several of the potential actions listed will also assist Council in adapting and building resilience to expected climate impacts.

Most actions have been modelled to 2035/36, however Council should review and update this document at least every four years to ensure ongoing actions are guided by updated information and take advantage of emerging technologies that could accelerate the transition to

net zero emissions in different areas of Council operations. To support the identification of future actions, potential emission reduction opportunities beyond this plan have been presented in Section 4.7.

A cost-benefit analysis of identified actions has been undertaken and is presented in Section 5.2. In total, the implementation of all actions within this plan is estimated to require a capital investment of $3.2 million but will return a net savings of $6.8 million to Council across the lifetime of all assets.

To achieve net zero emissions, carbon offsetting will be required to balance residual emissions. Carbon offsetting costs and opportunities have been outlined in Section 5.3.

2. Actions Completed or Underway

In 2017 the Local Government Energy Saver Program was launched by the Minister for Energy, Environment and Climate Change. The program was funded through the Victorian Sustainability Fund and administered by Sustainability Victoria. The purpose of the program was to provide councils with an emissions inventory for 2016/17 period and a greenhouse reduction plan to guide councils in reducing its corporate emissions. Ironbark assisted in this program and BRCC was one of the rural councils that participated. The plan helped Council understand where their emissions were coming from and what they could do to reduce their larger emitting assets.

Since then Council have implemented several emissions-reducing projects already completed or underway. These actions haven't been included in the proposed emissions trajectory outlined in this plan but highlight that without these projects Council would have a much higher emissions baseline from which to work on reducing emissions to net zero. Table 2 lists some of these projects.

Table 2: Actions completed or underway

Actions	Sector
120kW of solar installed at five Council-owned buildings	Electricity (buildings and facilities)
16.5kW lithium battery bank installed at Benalla Landfill Resource and Recovery Site	Electricity (buildings and facilities)
Energy efficiency upgrades, such as HVAC upgrades at Council facilities	Electricity (buildings and facilities)
LED upgrades on decorative lights through the Council	Electricity (buildings and facilities)
Food Organics and Garden Organics (FOGO) collection since 2015	Waste

2.1 Net Zero Target 2035/36 and 2040/41

Net zero means reducing the world's greenhouse gas emissions to as close to zero as possible with available technology and offsetting any remaining emissions through measures such as carbon sequestration or investment in renewable energy projects.

Typically, an aspirational approach is taken by all levels of government to set a target. That is, they establish leadership and demonstrate commitment to actions based on factors such as available budget, political will or community expectations. Another way to set a target is through a science-derived or science-based approach, meaning the target is aligned with the broader emissions reduction required to keep global temperature increase below the threshold of either 1.5°C or 2°C compared to preindustrial temperatures, as described in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). These thresholds were chosen based on what the global scientific community consider to be the upper limits of allowable temperature increases given the human, biodiversity, economic and infrastructure impacts that would result.

The United Nations has called the transition to a net zero world "one of the greatest challenges humankind has faced".[2]

The Victorian Government updated its net zero target in May 2023, with an aim to reduce Victoria's emissions by 75-80 per cent by 2035 and bringing forward the date to achieve net zero emission from 2050 to 2045.[3] The Australian Government has set a net zero target of 2050, with an interim target of 43 per cent below 2005 levels in 2030.[4]

Two aspirational net zero targets have been recommended for BRCC to adopt. This is due to 74 per cent of Council's emissions comes from landfill, with that number set to increase (if no actions are taken), as BRCC begins to accept waste from other municipalities in the surrounding area in the coming years. Accordingly, a net zero target year excluding landfill emissions and a subsequent target year including landfill emissions have been established.

The net zero target year for all Council's corporate emissions excluding landfill has been set as 2035/36. This allows Council to focus on reducing as many non-waste emissions as it can from actions outlined in this plan, with the aim of purchasing as few carbon credits as possible to achieve this net zero target.

The net zero target year for all of Council's corporate emissions, including landfill, has been set as 2040/41. This will give Council time to implement the waste action recommended in this plan and investigate other technology not yet technically or financially viable, such as waste to energy. By 2040 most of Council's emissions will be from waste or heavy vehicles and plant, there will be future opportunities for emissions reduction that haven't been modelled in this plan.

[2] Retrieved from https://www.un.org/en/climatechange/net-zero-coalition
[3] Retrieved from https://www.climatechange.vic.gov.au/climate-action-targets
[4] Retrieved from https://www.dcceew.gov.au/climate-change/emissions-reduction/net-zero

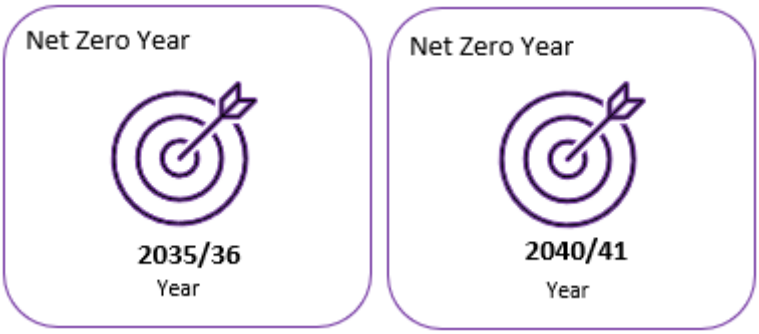


Figure 4: Net zero target years for 2035/35 (excluding waste) 2040/41 (including waste)

3. Corporate Emission Inventory

Council's total emissions for financial year 2022/23 have been calculated as **10,960 tonnes of CO_2 equivalent (tCO_2-e)**. This includes an emissions gap or *other potential emissions* representing emissions not quantified and reported in the inventory due to incomplete or unavailable data.

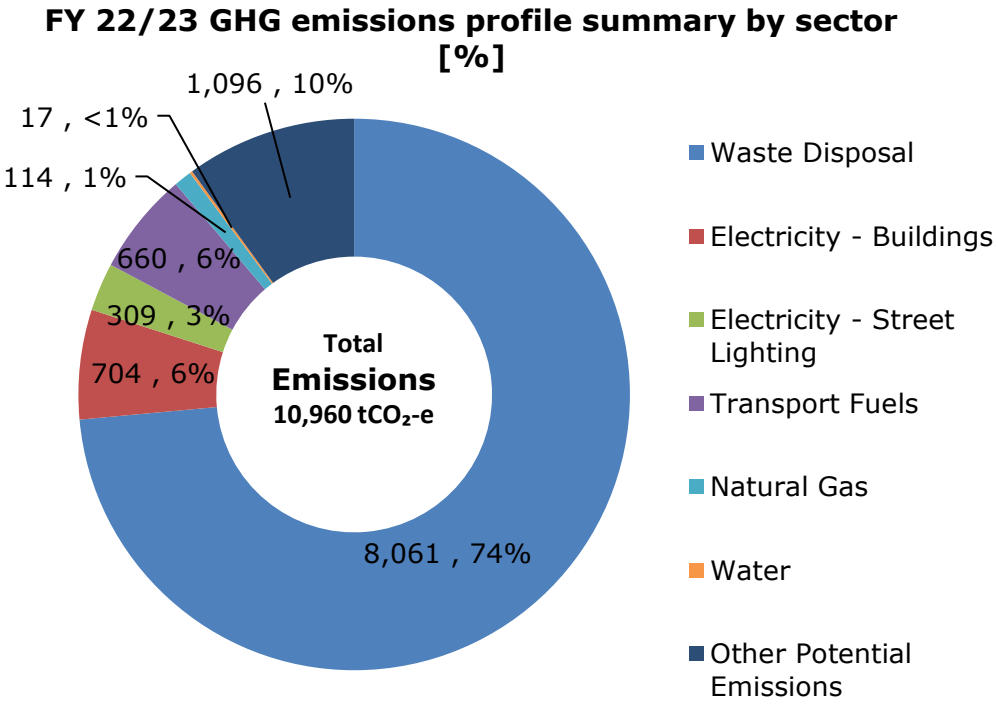


Figure 5: Benalla Rural City Council's 2022/23 corporate emissions profile

Emissions from waste account for the majority of Council's emissions at 74 per cent. Electricity from buildings and transport fuels follows at 6 per cent for each source, followed by electricity from street lighting at 3 per cent and natural gas and water contributing the least amount at 1 per cent and <1 percent, respectively. Ironbark have factored in a percentage of other potential emissions at 10 per cent of Council's actual emissions. This is due to missing data for some potentially significant emissions sources, for example construction materials and contractor fuels, that will likely increase emissions in the next inventory year as data collection processes improve. By calculating an assumed total of missing emissions, this ensures that emissions won't increase because Council has better processes in place to capture a complete dataset of emissions. The inventory report (Appendix A) goes further into detail on the missing data and how to better capture it for future years.

Table 3 below shows the detailed breakdown of BRCC's operational GHG emissions from 2022/23.

Table 3: 2022/23 Detailed GHG emissions inventory

Emissions Source	Consumption	Units	Emissions (tCO_2-e)	% Total	Cost ($)
Direct emissions (scope 1)					
Transport - Diesel for fleet	84.26	kL	229.01	2.09%	$160,986
Transport - Diesel for plant	87.06	kL	236.60	2.16%	$165,273
Transport - Petrol for fleet	27.37	kL	63.30	0.58%	$45,897
Transport - Bio Diesel for fleet	1.29	kL	0.11	0.00%	$2,470
Transport - Bio Diesel for plant	2.65	kL	0.23	0.00%	$5,097
Natural Gas - Council owned/operated/occupied	2,050,322.47	MJ	105.65	0.96%	$24,740
Landfill fugitive emissions			8,061.00	73.55%	
TOTAL DIRECT EMISSIONS (scope 1)			**8,696**	**79.34%**	**$404,463**
Indirect emissions (scope 2)					
Electricity - Council owned/operated/occupied	765,014	kWh	650.26	5.93%	$211,671
TOTAL INDIRECT EMISSIONS (scope 2)			**650**	**5.93%**	**$211,671**
Indirect emissions (scope 3)					
Electricity - Street Lighting - DNSP owned	335,982	kWh	309.10	2.82%	$145,140
Water - Council owned/operated/occupied	9,968	tonne	16.88	0.15%	$45,908
Emissions from manufacture, transmission and other losses for electricity	765,014	kWh	53.55	0.49%	
Emissions from natural gas extraction, production and transport	2,050,322	MJ	8.20	0.07%	
Emissions from diesel extraction, production and transport for fleet & plant	171.32	kL	114.40	1.04%	
Emissions from petrol extraction, production and transport fleet	27.37	kL	16.10	0.15%	
Emissions from bio diesel extraction, production and transport fleet & plant	4	kL	-	0.00%	
Emissions Gap – other potential emissions		tonne	1,096	10.00%	
TOTAL INDIRECT EMISSIONS (scope 3)			**1,614**	**14.73%**	**$191,048**
TOTAL EMISSIONS (scope1+2+3)			**10,960**	**100.00%**	**$1,558,669**

3.1 Benalla Rural City Council's Current Inventory Methodology

Council's corporate inventory has been calculated in accordance with the guidelines provided by the Australian National Greenhouse Energy Reporting Scheme (NGERS) methodology and the World Resources Institute (WRI) Greenhouse Gas Protocol Corporate Standard. To align with best practice and to set Council up for possible carbon neutral certification, Ironbark has developed the inventory with the view to meet Climate Active[5] requirements as much as possible (see Appendix A for more details). As a result, it includes Scopes 1, 2 and 3 emissions, and has an emphasis on data completeness. Table 4 summarises emissions included in Council's 2022/23 corporate inventory compared with what Council would need to report on to align with NGERs or Climate Active. Refer to Appendix A for a more detailed gap analysis and a full inventory report.

Table 4: Gap analysis of emission sources included by Council in 2022/23

Scope	GHG emissions sources	Benalla City Council reported emissions	To achieve minimal NGERS Compliance	Climate Active compliance (aligned or certified)
Scope 1	Transport Fuels (Bio Diesel, Diesel & Liquified Petroleum Gas)	✓	✓	✓
	Stationary Fuels (Gas, Diesel & Bottled Gas)	×	✓	✓
	Natural Gas	✓	✓	✓
	Fugitive Emissions (Refrigerants)	×	✓	✓
	Lubricants	×	✓	✓
	Waste - Landfill	✓	✓	✓
Scope 2	Electricity (Council)	✓	✓	✓
Scope 3	Electricity (Street Lighting)[6]	✓	✓	✓
	Water use (emissions produced through the processes associated with delivery of water to Council facilities, and disposal of wastewater)[7]	✓	✓	✓
	Concrete & Asphalt	×	×	✓
	Contractor Fuels	×	×	✓
	Accommodation	×	×	✓
	Air travel	×	×	✓
	Hire Cars and Taxis	×	×	✓
	Office Paper	×	×	✓
	Employee Commute	×	×	✓
	Transport Fuels (No operational control)	N/A	×	✓
	Stationary Fuels (No operational control)	N/A	×	✓
	Natural Gas (No operational control)	N/A	×	✓
	Lubricants (No operational control)	N/A	×	✓
	Electricity (No operational control)	N/A	×	✓

[5] The Climate Active Certification for Organisations is a voluntary standard to manage greenhouse gas emissions and to achieve carbon neutrality. It is the Australian Government's current iteration of the carbon neutral certification previously known as NCOS. It provides best practice guidance on how to measure, reduce, offset, report and audit emissions that occur as a result of the operations of an organisation. For more detail see Appendix A Inventory Report.
[6] Street lighting can be reported as a Scope 2 or 3 emission for councils depending on if they fall under council's operational control. Any metered open space lighting that Council owns and maintains is to be included as scope 2; however, all other streetlights owned by DNSP/DB is scope 3.
[7] Note that any council who is also a water retailer would report water emissions as scope 1 and scope 2, depending on the fuel/electricity usage associated with it.

3.2 Business-as-Usual Emissions Projections

Council's business-as-usual trajectory for corporate emissions has been modelled and presented in Figure 6 to provide an understanding of Council's emissions if no further actions are taken to reduce emissions.

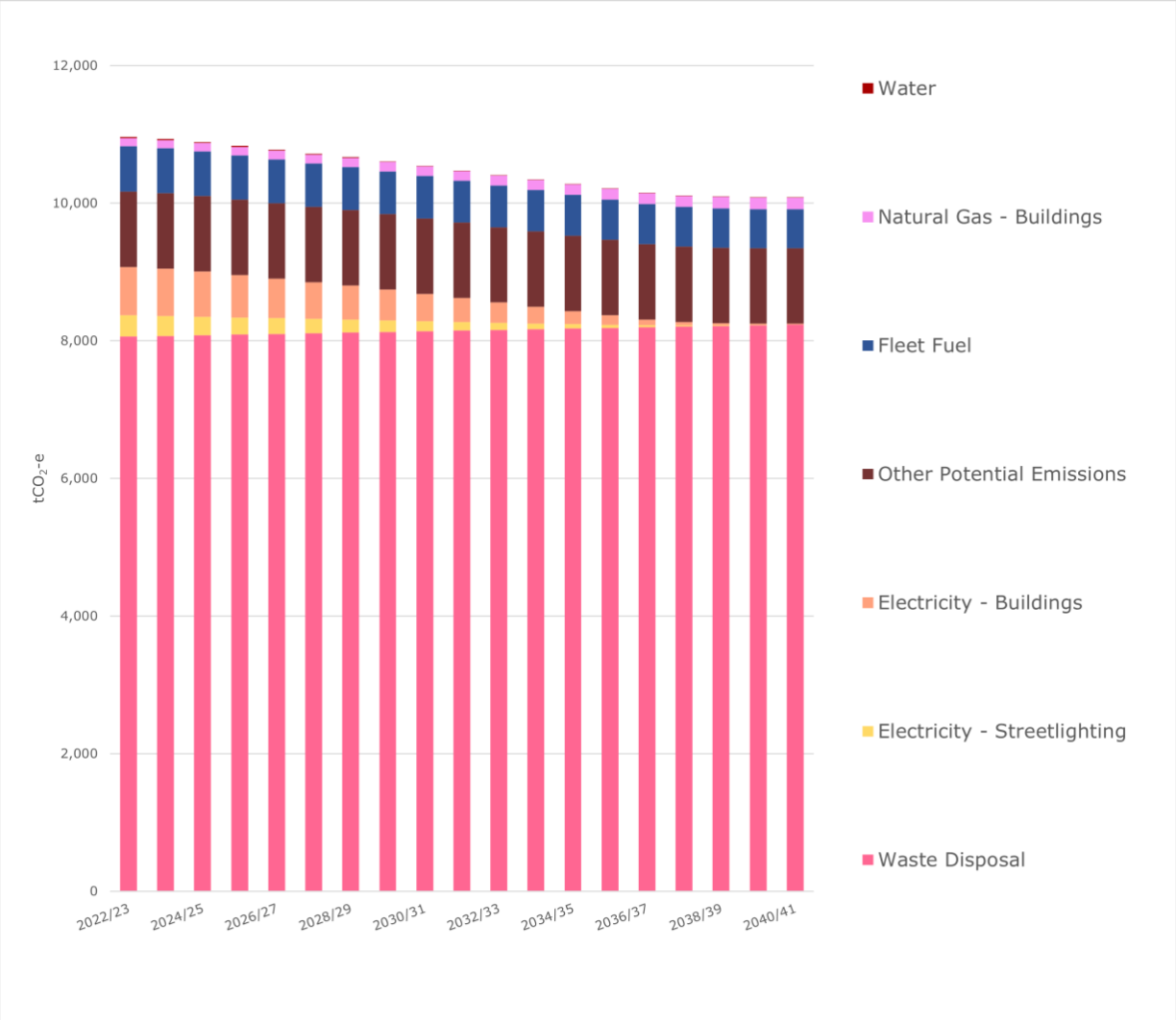


Figure 6: Business-as-usual emissions trajectory

Overall, emissions are expected to reduce due to low population growth, a rapidly decarbonising grid and efficiencies in new equipment. Some sectors like waste are increasing, but beyond 2040, Victoria's grid emissions will approach zero as State Government targets for renewable energy are met. This results in a flattening of the BAU trajectory for emissions from electricity. It is important to note that this BAU trajectory does not include the impacts of any actions that have been modelled as part of this action plan, even if they have already been confirmed to be implemented.

4. Emissions Reduction Actions

This section outlines the key actions recommended for Council to undertake to achieve the goals, targets and objectives outlined in this plan. The actions have been grouped under the following key themes:

- Renewable Energy
- Energy Efficiency
- Gas Transition
- Hard Surfaces Standards
- Fleet Transition
- Waste Transition

The offsetting of residual emissions after the actions above are implemented is covered in Section 5.3.

A cost-benefit analysis has been prepared that explores the costs, savings and abatement opportunity for actions outlined in this plan. The key business case drivers are annual savings as well as net savings over each asset's lifetime. The metrics used to analyse the projects are outlined in Table 5.

Table 5: Cost benefit analysis metrics summary

Impact in 2035/36(tCO_2-e)	This is the annual emissions abatement in 2035/36 resulting from implementation of the relevant action
Total Cost ($)	This is the cost of implementing each action, including capital costs and maintenance costs across the lifetime of the action. That is, the additional cost above BAU to implement this action.
Lifetime Savings (tCO_2-e)	This is the total emissions savings over the lifetime of the asset. Standard asset lifetimes have been assumed: Buildings: 25 years Plant and Equipment: 8-15 years Solar PV systems: 25 years LED lighting: 20 years
Lifetime Savings ($)	This is the total cost savings over the lifetime of the investment
Simple payback	This is the time (in years) that it is expected to take for the action to achieve a positive return on investment (ROI)

4.1 Renewable Energy

4.1.1 Renewable Energy Power Purchase Agreement (PPA)

Electricity (including street lighting) accounts for 9 per cent of BRCC's 2022/23 emissions inventory, indicating that participating in a 100 per cent renewable energy Power Purchase Agreement (PPA) will have a significant impact on Council's emissions and electricity costs.

Council has the opportunity to opt into the Victorian Energy Collaboration's (VECO) second round of a renewable energy PPA. A PPA is a contract between an electricity buyer and seller. In the context of this plan, PPAs refers to an agreement that the seller will ensure that a certain amount of energy is generated from renewable sources, such as large-scale solar or wind farms. This is now a common method for procuring electricity for local governments. It enables the purchase of zero emissions electricity through current electricity contract operating expenses. This also has the added benefit of locking in contract certainty for a nominated period, typically 3-5 years. The cost of renewables in a PPA is typically cost neutral, making them a cost-effective solution to electricity emissions reduction.

The Victorian Energy Collaboration PPA is one such agreement between Victorian councils and retailer Red Energy to purchase renewable electricity from Victorian wind farms. The purchasing of renewable energy presents a direct investment in Australia's green energy transition and is of value for Council from a reputational and communications perspective as well as a financial and emissions perspective.

As of December 2023, the second round for councils to participate in an agreement with VECO is nearing its conclusion. Therefore, BRCC should promptly take action if they wish to secure a more favourable energy supply price and transition to using 100 per cent renewable energy sources. It's been advised that the contract will be the same format and conditions as the existing VECO contract, and new councils can join

20 % Renewable & 80% Grid with Reset Mechanism

RFP Pricing Template for VECO 2.0
20% Renewable Fixed Pricing

20% Renewabe Pricing		
Term:	1 Jan 2024 to 31 December 2030	
VIC	Peak $/MWh	Off Peak $/MWh
All Combined	115.640	75.550
LGC 100%	33.21	1/1/24 to 31/12/30

Note: Energy Price for Large/Unmetered & Small together = All Combined

80% Grid Energy		
Term:	1 Jan 2024 to 30 June 2026	
VIC	Peak $/MWh	Off Peak $/MWh
All Combined	103.647	67.084

Note: Energy Price for Large/Unmetered & Small together = All Combined

For Information Purposes:Final Energy Price		
Formula: Volume Weighted Average Price Renewable and Grid		
Jan24-FY26		
All Combined Example	Peak $/MWh	Off Peak $/MWh
20% Renewable / 80% Grid	106.046	68.777

Note: The above prices are set for Jan-Jun24, FY25 and FY26

Figure 7: VECO 2.0 indicative pricing template

as full members. As per the final indicative pricing & sign-up process sent in November, the Red Energy contract's energy prices are outlined in Figure 7.

It is recommended that Council enters into an agreement that covers all electricity assets, including street lighting. Currently Council's average peak tariff costs across AGL, Red Energy and Energy Australia accounts (buildings and facilities only) is 31c/kWh and off peak is 20c/kWh. Street lighting is estimated to be around 37c/kWh (average of all energy charges).

Compared to the indicative pricing of 10c/kWh for Peak and 6c/kWh for Off Peak, including 3c/kWh to surrender 100 per cent of the LGCs to help Council reduce emission to zero, it makes financial sense to opt into this PPA. Since Council wants to reduce emissions as close to zero as possible, including the additional 3c/kWh to surrender 100 per cent of the LGCs is crucial to Council's net zero journey.

The energy consumption has been calculated assuming all actions recommended in this plan are implemented (behind-the-meter solar, energy efficiency and street lighting). It also considers the additional load to the grid for fleet transition and degasification of assets.

Table 6 below summarises the emissions abatement impact of a 100 per cent renewable PPA and surrendering 100 per cent of the LGCs across all Council's electricity accounts starting in 2024/25 at 13c/kWh for Peak usage and 10c/kWh for Off Peak usage.

Table 6: Summary of emission savings for VECO 2.0

Action	Start Year	Impact in 2035/36 (tCO_2-e)
100 per cent renewable PPA for all Council assets (including street lighting)	2024/25	130

Renewable Energy Target (RET)/Large-scale Generation Certificates (LGCs)

The Australian Government's Renewable Energy Target (RET) was introduced to encourage additional generation of electricity from renewable energy sources to meet the Government's commitment to achieving a 20 per cent share of renewables in Australia's electricity supply by 2020. This has now been extended to 2030. The RET creates a financial incentive for investment in renewable sources through the creation and sale of certificates. The RET is split into two parts: the Large-scale Renewable Energy Target (LRET) and the Small-scale Renewable Energy Scheme (SRES).

One LGC is equivalent to one megawatt hour of eligible renewable electricity generated above the power station's baseline.[8] Since LGCs are sold on the open market anyone can buy them to reduce their emissions. If an entity chooses to sell the LGCs, emissions associated with that power station won't contribute to that entities' emission reduction journey. If they choose to surrender the LGCS (meaning the emissions can't be sold on the market and will effectively reduce their emissions), then any emissions generated from the eligible power station will contribute to their emissions reduction journey.

Figure 8: RET and LGCs explanation

[8] Retrieved from https://www.cleanenergyregulator.gov.au/About/Accountability-and-reporting/administrative-reports/The-Renewable-Energy-Target-2012-Administrative-Report/The-Renewable-Energy-Target-explained

4.1.2 Behind the Meter Solar

Council currently has around 120kW of solar spread over five Council-owned facilities.[9] The total estimated generation from the five sites supplies Council with 18 per cent of its annual electricity needs. In 2022/23, these panels generated over 138 megawatt hours of electricity, avoiding just under 120 tonnes of GHG emissions.

4.1.2.1 Recommended Behind the Meter Solar

Based on a high-level assessment, Council have the capacity to install an estimated additional 177kW of behind the meter solar across nine sites.

Even if Council commits to the renewable Energy PPA, rooftop solar is still recommended to provide low-cost energy and to reduce as much energy demand as possible before phasing in carbon offsetting in 2035/36 to achieve emissions reduction targets.

This assessment was conducted on the top consuming sites with the capacity to install new solar PV system of 3kW or additional solar PV, where the consumption and roof space warrants more solar. The exception to this threshold is the new visitor centre, as Council have indicated they will likely install solar on this building in the next 12 months.

Figure 9: Senior Citizens Community Centre

Smaller sites were excluded from this assessment due to the lower annual consumption, which estimated new solar PV capacity to be between 1kW-3kW. Parks and reserves were also excluded, except where there was a pavilion or similar building on site.

To ensure solar is installed strategically and at minimal cost, Council should align the rollout with any existing renewal programs and community infrastructure plans. In addition, there may be a range of barriers that may need to be overcome on some sites, including power quality, tenant use and leasing arrangements, tariff structures, and roof shading and structural integrity. A detailed site assessment should be undertaken to confirm viability and identify any potential siting issues before implementation. Appendix B identifies the assumptions used to generate the high-level assessment results for behind the meter solar.

Table 7 below summarises the impact, cost and simple net savings of this action. Total costs include initial installation and maintenance over the lifetime of the systems as well as savings calculated over the lifetime of the asset.

[9] Based on information provided by Council.

Table 7: Impact of additional behind the meter solar

Action	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings (tCO_2-e)	Lifetime Savings ($)	Simple Payback (years)
Install 177kW of solar at top consuming sites	2024/25	35	$325,000	1,180	$1,108,000	7

The installation of these systems is proposed to be phased over three years starting in 2024/25. The proposed installation year for each site has been provided in Table 8 and mapped out for Council to start with smaller system sizes and then tackle the larger solar PV installs.

Sites were selected based on the following assumptions and information:

- Where the asset consumes more than the current solar PV system, the additional solar PV system has been sized to provide enough generation to take the building to almost 100 per cent solar. Sites such as the Benalla Library Operations, Senior Citizens Community Centre and Town Hall;
- Based on available roof space, shading and consumption; and
- Where Council have indicated they will investigate solar in the next few years. Sites such as the new Visitor Centre and Denny Street Public toilets

The asset list which was provided had the majority of sites listed by their address or intersection. Since knowing the type of asset was crucial in identifying a suitable solar PV system, the asset names listed in Table 8 were chosen based on Google Maps, Council documentation and Council staff identification. It's recommended that Council undertake a NMI audit to confirm the correct building asset linked to the NMI.

Table 8: Sites with the potential to install behind the meter solar

NMI	Asset Name	Solar Capacity (kW)	Install Year
63059312984	Benalla Library Operations*	20.0	2024/25
63055847586	Council Depot	13.0	2024/25
63055846952	Benalla Sports & Equestrian Centre (Racecourse Reserve)	6.0	2024/25
63055839948	Denny Street Public Toilets	3.0	2024/25
63055811819	Senior Citizens Community Centre*	3.0	2024/25
7800256848	Benalla Visitor Information Centre	1.5	2024/25
63055855481	Town Hall*	8.0	2025/26
63059238675	Benalla Rural City Council- Customer Service Centre	42.0	2025/26
63059323122	Council Chambers & Civic Centre	80.0	2026/27

**Sites with existing solar PV*

In early 2023, Council had a preliminary feasibility study prepared by RMIT University in Melbourne on the feasibility of a microgrid amongst the Service Centre, Civic Centre, Aquatic Centre (not under Council's operational control), Town Hall, Visitor Information Centre, Library, Senior Citizens Community Centre and Mair Street carpark.[10] These sites were chosen because they either had solar or are planning to install solar in the future. Though the findings from the feasibility study weren't incorporated into this plan, it's worth adopting so as to help secure solar PV generation from sites that have the space and capacity install solar, but can be used elsewhere, where a site may not have the roof space to install solar.

4.1.2.2 Solar PV Monitoring Portal

Ironbark recommends setting up a solar PV remote monitoring of all existing and future solar PV systems across the building portfolio. This will allow Council to monitor the systems and all the hardware to ensure they are operating well and are continuing to minimise Council energy costs and emissions.

Figure 10: Solar PV monitoring

Note, the ability to feed existing solar systems into one portal will depend on their inverter types. The following specifications are recommended when implementing this work.

All solar inverters are to be uniform and capable of feeding information to an online portal that can monitor and report on all solar installation on Council assets. At a minimum, the online portal needs to have the capability to profile the following information:

- Individual solar power system performance in detail - daily and over time (e.g. daily, weekly, monthly, annually);
- Individual solar power system performance compared to optimal performance expectations for that area (and/or compared to other real inverters in the same area); and
- An automatic email and text alert system should solar systems stop generating electricity, or other errors are occurring such as a considerable drop in generation

Performance data at a minimum to include:

- Total power being produced (in kW p.a.);
- Total energy being produced (in kWh p.a.);
- Total energy being used on site (in kWh p.a.);
- Total energy being exported to grid (in kWh p.a.);
- Total money earnt from exporting to the grid (in $ p.a.); and
- Total carbon emissions avoided (in kg CO_2-e p.a.)

Solar portal installation costs and savings have not been calculated in this action plan.

[10] Retrieved from the Benalla Rural City Council Microgrid Feasibility Study 2023 RMIT University Melbourne

4.2 Streetlighting

In 2014 the Goulburn Broken Greenhouse Alliance 'Watts Working Better' project was launched to improve the efficiency of residential streetlights across regional councils, which Benalla Rural City Council was involved in. As a result of the project, BRCC has anticipated savings of nearly $1 million in energy costs over the subsequent 20 years.[11] Benalla Rural City Council changed more than 786 old mercury vapour lights to more efficient T5 fluorescent lights as part of the project, which concluded in May 2016.

4.2.1 Bulk Changeover Street Lighting to LED

It is recommended that all remaining non-LED streetlights are upgraded to LEDs, which is roughly 1,134 lights. This count is from the latest Ausnet bill, and potentially could be under reporting the correct number of LEDs. Ironbark recommends conducting a thorough audit of these lights so the Ausnet bill reflects the accurate number of LED lights. The cost and savings for upgrading streetlights in this action are based on this Ausnet bill and once an audit has been conducted those numbers will change.

Figure 11: Streetlight replacement

The vast majority of streetlights are owned by Ausnet (~1,000), with a 40 per cent cost share with Council on the remaining lights. Streetlights contribute over 335,000 kWh/year in electricity consumption, and around 3 per cent of Council's total emissions. Street lighting also contributes to roughly 41 per cent of Council's electricity bills ($145,140 in 2022/23), which represents a significant cost saving opportunity.

This high-level analysis considers the replacement of 1,134 non-LED streetlights with LED equivalents. This consists of 775 minor road streetlights (typically under 42W for non-LED lights) and 359 major road streetlights (those over 80 watts). Any lighting that is not in the Ausnet bills are assumed to be lighting in car parks, passive parks (not sports ovals), and walkways or paths. The savings are shown in Table 9, Option 1.

[11] Information on the Watts Working Better project supplied by Council

4.2.2 Smart Lighting

Energy savings of between 25 per cent and 40 per cent can be achieved through lighting control that utilises trimming, dimming and constant light output to reduce luminaire power consumption whilst maintaining minimum illuminance levels. Smart controls can be integrated into the LED bulk replacement design process, which will reduce the cost of implementing smart lighting in the future. The most significant savings will be found in major road lighting, so it is recommended to target the roughly 369 streetlights are in this category (including smarts for existing LED major road lights).

The current streetlights are on an unmetered basis, so do not recognise reduced electricity consumption beyond LED replacement. Council will therefore need to move to a metered tariff structure when this becomes available, to deliver the financial savings estimated in this analysis. Table 9 summarises the costs and savings from completing a bulk changeover of 1,134 streetlights to LEDs only (Option 1) or doing the same bulk replacement of LEDs and adding smart lighting controls for major road streetlights (Option 2). The combined impact of these actions will see an initial reduction in overall emissions of 1 per cent annually.

Table 9: Cost benefit analysis on streetlighting bulk change to LEDs

Actions	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings (tCO_2-e)	Lifetime Savings ($)	Simple payback (years)
Option 1: Bulk replacement of all streetlights with LEDs – no smart lighting	2024/25	20	$874,400	830	$1,732,000	4
Option 2: Bulk replacement of all streetlights with LEDs plus smart lighting on major road lights	2024/25	25	$992,500	1,020	$1,966,000	14

Transitioning streetlighting to become as efficient as possible through LEDs and smart technology will minimise Council's street lighting attributed electricity consumption (and their bills), the remainder of which, can be reduced to zero emissions by purchasing renewable electricity.

4.3 Buildings and Facilities

4.3.1 Energy Usage Patterns

Council manages 43 assets which includes open space lights spread between sports fields, parks and reserves. Council's electricity and gas costs in 2022/23 were roughly $208,959 and $24,610 respectively and generated around 818 tonnes of emissions (Scope 1, 2 and 3), a total of 7 per cent of all Council's emissions from that period. Gas was used at three sites in 2022/23 and contributes to 16 per cent of all buildings and facilities emissions (Figure 12).

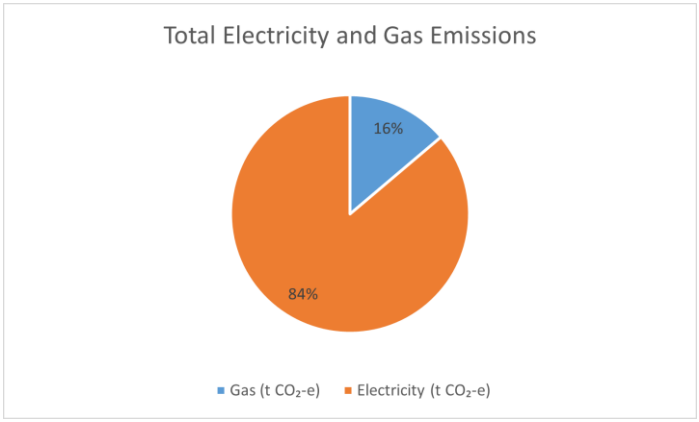


Figure 12: Building and facility electricity and gas emissions

Figure 13: Benalla Customer Service Centre

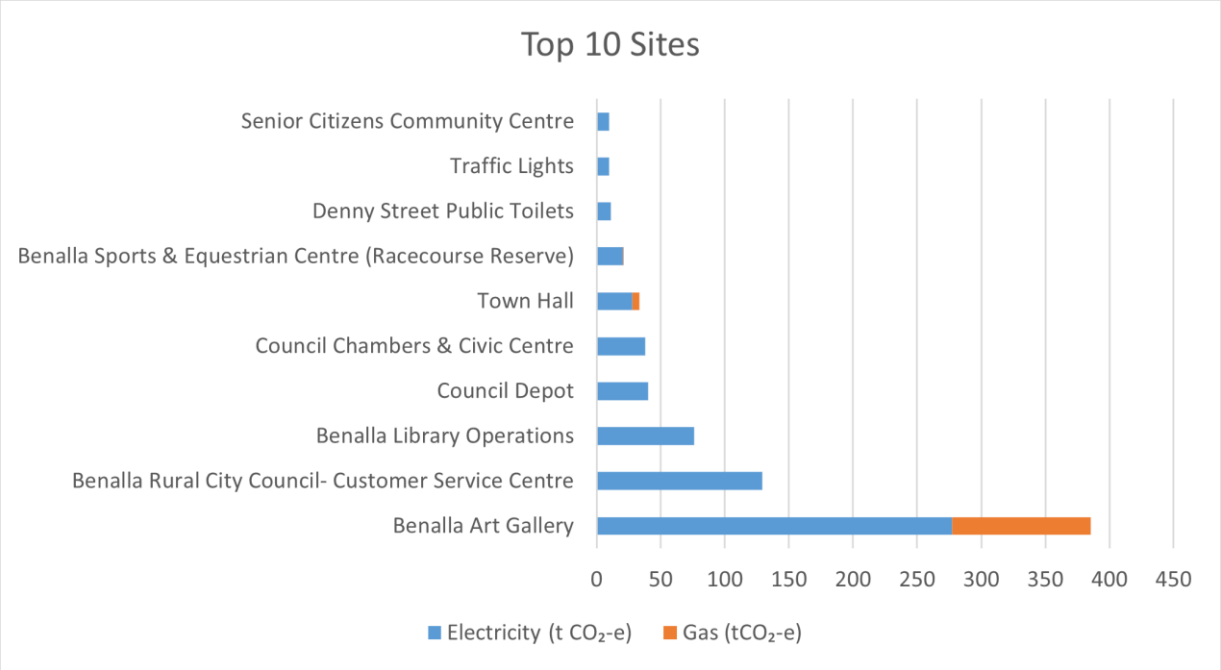


Figure 14: Ten highest emitting assets (tCO_2-e 2022/23)

Figure 14 highlights the top 10 consuming sites (both gas and electricity). Benalla Art Gallery is by far the highest consuming site, followed by the Customer Service Centre and Benalla Library Operations.

Table 10 below provides a breakdown of BRCC's electricity and gas consumption across all its facilities, categorised in two groups; "large" sites and "small" sites, split between sites that use more or less than 10,000kWh/ per year. Council's 10 largest sites used over 90 per cent of all facility emissions.

Table 10: Summary of "large" and "small" energy consuming sites

Sites	Number of sites	Annual electricity use (kwh)	Annual gas use (MJ)	Annual Facilities GHG emissions (tCO_2-e)	Annual Costs of Elec and Gas ($)
Large	10	695,687	2,050,322	92%	$209,244
Small	33	69,328	0	8%	$24,325
Total	**43**	**765,014**	**2,050,322**	**100%**	**$233,569**

4.3.2 Funding Opportunities

Presently, there are a few funding programs that hold promise for supporting building efficiency projects. Notably, the following programs, though not exhaustive, present potential avenues for consideration:

- Community Energy Upgrade Fund Program (CEUF) (Australian Government):
  - 50 per cent co-funding for energy efficiency and electrification upgrades of local government facilities;
  - Applications to open January 2024;
  - Applications to close April 2024;
  - Second round to commence in 2025;
  - Website: Community Energy Upgrade Fund Program
- Victorian Energy Upgrades for businesses:
  - Website: Victorian Energy Upgrades for businesses

4.3.3 Summary of Actions

Benalla Rural City Council's path to net zero emissions for buildings and facilities will involve upgrading facility infrastructure through a number of proactive and reactive measures and continuing to effectively manage existing infrastructure.

Table 11 below summarises the financial and emissions impact of certain building projects outlined in this section.

The efficiency and degasification upgrades will proactively and strategically target the higher energy-consuming sites to implement significant and feasible opportunities for emissions reduction. Implementing environmentally sustainable design (ESD) standards and equipment technical specifications would progressively shift Council's building portfolio to an entirely electric mode as facilities undergo rebuilding, renewal and equipment upgrades and reduce facility emissions by around 7 per cent in 2035/36. Any operational savings from these approaches can then be reinvested into further energy efficiency projects to support such activities. Open space lighting recommendations will help Council understand the cost and savings associated with implementing a council-wide rollout of LEDs at sports fields, parks and reserves, as they play a significant role in Council's energy intensity.

Table 11: Costed actions to transition to net zero buildings and facilities

Actions	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings (tCO_2-e)	Lifetime Savings ($)	Simple Payback (years)
Implement ESD standards for new builds and upgrades	2024/25	55	$410,000	1,400	$1,349,000	15
Develop and implement resource efficient technical specifications for equipment	2024/25	7	$85,000	140	$114,000	5
Efficiency upgrades at top consuming sites (>30,000kWh/year)	2023/24	10	$120,000	315	$200,000	12
Art Gallery degasification	2026/27	93	$102,000	1,150	$641,000	3
Open space lighting	2024/25	8	300,000	295	$315,000	19

There is also a range of building operations management activities Council can employ to lower emissions that have not been modelled in this action plan, these include:

- Energy submetering at large sites and water data loggers at relevant sites to track water usage and to alert managers to unusual and excessive consumption;
- Automatic energy bill validation to identify unusual energy use patterns or tariff structures that warrant investigation;[12]
- Adoption of operational energy performance ratings such as NABERS at larger buildings e.g., Benalla Art Gallery and the Customer Service Centre;
- Solar performance analysis by establishing a universal solar analytics portal for all solar systems;
- Regular assessments of large air conditioning system settings to ensure systems are operating optimally, and aligned to a thermal comfort policy to support preferred building comfort parameters such as temperature ranges, air quality and ventilation

[12] Bill validation assess complex bills to determine if the charges are being modelling correctly- by verifying billable consumption data against actual real-time meter data.

4.3.4 Environmentally Sustainable Design Standards for New Build and Upgrades

An ESD policy and standard which applies to both new builds and upgrades will ensure that all Council facilities are designed and constructed in a systematic way with support from senior management to produce sustainably constructed facilities that are comfortable, energy and water efficient with good indoor air quality. This in turn promises a myriad of health, social and economic advantages.

On average, buildings that achieve a high level of ESD outcomes use around 70 per cent less electricity, produce around 60 per cent fewer greenhouse gas emissions, use 50 per cent less potable water, recycle 96 per cent of their waste and are resilient to climate change impacts.[13]

Some councils use internally developed standards that are tailored specifically for their council. Other councils use tools that are produced and updated by external providers. The main off-the-shelf tools used amongst Victorian councils are:

- BriefEzy Tool for smaller building projects designed specifically for council buildings (e.g., of around $10M and less);
- Green Star/PassiveHaus/WELL (or equivalent) for larger building projects

Council has the option to adopt an ESD policy and corresponding standards that encompass both large and small-scale new constructions and upgrades. Another option would be to commit to a formal ESD process for larger building projects only.

The additional 3 per cent cost of applying ESD standards is compensated by the significant ongoing operational and maintenance savings, with targeted ESD investments yielding a cost saving of $5-11 for every $1 spent. Capital costs depend on the project ambition and content, ranging from around 2-5 per cent, whilst utility cost savings and return on investment vary depending on the building size and occupancy patterns, ranging from around 3-7 years' payback.[14]

Figure 15: Benalla Library Operations

Employing best practice ESD standards can reduce emissions by 55 tCO_2-e, translating into a 7 per cent annual reduction per project depending on building size. It will also formalise the transition away from gas. This will save Council over $1.3 million

[13] The Value of Green Star: A decade of environmental benefits, 2013, Green Building Council of Australia.
[14] Green Building Council of Australia (GBGA), Annual report (2019), Green Star Financial Transparency Research Paper (2016); The Value of Green Star A Decade of Environmental Benefits (2013); and Pitt & Sherry, Harrington, 2013, *Environmentally Efficient Design Planning Policies* Cities of Banyule, Moreland, Port Phillip, Stonnington, Whitehorse and Yarra, Expert Evidence – Benefit Cost Analysis and Ironbark Sustainability, 2019, ESD Policy for Council Buildings Background Paper, Blue Mountains City Council and Blacktown City Council.

over a 25-year lifespan, at an extra capital cost of 3 per cent and a payback on investment of 15 years (Table 12).

Table 12: Impact of ESD standards for new builds and upgrades

Action	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)*	Lifetime Savings (tCO_2-e)	Lifetime Savings^ ($)
Implement ESD standards for new builds and upgrades	2024/25	55	$410,000	1,400	$1,349,000

**Includes $15,000 to development of ESD Policy and Standards*
^Savings are those above the estimated costs involved in the implementation of ESD standards in new buildings and renewals

The figures outlined in Table 12 are based on Council's 2023/24 capital works budget for new builds and renewals and reflect the impact of best practice ESD standards. To avoid the risk of over capitalising, the ESD standards can include a requirement that the selection of large mechanical and hydraulic systems is substantiated via a life cycle cost analysis to demonstrate best value emissions and cost savings, as well as maintenance and replacement implications compared to standard baseline systems.

4.3.5 Resource Efficient Technical Specifications

Resource efficient technical specifications for minor works, plant and equipment will enable Council staff, consultants and contractors to specify good quality, fully electric, durable and resource efficient equipment within all request for quotes and tenders, orders of works and maintenance contracts.

Furthermore, the technical specifications negate the need to conduct energy audits at smaller sites less than 30MWh/year consumption or sites with domestic-sized equipment such as daycares. Instead, a count of equipment can be conducted as part of general building condition audits and then specifications can be used to replace equipment with the most energy efficient and cost-effective model either upon expiry or via a dedicated efficiency programs should there be available funding.

It is estimated that technical specifications will reduce emissions by around 7 tonnes per year, representing a 2 per cent annual reduction on facility emissions with lifetime savings of $114,000 and a five-year payback on investment (Table 13).

Table 13: Impact of resource efficient technical specifications

Action	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings (tCO_2-e)	Lifetime Savings ($)
Develop and implement resource efficient technical specifications for equipment	2024/25	7	$85,000	140	$114,000

The ESD standards and equipment specifications will both require policy governance. Council should investigate inserting relevant clauses within the existing procurement policy or within any current ESD requirements. These specifications would be included in all tenders.

The assumptions used are as follows:

- Gas savings have not been quantified for Benalla Art Gallery as these are calculated in the separate degasification action;
- The expected lifespan of building services and equipment ranges from 15-30 years, an average of 25 years has been used;
- Actions incur 10 per cent savings on electricity use with an average payback of five years; and
- Costs of developing technical specifications are estimated at $15,000

4.3.6 Efficiency Upgrades at Top Consuming Sites

Council buildings over 30,000kWh/year use 84 per cent of Council's total electricity consumption and the electricity spend in 2022/23 was $174,554 (Table 14). This is spread amongst six buildings. This action is focused on implementing upgrades to these top consuming buildings before smaller facilities as they will result in the largest emissions and financial savings. Targeted energy efficiency measures can reduce electricity emissions by at least 10 per cent.

Figure 16: Solar at Splash Park

Table 14: Top consuming sites

Top Consuming Sites	Annual Consumption (kWh/year)
Benalla Art Gallery	301,215
Benalla Rural City Council- Customer Service Centre	140,549
Benalla Library Operations	82,571
Council Depot	43,772
Council Chambers & Civic Centre	41,184
Town Hall	30,541

A first step will be to audit the sites. Since no audits have been completed in at least five years, Ironbark recommends conducting a comprehensive audit and mechanical engineering report (combined) to identify energy efficiency opportunities. Assumed opportunities could be:

- HVAC system and controls replacement;
- LED lights;
- Lighting controls; and
- Appliance upgrades

It is recommended to complete these audits over a two-year period, commencing this financial year 2023/24, and implement actions from 2024/25 onwards over a three-year period. Table 15 demonstrates this action could mitigate 10 tCO_2-e annually. The total cost includes the audit costs estimated to be around $30,000 for all six sites and the cost to implement the upgrades, and an estimated return on investment of around $200,000.

Table 15: Impact of efficiency measures

Action	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings (tCO_2-e)	Lifetime Savings* ($)
Efficiency upgrades at top consuming sites (>30,000kWh/year)	2023/24	10	$120,000	315	$200,000

4.3.7 De-Gasification at Benalla Art Gallery

Replacing all gas equipment at Benalla Art Gallery would enable Council to move this building to all electricity use, which can then be sourced from renewable energy - making Council's building portfolio for the art gallery carbon neutral. Table 16 outlines the assumed action at this site. This recommendation is based on the information supplied by Council of the type of gas consuming equipment onsite. A detailed assessment will be required to identify the suitable replacement systems and their associated costs. This is likely to result in adjustments to the capital costs initially, whilst the anticipated cost savings will remain relatively unchanged.

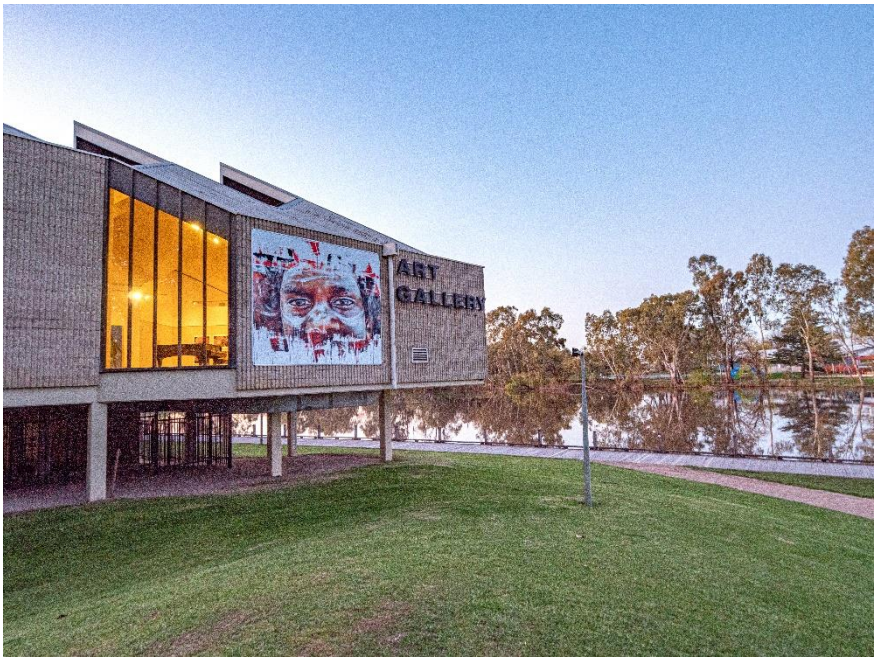


Figure 17: Benalla Art Gallery

Table 16: Degasification action

Site	Actions	Start Year
Benalla Art Gallery	Replace gas boilers with heat pumps	2026/27

Heat pumps are recommended to replace gas boilers at the art gallery as they are highly versatile and they can be used for space heating and domestic hot water heating. They can also be integrated with geothermal systems and can be scaled in size to suit the application. Heat pumps are highly efficient in comparison to gas boilers as they do not directly produce heat, but rather transfer heat between mediums (e.g., water source heat pumps have an efficiency of 400 – 600 per cent versus 85 – 98 per cent for gas boilers).[15]

The only disadvantage is the upfront costs, as heat pumps can be more expensive than the like for like replacements of a gas boiler. This action could use the 50 per cent co-funding from CEUF to help with this up-front cost. A conservative cost estimate has been used in this assessment due to price variability depending on the existing equipment on site. The actual costs may be reduced once a detailed site assessment has been undertaken.

This action would reduce approximately 93 tonnes of emissions, leading to an average annual reduction of 13 per cent in facility emissions. This measure would save $641,000 over the 15-year lifespan of equipment at a cost of $102,000.

Table 17: Impact of replacing gas equipment to electricity

Action	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings (tCO_2-e)	Lifetime Savings ($)
Art Gallery degasification	2026/27	93	$102,000	1,150	$641,000

This action was calculated using the following figures and assumptions. Council may expect changes to capital costs once assessments are undertaken:

- 2022/23 gas billing data and average rates to estimate expected heat pump heating load and cost savings;
- Energy input for gas boilers and heat pumps, sourced from the NSW Government 2019;
- Cost, savings and type of equipment for other councils Ironbark have worked with in the past that have similar energy consumption and gas consuming equipment; and
- Green Building Council Australia's guide to electrification for existing buildings for councils

The other two sites with gas, the Town Hall and Benalla Showgrounds were excluded from this action. The Town Hall has recently undergone an upgrade, whereby all gas has now been electrified, so no de-gas action is needed. This was likely done after the inventory year 2022/23, so the emission savings associated with this site wouldn't be realised. The next

[15] NSW Government net zero pools guide: https://bitly.ws/V4G6

inventory period will likely show no gas on this site. Benalla Showgrounds was excluded due to the only gas equipment onsite are BBQs and a transition isn't required for BBQs at this stage.

4.3.8 Open Space Lighting

Open space lighting encompasses lighting in reserves, parks, sports grounds and carparks. By upgrading lights to LEDs they will not only reduce emissions, but can also improve community amenity and safety as these places are areas frequented most by the community. Council have indicated they have budgeted in their current CAPEX budget to support upgrading open space lighting where possible.

Figure 18: Benalla open spaces

Ironbark has made the assumption of the cost, savings and emission savings based on assumptions from the population in Benalla, and the number of lights assumed at each open space. The reason for the low-cost savings and long ROI is due to the cost of upgrading these lights as they are typically large floodlights or mercury vapour high bays, which tend to cost more to replace with LEDs, and the cost of labour to install. Ironbark still recommends starting the process since Council will see savings and as these places are community facing will help with the community's expectations of mitigating climate change.

It's been recommended to begin the process in 2024/25, which will immediately see savings of 8 tonnes per year with a lifetime savings of 295 tCO_2-e. The impact of this action is detailed in Table 18.

Table 18: Impact of open space lighting upgrades

Action	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings (tCO_2-e)	Lifetime Savings* ($)
Open space lighting	2024/25	8	300,000	295	$315,000

4.4 Hard Surface Circular Economy Standards

Councils are responsible for a wide range of hard surface infrastructure construction, repair and specifications including roads, footpaths, driveway cross overs, shared paths, carparks, drainage and water infrastructure, and outdoor sporting courts. The majority of emissions from capital works for hard surfaces come from the materials, plant and equipment during the works, and clearing of vegetation.[16]

BRCC's hard surfaces include:[17]

- 561km of sealed roads;
- 773km of unsealed roads;
- 130km kerb and channels;
- 110,097 square meters of off street carparks;
- 75 bridge and 230 major culverts;
- 104km of footpaths; and
- 21km cycleways

Figure 19: BRCC road construction projects

Emissions from asphalt, concrete and associated construction materials for Council roads and footpaths were excluded from the Council's emissions inventory due to insufficient data and it is recommended that the Council address this gap in future data collection processes. In a high-level estimate, benchmarked against other councils and the quantity of roads and footpaths in the LGA, it is estimated that Council produces approximately 5,000 tCO_2-e in emissions from hard surface projects each year. This number is relatively high, as it's based on the total km of roads and footpaths, and assuming the most inefficient type of asphalt and concrete are used currently. This data gap is addressed further in the inventory report.

Based on a simple specification to lower emission content for new hard surface projects, Council can expect to reduce road emissions by 20 per cent per project.

Council should begin incorporating circular economy principles in hard surface construction to reduce waste and lower emissions by, for example, retaining recycled civil materials for reuse as base material. Council also has an opportunity to develop a standard, policy or guideline for hard surface construction and could consider the inclusion of:

[16] Note, as these are embedded emissions, not operational emissions, all emissions from Council's road/footpath infrastructure are essentially 'locked in' emissions. Council can only, from now on, seek alternative materials and processes to reduce concrete and asphalt emissions for each year new projects that are carried out.
[17] Retrieved from Benalla Rural City Council Asset Plan 2022-2032

- Performance targets to reduce emissions from various activities such as concrete selection and volume;
- A commitment to minimise waste and adhere to certain road and path design principles; and
- Reduce the volume of hard surfacing to introduce more non-permeable and green space within relevant streetscapes (especially residential roads and key precincts)

Other considerations include:

- Increase use of low emission recycled priority materials (e.g. glass, plastic and rubber);
- Increase use of recycled civil materials (e.g. soil, rock, crushed concrete and recycled asphalt pavement);
- Consider substitution of general purpose/Portland cement with slag or flay ash in concrete;
- Use of low emission processes (such as warm mix asphalt); and
- Require other councils or companies that are sending waste to the Benalla Landfill Resource & Recovery Site to use material that can be easily reused in road works

Incorporating approaches such as these should be accompanied by appropriate input from key Council staff (engineers, designers, road construction and maintenance crews), local contractors and suppliers, and where appropriate, tertiary institution partners, to identify the best practices to adopt for the local context.

Ironbark recommends the development of a circular economy hard surfaces policy or standard, which has an estimated cost of $15,000-$25,000. These standards could outline a strategic 5-10-year transition plan involving multiple trials and pilots. The proposed plan could gradually increase the use of low-emission and recycled materials while incorporating designs that adapt to climate change.

Moreover, Council has the opportunity to leverage the advancement made by other entities, such as the Victorian Department of Transport's well-established guidelines for incorporating recycled content in roads and pavements. The State Government's commitment to fostering a circular economy via programs like the Circular Economy Council Fund[18], and the continuous national research conducted by organisations like Austroads exploring alternative materials and technologies (e.g., the Austroads spray seals research project scheduled for completion by the end of 2024).

[18] Retrieved from https://www.sustainability.vic.gov.au/grants-funding-and-investment/grants-and-funding/circular-economy-councils-fund

4.5 Fleet Transition

Transport fuels currently contribute 6 per cent of Council's total emissions. Typical solutions for reducing transport fuel costs, such as reducing the size of Council's fleet, reducing vehicle usage and purchasing more fuel-efficient vehicles can help to lower emissions but do not deliver the step change required to mitigate climate change. The electrification of Council's fleet is a key action to achieve this and to reduce emissions most cost effectively and to meet Council's net zero target.

Due to varying electric vehicle and plant technology maturity, costs and availability among different vehicle types, an immediate full transition of Council's entire fleet isn't feasible. Instead, a phased approach is recommended, allowing gradual integration of low emissions vehicles like electric vehicles (EVs), as technology advances, costs decrease, and suitable models become available. This approach also provides sufficient time for policy adjustments and installation of essential charging infrastructure to facilitate the transition.

As such, it is recommended that Council implements the following actions over the coming years as it transitions towards a net zero emissions vehicle fleet:

- Begin to transition passenger fleet to EVs;
- Start planning for the transition of vans and utes to EVs;
- Begin installation of required charging stations; and
- Undertake feasibility studies, trials and monitor technological advancement for heavy vehicles and light and heavy plant

Figure 20: EV charging station

4.5.1 Current Fleet

Council owns and operates a fleet of transport vehicles and plant, totaling 59 registered assets, which includes four hybrid SUVs. A summary of Council's internal combustion engine vehicles (ICEV) including hybrids, is presented in Table 19. There is currently one EV in Council's fleet.

Table 19: Council ICEV fleet summary[19]

Vehicle type	No.	Emissions (tCO_2-e per year)	Annual Usage (km per year)	Fuel consumption (L/year)
Light Fleet				
Passenger Vehicles	19	77	411,615 km*	25,631
Vans	1	5	18,993 km*	1,557
Utes	19	139	534,961 km*	41,103
Heavy Fleet				
Other Trucks	11	153	220,000 km**	45,241
Plant				
All Plant	9	286	-	89,093
Total	**59**	**660**	**1,185,569**	**202,625**

*Calculated based on the fuel efficiency of the vehicle make and model

**Assumed an average 20,000 km per truck

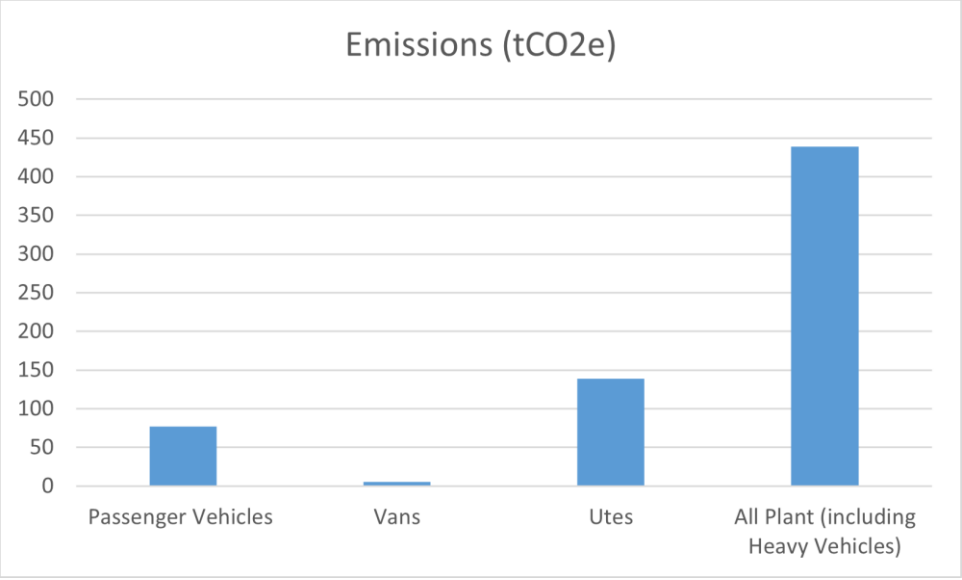


Figure 21: Total carbon emissions per vehicle type (tCO_2-e per year)

[19] This is a fleet data snapshot based on the fleet usage spreadsheet provided. The annual usage (km per year) was estimated based on the litres used and fuel efficiency of the vehicle found online. Where fuel efficiency wasn't available, for instance on heavy fleet, asn assumed 20,000 km travelled per year was used.

4.5.2 Current Fleet Strategy

Council has an existing fleet strategy that guides the timing of BRCC's vehicle turnover. It is recommended that this strategy is updated to include a plan for transitioning the fleet to EVs, such that it aligns with Council's current replacement cycle. This will help streamline the transition from ICEVs to EVs with what Council already has planned in terms of budget allocation. Incorporating EVs into the current strategy will support a timely and cost-effective transition, ensuring Council is not left with stranded assets as global vehicle supply chains electrify.

Figure 22: Fleet strategy

Aligning the transition with Council's typical asset replacement cycle (10 years) will also prevent the need to write off assets and allow for the gradual installation of charging infrastructure as electric vehicles are added to the fleet. This phasing will also allow Council to purchase the majority of EVs closer to the time when cost parity between ICEVs and EVs is expected to be reached, reducing additional capital cost on the purchase of new EVs.

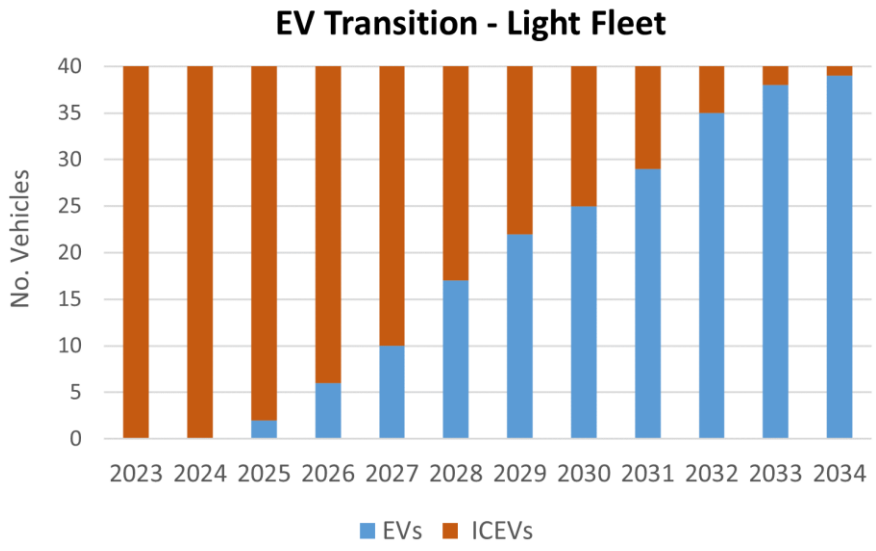


Figure 23: BRCC light fleet transition- ICEV to EVs

4.5.3 Light Vehicle Fleet Transition

BRCC currently has 39 petrol or diesel vehicles in its light vehicle fleet (passenger vehicles, utes and vans). In 2022/23, these vehicles consumed over 68,000 litres of fuel, producing 221 tCO_2-e of emissions or 34 per cent of Council's transport emissions. The market for electric passenger vehicles is the most mature for any vehicle type within Australia with over 70 different models currently available, covering all key passenger vehicle types.

Figure 24: Light vehicles transition

4.5.3.1 Passenger Vehicle Transition

Table 20 divides the vehicles within Council's passenger vehicle fleet into five classes. For each class and fuel type, an example vehicle from Council's fleet has been identified together with an equivalent electric vehicle alternative. The current purchase price has also been identified for the new ICEVs and EVs as well as an estimated year in which price parity is expected to be achieved between the corresponding vehicles.

Table 20: Electric vehicle alternatives for passenger vehicle types

Existing Vehicle			Existing Fleet			EV Alternative		
Vehicle Class		Fuel Type	No.	Model Vehicle in Fleet	Current Price	Vehicle Example	Current Price	Est. year of price parity
Passenger Vehicles	Hatchback	Unleaded	4	Ford Focus	$25,990	MG4	$38,990	2026/27
	Sedan	Unleaded	2	Toyota Corolla Sport	$23,250	BYD ATTO 3	$48,011	2026/27
		Hybrid (Unleaded)	3	Toyota Camry (Hybrid)	$31,790			
	Small – Medium SUV/Wagons	Unleaded	8	Hyundai Tucson	$29,888	MG ZS EV	$47,990	2026/27
	Medium – Large SUV/Wagons	Diesel	2	Toyota Fortuner	$54,350	Kia 9 EV	$97,000	2030/31

Ironbark have modelled the cost and impact of transitioning the passenger vehicle fleet to electric vehicles over a six-year period starting in 2024/25. The modelling assumes that all vehicles are replaced at the end of their lifecycle, in line with fleet strategy plan.

The projected cost to renew Council's current passenger vehicle fleet with like-for-like ICEV under a business-as-usual scenario is $593,634, based on current prices. Alternatively, if all passenger vehicles were transitioned to electric vehicles in line with the phasing outlined in Table 21, it would cost Council an estimated $667,475. This represents an additional $73,841 or eight per cent above business-as-usual costs to fully electrify Council's passenger fleet over six years (Table 22).

Figure 25: MG4

Table 21: Phasing of passenger vehicle EV transition over six years

No. of EVs purchased	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
MG4	1	2	1			
BYD ATTO 3	1	2	1	1		
MG ZS EV			2	3	2	1
KIA 9 EV				1	1	

Table 22: Estimate BAU replacement and EV transition costs

Vehicle Type	BAU Capital Cost	Transition Cost	Capital Differential	Per cent Difference
Passenger	$593,634	$667,475	$73,841	8 per cent

Phasing the passenger vehicle transitions in line with Table 21 requires only eight of 19 passenger vehicles to be transitioned at the current capital cost difference. This difference will slowly decrease as price parity is approached, and 11 of 19 vehicles are recommended to be transitioned after price parity has been achieved for their respective vehicle types. This approach minimises the additional capital required to facilitate the EV transition.

Figure 26: BYD ATTO 3

Transitioning Council's passenger fleet will also lead to significant maintenance and operational savings, predominately realised from fuel savings associated with the switch to electric vehicle. Table 23 compares the fuel costs per 100 km between example petrol and electric vehicles. Based on Council's predicted electricity tariff should they enter a PPA, the estimated cost of charging is approximately 14 per cent of the cost of fuelling a standard petrol vehicle. Across Council's entire passenger vehicle fleet, annual fuel savings have been estimated to be up to $44,000 per year once all vehicles have been transitioned to EVs.

Table 23: Example comparison of EV and ICEV running costs

Vehicle	Energy use per 100 km	Energy Cost	Cost per 100 km
BYD Atto 3	14.3 kWh	$0.081 per kWh	$1.16
Toyota Camry	4.27 L (ULP)[20]	$1.92 per L[21]	$8.20

In addition to fuel savings, electric vehicles typically have lower maintenance costs due to fewer moving parts,[22] however maintenance savings estimates have not been included in this modelling. The recent Fringe Benefits Tax (FBT) exemption for EVs priced under $85,000 can also be factored into reduced costs for employee vehicles under a novated lease.[23]

4.5.3.2 Utility Vehicle Transition

Council currently owns one van and 19 diesel utes. As with passenger vehicles, Council's light commercial fleet has been grouped into vehicle types based on size and fuel type with an equivalent electric vehicle alternative identified, as shown in Table 24. Current prices for new ICEV and EVs have also been identified as well as estimated year of price parity.

Table 24: Electric vehicle alternatives for utility vehicles and vans

Existing Vehicle			Existing Fleet			EV Alternative		
Vehicle Class		Fuel Type	No.	Example Vehicle in Fleet	Current Price	Vehicle Example	Current Price	Est. year of price parity
Light Commercial	Vans – Small	Diesel	1	Toyota H30 HiAce	$51,315	Renault Kangoo Maxi Z.E.	$55,295	2027/28
	Utes	Diesel	19	Ford Ranger 6sp 4x2 Auto	$37,390	Ford F-150 Lightning Pro[24]	$120,000 [25]	2030/31

[20] Calculated based on average usage for Council.
[21] Average unleaded petrol price for Melbourne, VIC for 2022/23 Financial Year, FuelWatch
[22] Estimated $1,000-$2,000 servicing and maintenance costs saved per year: https://www.racv.com.au/royalauto/transport/electric-vehicles/electric-car-servicing-costs.html
[23] https://rac.com.au/car-motoring/info/ev-fringe-benefit-tax
[24] Not currently available on the Australian market.
[25] Based on the cost of a Ford F-150 Lightning Pro in the US in September 2023: $49,995 USD, the cost in AUD would be $80,000 but $120,000 has been conservatively used for an estimated current price, https://www.drive.com.au/news/electric-ute-and-van-sales-australia/

Figure 27: Ford F-150 Lightning Pro electric ute

Whilst there are several electric vans currently on the Australian market, they typically have a higher capital cost differential than for passenger vehicles. Council has one van but should there be plans to significantly increase this number, a slower transition to electric vans is recommended to reduce upfront capital expenditure.

Table 25: Phasing of van and utes transition to EVs

FY	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
No. of Electric Vans purchased			1						
No. of Electric Utes purchased			1	2	2	4	6	3	1

The range of electric utes currently available on the Australian market is currently limited. One electric alternative is the LDV eT60, which currently retails for $92,990, plus on road costs. However, with a towing capacity of only 1,000 kg, it is not currently a viable alternative for Council. There are a greater number of options available in international markets, which are considered more fit for purpose and are expected to begin entering the Australia market over the next few years. The range, load capacity and tow capacity are continuing to improve with each updated model that is released. For example. The Ram EV, due to be released in the US at the end of 2024, has a 1.25t load capacity, 6t tow capacity and up to 800km range.[26]

[26] Retrieved from https://www.carsguide.com.au/car-news/confirmed-for-australia-ram-1500-rev-to-lead-ev-jumbo-ute-charge-in-down-under-89435#:~:text=The%20Ram%201500%20REV%20has%20been%20confirmed%20for%20Australia%2C%20set,us%20to%20expand%20our%20presence.

Given this, Council can commence the transition to electric utes starting from 2026/27, as shown in Table 25. For the purposes of modelling cost and impact of the transition, Ironbark has based the ute transition on the Ford F-150 Lightning Pro, which currently retails for $49,990 USD in the United States. Given Australia is lagging in the EV ute market however, a price of $120,000 AUD has been conservatively used. Again, it is recommended to start the transition with a small number of electric utes before ramping up in later years.

Table 26: Estimate BAU replacement and EV transition costs

Vehicle Type	BAU Capital Cost	Transition Cost	Capital Differential	Per cent Difference
Vans	$51,315	$52,310	$1,000	<1 per cent
Utes	$710,410	$1,051,176	$340,766	6 per cent

As with passenger vehicles, transitioning to electric light commercial vehicles will lead to significant savings in fuel costs. Once all vans and utes have been transitioned to EVs, it is estimated Council will save over 42,000 L of fuel and $84,000 per year.

4.5.3.3 Charging Station Installation

To facilitate the electrification of Council's fleet, sufficient charging infrastructure will need to be installed to meet operational requirements. To assess the likely cost of required charging infrastructure, it has been assumed that all vehicles will require a dedicated 22kW AC charging port provided through a dual port station such as the Ocular IQ Commercial Dual Port Tower Three Phase.[27] This type of charger will be able to provide a full recharge to a standard EV in 2-3 hours. In total, 20 charging stations are estimated to be required by the end of the transition to support 59 vehicles within Council's light fleet. Council currently has one charging station (which charges the existing EV). Ironbark has assumed it has capacity for a dual charger, so have reduced the recommended number of chargers by one. This will require a total investment of $462,500, which includes the annual software licencing costs of approximately $500 per vehicle per year. While the cost of charging stations represents a high upfront capital cost, Council can seek grant funding opportunities through State and Federal Governments (e.g. CEUF) to reduce budget impacts. Being a rural council, BRCC should also consider spacing the chargers across frequently visited council localities to ensure sufficient range is met.[28] Council's fleet strategy

Figure 28: Charging station

[27] Retrieved from https://ocularcharging.com.au/ocular-iq-dual-tower/
[28] For the EV models listed, the range varies between 330 km and 480 km

should include a charging station roll-out with these details as well as opportunities for dual-purpose chargers for Council and the community.

Table 27: Phasing of EV chargers in line with EV roll-out

FY	25/26	26/27	27/28	28/29	29/30	30/31	31/32
EV Charger	2	3	4	3	3	3	2

Table 28 summarises the impact, cost and savings of Council's fleet transition. In total, 194 tCO_2-e are estimated to be saved per year once Council's light vehicle fleet has been transitioned to EVs. The total transition is estimated to require an additional capital expenditure of $878,500 above BAU. This will be offset to a large degree by fuel savings. Total fuel savings across the transition period are estimated to save Council $1.1 million. The additional capital expenditure will also be offset by reduced service and maintenance costs and reduced FBT and import taxes.

Table 28: Impact of fleet transition actions

Actions	Start Year	Impact in 2035/36* (tCO_2-e)	Total Cost ($) ^	Lifetime Savings ($) #
Transition all (19) passenger vehicles to EVs by 2029/30	2024/25	76	$74,000	$330,000
Transition all vans (1) to EV by 2026/27	2026/27	5	$1,000	$33,000
Transition all utes (19) to EVs by 2032/33	2026/27	140	$341,000	$777,500
Install sufficient charging stations for passenger vehicles and van**	2023/24	-	$232,000	-
Install sufficient charging stations for utes**	2023/24	-	$230,500	-

** Assumes electric vehicles charged by 100% renewable energy, e.g., through a 100% renewable PPA.*
^ Capital costs for fleet actions are calculated as the additional capital expenditure required above business-as-usual costs
 # Savings have been calculated across a seven-year transition period for each vehicle class

*** Cost of charging infrastructure includes installation and software costs but excludes any potential electrical upgrades*

4.5.4 Heavy Vehicles

Council has 11 heavy vehicle trucks in their fleet. Ironbark was able to identify these as such by the make and model provided in the fuel data. The majority of the heavy vehicles are tippers, carrying trucks or tray trucks.

The electrification of heavy vehicle fleets is trailing that of passenger and utility vehicles in Australia, with the technology largely only used in trial programs. Presently there are barriers to the wider adoption of electric trucks due to the high capital cost and comparatively short routes trucks can travel on a single charge.

Figure 29: Ecanter FUSO electric truck

Most councils would own and operate waste trucks in their heavy vehicle fleet, but BRCC don't have any waste trucks so they sit outside their operational control, and are thus excluded from the current inventory. At the moment the only electric heavy vehicle that could replace Council's current heavy fleet is the Ecanter FUSO truck. It's currently being trialed in Australia and not due on the market for some time.

Once zero emission heavy vehicles become more available and reach cost parity in Australia, Council can model costs to implement a heavy vehicle fleet transition in line with those developed for passenger and utility vehicles. In the interim, if not already in the current fleet strategy, Council should continue to examine market opportunities and undertake heavy plant feasibility studies and trials including a cost benefit analysis of tippers and carry trucks and other heavy fleet vehicles.

4.5.5 Plant- Vehicles and Machinery

As part of Council's vehicle transition plan, it is recommended Council undertake the following steps to transition plant vehicles and machinery:

- Conduct a detailed analysis of current equipment needs, fuel usage and costs to compare with electrical equipment specifications on fuel usage data (at a minimum) to understand operating costs and the business case before purchasing electric replacements;
- Investigate adoption of electric alternative machinery such as forklifts, small excavators and material handlers, where there are affordable and good quality options;[29] and
- For other light and heavy plant options that are still in prototype phase with certain market or engineering limitations (such as tractors, loaders and bobcats), continue to monitor the market and conduct feasibility studies and trials before adopting across the portfolio

See Table 29 for EV replacement options for general construction and plant machinery as of 2023.

Figure 30: Current plant machinery

[29] Machinery such as forklifts, small excavators and material handlers have been supported by demand in applications where noise and environmental pollution from traditional diesel engines become an occupational risk, such as in instances of indoor use. The availability of these machines in Australia makes the replacement of these vehicles straight forward.

Table 29: Electric replacements for general construction and plant machinery

Vehicle type	EV replacement make and model	Australian availability	Cost (incl GST)	Other details
Aerator	N/A	N/A	N/A	
ATV	Crossfire E1	Yes	$18,000	Range: 5 hours Battery size: 2080ah
Bobcat loader	Bobcat T7X	N/A	N/A	Range: 4 hours Battery size: 62kWh
Bucket broom	N/A	N/A	N/A	
Bunker rake	Baroness SP160EB	N/A	N/A	Range: 4–7 hours Battery size: 2.5kWh
Compactor	N/A	N/A	N/A	
Crane loader	N/A	N/A	N/A	
1.8T excavator	JCB 19C-IE	Yes	$143,000	Range: 4 hours Battery size: 20kWh
3-5T Forklift	Komatsu FB30	Yes	$39,000- $77,000	Battery size: up to 725ah
Front end loader	Avant e5-25	Yes	$83,000	Range: 6 hours Battery size: 27kWh
Greens roller	Tru Turf RE50	Yes	$46,000	Range: 36 greens Battery size: 1.5kwh Lithium
Kerb machine	N/A	N/A	N/A	
Lawn mower – large	N/A	N/A	N/A	
Lawn mower – small to medium*	EcoTeq Evo EcoTeq Rival	Yes[#]	$93,500 $71,500	Range: 8 hours
Lawn mower – small	Toro eTRiFlex 3370	Yes	$92,400	
Pavement sweeper	EcoTeq Ecosweep360	Yes	$177,000	Range: 8 hours
Loader	Avant e5-25; No replacements for the larger models	Yes/No	$16,000	
Posi Track Loader	Bobcat T7X	Not yet	N/A	Range: 4 hours Battery size: 62kWh
Roller	Ammann eARX26-2	Prototype stage only	N/A	Range: 18 hours Battery size: 31.5kWh
Trencher	N/A	N/A	N/A	
Turf sweeper	N/A	N/A	N/A	
Tractor	N/A	N/A	N/A	
Wheeled excavator	Sennebogen	Yes	Various	Various

4.6 Waste

Landfill is the greatest source of emissions within Council's corporate emissions inventory, with 8,061 tCO_2-e produced in 2022/23, accounting for 74 per cent of Council emissions. Legacy emissions from waste disposed of at the Benalla Landfill Resource and Recovery Site in previous years also contributes to the emissions produced. These legacy emissions are the reason Ironbark has recommended Council set two net zero targets. This gives Council the opportunity to investigate other technology that may not be viable now or even in 2035, that will help reduce Council's waste to not need to offset as many emissions in 2040/41.

Council have provided FOGO for its urban residents since 2015, rural residents don't have a FOGO bin, but have the option to bring it into the Resource and Recovery Site in certain months. Since FOGO was introduced, this has reduced emissions from food and green waste to close to zero, contributing a significant reduction in Council's landfill emissions.

The building at the landfill site has a 9.6kW system with a 16.5kW lithium battery bank. The solar system generates an estimated 11,000 kWh/year, roughly reducing the building's emissions by 12 tCO_2-e a year, which contributes to the building and facilities sectors emissions reduction.

Figure 31: Benalla Landfill Resource & Recovery

An uncosted action and one that won't directly reduce Council's emissions is landfill auditing. Audits can help councils better understand the performance of their landfill site and the different systems used like, MSW, C&I and C&D. It can also show councils how effective their FOGO bins are and if the community is properly sorting between general waste, recycling and FOGO bins.

Since Council has already implemented FOGO, the next action Council can take it to capture methane from landfill emissions and flare, either on-site or off-site with a biogas company. Gas flaring converts methane into a less potent greenhouse gas, carbon dioxide, by capturing and combusting the methane at Council's current active landfill. This is estimated to reduce Council's waste emissions by 30 per cent.

The cost to implement flaring by either installing the required infrastructure to capture and flare on-site or collaborate with an experienced biogas company is site specific and not included in this report. Both methods can claim Australian Carbon Credit Units (ACCUs), so if Council considers this reduction measure should further explore the eligibility requirements.

It's recommended that Council investigate the potential impact and cost savings to implement this action beginning in 2025/26, which will reduce Council's overall emission by 24 per cent annually.

Council have indicated they will be accepting waste from surrounding councils in the next few years, so having landfill flaring set up will be crucial to reduce the increase in landfill emissions over the years.

Table 30: Impact of landfill gas flaring

Action	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings ($)
Landfill gas flaring	2025/26	2,456	Not Modelled	

Australian Carbon Credit Units (ACCUs)[30]

ACCUs are a financial instrument awarded to eligible energy efficiency, renewable energy generation and carbon sequestration projects that result in a reduction of greenhouse gas emissions.[31] An ACCU is a unit issued to a person or entity by the Clean Energy Regulator (Regulator) by making an entry for the unit in an account on the Australian National Registry of Emissions Units (registry). Each ACCU issued represents one tonne of carbon dioxide equivalent (tCO_2-e) stored or avoided by a project. An ACCU can only be issued if the person or entity is registered account.

Figure 32: ACCU explanation

4.7 Future Opportunities

A number of opportunities to further reduce Council's emissions and achieve its net zero target have not been modelled as part of this action plan, either due to insufficient information being available at the time or because the action is not yet feasible to be implemented. In future updates to this action plan, these opportunities should be re-evaluated as relevant technologies develop, and financial viability improves. State and Federal government funding and financing programs may also arise, particularly with regards to heavy vehicles and charging infrastructure. Some of these opportunities may include:

- Small and large-scale battery storage (could be explored as part of energy optimisation projects for buildings or used to reduce peak demand tariffs);
- Council-owned solar farm;
- EV models for light commercial vehicles that aren't currently on the market, but may be once the transition begins (2026/27 for vans and utes)
- Electric or hydrogen-powered heavy vehicles;

[30] Retrieved from https://www.cleanenergyregulator.gov.au/OSR/ANREU/types-of-emissions-units/australian-carbon-credit-units#:~:text=An%20ACCU%20is%20a%20unit,Emissions%20Units%20(Registry)2.
[31] Retrieved from https://greenenergytrading.com.au/carbon-credit-faqs

- Electric or hydrogen alternatives for stationary fuel plant (vehicles and machinery);
- Development of a Circular Economy policy to minimise Council's corporate waste to landfill; and
- Waste to Energy - Monash Council is currently in the initial stages of building a waste to energy facility and will start accepting waste from other councils or entities in 2025/26[32]

4.7.1 Future Opportunities at the Benalla Aquatic Centre

Council owns the aquatic centre located at 4 Mair St, Benalla VIC and leases it out to the YMCA. Due to the complicated nature of the billing structure (the retailer bills YMCA directly and BRCC reimburses YMCA up a certain amount each month), this site was excluded from Council's operational boundary. The electricity and gas consumed at this site has not been included in Council's baseline inventory emissions for 2022/23 and it was not modelled as part of the actions in this plan. Depending on the leasing arrangements, there are a number of future opportunities BRCC and the YMCA can investigate to reduce emissions associated with the aquatic centre as much as possible. This may include:

- Solar PV (microgrid opportunity);
- Energy and gas audits and upgrades;
- LED lighting; and
- Electrify air and pool heating by installing heat pumps

These are just a few things that can reduce the aquatic centre's emissions. By conducting site audits and understanding the site's usage better, Council can prioritise the energy efficiency upgrades that will have a more attractive return on investment.

5. Net Zero Pathway Analysis

Implementation of all actions recommended in Section 4 will see a reduction in annual emissions of around 35 per cent by year 2035/36 compared to baseline emissions.

Table 31 below summarises the results of the cost-benefit analysis for each action, including:

- Annual emission abatement estimated in 2035/36;
- Total cost, including the estimated additional capital and maintenance cost above BAU for the implementation of the actions across the action/asset lifecycle; and
- Lifetime savings, calculated across the asset lifecycle. Impact, cost and savings are high level estimates based on the data provided by Council

[32] Retrieved from https://www.monash.vic.gov.au/About-Us/News/Recovering-energy-from-landfill-waste#:~:text=The%20facility%20will%20be%20operational,not%20part%20of%20the%20process.

Table 31: Summary of recommended actions

Actions	Refer to Section	Start Year	Impact in 2035/36 (tCO_2-e)	Total Cost ($)	Lifetime Savings ($)
100 per cent renewable PPA	4.1.1	2024/25	130	Cost Neutral	
Rooftop solar	4.1.2	2024/25	35	$325,000	$1,108,000
ESD standards for new builds and upgrades	4.3.4	2024/25	55	$410,000	$1,349,000
Resource efficient technical specifications for equipment	4.3.5	2024/25	7	$85,000	$114,000
Efficiency upgrades at top consuming sites (>30,000kWh/p.a.)	4.3.6	2023/24	10	$120,000	$200,000
Art Gallery degasification	4.3.7	2026/27	93	$102,000	$641,000
Open space lighting	4.3.8	2024/25	8	$300,000	$315,000
Upgrade remaining streetlights to LED including SMART capabilities	4.2	2024/25	25	$992,500	$1,966,000
Transition all passenger vehicles (19) to EVs by 2029/30	4.5.3	2024/25	76*	$74,000	$330,000
Transition all vans (1) to EVs by 2026/27	4.5.3	2026/27	5*	$1,000	$33,000
Transition all utes (19) to EVs by 2032/33	4.5.3	2026/27	140*	$341,000	$777,500
Install sufficient charging stations for all passenger vehicles and vans	4.5.3	2024/25	-	$257,000	-
Install sufficient charging stations for all utes	4.5.3	2026/27	-	$230,500	-
Landfill gas flaring	4.6	2025/26	2,455	Not Modelled**	
		Total	**3,039**	**$3.2M**	**$6.8M**

**Assumes electric vehicles charged by 100% renewable energy, for example, through a 100% renewable PPA.*
^Estimated cost of purchasing renewable electricity over a 10-year contract based on current renewable energy premium of 2.23c/kWh. This is not included in the cash flow analysis.
#Costs and savings for waste to energy not included in cash flow analysis

5.1 Benalla Rural City Council's Net Zero Pathway

If all actions listed in Table 31 are implemented, it is estimated that Council will be able to abate over 3,000 tCO_2-e per year by 2035/36 compared to BAU emissions projections. Implementation of the actions are also estimated to achieve a lifetime savings of over $6.8 million across the lifespan of the actions and assets modelled. The modelling underpinning the plan takes into account the BAU emissions projection presented in Section 3.2, including the region's expected population growth and the emissions intensity of the Victorian electricity grid.

This plan will require investment of around $2.3 million over the next four years. Capital costs also include ongoing costs (for example maintenance of solar PV system) that will recur across the lifecycle of some assets and programs. There is potential for some investment to be reduced if grants, in addition to the CEUF program, become available over the coming years to incentivise the transition to net zero. Preliminary scoping through feasibility assessments and business cases may assist Council preparedness to pursue any opportunities that arise.

Figure 33 shows Council's emissions reduction pathway to net zero in 2035/36 and 2040/41 based on the actions outlined in Table 31. The graph begins with the baseline year of 2022/23 and captures emissions savings since this year. On the graph, everything above the red line indicates emissions savings from the action implemented in this plan compared to a BAU emissions trajectory. Everything below the red line is the remaining emissions once those actions have been implemented. The major actions that contribute to this trajectory are:

- 2024/25- 100 per cent renewable energy PPA for all assets (including street lighting)- VECO 2.0 begins;
- 2024/25- implementation of solar PV across viable Council buildings;
- 2025/26- landfill gas flaring commences;
- 2026/27- begin the transition to EVs for the majority of Council fleet; and
- 2026/27- de-gas the Benalla Art Gallery

By 2035/36 Council will have been able to abate over 3,000 tCO_2-e (before offsetting) and in 2040/41 over 2,800 tCO_2-e (excluding offsets) compared to BAU emissions projections. Council's residual emissions in 2035/36 are estimated to be approximately 7,200 tCO_2-e. These residual emissions will predominately come from waste and heavy vehicle fuels.

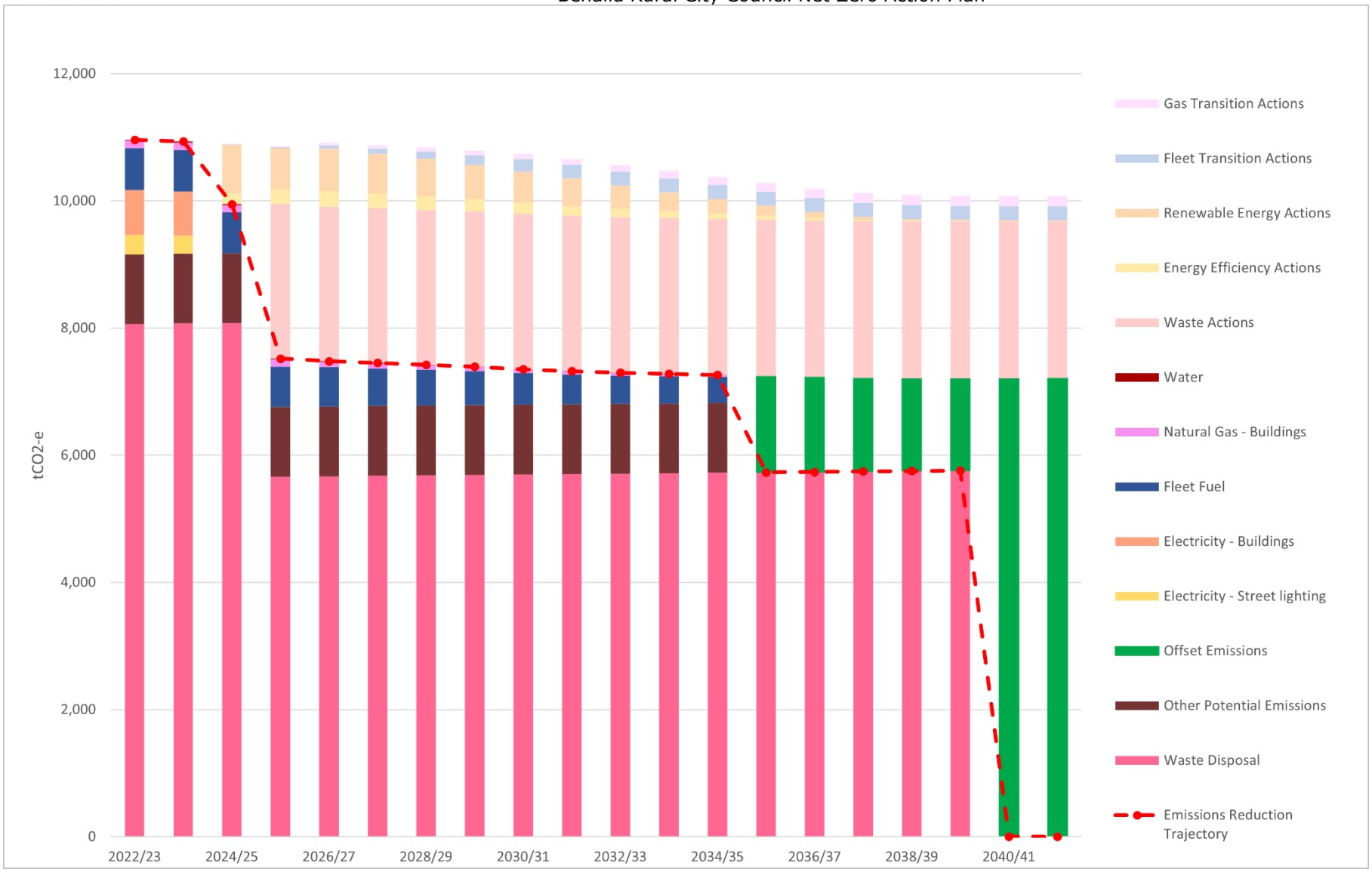


Figure 33: Benalla Rural City Council pathway to net zero 2035/36 and 2040/41

The recommendation to enter into the VECO 2.0 agreement with 100 per cent renewable energy for all sites by 2024/25 will reduce electricity emissions to zero. Emissions abated through the contract assumes all energy efficiency and renewable energy actions commenced prior to this year have been implemented first, reducing Council's overall electricity demand.

5.2 Cash Flow

Figure 34 shows the cash flow of the modelled actions. The blue bar is the annual costs for all actions recommended in this plan (including ongoing maintenance costs), the green bar is the annual savings achieved from the actions recommended in this plan. The cumulative cash flow (yellow bar) in each year is the cumulative savings minus total costs incurred between 2022/23 and that year. A negative cumulative cash flow indicates total costs to date are greater than savings. A positive cumulative cash flow shows a net savings has been achieved across all implemented actions.

The four years are a period of larger capital expenditure and investment, around $2.3 million, as this plan recommends actions to achieve net zero by 2035/36. Meanwhile, annual savings from emissions reduction actions increases to $362,000 in 2030/31. This results in an overall plan break-even point in 2033/34 with these net savings to continue to increase in the future. In 2040/41 savings reach over $2.6 million. It was not possible to model costs from landfill gas flaring, so it has not been included in this economic assessment.

Figure 34: Cash flow analysis

5.3 Offsetting

Once all actions modelled in this action plan have been implemented, it is estimated that Council will have reduced its annual corporate emissions to around 7,200 tCO_2-e by 2035/36. Whilst opportunities to further reduce emissions such as those identified in Section 4.7 may become viable before the end of the decade, it is likely Council will need to purchase or generate offsets to achieve its net zero targets in 2035/36 and 2040/41.

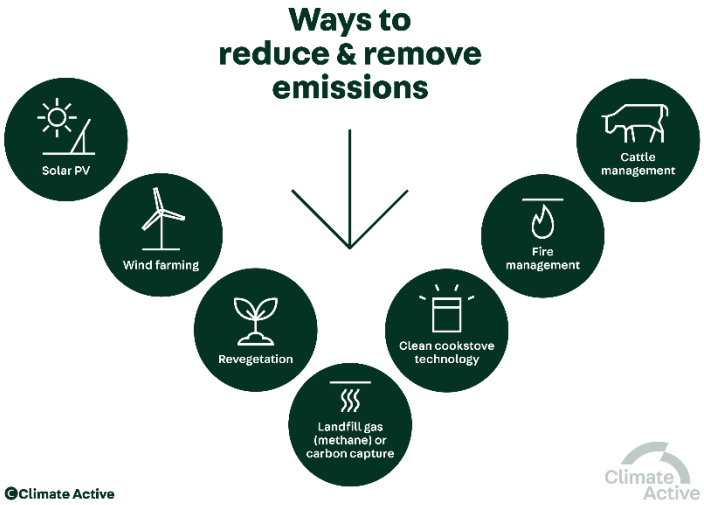


Figure 35: Climate Active emission reduction opportunities

Based on the current price of Australian Carbon Credit Units (ACCUs) of $35 per tonne it would cost in the order of $75,553 to offset Council's emissions in 2035/36 to be net zero for all emissions excluding landfill annually. In 2040/41, to be net zero for all emissions (including waste) it would cost $417,061 annually. This would be the price to purchase this volume of carbon credits today, and it is expected that this cost will be significantly higher in 2035. As mentioned throughout this plan, setting two net zero targets gives Council the opportunity to be net zero for all emissions (excluding landfill), and then between 2035/46 and 2040/41 investigate ways to further reduce waste emissions, so the offset costs in 2040/41 aren't as high as predicted here.

As the price is set by the market, it fluctuates considerably but is expected to trend upwards as the demand for carbon credits grows. Credits can also be purchased from international projects, known as Verified Carbon Offsets (VCUs). To mitigate the risk of exposure to the ACCU market in the future, Council could explore opportunities in the short term to lock in a long-term offset purchase agreement. This would be similar to a PPA, committing to purchasing a set amount of offsets from a carbon credit generator over a fixed period of time.

In line with Climate Active net zero certification practices, any LGCs and ACCUs generated by Council should be retired to cover Council's emissions rather than being sold to third parties.

6. Next Steps

Based on input from key Council stakeholders, the following immediate next steps have been identified:

- Consider the VECO 2.0 opportunities and commit to procuring 100 percent renewable energy with this PPA;
- Integrate this plan within the Climate and Environment Strategy, due to be finalised in early 2024;
- Investigate energy efficiency and renewable energy actions outlined in this plan that will be eligible for the CEUF program;
- Integrate EVs into the Fleet Strategy Council currently has; and
- Identify ways to reduce emissions and costs associated with higher landfill waste

Appendix A

See attached BNL_STR_001_FY2022_23_Corp_GHG_Inventory_Report_v1a for the full inventory report and methodology.

Appendix B

The assumptions used to generate the high-level assessment results for behind-the-meter solar were the following:

- The region receives an average of 3.95 peak sunlight hours per day;
- Panels are 400W, with each panel requiring at least 2m2 of roof space;
- All generated power is consumed onsite, i.e., sites with solar consume sufficient electricity during the day such that there is no export to the grid;
- The systems are sized based on roof capacity combined with catering for a maximum of 35% of a facility's electricity usage;
- Scheduling prioritises larger systems (of 3kW minimum) – combined with spreading costs across three years;
- Total costs include initial installation and maintenance costs over the lifetime of the systems (25 years) for all sites; and
- Simple net savings are calculated over the lifetime of the system

4.2 2023/2024 Quick Response Grants Program

SF/2857
Tom Arnold – Community Development and Recreation Coordinator
Jane Archbold – Manager Community

PURPOSE OF REPORT

The report presents funding applications for 2023/24 Quick Response Grants.

BACKGROUND

The Quick Response grant program enables local community groups, clubs and organisations to seek funding to increase their capacity to work in partnership with the Council and others to address local needs and enhance the local community.

The program distributes grants up to $500 allowing local clubs, groups and organisations the opportunity to seek funds when the need arises.

DISCUSSION

Applications for consideration under the 2023/24 Quick Response Grant program are detailed in the table below.

Applicant	Details	Amount Requested	Proposed Assistance
North Eastern Archers	**Save The Daylight Challenge** Save The Daylight Challenge is an annual event hosted by North Eastern Archers Inc, which is aimed at beginner and intermediate archers wanting to attend an interclub target archery event in a country setting, to build on their confidence and skills. Funding will go toward the hire of two Portaloo toilets for the weekend to meet the hygiene needs of extra archers onsite.	$500	$500
Benalla Squash Club	**AED battery and pads** The Benalla Squash Club provides an Automated Emergency Defibrillator at the squash courts. Recently the battery has gone flat, and the pads need replacing. The requested funding would cover the replacement battery, pads and freight costs.	$500	$500

Applicant	Details	Amount Requested	Proposed Assistance
Benalla Health	**Benalla Health Winter Ball 2024 - A Touch of Class.** This year's Winter Ball theme is '*A Touch of Class*' and will showcase live music from Escape Band featuring the 70's, 80's & 90's stacked with energy, style, personality and fun to be held on Saturday 3 August 2024 at the Benalla Town Hall. All funds raised will go towards purchasing a new neonatal resuscitation cot. The requested funding is to cover the hire cost of the Town Hall.	$500	$500
Benalla Sustainable Future Group	**Swanpool Environmental Film Festival 2024** Benalla Sustainable Future Group is seeking funding to support the 2024 Swanpool Environmental Film Festival. The festival aims to present films on ecological sustainability and sustainable living. The festival is timed around World Environment Day on 5 June and will be held Saturday 15 June 2024. The requested funding would go towards covering event costs such as catering, printing, booking fees and other sundry items.	$500	$500
Total		**$2,000**	**$2,000**

COUNCIL PLAN 2021-2025 IMPLICATIONS

Community

- *A healthy, Safe and resilient community.*
- *A connected, involved and inclusive community.*

Leadership

- *Engaged and informed community.*

COMMUNITY ENGAGEMENT

In accordance with the Council's *Community Engagement Policy*, it is proposed that community engagement be undertaken at the 'Inform' level under the International Association for Public Participation's IAP2 public participation spectrum.

Level of Public Participation	Promise to the community	Techniques to the used
Inform	We will provide information	▪ Promotion of program via media, website and social media. ▪ Program presented in public reports to the Council. ▪ Outcomes advised directly to applicants. ▪ Outcomes detailed in Annual Report.

FINANCIAL IMPLICATIONS

The *2023/24 Budget* allocates $15,000 to the Quick Response Grant program. To date, $5,400 in Quick Response Grant funding has been allocated.

Recipients of support throughout the financial year are detailed in the Annual Report.

OFFICER DECLARATION OF CONFLICT OF INTEREST

No officers involved in the preparation of this report have any general or material conflicts of interest in this matter.

Recommendation:

That $500 grants from the 2023/2024 Quick Response Grant program be allocated to North Eastern Archers, Benalla Squash Club, Benalla Health and Benalla Sustainable Future Group.

This page intentionally left blank

4.3 CEO Credit Card For The Quarter Ended 31 March 2024

SF/5486
Tracey Beaton – Executive Coordinator

PURPOSE OF REPORT

The report details expenditure associated with the corporate credit card issued to the Chief Executive Officer for the quarter ended 31 March 2024.

BACKGROUND

As part of an audit of the Council's 2017/18 financial statements, the Victorian Auditor General's Office recommended that the Chief Executive Officer's credit card transactions be reviewed and authorised by a Council member.

In response to the recommendation, transactions on the CEOs credit card are reported quarterly to the Council.

CEO Credit Card Transactions for the Quarter ended 31 March 2024

Date	Details	Amount
14/01/2024	Tesla Inc – EV Charging	$9.08
22/01/2024	Tesla Inc – EV Charging	$17.82
14/02/2024	Tesla Inc – EV Charging	$9.08
20/02/2024	Rex Airlines – Flight to Sydney	$224.65
24/02/2024	Tesla Inc – EV Charging	$35.55
25/02/2024	Albury Airport – EV Charging	$24.73
25/02/2024	Evie Networks – EV Charging	$27.53
26/02/2024	Transport For NSW – EV Charging	$18.32
14/03/2024	Tesla Inc – EV Charging	$9.08
16/03/2024	NRMA Electric – EV Charging	$24.48
Total (ex. GST)		**$400.32**

Recommendation:

That the report be noted.

This page intentionally left blank

4.4 Councillor Expenses For The Quarter Ended 31 March 2024

SF/1557
Tracey Beaton – Executive Coordinator

PURPOSE OF REPORT

The report details expenditure associated with Councillors' mobile phone usage, attendance at professional development courses, conferences and seminars, and reimbursement of expenses incurred.

Councillors' Information and Communication Expenses

Councillors' information and communication expenses for mobile phones and iPads are detailed in the table below:

Councillor	2023/24 Q1	2023/24 Q2	2023/24 Q3
Cr Claridge	$147.24	$147.24	$147.24
Cr Davis	$147.24	$147.24	$147.24
Cr Firth	$51.81	$51.81	$51.81
Cr Gunaratne	$147.24	$147.24	$147.24
Cr Hearn	$147.24	$147.24	$147.24
Cr King	$147.24	$147.24	$147.24
Cr O'Brien	$147.24	$147.24	$147.24
Total (ex. GST):	**$935.28**	**$935.28**	**$935.28**

Councillors' reimbursement of expenses

The Council at its meeting on 15 December 2021 adopted the *Councillor Resources and Reimbursement Policy*.

Councillors' reimbursements are detailed in the table below:

Date	Councillor	Reimbursement Details	Amount (ex. GST)
15 March 2024	Cr Gunaratne	Parking – Attendance at MAV Training Session in Melbourne	$62.72
Total:			**$62.72**

Councillors' attendance at training courses, conferences and seminars

The Council at its meeting on 12 October 2022 adopted the *Professional Development for Councillors Policy*. The policy states that a quarterly report be submitted to the Council detailing year to date expenditure on Councillors' attendance at professional development courses, conferences and seminars.

Date	Councillor	Description	Professional Development (ex. GST)	Conferences & Seminars (ex. GST)
28/07/2023	Cr Hearn, Cr King and Cr O'Brien	MAV Housing Summit	$0	$0
01/09/2023	Cr Claridge and Cr Hearn	Victorian Local Government Association - Global Executive Panel: Harmonious council decision making – Setting up councils for Success	$100	$0
21/09/2023	Cr O'Brien	Australian Local Government Women's Association - Hands Up for Mayor and Deputy Mayor	$0	$0
27/09/2023	Cr Claridge, Cr Hearn and Cr Firth	MAV Conference and Dinner	$0	$1,590
12/10/2023	Cr Claridge, Cr Hearn and Cr Firth	MAV Conference - Accommodation	$0	$1,110
26/10/2023	Cr O'Brien	Australian Local Government Women's Association – Reset and Refresh	$0	$0
16/11/2023	Cr Claridge	MAV Rural and Regional Forum	$0	$0
19/12/2023	Cr Claridge	MAV Victorian recycling Infrastructure Plan Briefing Session	$0	$0
13/02/2024	Cr O'Brien and Cr Gunaratne	MAV Chairing Meetings Training Session	$600	$0
	Cr O'Brien	Accommodation	$303	$0
07/03/2024	Cr O'Brien and Cr Gunaratne	MAV Presentation and Public Speaking Skills	$500	$0
15/02/2024	Cr Hearn and Cr O'Brien	FCJ College International Women's Day Breakfast 2024	$0	$48
21/03/2024	Cr O'Brien	ALGWA Networking Online Forum	$0	$0
Total			**$1,503**	**$2,748**

FINANCIAL IMPLICATIONS

The *2023/24 Budget* allocated for Councillors' attendance at professional development courses, conferences and seminars is $14,700.

Summary	Professional Development (ex. GST)	Conferences & Seminars (ex. GST)
Quarter ended 30 September 2023	$100	$1,590
Quarter ended 31 December 2023	$0	$1,110
Quarter ended 31 March 2024	$1,403	$48
Total spend as at 31 March 2024	**$1,503**	**$2,748**

Recommendation:

That the report be noted.

This page intentionally left blank

4.5 Mayor and Councillors' Attendance at Committees and Civic Functions

SF/1557
Tracey Beaton - Executive Coordinator

The Mayor and Councillors, listed in alphabetical order, attended meetings and events as detailed below during the period from 8 April 2024 to 12 May 2024.

Mayor Councillor Danny Claridge	
10 April	Taungurung Local Government Forum - Engagement Strategy Session
	Finance and Planning Committee Meeting
11 April	Tatong Autumn Vibes - music, food and community and connection
12 April	Baddaginnie Community Movie and Pizza Night
17 April	Councillor Only Time
	Assembly of Councillors - Business Review
18 April	Meeting with Benalla Bowls Club
19 April	Lurg Community – Sharing and Support Gathering
20 April	Benalla Saints Sports Club Presidents Luncheon
23 April	P-12 College Whole School ANZAC Day Assembly
24 April	Morrie Evans Wing Aged Care - ANZAC Day Service
	Councillor Only Time
	Council Meeting
	Assembly of Councillors - Business Review
25 April	ANZAC Day Dawn Service
	ANZAC Day March and Service
29 April	Win News Interview
	ABC Radio Interview
1 May	Launch and Morning Tea - 2024 National Heritage Festival in Benalla
	Benalla Historical Society Committee Meeting
	Additional Council Meeting
2 May	Mayoral Forum – Local Government Amendment Bill Briefing
3 May	Helen Haines Local Government Area Roundtable
	Benalla Art Gallery Launch of local artist Janet Leith - Melancholia
7 May	Jaclyn Symes MP announcement – Funding for Pump Track
8 May	Benalla Business Coffee Connections
	Councillor Only Time
	Communications Advisory Committee Meeting
	Assembly of Councillors - Business Review
10 May	Devenish Community Get Together

Councillor Peter Davis	
10 April	Finance and Planning Committee Meeting
23 April	Benalla Art Gallery Foundation Meeting
24 April	Councillor Only Time
	Council Meeting
	Assembly of Councillors - Business Review
25 April	ANZAC Day Dawn Service
1 May	Additional Council Meeting
3 May	Goorambat Social Gathering
	Councillor Only Time
	Communications Advisory Committee Meeting
	Assembly of Councillors - Business Review

Councillor Don Firth	
10 April	Councillor Only Time
	Finance and Planning Committee Meeting
11 April	Tatong Autumn Vibes - music, food and community and connection
17 April	Councillor Only Time
	Assembly of Councillors - Business Review
22 April	Benalla Street Art Advisory Committee Meeting
24 April	Councillor Only Time
	Council Meeting
	Assembly of Councillors - Business Review
25 April	ANZAC Day March and Service
1 May	Additional Council Meeting
7 May	Accessibility Reference Group Meeting
8 May	Councillor Only Time
	Assembly of Councillors - Business Review

Councillor Punarji Hewa Gunaratne	
10 April	Finance and Planning Committee Meeting
13 April	Benalla Migrants Association's South Asian New Year
17 April	Assembly of Councillors - Business Review
20 April	NESLA Sinhala and Tamil New Year Celebration in Wangaratta
24 April	Council Meeting
	Assembly of Councillors - Business Review
1 May	Additional Council Meeting
	Benalla Festival 2024 Committee Meeting
	Assembly of Councillors - Business Review
9 May	MAV - Presentation and Public Speaking Training

Councillor Bernie Hearn	
8 April	Benalla Local Safety and Traffic Liaison Committee Meeting
10 April	Councillor Only Time
	Finance and Planning Committee Meeting
11 April	Tatong Autumn Vibes - music, food and community and connection
17 April	Councillor Only Time
	Assembly of Councillors - Business Review
24 April	Councillor Only Time
	Council Meeting
	Assembly of Councillors - Business Review
25 April	ANZAC Day Dawn Service
	ANZAC Day March and Service
1 May	Additional Council Meeting
3 May	Goorambat Social Gathering
7 May	Accessibility Reference Group Meeting
8 May	Councillor Only Time
	Communications Advisory Committee Meeting
	Benalla Festival 2024 Committee Meeting
	Assembly of Councillors - Business Review
10 May	Devenish Community Get Together

Councillor Justin King	
8 April	Benalla Local Safety and Traffic Liaison Committee Meeting
10 April	Councillor Only Time
	Finance and Planning Committee Meeting
11 April	Tatong Autumn Vibes - music, food and community and connection
17 April	Councillor Only Time
	Assembly of Councillors - Business Review
18 April	Meeting with Benalla Bowls Club
24 April	Councillor Only Time
	Council Meeting
	Assembly of Councillors - Business Review
25 April	ANZAC Day Dawn Service
	ANZAC Day March and Service
1 May	Additional Council Meeting
3 May	Goorambat Social Gathering
5 May	Chat with a Councillor - Devenish Market
8 May	Councillor Only Time
	Benalla Festival 2024 Committee Meeting
	Assembly of Councillors - Business Review
10 May	Devenish Community Get Together

Councillor Gail O'Brien	
8 April	Benalla Health and Wellbeing Partnership Meeting
10 April	Benalla Business Coffee Connections
	Councillor Only Time
	Finance and Planning Committee Meeting
11 April	Tatong Autumn Vibes - music, food and community and connection
12 April	Baddaginnie Community Movie and Pizza Night
16 April	Arts, Culture and Heritage Innovation Working Group Meeting
	Churchill Reserve Committee of Management Meeting
17 April	Councillor Only Time
	Assembly of Councillors - Business Review
22 April	Benalla Street Art Advisory Committee Meeting
24 April	Councillor Only Time
	Council Meeting
	Assembly of Councillors - Business Review

Councillor Gail O'Brien	
25 April	ANZAC Day Dawn Service
	ANZAC Day March and Service
1 May	Additional Council Meeting
3 May	Goorambat Social Gathering
7 May	Accessibility Reference Group Meeting
8 May	Benalla Business Coffee Connections
	Councillor Only Time
	Assembly of Councillors - Business Review
9 May	MAV - Presentation and Public Speaking Training
10 May	Devenish Community Get Together

Recommendation:

That the report be noted.

This page intentionally left blank

4.6 Council Actions Pending

Council Actions Pending are detailed in **Appendix 1**.

Recommendation:

That the report be noted.

This page intentionally left blank

Council Actions Pending

Action No.	Meeting Name	Item	Action	Officer	Status/notes
1.	F&P Committee 15-May-24	1	**Financial Report for Quarter Ended 31 March 2024** 1. That the report be noted. 2. That the Open Space Contribution of $375,000 be considered as a co-contribution towards the $300,000 allocation from the Victorian Government for the development of the pump track as part of the *2024/25 Budget*.	MF	1. Completed 2. In progress
2.	F&P Committee 15-May-24	2	**2023/24 Major Event Funding Program** That the Finance and Planning Committee, acting under its delegated authority of the Council, approve a $2,000 grant from the 2023/24 Major Event Funding program to the Austin 7 Club.	MEDAS	Completed
3.	Additional Council Meeting 1-May-24	1	**Proposed *2024/25 Budget*** 1. That the proposed *2024/25 Budget* be endorsed for public exhibition for a period of at least 28 days from 2 May 2024. 2. That submissions relating to the proposed *2024/25 Budget* be heard at a meeting of the Finance and Planning Committee on 5 June 2024. 3. That the Council consider submissions relating to the proposed *2024/25 Budget* at a Council meeting on 19 June 2024. 4. That the Council consider the adoption of the *2024/25 Budget* at a meeting of the Council on Wednesday 26 June 2024.	MF	1. In progress
4.	Council Meeting 24-April-24	4.4	**Benalla Rural City Council Chief Executive Officer Employment and Remuneration Committee – Appointment of Independent Advisor** That Chris Eddy be appointed as the Independent Advisor on the *Benalla Rural City Council Chief Executive Officer Employment and Renumeration Committee* for a two-year term commencing 24 April 2024.	Mayor	Completed
5.	Council Meeting 24-April-24	4.3	**2023/24 Quick Response Grants** That a $500 grant from the 2023/2024 Quick Response Grant program be allocated to Tatong Anglers Group Inc.	MC	Completed
6.	Council Meeting 24-April-24	4.2	**Draft *Fair Access Policy*** That the draft *Fair Access Policy* be endorsed for public exhibition for a period of at least 28 days.	MC	In progress

Action No.	Meeting Name	Item	Action	Officer	Status/notes
7.	Council Meeting 24-April-24	4.1	**Benalla Indoor Recreation Centre Redevelopment Project** 1. That the Council give in principle support for the Benalla P-12 College Barkly Street Campus as the preferred site location for the *Benalla Indoor Recreation Centre Redevelopment project.* 2. That the Chief Executive Officer negotiate with the Department of Education for the Council to acquire crown land at 51-54 Barkly Street, Benalla. 3. That the *Benalla Indoor Recreation Centre Redevelopment Project Steering Committee* be established. 4. That the amended *Benalla Indoor Recreation Centre Redevelopment Project Steering Committee Terms of Reference* be adopted. 5. That Cr Don Firth and Cr Bernie Hearn be appointed as the Councillor representatives on the *Benalla Indoor Recreation Centre Redevelopment Project Steering Committee* for the remainder of the 2023/24 Council year. 6. That invitations to join the *Benalla Indoor Recreation Centre Redevelopment Project Steering Committee* be extended to: ▪ Hume Region Community Infrastructure, Place, Sport and Recreation Victoria ▪ Basketball Victoria ▪ President Benalla Basketball Association ▪ Chair of the Benalla Indoor Recreation Centre Committee of Management. 7. That an expression of interest process be undertaken to obtain two community member *Benalla Indoor Recreation Centre Redevelopment Project Steering Committee* representatives.	MAI	1. Completed 2. In progress 3. Completed 4. Completed 5. Completed 6. In progress 7. In progress
8.	Council Meeting 20-Mar-24	4.5	**Victorian Energy Collaboration (VECO) Power Purchase Agreement** That the Council: 1. enter into a contract agreement with Victorian Energy Collaboration from 1 July 2024 to 31 December 2030. 2. authorise the Chief Executive Officer to execute the contract documentation.	MEDSA	1. Completed 2. Completed

Action No.	Meeting Name	Item	Action	Officer	Status/notes
9.	Council Meeting 14-Feb-24	4.9	**Assets and Infrastructure Department Activity Report For The Quarter Ended 31 December 2023** That the report be noted.	MAI	Completed. Consultation for Midland Highway footpath project is ongoing. The project is listed in the proposed 2024/25 Capital Works Program Budget.
10.	Council Meeting 14-Feb-24	4.4	**Fawckner Drive Masterplan** 1. That the *Benalla Fawckner Drive Masterplan* be adopted. 2. That the *Benalla Fawckner Drive Masterplan Strategy Advocacy Document* be drafted.	MC	1. Completed 2. In progress
11.	Council Meeting 20-Dec-23		**Proposed Tesla Carpark Licence Agreement** 1. That the report be noted. 2. That the Council grant in principle the licence to Tesla Motors Australia Pty Ltd for the use and occupancy of land at the rear of 49-59 Smythe Street, Benalla. 3. That the Chief Executive Officer be authorised to finalise negotiations with Tesla Motors Australia Pty Ltd for the use and occupancy of land at the rear of 49-59 Smythe Street, Benalla. 4. That the Chief Executive Officer be authorised to execute final contract documentation.	CEO	1. Completed 2. Completed 3. Tesla has withdrawn the project.
12.	Council Meeting 13-Dec-23	4.4	**Benalla Sports and Equestrian Reserve Committee** That the debate on this matter be deferred until the Council Meeting on 14 February 2024 to allow the *Benalla Sports and Equestrian Reserve* user groups to endorse their representative on the *Benalla Sports and Equestrian Reserve Committee* and the *Instrument of Sub-Delegation from the Chief Executive Officer to Community Asset Committees* be updated.	CEO	Several responses not received. Additional two weeks given to user groups to nominate a representative. Report to be presented at a future Council Meeting.
13.	F&P Committee 6-Dec-23	6	**Benalla Senior Citizens Community Centre – Proposed Name Change** That the proposal for the *Benalla Senior Citizens Community Centre* to be renamed *Benalla Seniors and Community Centre* be placed on public exhibition for a period of at least 28 days.	MC	In progress. Report scheduled for Finance and Planning Committee on 19 June 2024.

Action No.	Meeting Name	Item	Action	Officer	Status/notes
14.	Council Meeting 19-Apr-23	4.4	***Climate Change Adaptation Action Plan 2013-2025* and the *Environment Strategy 2016-2020* Review** 1. That the report be noted. 2. That a draft *Benalla Rural City Council Climate and Environment Strategy* be developed. 3. That the *Benalla Rural City Council Climate and Environment Strategy Communications and Stakeholder Engagement Plan* be endorsed.	MEDAS	1. Completed 2. Completed 3. Completed
15.	F&P Committee 1-Mar-23	3	**Planning Scheme Review Amendment – Benalla Planning Scheme Review** That Council resolves to: 1. Note and forward the *Benalla Planning Scheme Review 2022* to the Minister for Planning in accordance with Section 12B (5) of the *Planning and Environment Act 1987.* 2. Seek assistance from Regional Planning Hubs to prepare and exhibit a planning scheme amendment to implement the *Benalla Planning Scheme Review 2022*.	MD	1. Completed 2. In progress
16.	F&O Committee 15-Jun-22	9.	***Financial Hardship Policy* Review** 1. That the *Financial Hardship Policy* be adopted. 2. That the *Financial Hardship Policy* be reviewed once the *Local Government legislation Amendment (Rating Reform and Other Matters) Bill 2022* becomes legislation.	MF	1. Completed 2. Legislation has been passed. A report will be presented once government guidelines have been released.

5. Reports by Councillors

Recommendation:

That the report(s) be noted.

6. Notices of Motion

7. Notices of Rescission Motion

8. Urgent Business

Business can only be admitted as urgent business by resolution of the council, and only then if it:

- relates to or arises out of a matter which has arisen since distribution of the agenda; and
- cannot be deferred until the next Council Meeting without having an negative impact on the Council, the municipality or the local community; and
- cannot be addressed through the Customer Request Management System.

A Councillor proposing that a matter be admitted as urgent business must lodge it in writing with the Chief Executive Officer by 4pm on the day of the meeting.

The Chief Executive Officer will advise the Mayor of any matter that the Chief Executive Officer determines appropriate for the Council to consider admitting as urgent business.

This page intentionally left blank

Confidential Business

It is proposed that the following items be considered in confidential business pursuant to the *Local Government Act 2020* as they contain personal information or private commercial information that would result in the unreasonable disclosure of information about a person, their personal affairs or expose the business, commercial or financial undertaking if released:

9.1 Confidential Reports by Councillors

9.2 Confidential Council Actions Pending

Recommendation:

That the meeting be closed to the public for the consideration of the confidential business item noted above pursuant to Sections 3(1) and Section 66(2)(a) of the *Local Government Act 2020*.

This page intentionally left blank

10. Reopening of the meeting to the public

Recommendation:

That the meeting be reopened to the public.

Closure of the meeting