

PLAN STAGE 1













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INTRODUCTION

ABOUT TATURA

Tatura is a regional town in the Goulburn Valley, 18 kilometres west of Shepparton comprising of around 2000 households, with a population of 4700 (includes 3616 postcode).

Though small in population, the town and surrounding area provide significant employment opportunities to the Shepparton region, with the main industries being dairy, horticulture, viticulture and crops as well as manufacturing and processing.

Tatura is well known for hosting events such as International Dairy Week, equestrian competitions and country racing. Tatura also has a world-renowned military museum, reflecting the rich history of the Prisoner of War Camps and the German War Cemetery in the district.

The town's amenities and employment opportunities continue to attract a diverse range of people resulting in both town and population growth. Tatura has a high number of sporting clubs, not for profit organisations and volunteer groups which enrich the wellbeing and social structures of the community.

The Tatura community is connected, vibrant and progressive.

COMMUNITY

ZCT acknowledges that the goals set out in the plan will only be achieved through the engagement, support and actions of the community as whole, which includes individuals, families, industry, organisations and government.

Everyone has a part to play.

Each household has a unique set of circumstances that will influence their ability to quickly transition to zero emissions. ZCT recognise that time, financial resources, or knowledge gaps may currently inhibit action on carbon emissions. By working together, we will be able to address these barriers and work towards all members of our community having access to low cost and efficient homes, powered by renewable energy.

Small and large businesses will be supported to reduce carbon emissions through knowledge building, partnerships and showcasing energy efficiency best practices. ZCT will seek out and promote current local emission reduction leaders and broker collaborations that will build capacity to take on emission reduction activities.

Community organisations are capable of bringing down carbon emissions through taking on more energy efficient and waste reduction behaviours and seeking out upgrades to facilities and infrastructure. ZCT will work with these groups to identify knowledge building and funding opportunities to enable them to reach their goals.

ZCT encourages everyone to become involved and take action to make Tatura an even better place to live and help us get to Zero Carbon emissions by 2030.

PURPOSE OF THE ZERO CARBON TATURA PLAN

Tatura's residents and significant industrial base are largely reliant upon the fossil fuels of coal, oil and gas. These fuels are currently used in electricity production, heating, transport, food production and the rest of the local economy through provision of goods and services. Use of fossil fuels worldwide is causing human-induced climate change, and this is already having consequences for Tatura.

Zero Carbon communities work towards eliminating their consumption of carbon emissions through energy efficiency, replacing fossil fuels with renewable energy, ultimately eliminating waste products, and growing vegetation to draw carbon from the atmosphere. Many actions to reduce carbon result in additional benefits to the community, such as lower energy and insurance costs, more comfortable living environment, and increased business efficiency and profit. Tatura can not only play a part in reducing carbon emissions, it can also be a leading example for regional Australia.

A Zero Carbon Tatura (ZCT) partnership group has been established to guide the Tatura community to Zero Carbon by 2030. The ZCT group includes representatives from key community groups, including Transition Tatura (TT), Tatura Community House (TCH), Tatura Community Plan (TCP) and GV Community Energy (GVCE). ZCT is auspiced by GV Community Energy, a not-for-profit organisation. This Zero Carbon Tatura Plan incorporates the residents and businesses of the entire 3616 postcode.

A Zero Carbon Community is any community where people, groups, clubs, business and industry, investors and councils are acting together to reduce carbon emissions.

A VISION OF TATURA IN 2030

Our vision is that the community of Tatura in 2030 will have:

- Transitioned to a low carbon economy through low carbon emission industries and primary production;
- Adopted best management practice in energy efficiency;
- Universal access to low cost, equitable renewable energy;
- Embodied sustainable living practices in all facets of community activity and development that are fit for purpose for the remainder of the 21st century;
- Developed a community model of harmony, cooperation and sharing.

CLIMATE CHANGE

Humans are rapidly and dangerously changing the climate through the unsustainable extraction and burning of fossil fuels, creating greenhouse gas emissions. These emissions adversely impact on our climate in a variety of ways. The Intergovernmental Panel on Climate Change (IPCC) has found that the level of carbon dioxide in the atmosphere has increased by nearly 50% since the beginning of the industrial revolution.

In 2019, The Victorian Government detailed climate change impacts over the previous 30 years, and modelled projections into the future (Victorian Climate Projections, 2019). Temperatures have increased, including more days over 35°C and rainfall has decreased over the past 30 years in our region. These trends are expected to continue in the future. The Greater Shepparton City Council has undertaken a detailed Climate Adaptation Plan (2016) to better understand the potential risks of climate change to the Council and community.

The 2020 State of the Climate report co-authored by the Bureau of Meteorology and CSIRO notes that since 1910, Australia's average temperature has increased by 1.44°C, our rainfall and stream flow has reduced, and we've experienced an increase in extreme fire weather (Bureau of Meteorology, 2020). The Intergovernmental Panel on Climate Change (IPCC) has warned that temperature rises must be kept to below 1.5 degrees as per the Paris climate accord to avoid catastrophic impacts. To achieve this, a steep decarbonisation rate is required for the entire planet, until the economy is carbon neutral or carbon negative (Climate Change Authority, 2014). A more rapid decline will increase the chances of avoiding dangerous climate change. Worldwide, many countries have declared zero emission targets by 2050 in an attempt to contain temperature rise to 1.5°C. Although challenging, reducing emissions can be done, and Tatura can be proactive to ensure it remains a resilient and prosperous community in a decarbonised world.

ECONOMIC COSTS

The economic risks of inaction on climate change are well understood, and as a result, the financial market and associated industries such as insurance, listed companies, superannuation providers and banks are transitioning to manage these risks. Those companies that do not address climate change are at increased risk of litigation and stranded assets, and their investors and customers will likely be negatively affected as the impacts of climate change increase.

Insurance agencies already understand the high costs climate change imposes on our society. This sector is already analysing extreme weather events and risks, and adjusting price premiums accordingly. There is concern that in some locations, assets will become uninsurable in the near future.

Financial institutions are required to disclose climate related risks, and those that do not will face increased litigation, reduced access to funds, and will incur higher insurance costs. Customers are now able to compare the exposure of their financial institutions to climate risk, and make decisions to protect their own financial interests based on climate change exposure.

World-wide, the transition to renewables is accelerating. Renewables now provide the lowest-cost form of new electricity generation, and fossil fuel assets are increasingly becoming unreliable, costly and more expensive to insure and operate. Renewables provide the opportunity for lower cost energy production, with increased employment particularly in regional areas as the transition to a low carbon economy occurs.

In some instances there are upfront costs to reducing energy use or changing to renewable energy sources, and in other instances there are zero costs or even longer term savings to be made in changing to energy efficient or renewable energy sources. This plan will clearly identify the steps the Tatura community can make to reduce emissions in a cost-effective manner.

WHAT IS A ZERO CARBON PLAN?

The Zero Carbon Tatura Plan is a considered process to transition from polluting fossil fuels to a low carbon economy, with both local and global benefit in mind. By actively transitioning from fossil fuels to renewable energy sources and using less energy, residents, businesses and industry can save money while mitigating the effects of climate change.

Opportunities to transition are available throughout the entire 3616 postcode, from households, businesses and industry to primary production businesses. These opportunities include the sectors of Energy, Transport, Waste, Buildings, Agriculture and Land Use, and Industry. Some transitions are simple to implement, while others will require a coordinated and sustained effort. Our early adopters of new technologies and techniques can guide others in our community as we journey through our transition, acknowledging that not everyone is in a position to act immediately. As we achieve actions we can build on our successes and continue to support change for others within our community.

Tatura can turn potential challenges into opportunities. These opportunities already exist, we just need to take them by being at the forefront of adopting research and technology and empowering all members of our community to act and prosper in a low carbon society.

HOW THIS PLAN WORKS

This Plan is intended as an initial guide on how a zero carbon transition might take place in Tatura. It is a flexible document as it is Zero Carbon Tatura's view that the way transition happens should be moulded and owned by the community.

The Plan is built around 6 pillars: Energy, Buildings, Transport, Waste, Agriculture and Land Use, and Industry. It provides the foundational ideas for early action while also suggesting how success might be put to use in developing a better plan and even more follow up actions. Figure 1 below outlines how the strategy might work.



HOW THIS STRATEGY WORKS cont.

Phase 1 Plan Development

- Outlines vision, goals, Zero Carbon Tatura's focus, possible projects
- Outlines implementation plan

Phase 1 Implementation

- Select projects for implementation that are achievable, make a difference and can raise the profile of Zero Carbon Tatura and the need for energy transition
- Use profile to gain more supporters who can help implement projects

Form working groups

- Like-minded supporters can form working groups
- Working groups provide more strategic focus to specific areas of interest (e.g. project pillars)
- Working groups undertake research to better understand community needs.
- Implement larger projects

Phase 2 Plan Development

- Working groups use their research knowledge and experience to create measures of success
- Outline a more advanced vision of where Tatura has come from and a future Tatura to work towards
- Create an idea of a time line of when actions might happen

Phase 2 Implementation

- Working groups become basically autonomous in meeting the strategic goals
- Self actualisation within the community means the energy transition is mainstream and Zero Carbon Tatura becomes a meeting place for idea generation that people adopt and implement

Figure 1. Plan pathway

ENERGY

THE EXISTING STATE

Tatura is heavily dependent upon conventional power from the grid which at present, is predominately powered by emissions intensive brown coal, though due to the initiatives of the Victorian Government Renewable Energy Target the proportion of renewables in the grid is increasing and planned to be 50% by 2030. Tatura has been a significant participant in solar photovoltaic programs run by GV Community Energy and is seeing rooftop installations continue as the financial benefits remain strong and units become more affordable. Electricity use in Tatura has been decreasing over the last 5 years (Figure 2).

Tatura is also a town with a large manufacturing and processing base. The these sectors uses many times more electricity than all the domestic energy use in Tatura combined (Figure 3). In total, Tatura uses around 50,000 megawatt hrs of electricity. It also uses around 220,000 megawatt hrs equivalent of gas. According to GV Community Energy, industry in Tatura is energy limited, meaning there is insufficient capacity in the electrical and gas infrastructure to supply future industry growth. Therefore, energy supply is also a constraint on the future development of Tatura.

There are many energy generation opportunities in Tatura, including solar, utilising plant waste such as orchard prunings and trees, creating hydrogen from waste-water for use in industry.

Total Electricity Consumed kWh 3616

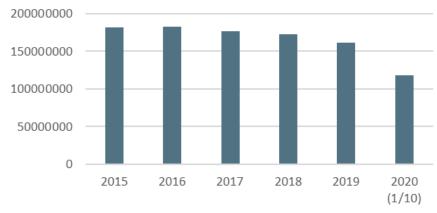


Figure 2. Annual electricity consumed in the Tatura 3616 Postcode from 2015 to October 2020. Data supplied courtesy of Powercor.

Total Electricity Consumption kWh 2015-2020

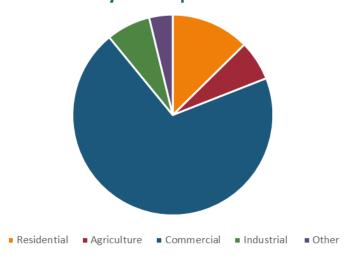


Figure 3. Breakdown of electricity consumption by sector in Tatura postcode 3616 from 2015 to 2020. Data supplied courtesy of Powercor.

ENERGY GOALS

Our energy goals for Tatura are:

Energy Goal 1: Zero carbon energy emissions by 2030

Energy Goal 2: Reduced energy costs for all residents, businesses and industries

Energy Goal 3: Town energy independence – ability to function as a microgrid/virtual power station

HOW WILL WE GET THERE?

Tatura will achieve its energy goals by:

- Understanding and preparing for likely energy changes and challenges;
- Supporting our community to understand and implement options for renewable energy and energy efficiency
- Reducing energy use through energy efficiency and opportunities to improve existing processes;
- Sourcing energy from low or zero carbon sources;
- Utilising energy sharing processes, virtual networks and microgrids;
- Creating its own energy from renewable sources (e.g. rooftop solar and/or community energy power plants);

POSSIBLE ACTIONS

A preliminary list of possible actions has been developed, as follows:

Action	Partners	Time frame
Raise awareness of practical and economical measures people can take to reduce their energy bills and energy consumption (including renters and owners).	Tat Com House; GVCE; DELWP; SV; TT	Short
Facilitate low income households to install energy saving devices, passive technologies (draught stoppers, window glazing, insulation etc) and low energy appliances.	Tat Com House; GVCE; DELWP; SV	Short
Seek funding and undertake a pilot program to provide solar PV panels on rented accommodation.	GVCE	Short
Engage and work with businesses to understand the cost implications of different energy saving or renewable energy options.	GVCE;	Short
Assist community organisations such as Moyola Aged-Care to reduce energy consumption.	GVCE;	Short
Investigate the feasibility of battery storage and virtual network/microgrid options to share/sell energy within the Tatura District	GVCE; DELWP; SV	Medium
Facilitate the further installation of solar PV on buildings	GSCC	Short

Action	Partners	Time frame
Promote and demonstrate new renewable energy options (including green hydrogen)	GSCC; DELWP; GVCE	Medium
Partner with Council to showcase energy efficiency and renewable energy options that Council is undertaking in Tatura through their Zero Emissions 2030 Target and Plan	GSCC; TCP; TT	Short
Run cooperative purchasing (bulk buys) for appliances and energy efficient products.	GSCC;	
Investigate biogas digesters, and options for on-farm cogeneration of heat and electricity.	GVCE	Medium
Promote Earth Hour	GSCC; TT	Short
Facilitate knowledge and skills of local electrical trades around installation of Solar PV	Solar Vic	Ongoing
Participate in the community consultation of any relevant council or government plans.	All	Ongoing
Lobby for better housing construction standards (e.g. house block orientation, house orientation, house design, technology and materials).	GSCC	Short
Lobby against the further deployment of natural gas.	TT	Short
Impartially and objectively comment on draft legislation or government policy on how it may impact on the Zero Carbon Tatura Plan.	All	Ongoing



TRANSPORT

THE EXISTING STATE

Tatura is a town isolated from the nearby centres of Mooroopna and Shepparton by distance and an almost complete lack of public transport. As a result, Tatura is almost totally reliant on cars to move about the region. Walking and cycling infrastructure in Tatura is being upgraded as part of the Tatura Community Plan, but there is a lack of safe, off-road walking and cycling paths for residents to access other nearby towns such as Mooroopna, Toolamba, Rushworth or Murchison. Heavy vehicles such as trucks service a number of key businesses within the town, and are a key contributor to the economy of Tatura. These vehicles are currently powered by diesel, a highly polluting fuel source.

Our transport goals for Tatura are:

Transport Goal 1: Low carbon transport options are available to all residents and businesses by 2030

Transport Goal 2: Zero emission public transport that meets community needs is established

Transport Goals 3: Infrastructure that facilitates zero emission transport is established

HOW WILL WE GET THERE?

Tatura will achieve its transport goals by:

- Educating the community, businesses and industries on options for zero emission vehicles such as electric or hydrogen;
- Facilitating public electric vehicle and renewable hydrogen charge points for both passenger and heavy vehicles for both private and public use;
- Understanding the barriers to public transport use and build business cases for transition to renewably powered public transport (electric or hydrogen);
- Support affordable, accessible and sustainable transport options for all residents of Tatura, such as the implementation of the Waterwheels Transport project (Appendix A)
- Promote more walking and cycling (and associated infrastructure) for short trips within town to reduce emissions and improve health;
- Support a campaign to promote virtual communications (video/phone) to reduce transport to in-person meetings
- Encourage the community to consider autonomous electric vehicles (taxis and hailing services)
- Provide education on the carbon emission consequences of air travel, and options for offsetting emissions

Action	Partners	Time frame
Support the implementation of the Waterwheels project which aims to Identify community transport needs, influence current transport methods, trial a range of transport options, and design a sustainable transport plan;	Tat Community House; TCP	Short
Promote the adoption of Electric or Hydrogen powered vehicles for residents	GSCC; TT	Short- medium
Promote and provide information/business cases for zero emission fleets for businesses	GSCC:	Short- medium
Encourage the installation of public EV charge points within Tatura for residents and visitors	TCP, TT; GSCC	Short
Investigate business case for public transport and community transport providers to use zero emission vehicles	TCP; GSCC	Medium
Investigate renewable fuel sources for heavy vehicles such as renewable hydrogen etc	TBD	Long
Investigate the possibility of a car pooling service and publicising a car-pooling phone app.	TBD	Medium
Encourage the adoption of autonomous electric taxis that use hailing technology to engage customers	TBD	Long
Promote vehicle trip offsetting (carbon offsets) for fossil fueled vehicles	TT	Short
Encourage the community and businesses to embrace alternative meeting arrangements when appropriate eg zoom	TCP, TT	Short
Advocate other forms of travel in lieu of air travel	TT	Medium



BUILDINGS

THE EXISTING STATE

Most of the houses in Tatura were built before the implementation of minimum energy standards and consequently have poor energy efficiency (average 2.5 – 3 star rating). This results in increased energy consumption and costs for residents to maintain their houses at a comfortable temperature, particularly during our hot summers, and cold winter nights. In general, renters are even more exposed as they may be unable to undertake energy efficiency or renewable energy through solar on their properties, leading to increased energy bills. Retrofitting of existing buildings, and construction of energy efficient buildings, would create more comfortable homes that are cheaper to live in.

BUILDING GOALS

Tatura's building goals are:

Building Goal 1: All new buildings are a minimum of 10 star energy efficiency

Building Goal 2: All existing buildings are retrofitted to improve energy efficiency and thermal comfort

Building Goal 3: Building energy use decreases by 50% by 2030

HOW WILL WE GET THERE?

Tatura will achieve its building goals by:

- Embracing energy efficient technologies (e.g. energy efficient light bulbs, energy efficient house design, replacement of old style water heaters with heat pumps or solar hot water) and behavioural change (e.g. cleaning fridge radiators, changing the heating and cooling temperatures);
- Encouraging behaviour change (e.g. cleaning split system/heat pump radiators and air filters, changing the heating and cooling temperatures and replacing inefficient appliances);
- Assisting owners to retrofit existing homes to improve energy efficiency
- Improved subdivision design, and concentration on efficient town development for both residential and commercial outcomes

POSSIBLE ACTIONS

A list of possible actions was developed by the community through the Transitions Tatura Facebook site and community consultation, as follows:

Action	Partners	Time frame
Partner with CWA, Tatura Men's Shed and other community groups (perhaps Tatura Community House could host a sewing course) to sew draught stoppers, and men's shed to build pelmets above drapes and external awnings for windows, doors and even walls	CWA; TCH; TCP; Tatura Mens Shed	Short
Build best practice energy efficient buildings (e.g. 10 star or tiny house)	GSCC; SV;	Medium
Facilitate skills and knowledge of local trades around energy efficient building practices	GSCC	Medium
Identify grant programs that could assist with retrofitting for low income households	DHSS	Medium
Develop an awareness program on retrofitting buildings and seek out locals willing to share their experiences in undertaking retrofitting projects	SV	Medium
Secure an investor to provide (non-recourse) financial support to a home retrofit program linked to 10 -20 year loan under EUA municipal rate mechanism managed by GVCE.	GVCE	Medium



WASTE

THE EXISTING STATE

Tatura's household and public waste is currently picked up each week by the Greater Shepparton City Council using petrol or diesel powered garbage trucks and taken to the municipal landfill at Cosgrove (40 km east of Tatura), recycling facility or green waste composting facility (north of Shepparton).

Commercial waste can be disposed of at the Cosgrove landfill depending on its classification. Tatura has two major food manufacturers and an abattoir, plus civil/mechanical engineering firms. Their waste potentially presents Tatura with significant opportunities for waste to energy (e.g. food waste could be used to power a bio-fuel digester).

WASTE GOALS

Tatura's waste goals are:

Waste Goal 1: Zero Waste to Landfill

Waste Goal 2: Enable a circular economy whereby all waste is reused

Waste Goal 3: Tatura's consumers understand the waste impact of their purchases, and actively participate in managing their waste items

HOW WILL WE GET THERE?

Tatura will achieve its waste goals by:

- Working with Council to understand and audit our current waste, and develop strategies to address these waste streams
- Working with retail businesses to reduce waste/non-renewable packaging at point of sale, particularly food suppliers (supermarkets, take away, etc).
- Establish a soft-plastic, battery and electronics collection point in Tatura
- Becoming better educated on how waste is produced and how to make practical lifestyle changes to reduce waste;
- Enabling businesses to make money from waste
- Reduce the amount of food that is bought out of season or is imported (food miles)
- Ensure waste is handled in the most appropriate manner to reduce contamination and make it fit for purpose for planned processes
- Enable residents and businesses to participate in waste recovery and processing to reduce costs
- Realising opportunities to utilise waste in better ways to unlock to value of its components;
- Educate and promote items that can be repaired and recycled
- Encourage Council to utilise waste contractors that utilise zero emission vehicles



POSSIBLE ACTIONS

A list of possible actions was developed by the community through the Transitions Tatura Facebook site and community consultation days, as follows:

Action	Partners	Time frame
Apply for funding to audit Tatura's waste, and develop strategies to reduce waste within the town	TT; Zero Waste Shepparton; GVWRRG; GSCC	Short
Encourage food sharing in both neighbourhood, community and commercial settings	TCH; TCP, TT	Short
Educate and promote businesses which promote circular economies including Op Shops, ewaste recyclers, concrete recycling, Men's Shed	GSCC	Medium
Support businesses to reduce waste and/or non-recyclable packaging, particularly food suppliers (supermarkets, take away, etc).	TCP; GSCC; TT	Short
Discuss electric or hydrogen powered collection trucks with Council	GSCC	Medium
Least household/business/school waste (red bin) competition	GSCC; TT; ZWS	Medium
Utilise green waste to produce fertilizers, hydrogen or biofuel		Long
Request Council establish a soft plastic, battery and electronics collection point in Tatura	TCP; TT; GSCC	Short
Undertake an engagement process to inform the community of the extent and amount of carbon emissions that can be attributed to all food goods	GSCC	Medium
Encourage community members and business to participate in waste recovery and processing.	GSCC	Medium
Promote resilient indigenous gardens for food production	GV Tree Group, Australian Botanic Gardens	Medium
Undertake a preliminary study (Lifestyle Plan) that identifies and prioritizes all lifestyle aspects that have associated carbon creation to reduce carbon emissions and cost	GVCE	Short



Troy Beecroft - GV Re-Cycle

INDUSTRY

THE EXISTING STATE

Tatura has a variety of Industries that contribute to the thriving economy of Tatura, and utilise our primary production outputs. These industries include dairy, food manufacturing and processing, and livestock. Our industries utilise a large proportion of Tatura's energy, including both electricity and gas, but are also investigating and implementing renewable energy and energy efficiency measures.

WASTE GOALS

Tatura's industry goals are:

Industry Goal 1: Maintain or increase industrial output and reduce carbon emissions to zero by 2030

Industry Goal 2: Be an integral part of the remodelled energy distribution system and participating in energy sharing (virtual networks) and battery energy balancing projects

Industry Goal 3: All sewage waste to be processed to its highest value some of which (hydrogen) is being used within industry and transport

HOW WILL WE GET THERE?

Tatura will achieve its industry goals by:

- Continued energy efficiencies being undertaken on site
- Enhancing partnerships with GVW and industry
- Working cooperatively with other industries
- Investigating the sharing opportunities of energy via battery storage and virtual networks to others in the postcode
- Showcasing industry energy efficiencies to others to promote reduction in energy use

POSSIBLE ACTIONS

A list of possible actions was developed by the community through the Transitions Tatura Facebook site and community consultation, as follows:

Action	Partners	Time frame
Encouraging industry to continue with all energy efficiency improvements	Industry	Short
Encouraging industry to foster carbon emission reduction by their suppliers	Industry	Medium
Develop a virtual energy network where residents sell electricity to industry at a premium during extreme peak demand	Industry, retailers	Long
Promoting the achievements of our local industry in reducing energy use and utilising renewable energy	Industry	Short

Action	Partners	Time frame
Pursue alternative energy inputs for the major users that assists with their need and reduces the overall drain on energy usage for the Tatura area.	/	Medium



AGRICULTURE AND LAND USE

THE EXISTING STATE

Tatura has a thriving agricultural sector that includes a diverse mix of farming enterprises. These include vegetables (particularly tomatoes), dairy, beef, lamb and wool, grain and hay, pasture production and horticulture including apples, pears and cherries. Associated energy-using infrastructure includes cool-stores and dairies. The area includes both dry land and irrigated agriculture, with irrigation channels and outlets servicing flood, drip, subsurface and overhead irrigation techniques. Additional to commercial agricultural enterprises, there are a variety of hobby farms and equine properties that utilise farm land in the Tatura area.

Emissions from the agricultural industry are complex and include methane emissions from livestock, fertiliser emissions, diesel emissions from farm machinery, and emissions emitted from energy use by farm infrastructure. However the agricultural sector manages much of the land mass within the 3616 postcode, so could potentially support carbon sequestration and targeted revegetation that would not only offset carbon emissions, but provide biodiversity benefits to the region. 97% of native vegetation within the Greater Shepparton City Council area has been cleared, with the majority now on Council roadsides and in reserves, and under-utilised farmland could provide a key area for revegetation.

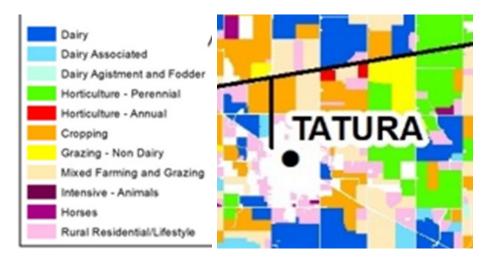


Figure 4. Landuse in the Tatura locality.

AGRICULTURE AND LAND USE GOALS

Tatura's Agriculture and Land Use goals are:

Agriculture and Land Use Goal 1: Agricultural production is best practice in terms of energy efficiency, methane emissions and productivity

Agriculture and Land Use Goal 2: Agricultural production embraces closed loop systems, utilising plant and animal waste products to provide inputs into other systems

Agriculture and Land Use Goal 3: Carbon sequestration and offsetting opportunities are embraced and promoted, including in agricultural plant mass, soil and revegetation to 20% of 3616 postcode



HOW WILL WE GET THERE?

Tatura will achieve its agriculture and land use goals by:

- Embracing opportunities to improve the carbon efficiency of production processes, improving production efficiency and reducing carbon emissions to zero or below zero
- Utilising scientific advances in agriculture and better cooperation and involvement by Government and Authorities to adopt low emission processes
- Co-operation between the agricultural sectors to improve the agricultural output efficiency and logistics chains
- On farm energy production available for use by industries in Tatura
- Programs for carbon abatement on farm identified and supported
- Support for landowners to understand emissions on farm, audits and target areas for carbon reduction
- Promoting case studies of farmers implementing low carbon farming

POSSIBLE ACTIONS

A list of possible actions was developed by the community through the Transitions Tatura Facebook site and community consultation days, as follows:

Action	Partners	Time frame
Undertake targeted consultation on the opportunities to improve production processes, improved production efficiency and reduced carbon emission to zero or below zero	FCA; CMA; AgVic	Medium
Foster the generation of energy on-farm for use by others in Tatura and 3616		Long
Increase agricultural support and advice programs	AgVic	Medium
Liase with AgVic and other researchers in reducing on-farm emissions	AgVic; Landcare	Short
Support hobby and commercial farmers to engage in revege- tation activities on their properties for biodiversity and carbon sequestration	AgVic; Landcare	Medium
Support farmers to understand energy efficiency and renewable energy options for their operations	GVCE; AgVic	Short



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APPENDIX

A. WATERWHEELS-TATTRANSPORT PROJECT

CREATING COMMUNITY DRIVEN TRANSPORT SOLUTIONS THAT WILL ENABLE MOBILITY WITHIN TATURA AND CREATE TRANSPORT OPTIONS TO CONNECT TO SHEPPARTON, OUR REGIONAL CITY.

BACKGROUND

In February 2017, 21 people attended a "Community Transport Forum" which was facilitated by the Tatura Community Plan committee. The meeting was attended by concerned residents and representatives from local service clubs and community organisations. The meeting identified a range of transport challenges facing the community and particularly those of seniors, low income households and those without vehicles. Living regionally or remotely often contributes to social isolation and risks of compromised health due to lack of access to affordable transport and services. Further consultation has shown that living alone after the loss of a partner, low income, moving into the district, living out of town (on farms, in rural communities) or being new to town compound the barriers to accessing transport.

AIMS

- To improve access to everyday local services and activities- shopping, hairdresser, health practitioners, social opportunities, health and wellbeing activities, work, sport, civic participation and volunteering.
- To create transport opportunities which enable access to employment, learning, medical specialists, allied health, shopping and professional services.

ZERO CARBON TATURA CONTACTS $The Zero \, Carbon \, Tatura \, group \, welcomes \, discussions \, on \, how \, to \, achieve \, a \, Zero \, Emission \, Tatura \, by \, 2030.$ Contact us by: Email: info@taturazerocarbon.org Connect with us on Facebook via Transition Towns Tatura Visit our webpage: www.zerocarbontatura.org Or contact any of our listed representative groups.