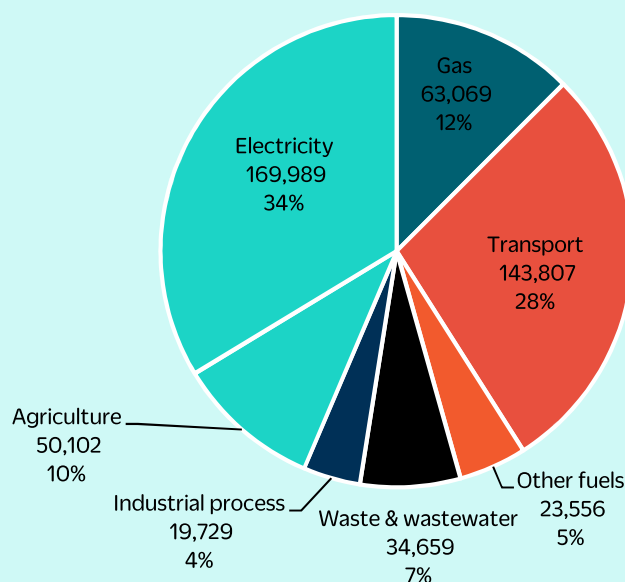


Climate Emergency

Surf Coast Shire Community Emissions Profile

Surf Coast Region 2019 Community Emissions Profile
 by sector and source (tCO₂-e)



**Total emissions:
504,911 tCO₂e***

In 2019, Surf Coast Shire declared a climate emergency, joining the now more than 98 Australian Councils that have declared. As part of their declaration, Council committed to developing a Climate Emergency Response Plan in collaboration with the community.

To inform this process, Council has developed a community-wide greenhouse gas emissions inventory to assist in:

- Identifying the most material sources of emissions within the Shire
- Forecast emissions into the future, based on activity trends and anticipated future changes
- Communicate the challenges of de-carbonisation and make informed decisions to mitigate emissions.

The Approach

This emissions inventory has been developed inline with the BASIC+ scope defined in the Global Protocol for Community Scale Greenhouse Gas Emissions Inventory which is considered

the best practice guidelines for this type of inventory. Emissions have been estimated across the following categories:

- Electricity (e.g. households and commercial electricity use)
- Transport (e.g. private and commercial travel within the shire)
- Agriculture (e.g. livestock emissions)
- Gas (e.g. commercial and residential mains gas and LPG use)
- Industrial process (e.g. leakage from refrigerants)
- Waste and wastewater (e.g. methane from landfills, wastewater processing)
- Other fuels (e.g. diesel used on farms, aviation fuel)
- Land Use, Forestry and Land Use Change (e.g. emissions associated with land clearing, forestry activity or abatement from revegetation)

**tCO₂e = tonnes of carbon dioxide equivalent greenhouse gas emissions, the standard unit used to measure emissions. As a guide 1 tCO₂e is equivalent to 20,000 black balloons of carbon dioxide*



2019 Surf Coast Shire Community Emissions Profile - breakdown by location

Coastal Towns



36-63%

Electricity use by households and businesses is the dominate source of emissions for our costal townships. Victoria's electricity grid remains predominately fossil fuel powered.

63% for Lorne, 51% for Anglesea, 51% Aireys Inlet & Fairhaven, 36% for Torquay, Jan Juc and Bells Beach



23-30%

Transport emissions are the second highest source of emissions for coastal townships due to significant reliance on private car use.

30% for Anglesea, 29% Aireys Inlet & Fairhaven, 29% Torquay, Jan Juc, Bells, 23% for Lorne



3-18%

Gas is a significant emissions source for Torquay and Jan Juc but lower in areas where there is no mains gas supply but LPG bottles are used.

18% for Torquay, Jan Juc & Bells Beach, 5% for Aireys Inlet & Fairhaven, 4% for Anglesea, 3% for Lorne



6-10%

Emissions arise from waste generated within these townships

10% for Aireys Inlet & Fairhaven, 9% for Anglesea, 8% for Lorne, 6% for Torquay, Jan Juc & Bells Beach



Emissions from other fuel use, industrial processes and agriculture are less significant in these coastal townships due to relatively low level of industrial and agricultural activity

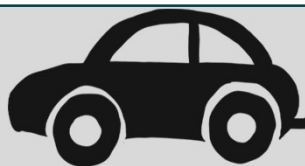
Hinterland



16 - 19%

Emissions from transport and electricity usage remain significant sources for the hinterland

Electricity: Winchelsea 19%, Moriac, Gherang & Paraparap 18%, Deans Marsh 16%, Transport: Winchelsea 27%, Deans Marsh 39%, Moriac, Gherang & Paraparap 35%



27 - 39%

Emissions arise from agricultural activity such as livestock, and other non-transport related fuel use, for example diesel used on farms and aviation fuel use are more significant for hinterland communities.



24-29%



8-9%



6 - 9%

Waste makes up a similar proportion of emissions in our hinterland communities as it does in the coastal townships



<2%

Emissions from other industrial processes is a relatively minor contributor of less than 2%



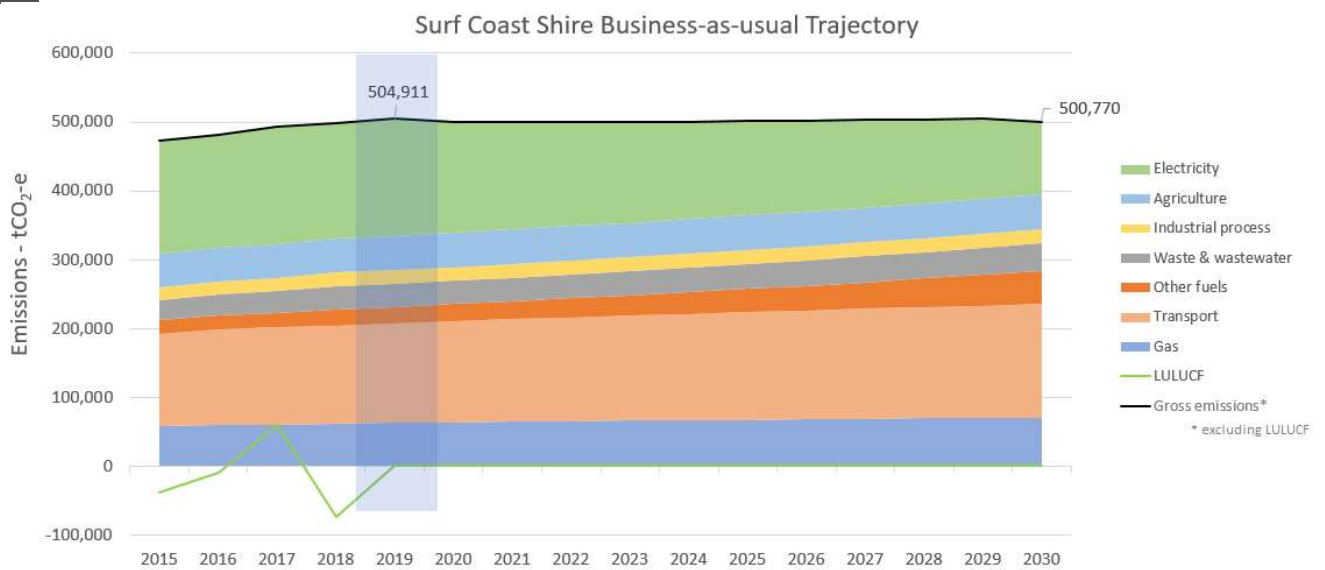
Up to 15%

Gas makes up to 15% of emissions for Winchelsea but is negligible for other inland townships (<1%)



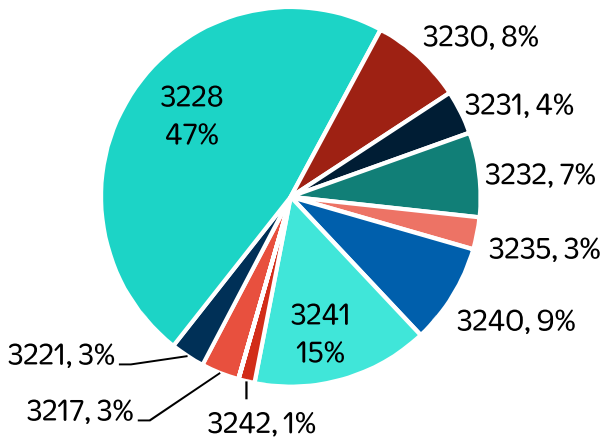
Business-as-usual trajectories

Forecasting emissions expected to be generated to 2030 gives us an idea of how we are tracking as a community towards net zero emissions. Current trajectories indicate minimal change in overall emissions within the Shire without further additional action to mitigate emissions. This is based on projected population growth and takes into account forecasts for key factors such as a wider electricity grid transition to renewable energy and expected uptake of electric vehicles.



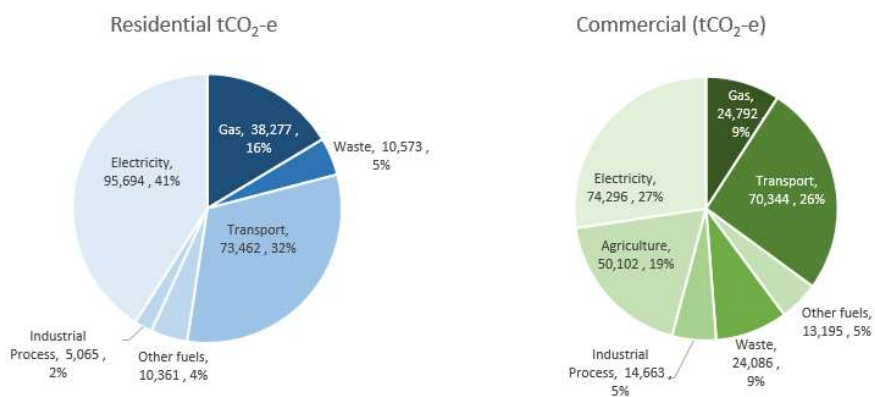
Further analysis

Postcode Breakdown for 2019



3228 encompassing Torquay and Jan Juc is the main source of emissions for the shire, followed by 3241 which includes Winchelsea

Residential and Commercial Breakdown



For households in the Surf Coast Shire, Electricity remains the dominant source of emissions, followed by transport and gas usage. Commercial facilities generate more of a mix of emissions sources reflective of the mix of commercial activity that occurs within the Shire.