



NORTHERN
ALLIANCE FOR
GREENHOUSE
ACTION

Yarra City

Energy Profile

Helping Council to improve policies, target programs,
and promote energy smart communities.

Municipal Energy Profile

Introduction

This Municipal Energy Profile provides a comprehensive overview of energy (gas and electricity use) and associated emissions in the municipality. It shows the trends in energy consumption for residential, commercial and industrial sectors with totals for each suburb. The profile draws upon energy data for the period 2004-2014.

Background

The Northern Alliance for Greenhouse Action (NAGA) has been working to obtain local energy data since 2008. NAGA is working to ensure urgent, regional action in our transition to a climate-changed low-carbon future. NAGA supports councils commitments to enhance the wellbeing of their municipalities. Information provided by Victorian electricity and gas distributors to NAGA forms the basis of the profiles.

MEFL has developed a detailed municipal data tool to record raw energy consumption data. This data has been used to construct energy profiles for each of the councils and presents the most comprehensive set of local level energy information produced in Australia.

The profiles demonstrate NAGA's commitment to local leadership in climate change action.

Applications

The availability of local information on energy consumption and trends enables councils to:

- » improve targeting of policies, programs and incentives to reduce energy demand by knowing where consumption and emissions are highest;
- » identify and target effort for maximum impact;
- » communicate to create a better informed community on energy use, carbon pollution and costs; and
- » monitor the effectiveness of energy saving and emission reduction programs and progress towards local, regional or state targets.

Acknowledgements

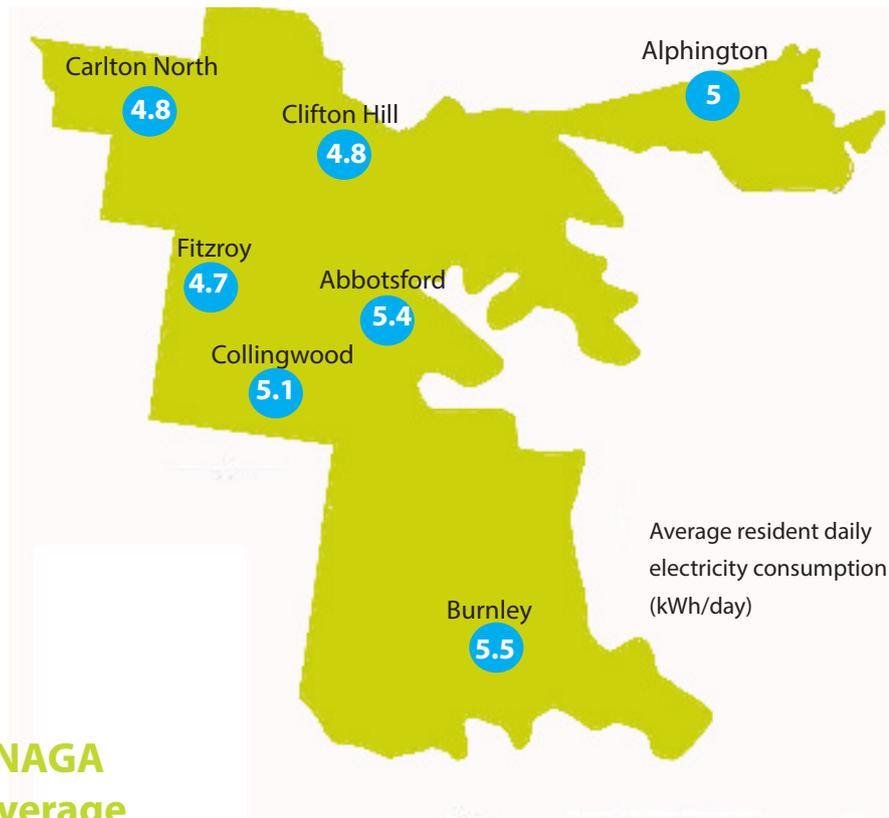
The Municipal Energy Profile was originally developed for NAGA by Moreland Energy Foundation, with funding from the Victorian Government. NAGA acknowledges Victoria's gas and electricity distributors for providing data used to develop this profile.

Enquires

Every attempt has been made to verify the data, however it should be noted that this report is intended to be iterative and your feedback is welcome. The detailed data on which this profile has been developed is located within the municipal data tool; for more information please contact NAGA.

Please note that some discrepancies are evident between the 2013 and 2012 Municipal Energy Profiles for particular postcodes. Whilst we have done all we can to maintain consistency between years, there are some inevitable changes in the raw data acquired from the network companies, as they have changed their data collection and reporting methods.

Yarra



Yarra Average

5.1

NAGA Average

4.8

Changes from 2009 to 2014

Yarra Average

NAGA Average

Annual decrease in daily household electricity use

-5%

-4.3%

Annual increase daily household gas use per year

-1.5%

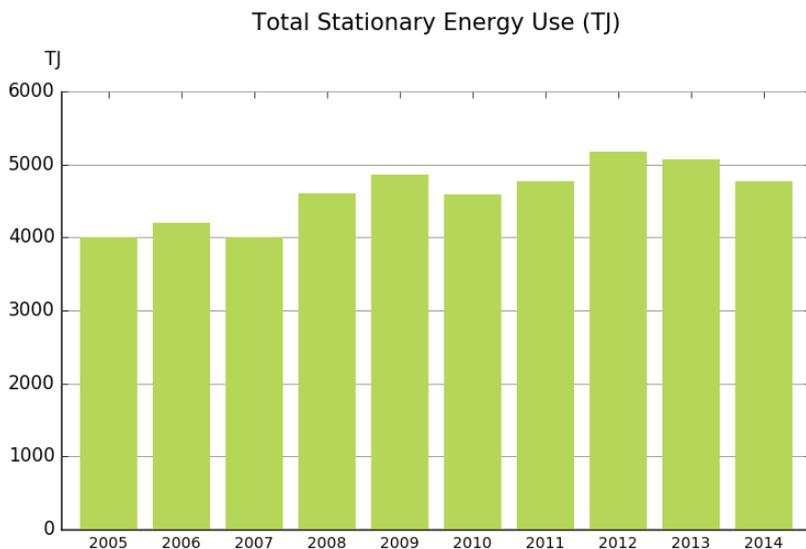
-2%

Annual decrease in daily household GHG emissions

-6.1%

-5.2%

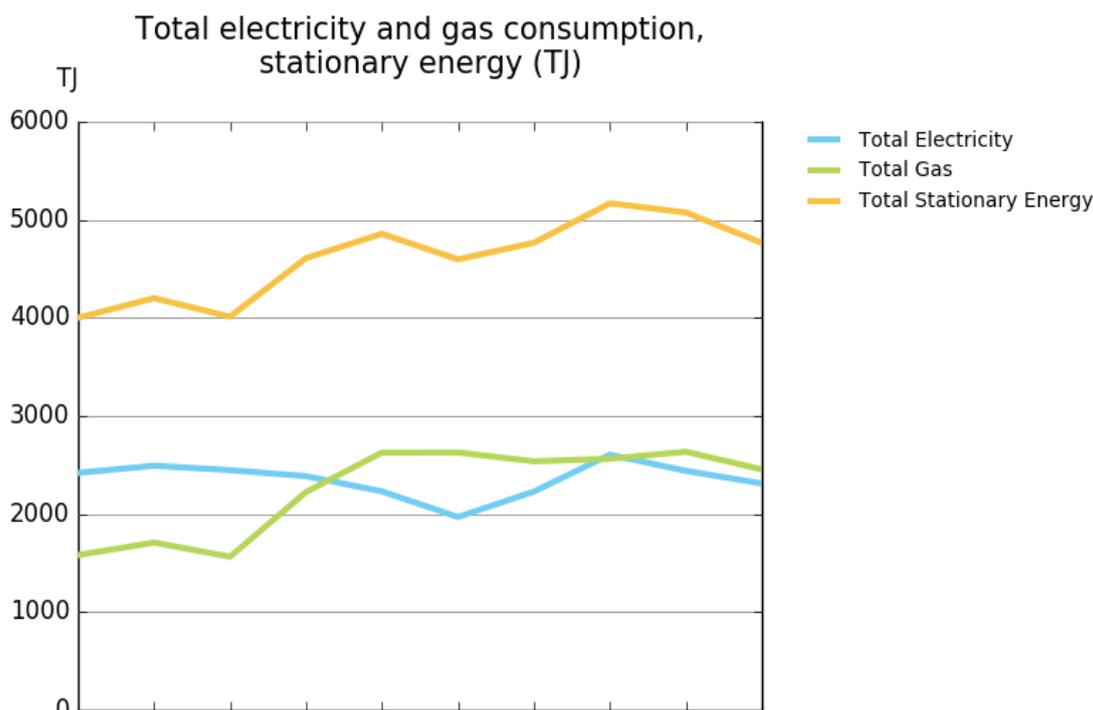
Yarra's energy consumption



The total stationary energy consumption for the municipality combines gas and electricity used in the residential, commercial and industrial sectors.

For electricity, megawatt hours (MWh) have been converted to terajoules (TJ). Note that in 2009 there was a significant increase in gas use, and substantial increase in electricity use in the commercial and industrial sectors. This is considered likely due to distributors providing previously-undisclosed information.

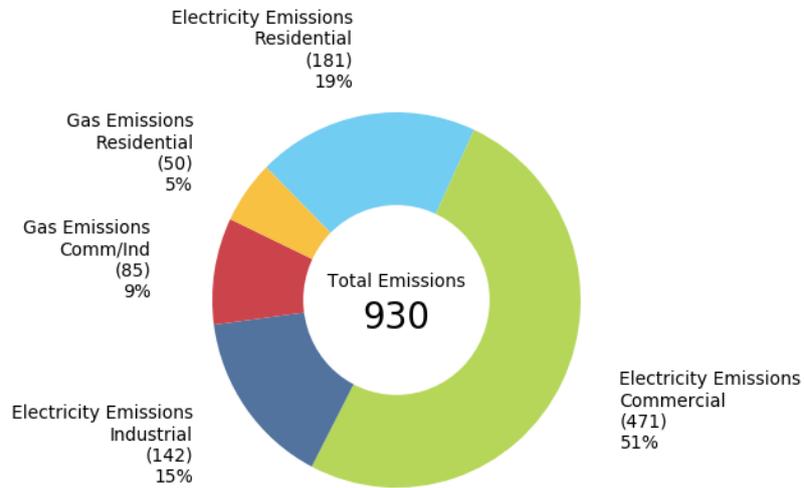
Yarra's average daily household usage of electricity is now lower than the NAGA average



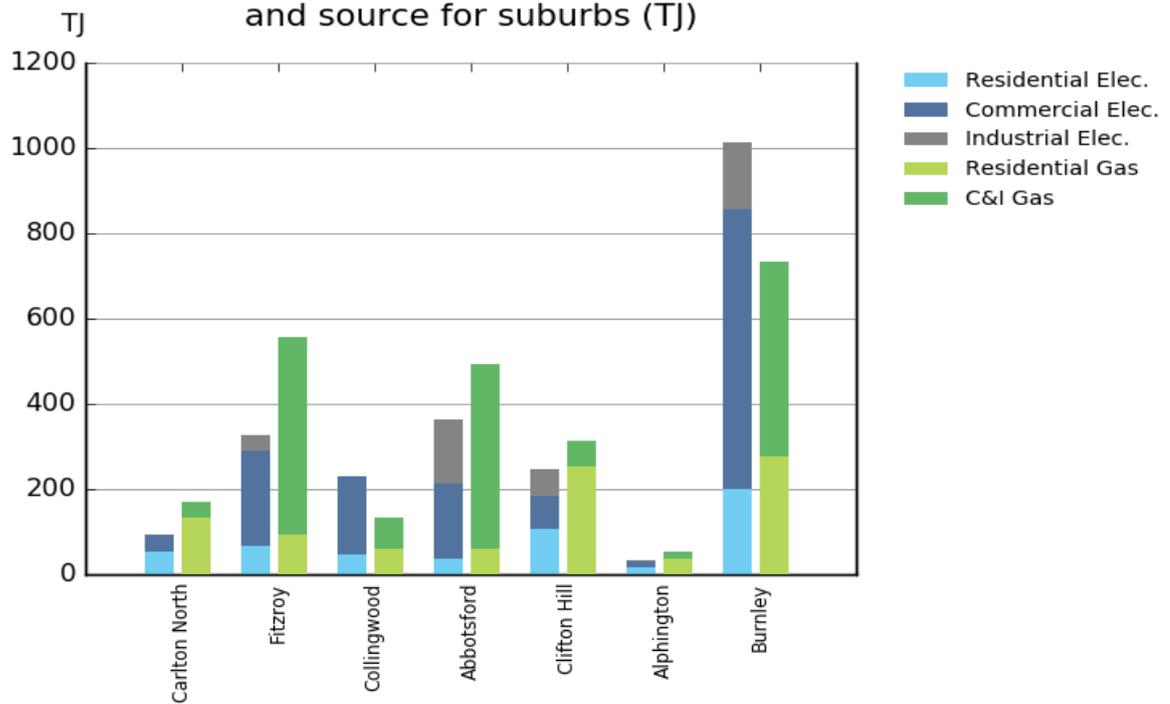
Energy consumption by sector

Emissions from gas consumption remained steady between 2013 and 2014 but electricity emissions have decreased for all sectors.

2014 Sector Emissions kt CO2-e/year



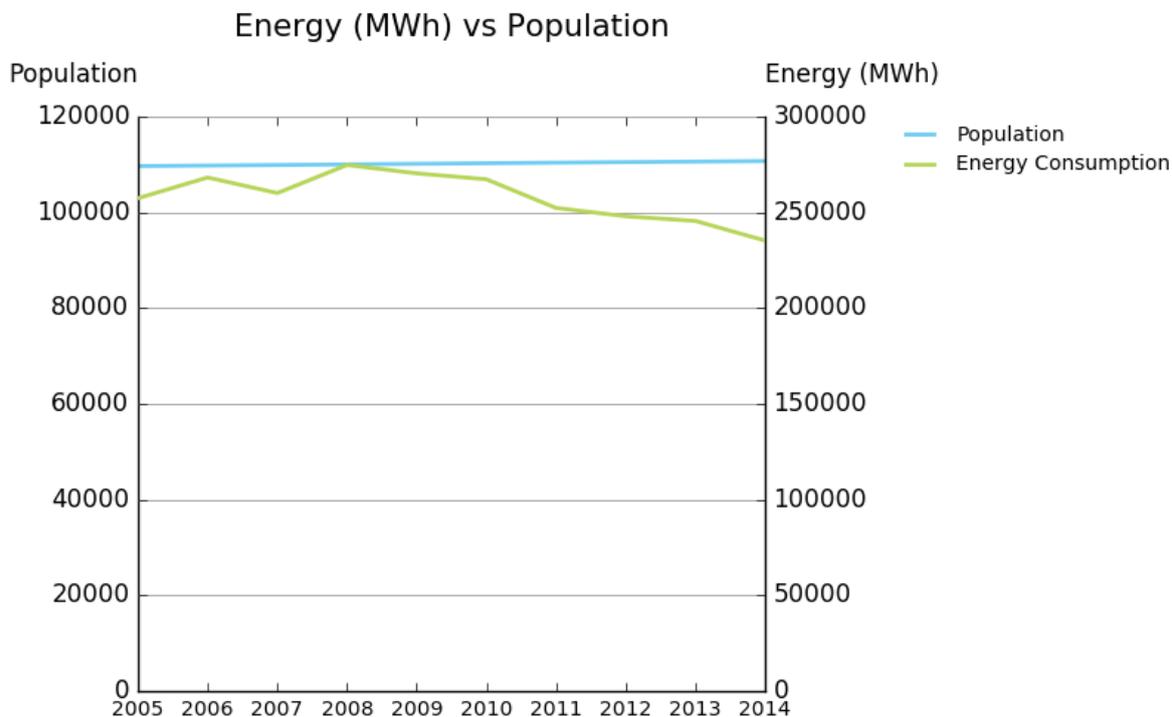
2014 annual energy use by sector and source for suburbs (TJ)



*Shared with other municipalities

Residential Energy

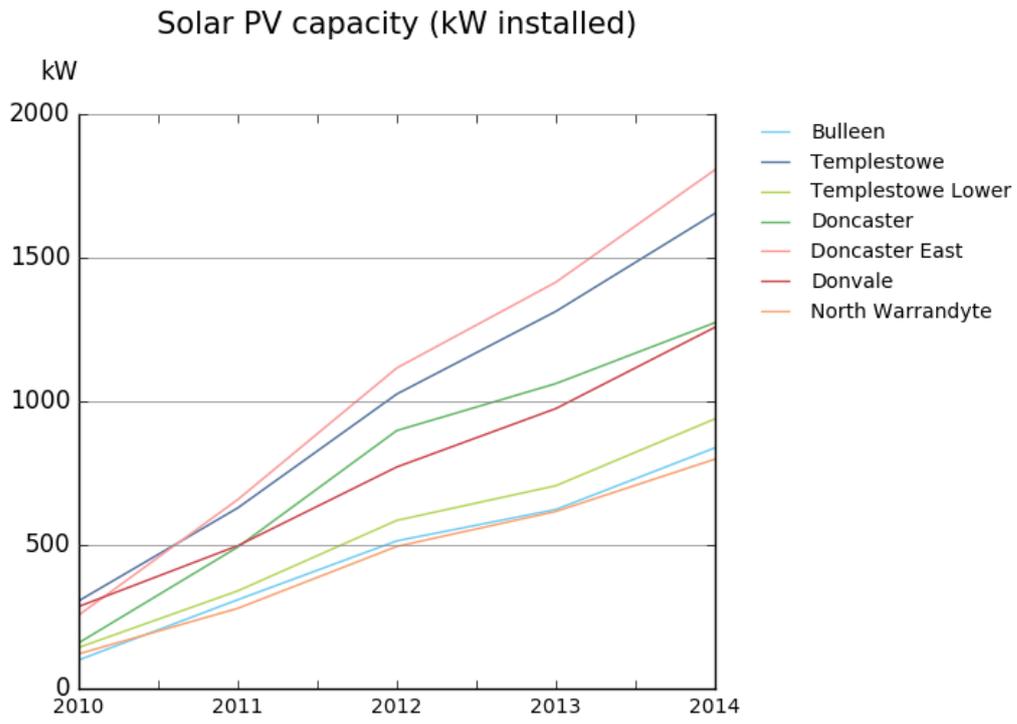
The population of Yarra continues to grow, while electricity use in the residential sector continues to decrease since 2008.



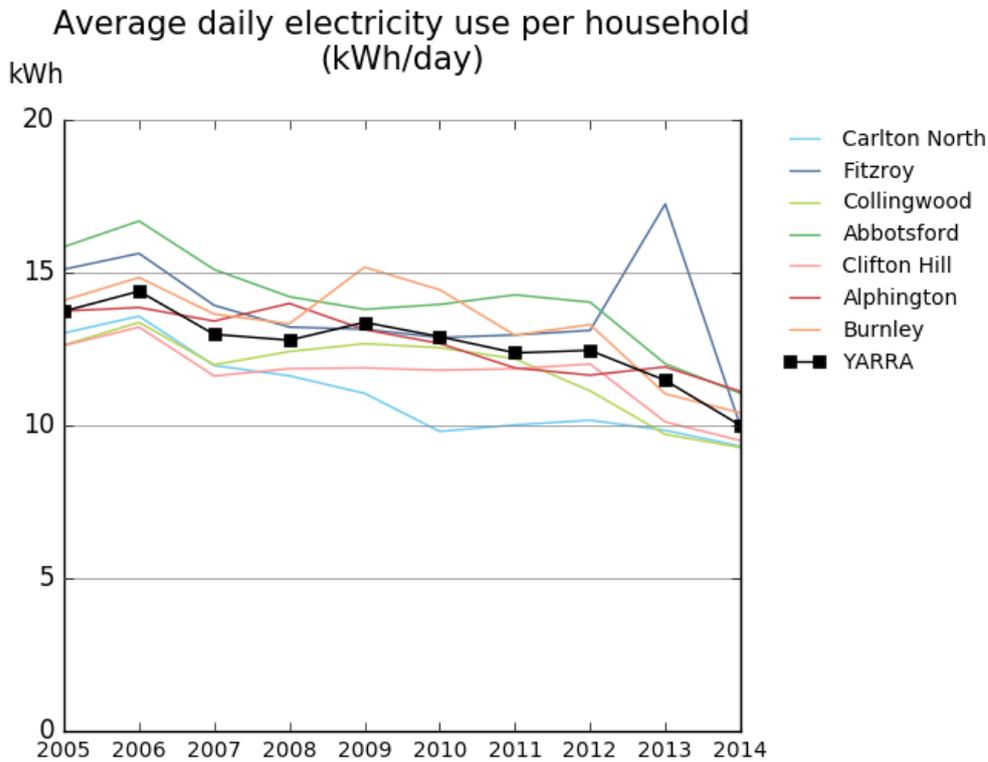
Solar Energy

There has been a moderate adoption of solar within the municipality. The lower adoption rate relative to other municipalities is likely due to the higher density of dwellings and higher rental rates leading to lower opportunities for installations.

Suburb in 2014	Postcode	No. System	Installed PV kW
Carlton North	3054	130	304.5
Fitzroy	3065	110	249
Collingwood	3066	66	197
Abbotsford	3067	84	343
Clifton Hill	3068	370	897
Alphington	3078	81	211
Richmond	3121	345	954
Yarra Total		1187	3158



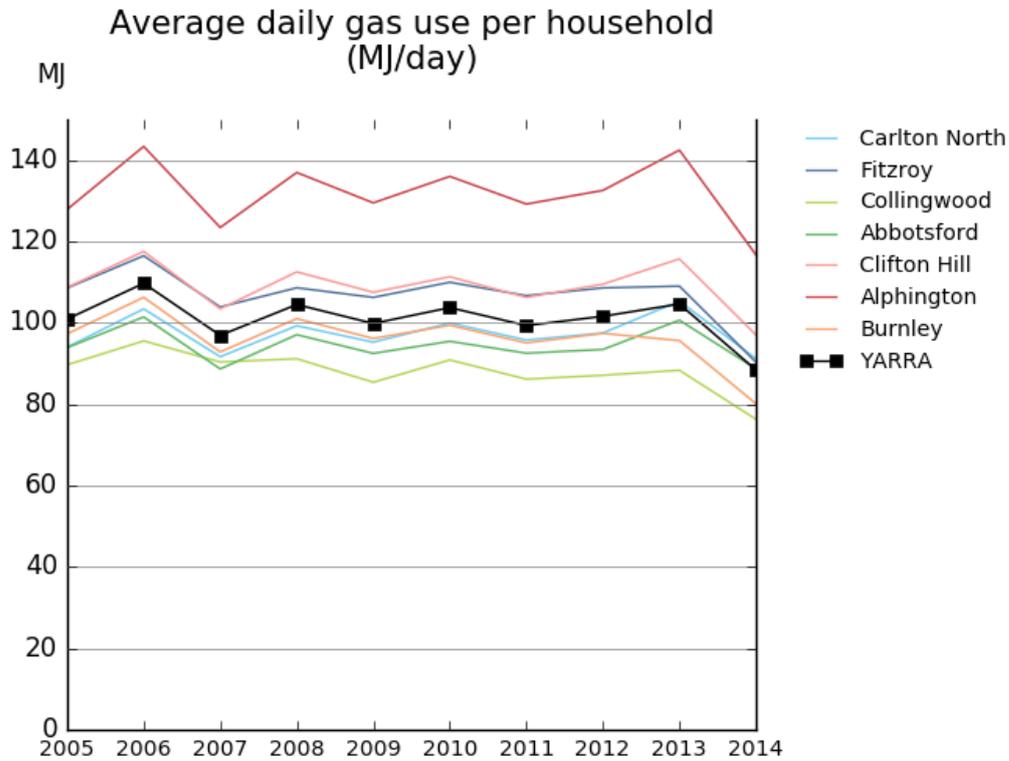
Residential Electricity



Overall per-household electricity consumption is consistently trending downwards for Yarra, and is now lower than the NAGA average, although marginally higher per person.

Suburb in 2014	Postcode	Electricity kWh/hh/day	Electricity kWh/person/day
Carlton North	3054	9.3	4.8
Fitzroy	3065	10	4.7
Collingwood	3066	9.3	5.1
Abbotsford	3067	11.1	5.4
Clifton Hill	3068	9.5	4.8
Alphington	3078	11.1	5
Richmond	3121	10.4	5.5
Yarra Average		10	5.1
NAGA Average		11.6	4.8

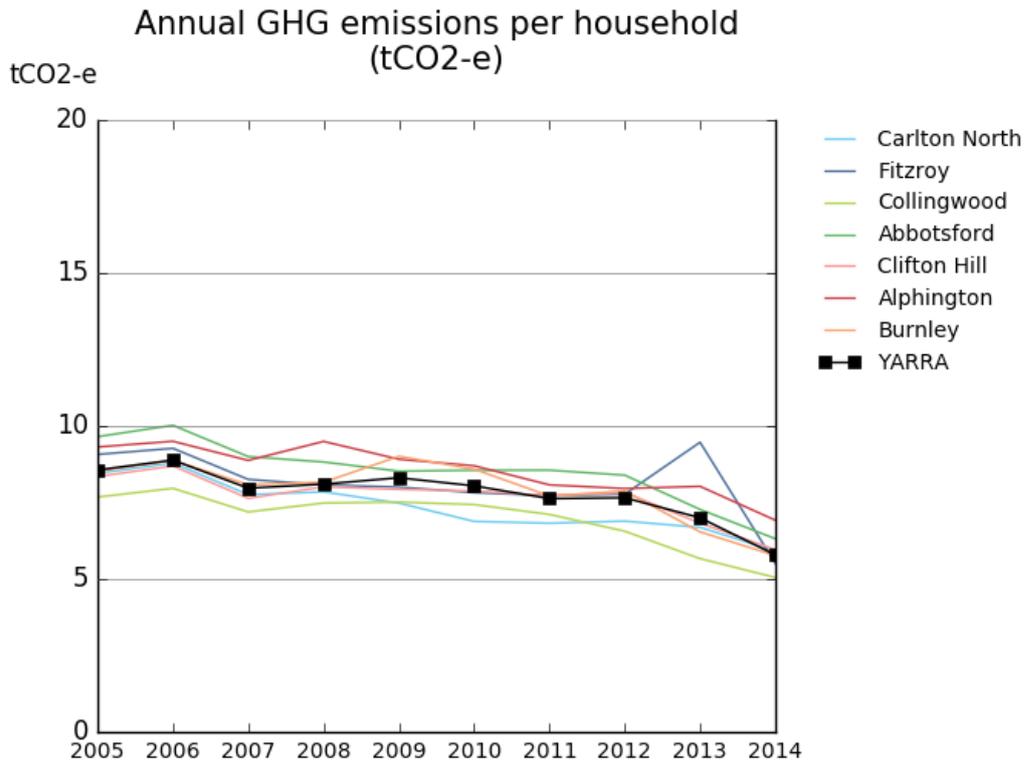
Residential Gas



Gas consumption per household in Yarra has remained relatively stable over the last 5 years, and is now well below the NAGA average. There has been a decrease between in 2013 and 2014.

Suburb in 2014	Postcode	Gas Usage MJ/hh/day
Carlton North	3054	91.2
Fitzroy	3065	90.3
Collingwood	3066	76.3
Abbotsford	3067	88.7
Clifton Hill	3068	97
Alphington	3078	116.7
Richmond	3121	80
Yarra Average		88.4
NAGA Average		137.6

Residential greenhouse gas emissions



Greenhouse gas emissions per household have a reasonably consistent downward trend across the municipality. Yarra remains below the NAGA average per household.

Suburb in 2014	Postcode	CO ₂ Emissions tCO ₂ e/hh/year
Carlton North	3054	5.9
Fitzroy	3065	5.5
Collingwood	3066	5
Abbotsford	3067	6.3
Clifton Hill	3068	6
Alphington	3078	6.9
Richmond	3121	5.8
Yarra Average		5.8
NAGA Average		7.5