



NAGA

NORTHERN
ALLIANCE FOR
GREENHOUSE
ACTION

Banyule 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 drawn 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.

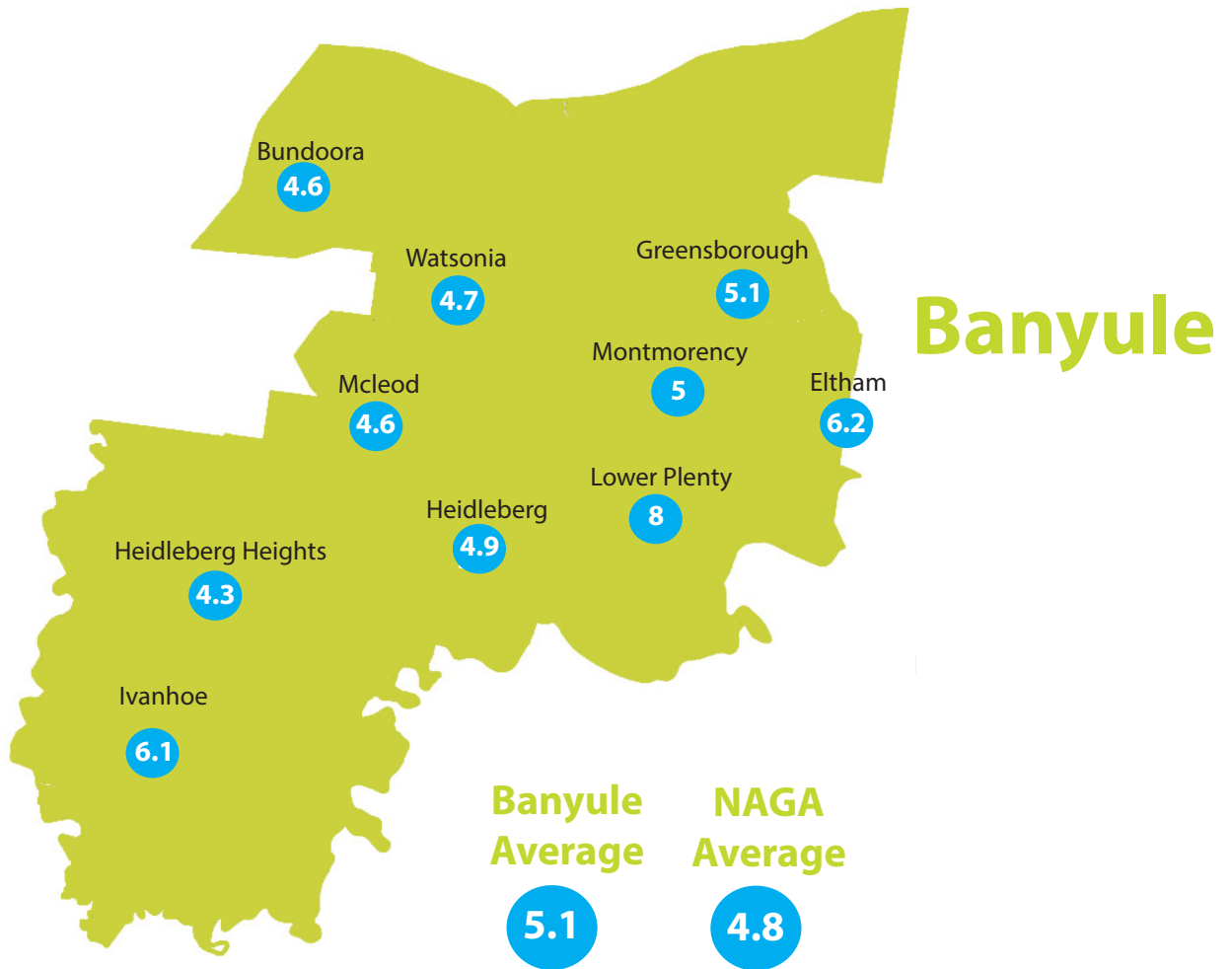
Acknowledgements

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.

Note that there are some discrepancies between the 2014 and 2013 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.

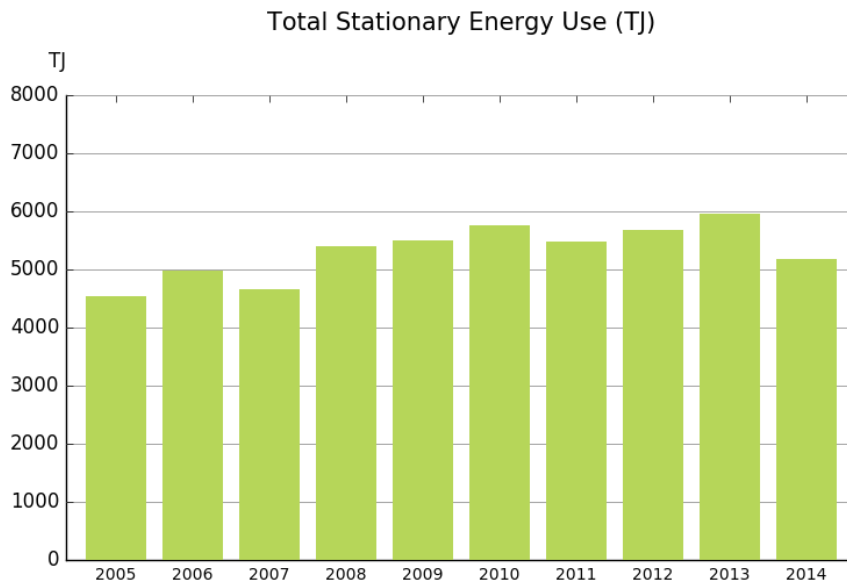


Changes from 2009 to 2014	Banyule Average	NAGA Average
Annual decrease in daily household electricity use	-3.6%	-4.3%
Annual decrease daily household gas use per year	-1.2%	-2%
Annual decrease in daily household GHG emissions	-4.4%	-5.2%

Banyule's energy consumption

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

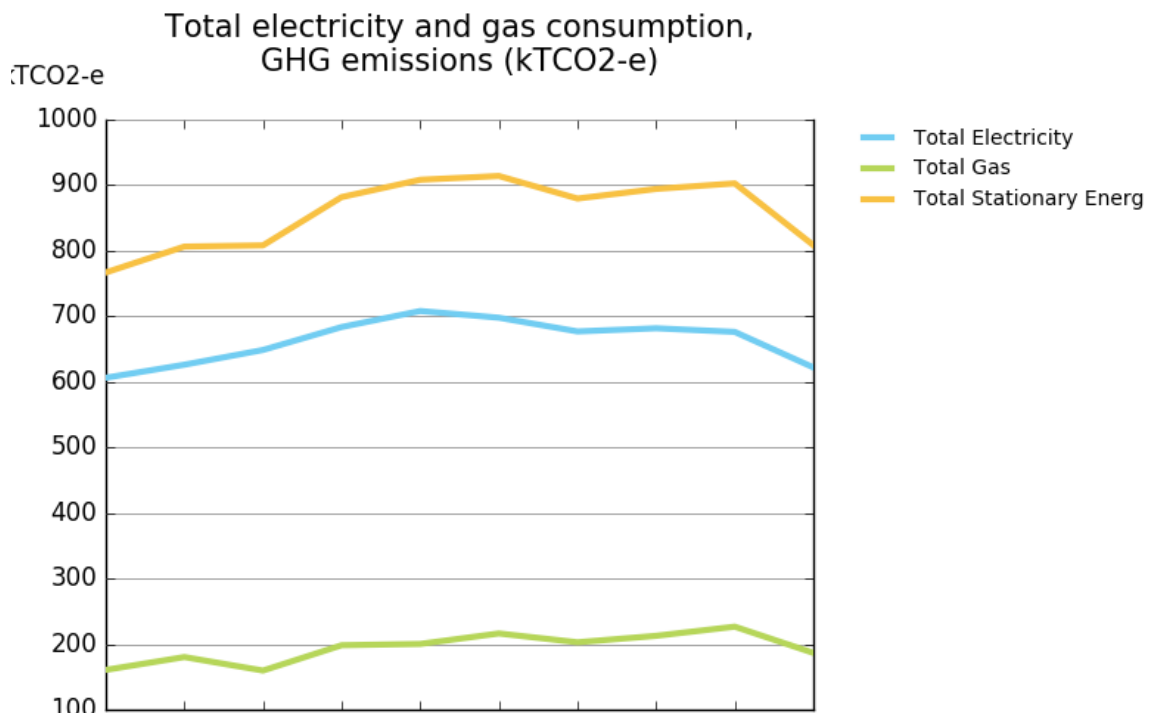
For electricity, megawatt hours (MWh) have been converted to terajoules (TJ).



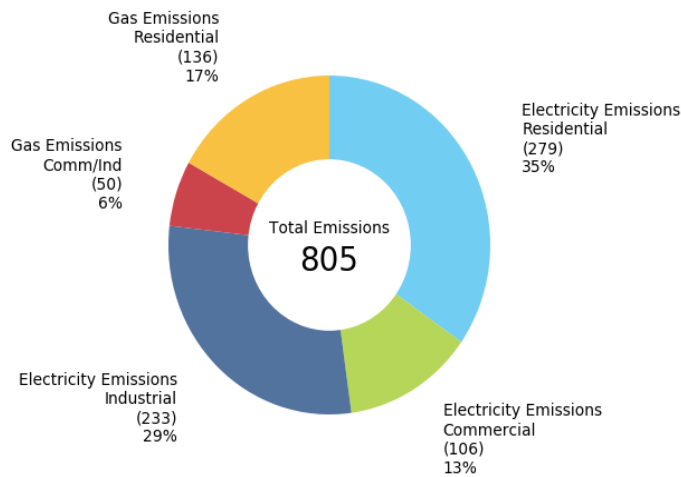
Energy consumption by sector

Banyule's average daily household usage of electricity is now higher than the NAGA average

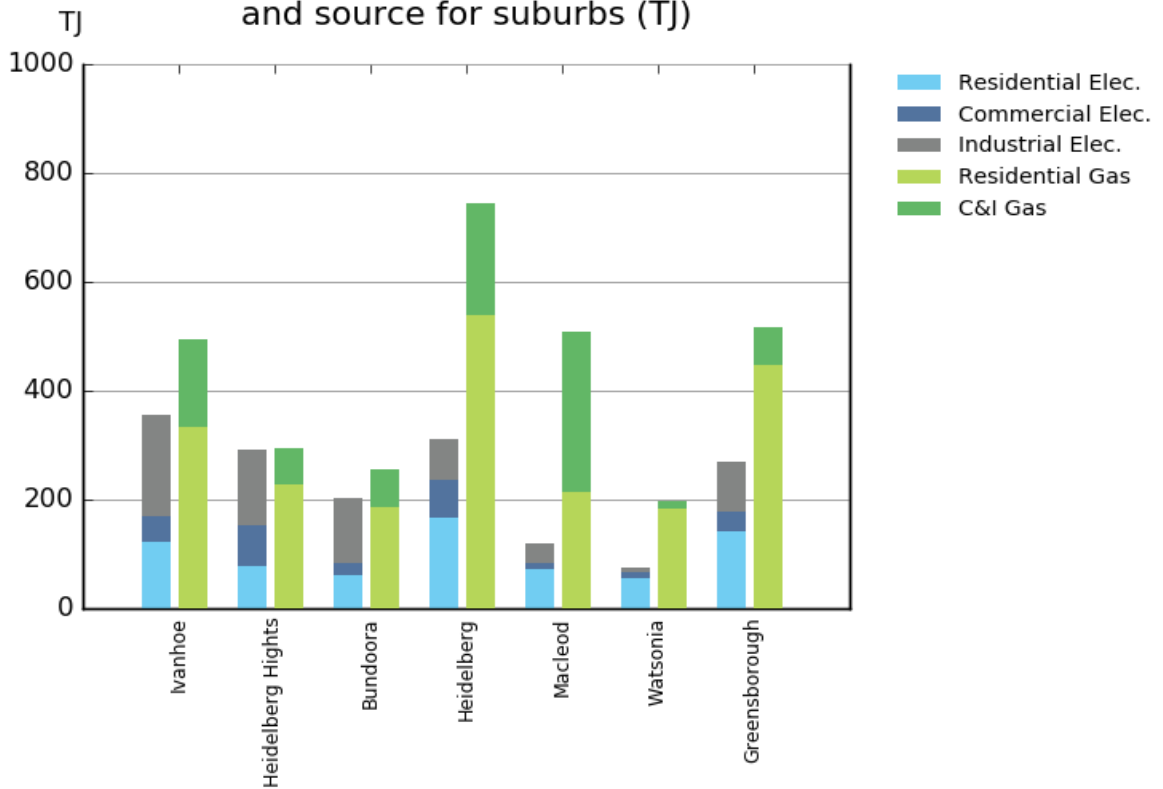
Emissions have decreased in all sectors between 2013 and 2014.



2014 Sector Emissions kt CO2-e/year

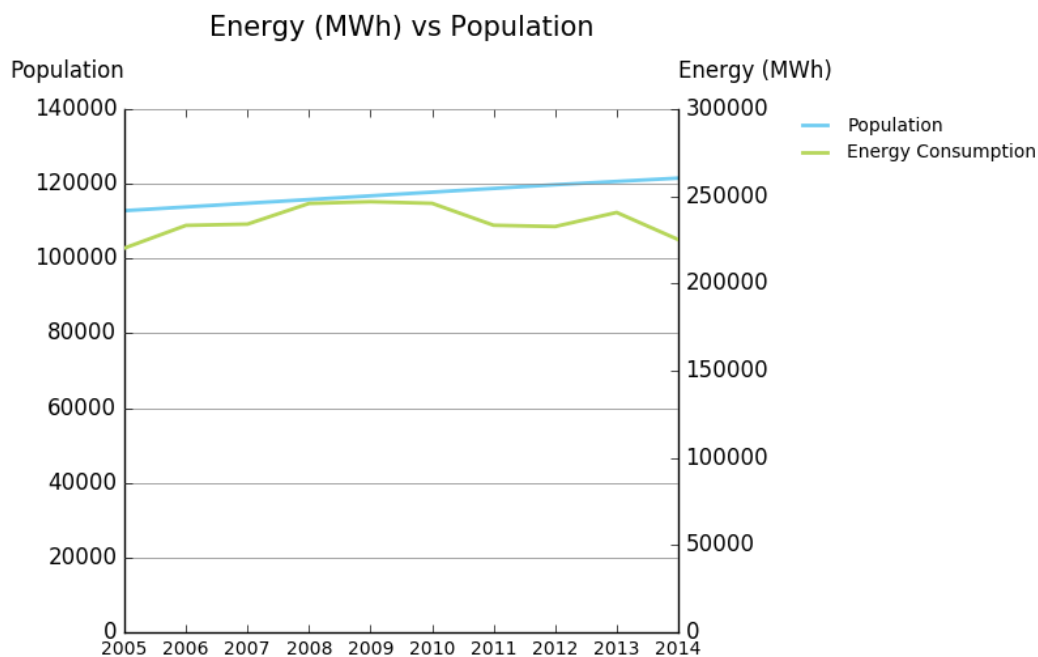


2014 annual energy use by sector and source for suburbs (TJ)



*Shared with other municipalities

Residential Energy



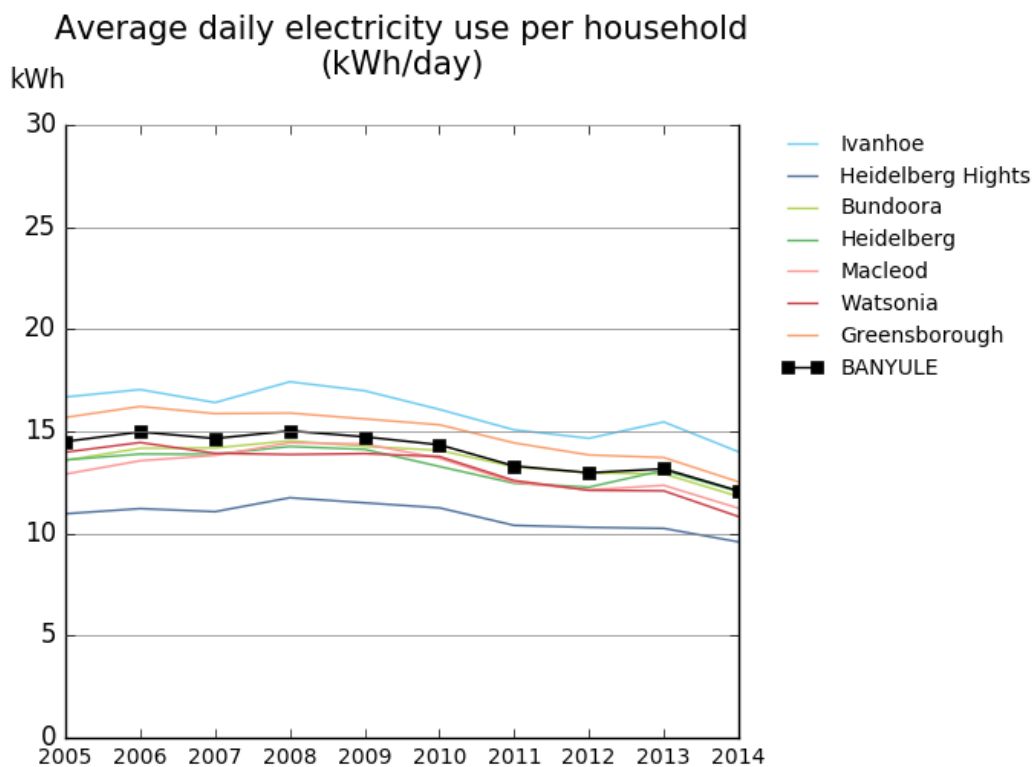
The population of Banyule continues to grow slightly, however since 2009 there has been an overall reduction in electricity consumption in the residential sector. Despite a small increase in 2013 this trend continues downwards.

Solar Energy

Solar PV systems have seen a rapid uptake in the municipality, with the majority of systems being installed on homes. Cumulative installed systems by the end of 2013 are outlined below.

Suburb in 2014	Postcode	No. System	Installed PV kW
Ivanhoe	3079	418	1175
Heidelberg Heights	3081	280	736
Bundoora*	3083	417	1088
Heidelberg	3084	755	2051
McLeod*	3085	343	870
Watsonia	3087	267	670
Greensborough*	3088	679	1797
Lower Plenty	3093	122	399
Montmorency	3094	246	636
Eltham*	3095	79	225
Banyule Total		3606	9650

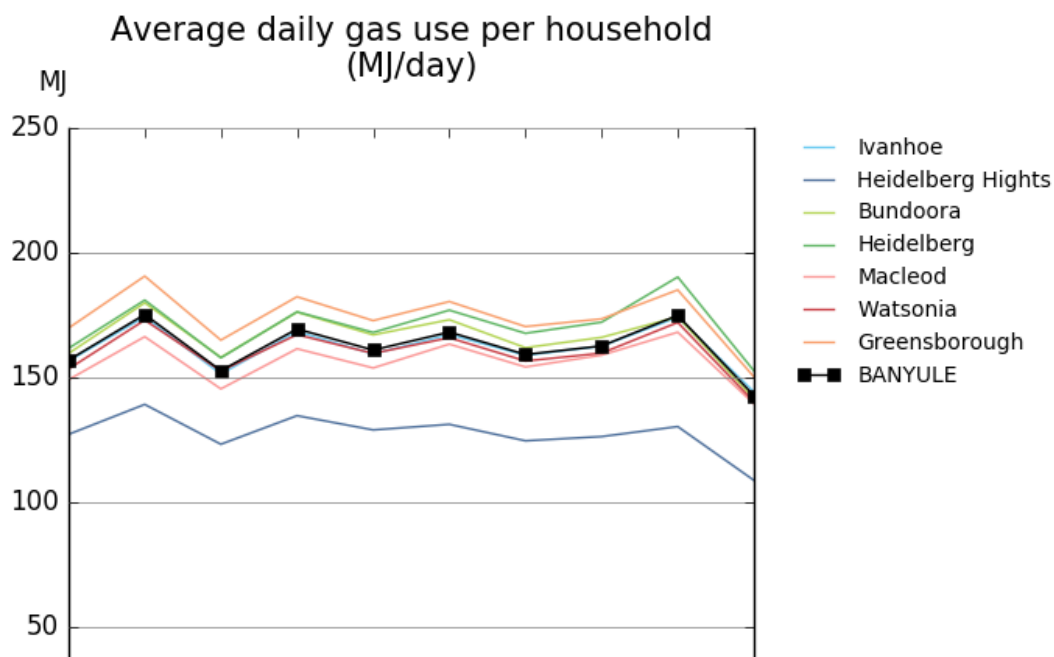
Residential Electricity



Overall electricity consumption is trending downwards for Banyule since 2008/2009. This is similar to the trend being seen across Australia.

Suburb in 2014	Postcode	Electricity kWh/hh/day	Electricity kWh/person/day
Ivanhoe	3079	14	6.1
Heidelberg Heights	3081	9.6	4.3
Bundoora*	3083	11.8	4.6
Heidelberg	3084	12	4.9
Mcleod*	3085	11.2	4.6
Watsonia	3087	10.8	4.7
Greensborough*	3088	12.5	5.1
Lower Plenty	3093	17.8	8
Montmorency	3094	11.2	5
Eltham*	3095	16.2	6.2
Banyule Average		12.1	5.1
NAGA Average		11.6	4.8

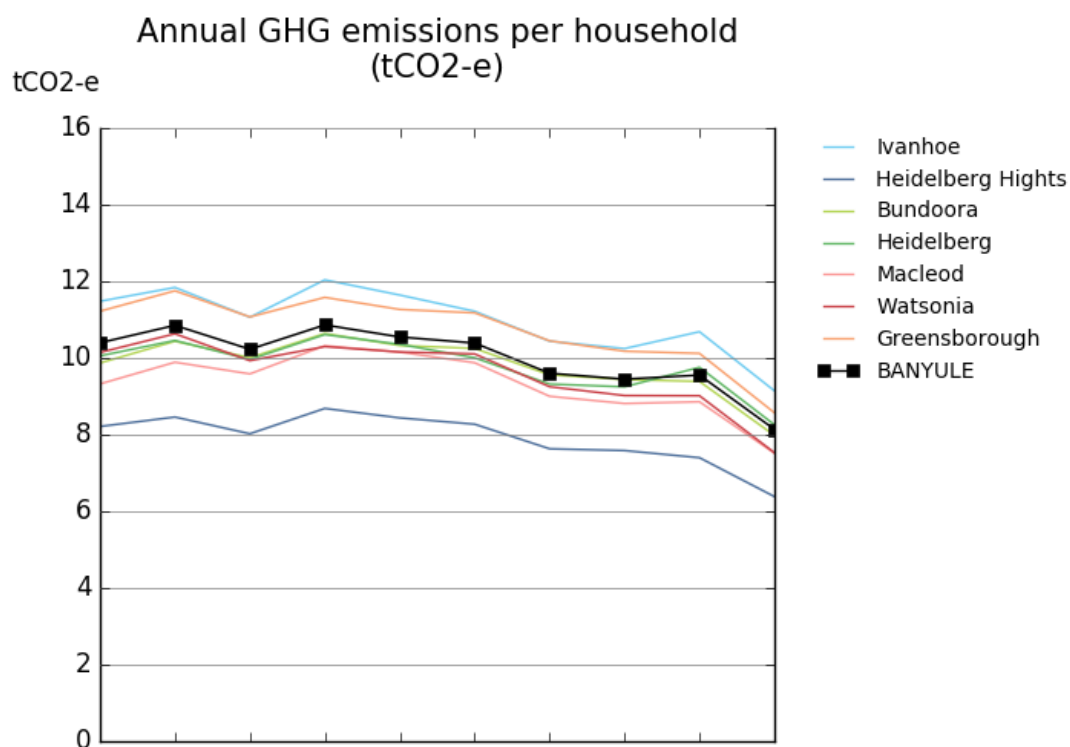
Residential Gas



Gas consumption per household in Banyule has remained relatively stable over the last 5 years, but has decreased since 2013.

Suburb in 2014	Postcode	Gas Usage MJ/hh/day
Ivanhoe	3079	144.3
Heidelberg Heights	3081	108.8
Bundoora*	3083	141.5
Heidelberg	3084	152.7
Mcleod*	3085	139.5
Watsonia	3087	140.3
Greensborough*	3088	150.3
Lower Plenty	3093	169.9
Montmorency	3094	139.5
Eltham*	3095	176.2
Banyule Average		142.8
NAGA Average		137.6

Residential greenhouse gas emissions



Greenhouse gas emissions per household have declined for Banyule since 2008.

Suburb in 2014	Postcode	CO ₂ Emissions tCO ₂ e/hh/year
Ivanhoe	3079	9.1
Heidelberg Heights	3081	6.4
Bundoora*	3083	8
Heidelberg	3084	8.3
Mcleod*	3085	7.5
Watsonia	3087	7.5
Greensborough*	3088	8.6
Lower Plenty	3093	11.2
Montmorency	3094	7.6
Eltham*	3095	10.7
Banyule Average		8.1
NAGA Average		7.5