



NAGA

NORTHERN
ALLIANCE FOR
GREENHOUSE
ACTION

City of Whittlesea

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:

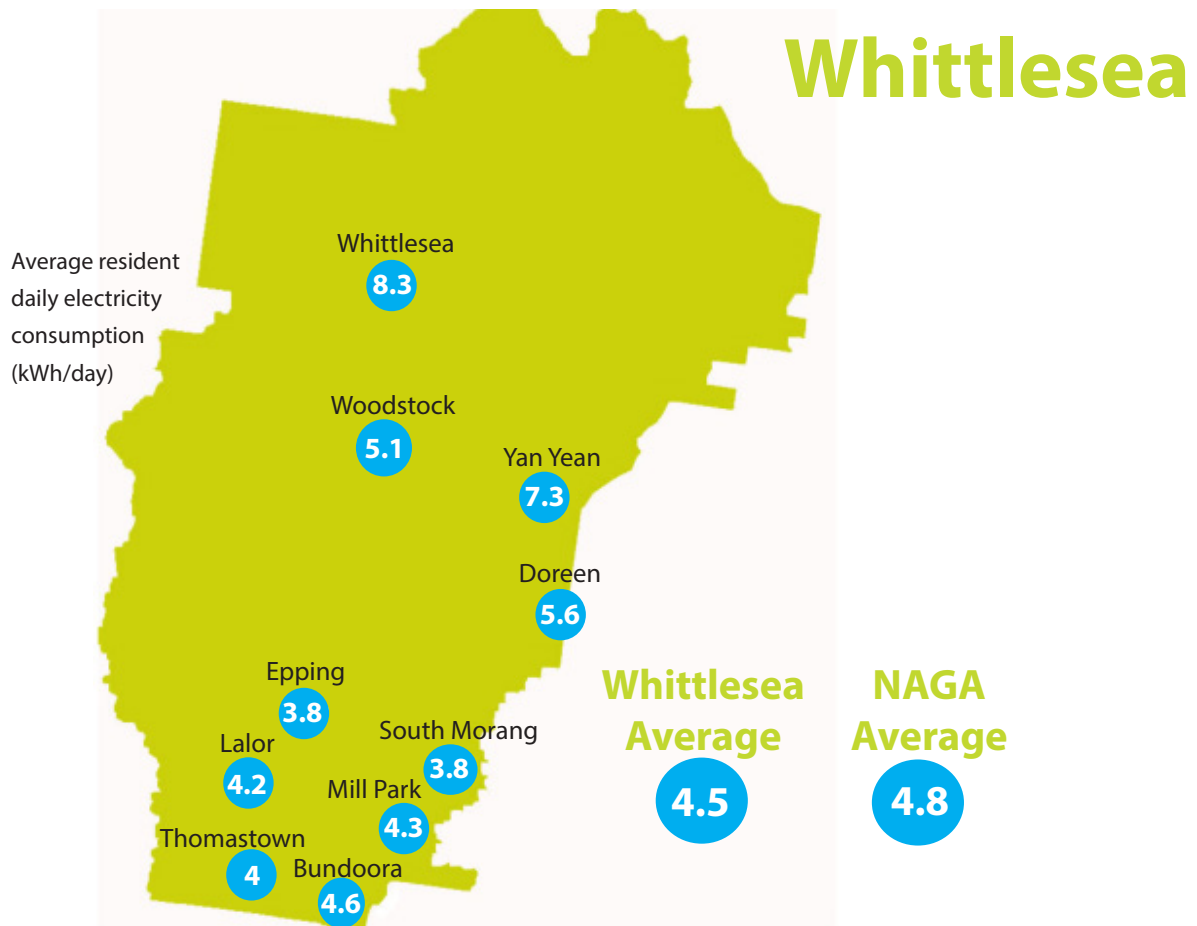
- » improve targeting of policies, programs and incentives to reduce energy demand by knowing where consumption and emissions are highest;
- » identify and target effort for maximum impact;
- » communicate to create a better informed community on energy use, carbon pollution and costs; and
- » monitor 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, using the available source data provided to us from the distribution companies. 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.



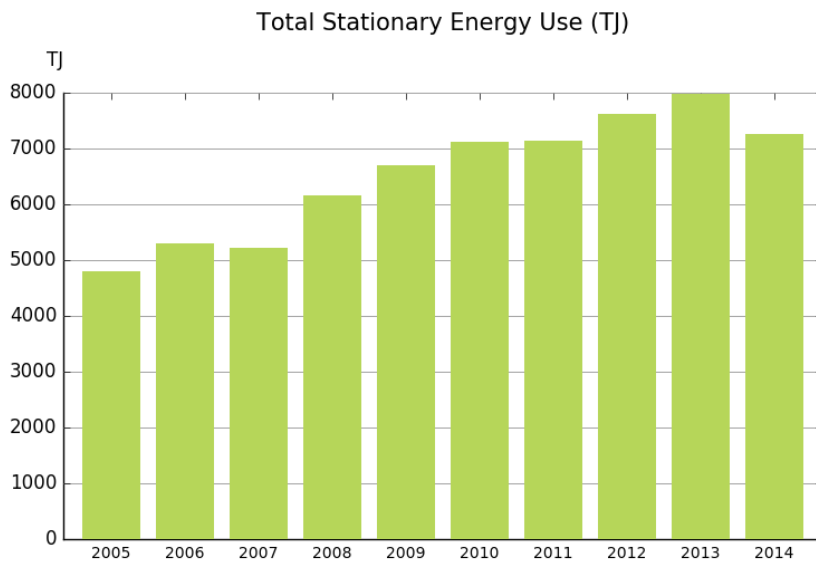
Changes from 2009 to 2014

Whittlesea Average

NAGA Average

Annual decrease in daily household electricity use	-2.6%	-4.3%
Annual decrease daily household gas use per year	-2.6%	-2%
Annual decrease in daily household GHG emissions	-3.2%	-5.2%

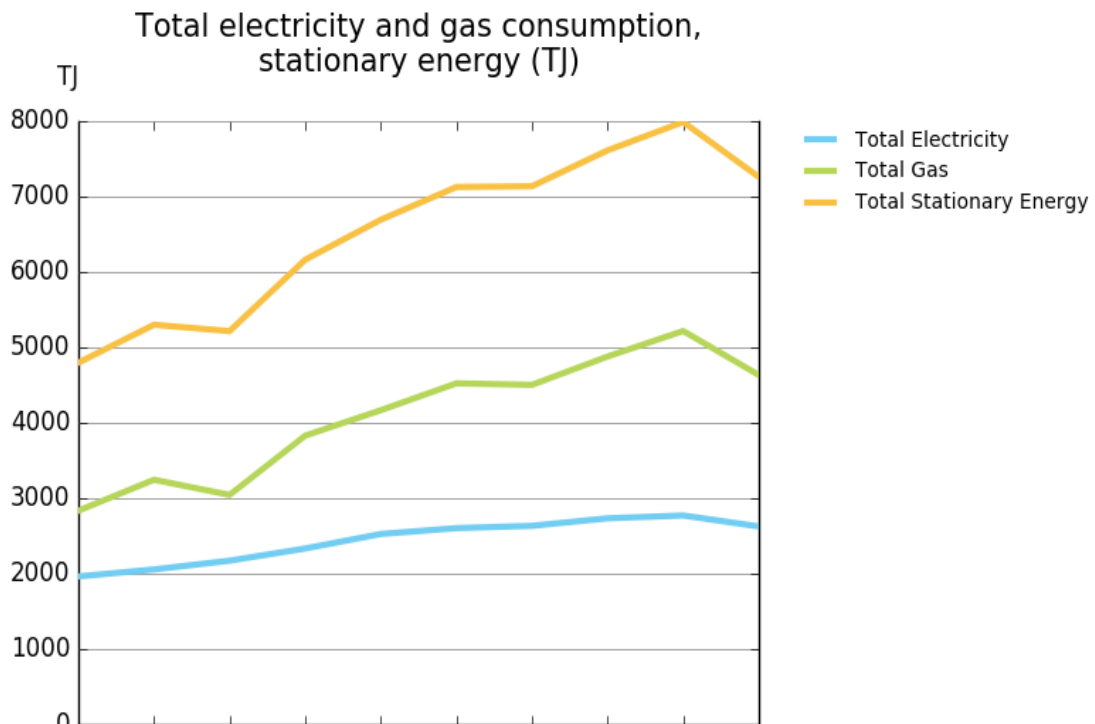
Whittlesea's energy consumption



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).

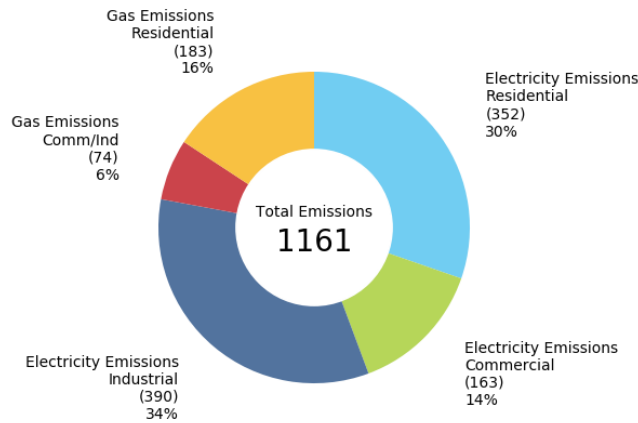
Whittlesea's average daily household usage of electricity is lower than the NAGA average



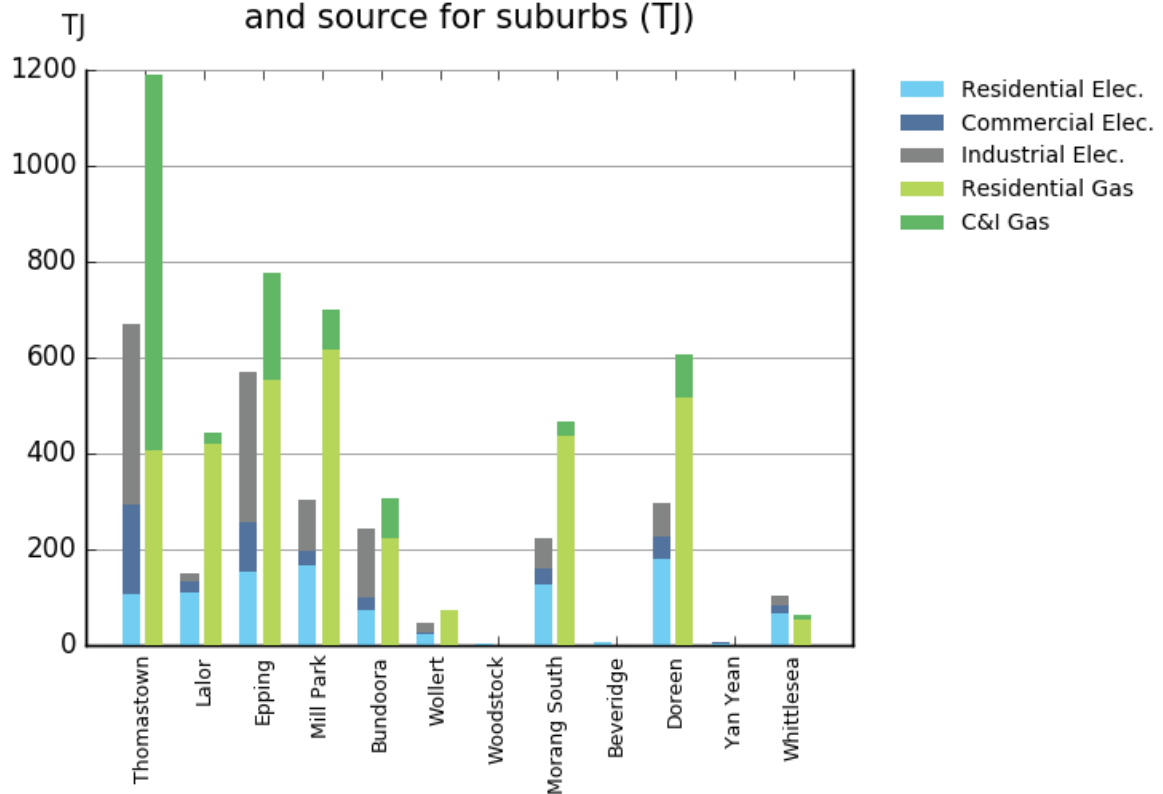
Energy consumption by sector

Emissions for electricity and gas consumption has increased across all sectors from 2011 but declined between 2013 and 2014.

2014 Sector Emissions kt CO2-e/year

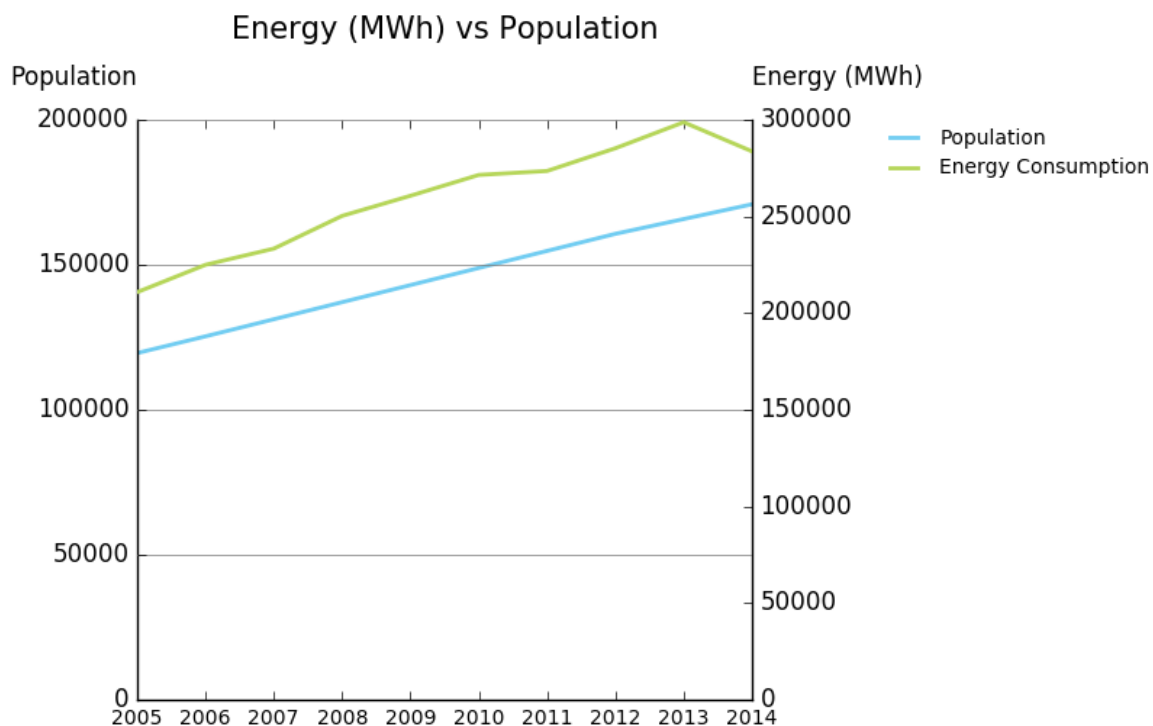


2014 annual energy use by sector and source for suburbs (TJ)



*Shared with other municipalities

Residential Energy



The population of Whittlesea continues to grow sharply. Despite this steep growth energy consumption has started to decline between 2013 and 2014.

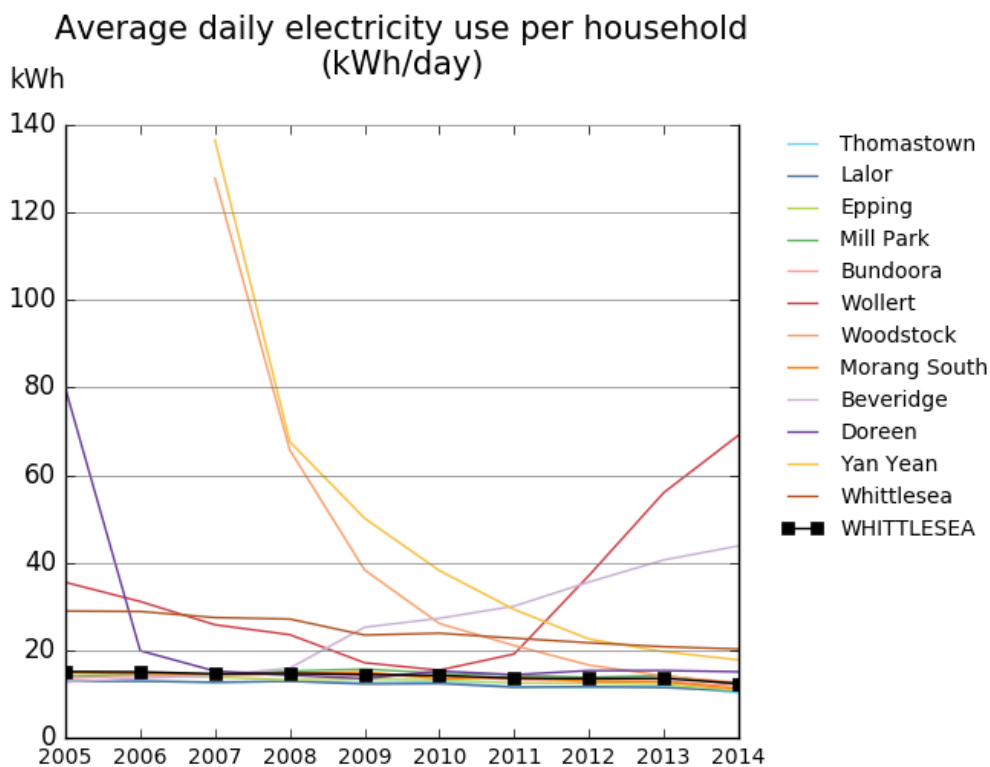
Solar Energy

Whittlesea has enthusiastically embraced solar, seeing rapid uptake across the municipality. The total installed figures by the end of 2014 are outlined below.

Suburb in 2014	Postcode	No. System	Installed PV kW
Thomastown	3074	676	2223
Lalor	3075	688	1912
Epping	3076	1393	3394
Mill Park	3082	1061	2915
Bundoora*	3083	498	1300
Wollert	3750	199	603
Woodstock	3751	6	29
South Morang	3752	928	2608
Beveridge	3753	29	97
Doreen	3754	1314	3794
Yan Yean	3755	15	41
Whittlesea	3757	411	1267
Whittlesea Total		7227	20208

*Shared with other municipalities

Residential Electricity

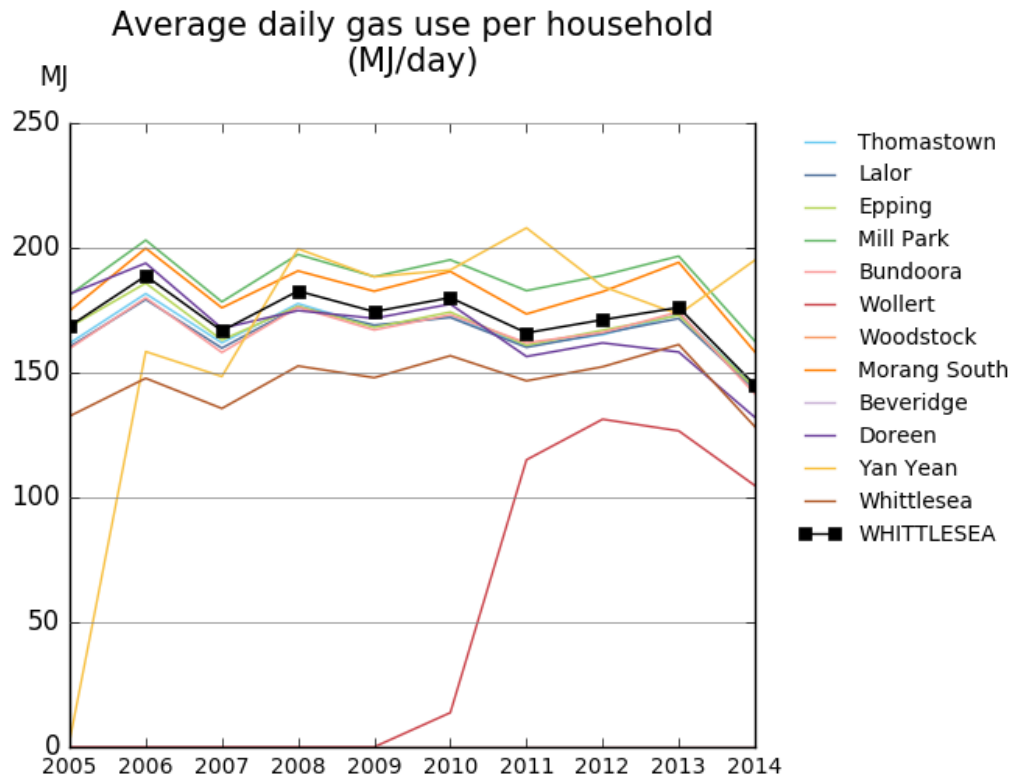


Despite the growth of consumption for the municipality as a whole, per-household electricity consumption continues to trend downwards for Whittlesea.

Suburb in 2014	Postcode	Electricity kWh/hh/day	Electricity kWh/person/day
Thomastown	3074	10.3	4
Lalor	3075	10.8	4.2
Epping	3076	10.8	3.8
Mill Park	3082	12.1	4.3
Bundoora*	3083	11.8	4.6
Wollert	3750		
Woodstock	3751	12.6	5.1
South Morang	3752	11.2	3.8
Beveridge	3753		
Doreen	3754	15.4	5.6
Yan Yean	3755	19.7	7.3
Whittlesea	3757	20.8	8.3
Whittlesea Average		13.6	4.5
NAGA Average		11.6	4.8

*Shared with other municipalities

Residential Gas

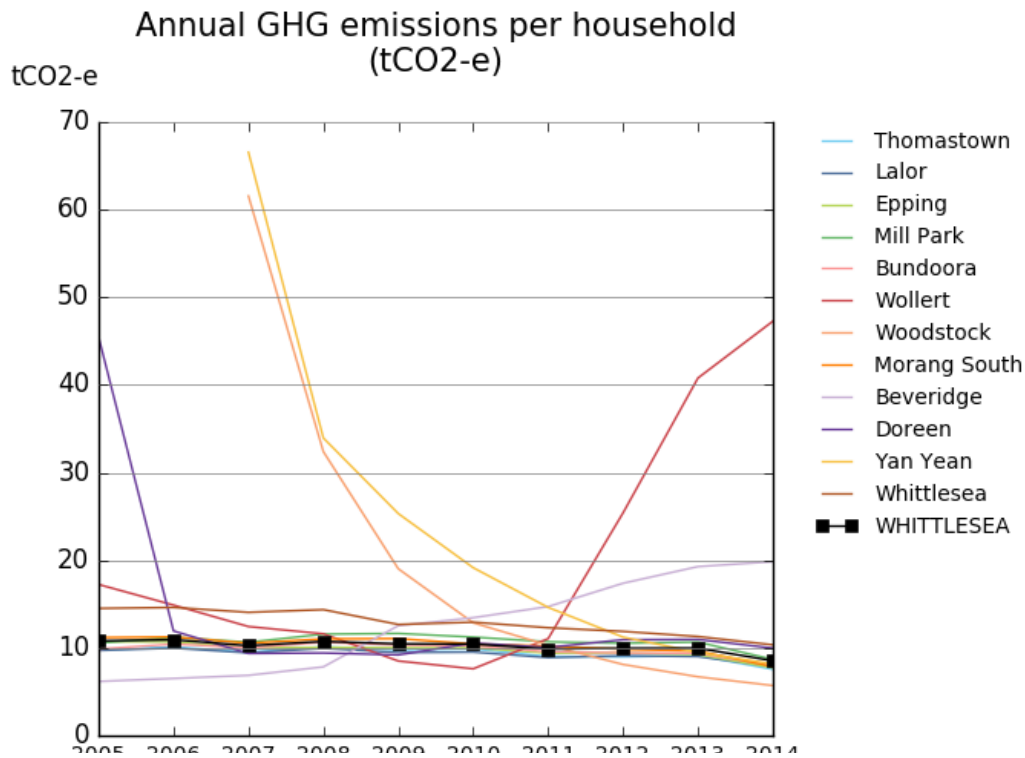


Gas consumption per household in Whittlesea has remained relatively stable over the last 5 years, trending downwards from 2013 to 2014.

Suburb in 2014	Postcode	Gas Usage MJ/hh/day
Thomastown	3074	144.2
Lalor	3075	143.2
Epping	3076	143.9
Mill Park	3082	162.9
Bundoora*	3083	141.5
Wollert	3750	104.7
Woodstock	3751	
South Morang	3752	158.3
Beveridge	3753	
Doreen	3754	132.1
Yan Yean	3755	195
Whittlesea	3757	128.3
Whittlesea Average		145
NAGA Average		137.6

*Shared with other municipalities

Residential greenhouse gas emissions



Greenhouse gas emissions per household are relatively stable for Whittlesea, with a slight trend downwards.

Suburb in 2014	Postcode	CO ₂ Emissions tCO ₂ e/hh/year
Thomastown	3074	7.5
Lalor	3075	7.9
Epping	3076	9.6
Mill Park	3082	8.7
Bundoora*	3083	8
Wollert	3750	
Woodstock	3751	5.7
South Morang	3752	7.9
Beveridge	3753	19.8
Doreen	3754	10
Yan Yean	3755	8.2
Whittlesea	3757	10.3
Whittlesea Average		8.5
NAGA Average		7.5

*Shared with other municipalities