



NAGA

NORTHERN
ALLIANCE FOR
GREENHOUSE
ACTION

Darebin 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:

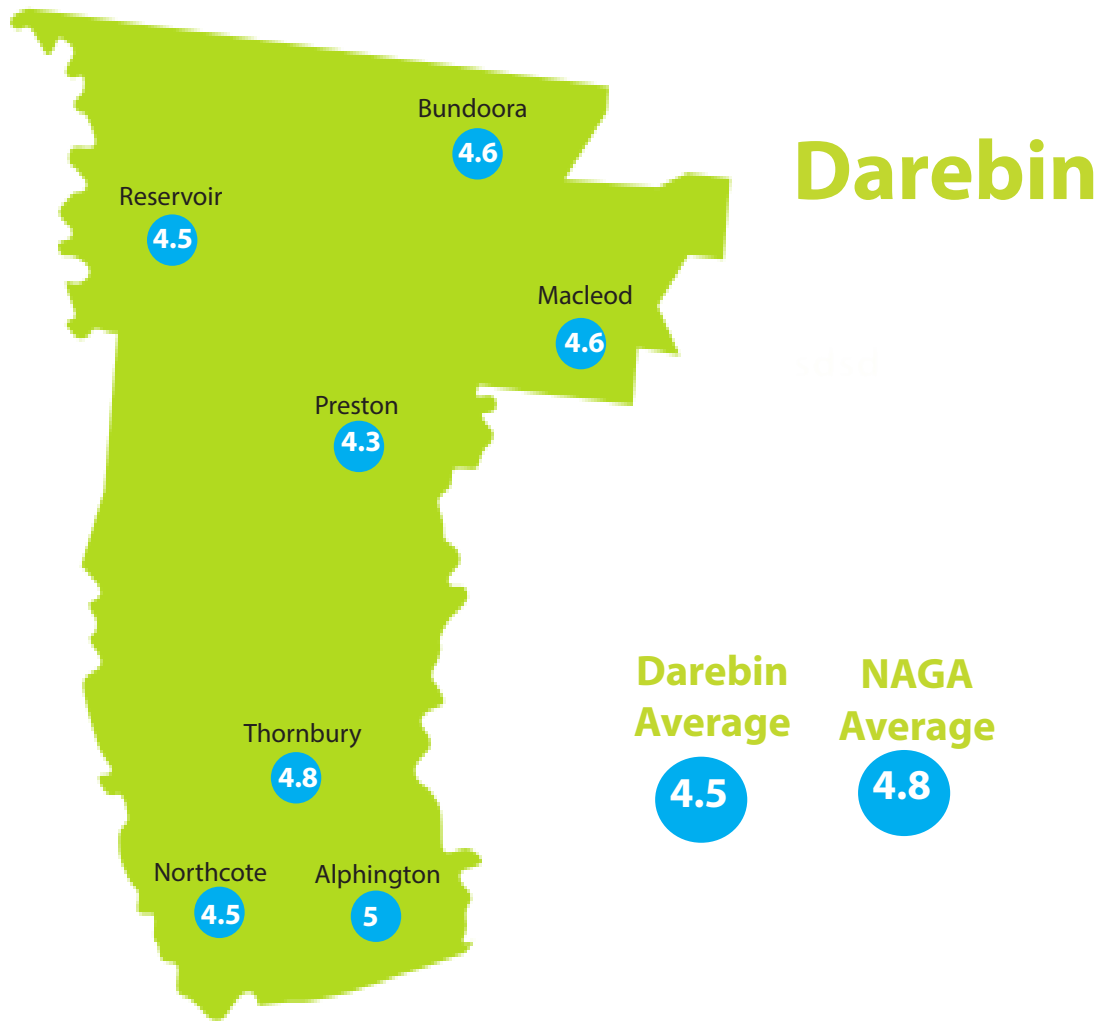
- » improve targeting of policies, programs and incentives to reduce energy demand by knowing where consumption and emissions are highest;
- » identify and target effort for maximum impact;
- » communicate to create a better informed community on energy use, carbon pollution and costs; and
- » monitor 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

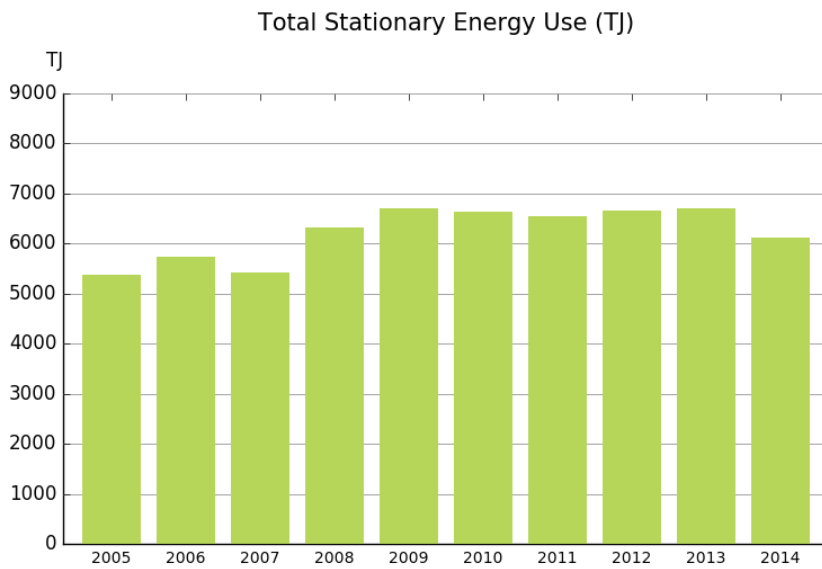
Every attempt has been made to verify the data, however it should be noted that this report is intended to be iterative and your feedback is welcome. The detailed data on which this profile has been developed is located within the municipal data tool; for more information please contact NAGA.



Changes from 2009 to 2014

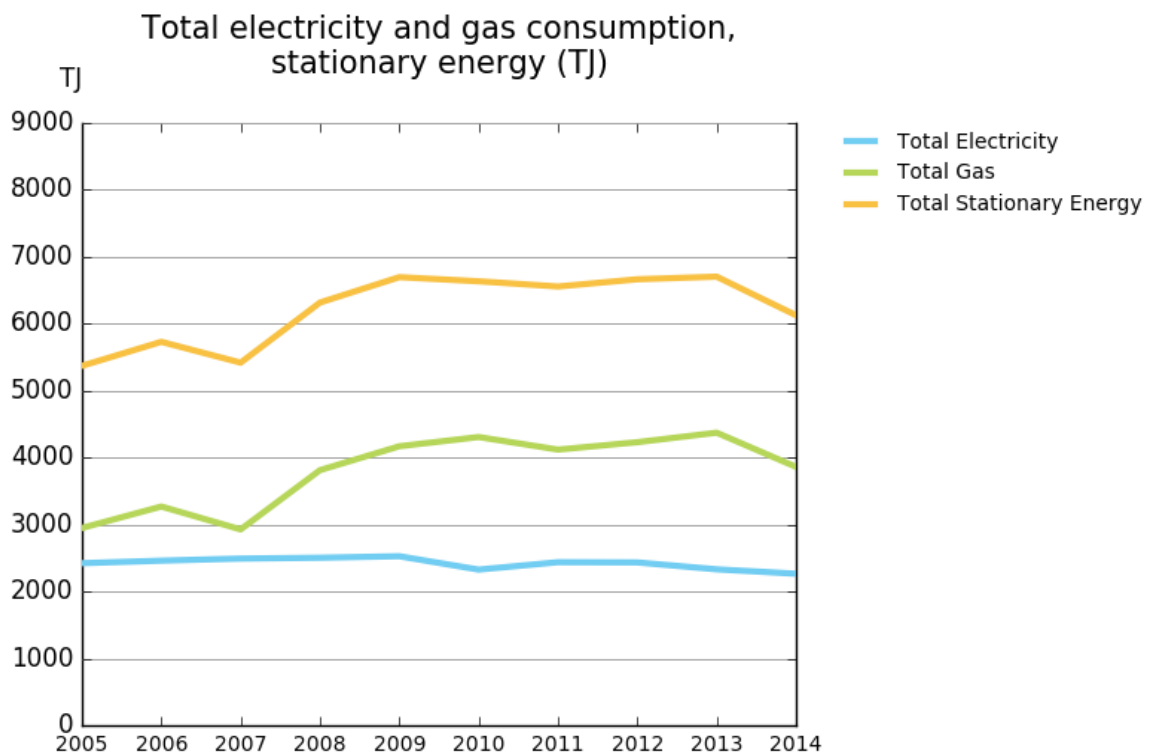
	Darebin Average	NAGA Average
Annual decrease in daily household electricity use	-3.6%	-4.3%
Annual decrease daily household gas use per year	-1.9%	-2%
Annual decrease in daily household GHG emissions	-4.5%	-5.2%

Darebin's energy consumption



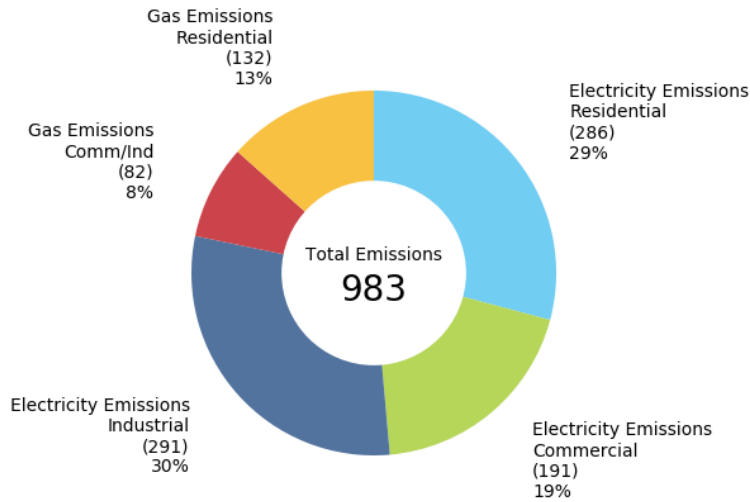
The total stationary energy consumption for the municipality combines gas and electricity used in the residential, commercial and industrial sectors. For electricity, megawatt hours (MWh) have been converted to terajoules (TJ).

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



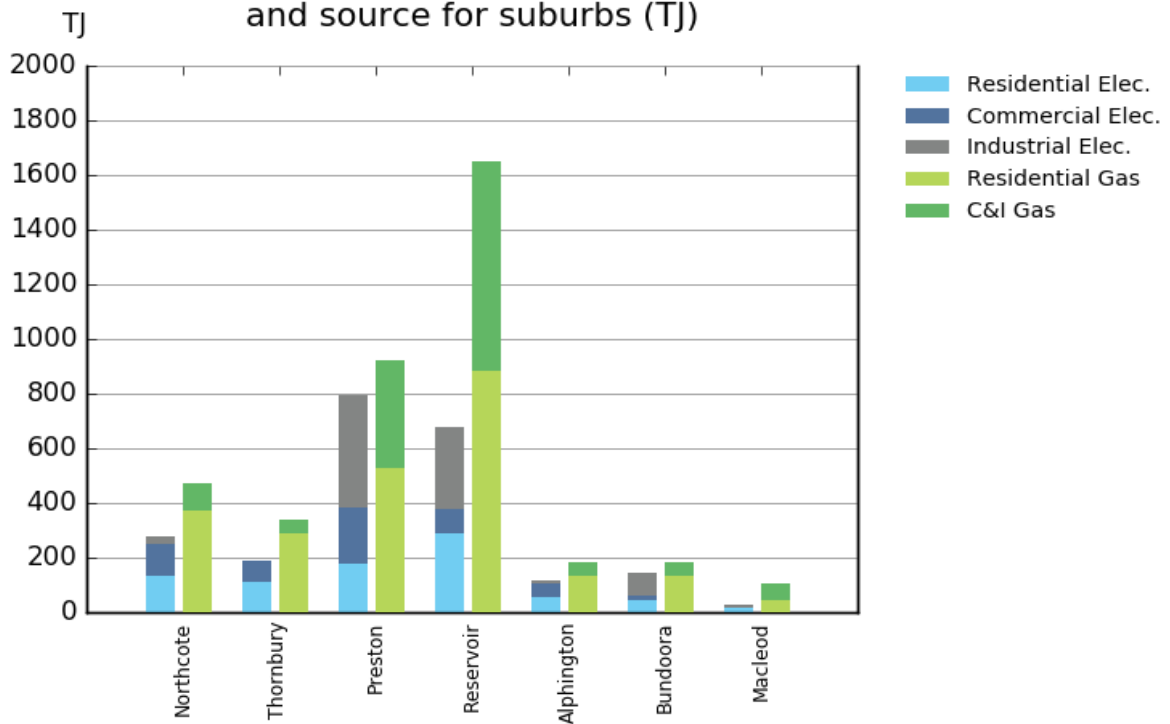
Energy consumption by sector

2014 Sector Emissions kt CO₂-e/year

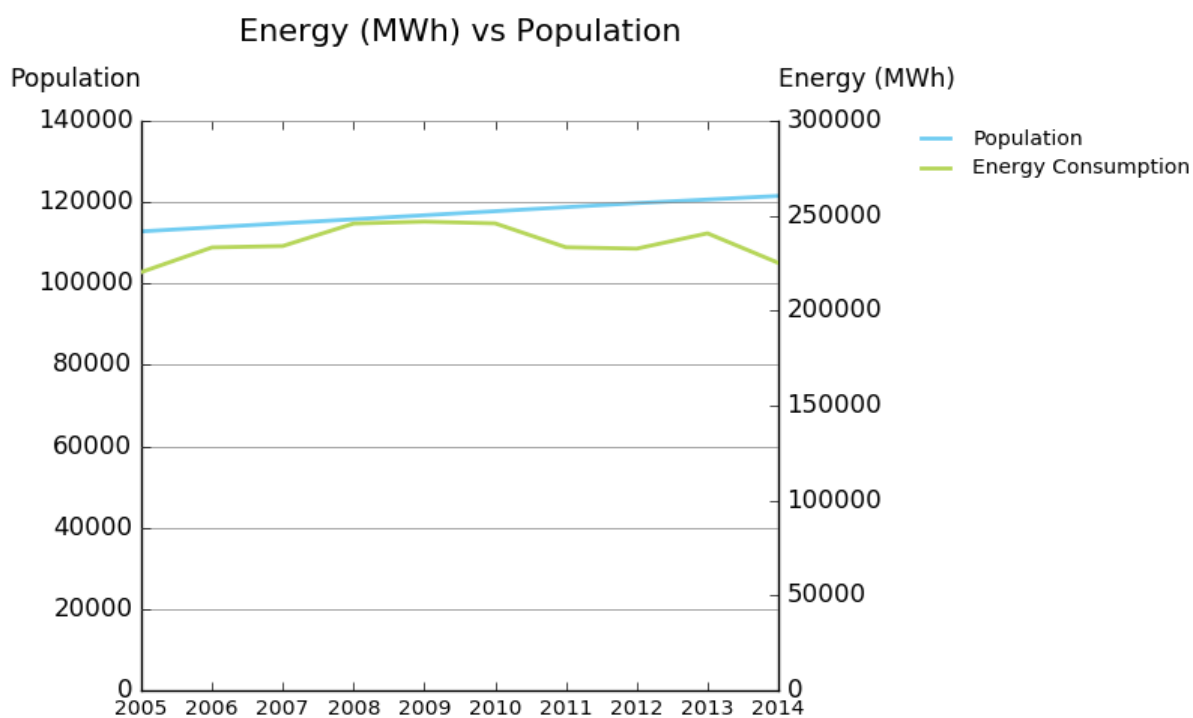


Emissions for electricity and gas consumption are down from the previous year for all sectors.

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



*Shared with other municipalities



Residential Energy

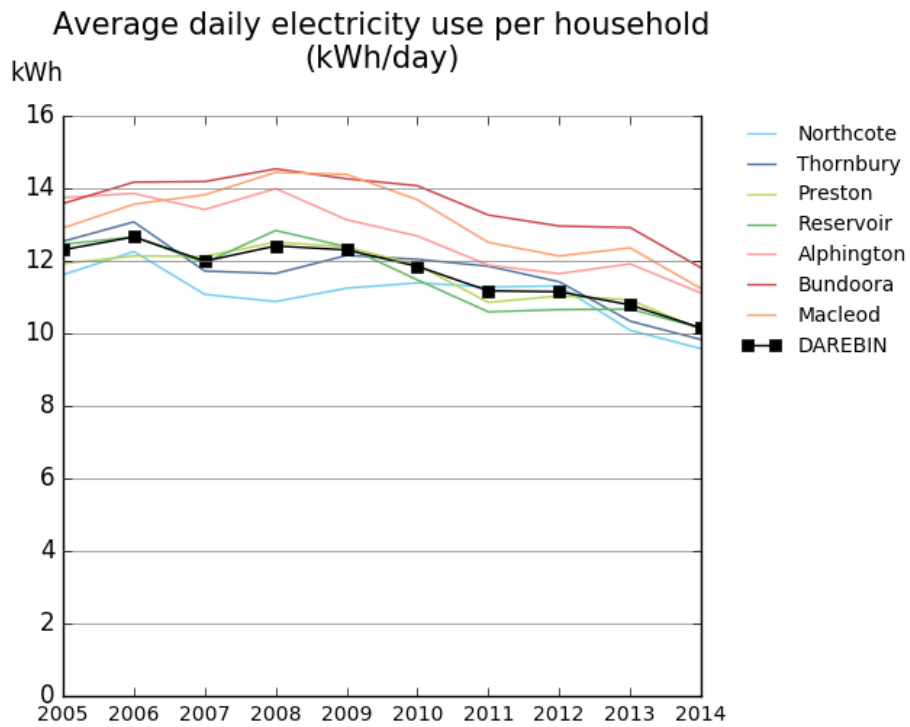
The population of Darebin continues to grow, however since 2009 electricity consumption has not followed as closely.

Solar Energy

Solar PV systems have seen a rapid uptake in the residential sector, with the majority of systems being installed on homes.

Suburb in 2014	Postcode	No. System	Installed PV kW
Northcote	3070	815	1977
Thornbury	3071	488	1235
Preston	3072	916	2429
Reservoir	3073	1495	3598
Alphington	3078	281	728
Bundoora	3083	301	786
Macleod	3085	73	185
LaTrobe University	3086	0	0
Darebin Total		3606	9650

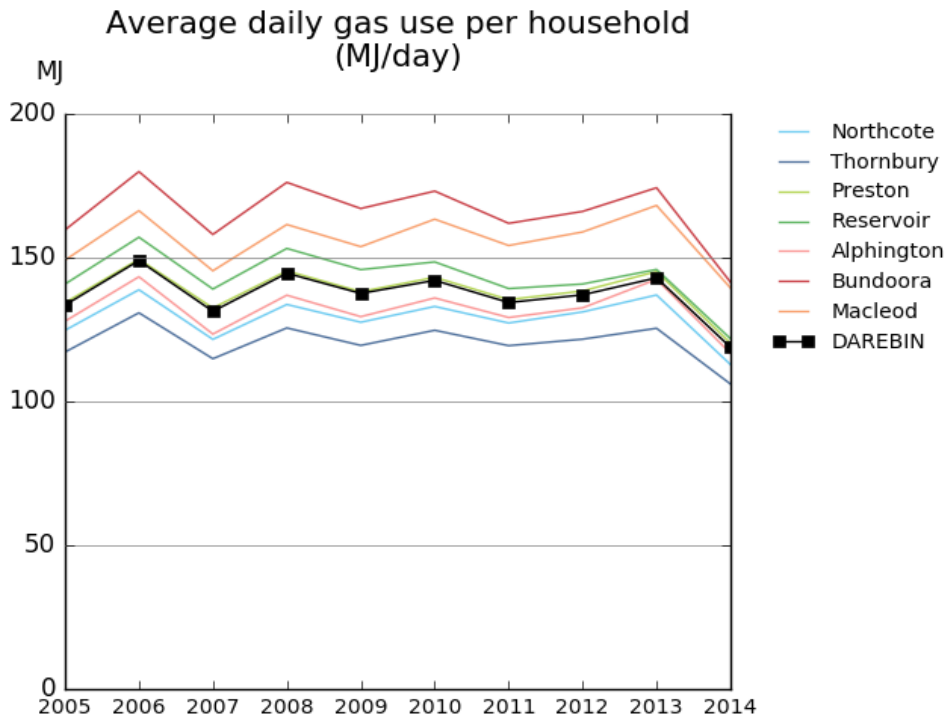
Residential Electricity



Overall electricity consumption is trending downwards for Darebin since 2008, which is similar to the trend being seen across Australia. The average daily household energy consumption is notably below the NAGA average, as outlined below.

Suburb in 2014	Postcode	Electricity kWh/hh/day	Electricity kWh/person/day
Northcote	3070	10.1	4.5
Thornbury	3071	10.3	4.8
Preston	3072	10.9	4.3
Reservoir	3073	10.7	4.5
Alphington	3078	11.6	5
Bundoora	3083	13.0	4.6
Macleod	3085	12.1	4.6
Darebin Average		11.1	4.5
NAGA Average		11.6	4.8

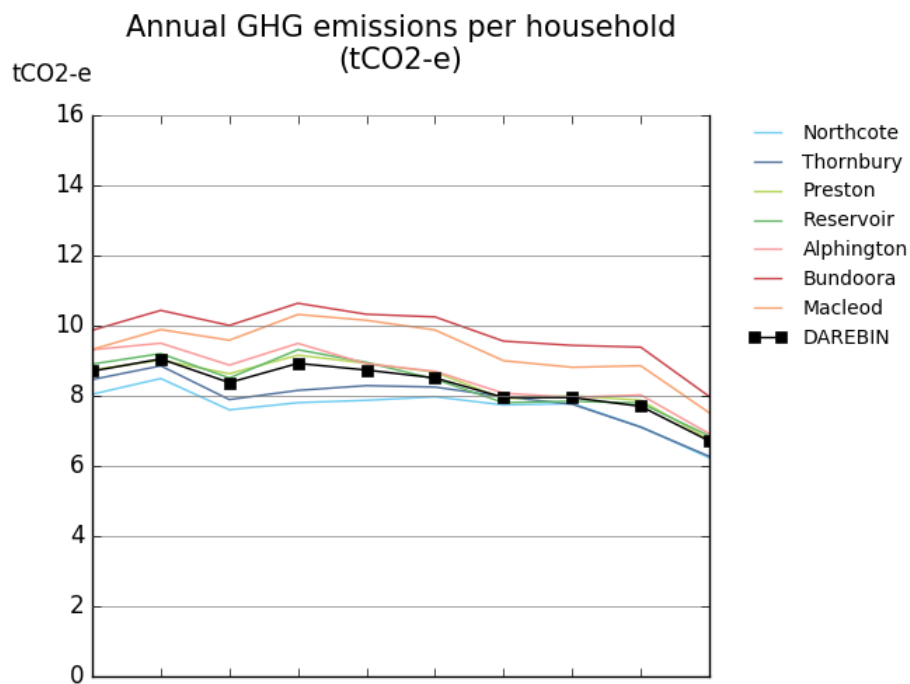
Residential Gas



Gas consumption per household in Darebin has remained relatively stable over the last 5 years, which in combination with the lowering of electricity consumption has seen an overall reduction in household stationary energy use. However, there has been a slight decrease in gas usage since 2011 and a bigger drop between 2013 and 2014.

Suburb in 2014	Postcode	Gas Usage MJ/hh/day
Northcote	3070	112.8
Thornbury	3071	106.1
Preston	3072	120.3
Reservoir	3073	121.8
Alphington	3078	116.7
Bundoora	3083	141.5
Macleod	3085	139.5
Darebin Average		118.8
NAGA Average		137.6

Residential greenhouse gas emissions



Greenhouse gas emissions per household have been trending downwards slightly after 2008 for Darebin.

Suburb in 2014	Postcode	CO ₂ Emissions tCO ₂ e/hh/year
Northcote	3070	6.2
Thornbury	3071	6.3
Preston	3072	6.7
Reservoir	3073	6.9
Alphington	3078	6.9
Bundoora	3083	8
Macleod	3085	7.5
Darebin Average		6.7
NAGA Average		7.5