

FACT SHEET

Residential energy and water use in the Hunter, Gosford and Wyong

Results from the 2008 household survey

The 2008 Survey

In 2008 the Independent Pricing and Regulatory Tribunal of New South Wales (IPART) conducted a survey of residential water, electricity and gas consumers in the Gosford City Council area (Gosford), Wyong Shire Council area (Wyong) and the area served by Hunter Water Corporation (the Hunter). This is the fifth survey of household energy and water consumption undertaken by IPART and the first undertaken in Gosford and Wyong.

The 2008 household survey was conducted between March and July 2008. A total of 2,608 households were surveyed, including 1,672 in the Hunter area, 529 in the Gosford area and 407 in the Wyong area.

Purpose

IPART's main aim in conducting the 2008 survey was to collect information on the characteristics of households and their energy and water use that will help it to:

- ▼ assess the impact of its energy and water pricing decisions on different households and community groups, particularly low-income households
- ▼ assess the extent of participation in the retail energy market, and households' experience of competition in this market
- ▼ investigate the demographic and socio-economic characteristics of the Central Coast area, in line with the commitment it made in its 2006 report on water prices in Gosford and Wyong.

Findings

Survey results are summarised in three key areas:

- ▼ electricity, gas and water consumption
- ▼ income, consumption and payment difficulties, and
- ▼ households' experience of full retail competition in the energy market.

Electricity, gas and water consumption

Households in the Hunter, Gosford and Wyong consume less electricity, gas and water than households in the Sydney metropolitan area, and their consumption is more like that of households in the Illawarra.

Figure 1 Average electricity consumption by region

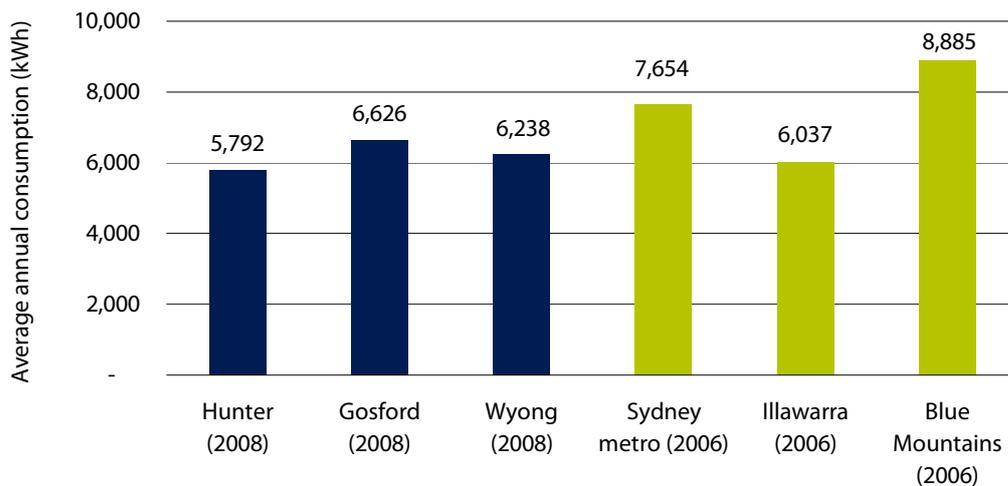
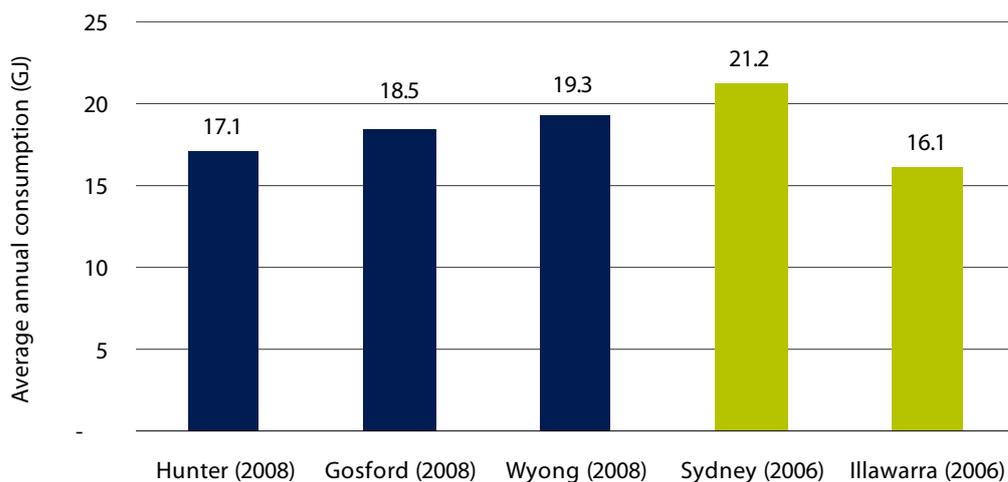
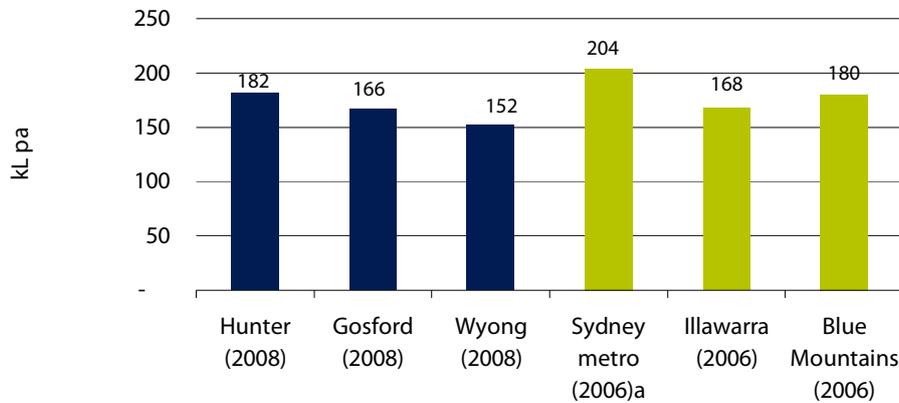


Figure 2 Average mains gas consumption by region



Note The average consumption for Gosford must be interpreted with caution due to the small sample size.

Figure 3 Average household water consumption (kL pa)



^a Excluding Illawarra and Blue Mountains.

Lower consumption of electricity, gas and water in the Hunter, Gosford and Wyong areas reflects a range of factors, including smaller average households; more retired couples or single person households; lower average household incomes; and a more coastal climate.

The 2008 survey results for the Hunter, Gosford and Wyong areas confirm many of the relationships between electricity, gas and water use and household characteristics observed from the 2006 results for the Sydney metropolitan, Illawarra and Blue Mountains regions. In particular, higher electricity, gas and water use is associated with households that:

- ▼ have a higher number of occupants
- ▼ have more large energy and water using appliances (such as air conditioners, second refrigerators, dishwashers, washing machines and swimming pools)
- ▼ live in freestanding houses rather than other dwelling types (such as semi-detached homes, townhouses and units)
- ▼ water their gardens, particularly with sprinklers, where this is permitted.

The amount of energy and water households use depends more on how often they use appliances than whether or not they have them.

On average, higher income households use more electricity, gas and water than lower income households. This is partly because higher income households tend to be larger, but also because they have more appliances and amenities and use them more often.

Impact of appliances and air conditioners on electricity and water consumption

The survey asked households whether they have, and if so how often they use large appliances and amenities such as clothes dryers, dishwashers, washing machines, second refrigerators and swimming pools. The results clearly indicate that higher energy and water consumption is associated with appliance/amenity ownership, and with more frequent use.

Because air conditioners are widely understood to be important contributors to daily peak loads, the survey asked more detailed questions about them and found that:

- ▼ There is less variation in the proportion of households with air conditioners across income categories than might be expected, which is consistent with the 2006 Sydney survey. However, higher income households are likely to use their air conditioners more frequently than lower income households.
- ▼ The more frequently air conditioners are used, the more electricity is consumed.
- ▼ Like in Sydney, half of respondents said they would turn off their air conditioning units on very hot days, even if only for short periods, if there was a hypothetical 25 per cent price increase. But a higher proportion of respondents in the Hunter, Gosford and Wyong areas indicated that they would switch off their air conditioners all day.

Access to mains gas

Households in the Hunter, Gosford and Wyong areas are less likely to use mains gas and more likely to use cylinder gas compared to Sydney:

- ▼ Less than one third of households in the Hunter, Gosford and Wyong areas are connected to mains gas, compared to nearly 50 per cent in Sydney in 2006.
- ▼ A relatively high proportion of households use cylinder gas (9 per cent) compared to 4 per cent in Sydney in 2006.

Households that use mains or cylinder gas in these areas tend to be larger and fall into higher income brackets than households without gas. As a result, unlike in Sydney, average electricity consumption does not vary much between households with and without mains gas.

Impact of water shortages in Gosford and Wyong

Household water consumption in Gosford and Wyong is significantly lower than in the Hunter area. On average, households in Gosford and Wyong consumed between 166 kL and 152 kL of mains water in 2008 whereas those in the Hunter consumed 182 kL.

Households in Gosford and Wyong are also far more likely to use bore water, grey water and water from rainwater tanks than households in the Hunter area.

Likely reasons for these findings are that:

- ▼ Gosford and Wyong have experienced water shortages and have had water restrictions in place since February 2002, whereas the Hunter area has not.
- ▼ The Gosford and Wyong councils have introduced incentives to adopt water saving technologies, have conducted education campaigns and have promoted extensive media coverage of the drought.

Sydney has faced water restrictions since 2003, and average residential water consumption per household has fallen from 250 kL in 2003 to 183 kL in 2008. In spite of this, average consumption in Sydney is similar to that in the Hunter area where there are no water restrictions (182 kL). This underlines the importance of factors such as household size and appliance use as determinants of water consumption.

Income, payment difficulties and concession cards

On average, lower income households consume less electricity and water than higher income households. However, as in Sydney in 2006, there are significant numbers of both large and small users within each income category.

Most households (86 per cent) in the lowest income group (less than \$32,000 per year) have concession cards entitling them to rebates on their utilities bills.

Payment difficulties are spread across all income groups, and decline significantly only for households with incomes exceeding \$104,000 per year.

Larger households and renters are more likely to face financial difficulties in paying their bills compared to others, while households who have fully paid off their homes are less likely to have difficulties.

Households are more likely to have difficulty paying their electricity bills than their gas or water bills, and are more likely to approach their electricity supplier because they cannot pay these bills. Electricity bills are more difficult to pay than water bills because they tend to be larger, attract lower rebates, and are paid in full by renters (who only pay the usage charges on their water bills). Also, electricity prices have risen more rapidly than gas or water prices in recent years.

Renters in the Hunter, Gosford and Wyong areas are more likely to have payment difficulties than those in Sydney (30 per cent of renters in these areas approached their electricity supplier in the last three years with payment difficulties, compared to 22 per cent in Sydney in 2006).

When approached, electricity suppliers are most likely to extend the due date of a bill or allow instalment payments, rather than ceasing the service.

Only a small proportion of all households in the Hunter, Wyong and Gosford areas (2 per cent) had sought other forms of financial assistance to pay utilities bill in the last three years (such as from a welfare organisation).

Households' experience of full retail competition in the energy market

Full retail competition (FRC) for electricity and gas was introduced in NSW on 1 January 2002. The 2008 survey findings suggest that, as in Sydney in 2006, most households in the Hunter, Gosford and Wyong areas are aware of this.

Since 2002, there has been somewhat more activity in the electricity market in the Hunter, Gosford and Wyong areas than there had been in Sydney at the time of the 2006 survey. In particular, more households have been offered a market contract by their pre-FRC supplier (54 per cent, compared to 44 per cent in Sydney in 2006), and more households have accepted these offers (64 per cent compared to 53 per cent).

Gas retailers have been less active in the Hunter, Gosford and Wyong areas than in Sydney, possibly due to the limited penetration of mains gas in these areas. However, a higher proportion of gas customers in the Hunter, Gosford and Wyong areas have taken up market contracts than in Sydney.

There are a number of active suppliers in the electricity market, and significant proportions of households in the Hunter, Wyong and Gosford areas knew about alternative suppliers such as Integral Energy, AGL, Origin Energy, Country Energy and Jack Green. On the other hand, few households were aware of gas suppliers other than AGL (their pre-FRC gas supplier) and EnergyAustralia.

The main reason households gave for deciding to accept a market offer and/or switch energy supplier was that the offer was cheaper. However, only one-third of both electricity and gas customers felt that their bills had gone down after they moved to a contract.

Respondents who have stayed with their pre-FRC supplier or rejected a market offer said they did so mainly because they are happy with their existing supply arrangements.

Only a small portion of households have actively approached an electricity or gas supplier to ask about entering into a contract. In addition, about 15 to 20 per cent of respondents said they do not have confidence in their ability to choose an electricity or gas retailer and do not feel they have sufficient information to make an informed decision.

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