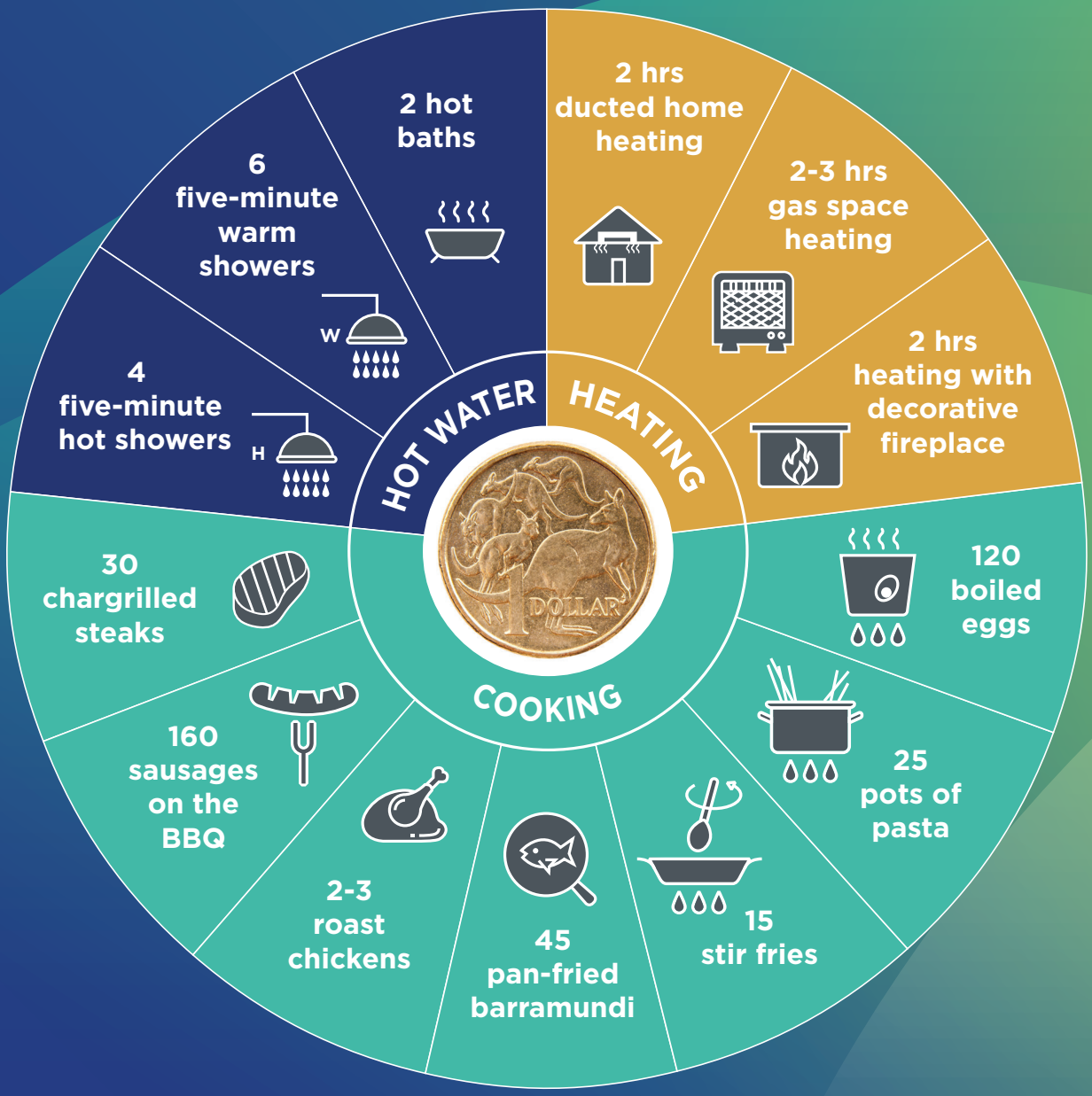
$1 of gas gets me...

Energy Networks Australia



and 75% less CO_2 emissions compared to average National Electricity Market grid electricity

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How we calculated '$1 of gas gets me...'

To determine the price of gas, we took an average of the cheapest offers on the market from three separate retailers in each distribution zone using the **Energy Made Easy** and **Victorian Energy Compare** websites. We then took a customer weighted average by distribution zone to produce a representative price of 2.5 cents per megajoule (or 40 MJ per dollar) across VIC, SA, NSW and the ACT. Only variable usage charges are considered.

120 boiled eggs
Figures provided by the Australian Gas Association indicate a small burner uses 4 MJ per hour, so 10 hours using a small burner costs $1. Assuming three eggs are cooked at once, 5 minutes to boil the water and 10 minutes to boil the eggs, you can boil 120 eggs.

25 pots of pasta
Figures provided by the Australian Gas Association indicate a medium burner uses 6 MJ per hour, so 6.6 hours using a medium burner costs $1. Assuming pasta takes 15 minutes to cook, you can cook 25 pots of pasta.

15 stir fries
Figures provided by the Australian Gas Association indicate a wok burner uses 13 MJ per hour, so just over 3 hours using a wok burner costs $1. Assuming a stir fry takes 10 minutes to cook and 2 minutes pre-heating the wok, you can cook 15 stir fries.

45 pan-fried barramundi
Figures provided by the Australian Gas Association indicate a large burner uses 9 MJ per hour, so 4.4 hours using a large burner costs $1. Assuming one barramundi takes 5 minutes to cook and 1 minute pre-heating the pan, you can cook 45 pan-fried barramundi.

2-3 roast chickens
Figures provided by the Australian Gas Association indicate that typical oven consumption uses around 10.5 MJ per hour. Assuming a roast chicken takes 80 minutes to cook, you can cook nearly three roasts.

160 sausages on the BBQ
Figures provided by the Australian Gas Association indicate that barbequeue burners can use between 10-15 MJ per hour. We use 12.5 MJ per hour per burner, or 192 minutes for $1. Assuming 10 sausages can be cooked on a single burner with 2 minutes pre-heating and 10 minutes cooking, you can cook 160 sausages for $1.

30 chargrilled steaks
Figures provided by the Australian Gas Association indicate that a closed-top weber barbequeue causes 12.7 MJ per hour, meaning you can cook for 189 minutes for $1. Assuming 2 steaks can be cooked at once with 5 minutes pre-heating and 6 minutes cooking, you can cook 34 grilled steaks. We round down to 30.

2 hrs ducted home heating
Usage based on maintaining 20 degrees. **Sustainability Victoria** indicates running 6-star gas ducted heating for a 2-star 160 m^2 melbourne house would cost $1285 p.a running 15 hrs a day on weekends and 9 hrs a day on weekdays. Adjusting for 4-star home, increasing gas cost from $2.17 to $2.50 c/MJ, assuming full winter use and 1/3 autumn and spring use indicates 2,650 hrs of use for $1285, or 2 hours per dollar.

2-3 hrs gas space heating
Based on the **4.4 star Rinnai Ultima 2** using 15 MJ per hour to actively heat a room.

2 hrs heating with decorative fireplace
Based on the **Rinnai 5.5 star 1250 Gas Fireplace** using between 10-34 MJ per hour. We have assumed 20 MJ per hour usage of a gas fireplace.

6 five-minute warm showers Instant
The Rinnai infinity 20 instant hot water system uses 156 MJ per hour to heat 20 litres per minute 25 degrees hotter. Adjusting linearly for a 9 litre per minute showerhead and heating water 30 degrees hotter uses 84.24 MJ per hour, meaning 40 MJ gets you 28.5 minutes for $1. We round to 30 minutes.

6 five-minute warm showers Storage
The Rinnai GHF4135 hot water storage system uses 17 MJ to heat 74 litres of water 45 degrees hotter, meaning 40 MJ heats 174 litres of water 45 degrees hotter. Assume no heat losses from storage. Adjusting linearly, you can heat 261 litres of water 30 degrees hotter. Using a 9 litre per minute showerhead gets you 29 minutes for $1. We round to 30 minutes.

4 five-minute hot showers
Using either storage or hot water calculations, but adjusted linearly for 45 degree rise instead of 30 degree rise leads to 20 minutes in the shower for $1.

2 hot baths
We assume 100 litres as per GWM Water figures. Using storage hot water, 74 litres of water heated to 45 degrees uses 17 MJ. Adjusting linearly to heat 100 litres of water 40 degrees uses 20.4 MJ, and $1 gets you 2 hot baths.

CO_2 The **National Greenhouse Accounts Factors** show natural gas has an emissions factor of 51.4 kg CO_2/GJ (p.12) and NEM electricity has an emissions factor of 0.82 kg CO_2/kWh (p.20). 1 GJ is equivalent to 277.8 kWh, meaning natural gas has an emissions factor of 0.185 kg CO_2/kWh, 77.4% lower than grid electricity

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