

## BUYING THE RIGHT COOKING APPLIANCE – by Glem Gas

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Most of us don't buy cooking appliances very often. They are an important part of our homes and our kitchens. Buying the right appliance will provide years of pleasure and in some cases enhance the value of the home.

*How to decide what to buy?* There are a number of decisions that we have to make including the choice of energy: gas or electricity, and whether to have a built in oven or free standing cooker. We are most likely to be influenced by our previous experience but maybe it is worth considering the alternatives:

### **Making the choice ELECTRICITY or GAS?**

#### Running costs

There are significant differences in the costs of cooking with gas or electricity. Electricity simply costs more than gas.

If you use an average size electric oven and cooktop (small plate only) for about 1 ½ hours per day for a year, an electric cooker will cost \$416 to run based on an electricity cost of 0.25c per kWh.

Using a gas cooker in the same way will cost only \$153 based on a natural gas cost of 2.5c per Mj. That represents an annual saving of \$263.

Running costs – Electric – based on electricity price of 25c per kWh		
	Typical power rating - amps	Running cost per hour on max
Oven	2500 large/1800 average	63c/45c
Hotplate	2050 large/1250 small	51c/31c

Running costs – Natural Gas – based on a cost of 2.5c per Mj/h		
	Typical max gas consumption (MJ/hour)	Running cost per hour on max
Oven	14.5 large/7.0 average	36c/18c
Gas Burner	14.5 wok/4.0 small	36c/10c

LPG costs vary according to region. Consumption rates are usually lower than natural gas but the cost per MJ is usually higher.

#### Environmental impact

In Australia, the majority of electricity is generated through the burning of coal.

The Greenhouse emissions from electricity generated by burning coal are high. In comparison, using natural gas reduces greenhouse emissions by 2/3.

*Gas leaves a much smaller environmental footprint.*

There is a lot of information available through websites such as [www.mygreenaustralia.com](http://www.mygreenaustralia.com) on the comparative greenhouse emissions between gas and electricity.

### Heating performance - Cooktops

Gas burners produce instant heat, providing cooks with greater control over temperature. If natural gas is available it is generally considered to be the best option.

Electric hotplates have improved and now heat up and cool down much better than in the past. There are ceramic and induction options that are more efficient than they used to be and they are good to use. They require a higher amperage circuit to cater for the high electrical loads but many modern homes are wired with this already taken into consideration.

### Heating performance - Ovens

Gas ovens of the past had a reputation for uneven oven temperature. The advent of fan assistance in gas ovens (such as all Emilia and Glem ovens) has changed that. The fan circulates the air in the oven and distributes the heat very evenly throughout the oven cavity. Having a fan in a gas oven allows for cooking on more than one shelf at a time - no hot spots.

Gas ovens have instant heat up and ovens like the Glem and Emilia gas ovens use electronic ignition and do not require a pilot light. They can also run without the electricity connected.

Electric ovens provide a lot of control in how the heat is applied to the oven. While they don't quite have the fast heat up time of gas, they heat and cool down quite quickly. Fan forced is the most popular function and while there is a slight bias left to right in temperature distribution, they are efficient and fast.

Multifunction electric ovens allow a combination of heat from the top and the bottom of the oven. The elements can operate in a combination or individually, with or without fan assistance. Our experience is that most users select their preferred method of heating the oven and rarely change.

### Heating Performance – Grills

In most modern ovens the grill is located within the oven not in a separate cavity. This is done to maximise the volume of the oven.

Gas grills are fast and very efficient. At Glem Gas we only specify electric grills in our cookers irrespective of whether the oven is electric or gas. For the gas ovens and gas cookers the connection still remains at a standard 3 pin 10 amp plug in despite the electric grill.

In other international markets we sell ovens with gas grills but not in Australia where we like to grill lamb chops! We believe that the gas burner in the roof of the oven cavity is exposed to too many cooking residues. The buildup of these residues on the gas burner creates a fire hazard and can lead to service problems. The electric grill is a stainless steel tubular element that is efficient, safe and clean. Emilia and Glem grills operate with the oven door closed. This is cleaner, more efficient and keeps the cooking odours out of the kitchen.

### Cooking performance

The majority of professional chefs cook using a gas oven. While the differences may be subtle in cooking performance, and may come down to a personal preference, there is a significant difference when it comes to cooking certain foods using electricity or gas.

The by-products of gas combustion are carbon dioxide and water vapour. In Glem and Emilia gas ovens the vapour is distributed through the oven by the fan before exhausting through the flue. This creates a moist heat that helps baked goods especially turn out moister and with a better crust.



Electricity heats the food with a direct dry heat that tends to result in drier foods and therefore a product with a significantly reduced shelf life. Baked goods will normally stay fresh for 50% longer when baked in a gas oven versus an electric. When roasting meats there is much less shrinkage and roasts tend to be more succulent and juicy. A gas oven can produce a more consistent, superior quality result making them very rewarding to cook with.

The cooking performance advantage of an electric oven is that the dry heat can create a very crispy pastry as it reduces so much of the moisture. In most cases both electricity and gas ovens can perform well on all baking tasks. It comes down to preference and how sensitive the user is to achieving the best possible cooking result.

### **The Glem Bi Energy Oven – an Australian innovation**

A little over ten years ago at the old Glem Gas warehouse in Sydney, a concept was born. We knew that gas ovens offered some great advantages such as those mentioned above but we also knew that electric ovens were very popular with Australians.

We had been manufacturing cookers with gas ovens and cookers with electric ovens for more than 40 years so we knew them very well.

Our concept was to create an oven that could operate using either gas or electricity. The best of both worlds - the perfect oven -and we named it Bi Energy.

The first quantities were hand made in our Wetherill Park warehouse but the demand became too high so we industrialised the production in the Glem Gas factory in Modena, Italy. Today the Bi Energy cookers are the biggest selling cooker in the Glem range and are sold internationally.

Bi Energy means you can keep cooking during a blackout. And if you run out of LPG? Just switch over to electric and keep on cooking.

*Bi Energy cookers are installed in the same as a conventional cooker. The gas connection is exactly the same as conventional cookers. It is simply the best of both worlds in one cooker.*

### **Installation**

If you already have a gas hob then a Glem or Emilia built in gas oven installs very easily. They install in exactly the same way as an electric oven, it just has to be plumbed into the same gas supply as the hob. The best news is that the ovens only require a standard 10 amp plug electrical connection.

There are no special flue requirements for Emilia or Glem gas ovens. They fit straight into the same space as an electric oven.

### **Electrical Connection**

All Emilia and Glem upright gas cooker models with a gas oven use a simple 10 amp plug in electrical connection irrespective of the size of the cooker.

All 60cm and 70cm cookers also only use a 10 amp plug in. That applies for Gas, Dual Fuel and Bi Energy models.

Emilia and Glem 80cm and 90cm Dual Fuel and Bi Energy cookers use a 15 amp plug in electrical connection.