

# AGAnomics

## The guide to AGA home economics



The new AGA Dual Control cooker

**Sept 2013**  
**Version 5.9**

## It's a changing world

Existing owners love their AGA cookers and prospective owners fall in love with them as much today as they ever did, but naturally they want to know how much their AGA will cost them to run and whether it suits their lifestyle. With rising energy costs and changing lifestyles, these are perfectly reasonable questions.

We're sensitive to this, and have worked hard over many years to address concerns about running costs, and continue to do so. The launch of both the AGA Dual Control and Total Control cookers means that it's truer than ever before that today's modern AGA cooker can play its part in managing the household budget. In fact, thousands of customers have already discovered that their AGA home costs them no more to run than a similar conventional cooker home, and the advent of the AGA Total Control and Dual Control models puts owners in the driving seat when it comes to energy management in the home.

Over 60% of all AGA cookers sold today are already programmable – meaning that they sleep when you sleep, holiday when you holiday, and put their feet up while you're at work - saving up to 25% on running costs using the AGA Intelligent Management System, up to 50% with the new Dual Control AGA Cookers and with the AGA Total Control cookers – each oven and hotplate can be independently operated and be on when you need it, and off when you don't.

The iconic design and proud British heritage of AGA cookers makes the brand instantly recognisable. But just like today's lifestyles, AGA heat-storage cookers are not one-size-fits-all. What is guaranteed from every AGA model is the incomparable excellence of cast-iron, radiant heat cooking. Each model looks as good and cooks as good as the next. This is as important today as it was when the first AGA was invented in 1922.

## What may surprise you about AGA

### **AGA offers ever more flexibility and choice**

Many people are surprised at the variety of choice AGA offers, from fuel type to functionality to programmability. An AGA cooker can be a great companion for even the most environmentally conscious lifestyles. There are AGA cookers powered by electricity, diesel, natural or propane gas, or oil. There are AGA cookers which store cheap off-peak electricity to use at peak times. Programmable AGA cookers, (featuring [AIMS](#) - the AGA Intelligent Management System) can be turned up and down in the day and slumber at night, while the hotplates of the Dual Control Cooker can be operated independently and have rapid heat up times. The AGA Total Control is a fully on/off cooker with all the benefits of a classic AGA heat-storage cooker combined with the flexibility and rapid heat-up times of a conventional cooker. Also from AGA Rangemaster, the company's Rayburn cookers run on wood, coal, peat, natural or propane gas or commercial kerosene – depending on the model chosen. The Rayburn also offers the capability to heat water and provide central heating to the home.

### **AGA is dedicated to raising home energy efficiency and lowering running costs**

Classic AGA heat-storage cookers are famed for the ongoing gentle background warmth they provide. This warmth is why so many people have grown up loving their AGA like a member of the family. But the benefit of this warmth goes far beyond cosiness. If used in a considered way, a home with a classic AGA heat-storage cooker can operate as economically as a standard domestic home, and needn't cost any more to run.

While individual preferences and lifestyles vary, the vast majority of AGA owners say that they don't need radiators in the kitchen (and elsewhere in many cases) when there's an operating AGA in the

house. The programmable AGA radiates up to 1.5kW per hour into a kitchen when at full cooking temperature, and around 1kW per hour when in slumber mode. This is comparable to a standard wet system household radiator which typically radiates between 1 and 1.5kW per hour into a room. The consistent warmth of the AGA is considered more effective than on/off wet radiator systems in keeping a space warm. For owners of an AGA Total Control, this background warmth is still available, but at the touch of a button and only when desired.

Warming the kitchen is only the beginning. There are also a number of ways in which owners can potentially link the AGA cooker's warmth into natural air flows in the home. For instance, some owners have inventively linked their AGA heat-storage cooker up to a heat recovery system to make use of the residual heat. This means an AGA cooker has scope to be central to new home energy management systems.

Additionally, AGA cookers are inherently multi-functional, which also saves energy costs from other appliances. For example, an AGA cooker toasts bread in a distinctively delicious way, eliminating the need for a toaster. In addition to its superb cooking abilities, the AGA is useful when it comes to pressing small items such as tea towels and napkins, air drying clothes, making grilled sandwiches and of course boiling the kettle. Some imaginative owners have taken this energy further in a myriad of ways, from sprouting seeds to incubating newborn pets and farm animals.

***Did you know?*** The AGA is a natural heat storage device. This, in combination with the 30-amp night-storage cooker's ability to collect off-peak electricity for later use creates an even deeper potential for savings and a more environmentally friendly way of life, and makes the AGA 30-amp night-storage cooker the biggest domestic battery one can buy!

### **AGA is 100% dedicated to a more sustainable future**

When it comes to R&D for now and the future, absolutely everything that the AGA R&D team undertakes is about seeking to improve energy efficiency, and environmental sensitivity. We're working enthusiastically with academic research institutions to explore future technologies, believing that developments in micro-generated electricity need a greater natural link in the home. The AGA cooker's ability to store energy is a distinctive and valuable feature which has led the company to working enthusiastically with solar, wind, heat pump and boiler companies to investigate how to make their products even more economic in the home.

When it comes to next generation AGA cooker models, the AGA Dual Control and Total Control models break new boundaries in marrying classic AGA cooker attributes with groundbreaking flexibility and technological innovation.

Every AGA cooker is made from 70% recycled materials such as gearboxes, guttering, old machinery parts, drain covers and much more. Every AGA cooker is recyclable. That's just plain good for the environment. The lifespan of an AGA cooker is at least 3 times longer than a conventional cooker, with countless models passed down from one generation to the next. This is a refreshing antidote to an increasingly 'throwaway' consumer marketplace.

AGA is a proudly British company. Manufacturing is done entirely here in the UK, which helps minimise its carbon footprint.

## **AGA Rayburn Solar Electric**

Solar Electric (photovoltaic) systems are an economical way to contribute to the energy needs of your home by using the power of the sun to create green electricity. What's more our solar panels don't need direct sunlight to work - you can still generate electricity with a cloudy sky. It's all possible with solar electric.

What are the benefits?

- Using the electricity as it is generated can deliver savings on your energy bills.
- Ethical investment with good rates of return
- Helping to protect you from energy price hikes
- Helping to save the planet for future generations

## **AGA Rayburn Solar Hot Water**

Solar hot water (solar thermal) systems are an eco-friendly and cost effective way to provide free hot water for your home by using energy from the sun. And our solar panels don't need direct sunlight to work – you can still heat water on a cloudy day. It's all possible with solar hot water.

What are the benefits?

- Solar thermal can produce up to 65% of your annual hot water needs
- Helping to reduce energy consumption and fuel costs
- Helping to shrink your carbon footprint
- Ethical investment with rewards from the government

Our portfolio of home energy management products includes solar hot water, solar electric, AGA woodburning stoves, the award winning Eco-Connect panel and Rayburn Heatranger woodburning or condensing all-in-one central heating range cookers. AGA Rayburn's home energy management products are fully controllable, fit in with any lifestyle, and make being green much easier.

**Did you know?** An AGA Rayburn Solar Hot Water system can produce as much as 65% of your annual hot water needs, and help to reduce your dependency on fossil fuels by making more use of renewable energy. What's more, by incorporating a Rayburn patented Eco-Connect panel into your hot water system, you can automatically switch to drawing energy from the most renewable source whenever it's available.

**Did you know?** Based on cooking a typical week of family meals, an AGA Total Control cooker uses around 75% less energy to run than a classic AGA heat-storage 13-amp electric cooker without AIMS and emits about 25% of the carbon – around one tonne per year.

## **What won't surprise you – the AGA cooker is a kitchen classic**

Ask any AGA owner and they will say they couldn't imagine life without it. It has its own unique styling, exceptional cooking performance and exudes warmth which makes it the heart of the home. For hundreds of years, cast-iron has been known to accumulate heat and then release it steadily and consistently. Today's AGA cookers still do exactly that, but have evolved to meet the demands of responsible contemporary living. For the next generation, AGA continues to be a smart choice, adding value to the home and quality to life.

## The myths and the facts

**Myth: A classic AGA heat-storage cooker is expensive to run**

**Fact: An AGA home need not cost any more to run than a conventional cooker home.**

A classic AGA heat-storage cooker radiates up to 1½ kilowatts per hour (kWh) into a kitchen when up to full cooking temperature and up to 1 kWh in slumber mode using AIMS. A medium sized household radiator in a wet system emits between 1 and 1½ kWh into a room. Larger radiators may emit over 2 kWh into a room.

In most kitchens with an AGA cooker running, radiators are not normally needed and will turn themselves off if they have thermostatic valves fitted – even in the depths of winter. The AGA cooker therefore provides a straight energy saving on central heating costs. The gentle warmth of the AGA cooker provides an efficient way of heating a room by using the useful energy from the AGA cooker - similar to the warmth provided by underfloor heating systems.

Of course, the better insulated a home and the more that draughts are reduced in the home, the more the AGA cooker reduces the dependence on radiators to keep a house warm (not just in the kitchen but often in adjacent rooms too) – acting as a cooking and heating heart to the home. It's amazing how far through the home an AGA cooker's background warmth can spread in a well insulated home.

- The 2-oven 13-amp AGA uses weekly around 220 kilowatt hours (kWh) of electricity;
- The 3-oven 13-amp AGA, 240 kWh without AIMS or 190kWh using AIMS;
- The 4-oven 13-amp AGA, 270 without AIMS or 200kWh using AIMS.

A home with an AGA cooker need not cost any more to run or use any more energy than a standard home with radiators or underfloor heating and using other everyday kitchen energy consuming products.

**Myth: An AGA is on all the time**

**Fact: Over 60% of AGA cookers sold today are programmable.**

The AGA Intelligent Management System (AIMS) enables you to programme your cooker to suit your lifestyle. So whether you're out at work all day, only home at the weekend, or you have a houseful of kids, dogs and friends all day, using the AIMS programmer will bring your AGA up to temperature for precisely when you need it, and slumber or switch off altogether when you don't.

For more information on AIMS please [click here](#).

**Myth: An AGA Total Control won't help to keep the kitchen warm**

**Fact: An AGA Total Control is a heat-storage cooker just like every other AGA cooker**

An AGA Total Control cooker is only on when you need it – and off when you don't, making it the most flexible AGA cooker in the portfolio. However, it still retains heat and gradually releases this into the kitchen – just like every other AGA cooker - long after it's been switched off.

For more information about the AGA Total Control please [click here](#).

The table below shows the typical energy usage of a conventional cooker home with a family lifestyle similar to many AGA owners, based on case studies. Of course, lifestyles and appliance usage patterns vary, so energy usage could be higher or lower

<b>Kitchen appliance</b>	<b>Energy usage per week (kW)</b>
Gas fired wet system radiators or electric underfloor heating (equivalent to 2 radiators running at least 10 hours a day or operating an underfloor heating system in normal usage)	140 – 280
Kitchen appliances such as a standard cooker, tumble dryer, electric kettle, extractor hood, microwave, toaster, breadmaker, sandwich maker, etc.	54 – 77
<b>Total energy usage per week</b>	<b>194 – 357 kW</b>

The economics of a home with a classic AGA heat-storage cooker show that it does not need to use more energy than the standard domestic home or cost more to run – depending on your lifestyle.

The multi-functional nature of the AGA cooker operating at the heart of the home, meets contemporary needs. A further advantage of the AGA cooker is its natural relationship as an energy storage product to micro-generation and renewable energy supply and to off-peak electricity. This makes the AGA an exciting product for the future as well as an icon with a remarkable history.

**Did you know?** A classic AGA heat-storage cooker doesn't need an extractor hood, as cooking smells are gently vented straight outside from the oven with very little loss of heat or energy use. This is particularly true because 80% of cooking in the ovens is the rule of thumb known to all owners. A conventional extractor hood can use as much as 5kW of electricity per week, and extract up to 160 litres of air from the kitchen per minute – taking warm air from the kitchen straight outside.

The AGA Dual Control and Total Control cookers can be vented in exactly the same way as a classic AGA heat-storage or directly into the room, some people may choose to use an extractor hood to extract steam and smells away from the kitchen with the room venting models. The good news is that because the AGA Total Control doesn't involve a fierce gas flame, less heat will be emitted into the kitchen, making an extractor hood less necessary to balance the heat in the kitchen where it is externally vented.

## Running costs by product

Running costs vary based on fuel type and model, but there's an AGA cooker for everyone in the line up. With the AGA cooker's natural ability to offset energy usage elsewhere in the home, whatever your energy costs are, the AGA can still help with the economy drive in every home.

The table below shows energy consumption for each of the main fuel types and models. Running costs are indicative only, and depend on individual usage. Of course, energy costs are market priced, and go up and down, so the actual running costs per week will change. Energy costs are published on all energy company's websites and updated regularly.

AGA type	Weekly energy consumption	Cost per unit Pence	Cost per week £
<b>2 ovens</b>			
13-amp electric with AIMS*	190 kWh*	12.46	23.67
30-amp electric night storage	227 kWh	6.57	14.91
Natural gas with AIMS**	340 kWh**	3.96	13.46
Oil	40 litres	61.58	24.63
<b>3 ovens</b>			
Total Control standard menu***	35 kWh***	12.46	4.36
13-amp electric with AIMS*	190 kWh*	12.46	23.67
Natural gas with AIMS**	340 kWh**	3.96	13.46
Oil	40 litres	61.58	24.63
<b>4 ovens</b>			
13-amp electric with AIMS*	200 kWh*	12.46	24.92
30-amp electric night storage	270 kWh	6.57	17.73
Natural gas with AIMS**	422 kWh**	3.96	16.71
Oil	51 litres	61.58	31.41
<b>5 ovens</b>			
Dual Control standard menu***	132kWh***	12.46	16.45

\* Includes AIMS reduction of 25%

\*\* Includes AIMS reduction of 20%

Typical, actual savings using AIMS is dependent on the program set by the user in addition total units used with or without AIMS is dependent on the cooking demands of the household. For more information about how AIMS works, please [click here](#).

\*\*\* Independently tested by GASTEC using the AGA Rangemaster typical week of meals. Actual energy used is dependent on individual usage and the coking demands of the household. For more information about how Total Control works, please [click here](#).

Prices based on: 13AMP and AGA Total Control - British Gas Standard Electricity Tariff with Energy Smart (Midlands Package)  
30AMP AGA - British Gas Economy 7 with Energy Smart (Midlands Package)  
Gas (Natural) – British Gas Standard Tariff with Energy Smart (Midlands Package)

Sources: Electricity and Gas energy costs – [www.comparethemarket.com](http://www.comparethemarket.com)  
Oil costs (September 2013) – [www.boilerjuice.com](http://www.boilerjuice.com)

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