



How Dual Fuel Generators Work

The beauty of a dual-fuel generator is that, as well as not being reliant on electricity from the main power grids, you are also not solely reliant on one type of fuel. If you run out of one type of fuel or one becomes more difficult to obtain, say during a petrol shortage, then you are still able to use your generator to provide emergency electrical power.

In this article, we give you a concise guide to dual-fuel generators and in simple terms answer the question of **how does a dual fuel generator work?**

Fuel Types for Dual Fuel Generators

In the UK these are the most common types of fuel sources used in dual-fuel generators:

Propane

Natural gas, or propane, burns cleaner than the liquid fuel type (petrol and diesel fuel) meaning that it emits less harmful emissions and gives off less particulate matter. In this regard, it can be considered a more eco-friendly option.

Propane is also easy to store and has a longer shelf life. Its downsides are that it is a fast-burning fuel; this means it often won't last as long as the other fuel options for a dual-fuel generator. Common run times for a small propane tank can be as little as 4-5 hours.

However, there are some models which make far more efficient use of propane and can run for upwards of 10 hours.

Petrol

Petrol, or gasoline as it is called in the US, is one of the most common fuel sources used in dual-fuel portable generators.

It burns very efficiently, meaning it has a longer runtime than propane. A generator with a 5-gallon tank can run for around 8 hours. However, petrol must be stored carefully as it is highly flammable and can also evaporate or spoil if not stored correctly.

Engine Design & Functionality

The key difference between dual fuel systems and a regular single fuel generator is that it uses two fuel types; a natural gas (propane) and a liquid fuel (petrol) at the same time. This dual fuel technology which creates an optimal fuel mixture maximises their efficiency. They can also run on just one type of fuel, in the case that one has run out or is difficult to come by giving you greater flexibility.

Control System & Switching Mechanism

So, how do dual-fuel generators work? How do they switch on in a power outage and how do they switch from one fuel to another?

This depends on the make and model of the dual-fuel generator that you purchase.

- Some dual-fuel models will require a manual recoil start-up using a pulley to crank the engine.
- Most dual-fuel generators use a manual electric switch.
- Standby generators are linked to your home grid system and automatically start up when the mains power goes off.
- Smart generators are available that you can start with an app on your phone.

Advantages of Dual Fuel Generators

Flexibility in Choosing Between Two Fuel Types

In challenging times, such as during a natural disaster, having more than one option regarding fuel supply to supply your electrical energy is very useful.

Cost Savings & Efficiency Compared to Traditional Generators

Due to the way a dual generator can create an optimal mixture of the two fuel types, they are more efficient and cost-effective.

Versatility in use for Home & Outdoor Activities

Portable inverter generators with dual fuel technology are the perfect generator for home use and for outdoor activities like camping.

Conclusion

Being able to charge a mobile phone or electric or hybrid car and powering our fridge, heating and lighting in an emergency could save your life. So, it makes sense to invest in an alternative power source in the case of extreme weather events or other causes of power outages.

And, if we are going to invest in a generator, it makes sense to invest in the most efficient, reliable and easy-to-power generator possible: a dual-fuel generator then seems like a wise choice.