

OUR STAGE V FLEET

POWER YOU CAN TRUST



HIRE GENERATOR AND ANCILLARY EQUIPMENT
HIRE FOR ONE-OFF EVENTS, PROJECTS,
EMERGENCIES AND ROLLING CONTRACTS.



PROVIDING CRITICAL POWER SERVICES FOR MORE THAN 35 YEARS

WB Power Services (WBPS) was first established in 1983 and since then we have grown significantly in size and service capability. Today, we provide critical power services to some of the UK's most important businesses and organisations, ensuring essential services are protected across data centres, hospitals, schools,

government sites and other commercial operations. As a family-founded, owned and run business, we are proud to retain our family values on a national scale as we strive to be the biggest and the best power generation company in the UK.

INTRODUCTION



At WBPS we are committed to providing cleaner and greener energy, and we believe that with our investment in the latest technologies, including Stage V compliance, we can continue to lead the way in critical power services.

From the beginning, we have placed high standards, technical excellence and customer service at the heart of everything we do. Along with this, we are committed to the future and discovering technologies that provide power that is better for the environment and our health.

As we continue to provide critical power to where it is needed most, we are also working hard to provide cleaner energy solutions that put us at the forefront within the power industry.

Take a look at our investment in Stage V technologies and how we are moving forward as a company...

STAGE V ACROSS THE EU

Over the years, there has been a commitment across the EU to cut down on air pollution caused by harmful engine emissions. Long recognised as a threat to public health across the continent, part of the EU's response to this has been to introduce increasingly stringent emission standards for engines used in new non-road mobile machinery (NRMM).

From 1997's Stage I standards, to today's Stage V requirements, emissions have progressed over the years, with today's Stage V regulations aiming to reduce the volume of harmful substances that are released into the atmosphere.

Stage V introduces a new requirement to reduce Particulate Number (PN) alongside continued control of Particulate Matter (PM) and Nitrogen Oxide (NOx).

Accordingly, all engines, with no power limit, designed for use in the UK and European Union and manufactured from January 1st, 2019, must be Stage V compliant. This regulation concerns all off-road mobile motorised equipment, especially mobile generating sets.

**NEED STAGE V POWER IN AN
EMERGENCY? OUR 24-HOUR
HOTLINE IS AVAILABLE 7 DAYS A
WEEK.**

WHY CHOOSE US?

Emergency support

We have a national emergency response telephone line that supports you 24 hours a day, 7 days a week, 365 days a year.

Reliability and availability

We have a highly-skilled and accredited team and a wide range of equipment, spare parts, and components to ensure quick product despatch when you need help most.

Sector expertise

We are proud of our years of experience supporting businesses in a wide range of sectors including large UK-based data centres, hospitals, banks and utility company's headquarters.

Design and consultancy

Our full turnkey solutions mean we can identify, install and commission the best solution for you from 10kVA to 8MVA.

Installation and project management

In the most cost-effective way, we will install and fully project manage your new power solution to the exacting controls and standards required using our accredited ISO system.

Sourcing and supply

We have supply agreements with international manufacturers so you can be confident you will get the best solution and that our spare components meet the manufacturer's OEM specification.

Whole life asset management

We offer all customers an asset management solution to help maintain the integrity of your back-up supply for as long as you have it.

CLEANER & GREENER ENERGY WITH WBPS

At WBPS, our aim is to provide exceptional power whilst using the latest technologies and machinery that are cleaner burning and ultra-low in the emission of particulate matter.

In partnership with Kohler, we continue to deliver the best in power, with our Stage V fleet of rental and industrial generators providing exceptional power that also set standards in ultra-low emissions and performance.

Such is our investment in Stage V technologies, WBPS have recently provided £2 million in Stage V generator compliance, this is on top of the £4 million already committed. Our commitment to improve air quality and to help lower harmful emissions across EU countries, is setting the precedent within the power industry.

Our Stage V gensets not only comply with the ultra-low emissions regulations, our new systems also incorporate particulate filters and other associated equipment, that limit the release of harmful particles into the atmosphere too.



UNDERSTANDING STAGE V REQUIREMENTS

Stage V standard was proposed in 2014 and finalised in 2016. The standard became effective from 2019 for engines below 56kW and above 130kW and from 2020 for engines between 56 and 130 kW.

The scope of regulated engines was also widened to include compression ignition (CI) engines below 19 kW, and above 560 kW, spark-ignited (SI) engines above 19 kW, and other previously unregulated engines. This includes Category NRG – generator set engines above 560 kW.

Fig.1 below summarises the Stage V emission standards over the various engine power ranges, from 0 kW through to 560 kW and any higher power rating.

Engine Power	Stage V Emission Standard (g/kwh)
From 0 to 8kw	7.5 NO _x +HC / 8.0 CO / 0.4 PM
From 8 to 18kw	7.5 NO _x +HC / 6.6 CO / 0.4 PM
From 18 to 37 kw	4.7 NO _x +HC / 5.0 CO / 0.015 PM
From 37 to 56 kw	4.7 NO _x +HC / 5.0 CO / 0.015 PM
From 56 to 130 kw	0.4 NO _x / 0.19 HC / 5.0 CO / 0.015 PM
From 130 to 560 kw	0.4 NO _x / 0.19 HC / 3.5 CO / 0.015 PM
> 560 kw	0.67 NO _x / 0.19 HC / 3.5 CO / 0.035 PM

Fig.1: Range of engine powers and related Stage V emission standards.

**THE DROP-IN DIESEL
ALTERNATIVE WITH 90% LOWER
NET CO₂ GREENHOUSE GAS
EMISSIONS**

OUR STAGE V FLEET

Here at WBPS, we are home to a fleet of Stage V generators that range from 20-550kVA. To be Stage V compliant, our engines incorporate an after-treatment system to provide the required filtering efficacy. Kohler and its products have achieved this by integrating different systems to help reduce microparticles and nitrogen oxide.

Working in partnership with Kohler, the leading provider of engines, WBPS continues to provide a fleet of Stage V generators and UPS products, that work to minimise emissions while maximising the performance of your machine.

As a supplier of turnkey critical power infrastructure, from single generators (10kVA to 4.5MVA+), to large multi-synchronous packages, WBPS has built up a large fleet of over 1000 'Rental Compact' Kohler generators, allowing customers to hire the exact units wanted, for the time needed.

KOHLER® STAGE V RENTAL GENERATORS

The new series of rental generators uses Kohler and John Deere engines with low fuel consumption. This results in low operating costs, especially for gensets providing continuous power production. The power range starts with the Kohler engines driving a 20 kVA to 50 kVA Standby Power (ESP) generator set. For higher power capacity, this range offers John Deere engines for generator sets with a 110 kVA to 550 kVA ESP.

OUR LINE-UP OF STAGE V GENERATORS:

Our line-up already includes the R20C5, released in October 2019, and the recently introduced R50C5 and R330C5. Four newer products (R110C5/R165C5/R220C5/R550C5) are also in our fleet to complete the Rental Stage V range from 20 to 550 kVA standby.

KOHLER'S EMISSION REDUCTION TECHNOLOGIES

Our partnership with Kohler and its products means we can directly supply Kohler products to the rental market that incorporate emission reduction technologies. Here are just some of the design implementations and technologies incorporated into our Stage V generators:

- With Kohler's impact-resistant designs, which includes heavy-duty air filters with restriction indicators, our Stage V generators are robust and built to withstand, without compromising on performance.
- Some of our newest Stage V generators are the most compact in the market, ensuring easy handling during transportation. With integrated lifting eye, forklift pockets, frame protection pads and a traction bar, they can be moved to and from sites with complete ease.
- Along with this, our machines continue to support enhanced safety features. With new protection features during the handling, connecting and operating phases, the service life of our Stage V generators has been much improved.
- The structured design of our Stage V compliant generators allows quick and easy access to consumable and mechanical parts during cleaning and maintenance. With Stage V generator hire, you can be guaranteed a high-performing machine that works for you in the long haul.



OUR LINE-UP OF STAGE V GENERATORS

Model	Max Power	Standby Amps	Dimensions (mm) (L x W x H)	Consumption @ 75% PRP load (L/h)	Tank Capacity	Weight (Dry)	Weight (Wet)
	18.2 kVA	29	1850 x 901 x 1355	8,5	153 L	815 kg	968 kg
	50 kVA	72	2545 x 1150 x 1824	8,80	390 L	1550 kg	1940 kg
	110 kVA	159	1360 x 1191 x 2231	17,9	365 L	2340 kg	3705 kg
	150 kVA	238	3884 x 1194 x 2368	26,70	735 L	3434 kg	3169 kg
	200 kVA	318	3884 x 1191 x 2368	32,20	735 L	3640 kg	4375 kg
	330 kVA	476	4332 x 1360 x 2580	48,30	1083 L	4850 kg	5933 kg
	550 kVA	794	5000 x 1611 x 2606	78,70	1280 L	6460 kg	7740 kg



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