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GEN

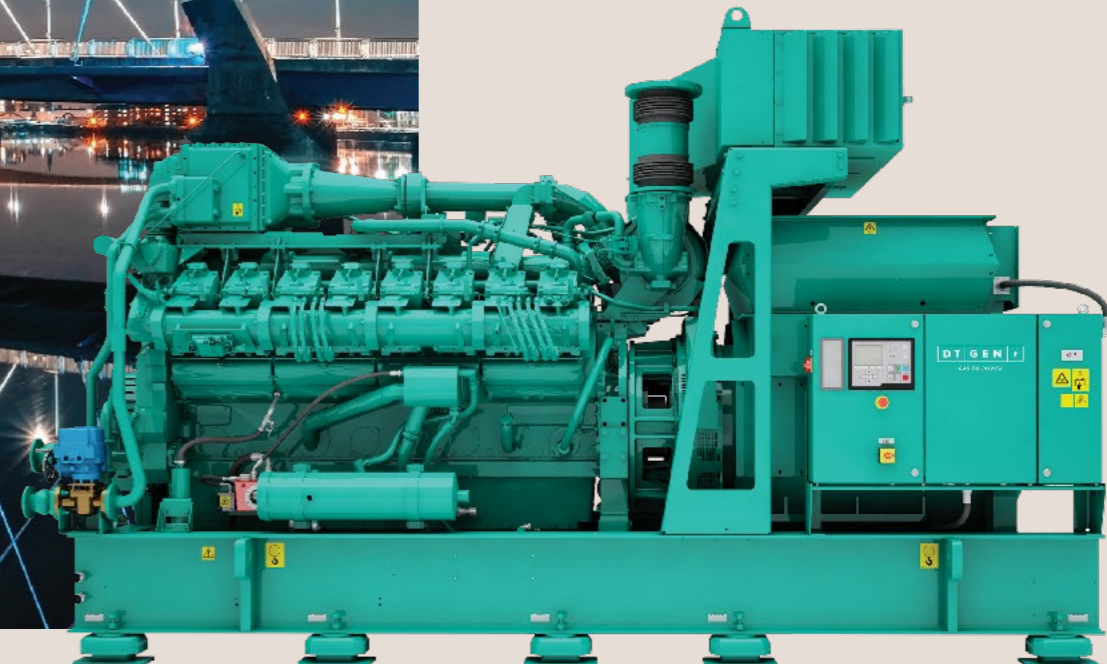
POWER WHEN YOU NEED IT

Gas to
Power

Keeping you connected
Complex backup power solutions
for more than 50 years

The global energy market is changing, & our customers are looking for greener alternatives & opportunities to reduce their energy costs. In response, we are delighted to bring our gas generators to the market.

John Kintrie
Head of Power Solutions



Introduction

DTGen is a UK leader in specialist power systems. We have been supplying critical power to a broad range of sectors and industries for more than 50 years. As a business we aim to provide our customers with innovative, sustainable, and resilient power systems. We always tailor our solutions to meet the exact demands of our customers.

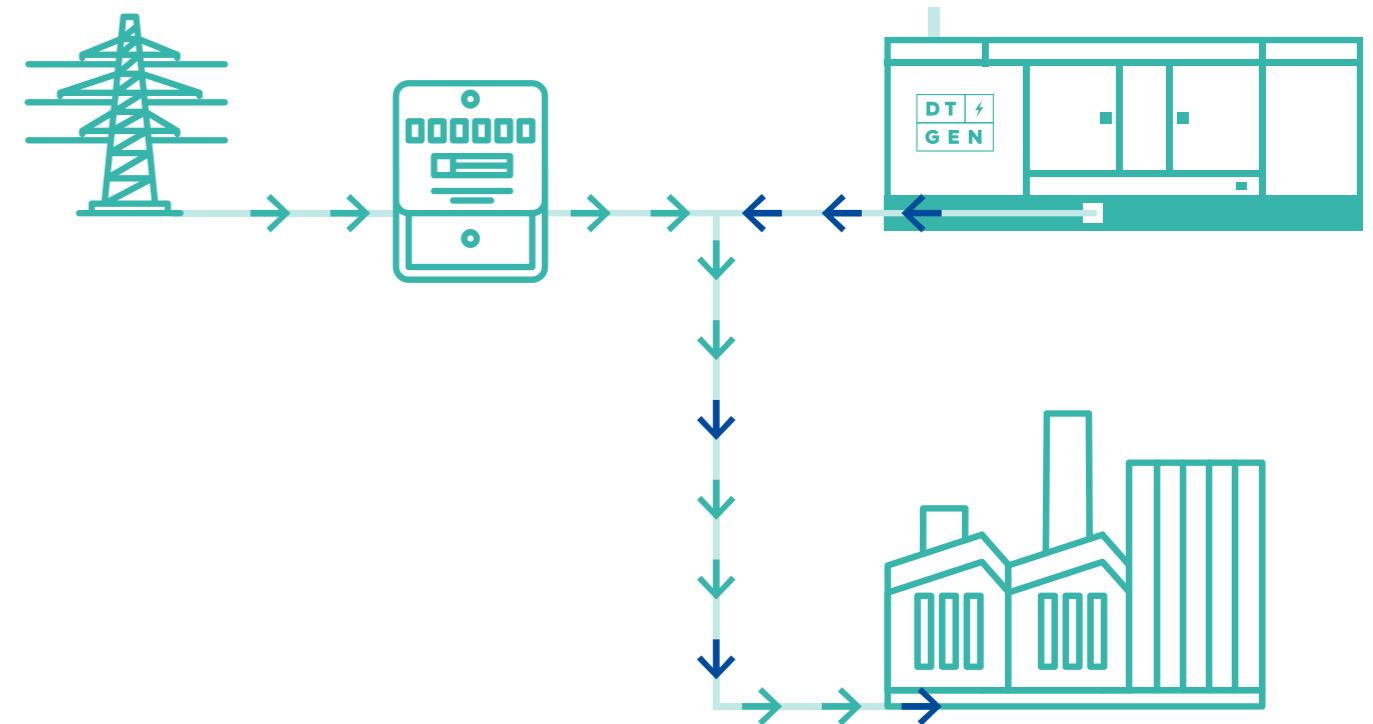
The energy market has changed a lot in the last 50 years, and we are delighted to offer our gas generators in response.

Our gas generators can be used for various applications providing our customers with a range of benefits.

We categorise our generators under two technologies, rich, and lean burn. Simply put, this refers to the percentage of fuel used in the combustion process which results in different uses for the generators, further resulting in different benefits between the two ranges.

Gas to Power

Utilising our ultra-low emission gas generators, our customers can install these generators behind the meter. This means that the gas generator set provides the customer with the bulk of their electrical power requirements and runs in parallel with the utility supply to ensure power resilience.



Behind the Meter

Powered by German MAN and Cummins high-efficiency gas engines, this set is ideal for generating your own on-site electricity. Our generator range is highly competitive and can offer large annual savings on your energy bills. By utilising a lower cost natural gas supply to produce your own electricity, this offsets your high electricity costs which are normally supplied by the national grid.

Furthermore, by running in parallel with the grid, your site will see no drop in resilience. Making this an ideal solution if reduced operating costs are a focus of your business.

System Benefits

- Large energy savings per annum
- Payback period typically between 2 - 5 years
- 15-year product design life, operating 8,000 hours per year
- Compact footprint ensuring only the minimal amount of space is required on-site
- Full turnkey solution from initial modelling to lifetime maintenance

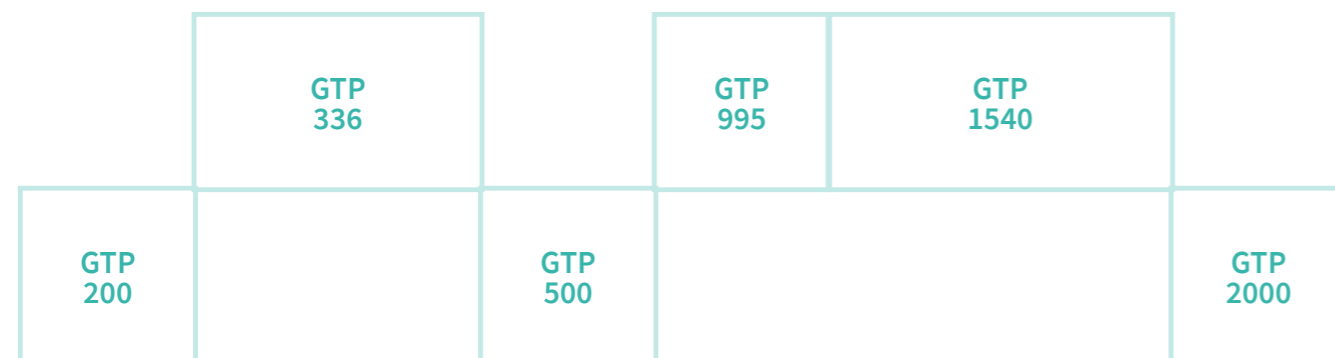
The Ideal Site

- High operational hours, typically 4,500 hours plus
- High electricity costs, typically more than £200k
- Natural gas supply

Generator Range










From 200 to 2,000kW – we have a generator to suit all applications.

Our specialist team assists with energy modelling ensuring the correct generator is selected to meet your needs.



Case Studies

Commercial models vary greatly from site to site, examples shown below:

		
300 kW unit for bakery	£145,978 energy savings per year	3 year payback
		
500 kW unit for seafood processing	£277,925 energy savings per year	2.5 year payback
		
995 kW unit for abattoir	£424,591 energy savings per year	2 year payback
		
1540 kW unit for ready meal supplier	£413,407 energy savings per year	2.6 year payback

Peak Standby

Powered by Pramac-Generac industrial spark-ignited gas engines, this range is optimised for performance and responsiveness to load variations with similar characteristics to that of a traditional standby diesel generator.

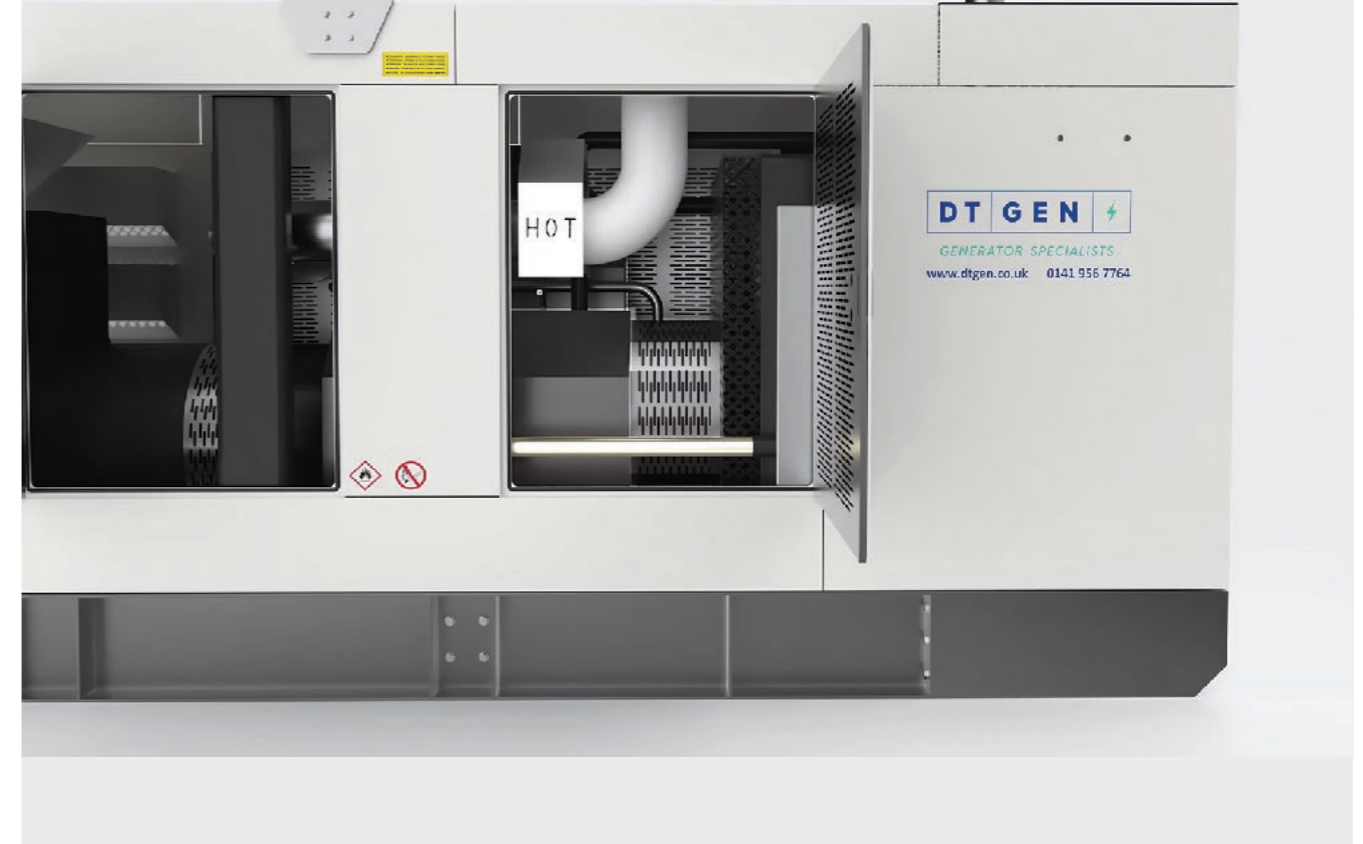
These generators also offer similar benefits to that of our gas to power generators differing slightly with respects to system benefits, site requirements and range.

System Benefits

- 10 second start capability, allowing use as a standby generator
- Energy savings per annum
- Payback period typically between 4 - 8 years
- 10-year generator design life, operating 3,500 hours per year
- Compact footprint ensuring only the minimal amount of space is required on-site
- Full turnkey solution from initial modelling to lifetime maintenance

The Ideal Site

- Operational hours, typically <3,500 hours
- Electricity costs, typically more than £100k
- Natural gas supply



Gas to Power & Peak Standby – Customer Revenue Streams

With ultra-low emissions and reduced operating costs, investing in a DTGen gas fuelled stationary generator set offers a sustainable opportunity to save power and cut expenditure. In addition to behind the meter and peak standby, operating as the prime power source, our gaseous power gensets can generate additional revenue stream through:

Demand Response Programs & Energy Trading

- The national grid is facing severe instability problems, coupled with little to no spare capacity. By operating your own gas generator set you can participate in flexibility programs which are operated by aggregators. You as the asset owner/operator will receive compensation payment from such aggregators and the national grid. DTGen work with industry leading aggregators and can arrange these additional contracts on your behalf.

Energy Management

- Reducing your power consumption from the national grid during peak hours will provide you with direct savings, in addition to this you can also avoid peak surcharge times throughout the year. Again this can be done by an agreement with an aggregator which DTGen can arrange on your behalf.

Generator Range



Gas Standby

In previous years, gas-fuelled generators have been avoided in standby applications for industrial and commercial use, due to cost-effectiveness and starting performance.

However, our range of Generac industrial spark-engines are optimised for standby performance and proven to be cost-effective. Within 10 seconds, our rich-burn standby gas generator will have started and been ready to accept a single step load of at least 50% in accordance with ISO 8528, G2 Standard.



Installation Benefits

- Simple installation
- Reduced installation time and cost
- No exhaust after-treatment required due to low emissions
- Reduced footprint (no fuel or AdBlue tanks)
- Reduction in points of failure

Operational Benefits

- Extended run times – continuous gas feed
- Reduced operating costs – fuel price approx 33% of diesel
- Reduced maintenance requirements
- No fuel management required

Environmental Benefits

- Extremely low emissions (low NOx, virtually no PM and low CO2)
- Typical 500kVA diesel, 1200mg NOx vs gas at 20mg
- Reduced carbon footprint
- No fuel tanks, potential fuel spills or contamination risks
- No black smoke on start or load application (virtually no PM)

Generator Range

GGW 200 (160kW)			GGW 500 (400kW)	GGW 750 (600kW)
	GGW 300 (240kW)	GGW 400 (320kW)		GGW 625 (500kW)

Generator Summary

Model	GGW200	GTP200	GGW300	GTP336	GGW400	GGW500	GTP500	GGW625	GGW750	GTP995	GTP1540	GTP2000
Standby rating (1,500RPM/400V/50Hz) - kVA	200	-	300	-	400	500	-	625	750	-	-	-
Prime rating (1,500RPM/400V/50Hz) - kVA	180	250	270	420	360	450	625	562	675	1244	1925	2500
Applications												
Maximum running hours per annum	3500	Unlimited	3500	Unlimited	3500	3500	Unlimited	3500	3500	Unlimited	Unlimited	Unlimited
Suitable for standby/black start	✓	X	✓	X	✓	✓	X	✓	✓	X	X	X
Rapid starting (under 15 seconds)	✓	X	✓	X	✓	✓	X	✓	✓	X	X	X
Base load/constant power	X	✓	X	✓	X	X	✓	X	X	✓	✓	✓
Gas consumption and pressure requirements												
100% load (kWh)	394	414	562	774	710	912	1113	1442	1442	2425	3598	4530
Minimum pressure (mBar)	17	30	17	30	17	17	30	28	28	200	200	200
External silent generator set: dimensions												
Length (mm)	4402	5600	4402	6540	4700	4700	6540	6536	6536	12192	12192	12192
Width (mm)	1538	1950	1540	2170	1700	1700	2170	2140	2140	2438	2438	2438
Height (mm)	2240	2575	2240	2679	2290	2900	2679	2810	2810	4600	4600	4800
Weight (kg)	3700	6000	3800	8300	4840	5550	8300	9750	9950	33000	36000	42000
External silent generator set: noise levels												
dBA @ 1m distance free field	78	80	78	80	77	78	80	82	82	80	80	80
dBA @ 7m distance free field	67	70	67	70	67	68	70	73	73	70	70	70

Next Steps

We can determine which product is suitable for your requirements.
 Services we offer free of charge are:



We collect data on your site's energy consumption and analyse it, establishing the best products to suit your needs.



Using advanced modelling on your energy data, we prepare a full report and energy model, establishing the correct size of gas to power product and prepare a full proposal. During this stage, various site visits can occur.



At this point we conduct a full review with you and present our final proposal and model. At this stage we can also offer various levels of finance options. After this, we can order the product and move to project delivery.

We work in partnership with you from beginning to end, offering comprehensive and fully maintained aftermarket services. If you'd like to find out more, contact us and we'll be delighted to assist.





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