



# GENERATOR MAINTENANCE AND REPAIR SERVICES

**SCANPaC**  
GENERATORS



# DIESEL GENERATOR MAINTENANCE AND REPAIR SERVICES

Comprised of a team of dedicated and experienced with complete and cutting edge facilities, we pride ourselves on offering superior services and customer experience.

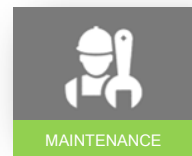
Recognized for our proficiency in solving problems and efficiency in completing our tasks, it is no wonder that Powertrade Energy remains the service provider of choice.



**CHOOSE THE  
RIGHT SERVICE  
SOLUTION**



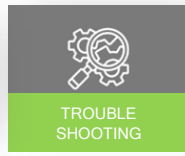
# TYPES OF MAINTENANCE AND REPAIR SERVICES



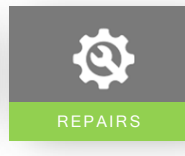
MAINTENANCE



BREAKDOWNS



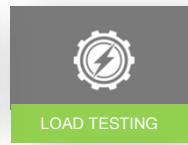
TROUBLE SHOOTING



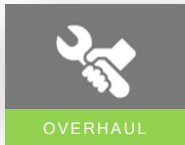
REPAIRS



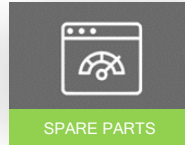
CONVERSION



LOAD TESTING



OVERHAUL



SPARE PARTS

## Maintenance

We design and define tailormade maintenance plans for our clients depending on the type of generator.

## Breakdowns

Our service team will keep you running with a rapid breakdown response and fast turnaround drive repairs and will make your generator operational again in the shortest possible time.

## Trouble Shooting

Our professional engineers and technicians with sophisticated tools attend to identify the malfunction and provide the best remedies quickly.

## Repairs

We have vast experience supporting and repairing all manufacturers of diesel genset & gas genset. Once installed, we will carry out the commissioning, testing and verification of each stage of the process and ensure that the generator is in full working order

## Conversion

We can adapt gensets to a new a control system, such as conversion from analog local control to digital control, as well as refurbish of genset canopy, fuel tank and more.

## Load Testing

Load testing at our workshop testing facility to ensure the genset performance and customers are able to view every single testing parameter in a separate room while the generator is being testing progress

## Overhaul

Our service experts begin with a total performance evaluation taking consideration of the age of the equipment, actual operational hours, and conditions of operation to customized and designed an overhaul schedule.

## Spare Parts

Fast-tracked spare parts support to keep your gensets are up and running at all time. This assures reduced downtime and seamless power throughout unforeseen circumstances that may arise

## MAINTENANCE SERVICE



# CHOOSE THE RIGHT SERVICE SOLUTION



SERVICES & SUPPORT

## TECHNICAL SUPPORT SERVICE

We can details  
custom design specific  
maintenance service

## Maintenance service and repair for all type of diesel generators.

We offer maintenance for different type of generators. Our vast experience in the field of generators has provided us with the expertise of handling and repairing all kinds of generators, with the help of our experienced and qualified technician, we are able to provide reliable, efficient and quick maintenance of different kinds of Diesel Generators..

### Objectives

- To ensure maximum availability and reliability of your engine/generator.
- To maintain maximum output/fuel economy.
- To reduce operation and maintenance cost.
- To avoid surprise breakdown by timely scheduled maintenance.
- To provide operation and maintenance guidelines to the operating personnel.
- To plan in advance for spare parts requirements.
- To enhance reliability.

### Benefits

- We provide proper guidelines of preventive maintenance & replacement schedule keeping in mind the designed parameters of each component.
- Since our technician/engineer's visits to your plant, we monitor all parameters of engines & do trend analysis of various parameters and hence can plan forthcoming repairs in advance. Therefore, there are no surprise expensive breakdowns.
- We also maintain complete history of engine & allied systems and keep records of various components, which are part of commissioning. Hence, at any point of time we are in a position to guide & give you a complete product support back-up.
- Our engineers are well equipped with special tools for all Make and models of her engines.
- We provide guidelines to the customer for modifications, changes & product up gradation resulting out of technical advancement, thereby any customer in case wants to update the machine in order to get better output, facilities are made.
- We may also provide alternative manpower .
- Above all, a small piece of advice at appropriate time from an expert can save expensive repairs and of course precious time.
- To operate plant/offices with optimum inputs and thereby saving money.

### Scope of Work

Inspection : -

- Visual checks of the engine.
- Checks under various load conditions (if load are made available).
- Check performance of engine, various instruments, gauges & controls.
- Check and diagnose improper functioning of systems/components and take remedial steps.
- Ensuring timely maintenance & upkeep of engine.
- Analyze and prevent minor repair becoming major & expensive.

Adjustment : -

- Checking and carrying out all necessary field adjustments as recommended by the manufacturer.

Servicing : -

- Engine servicing as required and indicated by service meter and the equipment log book or visual inspection as per operating condition.

Reports : -

- A report will be submitted/forwarded after the equipment inspection and servicing. This report will also include recommendation on replacement of any part (s) /sub-assembly improvement on efficiency of the Engine/DG set.



SERVICES & SUPPORT

## TECHNICAL SUPPORT SERVICE

We repair and service  
all parts & components  
on your needs.

## SERVICE & MAINTENANCE

### Appropriate maintenance methods for diesel generators

#### Maintenance method for diesel generators

Main purposes of inspection for diesel engines operation are to keep reliability, long-life, and a good performance. Output range during operation, operation hours, temperature of surrounding environment, humidity, dust give impacts on diesel engines. To avoid these impacts, maintenance is necessary.

#### Purpose of inspections

The efficient and long-term operation of diesel generators.

- To conduct an appropriate inspection for a long-life of diesel engines and generators.
- To keeping diesel engines in appropriate condition for good fuel consumption rate.
- To keep diesel engines in appropriate condition to maintain safety and proper operation.
- The efficient and long-term operation of diesel generators.
- Reduction of operation cost
- Proper maintenance brings efficient operation and efficient fuel and lubricant oil consumption.

#### Carrying out of inspections

Process of inspections

- **Daily inspection** could be performed by an operator in a power station. However, **partial inspection**, **midterm inspection** and **overhaul inspection** have to be performed by a technical engineer.
- Technical engineers mean the diesel engine manufacturers or maintenance agencies with necessary knowledge, experiences about inspection.

Planned maintenance

- Inspection is determined in manufacture's user manual, depending on the operation hours.
- Inspection is preferable to carry out as planned depending on record analysis of daily inspection, repair work and parts replacement situation.



SERVICES & SUPPORT

## TECHNICAL SUPPORT SERVICE

# Maintenance services, trouble shooting and repair of generator sets



## SERVICE & MAINTENANCE

**POWERTRADE** specifies and designs specific maintenance plans adjusted to the client's requirements, from the biggest multiple unit floats down to the individual working genset.

Our technical personnel are highly qualified and ready to give a response to any unexpected occurrences breakdown. We have got all the right equipment and knowledge necessary to carry out the complex procedures your genset may require.

### Corrective maintenance.

**POWERTRADE** provides troubleshooting solutions for breakdowns which, depending on the origin: mechanical / electrical / electronic, have caused operational deficiencies leading the genset to stop working, and with grave consequences for the user.

### Preventive maintenance.

Our service team has expanded to the genset active operations **MAINTENANCE IN ACCORDANCE APPLICATION** which differs between Emergency Standby Power (ESP) and Prime Power (PRP).

#### Emergency Standby Power (ESP).

- ⊗ Annual technical inspection for filter change, oil etc in accordance with protocols as determined by the integrated elements of the machinery.
- ⊗ Two annual inspections: change consumables, level checks, properly functioning equipment tests, report on anomalies from visual inspections by the technician and incident assessment if necessary.
- ⊗ Up to 12 annual technical inspections (consumables replacement, 11 annual technical inspections and tests)\*
- ⊗ Supervision and virtual control of gensets through remote management systems.

#### Prime Power (PRP).

- ⊗ Adjustment of the frequency of maintenance and the time of day it is carried out depending on consumables changes and the client's business operating hours.

#### IMPROVEMENT AND UPDATING ACTIONS

We adapt the product to our customers' changing needs, we repair & service it (radiator, alternator, batteries, reconfiguring/conversion of control panels, replacement of control panels, auxiliary fuel deposits), all to ensure the best support service available.



SERVICES & SUPPORT

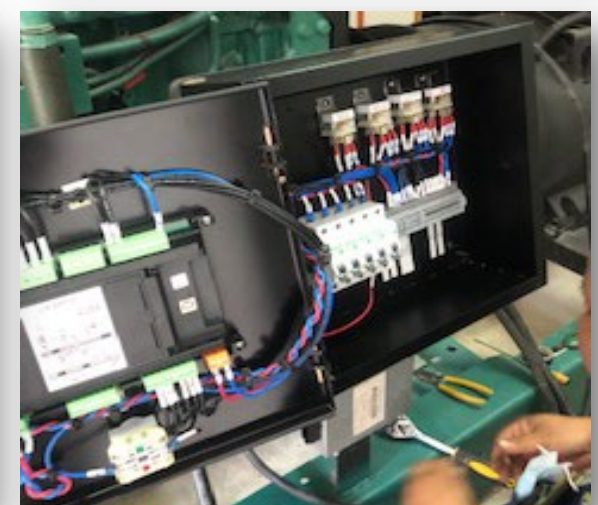
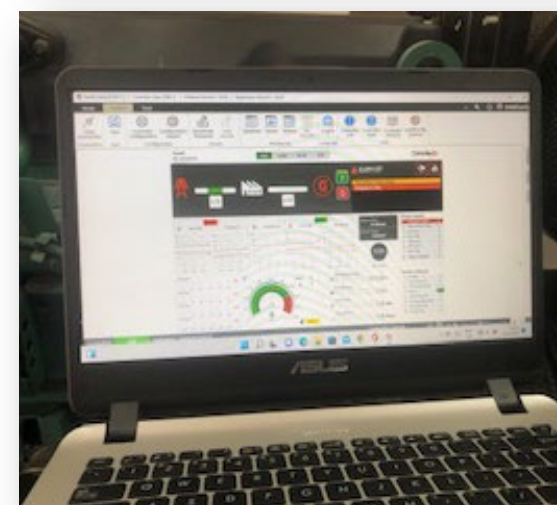
## TECHNICAL SUPPORT SERVICE

# Programming & Conversion of Genset Controller

### ON SITE PROGRAMMING

We provide conversion of genset control system and program engine parameter

Specialised technical team will travel to the generators final destination to study the layout and evaluate the different options for controller conversion in order for the client to have the optimal solution. Following this, our team of engineers should complete the programming blueprint, complete and the commissioning of the generator.





OTHERS SERVICES

## FABRICATION AND ENGINEERING

# FABRICATION & ENGINEERING SERVICES

Our mechanical team's main focus is to provide in-house support, they are also capable of designing and manufacturing upon request.

We fabricate and  
manufacturing upon  
your request.





OTHERS SERVICES

## FABRICATION AND ENGINEERING



We fabricate and  
manufacturing upon  
your request.





## **POWERTRADE ENERGY SDN BHD**

No 1, Jalan TP 7/5, Taman Perindustrian UEP,  
47500 Subang Jaya, Selangor, Malaysia  
Tel:+603-56143688 Fax:+603-56141268  
Website: [www.powertradeenergy.com](http://www.powertradeenergy.com)



SL Foo



012-3191748



[slfoo@powertradeenergy.com](mailto:slfoo@powertradeenergy.com)



Follow us [@facebook.com/energysdnbhd.powertrade](https://facebook.com/energysdnbhd.powertrade)