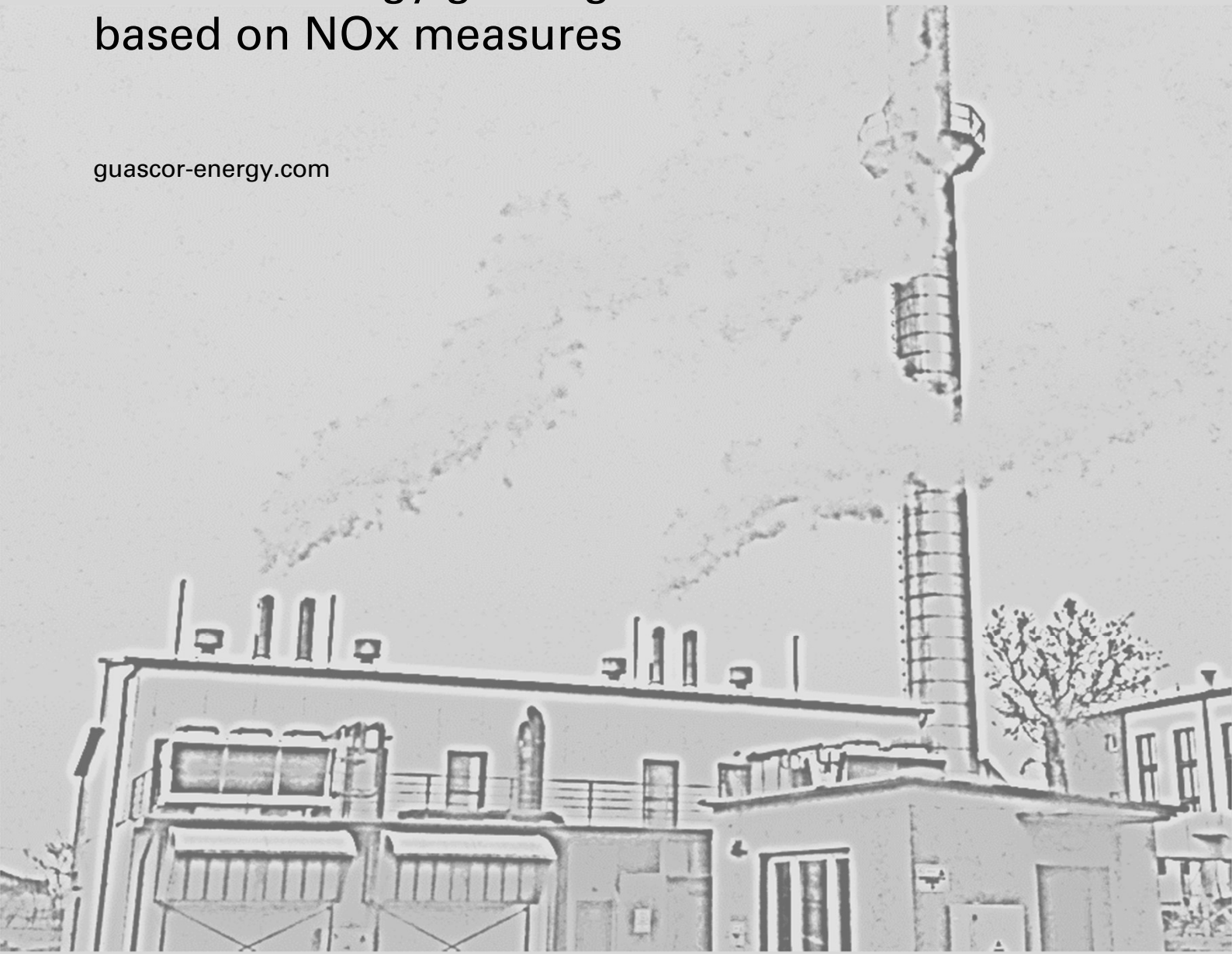


# GCS-E NOx control

Guascor Energy gas engines control  
based on NOx measures

[guascor-energy.com](http://guascor-energy.com)



## Guascor Energy control systems - GCS

The use of **Guascor Energy's** own control systems (**GCS**) ensures the correct behavior of the equipment. The GCS control systems are the result of implementing the most technologically advanced engine, gen-set and power plant control management systems to optimize performance.

### GCS system

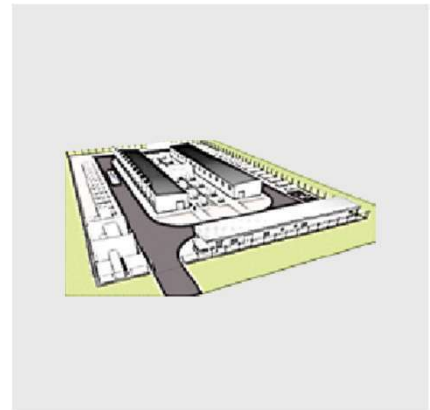
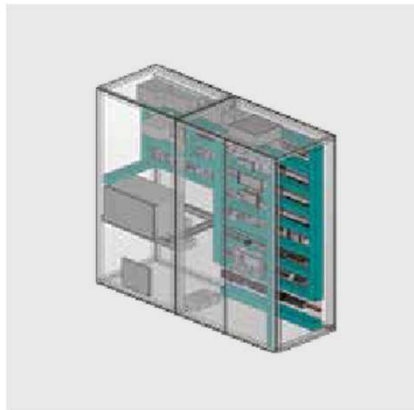
GCS-E engine



GCS-G gen-set

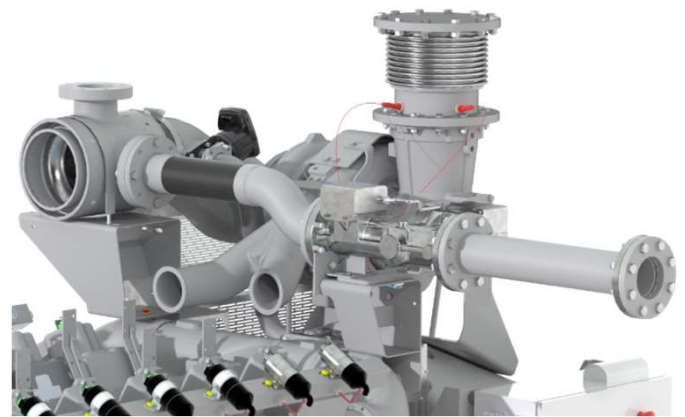


GCS-P plant



The GCS-E in particular governs the engine unit, making sure that the engine reaches the desired power at the necessary speed within the requested emissions level and achieving the best possible engine performance (efficiency, stability).

In addition to the standard control based on emissions estimating algorithms, the GCS-E now offers the option to utilize direct NOx measures to manage engine performance.



## What are the benefits of the NOx Control?

- Improved commissioning and service times due to reduced carburation times
- Improved engine operation by always ensuring right emissions level
- Improved diagnosis and protection by using the NOx signals
- Ensured stability of emissions over time

## GCS-E based on NOx measures

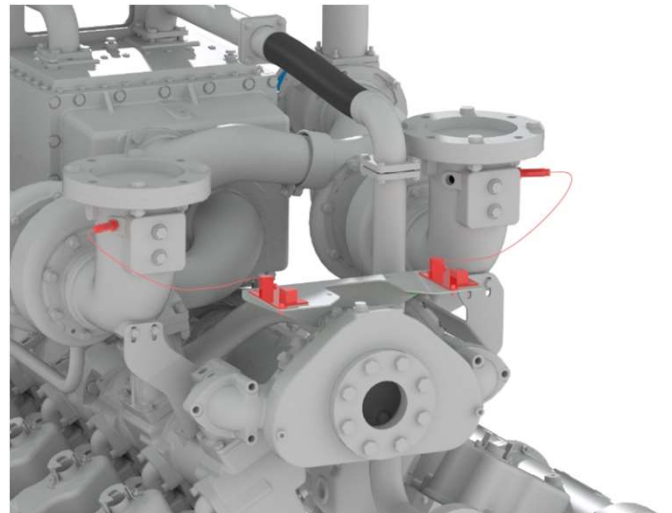
With NOx-based control, **engine commissioning and maintenance** are **simplified** since traditional carburation is not required.

The control system includes **redundant NOx sensors** to prevent availability loss caused by sensor failures. However, these sensors do require periodic maintenance and replacement. Improper maintenance can result in reduced availability.

For enhanced security and maximum availability, **you have the option to choose the standard control as a backup**. In this scenario, carburation is still necessary, but the process is somewhat easier as it can be automated (parallel to the grid) or semi-automated (in island mode).

## What does the NOx control need?

- **Two NOx sensors** assembled in the engine exhaust. The sensors position will vary depending on the engine model
- **Adaptation to assemble the sensors** that could affect the exhaust elbow, exhaust flexible pipe, exhaust insulation.
- **Sensors specific wiring**, that will also affect the electrical set up.
- **GCS-E control with specific firmware**



## In which cases is it applicable?

Available as an option and upon request for the G-SL, SM and HM engines,



**S Series**



**H Series**



**E Series**



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