

IPU
GROUP



Take control of your gas
gensets – then keep it!

IPU
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Applications for gas gensets



Landfill gas



Agriculture



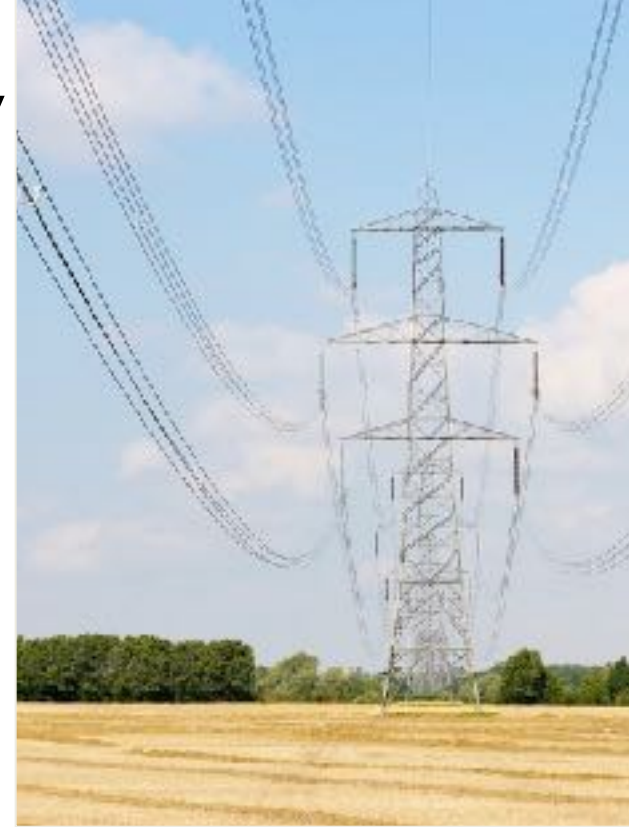
Sewage and water treatment



Pools & leisure facilities

Applications for gas gensets: capacity

The UK Balancing Market: STOR, FFR and Triads



Introducing the new solution with flex

Modular
Plug & Play

Gas-engine ready



Built-In PLC

On and off-engine
communications



Introducing the new solution with com

Mechanical, electronic, turbocharged, normally-aspirated



Deutz, electronic, turbo



MTU, electronic, turbo



Jenbacher, electronic, turbo



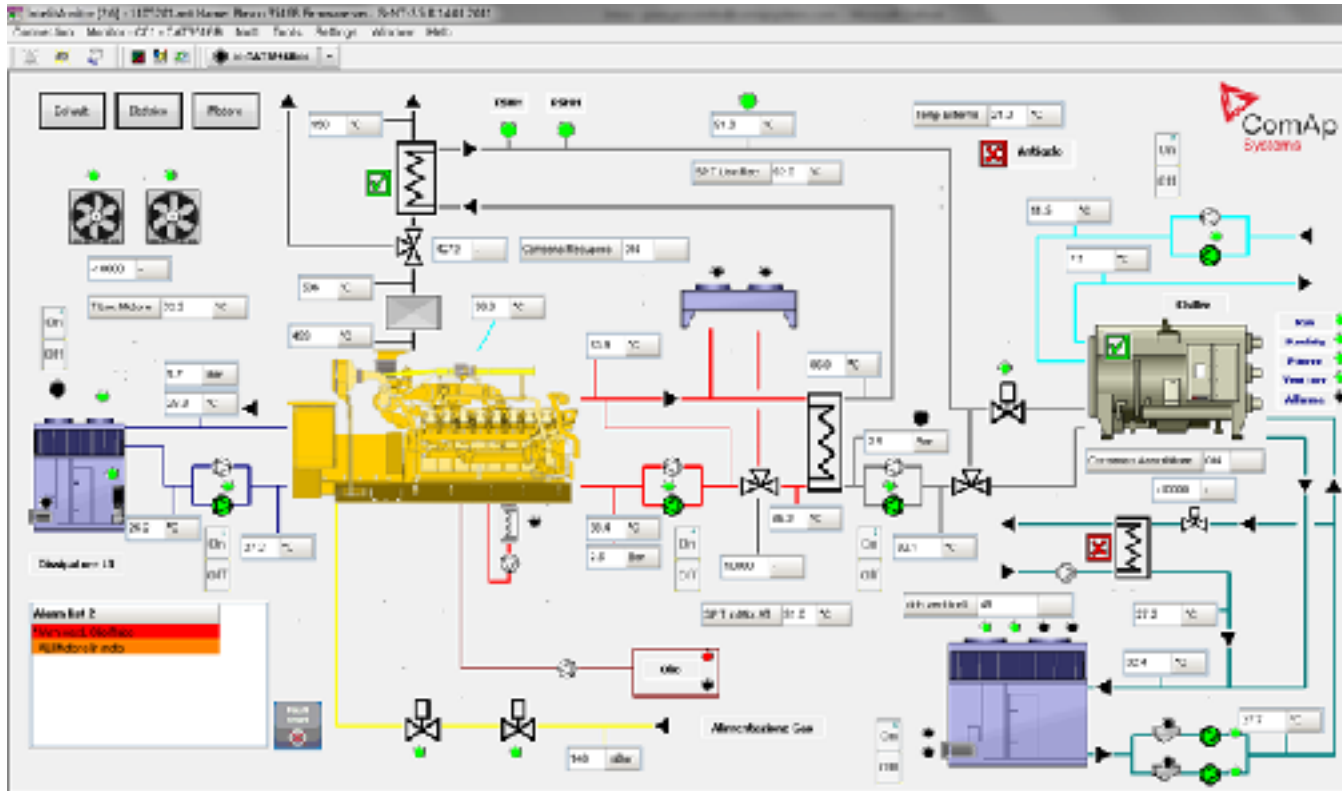
Cat, both, turbo



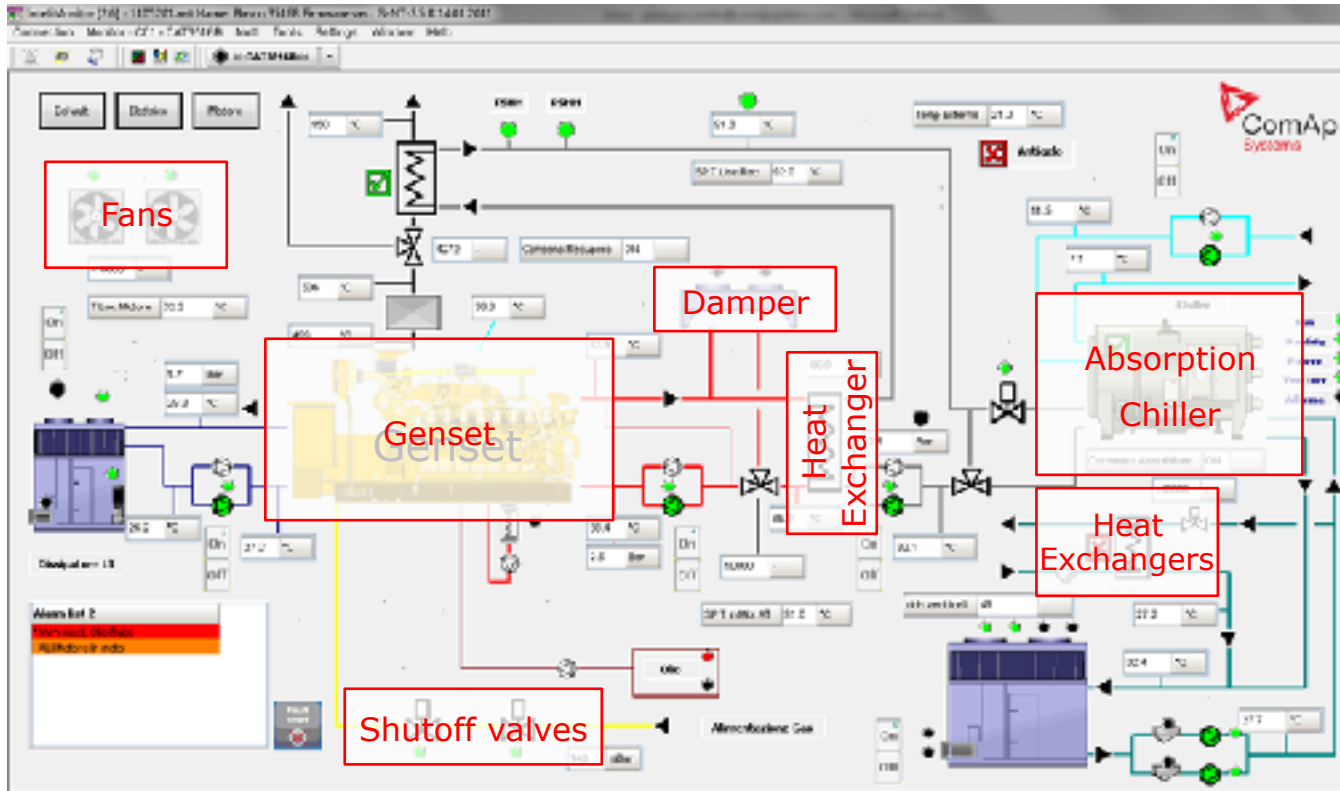
MAN, mechanical, turbo



Gas applications are complex



Gas applications are complex



We can make gas applications simpler

ComAp/IPU solutions minimise the time to market :

- Solution dedicated to gas genset control
- Preprogrammed genset control functions with parameters – e.g. engine start cycle, synchronisation, load control
- Individual site or customer needs can be easily developed using the large PLC interpreter with intuitive configuration

The solution minimises the initial customer costs.

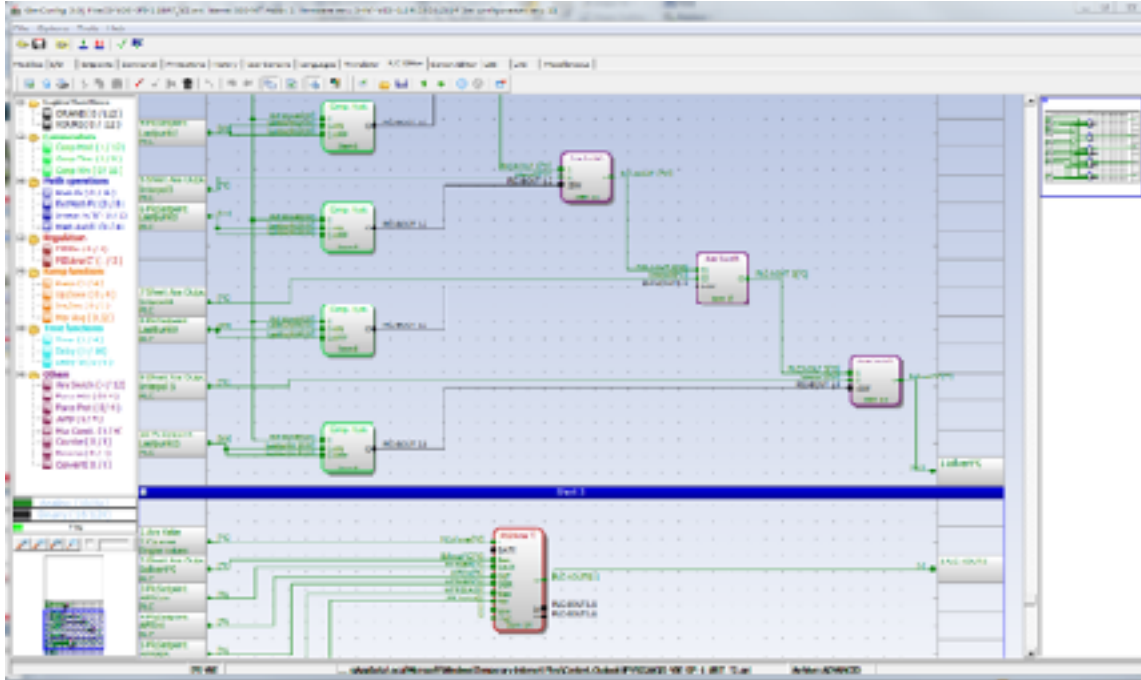
There is no need for software programmers.

The learning process is very fast.



We can make gas applications simpler

An intuitive PLC programming interface



We offer integrated Air Fuel Ratio (AFR)

ComAp offers generic Air/Fuel ratio algorithm for:

- Lean burn & rich burn engines
- Turbocharged & normally-aspirated engines

It supports several AFR control strategies:

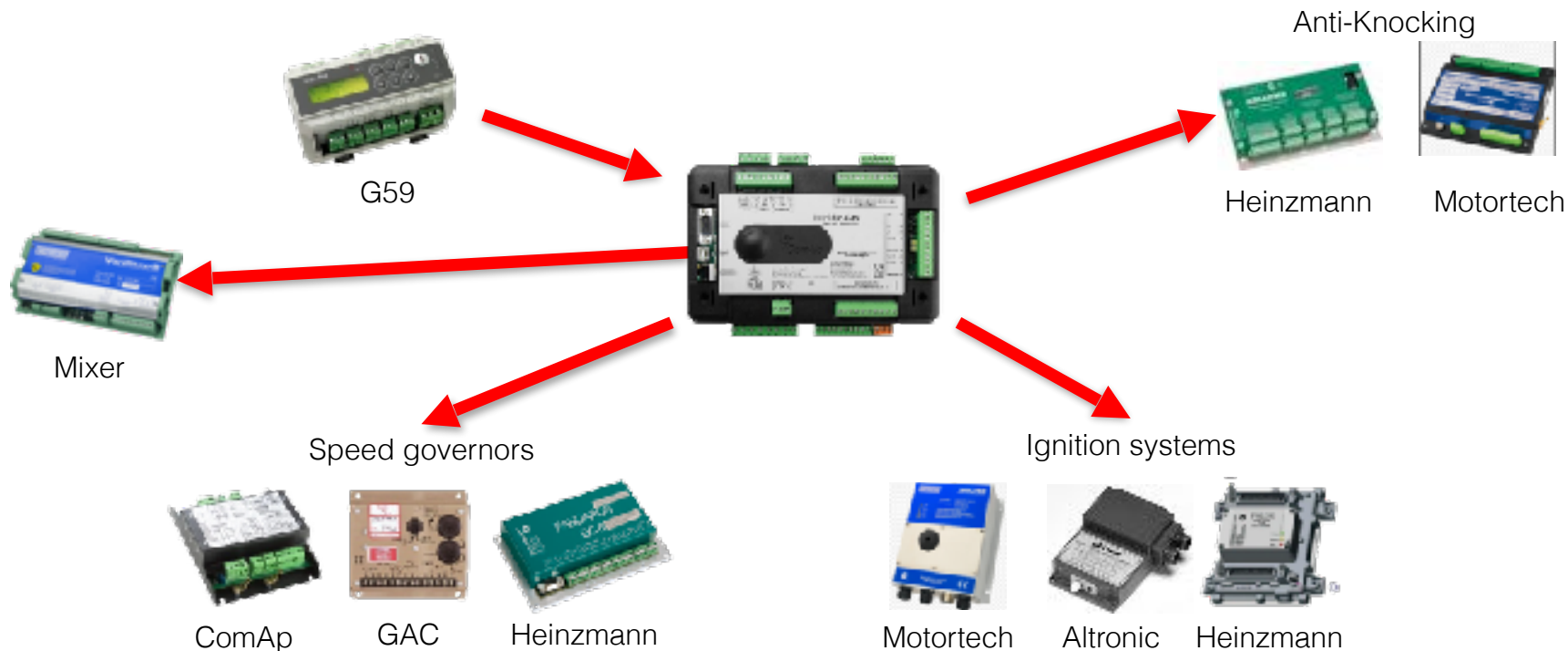
- Fixed mixer position per engine kW plus one of the following:
 - Closed loop: O₂/λ sensor, cylinder temperatures, NO_x value
 - Open loop: boost pressure and temperature

ComAp AFR algorithm is robust, field proven and can handle sensor failure.



We help reduce CHP downtime

Native communication to other on and off-engine products



We help reduce CHP downtime

Customers benefit from enhanced diagnostic from connected devices:

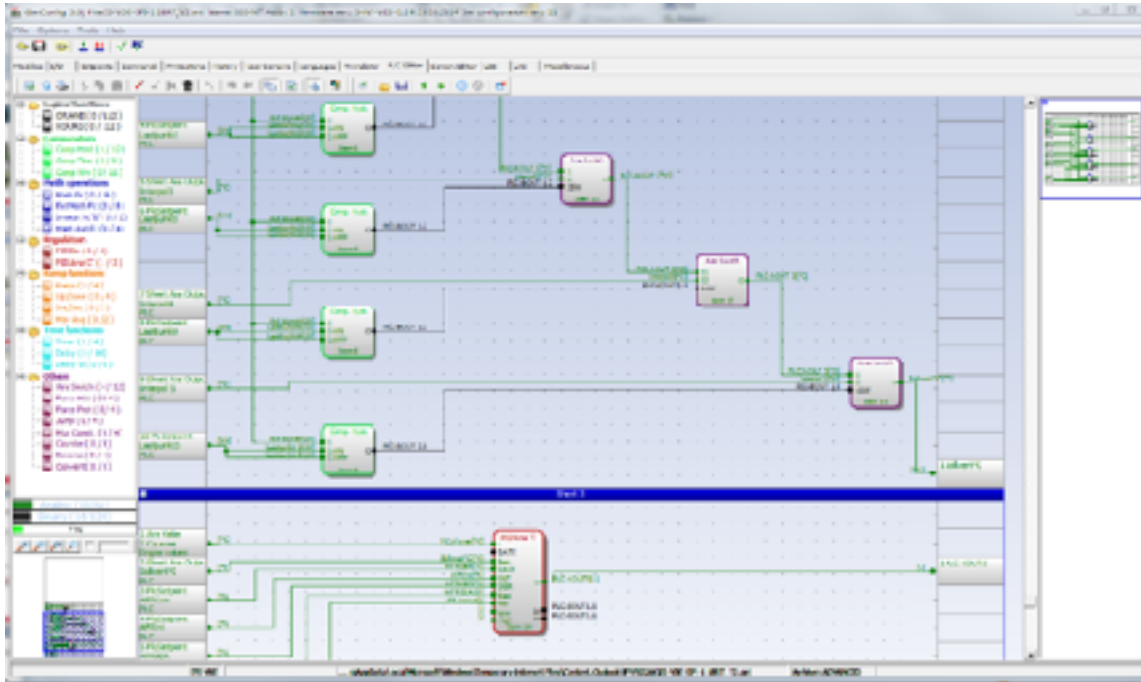
- Instead of vague “Ignition Failure” customers receive specific messages “Secondary voltage A1 high”.
- Information about actuator and mixer positions helps to detect non-standard situations.
- Better information in advance means a “first-time fast fix” for engineers sent on-site.

ComAp solution helps to minimise genset downtime and so save money.



We can protect your expertise and exc

In-house development keeps your expertise confidential



Compliance to existing and future star

The ComAp/IPU solution meets current and future industry and grid codes standards:

- Safety Integrity Level: ComAp offers solution for installations up to SIL2, certified Emergency Stop and Overspeed functions.
- Grid code requirements: with increasing portions of energy from renewable sources, grid stability is essential: ENTSO-e

ComAp offers a solution which suits the domestic UK market and removes barriers from UK exporters.



Differentiate your gensets from the co

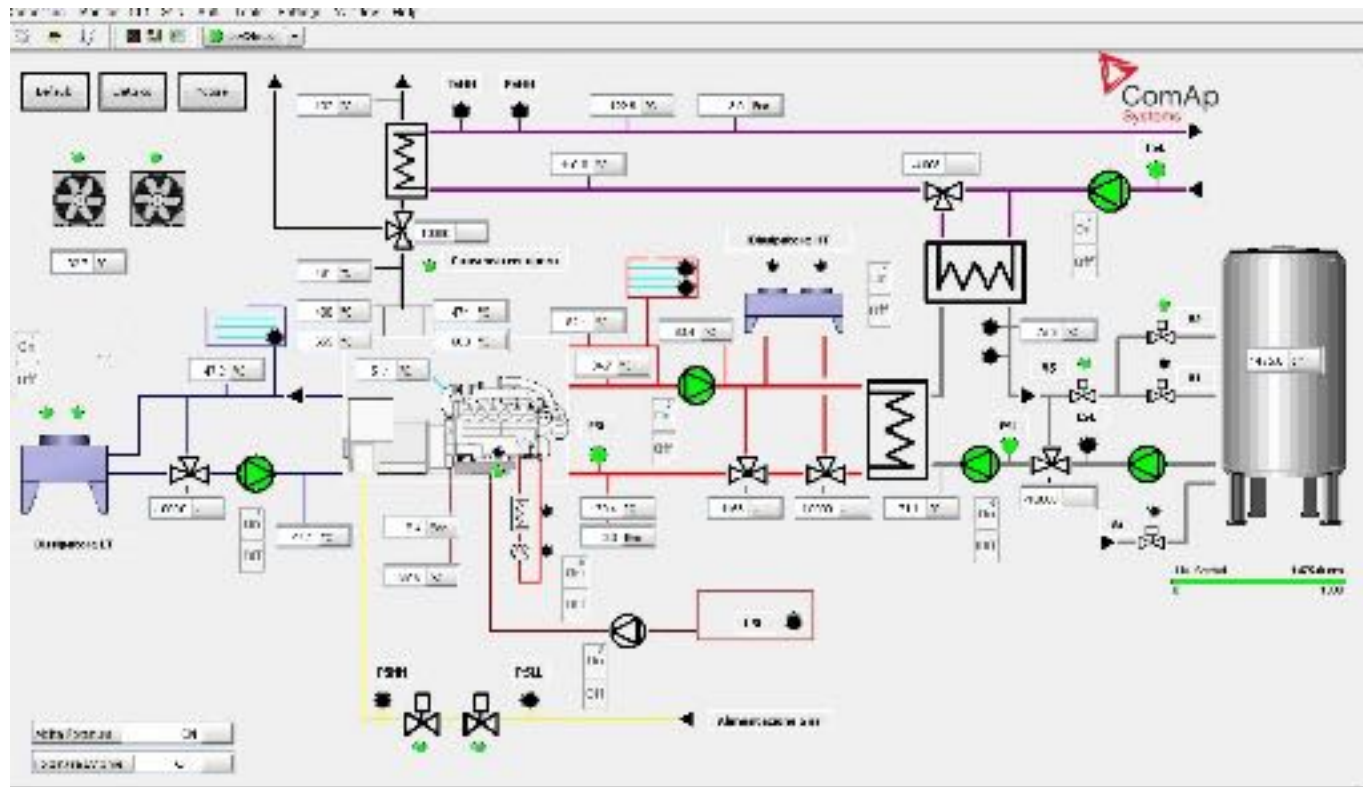
The ComAp/IPU solution can be easily altered to individual needs without any extra costs:

- Controller functions for an application e.g. a CHP application is easily created in the internal PLC interpreter.
- Corporate look of HMI panels can be created without extra costs through ScreenEditor, a free utility.
- Corporate or “requested” look can be created for remote monitoring SCADA – LineDiagram for IntelliMonitor.

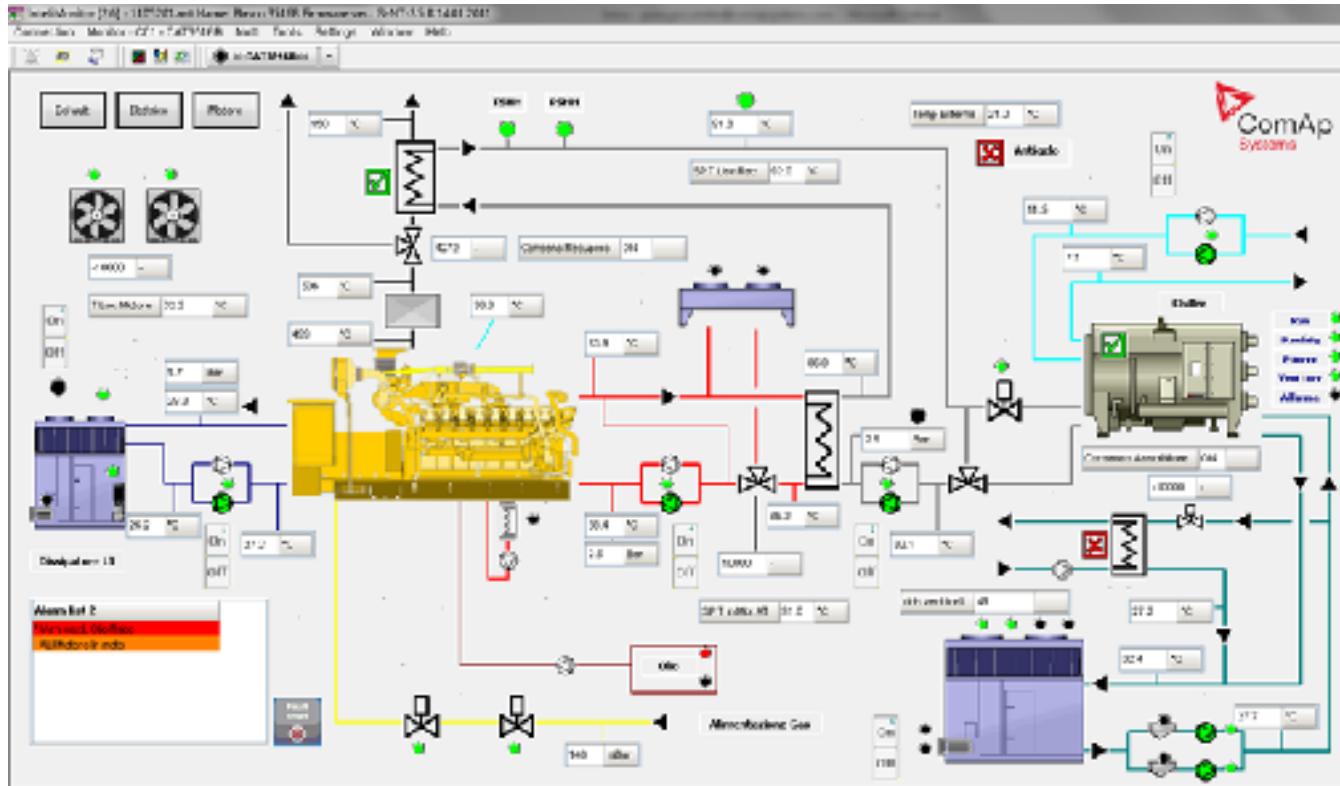
The ComAp solution allows you to differentiate from your competitors without extra costs.



Differentiate your gensets from the competition



Differentiate your gensets from the competition





Forward together