



Pillar of the energy transition

MODULAR ENGINE POWER PLANT SOLUTIONS FOR ENERGY SUPPLY

Modular and flexible power supply from
5 MW to 100 MW and more



A Rolls-Royce
solution

OUR EXPERTISE

Your energy demand is growing faster than grid expansion. At the same time, the grid is becoming increasingly unstable; driven by the expansion of unreliable, renewable energies. What you need is a reliable solution that is quickly available, scalable and cost effective.

mtu gas gensets deliver exactly that: high efficiency, fast response times, and a modular design that adapts to your needs and cost targets.

**>17 GW installed capacity with
mtu engines worldwide**

Gas and diesel gensets, flexible fuel options such as H₂, H₂ blends, biogas, biomethane, HVO

**Locations**

Close to you and worldwide, with over 420 sales and service partners

**Market leader**

in stationary energy supply for more than 100 years

**Resilience expert**

Protection of critical infrastructure (e.g. nuclear power plants, airports, hospitals and data centers)

**Scalable & capex-optimised portfolio**

We are a single source partner with strong experience in mission critical, prime power gensets, dynamic UPS systems and energy management software

**Certified cybersecurity**

Offering maximum operational reliability and trust

MODULAR ENGINE POWER PLANT SOLUTIONS: IDEAL FOR FLEXIBLE, RELIABLE POWER

Modular design

Scalable and customisable, including power plant control via **mtu** EnergetIQ energy management software

Highly efficient

High electrical efficiency with proven option CHP solutions

Component synergy

Common components for gas and diesel gensets optimise logistics and service for the customer

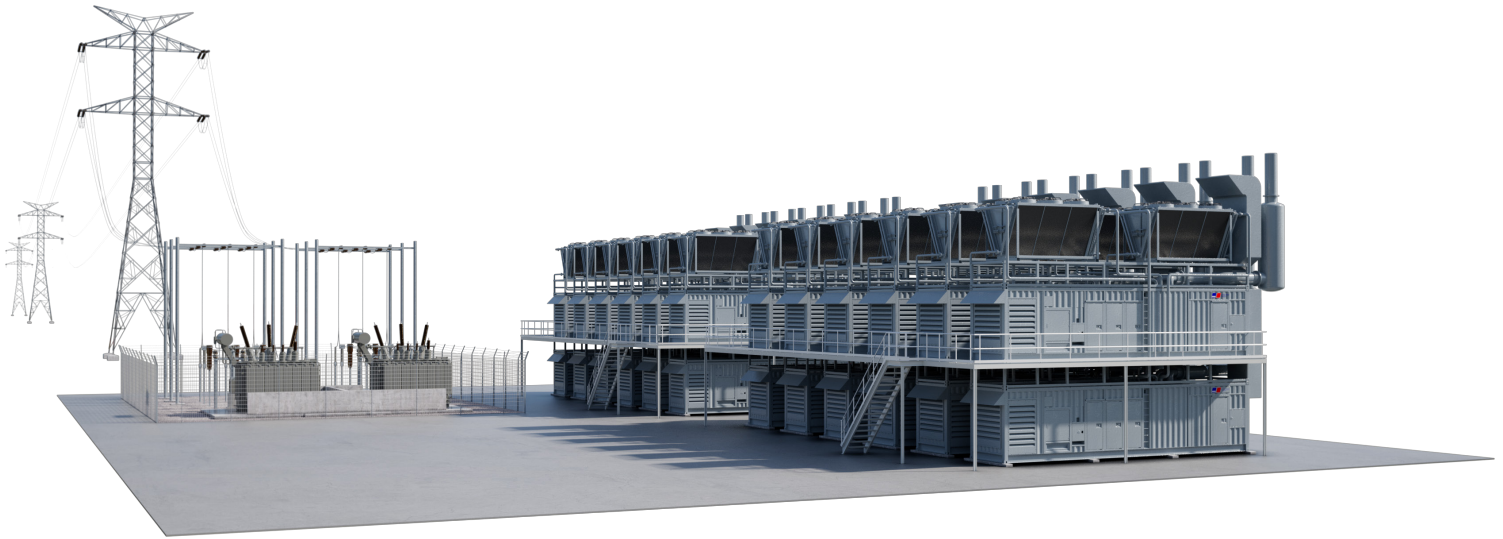
Speed & flexibility

Easy and quick assembly with standard containers which can be moved to new locations as needed

Factory-tested units

High degree of prefabrication, short commissioning times thanks to industrial pre-assembly and factory-tested modules

MODULAR ENGINE POWER PLANT SOLUTION



Ahlen, Germany — 12 MW



Chatterley Whitfield, UK — 20 MW



Pekanbaru, Indonesia — 33 MW



Myingyan, Myanmar — 150 MW



Atacama Desert, Chile — 294 MW



>100 MW POSSIBLE:
WE CAN REALIZE COMPLEX LARGE-SCALE
PROJECTS GLOBALLY -
EVEN AT YOUR LOCATION

CONCLUSION



Designed for
incremental
expansion



Plug & Play
Solution

ADVANTAGES OF ENGINE POWER PLANTS

Yesterday:

Large centralised power plants



Today:

Flexible,
decentralized
gensets



The advantages:

Faster start

- Full power in just a few minutes

More efficient at partial load

- Individual units can be switched off

Modular & scalable

- Flexible power adjustment

Option for network setup

Lower costs for short run times

- Maximum efficiency in flexible operation

Ideal for volatile networks & backup

- Decentralised resilience and network load reduction

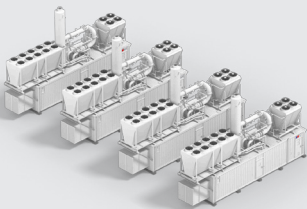
Black start capability

CUSTOMER-SPECIFIC SOLUTIONS

Whether you require a linear arrangement of individual gensets, groups of four or multi-story solutions, we offer flexible setups for power generation units.

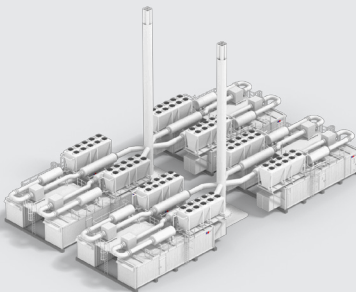
10 MW POWER SQUAD

(consists of 2.5 MW gensets)



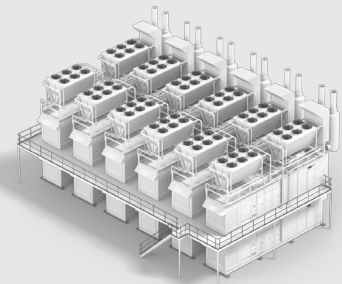
20 MW POWER SQUAD

(consists of 10 MW gensets groups)



30 MW POWER TOWER

(consists of two stacked 15 MW levels with twelve 2.5 MW gensets in total)



- ✓ Flexible design
- ✓ High redundancy
- ✓ Minimal planning effort

- ✓ Highly modular
- ✓ Optimised space requirements
- ✓ Simplified common exhaust gas routing

- ✓ Low space requirement
- ✓ High degree of prefabrication
- ✓ Minimal commissioning time

Scale and combine units to reflect your needs!

SMART CONTROL FOR YOUR ENGINE POWER PLANT: **mtu** ENERGETIQ



AI-optimised engine operation

- Minimises consumption, emissions and costs through smart load prediction and deployment planning

Central control

- One platform for generators, storage and grid connection – intuitive and secure

Maximum availability

- Maximum reliability thanks to continuous data synchronisation between master and backup controllers and redundant network solutions for control and systems

Grid service & market opportunities

- Control energy, peak shaving and grid stabilisation directly from the power plant

Easy integration

- Plug & Play with open interfaces (Modbus, OPC UA, REST API)

Flexibly scalable

- Any number of gensets can be controlled – modularly expandable to 100+ MW

Proven worldwide

- Already in use in large power plants, data centres and other industries

We are happy to provide individual advice at any time. You can reach us by email at

MEPP@ps.rolls-royce.com

FURTHER READING

Backbone for the energy transition – How gas engine power plants can close the gap



Please scan the QR code
for more information

Grid expansion bottleneck – When infrastructure cannot keep pace with progressive data centre expansion plans



Please scan the QR code
for more information



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