



Stable and Reliable Energy for Your Data Centres



Trigeneration with a UPS as an optimal solution for Data Centers?

- ✦ TEDOM trigeneration with a UPS provides a highly reliable on-site energy solution for data centers, significantly reducing dependence on the public grid.
- ✦ By combining electricity generation with efficient cooling from waste heat, it lowers operating costs and increases flexibility compared to conventional grid supply and compressor-based cooling.
- ✦ The UPS stabilizes voltage quality and ensures seamless ride-through during short-term outages or unit transitions.
- ✦ This results in a resilient, scalable energy infrastructure with a lower total cost of ownership and improved operational security

Benefits of Trigeneration for Data Centers

Stable, independent, and redundant energy source

- ▀ On-site electricity generation → higher supply reliability
- ▀ **Capability for islanded operation** during grid outages
- ▀ High availability and reliability

Integrated cooling (absorption units)

- ▀ Utilization of waste heat → **free or low-cost cooling production**
- ▀ Stable cooling supply even during peak loads

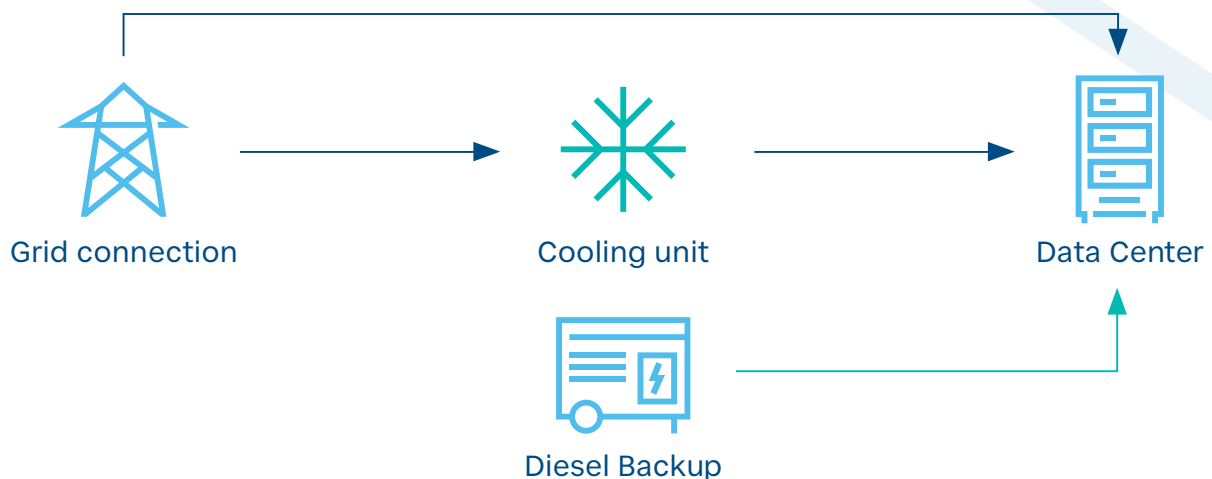
Lower OPEX and cost optimization

- ▀ **High overall efficiency (80–90%)**
- ▀ Ability to respond to electricity prices (peak shaving, demand response)
- ▀ Significantly reduced IT cooling costs

Flexibility and scalability

- ▀ Modular design (**250 kW → 4.5+ MW**) allows easy capacity expansion as the data center grows
- ▀ Multiple operational modes as needed
- ▀ **Robustness and security of the aggregated unit**

Grid Connection



Reliability that keeps your data running

TEDOM trigeneration with UPS

- **Higher stability and security**

Energy under control

- **Greater flexibility, scalability, and network robustness**

When uptime matters, generation must be on-site

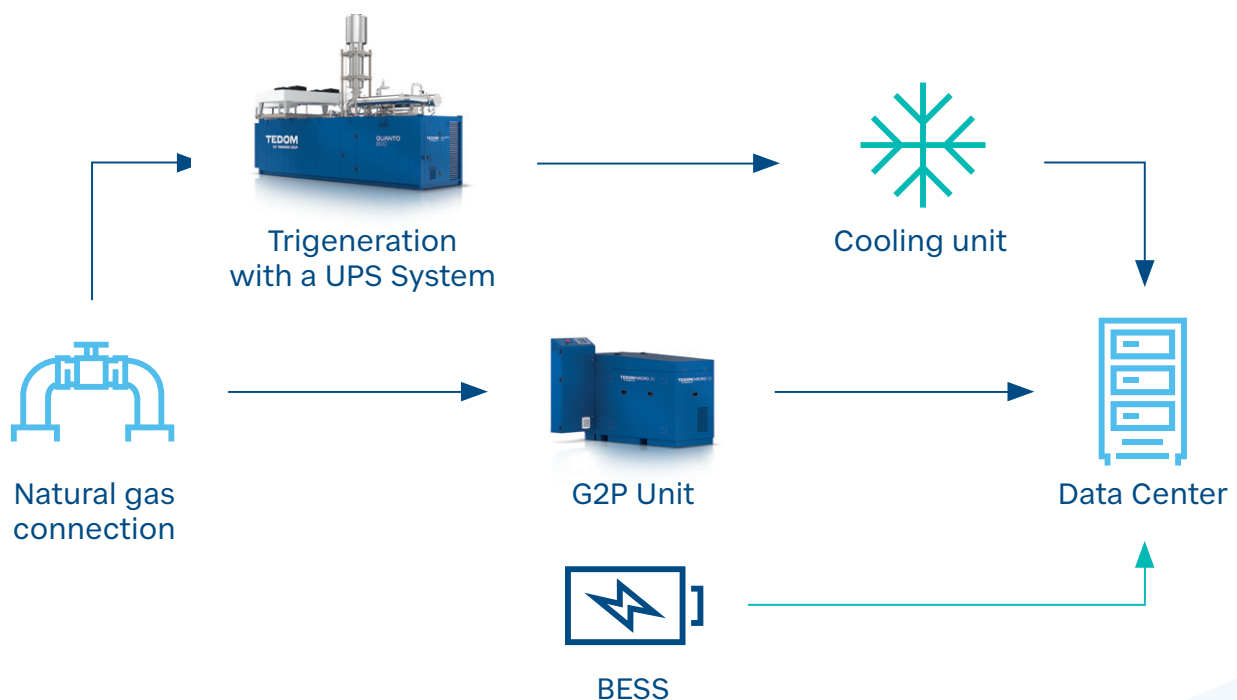
- **Lower operating costs and operational efficiency**

Stability, cooling, savings. **All in one**

- **Ideal solution for locations with limited grid capacity or for TIER I, II, III and potentially IV.**

Future-proof energy for next-generation data centres

TEDOM Trigeneration plant



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