Wärtsilä powering AI through data centres

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Wärtsilä Energy in numbers

Globally recognised leader

in engine power plant & energy storage installations, with 190 years of experience as a company

180
Countries delivered to

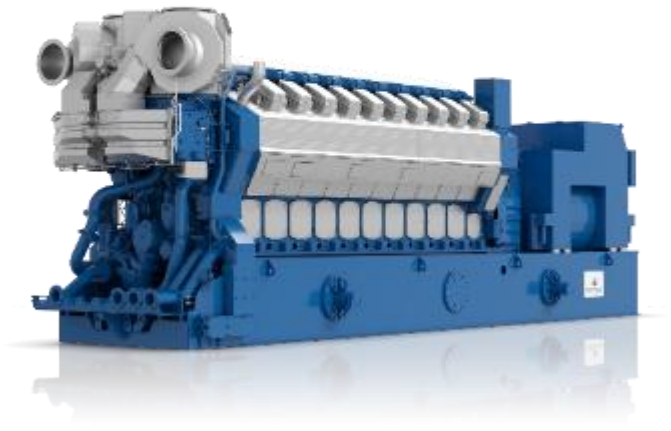
4 900+
Employees

79 GW
Power plant capacity delivered

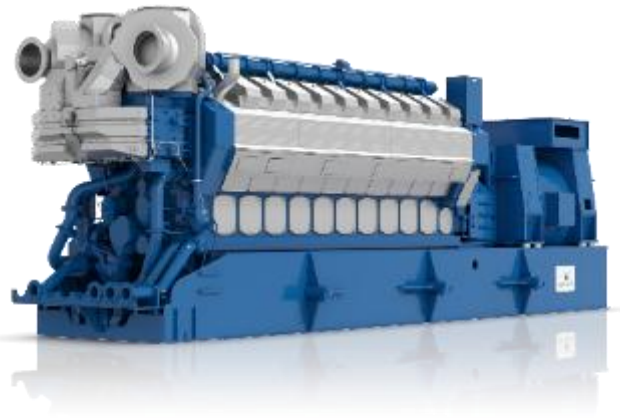
130+
Energy storage installations

30 %
Of operating installed base under service agreements

Our engine portfolio for various applications and industries

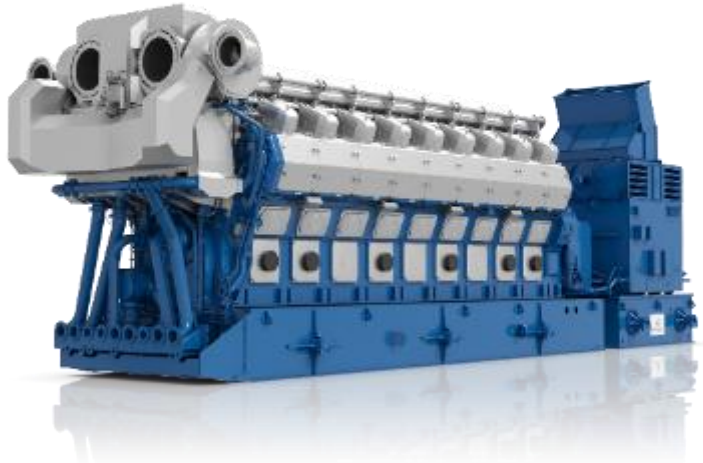


Wärtsilä 32 platform
LF (6-10MW)

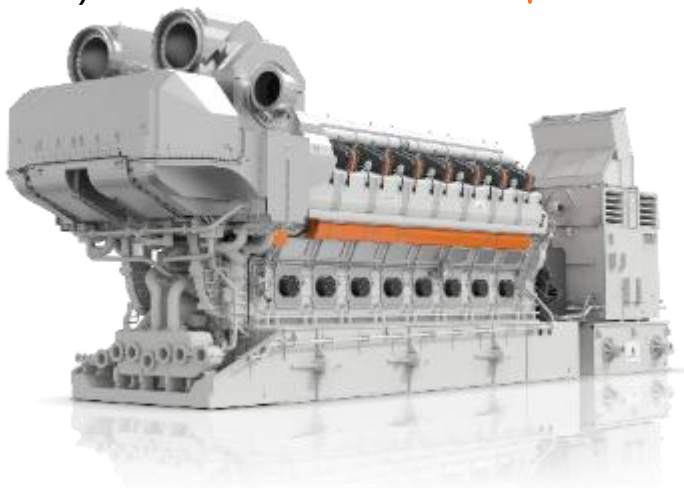


Wärtsilä 34 platform
NG and DF (6-10MW)

Wärtsilä 31 platform
NG and DF (11-13MW)

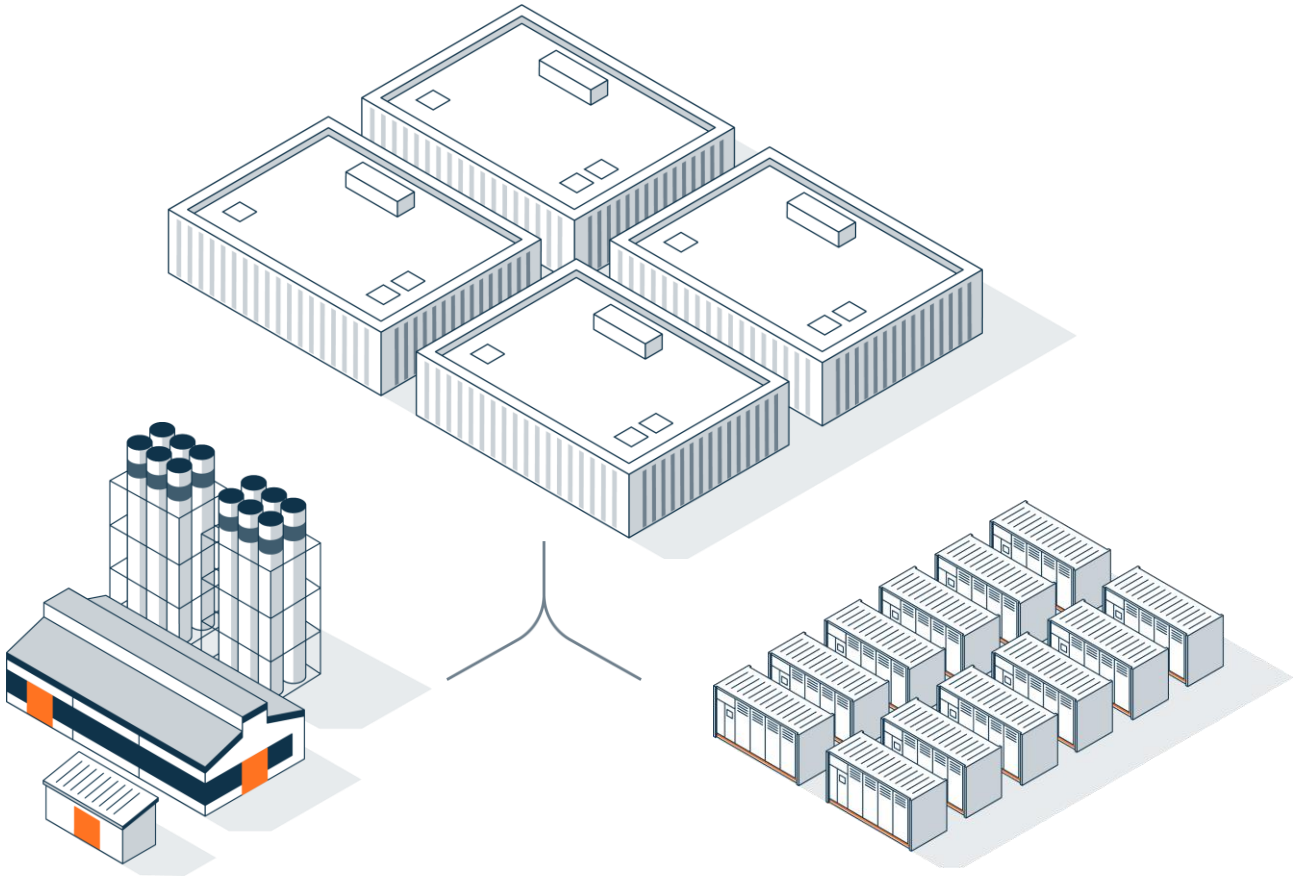


Wärtsilä 50 platform
NG, LF and DF (18MW)



Wärtsilä 46TS platform
NG and DF (20-23MW)

Data centers are pushing power infrastructure to extremes, micro grids with engines and storage provide reliable power.



Engine power plants in 6-23 MW modules, making 500 MW+

Energy storage for AI load smoothing & power availability

- **Engine Power plants now exceed 500 MW.**
- **BESS** often advised to help address **AI Load Variations & Power Availability.**
- Wärtsilä supplies **Both 6-23 MW modular engines and BESS systems.**

Data centre customers choose Wärtsilä for a variety of technical attributes

Full load efficiency

Part load efficiency

Modular design

Heat tolerance

Altitude tolerance

Minimal water use

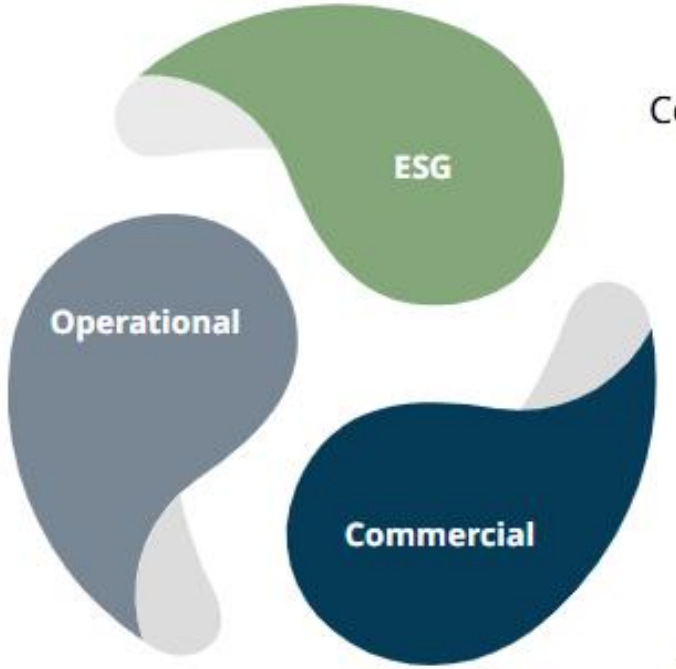
Unlimited stops/starts

Low emissions

Low gas pressure

In practice, decarbonising power generation is complex: : A holistic approach is required to balance commercial, operational and ESG factors

Integrating different assets
Increasing renewable penetration
Mitigating intermittency and
Maintaining grid stability



Decreasing CO_2 emissions
Complying with regulations and policies

Achieving lowest LCOE
Decreasing operational costs
Achieving return on investment

Industrials

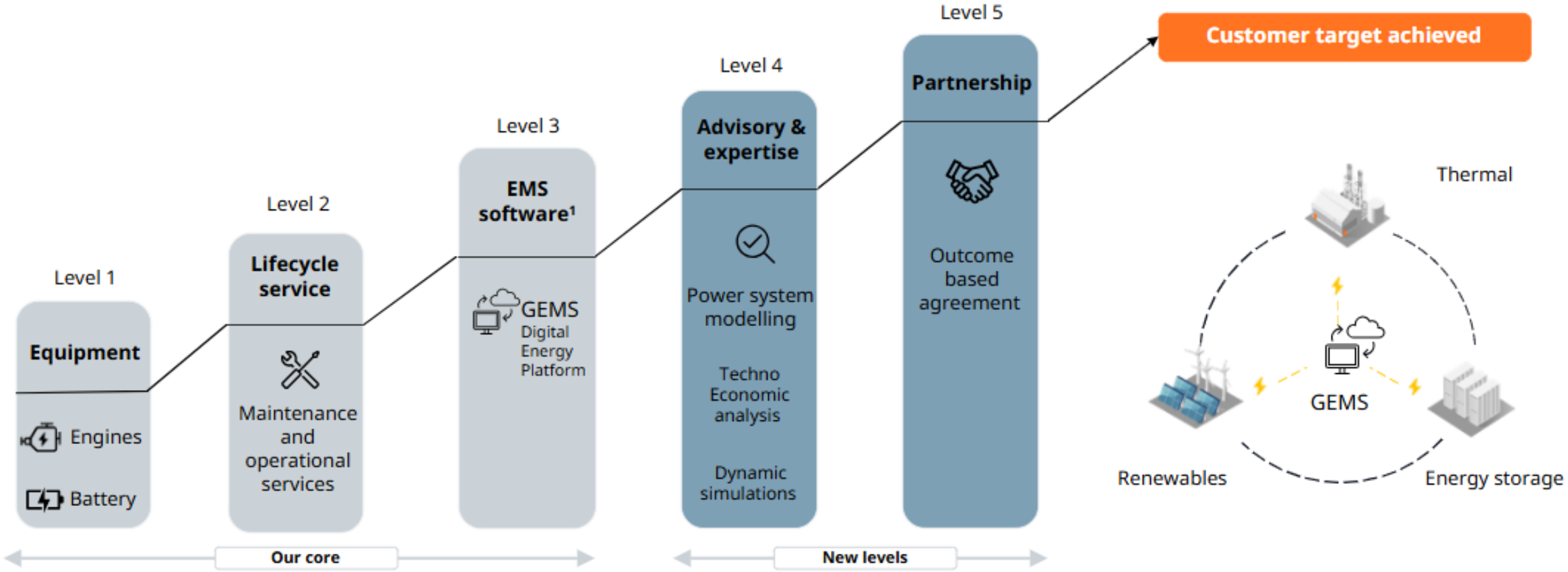
Utilities

Independent Power Producers

Decarbonisation Services: Taking Wärtsilä core competences to the next level

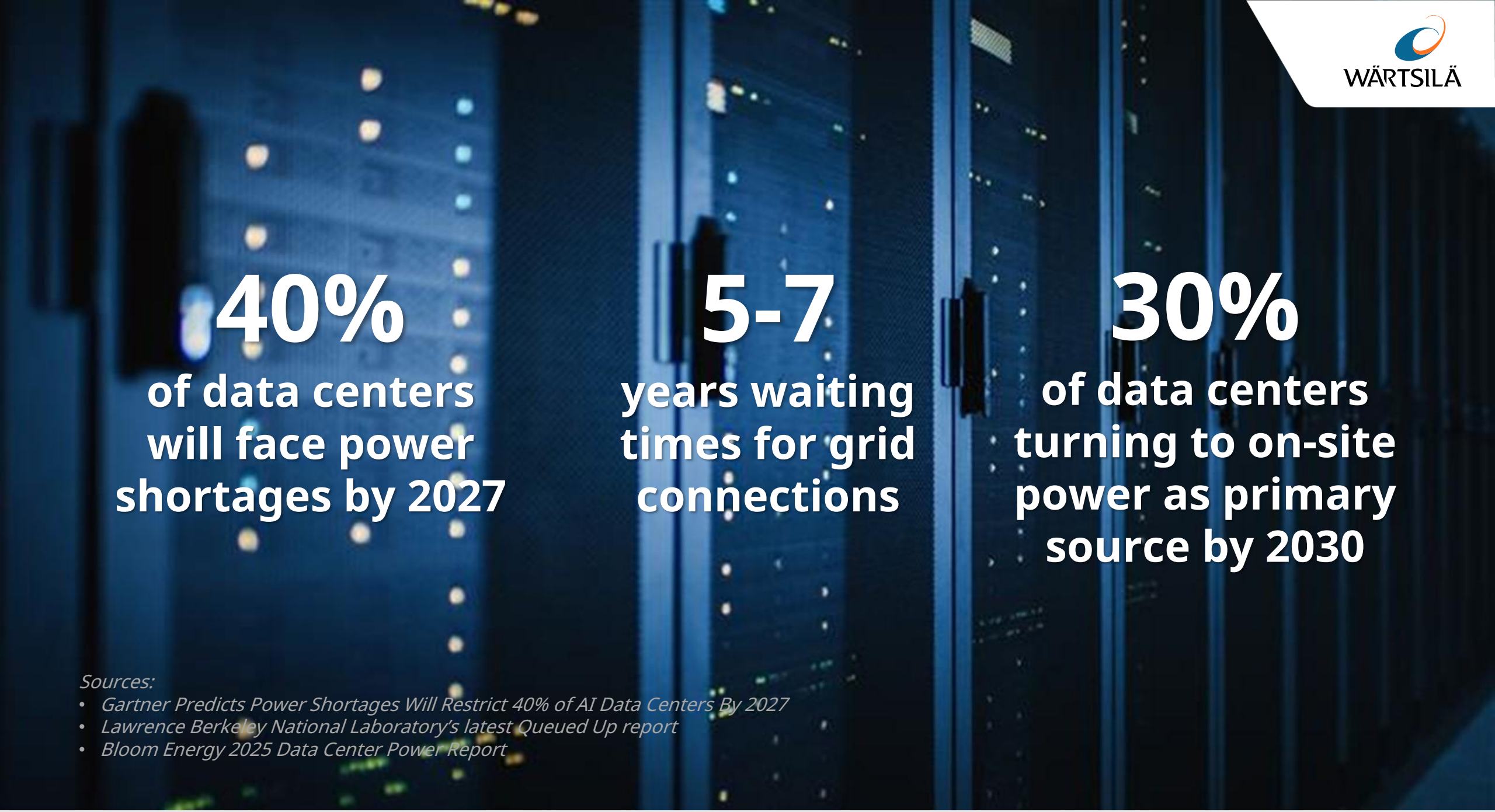
Our offering More than an equipment, services and software supplier, we are both an advisor & partner to your decarbonized power system development.

How we do it Along with our market leading flexible technologies and expertise, we leverage our power system's modelling capabilities to design the cost-optimal and technically feasible solution which will be implemented with GEMS.



Decarbonisation Services Agreement includes Level 2 – 5, equipment can be offered as part of Wärtsilä's broader offering

1. EMS – energy management software



40%

of data centers will face power shortages by 2027

5-7

years waiting times for grid connections

30%

of data centers turning to on-site power as primary source by 2030

Sources:

- *Gartner Predicts Power Shortages Will Restrict 40% of AI Data Centers By 2027*
- *Lawrence Berkeley National Laboratory's latest Queued Up report*
- *Bloom Energy 2025 Data Center Power Report*

The Data Centre power market is shifting, with new thermal baseload opportunities in specific markets

Historical: backup power

20-100 MW

typical power need

Grid interconnections immediately available

- Customer focus: CAPEX and power availability
- Segment typically served by high-speed engines and energy storage
- High risk in case of strict availability guarantees (99.999…%)
- Limited lifecycle service opportunity

Emerging: off-grid demand

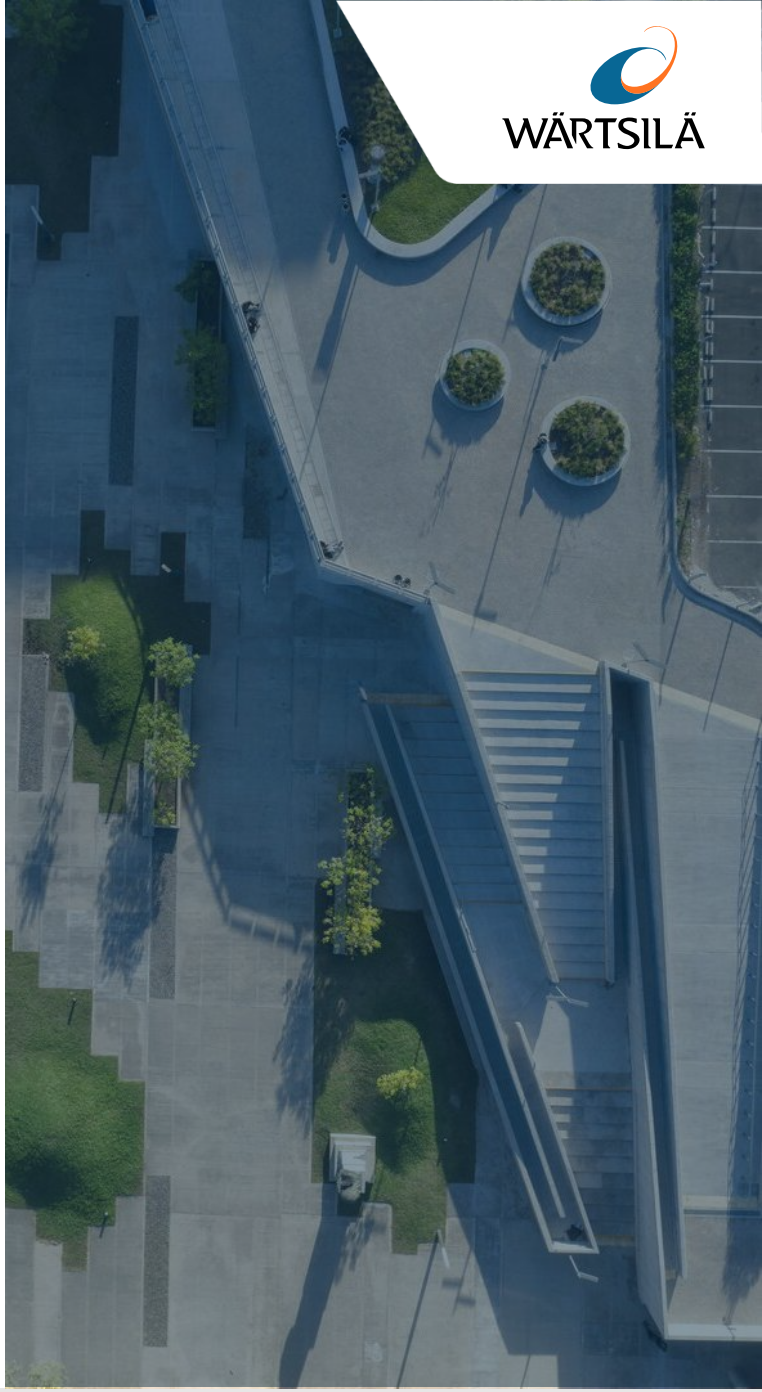
in addition to the increase in grid-connected Data Centre power demand

50-500 MW

typical power need

Grid interconnection times up to 5-7 years in some markets

- Customer focus: delivery time, modularity, OPEX, emissions
- Typically requires medium-speed engines or gas turbines as part of a wider portfolio of assets
- High lifecycle sales potential



170 MW data center power for Ireland

Wärtsilä are commissioning two on-site power generation projects for Data Centers in Ireland with commercial operations starting during 2026.

One of the power plants has 11 and the other 6 engines totaling 170 MW. Both projects rely on Wärtsilä 20V34DF dual fuel engines.

The projects are among the first for the European off-grid data center sector.

282 MW data center power for Ohio, USA

In July 2025 Wärtsilä announced that it will supply 282 MW to operate a new data center project in Ohio, USA.

The onsite power facility, providing power directly to the data center, will operate with fifteen Wärtsilä 18V50SG engines running on natural gas.

With this project, Wärtsilä will exceed 6 000 MW of total delivered capacity in the United States.

507 MW data center power for the U.S.

In November 2025, Wärtsilä announced a 507 MW order to supply 27 Wärtsilä 50SG engines for a new U.S. data center.

The onsite natural-gas power plant will provide continuous primary power and can later run on sustainable fuels.

This project strengthens Wärtsilä's growing role in delivering reliable off-grid power for the U.S. data center sector.

429 MW power plant for U.S. data center demand

In January 2026, Wärtsilä was selected to supply 24 Wärtsilä 50SG engines for a U.S. power plant supporting a major data center development.

The plant will provide fast-responding, flexible capacity to meet rising electricity demand from data center expansion.

Commercial operations are expected to begin in late 2028 and early 2029.


WÄRTSILÄ