Power supply for data centres

A significant growth opportunity in new build and service

February 12, 2026

Agenda

1 **Market development**

The past and present of the market, the structure of the industry, and growth

2 **Technology**

The importance of the right technology in the market for data centre power

3 **Competitiveness**

How Wärtsilä's Engine Power Plant solutions compare to the competition

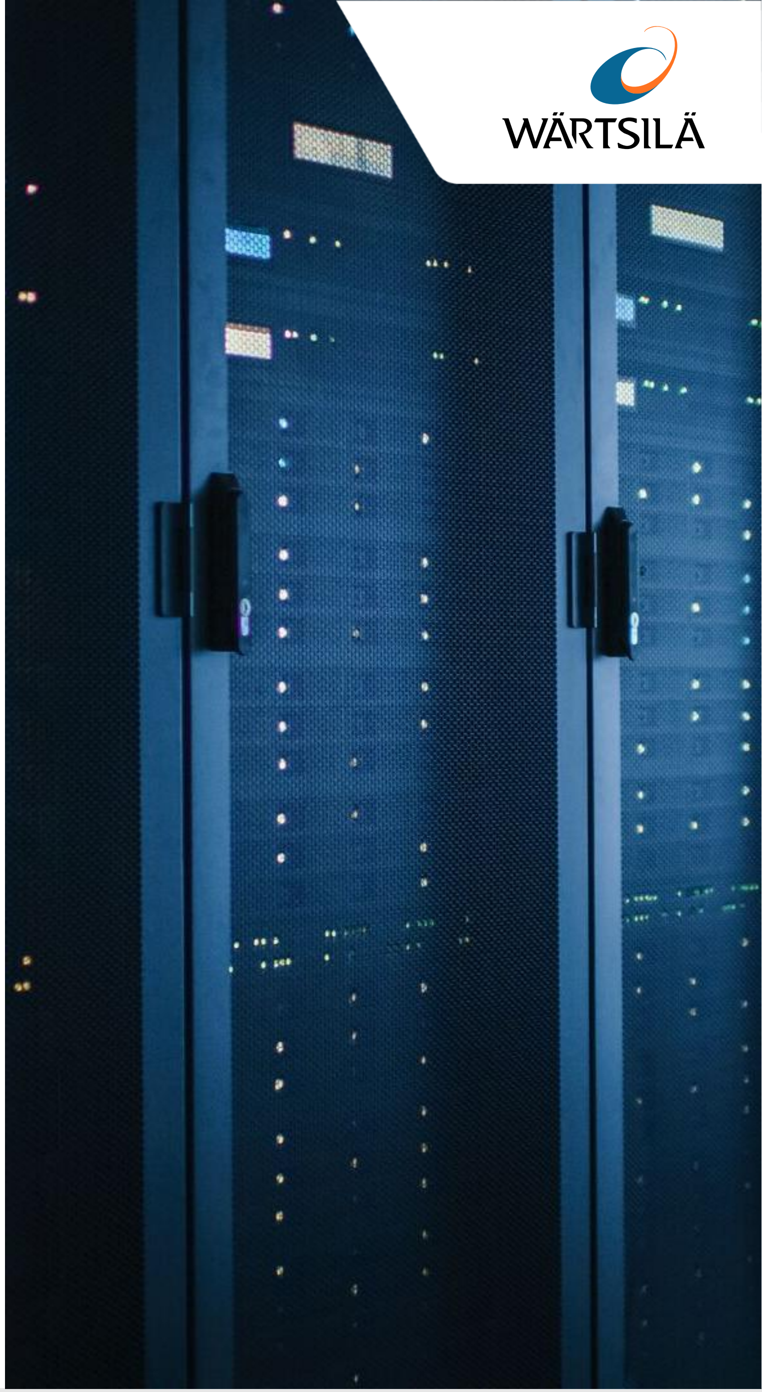
4 **Q&A**

Håkan Agnevall
President & CEO,
Wärtsilä Corporation

Anders Lindberg
President,
Wärtsilä Energy

Data centre market development

Wärtsilä is a rapidly emerging player in the market for data centre primary power



- Until recently, data centres required **tens of MWs** for data storage applications, were grid connected, and used backup power with high-speed engines to mitigate power cuts. Wärtsilä engines were **not the right solution** for this application

- The new data centres for AI applications require **hundreds of MWs**, often in the form of off-grid baseload power supply with high uptime and reliability. This application is **very well suited to Wärtsilä's technical strengths and shorter delivery times**

- Wärtsilä's engine solutions are **energy efficient and modular**, do not derate in hot climates, and require **virtually zero water**

- Engines have superior capabilities to operate in tandem with renewables, providing **balancing power for a robust power supply**. This, combined with Wärtsilä's **sustainable fuel development**, supports data centre customers in their emissions commitments

- **Wärtsilä had a breakthrough in the US data centre market in 2025,** and two orders were booked with a **total capacity of 789 MW**. In the **beginning of 2026**, Wärtsilä booked an additional **429 MW** order from a utility for a plant serving a data centre

The data centre market is shifting towards stand-alone baseload power, driven by long grid connection times and increased power needs

Historical: grid-connected

- *Data centres mainly focused on data storage*

20-100 MW

- Typical power supply: grid connection and high-speed engine backup
- Customer focus: power availability, CAPEX

Now and future: off-grid

- *Data centres growing in size, accelerated by AI requiring computing power*
- *Grid interconnection lead time increasing; 5-7 years in many markets*
- *Off-grid power solutions growing in importance*

<50 MW | **50-400 MW** | **>400 MW**

Wärtsilä's sweet spot

- Typical power supply: medium-speed engines or gas turbines
- Customer focus: delivery time, modularity, OPEX, emissions, water consumption

Larger projects can also be in Wärtsilä's sweet spot, as they are often built in phases (e.g. 200 MW at a time) and developers are increasingly using a mixture of technologies.

>400 MW

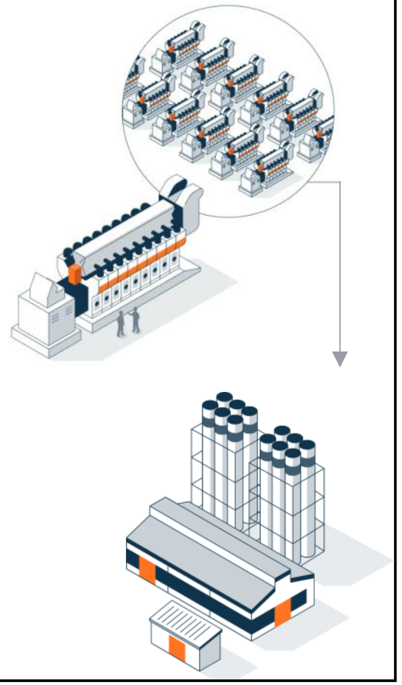
- Typical power supply: heavy-duty gas turbines (OCGT/CCGT)
- Customer focus: delivery time, OPEX, emissions

MW: Megawatt **AI:** Artificial Intelligence **DC:** Data centre **CAPEX:** Capital expenditure **OPEX:** Operating expenditure **OCGT:** Open-cycle gas turbine **CCGT:** Combined-cycle gas turbine

The ongoing data centre buildout generates demand both in traditional customer segments and with new types of customers

Wärtsilä

Equipment and Services



Developers and utilities

Existing Wärtsilä customer segments

Utilities
Investing in additional capacity to address data centre buildout

IPPs and Industrial developers
Developing and providing power to data centre clients

New high growth customer segment

Data centre-focused developers
Specialised in data centre power to drive the ongoing AI data centre buildout

Operators and end users

Hyperscalers and colocation data centres

Building or leasing the facility and operating the data centres and AI factories

IPPs: Independent power producers

Wärtsilä data centre solutions meet customer demand for quick access to power while offering flexibility for the future

WÄRTSILÄ

Step 1

Wärtsilä engines provide dedicated baseload power to meet data centre demand while the grid catches up.

Step 2

After grid connection, customers can run a hybrid setup, both serving the data centre and selling to the grid.

Step 3

When renewables come to the system, the plant can move to a pure balancing model, maximising customer revenue. Engines have superior balancing capabilities.

Wärtsilä's sweet spot in the data centre segment is off-grid baseload power plants in the 50-400 MW range with high lifecycle value opportunities

United States

- **The US market is developing rapidly,** and on-site power is needed as grid connection often takes years
- **Key customer segments** are data centre developers and IPPs
- **Targeted applications** include off-grid and behind-the-meter* data centres
- In **2025**, Wärtsilä sold **789 MW** of flexible engines to data centres in the US
- In the **beginning of 2026,** Wärtsilä booked a **429 MW** order from a utility for a plant serving a data centre

Europe

- **The partnership model with AVK** in Europe has offered operational efficiency with lower risk in this emerging market
- **Wärtsilä's scope** is to provide the engineered equipment and maintenance support
- **Three energy centre projects** are under execution in **Ireland**, with further cases in the pipeline
- In addition to Ireland, **Spain, Germany, and the UK** offer new growth opportunities

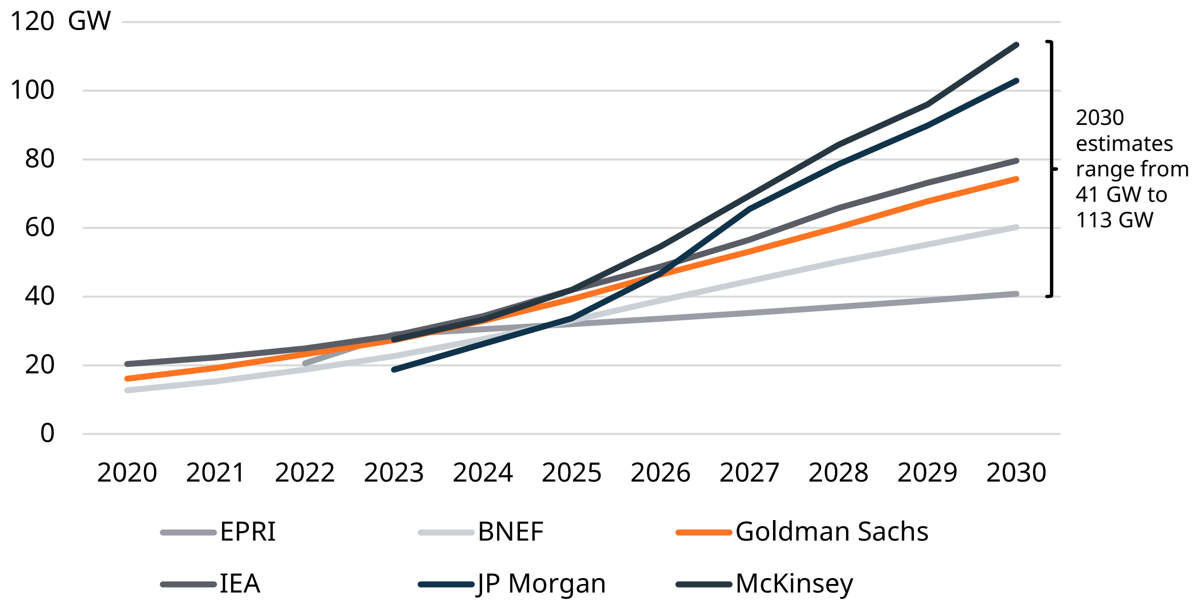
Middle East & Asia

- **Demand is growing** in data centre hot spots, raising concerns about future grid sufficiency
- The **key focus is on emerging off-grid opportunities** in countries where data centre demand is outpacing grid capacity
- There are **mid- to long-term growth opportunities** in Japan, Malaysia, Indonesia, and Australia

Behind the meter: On-site power generation on the customer's side of the meter

There is a broad span of estimates of growth in power for data centres. Off-grid solutions will be an important market segment

US DC power demand growth to 2030 (estimates)

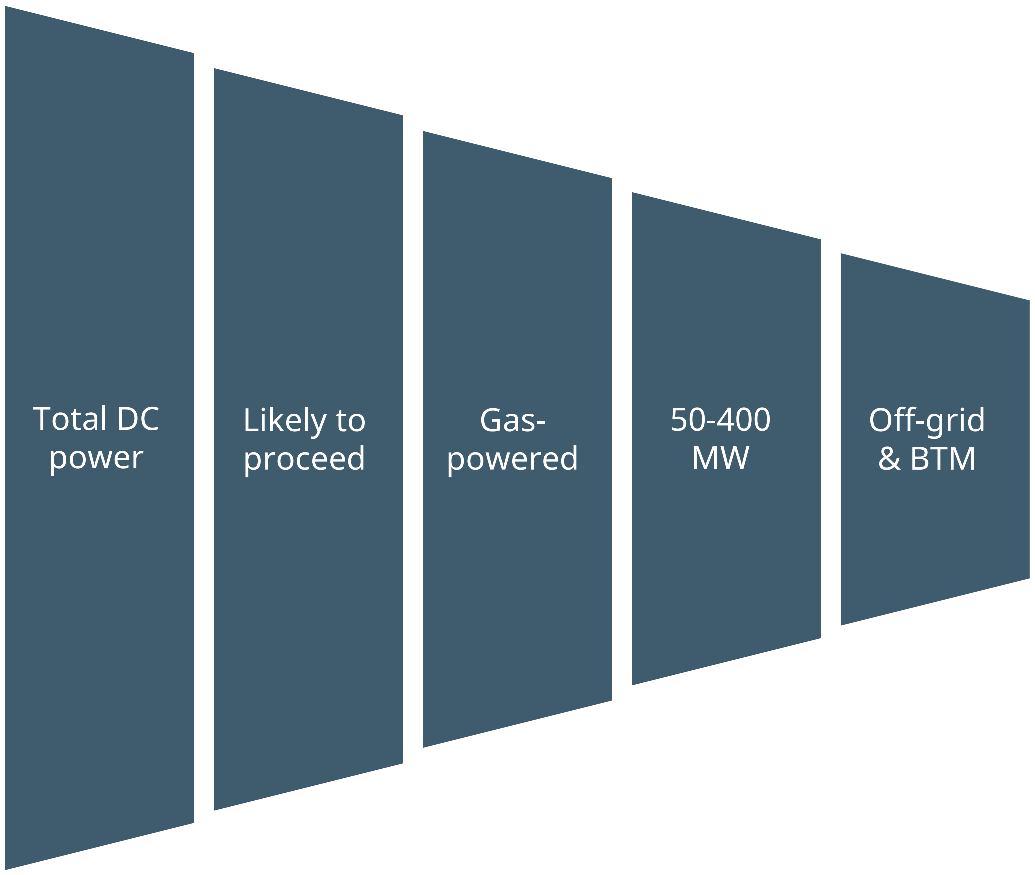


"Long-term growth will be driven by Corporate AI. This journey is only at the very beginning."

- Data centre power customer

Source: BNEF Global Data Centre Power Demand Outlook, Wärtsilä calculations

Wärtsilä's addressable market visualised



BTM: Behind-the-meter

Wärtsilä has a growing pipeline of data centre opportunities with attractive lifecycle margins

High activity within the off-grid data centre segment, with a continuously increasing pipeline

Data centre customers highly value speed to power, in a market that is short on equipment supply

Wärtsilä's revenue recognition is connected to deliveries, with related service business revenue picking up in 2030 and beyond

Technology comparison

Wärtsilä Engine Power Plants offer an optimal combination of technical attributes to power DCs

Full-load efficiency	Part-load efficiency	Unlimited stops/starts
Modular design	Heat tolerance	Altitude tolerance
Low CO2 emissions	Low gas pressure	Minimal water use

In the 50-400 MW sweet spot, Wärtsilä excels in thermal and capacity efficiency, its modular, flexible design, and robust performance in any operating environment

WÄRTSILÄ

300 MW off-grid data centre, Texas

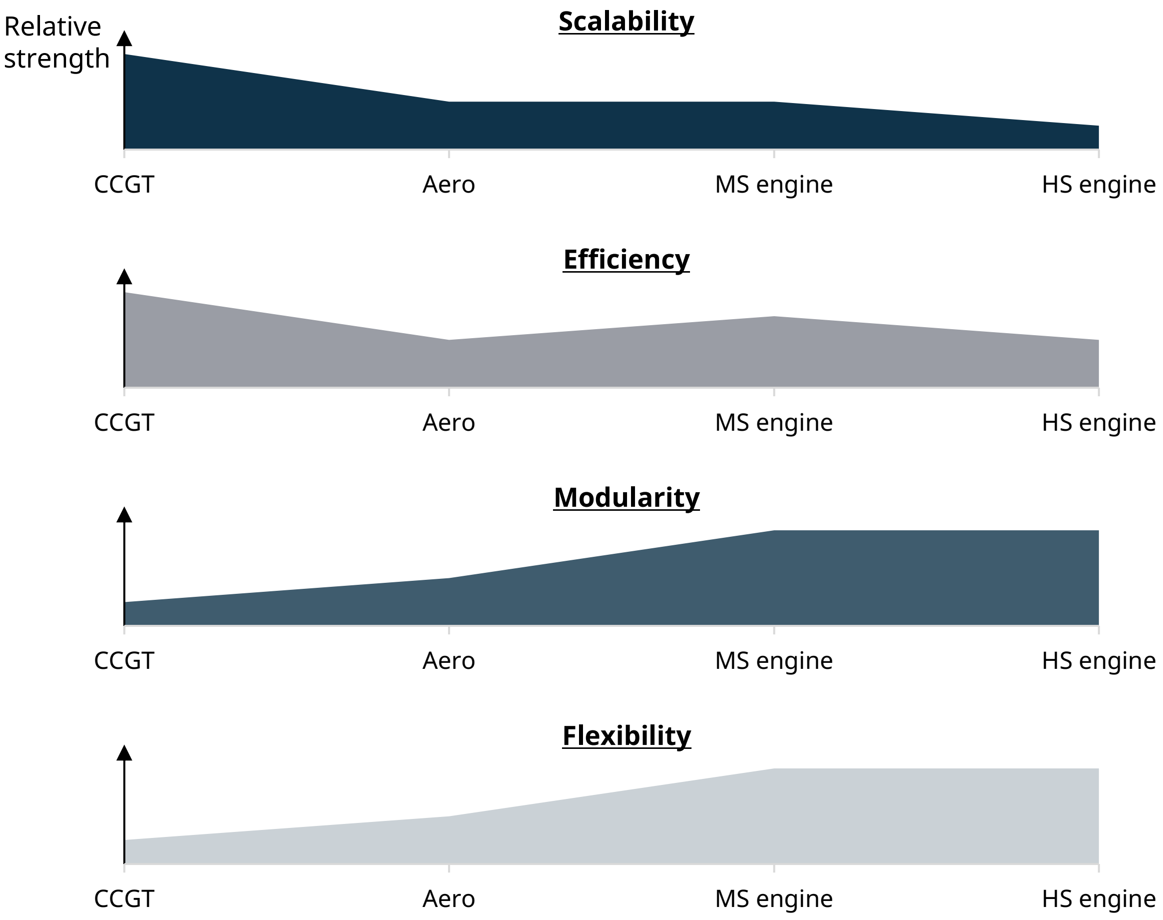
	Efficiency	Ramp-up to full load	Unlimited stops/starts	Modular design	Heat tolerance	Altitude tolerance	CO2 emissions	Gas pressure	Water use
High-speed engine	40%	<2 min	🟢	🟢	🟢	🟢	🔴	🟢	🟢
Medium-speed engine	50%	<2 min	🟢	🟢	🟢	🟢	🟡	🟢	🟢
Aeroderivative gas turbine	40%	<10 min	🟡	🟡	🔴	🔴	🔴	🔴	🟡
Combined-cycle gas turbine	55%	>30 min	🔴	🔴	🟡	🟡	🟢	🟡	🔴

Source: Wärtsilä calculations for a 300 MW data centre in Texas, US from internal and external sources. Ramp-up time is from minimum stable load to full load.

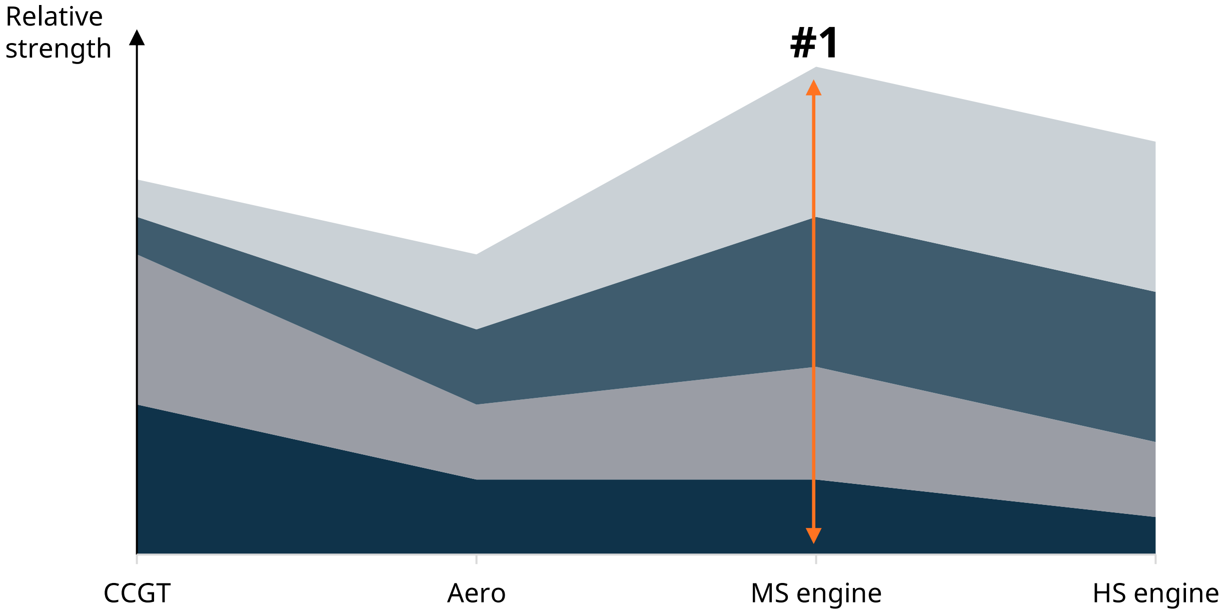
CO2: Carbon dioxide

Technology choice in the market for data centre primary power is driven by the best combination of key attributes

Trade-offs between key attributes in the 50-400 MW sweet spot



Medium-speed engines win in a holistic evaluation



In addition, medium-speed engines perform well on secondary attributes such as:

- Ultra-low water use
- Low CO2 emissions
- Heat tolerance
- Altitude
- Low gas pressure

Source: Wärtsilä calculations

Wärtsilä competitiveness

Wärtsilä engines can meet data centre reserve requirements without the need for costly additional capacity

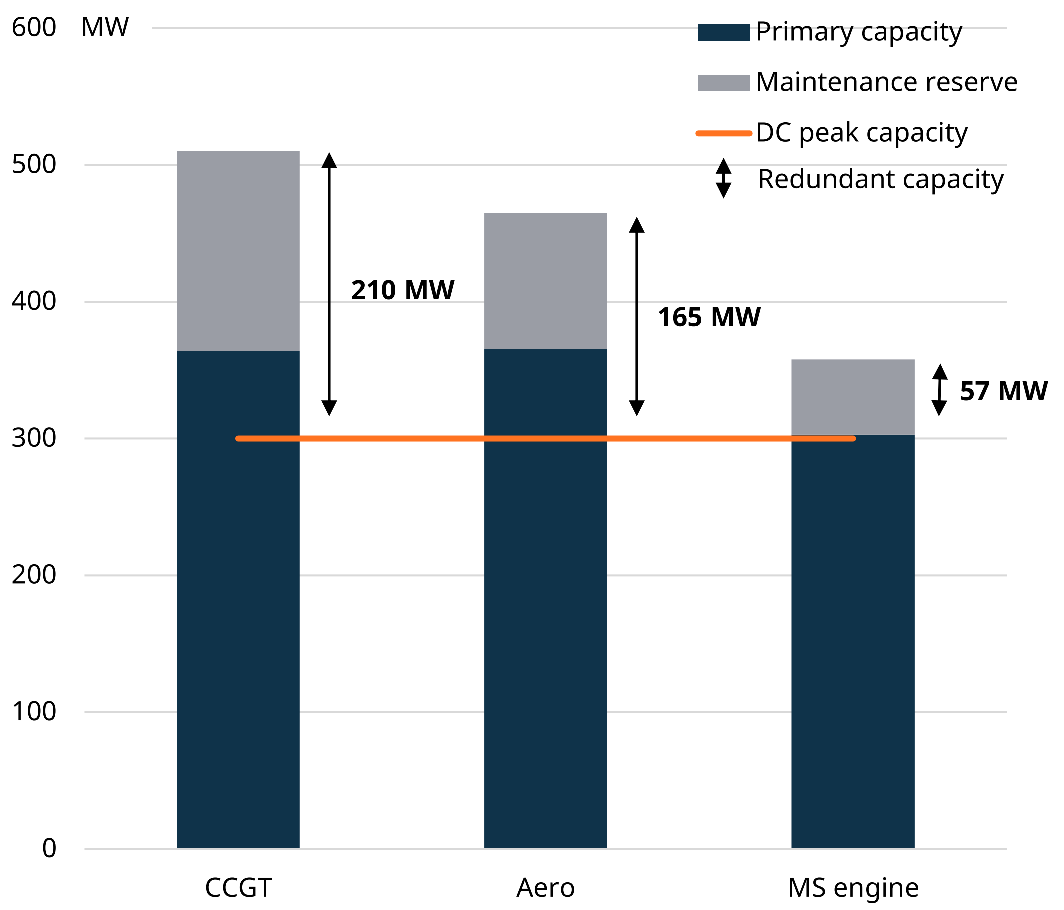
Higher reserve requirements reduce turbine competitiveness

- Increased reserve requirements for off-grid data centres make gas turbines less competitive due to higher CAPEX
  - **Example:** 300 MW off-grid DC equipped with 5 × 72.8 MW CCGT units (364 MW), or 11 × 33.2 MW Aero units (365 MW), where the prime power solution must meet 99.9% uptime and availability requirements
  - To reach **300 MW** with these uptime and availability requirements, you need the following installed capacity:

W34 engine	**358 MW**
Aero	**465 MW**
CCGT	**510 MW**

- Engine startup times are a major advantage, and have a significant impact on the needed scale of backup and reserve solutions
- Gas turbines may in some cases need a backup power plant, which is not needed for a Wärtsilä solution

Case example: 300 MW off-grid data centre, Texas



Note: Combinations of different generating technologies (e.g. CCGT + engines) are possible

*Calculations for 358 MW: (33 x 9.2 MW + 6 x 9.2 MW) , W34SG engine

Source: Wärtsilä calculations from internal and external sources

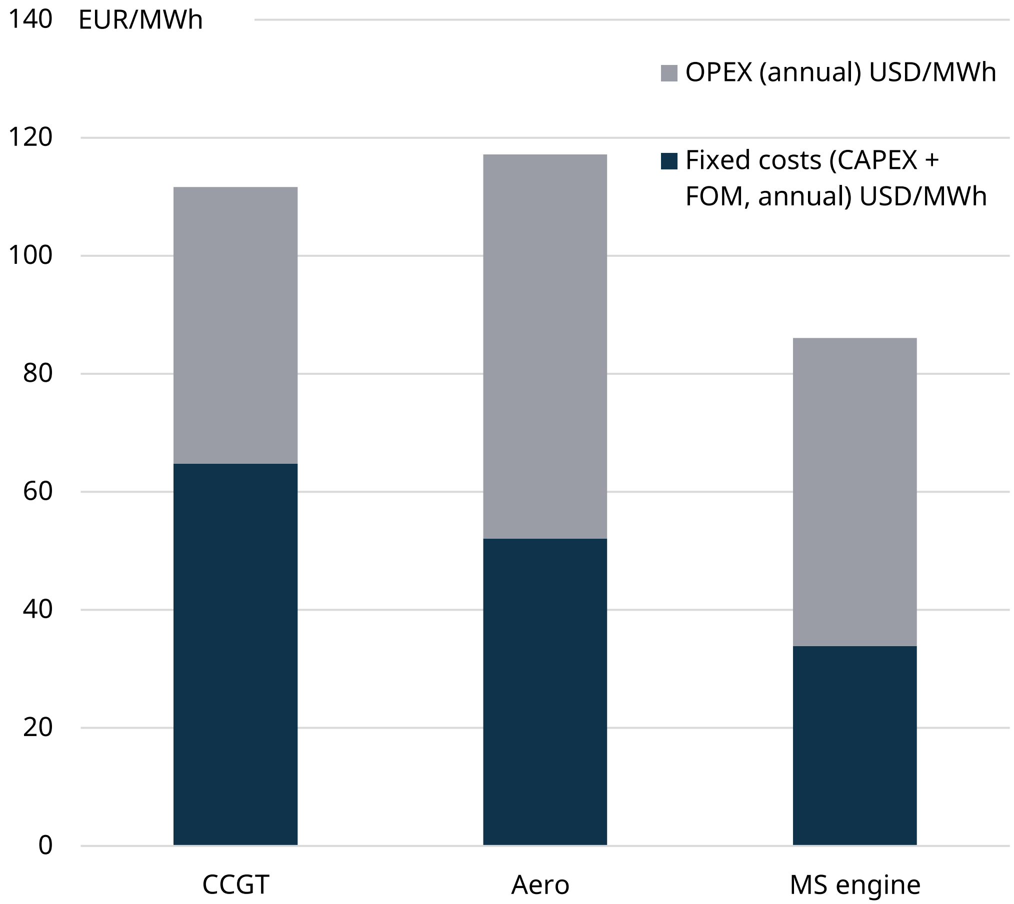
Assumptions: SGT-800 (CCGT), LM2500 (Aero) vs. W34SG (engine)

An engine-based solution is more cost-effective due to better modularity and smaller capacity sizing

Higher fuel efficiency does not guarantee the lowest cost

- The additional reserve capacity significantly increases CAPEX for the CCGT and Aero options
- While a CCGT may have better fuel efficiency, an engine-based solution has a much lower LCOE due to significant CAPEX savings
- Assuming a 4.3 USD/MMBtu fuel price, a CCGT plant would have approximately 30% higher LCOE than an engine power plant
- Even if the fuel price doubled to 8.6 USD/MMBtu, a CCGT plant would have around 16% higher LCOE than an engine power plant
- Over a 20-year project lifetime, CCGTs remain more expensive than engines despite lower running costs, while Aeros spend about 265 MUSD more on fuel

Case example: 300 MW off-grid data centre, Texas



Note: BESS included in both cases

LCOE: Levelised cost of energy **FOM:** fixed operational and maintenance expenses **BESS:** Battery energy storage system

Source: Wärtsilä calculations from internal and external sources

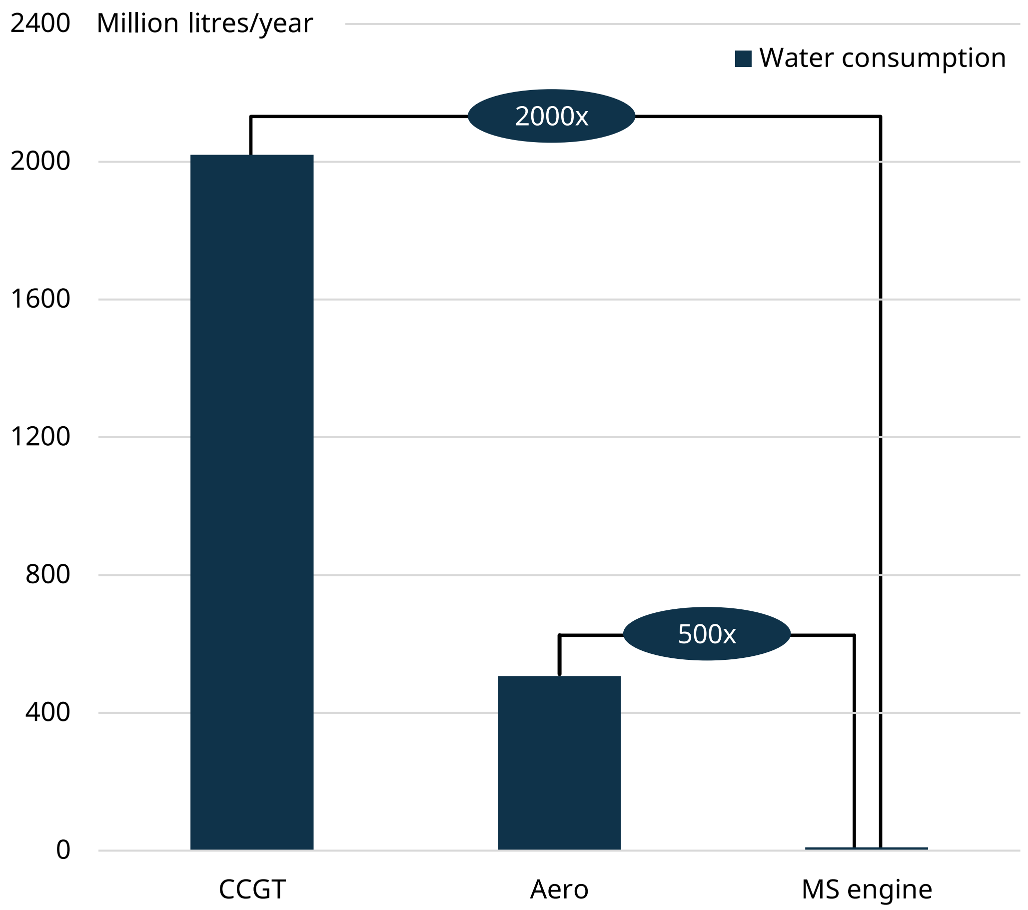
Assumptions: SGT-800 (CCGT), LM2500 (Aero) vs. W34SG (engine), gas price 4.3 USD/MMBtu, 20-year project life

Wärtsilä's engine technology consumes up to 2000 times less water than comparable gas turbines

Low water consumption from power generation

- Medium-speed engines require less cooling than gas turbines due to thermodynamic and mechanical differences and higher efficiency
- Engines have a closed-loop cooling system that only requires the occasional top-up
- Engines are an inherently water-efficient solution, with negligible water consumption compared to gas turbines
  - **Example:** 300 MW off-grid DC equipped with a Wärtsilä engine solution consumes a negligible amount of water every year
  - To meet cooling and power augmentation needs, the CCGT and Aero options require 2000 and 500 times more water per year, respectively
- The ultra-low water footprint of reciprocating engines is a major advantage in an era of growing water scarcity and rising scrutiny of industrial water use

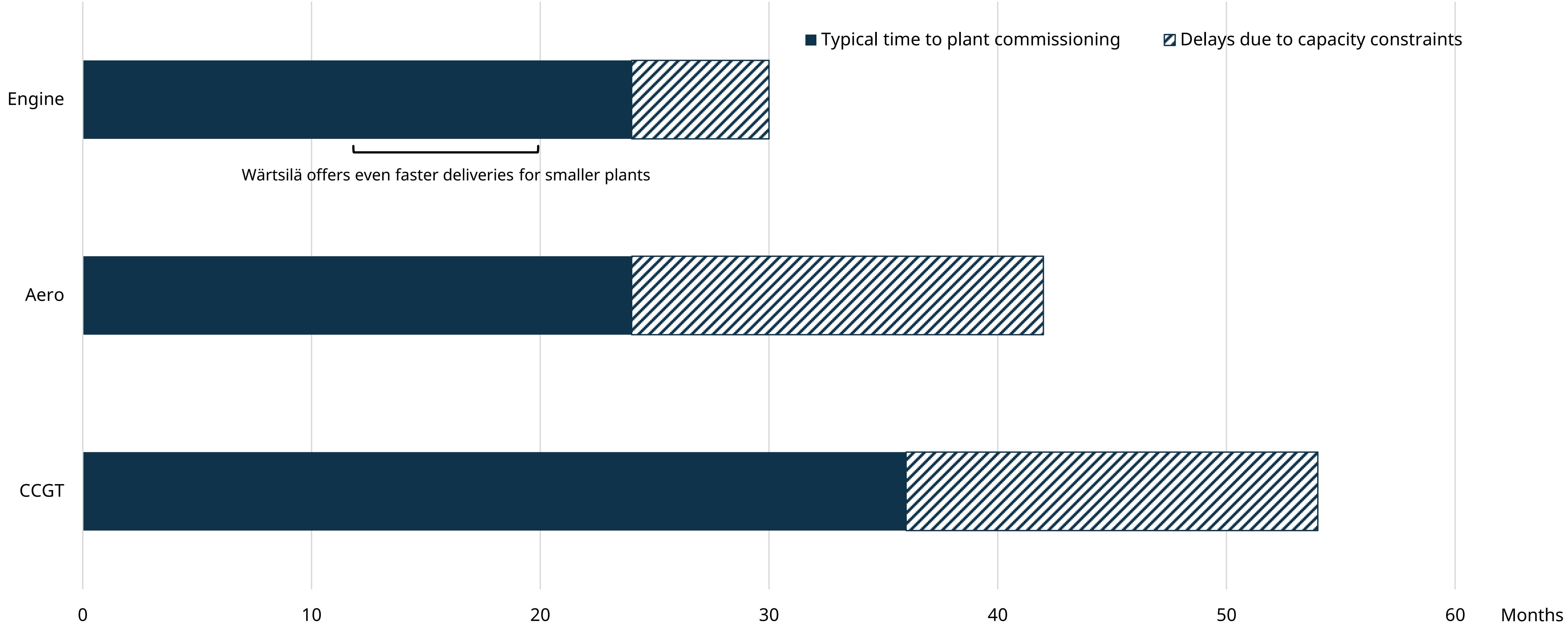
Case example: 300 MW off-grid data centre, Texas



Source: Wärtsilä calculations from internal and external sources

Assumptions: SGT-800 (CCGT), LM2500 (Aero) vs. W34SG (engine)

Wärtsilä offers faster delivery and construction times than the competition



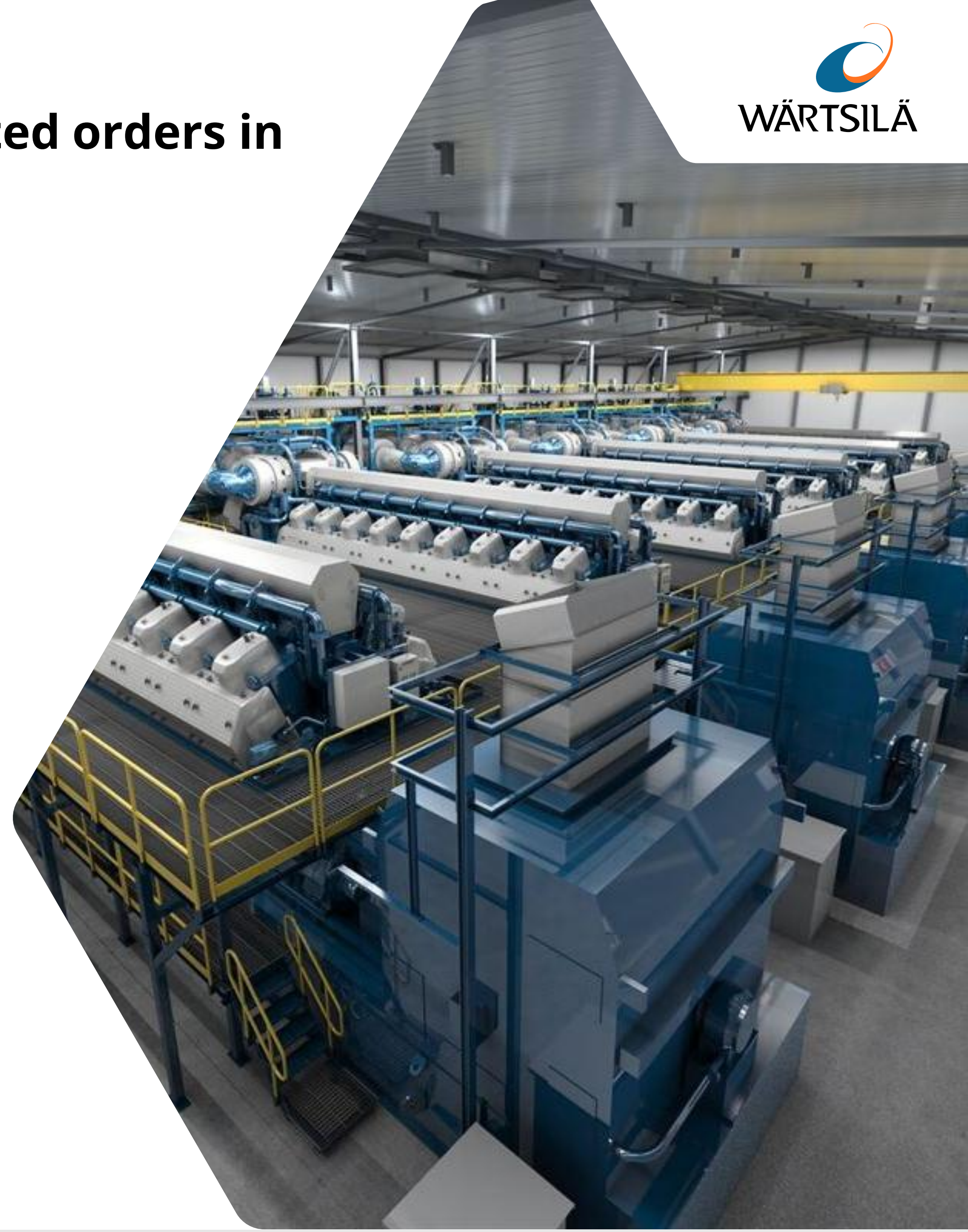
Source: McCoy Power Reports (averages), competitor disclosures, Wärtsilä calculations. Assumes total plant capacity of 300-400 MW.

Off-grid engine power plants benefit from Wärtsilä's strong service offering and global network

- **Wärtsilä's strong end-to-end solution portfolio and global service operations** offer data centre developers a competitive advantage by providing expertise and peace of mind in operations
- Wärtsilä’s broad service offering includes **parts** agreements, full **operation and maintenance** agreements, and **performance and outcome-based** agreements, delivered through a strong global service network
- **Data centre customer key focus areas are reliability and security**, which are delivered through optimised service agreements and on-site support, contributing to climbing the services value ladder
- **Off-grid power plant operations yield high running hours** to provide prime baseload power for data centres and strong service potential

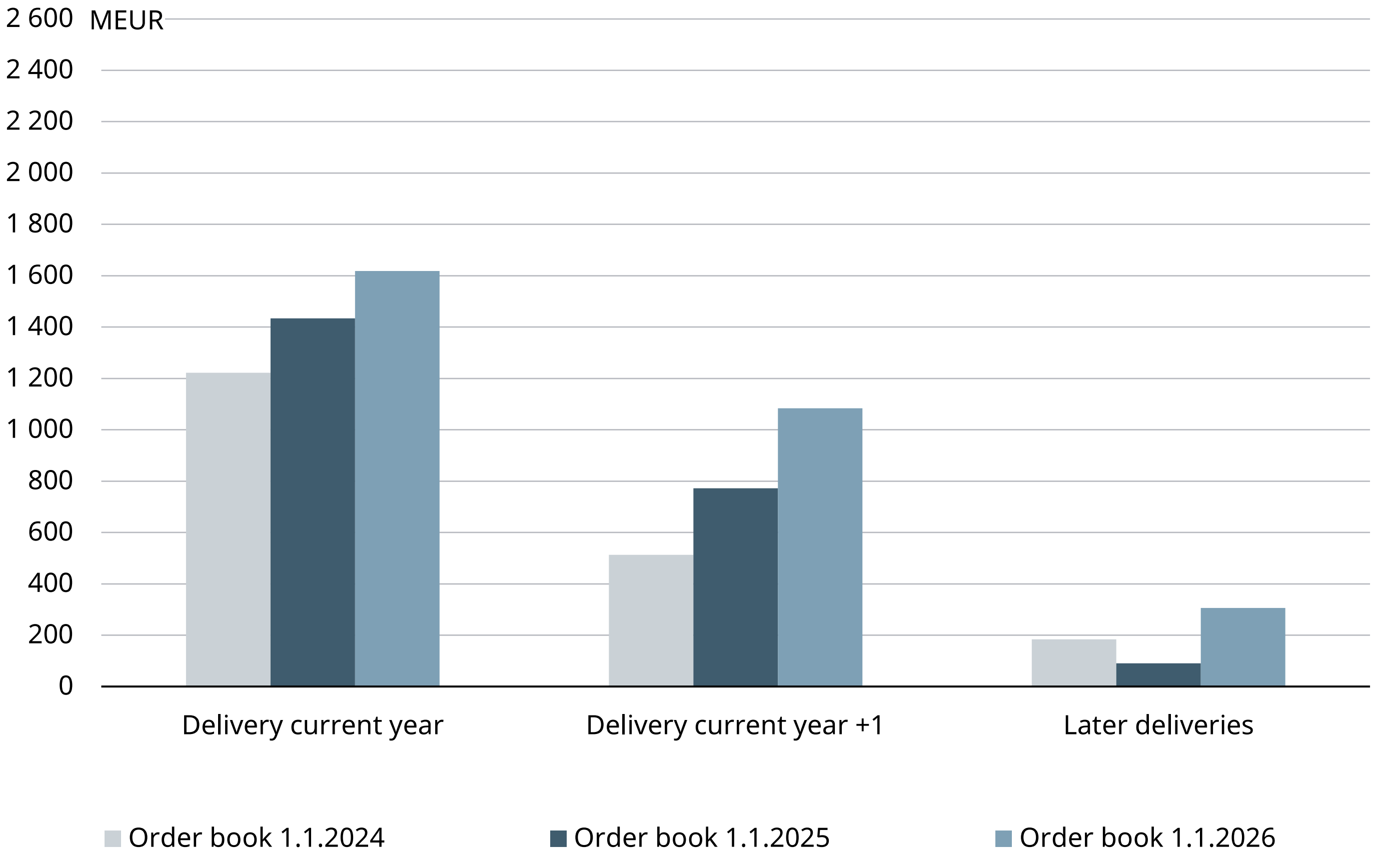
Wärtsilä has recently booked three data centre-related orders in the United States with a total capacity of 1.2 GW

- Wärtsilä was awarded two orders to provide continuous primary power to data centres under construction in the United States, for a total capacity of 789 MW
- The two orders include 42 Wärtsilä 50SG flexible engines which will run on natural gas and can be converted to run on sustainable fuels in the future
- The orders were booked by Wärtsilä in Q2 and Q4/2025, and engines will be delivered in phases, starting in late 2026 and continuing into 2027
- These orders were followed in the beginning of 2026 by an order to supply engines for an American power plant owned and operated by an investor-owned utility
- This order was for 24 Wärtsilä 50SG engines delivering an output of 429 MW for a power plant located in the United States, serving a data centre



The existing order book will generate sales that are distributed further into the future

Distribution in time of the existing Energy backlog, MEUR



Source: Wärtsilä Q4/2025 interim report

Wärtsilä is taking orders with deliveries further into the future

- **Incoming orders will deliver a higher share of EEQ with revenue recognition connected to milestone events rather than EPC with Percentage of Completion revenue recognition**
- **US data centre deliveries will begin towards the end of 2026, with revenue recognition connected to deliveries and the related service business expected to pick up in 2030 and beyond**

Wärtsilä will further expand its industrial capacity in Finland by 35% to meet a global increase in demand

- Wärtsilä will invest approximately 140 MEUR to further expand its production capacity by 35% at Sustainable Technology Hub (STH) in Vaasa, Finland and the associated global supply chain
- This expansion will increase Wärtsilä’s industrial capacity and strengthen the capacity of the associated global supply chain, positioning Wärtsilä to meet growing market demand in energy and marine
- The expanded capacity will enable Wärtsilä to deliver a higher volume of engines, and better support customer needs and continued business growth long-term
- The new production capacity will be installed within the STH facility expansion announced in April 2025 and is expected to be commissioned in Q1/2028

Wärtsilä is well positioned to grow across multiple customer segments in both balancing and baseload

Balancing | **Baseload**

Industrials
Captive generation for industry, including mining, manufacturing, and data centres

Utilities
Public- and investor-owned utilities providing electricity to customers

Independent power producers (IPPs)
Private entities generating electricity for sale to utilities or other end users

Wärtsilä focus:

Maximising customer value with profitable growth in both new build and service in a highly dynamic market for thermal power

Power for data centres is a significant growth opportunity in new build and service

Growth through the new, rapidly expanding off-grid power segment

Strong demand in existing grid markets due to load growth

Baseload power and high-value service potential

WÄRTSILÄ