

Company Presentation

February 2024





A successful energy transition requires balancing
**affordability, reliability,
and sustainability.**

Siemens Energy is a
**global leader in the
energy business**

~ 1/6

of global electricity generation
is based on our technology.

97,000

employees work as a team
to energize society.¹

We are present in

> 90 countries.

We invest around

€1bn annually in
research and development.

¹ Number of employees as of December 31, 2023
February 2024





We energize societies across the globe

based on

01

Decarbonization through Technology

We have the technologies to support our customers in transitioning to a more sustainable world.

02

People with Responsibility

We have the people that turn ideas into reality to provide reliable, affordable and sustainable energy.

03

Partnerships for Innovation

Together with our partners we are developing innovations of the future.

04

Profitability as a Foundation

Profitability is a prerequisite of a successful and sustainable company. We focus on performance.

01

Decarbonization through Technology

**We cannot wait for the perfect solution:
We have technologies to shape the energy
transition now.**

As an integrated energy technology company

we support our customers along the energy value chain



Low- or zero-emission power generation

- > Gas Services
- > Siemens Gamesa



Transport and storage of energy

- > Grid Technologies



Reducing GHG emissions and energy consumption in industrial processes

- > Transformation of Industry



> Gas Services

Low- or zero-emission power generation through service and decarbonization

In 2021, CO₂ emissions from electricity and heat production reached an all-time high of more than **14 gigatons**. If every coal-fired power plant were to switch to natural gas, CO₂ emissions could be cut **in half**.

Our offerings

- Low- or zero-emission power generation
 - All gas turbines under one roof: from 4 MW to 600 MW; steam turbines from 90 to 1,900 MW and generators from 25 to 1,300 MVA.
 - Highly efficient and low-emission gas turbines with higher ramp-rates enable compensation of fluctuating renewables.
 - Clean fuel burning capabilities for low to zero emissions and leading hydrogen co-firing capabilities: Up to 75% hydrogen co-firing capability today and 100% by 2030.
 - Decarbonization opportunities through service offerings, modernization and digitalization of the fleet.
- Electrification of heat generation with proven high- and low-temperature heat pumps for up to 150°C and 70 MWth to decarbonize the heating sector.

[Visit the website](#)

› Gas Services in action

Ramping up when renewables take a break

Charlotte

North Carolina, U.S.

- The gas-fired Lincoln Combustion Turbine Station, built for energy provider Duke Energy, ensures a stable supply of electricity when power from solar generation is not available.
- The installed heavy-duty HL-class gas turbine can reach full capacity within minutes. Innovative simulation was used in its design and material development to account for the extreme stresses caused by quick starts and to ensure durability.
- Its high performance earned two GUINNESS WORLD RECORDS™ titles, for the most powerful simple-cycle gas power plant and for the world's fastest ramp-up rate by a 60Hz gas turbine power plant.
- Combining sensor data with Artificial Intelligence during testing helped to optimize design and maintenance, and enabled condition and dispatch simulations, resulting in reliable, efficient, and flexible power for the future.

Learn more

February 2024





> Siemens Gamesa

Clean energy for generations to come

Wind energy will provide up to **20%** of the world's electricity **by 2030**.¹

Our offerings

- Leading supplier of wind turbine technology and service solutions for onshore and offshore wind.
- Versatile product portfolio, covering a wide range of customer requirements and wind conditions. Output: Up to 15 MW offshore and 7 MW onshore.
- With an installed capacity of 137 GW, Siemens Gamesa wind turbines generate enough clean energy to power 126 million households.
- Service provided for more than 84 GW of installed capacity – on site or through digital and remote solutions.

¹ Source: Global Wind Energy Council

[Visit the website](#)

› Siemens Gamesa in action

The world's first recyclable wind turbine blade

Aalborg

Denmark

- RecyclableBlade is the world's first recyclable blade ready for commercial use offshore and onshore.
- Together with its partner Aditya Birla Advanced Materials, Siemens Gamesa has developed a novel recyclable epoxy resin system that makes it possible to efficiently separate the resin from the other components at the end of the blade's working life. This allows the materials to be recycled for new applications.
- At RWE's Kaskasi offshore wind power project in Germany, the first RecyclableBlades were installed in July 2021 and are now delivering green energy.

👉 [Learn more](#)

February 2024





> Grid Technologies

Enabling a reliable, sustainable and digital grid

The rising share of renewables, growing energy demand, ageing infrastructure and increasing complexity require new connections but also upgrade and renewal of existing grids.

Our offerings

- The power grid is the backbone of the energy transition. Siemens Energy offers a leading portfolio and solutions in HVDC transmission, grid stabilization and storage, high voltage switchgears and transformers, and digital grid technology.
 - High-Voltage Direct Current (HVDC) is a key enabler of the energy transition.
 - With our project expertise and grid technologies know-how we provide holistic solutions for the storage project value chain.
 - CO₂-neutral Blue products for sustainable and greenhouse gas free power grids and eco-friendly fluids like ester.
 - Next generation digital products and solutions through IoT¹-connected grid devices equipped with edge computing, analytics and Artificial Intelligence (AI).
 - Service for power transmission products, systems and solutions.

¹ Internet of Things

[Visit the website](#)

› Grid Technologies in action

Connecting New York's first utility-scale offshore wind farm to the grid

New York State

United States

- First offshore HVDC grid connection project in the U.S., deploying a technology that will reduce transmission losses over long distance.
- Green energy for nearly 600,000 homes in New York State.
- Sunrise Wind will support New York's goal of 100% clean electricity by 2040.
- To date, Siemens Energy has connected the offshore grid to the mainland 21 times, providing more than 12 gigawatts of wind power to households in Europe.

↗ Learn more

February 2024



Decarbonizing the industrial sector

The industrial sector globally accounts for **30%** of emissions and **~38%** of energy consumption.¹ Industry needs to reduce emissions by **5 Gigatons per year**. Increasing electrification and efficiency are key and demand for green H2 and derivative fuels will rise.

Our offerings

- We enable decarbonization of the industrial sector and the transition to sustainable processes, building on a strong industrial customer base, a global network, diverse technologies and integrated execution capabilities.
- Our offerings include:
 - Hydrogen electrolyzers and Power-to-X-solutions – key to H₂ and e-fuel production
 - Integrated EAD² solutions – critical for process optimization and electrification
 - Industrial steam turbines and generators allow more energy efficient operations
 - Turbo and reciprocating compressors – fundamental components for hydrogen transport, storage, and processing
 - Advanced services cover the life-time of assets

¹ Source: IEA

² Electrification, automation, digitalization

› Transformation of Industry in action

Producing green fuel from wind and water

Punta Arenas

Chile

- In December 2022, production started at the first commercial facility to produce climate-neutral fuels.
- Electrolyzers from Siemens Energy will produce CO₂-neutral fuel using low-cost green wind power.
- Production will be increased to more than 550 million liters of e-fuels annually by the middle of the decade.
- Synthetic fuels emit 90% less CO₂ than fossil fuels and can make a key contribution to the decarbonization of transportation.
- In addition to Siemens Energy, Porsche and HIF (project lead), Enel, ExxonMobil, Gasco and ENAP are participating in the Haru Oni project.

↖ Learn more

February 2024



02

People with Responsibility

**Technology alone will not make the difference:
It is our people who put sustainability into action.**

Sustainability

is a business opportunity and a core part of our strategy

Highlights within our Sustainability Program

- **Decarbonization** approach along the entire value chain with good progress against our targets achieved
- In fiscal year 2023, we surpassed our FY25 target of 25% women in top leadership positions (w/o Siemens Gamesa)
- New sustainability focus areas identified in 2023, highlighting the most relevant material topics for Siemens Energy
- **Societal engagement** initiatives continue to focus on driving the energy transition, access to education and sustaining communities.

Sustainability is integrated in business decisions

- Regular **progress review** in Executive Board and Sustainability Council
- ESG component in senior management **long-term incentives**
- ESG criteria for **R&D allocation** and portfolio strategy
- €100 **CO₂ price** in infrastructure investments

↖ Sustainability at Siemens Energy



is underpinned by ambitious targets



Climate-neutral

in own operations by 2030

FY 2023
59% reduction¹



100% green electricity

in own operations by 2023

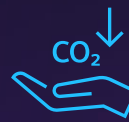
FY 2023
100%



Downstream emissions

28% reduction of emissions from sold products by 2030 as approved by SBTi

FY 2023
27% reduction¹



Upstream emissions

30% reduction of emissions by purchased goods & services by 2030²

FY 2023
19% reduction¹



Gender equality

25% women in top leadership positions³ by 2025 and 30% by 2030

FY 2023
28%³



Zero harm

Total Recordable Injury Rate for employees and contractors⁴

FY 2023
2.67

We honestly disclose progress:

[Our Sustainability Report 2023](#)

Transparency is honored by ESG ratings:



¹ From a 2019 base | ² Includes transportation and distribution | ³ Without Siemens Gamesa | ⁴ Total Recordable Injury Rate: Number of recordable injuries x 1,000,000/work hours performed

Our people are our most important asset

97,000 colleagues working in over 90 countries¹

28% women in top leadership positions²

€80m were invested in continuing education in FY 2023

~2,100 trainees and working students in Germany alone

¹ Status: December 31, 2023

² In our former reporting segment Gas and Power, as of September 30, 2023

[To our job portal](#)



03

Partnerships for Innovation

**We cannot do it alone.
Innovating the energy future is too important
to be left in silos.**





We are driving innovation with our partners

R&D net spending
~ €1.1bn¹

Employees in R&D
4,300¹

Global Innovation Centers

to drive partnerships & co-creation:

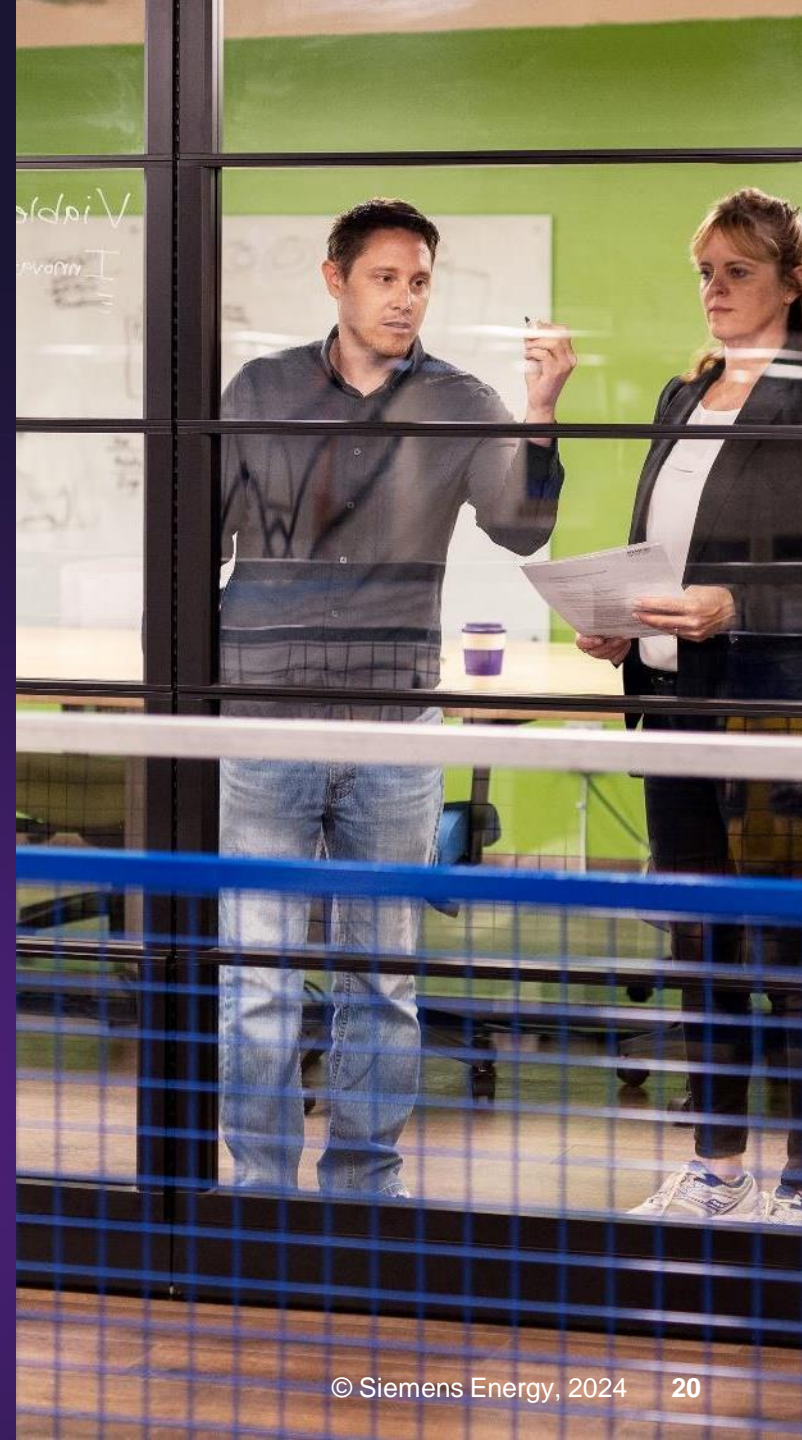
-  Orlando, United States of America
-  Berlin, Germany
-  Abu Dhabi, United Arab Emirates
-  Shenzhen, China

Key R&D partners

10 of the top 25 world-ranked universities²

22 Start-ups through [Siemens Energy Ventures](#) (external/internal)

↖ [Siemens Energy Ventures](#)



¹ FY 2023 | ² QS World University Rankings by Subject 2022: Engineering & Technology

We focus on

Five fields of action to shape the energy world of tomorrow

[Find out more](#)

Decarbonized Heat and Industrial Processes



[Learn more about net-zero heat](#)

Energy Storage



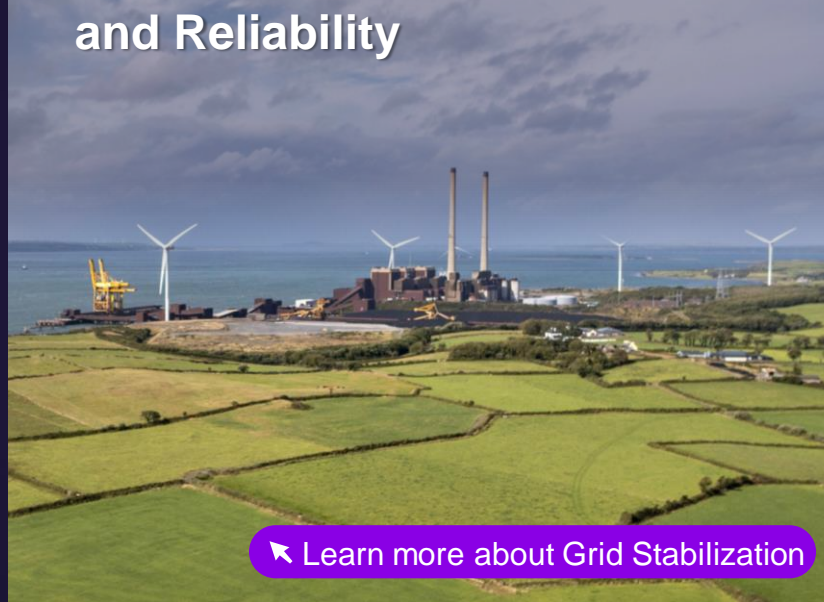
[Learn more about Li-Ion Battery Systems](#)

Power-to-X



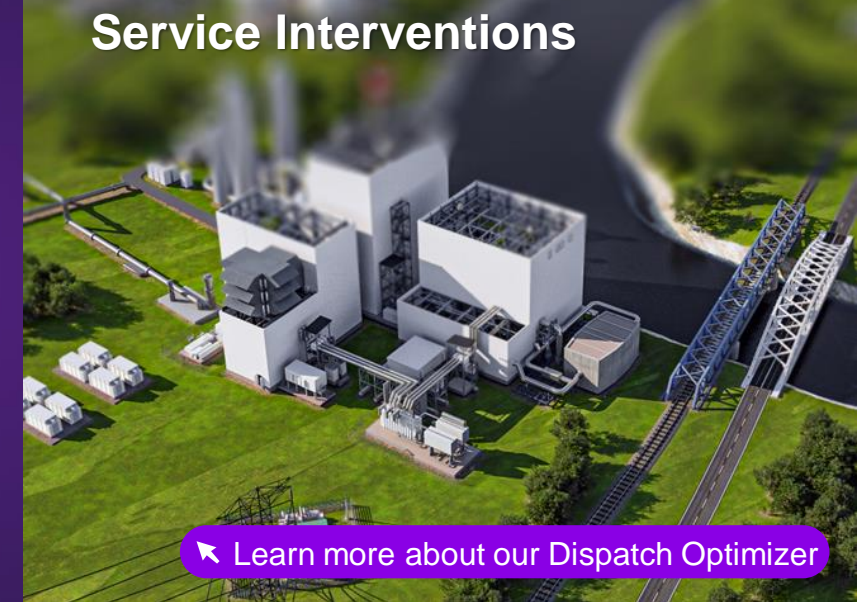
[Learn more about Clean Energy Certification](#)

Resilient Grids and Reliability



[Learn more about Grid Stabilization](#)

Condition-based Service Interventions



[Learn more about our Dispatch Optimizer](#)

Net-zero heat at Potsdamer Platz

- Heat pumps are a very efficient heat supply option. They transfer heat from a low-temperature source to a high-temperature sink, e.g. from a waste heat source to a district heating network. The electrical energy to drive this is a fraction of what an electric heater would require.
- Currently, heat pumps are mainly used for heating buildings supplying heat at max. 90 °C. Siemens Energy has developed a new high temperature heat pump that can reach up to 150 °C. It can be used to supply hot water or steam to industry or district heating systems.
- At Potsdamer Platz in Berlin, Siemens Energy and Vattenfall are piloting such a high-temperature heat pump utilizing waste heat from a district cooling plant combined with green electricity to supply net-zero heat for the city's district heating network.
- Innovative control of its operation guarantees sufficient temperatures even at low waste heat input and seasonally varying district heating flow temperatures.



Clean Energy Certification

- Guaranteed green fuels from renewable sources are key to trust in the sustainability of products declared as green manufactured.
- Manufacturers and customers expect products where the source of the energy used is verified and certified as reliably green.
- Siemens Energy, through its Innovation Center Berlin, TÜV Süd and dena have set up a scalable blockchain partner ecosystem that tags products with a Clean Energy Certificate verifying their green energy sourcing from generation to consumption.
- Combining complementary expertise with innovative co-creation, we have developed a cutting-edge decentralized digital business platform that provides automated and tamper-proof certificates in almost real-time.
- This solution is already being used in pilot projects, such as the certification of green fuels from Haru Oni's production plant and green hydrogen from Nobian's electrolysis plant, both of which use renewable energy sources.



Certified green hydrogen produced at Nobian's chlor-alkali electrolysis plant in Germany

Moneypoint's Great Grid Stabilizer

- The fluctuating nature of renewables is a stability challenge for alternating current grids. If supply and demand aren't synchronized then grid frequency drops and blackouts could occur.
- Grids with a high share of renewables lack the inertia of heavy rotating power turbine masses that can immediately bridge sudden drops in frequency.
- Grid operators are aware of this problem and are installing countermeasures. They use synchronous condensers (SynCon) with flywheels to restore lost inertia.
- Siemens Energy flywheels rotate in a near-perfect vacuum and have cooling systems requiring no emergency power supply and keep losses low.
- The world's largest flywheel of this kind is located at Ireland's grid operator ESB in Moneypoint. Together with the SynCon, it provides the equivalent inertia of a 800MW steam power plant.

[Learn more](#)



04

Profitability as a Foundation

Good ideas are not enough.

Energy resilience requires a profitable business.

Our company structure

We support our customers along the entire energy value chain

SIEMENS
energy

Gas Services

Grid Technologies

Transformation
of Industry

Siemens Gamesa

**Therein: Independently Managed
Businesses**

- Sustainable Energy Systems
- Electrification, Automation, Digitalization
- Industrial Steam Turbines & Generators
- Compression

As an integrated energy technology company

we aim to increase customer focus, transparency and accountability

Our operating model is focusing on

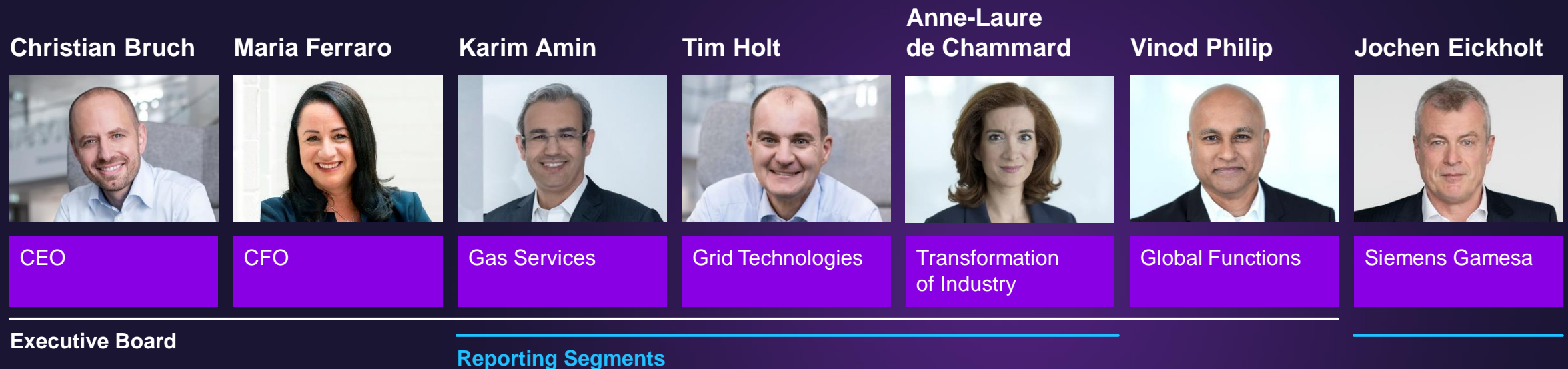
Clear structures

Unified go to market

Operational excellence

Focused innovation

This is reflected in our new company structure



Our financial performance in Fiscal Year 2023¹

Revenue
€31.1bn



🔗 Our Annual Report 2023

Orders
€50.4bn

Order backlog
€112bn

Basic earnings per share
€(5.47)

Profit before
Special Items
€(2,776)m

Profit margin
before Special Items
(8.9)%

Our financial performance in the
first quarter of Fiscal Year 2024

Orders
€15.4bn

Revenue
€7.6bn

Order backlog
€118bn

Basic earnings
per share
€1.79

Profit before
Special Items
€208m

Profit margin
before Special Items
2.7%

🔗 Q1 FY 2024 Earnings Release

The image shows a close-up, slightly angled view of the Siemens Energy logo on a white building facade. The word 'SIEMENS' is written in a teal, sans-serif font, and 'ENERGY' is written below it in a blue, stylized font with rounded letters. The background is blurred, showing architectural details of the building.

Our financial outlook for Fiscal Year 2024

and our targets for Fiscal Year 2026

	FY24 Outlook		FY26 Targets	
	Revenue Growth ³	Profit Margin before SI ¹	Revenue CAGR ³	Margin reported ¹
Gas Services	(4) – 0%	9 – 11%	Flat	10 – 12%
Grid Technologies	18 – 22%	7 – 9%	Low double digit	9 – 11%
Transformation of Industry	8 – 12%	5 – 7%	High single digit	7 – 9%
Siemens Gamesa	0 – 4%	around neg. €2.0bn	Low single digit	Break-even ²
Siemens Energy	3 – 7%	(2) – 1%	Mid single digit	5 – 7%
Net Income		up to €1bn incl. impacts from disposals		€1 – 1.5bn
Free Cash Flow pre-tax⁴		around neg. €1.0bn		€1.0 – 2.0bn (cumulative ⁵)
Proceeds from disposals		€2.5 – 3.0bn		

This outlook excludes charges related to legal and regulatory matters.

¹ Profit Margin in % of revenue with Profit as earnings before financial result, income taxes, amortization expenses related to intangible assets acquired in business combinations, and goodwill impairments | ² Break-even target for Siemens Gamesa before Special items | ³ Comparable revenue growth: Excluding currency translation and portfolio effects | ³ Compound Annual Revenue Growth Rate (FY23-based) | ⁴ Free Cash Flow pre-tax as operating cashflow and additions to intangible assets and PPE less Income taxes paid in million € | ⁵ Cumulative Free Cash Flow pre-tax FY24-26



We energize society



Thank you!

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Siemens Energy on social media:

