



Sustainability Report 2023

Moving forward, step by step



Moving forward, step by step

Dear readers,

With 36.8 billion tons of CO₂, global emissions have reached record levels in 2022. But awareness of what needs to be done is also at a record high – the paths to decarbonization are known. Now the world needs to move from rhetoric to action.

At Siemens Energy, we are taking decisive action. Step by step, we have improved our sustainability performance, as evidenced by our Environmental, Social, and Governance (ESG) ratings. We focus on continuous improvement rather than constantly setting new goals. Some of our targets like the purchasing of 100% green electricity within our Climate Neutral Program have already been achieved. Others will be more challenging, but we are working on measures to manage them.

We are convinced that the energy transition is a huge opportunity for society and for the economy, but it cannot be done alone. It is the biggest investment program since the industrial revolution. By 2050, \$150 trillion must be invested. Only then can emissions be significantly reduced by 2030. To succeed, we need to expand

renewables, increase energy efficiency, strengthen the grids, bridge existing infrastructure, and secure the supply chains and materials needed for the energy transition. Industry has a central role to play in making this happen. At the same time, we can help communicate the changes that will result from the energy transition, because one thing is clear: the energy transition will trigger a lot of change – for everyone, everywhere.

What will help us make our contribution to a successful energy transition is close cooperation between industry, politics, and the financial world. Improving the policy framework alone will not be enough to achieve the breakthrough. We also need better incentives to drive investment and deploy new technologies. Because 45% of the technologies we need to achieve net zero by 2050 are not yet market-ready or need to be scaled up.

Sustainability continues to be at the heart of our strategy. We are committed to the ten principles of the United Nations Global Compact and are guided by the UN Sustainable Development Goals. The foundation for this is integrity in business. Compliance is the basis for



all our decisions and activities. Our premise: Only clean business is Siemens Energy business.

This report shows how we are improving step by step in these areas – and thus making our contribution to a successful energy transition.

Best regards,

A handwritten signature in blue ink, appearing to read 'Bruch', written in a cursive style.

Christian Bruch
Chief Executive Officer and Chief Sustainability Officer
Siemens Energy AG

Our sustainability performance

Decarbonizing our business

Performance indicator	Unit	2023	2022
Greenhouse gas emissions			
Scope 1+2 emissions			
absolute	1,000 metric tons CO ₂ e	182	215
thereof SF ₆	1,000 metric tons CO ₂ e	32	35
thereof fleet	1,000 metric tons CO ₂ e	25	32
Scope 3 downstream emissions¹			
absolute	1,000 metric tons CO ₂ e	1,098,370	1,252,319 ²
intensity	metric tons CO ₂ e/ € order intake	0.022	0.033
Scope 3 upstream emissions³			
absolute	1,000 metric tons CO ₂ e	9,230	9,182
intensity	kg CO ₂ e/€ PVO spent	0.414	0.451
Energy			
Energy consumption	million gigajoule	5.19	5.80
Share of green electricity	%	100	90

¹ Includes category "use of sold products" only (well-to-tank emissions are included, biogenic emissions have been excluded). Siemens Gamesa's emissions equal zero.

² Fiscal year 2022 emissions were recalculated to reflect the reduction of the expected lifetime for gas and steam turbines in power generation from 30 years to 28 years and an H₂ co-firing project in fiscal year 2022.

³ Includes categories "purchased goods and services" and "transportation and distribution" only. 2022 data was adjusted to include Siemens Gamesa. Due to the partially undefined material codes of the purchasing volume at Siemens Gamesa, approximately 10% of the CO₂e emissions were extrapolated. In fiscal year 2023, 325 kilotons of the 9,230 kilotons CO₂e emissions were calculated using a consumption-based method.

⁴ Excluding Siemens Gamesa.

⁵ Total Recordable Injury Rate: Number of recordable injuries (TRI) x 1,000,000/work hours performed. Recordable injuries are accidents that result in lost time, restricted work, or medical treatment.

Responsible operations



Performance indicator	Unit	2023	2022
Research & development			
Research & development expenses	million €	1,123	1,078
Sustainable supply chain management			
External sustainability audits at suppliers	no.	194	167
Waste			
Waste recycling and recovery rate	%	82	81
Water			
Water consumption	million cubic meters	3.25	3.45
Product stewardship			
Portfolio coverage by Life Cycle Assessments (LCAs)	%	73	72
Employees			
Share of women in overall workforce	%	20	20
Share of women in top leadership positions ⁴	%	28	22
Training hours per employee	no.	12.0	10.3
Occupational health and safety			
Total Recordable Injury Rate (TRIR) of employees and contractors ⁵	no.	2.67	2.27
Societal engagement			
Donations	million €	2.59	3.62

Content


Foreword	2
Our sustainability performance	3
Content	4
Highlight: Climate Neutral Program	5
Overview: Featured experts	8
1 The company	
Siemens Energy at a glance	10
Strategic focus our portfolio, program, and partnerships	12
2 Decarbonizing our business	
Summary page	22
Customers and innovation innovation approach and cybersecurity	23
Featured expert: Innovation	28
Decarbonization at customers, in operations, and of the supply chain	30
Featured expert: Climate Action	39

3 Responsible operations	
Summary pages	42/43
Occupational health and safety Zero Harm framework and safety culture	44
Featured expert: Zero Harm	49
Conservation of resources environmental standards, water, and waste	51
Featured expert: Zero Waste	55
Product stewardship product safety, footprint, and material compliance	57
Sustainable supply chain management engagement, assessment, and minerals sourcing	61
Human rights commitment, due diligence, and transparency	66
Compliance and integrity zero-tolerance, training, and risk management	68
Working at Siemens Energy inclusion & diversity, leadership, and training	72
Featured expert: Talent Attraction & Diversity	81
Societal engagement global approach, local action, and donations	83

4 Annex	
The company and reporting method	88
Task Force on Climate-Related Financial Disclosures (TCFD)	89
Methodology for calculating of Scope 3 – use of sold products emissions	100
Independent auditor’s report on a limited assurance engagement	102
Imprint	104

 Reference within the report
 Link to an external reference

Climate neutral: Delivering on our commitments



The energy sector has the greatest levers – and a prime responsibility – for decarbonization. To support this, we have set ourselves ambitious targets across the entire value chain; this includes the aim to be climate neutral in our own operations by 2030.



Our Climate Neutral Program is part of our commitment to decarbonization across the entire value chain. We are working hard to reduce emissions within our own operations. Every ton of emissions counts.

The goal of the CNP is to become climate neutral in Siemens Energy’s own operations by 2030. The interim goal is to reduce absolute Scope 1 and 2 greenhouse gas emissions – according to the Greenhouse Gas Protocol – by 46% by 2025, compared to 2019. The integration of Siemens Gamesa into the CNP is ongoing.

Aiming at quick wins

Achieving climate neutrality in our sector and in a company of our size is an ambitious undertaking. Naturally, we started with where we could achieve rapid implementation and impact. The switch to green power was obvious. The challenge was the global scope, requiring collaboration between the Business Areas, our countries of operation, real estate, procurement divisions, and the global sustainability team.

The urgent call for more energy efficiency has struck a chord within the company. Saving primary energy makes good business sense, especially in times of rising costs. In fiscal year 2023, we managed to reduce our primary energy by 15% due to reduced testing of gas turbines, energy efficiency measures, and consolidation of locations.

The program’s levers are:

- **Using renewable electricity:** In fiscal year 2023 (i.e., by September 30), we achieved our target of 100% of our electricity consumption coming from renewable sources – globally.
- **Reducing energy consumption and increasing electrification:** We aim to reduce the consumption of primary energy and have energy efficiency projects in place at various locations for buildings and process optimization.
- **Reducing SF₆ emissions:** With our Blue Portfolio, we have set ourselves the target to reduce our SF₆-related emissions by 60% by 2030 compared to a 2019 baseline.
- **New mobility concepts:** We are aiming for 100% CO₂-neutral benefit cars by 2030 by implementing our car policy globally.

In 2023, we have achieved a reduction of emissions of CO₂ equivalents (CO₂e) of about 59% in Scopes 1 and 2 against 2019. This means we reached our milestone for 2025 two years earlier than anticipated. For more information on our achievements, see the [Decarbonization chapter](#).

Austria: Efficiency gains save energy

To advance our Climate Neutral Program, the Siemens Energy power transformer site in Linz (Austria) is following a clear path to decarbonization. “We started two years ago by analyzing where our highest levels of CO₂ emissions were,” explains Stefan Mehrl, Location Manager at the Linz factory. “This led to a switch to electric process heating called “power-to-heat” to replace natural gas. Furthermore, we have executed various energy efficiency projects, including window adjustments, a partial conversion to LED lighting, changed hall lighting



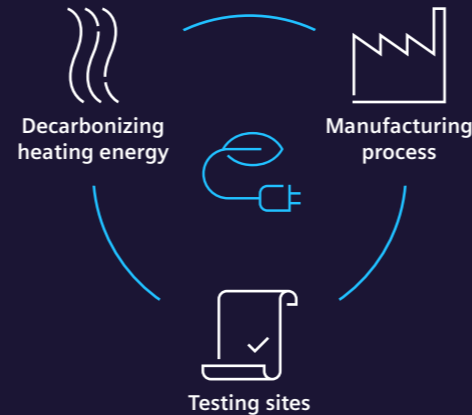
times, and the installation of a photovoltaic system.” This PV system covers approximately 30% of the site’s electricity demand, and two further phases of installation are planned. “More recently, we focused on the ventilation system for the production areas for insulating parts and winding,” Mehrl continues. “Our solution is night and weekend programs, reducing ventilation at times when it is not needed. This enabled us to save a third of the electricity required in the relevant areas.” The workforce has also learned about energy-saving measures and was encouraged to contribute and get updated on progress and results. For its energy efficiency measure of optimizing the ventilation system in the workshop in Linz, Siemens Energy received the 2023 “klimaaktiv” award from the Austrian Ministry of Climate Protection.

Bigger challenges ahead

But the work has only just begun – it will get harder to significantly reduce our emissions the closer we get to climate neutrality. We are continuing to invest in infrastructure, including energy-saving measures, decarbonizing heating energy, and strategically looking into various options to decarbonize manufacturing processes and testing sites. Our Business Areas are initially focusing on their respective top-ten emitting sites, covering approximately 60% of the emissions. They are working closely with the real estate department to implement decarbonization measures and upgrades. In parallel, operations at country level are investigating measures relating to the car fleet and logistics.



Energy-saving measures



Our Business Area Grid Technologies (GT) faces a particular challenge in reducing leakages of sulphur hexafluoride (SF₆), a greenhouse gas with a global warming potential 23,500 times higher than CO₂ that makes up more than 50% of the Scope 1 and 2 emissions. The gas is used in cylinder-shaped insulators in high-voltage switchgears, where leakages can occur. Now we are in the process of moving to an SF₆-free Blue Portfolio, based on technical air insulation and vacuum switching technology. Our aim is to reduce our SF₆-related emissions by 60% until 2030, compared to 2019 levels. In fiscal year 2023, we achieved a reduction of 57% compared to the base year and of 11% compared to fiscal year 2022.

With all these measures combined, and even more to come, we aim to continue to deliver on our target to become climate neutral by 2030 step by step.

Brazil: Carbon fee funds journey to net zero

Carbon pricing can be an effective instrument to incorporate the external cost of climate-related damage into the prices of products and services. As a company measure, defining a virtual price per ton of greenhouse gas emissions creates an incentive to lower emissions. This contributes to a more realistic picture of the cost of investments by considering potential damage that an investment can cause in the long run. As part of our Climate Neutral Program in Brazil, we have attached a fee to the emissions of CO₂ equivalents (CO₂e) arising from the manufacturing of our products (Scopes 1 and 2). The Business Area raises funds that are reinvested to provide capital for our journey to climate neutrality. Since fiscal year 2020, the scheme has gathered some €356,000, which we are investing in eight projects, saving around 650 tons of CO₂e. Employees are encouraged to submit project ideas that contribute to emission savings and low abatement costs. Projects are selected based on potential savings. One example is our investment in high-efficiency motors, replacing the electric motors of exhausters, vacuum systems, air conditioners, air compressors, fan coils, and older production equipment with more efficient, economical motors, leading to energy savings and a less negative environmental impact. 60 such motors have been selected for replacement in three waves until fiscal year 2024, with the total investment of about €100,000 financed through the internal carbon fee. On average, each replaced motor contributes to 8.5% of energy savings, with the scheme expected to avoid 57 tons of CO₂e per year and recover some €195,000 of savings within ten years.

A day in the life of five colleagues at one of the world's leading energy technology companies

Snapshots of five Siemens Energy experts on a chosen day around the world

From 4:30 p.m. in India to 8:00 a.m. in Brazil, five Siemens Energy experts give us a snapshot of their work on a single day around the world. Meet Jaydeep Naha, Judith Osthues, Benjamin Dahn, Tatiana Novis Lopes Gil, and Sarah Tabet. Working in different time zones, societies, and disciplines, they all agree on one thing: We're here to make a difference. Sustainability is our business. With their jobs, they are aiming to drive the energy transition step by step.

04:30 p.m.
Gurugram, India



01:00 p.m.
Mülheim, Germany



08:00 a.m.
Jundiaí, Brazil



01:00 p.m.
Berlin, Germany



03:00 p.m.
Dubai, United Arab Emirates



1 The company

Siemens Energy at a glance 10

Strategic focus 12

Siemens Energy at a glance

At Siemens Energy, our mission is to support our customers in transitioning to a more sustainable world based on our innovative technologies and our ability to turn ideas into reality. Our goal is to become the world's leading energy technology company with a focus on sustainability. Our portfolio, extensive energy experience, and ambitious strategy to decarbonize global energy systems are all central to our efforts to be a valued partner and driver of the energy transition.

Siemens Energy is one of the largest suppliers of technology in the energy and electricity sector, serving the entire scope of the energy market. With our broad portfolio of products, solutions, and services, we cover almost the entire energy value chain – from low- or zero-emission power generation, transmission, and storage to reducing greenhouse gas (GHG) emissions and optimizing energy consumption in industrial processes, complemented by a wide range of training and service offers.

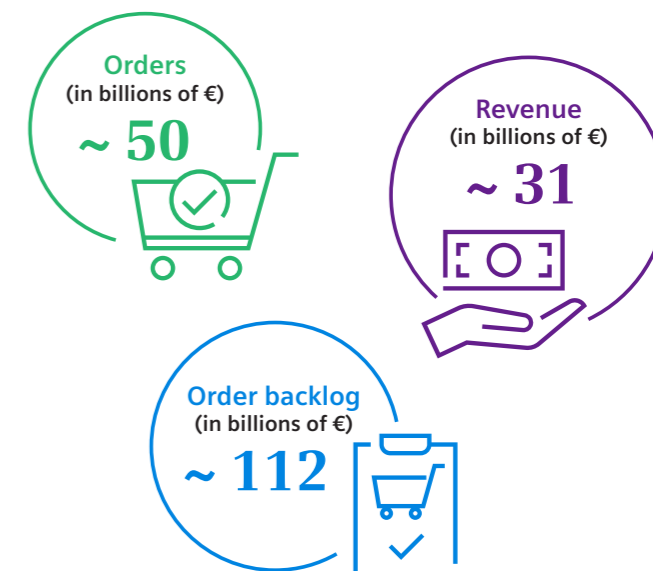
This portfolio allows us to address the different speeds at which the energy transition is moving forward. As of September 30, 2023, Siemens Energy employs about 96,000 people in more than 90 countries worldwide.

Key financial indicators (in billions of €)	Fiscal year	
	2023	2022
Orders	50.4	38.3
Order backlog	111.6	97.4
Revenue	31.1	29.0

Our company structure

In May 2022, Siemens Energy announced its tender offer to acquire all remaining shares in Siemens Gamesa. The tender offer concluded in December 2022, and following a corresponding purchase order, Siemens Energy held around 98% of Siemens Gamesa shares. In June 2023, the minority shareholders of Siemens Gamesa approved a capital reduction, thus paving the way for the company's full integration into Siemens Energy, which now holds 100% of the Siemens Gamesa shares.

Key financial indicators



Our company structure



Siemens Energy changed its corporate and reporting structure as of fiscal year 2023. As a result, the former Divisions of the reportable segment Gas and Power (GP) have been newly structured into Gas Services (GS), Grid Technologies (GT), and Transformation of Industry (TI), which together with Siemens Gamesa now form the four Business Areas of the Siemens Energy Group. GS, GT, and Siemens Gamesa are reportable segments, while TI is subject to voluntary reporting.

- The Business Area **Gas Services** (GS) bundles all business activities related to gas turbines, large steam turbines, large generators, and heat pumps, including instrumentation and controls. The portfolio includes products, solutions, and services for central and distributed power generation. Its business centers around servicing the installed fleet of gas

and steam turbines, with a comprehensive service portfolio that covers maintenance services, performance enhancements, operations services, digitalization services (e.g., cyber security), and professional consulting.

- **Grid Technologies** (GT) focuses its business activities on the key market trends of digitalization, decarbonization, and electrification. Through its products, systems, solutions, and services, GT solves the challenges arising from the increasing complexity of grid infrastructures as a result of the integration of renewables and the trend toward distributed power generation. The product portfolio includes high-voltage direct current transmission systems, offshore windfarm grid connections, flexible AC transmission systems, high-voltage substations, air- and gas-insulated

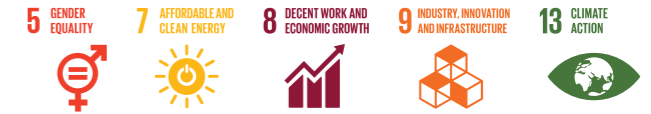
switchgear, transformers, digital grid solutions and components, as well as storage solutions.

- **Transformation of Industry** (TI) comprises four non-reportable operating segments that are referred to as independently managed businesses: Sustainable Energy Systems (SES), Electrification, Automation, Digitalization (EAD), Industrial Steam Turbines & Generators (STG), and Compression (CP). The activities of the Business Area primarily focus on reducing energy consumption and greenhouse gas emissions in industrial processes, supporting industrial customers in reducing their carbon footprint, and shaping their decarbonization journey. TI offers integrated systems and solutions across various process industries (e.g., oil and gas, chemicals, petrochemicals, fiber) and the maritime sector. The portfolio of TI includes electrolyzers, industrial steam turbines up to 250 MW, industrial generators, turbo and reciprocating compressors including compression trains, systems, and solutions as well as services for the full portfolio.

- The Business Area **Siemens Gamesa** offers onshore and offshore wind turbines as well as services over the entire life cycle of wind turbines. Its service business consists of managing, operating, and maintaining wind farms.

After the full integration of Siemens Gamesa, we aim to align all management approaches on sustainability topics. In this Sustainability Report, we will highlight areas where approaches still differ.

Strategic focus



From our perspective, sustainable energy is key to overcoming the climate crisis and a critical driver for future growth and prosperity. That is why sustainability is at the core of our company strategy, making us more resilient and guiding our transformation.

- **Our business aims to contribute to combating climate change and economic resilience**
- **We aim to be the partner of choice for the global energy transition, reconciling business needs and regulatory demands**
- **We strive to reduce greenhouse gas emissions to achieve net zero across the entire value chain**

Our world is facing an ever-increasing need for a reliable and affordable energy supply to support economic development and ensure stable societies. But this stability is threatened by a number of major challenges. The war in Ukraine continues to disturb global markets by disrupting supply chains, affecting market conditions for procuring important raw materials, and causing volatility in energy prices. Meanwhile, the climate crisis has clearly reached emergency levels, and serious action is required if we are to meet the Paris Agreement target of limiting the global temperature rise to 1.5°C. This shows the urgent need to invest in renewable energy on a global scale, with a potential for business opportunities for companies like Siemens Energy. The World Energy Investment 2022 report by the International Energy Agency predicts that we will need investments from private and public investors to the tune of more than \$2 trillion annually until 2030 – more than 50% up from today.

With our portfolio that spans the energy value chain as well as with our global setup, we are in a unique position to shape the energy transition

and support global development toward net zero. However, to achieve this, it is key that we set the course today to be prepared for the future. For fiscal year 2023, our primary aim is to stabilize the company, support the full integration of Siemens Gamesa, and implement the targets we have set ourselves on, for example, decarbonization. Business resilience is therefore one of the most relevant objectives of Siemens Energy’s sustainability management.

Our strategy for the energy transition

With the new operating model that went effective on October 1, 2022, we are setting the necessary conditions to become an integrated company: less hierarchy, more accountability, and a stronger focus on project excellence allow us to make faster decisions and address our customers’ unique needs. To achieve this, we have established a comprehensive structure with clear business accountability and fewer portfolio overlaps, a unified go-to-market approach, and a new Project Entity to execute complex projects.

The electricity and energy markets are experiencing transformational change, and Siemens Energy may benefit from public investment programs to support this transformation. We are driving sustainability across our portfolio and operations to support our customers and, ultimately,

societies in transitioning to a more sustainable world. We believe in an energy transition based on renewables and a strong grid infrastructure backbone, while also leveraging low-emission conventional power for peak loads and reducing energy consumption by driving efficiency improvements in industry.

We will continue our journey toward a sustainable portfolio that will drive profitable growth for our company. Based on our three strategic pillars, i.e.,

- low- or zero-emission power generation,
- transport and storage of electricity, and
- reducing the GHG footprint and energy consumption in industrial processes,

which are fundamental to achieving this goal, we are continuously developing new products and technologies that have either zero emissions or significantly lower emissions than comparable technologies. We focus on the following levers:

- **Expand renewables:** Our Business Area Siemens Gamesa plays an essential role in the transition to zero-emission power generation and supports governmental wind energy capacity targets around the world. In addition, we support the development of a circular economy in the wind industry with our RecyclableBlade and GreenerTower technologies.

- **Transform conventional power:** We believe in an energy transition that prepares existing power generation assets for a sustainable future to ensure the stability of our electricity grids. Our Business Area Gas Services is supporting this goal by focusing on turbines in peaker functions, coupled with our research and development (R&D) target of 100% H₂ co-firing capability by 2030 and the utilization of carbon capture technology.
- **Strengthen electricity grids:** We are committed to strengthening electricity grids around the world to support the renewable energy build-out and electrification needed for a carbon-free society. To achieve this, we are developing new products, services, and solutions for the transport and storage of electricity, and are supporting the ban of harmful PFAS F-gases in electrical equipment.
- **Drive industry decarbonization:** We aim to help our process industry customers become more energy efficient and less carbon-intensive by realizing sustainable concepts for their brownfield facilities and future installations as well as electrification solutions such as heat pumps as a first step in their decarbonization journey. To make fuel-switching more attractive, we are supporting the hydrogen economy with our electrolyzers and solutions for integrated energy systems.
- **Secure supply chains:** We are bundling supply chain expertise in our global functions to ensure access to critical components and minerals, monitor and manage supply chain risk exposure, and control upstream emissions of our products.

With our global functions, our goal is to deliver value every year and advance our sustainability agenda. We set global standards, including on sustainability, for projects within our Project Entity.



Successful installation in the North Sea: Providing more than 1 million households with green wind power.

A first in transporting green energy

After three years under construction, the offshore converter station DolWin kappa, the world’s first offshore platform equipped with state-of-the-art gas-insulated direct current switchgear, has been successfully installed in the North Sea in summer 2022. DolWin kappa is located 45 km away from the coast of Lower Saxony and is part of the TenneT’s 900-MW DolWin6 grid connection system that will supply more than one million households with green wind power from the German North Sea. The DolWin6 grid connection with the offshore converter station, which includes a high-voltage direct current (HVDC) transmission system and a direct current compact switchgear from Siemens Energy, was commissioned at the end of September 2023.

Our market view

While macroeconomic uncertainties remain, we are expecting our addressable market to grow by 6% per year from €154 billion in 2022 to €213 billion in 2028. Due to investment programs in the U.S., namely the Inflation Reduction Act and Bipartisan Infrastructure Law, as well as the EU’s Net Zero Industrial Act and REPowerEU, the EU’s energy security strategy, we are expecting the North American and European markets to make up >50% of our addressable market by 2028.

In accordance with our ambition to become a leader in sustainability in the industry, we have incorporated climate considerations in our market evaluation and strategy process. This included the use of three market scenarios with the resulting climate outcomes for our market evaluation process for the first time in fiscal year 2023. In addition, as another first during this

fiscal year, we developed a detailed annual forecast of our CO₂ emission footprint of products sold per Business Area until 2030 building on our business planning (see chapter ↗ [Decarbonization](#)).

About \$2.8 trillion are set to be invested in energy globally in 2023, of which more than \$1.7 trillion are expected to go to clean technologies – including renewables, electric vehicles, nuclear power, grids, storage, low-emission fuels, efficiency improvements, and heat pumps – according to the IEA’s latest World Energy Investment report.¹ At Siemens Energy, we aim to be in a leading market position in each of our Business Areas, with a clear focus on innovation to develop new technologies that foster the energy transition. We spent roughly €1.1 billion on R&D each year over the past three years (see chapter ↗ [Customers and innovation](#)).

¹ Source: IEA Net Zero Scenario.

Our progress

The success of our strategy is visible along several key business parameters:

- We increased our order intake by 34% comp.² versus fiscal year 2022 to reach a record backlog of €112 billion while reducing our Scope 3 emissions from the use of products sold by 12% compared to fiscal year 2022
- We have increased our revenue by 10% comp.² versus fiscal year 2022
- We are actively shaping our portfolio by allocating 24% of our R&D expenditures to our five current fields of action (see chapter [↗ Customers and innovation](#))
- 37.5% of our revenue in fiscal year 2023 was EU Taxonomy-eligible and -aligned (see chapter [↗ Decarbonization](#))

Across our businesses, Siemens Energy is addressing the sustainability of power generation, the coal-to-gas shift, the decentralization of energy supply, the transformation of existing infrastructure to serve a more sustainable world, and the support of industries for more energy efficiency and decarbonization. With our combined expertise, we aim to be the partner of choice for the energy transition.

As part of its long-term strategy, Siemens Gamesa introduced “Mistral” during fiscal year 2022, a program that covers all areas of the business and prepares Siemens Gamesa to meet the predicted high demand in the wind energy industry. It is designed to lead Siemens Gamesa toward sustainable and profitable growth.

Mistral addresses challenges that, despite the positive market outlook, hit wind equipment manufacturers, such as rising raw material and commodity prices, supply chain disruptions, internal process delays, and high production costs. Three core actions in Mistral were introduced and are taking place over three time frames:

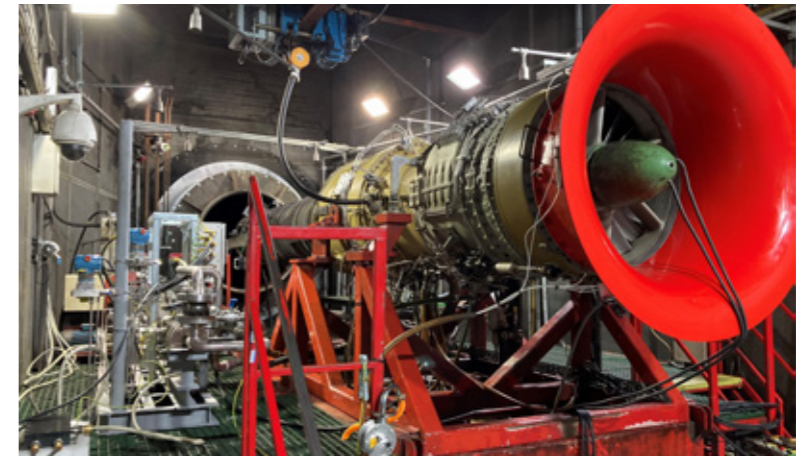
- Product maturity and cost security in the short term: dedicated working groups address product maturity for Siemens Gamesa 5.X platform and aim to reduce non-conformance costs across the whole portfolio.
- Margin growth in the medium term: developing sales, increasing product competitiveness, streamlining the organization, and using capital efficiently.
- Maximizing the company’s potential in the long term: portfolio analysis to allow for standardization, a revised operating model, and supply chain consolidations.

An important step for Mistral was taken in January 2023, when the new Siemens Gamesa operating model was introduced with a stronger focus on processes to improve organizational efficiency and effectiveness.

During fiscal year 2023, although Mistral continues to move forward with the stabilization of operations in the short term and to build the path to profitability, the latest events related to increases in failure rates of wind turbine components have led us to initiate an extended technical review of the installed fleet and product design. This is complemented by a holistic strategic review that we are currently carrying out.

Reaching for net zero

In May 2022, we announced that we would complement our climate action targets with the long-term ambition to become net zero across the value chain in all greenhouse gases (see chapter [↗ Decarbonization](#)). This will, among other things, require adjustments in our portfolio such as further SF₆-free products, the shift to green hydrogen, the development of battery energy storage, and the development of climate-neutral supply chains and modes of transportation. We no longer participate in new tenders for power plants that will run exclusively on coal, but we will still meet the existing commitments for coal-fired power plant projects, including binding offers submitted at the time of this decision in November 2020. Also to



Gas turbine powered by a hundred percent methanol.

Transforming the oil & gas sector with bio-methanol

Siemens Energy and The Net Zero Technology Centre (NZTC) have showcased an SGT-A20 gas turbine running on 100% bio-methanol. The world’s first test of its kind, conducted in February at the RWG test facility in Aberdeen, demonstrated that methanol is a viable alternative fuel. The demonstration test showed a reduction in NO_x emissions of 80% as well as a reduction in CO, SO_x and the elimination of smoke in the exhaust. There are various forms of methanol where bio-methanol reduces CO₂ emissions by up to 75% (compared to a diesel baseline) and e-methanol is carbon neutral. The SGT-A20 test demonstrated a retrofitable solution to enable the use of methanol as a low-carbon alternative fuel in the offshore oil and gas industry. By modifying existing assets and testing innovative technologies and fuels, we believe there is potential to transform the existing oil and gas sector, protect and create jobs, and show that immediate changes can reduce emissions.

² Comparable: excluding currency translation and portfolio effects.

be continued are CO₂-reducing service and solutions business as well as combined heat and power (CHP) projects. In November 2022, we divested our gas engine business to Mutares. Beyond portfolio-related measures, we engage with our suppliers to drive the reduction of Scope 3 upstream emissions.

To mitigate the impact of climate change, we must begin to decarbonize our energy systems and electrify industry now. For the short to medium term, power generation with natural gas will play a central role as a bridging fuel. With our gas turbine business, we support our customers with low- or zero-emission power generation technology. For example, in the Stockholm Exergi project, a gas turbine plant with an SGT-800 gas turbine is planned to run on 100% green liquid fuel by 2025. Another example is the Mintia project in Romania: our latest HL-class gas turbine technology in combined cycle configuration will replace the capacity of the old coal-fired Mintia power plant and reduce emissions by more than 50% when completed.

We are committed to shaping our future portfolio by strategically reallocating R&D capital to solutions that help reduce GHG emissions from the use of sold products, as part of the strategic portfolio management process.

Digitalization

Digitalization is one of the key levers to help the energy industry in its ongoing transition. At Siemens Energy, we are combining our deep domain knowledge with the power of data to accelerate sustainability solutions to

- optimize consumption in our installed equipment: this combines our deep domain expertise of the equipment and advanced analytics techniques;
- improve the flexibility of generation assets: for example, we developed a software solution for a power plant consisting of turbines (gas and/or steam), generators, and supporting balance-of-plant equipment that can reduce annual natural gas consumption by 0.33%;
- accelerate sustainability: new computing capabilities allow us to accelerate simulations of how new technologies will behave; and
- protect from cybersecurity threats: use technology to detect and respond to cyber threats targeting critical energy assets (see chapter [☞ Customers and innovation](#)).

The common thread in all these approaches is our capability to simulate the impacts of complete energy systems. This allows us to design energy systems to satisfy demand with minimum emissions. We can then operate with the optimum combination of renewable and fossil fuel sources, while minimizing degradation of individual units of equipment.

More sustainable decisions

As a company with a strong focus on sustainability, we consider it essential to integrate environmental, social, and governance (ESG) criteria in our decisions. We have included a mandatory sustainability component in our qualification for suppliers with a purchasing volume above €10,000 for Siemens Energy (excluding Siemens Gamesa) and within high-risk countries for Siemens Gamesa. Furthermore, we conduct ESG due diligence in sales (see chapter [☞ Customers and innovation](#)). We also developed a sustainability checklist for our merger and acquisition activities and implemented a mandatory consultation of strategy and sustainability experts.

In fiscal year 2023, we developed ESG guidance that was included in the strategic R&D planning process and applied our ESG scoring methodology to selected R&D projects on heat pumps and fuel cells. We are currently working on an evaluation approach for venture activities, taking ESG criteria such as climate impacts into consideration. Furthermore, in capital expenditure (CapEx) projects at Siemens Energy (excluding Siemens Gamesa) involving a large investment sum, it is a mandatory requirement to evaluate the projects' GHG impact using a CO₂ shadow price of €100 per metric ton of CO₂ equivalents (CO₂e).



Our impact on the Sustainable Development Goals

SDGs we have medium and high impact on.

Our commitment to sustainability

We continue to anchor sustainability in our corporate strategy. We aim to become the integrated energy company of the future – combining a global and local approach with solutions along the complete value chain and a focus on sustainability. The United Nations’ Sustainable Development Goals (SDGs) guide us in our ambition to become a sustainability leader in the industry. To ensure our efforts have the biggest possible impact, we focus on five SDGs:

- To achieve SDG 5 “Gender Equality,” we are striving to create equal opportunities, in the firm belief that not just our company but society as a whole can benefit from inclusion and diversity.
- By providing reliable, cost-effective, and sustainable energy for our customers, we are contributing to SDG 7 “Affordable and Clean Energy.”
- We cover SDG 8 “Decent Work and Economic Growth” with the innovative power of our global operations, which stimulate economic development in many countries and create decent, future-proof jobs.
- Meanwhile, our products, services, and solutions for decarbonizing energy systems worldwide contribute to SDG 9 “Industry, Innovation and Infrastructure.”
- We enact SDG 13 “Climate Action” by helping our customers reduce GHG emissions and working toward a net zero goal across the value chain.

We also acknowledge a medium impact on SDGs 3, 4, 6, 11, 12, 14, and 17.

Our Sustainability Program

Our Sustainability Program focuses on the most relevant topics that help us achieve our ambition to become a sustainability leader in the industry while contributing to selected SDGs. It is also oriented toward our company’s purpose, “We energize society.”

To establish the Sustainability Program, we conducted a materiality analysis in fiscal year 2020 to identify topics of relevance for business and society by engaging in dialogue with selected internal and external stakeholders. The key sustainability issues for our company serve, among other things, as a basis for reporting. We repeated this materiality analysis in fiscal year 2021 and in fiscal year 2023 to reflect the opinions of relevant external stakeholder groups such as customers, investors, and partners.

Our most recent materiality analysis was conducted as a double materiality analysis to reflect the upcoming requirements of the Corporate Sustainability Reporting Directive (CSRD). We mapped the topics along the entire value chain and conducted surveys and interviews with external and internal experts to identify and assess the material topics. The result confirmed that the most relevant topics for Siemens Energy are energy use and efficiency as well as greenhouse gas emissions. Those two are followed by several topics that we see as enablers to drive decarbonization. The results of the impact materiality assessment will be used for our reporting in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI). Applying a threshold of 1.5 on the impact assessment leads to a smaller selection of topics that are of relevance for the GRI: energy use and efficiency, greenhouse gas emissions, responsible sourcing, and innovative partnerships and collaborations.

For the remaining topics below the threshold, we then interviewed internal experts in the respective fields to cover strategically relevant topics that mirror our sustainability ambition and ensure continuity in business reporting. Based on the experts' judgment, we identified six additional topics (see table below).

As a result of this process, the number of topics was reduced from twenty-two to ten, and the names and definitions of some topics have changed. The changes have no material impact on our GRI reporting.

Impact materiality

- Energy use and efficiency
- Greenhouse gas emissions
- Responsible sourcing
- Innovative partnerships and collaboration

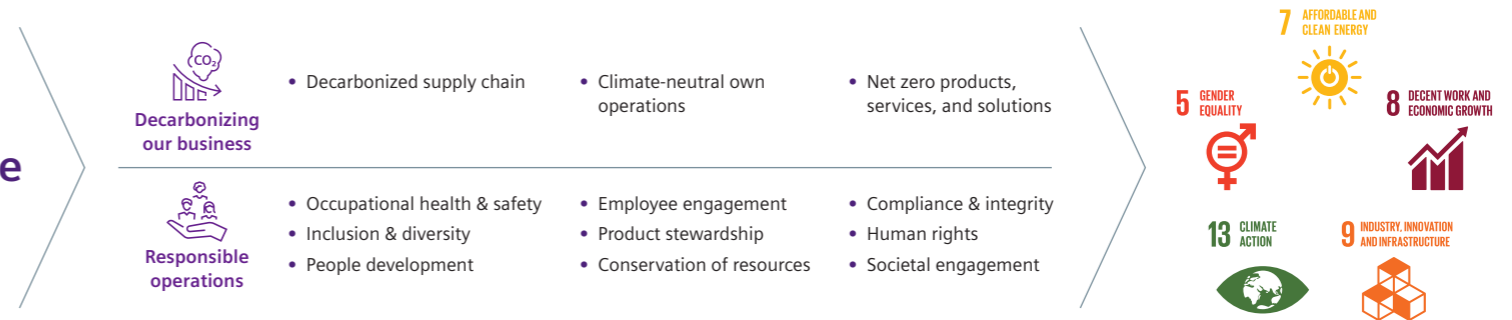
Strategic positioning and business reporting continuity

- Talent attraction and retention
- Equity, inclusion, and diversity
- Occupational health and safety
- Human rights
- Business conduct/compliance
- Business resilience

Our businesses, regional entities, and Functions are responsible for implementing the Sustainability Program with a special eye on these topics. Details can be found in the individual chapters of this report.

Our Sustainability Program

We energize society



Implementing and managing the Sustainability Program

All sustainability activities are led by our Chief Sustainability Officer (CSO), who is also the CEO of our company. Sustainability is a regular topic on the agenda of Executive Board meetings, Supervisory Board meetings, and in wider leadership meetings.

Since the beginning of fiscal year 2023, we have a committee within our Supervisory Board: the Sustainability and Finance Committee (formerly Innovation and Finance Committee), chaired by Joe Kaeser, Chairman of the Supervisory Board of Siemens Energy AG. The committee addresses sustainability issues. It prepares resolutions of the Supervisory Board on the company's financial situation and resources, especially on the annual budget, on investments, and on financial measures. It resolves certain transactions and measures for which the Executive Board requires approval. It also regularly addresses the company's naming, branding, and design concept. In August 2023, the Supervisory Board underwent training on sustainability topics.

Our Sustainability Council meets on a regular basis and consists of decision-makers representing Divisions, Regional Hubs, and Functions. The Sustainability Council strategically oversees the implementation of the Sustainability Program by making decisions, setting priorities and focal points where needed, providing resources for implementation, and serving as sustainability ambassadors both inside and outside of Siemens Energy. Our CEO, Christian Bruch, chairs the Council in his role as CSO.

The Vice President of Sustainability manages the Sustainability department, which is responsible for driving sustainability within Siemens Energy and for coordinating company-wide sustainability activities, programs, and measures. The "Strategy & Sustainability" function reports directly to the CEO/CSO, who also reviews and approves the annual sustainability report.

Furthermore, we have the goal to ensure all sustainability measures and initiatives are anchored in our organization and business activities. The respective organizational units have nominated Sustainability Business Partners who implement the company program in their areas of responsibility.

To help implement sustainability across the company and increase transparency on our performance, we are currently setting up an ESG data management solution with the aim to collect and process ESG data and use it for strategic forecasting. We are confident that this will reduce the manual

Rating scores

ISS ESG → **B- prime**
 1st decile rank in industry
 2022: B- (1st decile)

SUSTAINALYTICS → **#8 of 276**
 a Morningstar company
 in industry low risk rating:
 13.6 top industry list
 2022: #7 of 218
 low risk rating: 16.5

MSCI → **A**
 ESG Research
 scale of AAA to CCC
 2022: A

CDP → **B**
 DISCLOSURE INSIGHT ACTION
 scale of A to D
 2022: B

FTSE Russell → **3.9**
 scale 1 to 5
 Member of FTSE4Good index
 2022: 3.8

ecovadis → **Gold**
 75/100
 2022: Gold (69/100)

effort required to gather data, increase data quality, and allow for internal benchmarking as well as steering to reach our sustainability targets. The pilot project focuses on Scope 3 downstream emission data in the business, since we consider this to be our most impactful use case (see chapter [Decarbonization](#)).

Increasingly, ESG performance indicators are being used in sustainable financing constructs, such as green bonds or revolving credit facilities. In fiscal year 2023, Siemens Energy established a Green Bond Framework and issued a green bond to refinance the existing debt of Siemens Gamesa.

The importance of sustainability for Siemens Energy is also reflected in our long-term equity-based compensation. This is granted to the members of the Executive Board and selected senior executives in the form of stock awards for reaching non-financial targets in strategic ESG areas of Siemens Energy operations (for more information, please see our [Siemens Energy Annual Report 2023, Compensation Report](#)).

Siemens Gamesa’s sustainability approach will be integrated in the Siemens Energy Sustainability Program in the months to come, with targets to be aligned step by step.

We are rated by various ESG rating agencies, such as ISS ESG, Sustainalytics, MSCI ESG, and CDP. The results show that we are on track with our Sustainability Program and in achieving our targets. We welcome these ratings as objective assessments of our organization and as a means of identifying areas for improvement. For more information on the ESG ratings and rankings of GS, GT, and TI, please visit our corporate website. Information on Siemens Gamesa’s latest ESG ratings is available on its website.

Stakeholder engagement and collaborations

We firmly believe that sustainable development can only be achieved through the cooperation of a wide range of stakeholders. Regular dialogue about the issues that affect our business and society is central to our sus-

tainability strategy. This approach is in line with SDG 17, which calls for a global partnership that brings together governments, civil society, the private sector, the UN, and other stakeholders.

Working together on the complex challenges we are facing can lead to better innovation and business outcomes that also benefit society. Siemens Energy is participating, for example, in the Hydrogen Council, a global CEO-led initiative with the ambition for hydrogen to foster the clean energy transition. Using its global reach to promote collaboration between governments, industry, and investors, the council provides guidance on accelerating the deployment of hydrogen solutions around the world.

In China, Siemens Energy collaborated with the Shanghai Electrical Apparatus Manufactures Trade Association (SEAMTA), the country’s leading power transmission industry association, on initiating and publishing the first association standard for environmentally friendly gas-insulated switchgear for offshore wind turbines. Key players in the offshore wind power industry, such as design institutes, wind power manufacturers, and grid companies, are members of SEAMTA.

Siemens Gamesa engages with Wind Europe, the voice of the wind industry, which aims to promote wind energy across Europe. More than 500 members from the entire wind energy value chain come together to discuss new regulations, increase awareness and acceptance, and work on supply chain initiatives, for example.

The exchange of knowledge through these engagements creates value on all sides and reduces risks. At Siemens Energy, we regularly analyze existing partnerships and memberships and continue to establish new relationships with investors, customers, suppliers, employees, communities, policymakers, media, non-governmental organizations, business organizations, and academia. We are a signatory to the [UN Global Compact \(UNGC\)](#), pledging our commitment to its Ten Principles, and are a member of econsense, the German sustainability network.

We actively engage with political bodies, such as selected government think tanks and intergovernmental organizations. In Nigeria, for example, our engagement with the Presidential Power Initiative (PPI) led our CEO to meet with Nigeria’s president, the Energy Ministry, and local stakeholders to discuss how we can strengthen our support to resolve the challenges in the power sector and expand the capacity for future power needs. As part of our partnership with the International Renewable Energy Agency (IRENA), Siemens Energy is participating in the Alliance for Industry Decarbonization, which we announced together in September 2022. The objective is to foster industry-level dialogue and increase cooperation to help companies develop sound decarbonization strategies and implementation plans.

In fiscal year 2023, we continued our “Energy Weeks” and “Energy Talks” conferences, with which we promote discussion on the challenges and

opportunities of the energy transition and of the decarbonization of energy systems, together with market leaders, policymakers, and government representatives from around the world.

During those events, we also surveyed more than 2,000 energy experts about the importance of having a set of key energy priorities. We asked them about the progress their regions had made on the energy transition and then used this data to calculate the “Energy Transition Readiness Index” – a percentage indicating the perceived readiness for the transition to net zero for each of the five regions selected (Asia Pacific, Middle East and Africa, Latin America, North America, and Europe), which we summarized into a Global Energy Transition Readiness Index Report. All five regional reports and the global report can be found on our [Energy Transition Readiness website](#).







Business resilience

In order to deal with the manifold challenges many companies are facing in the current global business climate, we deem it important to acknowledge the risks and opportunities that arise from our exposure to disruptions and their effects on our business – as well as the impact we have in mitigating and adapting to climate change risks (both transitional and physical) with a resilient business and sustainable portfolio.

Sustainability-related risks and opportunities

To provide a comprehensive view of our business activities, we analyze risks and opportunities by combining bottom-up and top-down approaches. Sustainability-related risks and opportunities are identified by the respective management of our organizational units. Our Enterprise

Stakeholder engagement

Stakeholder group	 Shareholders and capital market	 Employees	 Customers	 Suppliers	 Politics, associations, civil society	 Banks, financial institutions
Formats of engagement	Quarterly earnings calls, Annual Report, annual shareholder’s meeting, regular roadshows and conference participation, investor relations website	All hands meetings, open sessions between leaders and employees (ask me anything), location visits, letters by Board Members, emails, training sessions, Yammer communication, awards	Conferences, trade fairs, bilateral engagement, questionnaires (e.g., EcoVadis, NQC)	Initiatives (e.g., Responsible Minerals Initiative), supplier days, workshops, bilateral engagement	UN Global Compact, industry-specific forums and conferences, local engagement, participation in One Young World summit, industry associations, direct governmental contacts (ministries, parliament, etc.)	Mandatory reporting and information (e.g., Annual Report, Sustainability Report), bilateral meetings (know your customer process)
Topics we engage on	Sustainability Program and targets, sustainable portfolio, energy transition, social engagement, and corporate governance topics	Health & safety, culture, inclusion & diversity, innovation, employee development, company strategy and organizational topics	Decarbonization roadmaps, Sustainability Program, product-related topics, project due diligence	sustainability risk and performance, decarbonization, responsible minerals sourcing	Sustainability, decarbonization, energy security, global challenges, business support	Sustainability performance, specific KPIs for ESG-linked financing

Risk Management (ERM) system takes a net-risk approach and aims to ensure that the Executive Board and the Supervisory Board are fully informed about significant risks on time.

In fiscal year 2022, we further developed the ERM system to better reflect the long-term effects of climate change on Siemens Energy by adding a “Climate” category to the four existing reporting categories. This allowed us to expand the conventional three-year, short-term reporting scope to mid-term (3–5 years) and long-term (5–30 years) climate-related risks, improving our understanding of the development of climate-related risks over time. While assessing the impact of a risk, we need to consider how quickly it would affect the organization and how resilient the organization would be should it occur. Therefore, vulnerability (i.e., the susceptibility of a company in terms of its adaptive and coping capacity regarding a specific risk) and velocity (speed of a specific risk impacting the organization upon occurrence) are fundamental characteristics to be considered, in particular when assessing transitional and physical climate-related risks.

For fiscal year 2023, the following risks with a significant relevance to sustainability were reported within the ERM system:

- Threat of business interruption and data leakage due to cyber attack
- Critical supply chain
- Market and price development (including the shift from conventional to renewable energy in the markets)

- Technology/portfolio gap compared to competitors
- Climate change and decarbonization trend
- Adverse environment, health, and safety (EHS) events
- Talent attraction and retention
- Adverse developments in financial and banking markets (including financing restrictions due to sustainability requirements)
- Requirements arising from ESG standards
- Alleged compliance violations

For further information on these risks, please refer to the ↗ [Siemens Energy Annual Report 2023, Report on the internal control and risk management system and material risks and opportunities](#). A detailed description of climate-related risks and opportunities can be found in our Task Force for Climate-Related Financial Disclosures (TCFD) section in the ↗ [Annex](#).

We are continually taking steps to reduce our sustainability-related risk exposure within the organization and across the value chain by implementing risk management systems adapted to specific industries and responsibilities. On the other hand, risk mitigation actions also represent opportunities for our business, for example innovations that support the energy transition and streamlining of internal processes.

With ongoing developments in national and international reporting requirements, we collaborate both internally and with external partners on analyzing new regulations and standards, voicing our position on them in

cross-industrial associations, and assessing their importance for and effects on Siemens Energy. One example of this is our participation in the Sustainable Finance Advisory Committee of the German Federal Government, which aims to turn Germany into a leading location for sustainable finance.

Webinar to boost support for African start-ups

Siemens Energy Ventures teamed up with Microsoft for Startups to host an Energize.Africa webinar in May 2023, offering corporate support to clean energy and climate tech founders based in Africa. The event aimed to address challenges and pain points, such as early-stage funding and a lack of access to market support, while also providing attendees with a valuable opportunity to connect and network with other founders, industry experts, and potential corporate partners. Participants gained insights and information on the latest trends and developments in the industry, helping them stay up-to-date and adapt to changes. Founders also received guidance on accessing funding and investment opportunities in the clean energy and climate tech sector, helping them gain the tools they need to grow their businesses and develop new solutions.

2 Decarbonizing our business

Summary page	22
Customers and innovation	23
Featured expert: Innovation	28
Decarbonization	30
Featured expert: Climate Action	39

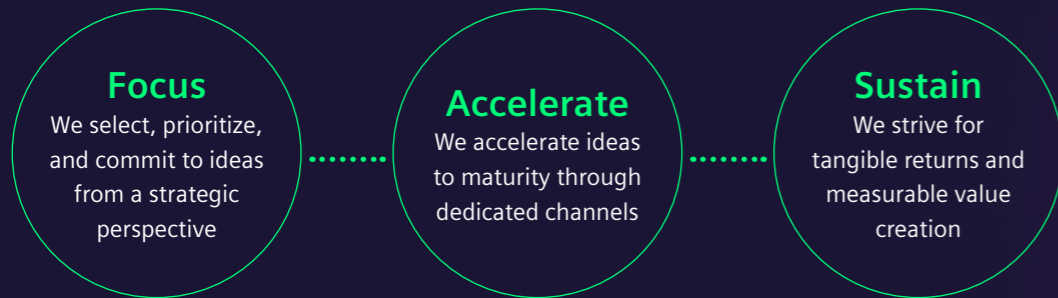
Summary page

Customers and innovation

Innovation is key to creating the future. We value co-creation and partner with our customers to decarbonize energy systems.



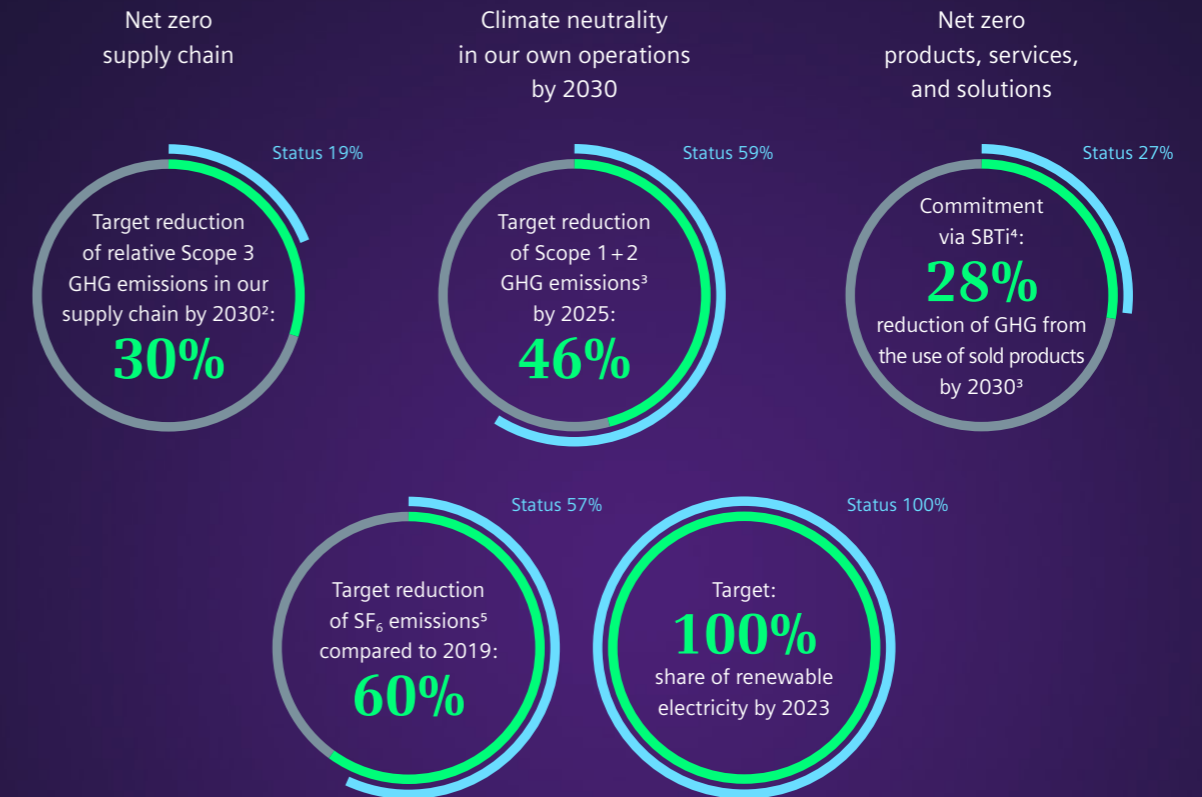
Innovation is the core of our business. Our simple, fast, and unified approach to R&D has three elements:



¹ Index measuring willingness of customers to recommend a company's products or services to others, Siemens Energy (excluding Siemens Gamesa).

Decarbonization

Our strategy to decarbonize global energy systems is based on our aspiration to reach net zero across the entire value chain, in line with the 1.5°C target.



² kg CO₂e/€ PVO spent, base year 2018. ³ base year 2019. ⁴ SBTi = Science Based Targets initiative, Siemens Energy (excluding Siemens Gamesa). ⁵ Target year 2030.

Customers and innovation



Innovative partnerships and collaboration are essential elements in developing our broad range of innovative technologies. They offer our customers tailor-made energy solutions and at the same time contribute to sustainable development.

- **Company culture based on innovation for the benefit of customers and the planet**
- **R&D based on intense cooperation, both within Siemens Energy and with external partners**
- **Cybersecurity management aims to ensure that our products, solutions, and services meet the highest demands**

Our mission continues to be to support our customers in transitioning to a more sustainable world. We do this by providing technologies for a sustainable, affordable, and reliable energy supply and by our ability to turn ideas into reality. The global energy sector is transforming, with many of our customers facing long-term, disruptive changes to their business models, benefiting environmentally friendly energy supply. In addition, advancing digitalization, the need for decarbonization, and increasingly decentralized energy production are leading to more competition, more complexity, and less predictability throughout the industry. We are pursuing new business opportunities in electrification, renewable energy, green hydrogen, grid modernization and resilience, energy storage, and power-to-X technologies as a consequence of these developments.

In taking this action, Siemens Energy contributes to the following SDGs: SDG 7 “Affordable and Clean Energy,” SDG 8 “Decent Work and Economic Growth,” SDG 9 “Industry, Innovation and Infrastructure,” SDG 12 “Responsible Consumption and Production,” and SDG 13 “Climate Action.”

Our company culture is based on innovation, a common mission, and trust. Across the company, our mindset is guided by four main values: caring, accountability, respect, and agility. We communicate openly and authentically with one another because we see this as the foundation for successful innovation.

Solutions that continue to serve our customers

We support our customers along the entire energy value chain with our integrated energy technologies and our ability to connect the dots between our offers, regions, and industries. We bridge a wide range of industries and foster the transfer of know-how between them – from power generation through to transmission and storage.

We are increasing our customer focus, transparency, and accountability. The account management system and go-to-market approach, which is an integral part of our new operating model, has been operationalized in our process and system landscape. The approach sets out clear responsibilities for Business Areas, Regional Hubs, and Corporate Functions to foster transparency, simplify processes, and speed up our service (see chapter 2 **Siemens Energy at a glance**). To foster responsible business practices in our customer projects, Siemens Energy (excluding Siemens Gamesa) has implemented an ESG due diligence approach early in the sales process. This helps identify and evaluate human rights and environmental risks in our projects, while also determining appropriate risk mitigation measures.

Siemens Energy (excluding Siemens Gamesa) uses the Net Promoter Score (NPS) to measure customer satisfaction by asking the question, “How likely is it that you would recommend Siemens Energy to a colleague or business partner?” In fiscal year 2023, we conducted a total of approximately 4,300 NPS interviews and received an NPS result of 57 (the 2022 result was 46).¹ This result is a combination of the results from the global annual Customer Insight Survey and the project-related operational surveys conducted throughout the year. We are pleased with the clear progress demonstrated in our NPS score, which indicates improved customer satisfaction.

The individual businesses evaluate the specific responses, follow up with the customers personally, and take the necessary steps to improve the customers’ experience (e.g., process amendments, training measures). Siemens Gamesa has its own organizational setup.

¹ NPS ranges from -100 to +100, subtracting % of scores between 1-6 (Detractors) from % of scores of 9-10 (Promoters).

Innovation that continues to make a difference

The world and our customers need innovative, sustainable solutions for the energy systems of the future. Beyond its focus on decarbonization, our Business Areas Gas Services (GS), Grid Technologies (GT), and Transformation of Industry (TI) are also developing a set of criteria to screen our innovation portfolio for further sustainability risks and opportunities. These criteria are based on EU Taxonomy criteria, our focus on SDGs, and further internationally established frameworks, such as the Paris Agreement.

Ramping up electrolyzer production for hydrogen and e-methanol

Siemens Energy is helping to accelerate renewable hydrogen production worldwide by scaling up the production of large-scale electrolyzers. In a joint venture with Air Liquide, we continued the construction of a multi-gigawatt factory for our electrolysis stacks in Berlin. Based on proton exchange membrane electrolysis technology, these stacks will be highly efficient and ideally suited to harvest volatile renewable energy. Once completed, the factory will supply stacks to both companies for their respective customer bases and serve the rapidly growing market.

World's first large-scale direct air capture plant to use Siemens Energy equipment

Siemens Energy compressors will be used at Occidental's first large-scale direct air capture (DAC) plant in the Permian Basin, Texas. It is being developed by 1PointFive, a subsidiary of Occidental. The two compressor packages will enable the plant to capture up to 500,000 metric tons of CO₂ per year when fully operational. Siemens Energy will supply a motor-driven 9.6 MW fully modular wet-gas compressor package and a motor-driven 6.3 MW dry gas compressor for the DAC plant. The equipment will compress the captured CO₂ for additional processing and pressurize the final product into a pipeline for injection into underground reservoirs.



Certified e-fuel from wind and water at Haru Oni in Chile.

Supporting a sustainable value chain

The Clean Energy Certificate launched by Siemens Energy is a system to identify a product's energy origin all along the value chain. With the help of distributed ledger technology, a blockchain ecosystem, and by digitally connecting physical assets, the certificate can track renewably sourced energy from its generation to the end-product, across borders and sectors. Products will automatically be tagged with a certificate, which identifies the product's energy origin and carries this from source to consumption, giving customers detailed insight into its low-carbon intensity and other energy attributes along the entire supply chain. The Clean Energy Certificate system is already proving the origin of the e-fuels application in the Porsche motorsport fleet at Haru Oni, Chile.

1PointFive's plant is expected to provide practical solutions that hard-to-decarbonize industries can use to help achieve net zero. Captured CO₂ can be safely sequestered deep underground in saline formations or used to produce hydrocarbons to enable lower-carbon or net zero transportation fuels and in products like chemicals and building materials. From our point of view, technologies to effectively capture and sequester CO₂ may be a necessity if the internationally agreed climate goals are to be achieved. Close partnerships with partners like Occidental are the basis for scaling up innovative solutions.

Strengthening the core, growing from the core, and transforming the future continue to be the three main aspects of the innovation strategy of Siemens Energy. We continue to develop our five current fields of action, focusing on energy landscape transformation and the sustainability of our portfolio.

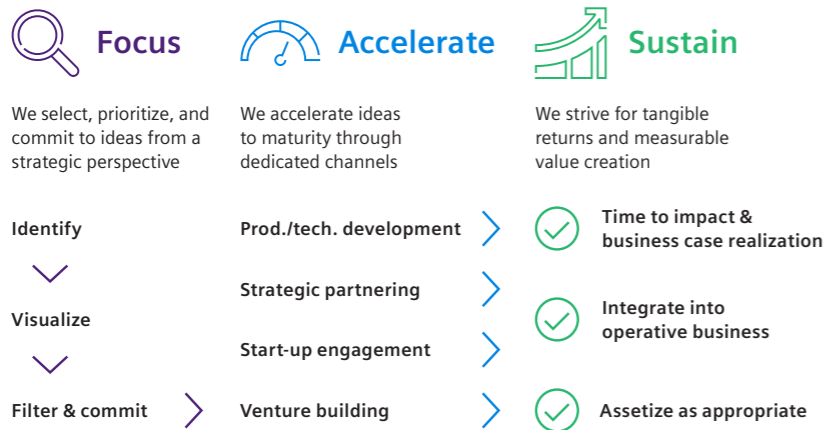
Five current fields of action:

- **Decarbonized heat and industrial processes:** high-temperature heat pump, electrified industrial heat, fuel cells, industrial waste heat recovery
- **Power-to-X:** direct air capture, offshore hydrogen, e-chemicals/fuels
- **Resilient grids and reliability:** grid digitalization, disruptive grid elements, high-density energy systems
- **Condition-based service interventions:** digital twins for optimizing energy consumption, autonomous operation, asset/plant reliability, and microgrids
- **Energy storage:** long-duration energy storage, redox flow batteries

We identified and selected specific technologies for short-term, mid-term, and long-term research and development within these levers that form the foundation of our simple, fast, and unified process to build business in support of our three strategic pillars (see chapter [↗ Strategic focus](#)).

The Innovation Council at Siemens Energy (excluding Siemens Gamesa) continues to meet quarterly with all Executive Board members, overseeing our activities and expenditures in the five current fields of action, our technology fields, and R&D in general. The council is still dedicated to the former GP business. The main elements for successful innovation remain unchanged and are of key importance in the implementation of our innovation approach:

Three elements for successful innovation



At Siemens Gamesa, R&D is focused on developing the next generation of technology that will lead to improved and more cost-effective products, solutions, and services. Siemens Gamesa endeavors to develop reliable and efficient wind turbines for both onshore and offshore applications to reduce the Levelized Cost of Energy (LCoE) and solutions for hybridization that are designed to help utility customers optimize the use of renewable energy. We aim to ensure a fast response to dynamic market developments by utilizing modern innovation and design principles such as Agile, SCRUM, and Design Thinking. Training on such methods is accompanied by state-of-the-art tools that support working in international teams across locations.



Transportation of the prefabricated modular offshore substation for installation.

New solution to boost China’s renewable energy offers

To support the development of China’s green energy transition, Siemens Energy has introduced a customized Prefabricated Modular Offshore Substation (PMOS) solution for the Chinese offshore wind power market and operators for the first time. Compared to traditional solutions, the PMOS can cut the construction period by up to 8 weeks and costs by up to 20%. The volume of the upper module can be reduced by up to 25% and the weight of the upper module by up to 20%. The new solution is being built for the Shandong Peninsula offshore U-wind field project by China’s State Power Investment Corporation (SPIC) and is expected to further drive the development of China’s renewable energy industry.

As a part of these efforts, Siemens Gamesa also focuses on its products’ environmental footprint. For example, it has introduced GreenerTower, which lowers the CO₂ footprint of the related steel production by more than 63% compared to conventional production. RecyclableBlade, which was introduced in 2021 and allows blades to be recycled at the end of their life, has turned out to be in strong demand among our customers.

Continuous product upgrades and designs of its onshore and offshore turbines to reduce the LCoE and/or increase annual energy production are aimed at strengthening the company’s competitiveness. For example, Siemens Gamesa has successfully erected a prototype for the SG14-236 that yields 30% more energy than its predecessor.

In fiscal year 2023, across all Business Areas, Siemens Energy invested €1,123 million in R&D (fiscal year 2022: €1,078 million). The resulting research intensity, defined as the ratio of R&D expenses to revenue, was

3.6% (fiscal year 2022: 3.7%). Additions to capitalized development expenses amounted to €190 million (fiscal year 2022: €193 million) in fiscal year 2023. Around 18,700 (September 30, 2022: 18,300) patents were held by Siemens Energy as of September 30, 2023. On average, we had about 4,300 (fiscal year 2022: 5,300) R&D employees in fiscal year 2023.

Innovation beyond our company borders

We know that we cannot fulfill our mission alone. Our external partnerships are valued for their potential to fulfil future business needs. Moreover, from our perspective, the impact of our research benefits long-term sustainable development as we contribute to sustainable and affordable energy while minimizing the environmental footprint of our products. This is why we strive to involve research expertise both within Siemens Energy and beyond.

Collaboration is crucial. It allows us to collect expertise, co-create new technologies, and broaden our stakeholder and customer base. Our open innovation ecosystems at Siemens Energy are growing organically throughout the development chain to interact with universities, obtain external funding, and support selected ventures and start-ups.

With this in mind, Siemens Energy (excluding Siemens Gamesa) established four new Global Innovation Centers in Berlin, Orlando, Abu Dhabi, and Shenzhen to nurture innovation and business development to drive the energy transformation. These are set up to co-create with customers and partner with start-ups, industrial partners, and universities. Early-stage R&D topics, prototypes, and pilot applications will be explored, including the use of new skill sets, methods, tools, etc.

The Global Innovation Centers focus on

- accelerated innovation,
- co-creation with customers and partners, and
- closing technology gaps and accessing new business models as part of the newly established partnership framework.

Condition-based service interventions are one focus area of the Innovation Center in Orlando. Here, the Reliability Twin is tested with multiple sites in Asia, the Middle East, and Africa, including multiple modules of maintenance optimization and anomaly detection using AI/ML. One rules-based predictive monitoring module from this pilot project was commercialized into an investor's portfolio in October 2022.

Siemens Energy continues to cooperate with eight of the top 25 world-ranked universities. Working together with scientists at top universities and research institutes worldwide, we aim to advance technologies that

contribute to sustainable energy systems of the future, both in bilateral research and publicly funded research projects. For example, we work together with the Technical University of Berlin on the H₂Mare flagship project. The intention is to produce hydrogen on the high seas, where conditions are ideal for generating renewable electricity. Led by Siemens Energy, the consortium is a modular project consisting of multiple sub-projects to which more than 30 partners from industry, research institutes, and academia are contributing.

Furthermore, since 2020, the Siemens Energy Ventures (SEV) team focuses on building, piloting, and investing in ventures with the potential to shape the sustainable, affordable, and reliable future of energy. In this start-up ecosystem, SEV takes a "give first" approach toward co-development, meaning that SEV gives its expertise and resources to selected start-ups first. This allows SEV to find the right mechanisms and develop the right mindset to support our customers, founders, and businesses to accelerate our collective journey to net zero. In May 2023, the SEV Venture Clienting team was honored by High-Tech Gründerfonds (HTGF) with the German Start-up Partnering Award for the progress made since the company was founded.

Siemens Gamesa also collaborates on R&D initiatives for product and technology development, partnering with universities, customers, competitors, suppliers, design consultants, and certifying bodies. The aim is to identify or improve business opportunities and create win-win situations. The focus countries are Denmark, Spain, Germany, the UK, France, Norway, the Netherlands, and India. Siemens Gamesa tracks active R&D collaborations in a University Relations Dashboard, which shows more than 100 collaborations that started or were ongoing in 2023. These cooperations range from individual PhD programs to long-term strategic cooperations with leading universities to cross-utilize knowledge and gain access to talents.



GeoPura hydrogen power units are providing hydrogen-fueled clean energy.

Supporting a green hydrogen start-up in the UK

Siemens Energy Ventures has invested in GeoPura, a UK-based start-up that supports customers wanting to decarbonize their consumption of temporary, back-up, off-grid, and grid augmentation energy by providing commercially viable hydrogen-fueled clean energy via their Hydrogen Power Unit. Customers including the BBC, National Grid, and Cadent can now transition from conventional diesel generators to green and clean electricity for uninterrupted operations. This investment and ongoing partnership will enable the creation of a full end-to-end hydrogen value chain on a small scale where Siemens Energy supports the growth of a promising start-up by providing the Hydrogen Power Units, engineering expertise, manufacturing excellence, and infrastructure.

Cybersecurity

Siemens Energy's cybersecurity aims to protect our business operations, information assets, data, and our infrastructure for information technology (IT) and operational technology (OT). In addition, its goal is to ensure that our products, solutions, and services meet generally accepted product and solution security practices. This includes the global obligation of compliance with our cybersecurity rules and regulations.

Cybersecurity is the responsibility of every employee and thus a collaborative task, with the degree of involvement and responsibility depending on individual roles and functions. Cybersecurity management at Siemens Energy is organized according to a management system with relevant certifications in the areas of IT security and overall cybersecurity (for example, ISO 27001, IEC 62443), which differ depending on site- and task-specific risks. It is headed by our Cybersecurity Function whose principal tasks consist of defining and monitoring requirements and demanding status reports from the Business Areas and Functions for the company-wide implementation of cybersecurity. The Cybersecurity Function also provides quarterly cybersecurity status and risk reports to the Executive Board. In addition, the third-party cybersecurity risk management process (TPRM) is dedicated to ensuring that outsourced solutions and services as well as suppliers are assessed for cybersecurity risks throughout the vendor life cycle, that control gaps are addressed, and that clauses are included in contracts with vendors.

The objectives of our cybersecurity activities are to provide adequately secured products, solutions, and services as well as dedicated cybersecurity support to our customers. All of this is based on secure internal IT and

Cybersecurity training	Fiscal year	
	2023	2022
Share of active Siemens Energy employees that completed web-based training in cybersecurity	99.6%	99.4%

OT, is intended to protect all relevant assets against cyber threats, and is planned to manage associated risks. This is supported by the following strategic objectives:

- **Business enablement:** Cybersecurity enables our business to protect adequately against cyber threats and helps us create business opportunities.
- **Operational excellence:** Cybersecurity continuously improves resilience through clear and holistic accountability and ownership.
- **Technology & innovation:** Cybersecurity develops and adopts leading technologies and leverages the Siemens Energy ecosystem.

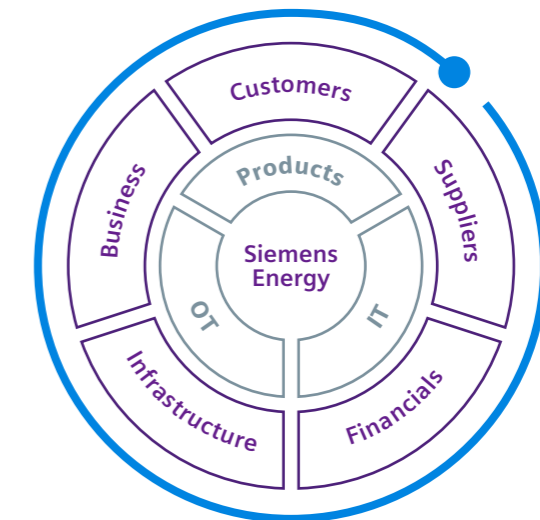
In this context, key activities include executing our cybersecurity strategy, delivering adequate cybersecurity services for identification, protection, detection, defense, and response capabilities to threats and incidents, as well as building up cybersecurity intelligence to mitigate risks (see chapter [Compliance and integrity](#)). This enables us to lay a strong foundation for our cybersecurity vision: "To be the most cybersecure energy technology company and bring the highest value to our customers!"

A strong management focus with close cross-business collaboration supports the integration of cybersecurity into our company and innovation

strategy. The newly formed Innovation Orbit allows the cybersecurity organization to explore technology trends and ideas that are relevant. These trends and ideas can be rated in collaboration and can be converted into projects if needed. Thus, the platform is helping us get closer to a proactive cybersecurity strategy definition.

In addition to the measures already implemented to increase cyber resilience, Siemens Energy has also established mandatory web-based training and awareness measures to broaden the topic for all employees and strengthen awareness. The program includes a global employee Cybersecurity Awareness Month in October with panels, podcasts, workshop sessions, news articles, and multimedia learning content.

Our cybersecurity approach



Partnerships and innovation are making the energy business more sustainable

Jaydeep Naha
General Manager – Digital Solutions & Project Execution,
Siemens Energy

Drones, robots, and artificial intelligence: Jaydeep Naha and his global team know the secret to keeping Siemens Energy on the cutting edge of technology for the energy transition – and they’re using it to keep the flow of talent, information, and innovation going.

I’m still going through my notes after a pitch meeting with a start-up in the UK. Because I’m a partner at Siemens Energy Ventures as well as the leader of Robotics in our Digitalization Field of Action (CBSI), I have a unique opportunity to work with a variety of young companies, bring their ideas and their new technology into the organization, and scale them up from there.

In the past, we stayed on the cutting edge of technology by creating everything on our own. Today, the development of a partner ecosystem encourages dynamic collaborations from which we and the energy transition benefit.

*04:30 p.m.
Gurugram, India*

I’m still going through my notes after a pitch meeting with a start-up in the UK. We on the Siemens Energy Ventures team have a unique opportunity to work with a variety of young companies.



Forming partnerships like these allows us to speed up the process of creating innovative technologies that make the energy business more sustainable and can help mitigate climate change. For example, partnering with the autonomous robotics company Anybotics left us free to focus on the development of a digital brain, which allows a robot to move through any plant all by itself. If we had had to develop the hardware too, it would have taken us at least five years, but instead the project will be market-ready in less than two. Using robots equipped with a digital brain and the ability to work online, plants won't need to shut down during maintenance, and health and safety risks for employees are minimized.

Of course, our innovation efforts aren't only about robotics. They're also about creating the asset management of the future, where robots, drones, and AI enhance the life-span of very expensive assets – with predictive maintenance and an emphasis on circular economy and reducing wastage and leakage through early and systematic detection.

These kind of innovations have a direct impact on sustainability. Ground robots like these are equipped with environmental sensors that can assess air and water quality, monitor emissions, detect pollutants, and help utilities track their environmental impact so that they can protect our ecosystems better.

When we talk about sustainability at Siemens Energy, it's not just a word. It's a value and a direction – and the work we do here moves the needle day by day. Robotics is just one example of how partnerships and innovation are making the energy business more sustainable on the ground. And that excites me. But despite how it sounds, I'm not a robotics geek. I just want to leave this world a little better than how I found it.

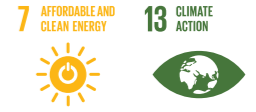
Watch the video:



When we talk about sustainability at Siemens Energy, it's not just a word. It's a value and a direction – and the work we do here moves the needle day by day.



Decarbonization



Reaching net zero emissions across the value chain is an ambitious target that reflects the urgent need to deal with climate change. We aim to contribute to the decarbonization of the energy sector with our range of products that help our customers reduce their emissions.

- We support our customers on their way to realizing nationally and internationally agreed climate goals
- We give special attention to Scope 3 emissions from the use of sold products and work with our suppliers to help them reduce emissions
- With our Climate Neutral Program, we drive the decarbonization of our own processes

The impacts of climate change, coupled with a rising global demand for energy, pose an enormous challenge. Meeting increasing demand with conventional sources of energy would result in even higher emissions of greenhouse gases (GHG) such as CO₂. With the impact of the energy sector far greater than that of any other sector, our task as an energy company is clear: to meet the growing need for energy while taking action to shape the path to decarbonization. This poses risks and opportunities for our company, which we manage through our Enterprise Risk Management (see chapter ↗ [Strategic focus](#)).

To drive the decarbonization of global energy systems, we are following an ambitious strategy. With our innovative solutions, products, and services, we are supporting our customers in their transition to a more sustainable

world. Making this transition is an immense task, and we know we cannot do it alone. It will require all stakeholders from politics, business, and society to work together more closely to achieve this vision.

On our journey to “energize society,” we are decarbonizing our business activities along our entire value chain. In doing so, we are contributing to the UN SDGs, in particular, SDG 7 “Affordable and Clean Energy” and SDG 13 “Climate Action.”

Decarbonization is an essential part of our strategy

We are committed to decarbonization along our value chain – from our supply chain to our own operations to the use phase of our products. We have science-based 2030 targets for all scopes, and we aspire to reach net zero across the value chain in line with a 1.5°C pathway.

In 2021, the Science Based Targets Initiative (SBTi) validated the absolute GHG reduction targets for Siemens Energy (excluding Siemens Gamesa) – not only for our own operations (Scopes 1 and 2) but also for the use phase

of our sold products (a category of Scope 3). This confirmed that the following targets are in line with the Paris Agreement. For Scope 1 and 2 emissions, the SBTi confirmed our commitment to a 46% reduction by 2030 and to increase the annual sourcing of renewable electricity from

Keywords: net zero & climate neutral

Net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. To achieve net zero, all emissions are neutralized or removed for that year. At Siemens Energy, we use net zero when talking about our long-term targets across the value chain (including Scope 3 emissions).

Climate neutral means that an activity releases net zero carbon emissions (and equivalents) into the atmosphere, which can be achieved by compensating remaining emissions beyond the own value chain. At Siemens Energy, we use climate neutral to refer to our goal to achieve climate neutrality in our own operations (Scopes 1 and 2) by 2030.

59% to 100% by 2023, both from a 2019 base year. For our Scope 3 target, the confirmation relates to our plans to reduce absolute Scope 3 emissions from the use of sold products by 28% by 2030 from a 2019 base year.

The SBTi also verified that the following emissions reduction targets in place at Siemens Gamesa (Scopes 1 and 2) align with the 1.5°C Paris Agreement goal. The verification refers to our target to reduce Scope 1 and Scope 2 emissions by 70% per MW installed by 2025 from a 2017 base year. Siemens Gamesa has committed that 30% of its suppliers by spend covering purchased goods and services, as well as transportation and distribution, will have science-based targets by 2025. Siemens Gamesa commits to increasing its annual sourcing of renewable electricity from 58% in 2017 to 100% by 2025.

In fiscal year 2023, Siemens Gamesa made a big step toward net zero in Scope 3 by announcing GreenerTower, a wind turbine tower made of greener steel (see highlighted example on this page).

In meeting the targets of the Paris Agreement, our goal is also to help meet the climate and energy targets of the European Union (EU). As part of its Green Deal, the EU has implemented a classification system – the EU Taxonomy – which aims to direct investments toward sustainable projects and activities. The taxonomy lays down criteria for the definition of sustainable economic activities, with the purpose of providing companies, investors, and policymakers with consistent and comparable criteria for assessing which economic activities can be considered sustainable. For fiscal year 2022, and in accordance with a simplified approach allowed by the EU for first-time application, Siemens Energy reported the shares of taxonomy-eligible economic activities in revenue, capital expenditure (CapEx), and operating expenditure (OpEx) in relation to the currently developed environmental targets “Climate change mitigation” and “Climate change adaptation.” In fiscal year 2023, the reporting obligation also extends to the taxonomy-aligned shares of revenue, CapEx, and OpEx and the recognition of natural gas and nuclear energy activities. For further information, please refer to ↗ [Siemens Energy Annual Report 2023, EU-Taxonomy](#).

EU Taxonomy (%)	Fiscal year	
	2023	2022 ¹
Share of revenue from EU Taxonomy-eligible activities	73.4	57
Share of capital expenditures from EU Taxonomy-eligible activities	72.2	79
Share of operational expenditures from EU Taxonomy-eligible activities	83.1	40
Share of revenue from EU Taxonomy-eligible and -aligned activities	37.5	–
Share of capital expenditures from EU Taxonomy-eligible and -aligned activities	51.0	–
Share of operational expenditures from EU Taxonomy-eligible and -aligned activities	40.4	–

¹ Due to the simplified approach in fiscal year 2022, there is no prior year information on taxonomy-aligned shares available. A prior year comparison of the total taxonomy-eligible shares is only possible to a limited extent due to the first-time application of the complementary delegated act on natural gas and nuclear activities.

The climate goals at Siemens Energy (excluding Siemens Gamesa) are also part of our Long-Term Incentive plan and hence firmly anchored in top management compensation (see chapter ↗ [Strategic focus](#) and the ↗ [Siemens Energy Annual Report 2023, Compensation Report](#)).

We want to facilitate the implementation of sustainability across the company and increase transparency on our performance. To this end, we are currently setting up an ESG data management solution. This will enable us to collect and process ESG data and use it for strategic forecasting. The goal is to reduce the manual effort required for data collection, increase data quality, and enable internal benchmarking and steering to achieve our sustainability targets. The first use case focused on Scope 3 downstream emissions calculations for our Gas Services Business Area. We plan to have the emissions from sold products automatically calculated on a quarterly basis and shown in a global dashboard. In addition, we are preparing the calculation of emissions based on our sales pipeline as maintained in Salesforce. This is designed as an added benefit to enable us to forecast future



Siemens Energy transformer factory in Nuremberg.

Enabling Green Steel production

Producing steel is an energy-intensive and climate-impacting process. Pioneering steel producers in Europe are investing in Green Steel, using an electric arc furnace instead of a coal-fired furnace and hydrogen as a reducing agent. Siemens Energy is supplying substations with transformers and switchgear to Salcos and Feralpi Stahl to power their electric arc furnaces in the steel rolling mills. Feralpi Stahl has chosen our F-gas-free switchgear, eliminating the use of SF₆. Siemens Gamesa is also looking to utilize more sustainable steel in its GreenerTower, which consists of approximately 80% steel plates. The new GreenerTower will lead to a CO₂ reduction of at least 63% in the tower steel plates compared to conventional steel, while maintaining the same steel properties and quality.

emissions and thus be in a better position to manage such emissions against our SBTi target as well as the planned annual carbon budgets that we are working on (for more information, see chapter [Strategic focus](#)).

The greatest potential to reduce GHG emissions is in our products, solutions, and services. To underscore our strategic focus of providing innovative technology for our customers' energy transition, we have defined five fields of action to decarbonize our portfolio (for more information, see chapter [Customers and innovation](#)).

With a focus on sustainability, we will continue to transform our portfolio of products, solutions, and services, and we will focus on building the company based on our three strategic pillars (see chapter [Strategic focus](#)):

- Low- or zero-emission power generation
- Transport and storage of electricity
- Reducing GHG footprint and energy consumption in industrial processes

Scope 3 emissions reduction target

Our GHG emissions reduction target for Scope 3 emissions for Siemens Energy (excluding Siemens Gamesa) applies to sold products only, with the aim to reduce absolute Scope 3 emissions from the use of sold products by 28% by 2030 (from a 2019 base year):



As a provider of clean and affordable energy, Siemens Gamesa's strategy focuses on opportunities to develop new onshore and offshore wind turbines with bigger rotors able to deliver higher annual energy levels at a lower cost.

Decarbonization at our customers

To reflect the importance of our products and solutions for decarbonizing energy systems worldwide, at Siemens Energy (excluding Siemens Gamesa), we have integrated the use of our sold products into our carbon footprint calculation as part of the SBTi commitment to create transparency for our stakeholders. Sold products account for over 99% of our overall GHG emissions.

The bulk of these emissions shall be reduced through measures such as portfolio adjustments, fuel shifts, and emission removal technologies (see chart on page 33). We expect most of our reductions in emissions from sold products to happen after 2030, since we believe that markets and technologies still need to mature and scale. Some of our customers in Germany, Austria, and China are already starting to enable their plants to run on hydrogen (H₂) rather than natural gas, starting with co-firing H₂ at different shares, from 30% to 100%.

We are committed to monitoring progress on climate action and reducing our exposure to climate-related risks. Therefore, we conducted an analysis of future markets based on three scenarios that include climate implications. On this basis, the climate implications of our business planning until 2030 were evaluated for the base case scenario. We also evaluated and decided on emission reduction levers (for more information, see chapter [Strategic focus](#)).



Gas turbine maintenance at the Donaustadt power plant.

Enabling the co-firing of hydrogen in gas-run power stations

The German utility company EnBW and Siemens Energy are jointly developing the use of green hydrogen as a climate-friendly fuel in future power plants. One pilot project we regard as important is the EnBW district heating power plant in Stuttgart-Münster, where natural gas is expected to initially replace coal in approximately three years. All systems are constructed from the very beginning to allow natural gas to be replaced with hydrogen as quickly and completely as possible. Two SGT-800 gas turbines from Siemens Energy are at the heart of the installation. We estimate that green hydrogen will be available in sufficient quantities within ten to twelve years. Similarly, one of Austria's largest gas turbines was in the process of being rebuilt on the site of the Donaustadt power plant in the reporting year. Before the end of fiscal year 2023, the consortium of Wien Energie, RheinEnergie, Siemens Energy, and Verbund plans to add hydrogen for power generation for the first time as part of an operational trial. The trial will be the first of its kind in the world at a commercial combined-cycle gas turbine plant in this power class.

Our Scope 3 emissions from the use of sold products have been calculated based on GHG Protocol standards. The main sources of the emissions are:

Products that directly consume energy (fuels or electricity) during use

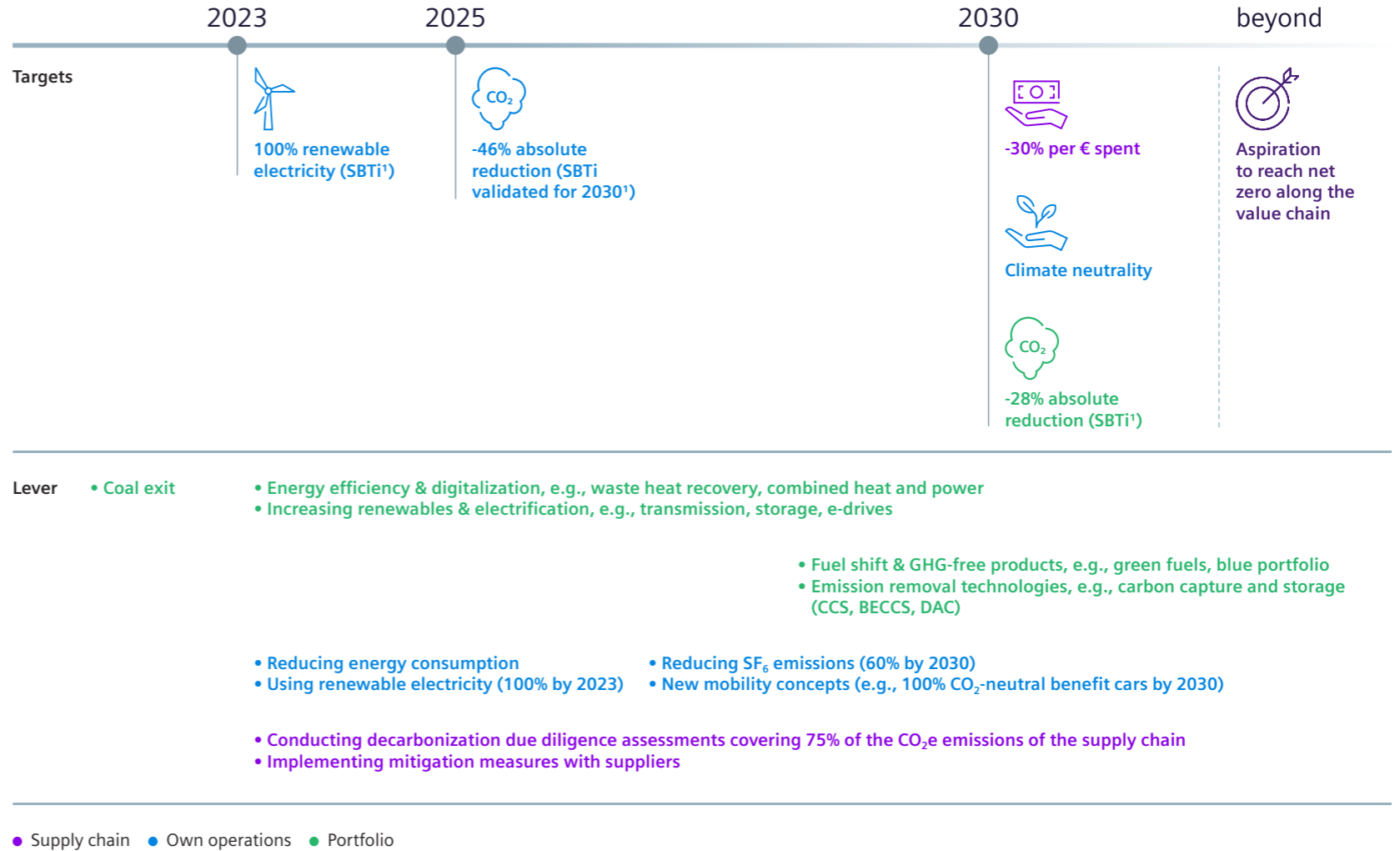
- CO₂e emissions generated through the combustion of fossil fuels (e.g., natural gas in a gas turbine): the amount of CO₂e emissions varies depending on the type of fuel (e.g., natural gas, coal, hydrogen), the energy efficiency of the product (gas turbine, steam turbine, etc.), the operating hours, and the expected lifetime.
- CO₂e emissions generated by large electrical consumers (e.g., motors, drives, pumps) or from power losses (e.g., transformers) of the used products.

Products that contain or form greenhouse gases that are emitted during use

- To a minor extent, the transmission portfolio might be emitting CO₂e due to SF₆ gas leakages during maintenance or operational use at customer sites.

The calculation methodology for Scope 3 emissions from the use of sold products comprises the emissions from our products resulting from new business in fiscal year 2023 over their expected use phase and the expected operating hours per year. When an order is received, the respective total lifetime emissions are determined and reported. GHG emissions that occur during other phases of a product's life cycle, such as in the supply chain, during production, or upon end-of-life disposal, are not accounted for or reported in Scope 3 downstream (use of sold products). Biogenic emissions are reported separately, outside of our Scope 3 downstream inventory, as required by the GHG Protocol. They occur when our customers use biogas or biomass as a fuel (e.g., biomass power plant, biogas in a gas turbine). Service business is not included in our Scope 3 emissions from the use of sold products. We do not disclose emissions reductions resulting from efficiency increases through service upgrades (of power plants, for example). While not part of our Scope 3 footprint calculations, we are

Our climate roadmap



¹ Siemens Energy (excluding Siemens Gamesa).

New turbine technology reduces CO₂ emissions substantially

The Siemens Energy Business Area Gas Services (GS) and independent power producer Mass Global Energy Rom S.R.L. have signed a contract for the supply of the HL-class gas turbine technology for the Mintia combined cycle power plant in Romania. With a maximum power generation efficiency of more than 64%, the plant will be the most efficient gas-fired power plant in Romania and one of the most efficient gas-fired plants in Europe. Running on domestic natural gas, it will have an electrical capacity of 1,700 megawatts and will replace a retired coal-fired power plant. This will make a substantial contribution to climate protection by reducing CO₂ emissions by more than 50%.

aware that reducing the footprint from our installed base is important to reducing global CO₂e emissions. To learn more about our calculation methodology, please refer to our annex.

Updates of our calculation parameters

As markets are changing, we aim to make sure our calculation parameters reflect reality. A customer buying an H₂-ready gas turbine is not evidence that it will actually operate on H₂. Therefore, we consider co-firing H₂ only if customers share a specific time plan and indicate to what extent they will use H₂. We thus considered the planned share of H₂ from a co-firing project in fiscal year 2022 in our calculations. In fiscal year 2023, we also reconsidered the expected lifetime of our turbines. While gas turbines have historically been powered by fossil fuels throughout their lifetime, this will change in the future. Many countries, including our most relevant customer markets, have committed to a net zero economy in 2050 and a net zero electricity system even earlier. We adapted our calculations accordingly, assuming the turbines we sell from now on will not be operated on unabated fossil fuels after 2050. The expected lifetime in the base year was 30 years; for fiscal year 2022, we considered 28 years and for fiscal year 2023, we are calculating with 27 years. These two changes do not affect the baseline but do have an impact on the numbers for fiscal year 2022, leading to a corresponding recalculation.

Siemens Energy's total Scope 3 emissions from the use of sold products during the reporting period was 1.1 billion metric tons of CO₂e and the energy consumption is 3,150 TWh over the expected lifetime. Compared to fiscal year 2022, our emissions decreased by about 12% in absolute numbers and 33% in intensity. There are several reasons for the decrease in absolute emissions, including:

- Emissions decreased due to lower sold capacity (MW) in central and distributed power generation
- Lifetime for power generation was adjusted (27 years in fiscal year 2023 vs. 28 years in fiscal year 2022)
- Operating hours for specific gas turbine frames used in central power generation decreased due to increasing penetration of renewable energy sources

While our absolute Scope 3 downstream emissions from the use of sold products are the primary basis for measuring and managing Scope 3 emissions, they do not fully reflect the potential positive effects of our business activities on climate change mitigation. With our products and solutions, we support the decarbonization of energy systems around the globe and help our customers avoid emissions. The benefits of our business activities

Scope 3 downstream emissions (1,000 metric tons CO ₂ e)	Fiscal year	
	2023	2022 ²
Total¹	1,098,370	1,252,319
Intensity (t CO ₂ e/ € of order intake)	0.022	0.033

¹ Includes category "use of sold products" only (well-to-tank emissions are included, biogenic emissions have been excluded). Siemens Gamesa's emissions equal zero.

² Fiscal year 2022 emissions were recalculated to reflect the reduction of the expected lifetime for gas and steam turbines in power generation from 30 years to 28 years and an H₂ co-firing project in fiscal year 2022.

Emissions from biogenic fuels ¹ (1,000 metric tons CO ₂ e)	Fiscal year	
	2023	2022
Total¹	323,900	–

¹ Reporting outside of Siemens Energy's Scope 3 downstream inventory.

that support the decarbonization of energy systems are not reflected in our absolute GHG footprint. To demonstrate and estimate such benefits, we plan to develop a company-wide framework to calculate avoided emissions outside of our Scope 3 downstream inventory.



Image depicting a model of a Liquid Wind electrofuel facility.

Substituting fossil fuels in Sweden

The Danish energy company Ørsted is building Europe's largest commercial production facility for carbon-neutral marine fuels in northeastern Sweden. At the heart of the FlagshipONE plant is a technology package from Siemens Energy's Business Area Transformation of Industries (TI). It comprises four proton exchange membrane (PEM) electrolyzers with a total capacity of 70 megawatts, as well as plant-wide electrification and automation systems, including innovative digitalization solutions and the entire power distribution and compressor systems. The plant, which is being built in the Swedish coastal town of Örnsköldsvik, will be able to produce up to 50,000 metric tons of e-methanol per year from renewable energy and biogenic carbon dioxide from 2025. As a substitute for fossil fuels, this can avoid 100,000 tons of CO₂ emissions per year in shipping.

Decarbonization of our operating processes

Becoming climate neutral in our own operations is an integral part of the sustainability journey for Siemens Energy.

With the Climate Neutral Program, Siemens Energy (excluding Siemens Gamesa) aims to be climate neutral in its own operations by 2030 – with a focus on reducing emissions wherever possible and compensating for any remaining emissions from then on. This includes the reduction of absolute Scope 1 and 2 GHG emissions by at least 46% by 2025 from the base year 2019. This is an even greater ambition than our initial target year, which was originally 2030, as validated by the SBTi. In the reporting period, we achieved a reduction of 59% compared to the base year 2019 and a reduction of 16% compared to 2022.

Siemens Gamesa committed to the SBTi in September 2018 and, by 2020, the SBTi verified that Siemens Gamesa’s emissions reduction target was aligned with what the Intergovernmental Panel on Climate Change (IPCC) estimates necessary to meet the 1.5°C trajectory. Siemens Gamesa has already been climate neutral in its own operations since 2019, including offsetting unavoidable emissions.

The strongest levers to achieve climate neutrality are:

1. Using renewable electricity

In fiscal year 2023, we achieved our target to power 100% of Siemens Energy’s global electricity consumption from renewable sources. In fiscal year 2024, we aim to grow the share of renewable electricity produced on site through the installation of additional photovoltaic systems.

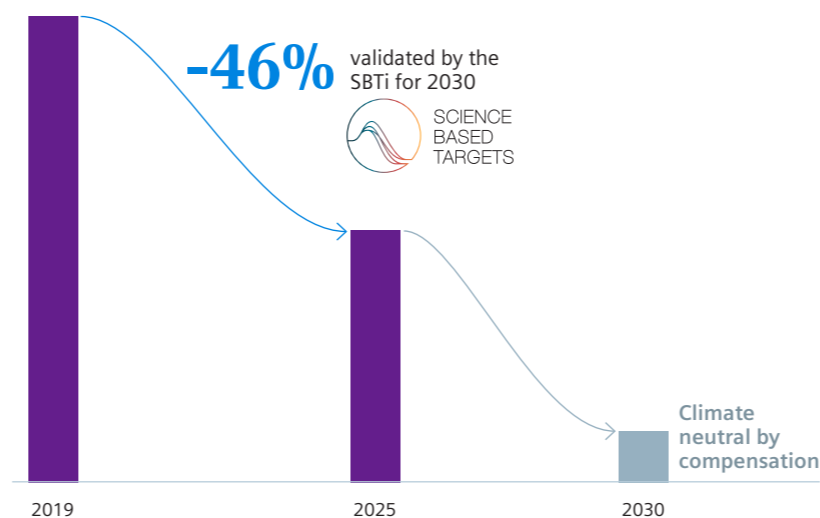
2. Reducing energy consumption and electrification

We have energy efficiency projects in place at various locations for buildings and process optimization. These include the installation of LED lighting with dimmers and motion sensors, the installation of smart meters to

increase transparency, and building automation systems (e.g., heating, ventilation, air conditioning). The production scope includes, for example, an improved production process of transformers, achieved by installing heat recovery systems and vapor phase ovens that reduce drying time.

Scope 1 and 2 emissions reduction target in line with 1.5°C trajectory

Our GHG emissions reduction target for Scope 1 and Scope 2 emissions for Siemens Energy (excluding Siemens Gamesa):



3. Reducing SF₆ emissions

SF₆ emissions in our operations originate from products in our Business Area Grid Technologies. With the expansion of our Blue Portfolio, together with the stringent measures in our facilities, we have set a target of reducing SF₆-related emissions by 60% by 2030 compared to a 2019 baseline. Due to our continuous work in all our operations to improve technical

standards, increase data transparency, and raise awareness of the greenhouse effect, in fiscal year 2023, we achieved a reduction of 57% compared to the base year and of 11% compared to fiscal year 2022.

Our SF₆/F-gas-free Blue Portfolio is based on technical air insulation and vacuum switching technology. With its zero global warming potential, the portfolio enables net zero power grids.

4. New mobility concepts

Siemens Energy (excluding Siemens Gamesa) aims for 100% CO₂-neutral benefit cars by 2030 by implementing our car policy globally. In Germany, for instance, employees receive substantial financial support when choosing a battery electric vehicle, whereas they pay for conventional fuel or diesel cars themselves. Since this bonus/malus scheme has been introduced, order rates for all-electric vehicles have increased rapidly, leading to reduced emissions in the near future.

Siemens Gamesa has implemented various projects on this lever, such as starting to replace forklifts worldwide with low-carbon alternatives to reduce the company’s Scope 1 (direct) GHG emissions, and the Siemens Gamesa Employee Mobility & Transport Benefits Policy, in combination with the policy to support the reduction of the company’s Scope 3 (indirect) GHG emissions.

Siemens Energy fleet	Fiscal year	
	2023	2022
Number of vehicles	~5,300	~5,300
Fleet consume (1,000 GJ)	341	435

Internal CO₂ pricing

CO₂ pricing is a further steering mechanism for achieving climate neutrality, and we believe binding CO₂ price signals can guide us toward the 1.5°C target. These price signals encourage the use of the best technologies and business models available. Internally, Siemens Energy (excluding Siemens Gamesa) has implemented a policy in fiscal year 2022 to consider GHG emissions in our CapEx decisions and ensure that new investments support our Climate Neutral Program. To support low-carbon investment in our own operations, we introduced a shadow price in fiscal year 2022 of €100 per metric ton of CO₂.

In Brazil, Siemens Energy (excluding Siemens Gamesa) has implemented an internal carbon fee. Each Business Area pays a specified carbon fee into an investment fund, which is then used to invest in low-carbon projects. The carbon fee is designed to evolve based on decarbonization goals achieved over the years: from fiscal year 2020 to fiscal year 2022, the price was static at \$40; for fiscal year 2023, there was a +30% correction and from fiscal year 2024 onward, the price will be adjusted by +10% per fiscal year until fiscal year 2030. We expect that this fund will be implemented in other Latin

American countries by 2024, in consideration of local market taxation rules. In the first phase, the internal carbon fee is collected from the Business Areas (based on their previous emissions) and reverted to the fund. The project campaign then collects project ideas linked to energy efficiency and sustainable operations. The selected projects pitch their ideas to the Neutral CO₂ Steering Committee to grant the investment for implementation.

Energy use and efficiency

We calculate the energy consumption of our offices and manufacturing facilities by adding primary and secondary consumption of fuels and electricity. We have implemented a global EHS reporting tool and increased our reporting scope to include more company locations in our direct reporting, which has led to better data transparency. Additionally, in fiscal year 2023, we have been working on increasing the reporting quality and frequency for operational data. Another lever to manage the complexity of global reporting lies in automating data collection directly from primary sources and transferring the data into our reporting tool.

Energy consumption (1,000 GJ)	Fiscal year	
	2023	2022
Primary energy	1,796	2,103
thereof natural gas & liquid petroleum gas	1,511	1,825
thereof fuel oil, coal, gasoline, diesel	217	211
thereof biogas	63	63
thereof other	4	5
Secondary energy	3,390	3,694
thereof electricity	2,893	3,117
thereof electricity from renewable sources	2,893	2,817
thereof district heating	497	577
Total	5,186	5,797
Intensity (GJ/€ of revenue)	1.67×10 ⁻⁴	2.00×10 ⁻⁴

Siemens Energy's total energy consumption during the reporting period was 5,186 million gigajoules (GJ), resulting in an intensity of 1.67×10⁻⁴ GJ/€ of revenue. Compared to fiscal year 2022, this is a decrease of 11% in absolute energy consumption, which is mainly attributable to the implementation of energy efficiency projects.

Through our Climate Neutral Program and our target to have 100% of our global electricity consumption at Siemens Energy (excluding Siemens Gamesa) come from renewable sources by 2023, we managed to reduce emissions by about 204,000 metric tons of CO₂e (fiscal year 2022: 196,000) by using electricity from renewable sources.



Siemens Energy compressor to be used at Occidental's Direct Air Capture plant.

Direct Air Capture (DAC)

Siemens Energy compressors will be used at Occidental's first large-scale Direct Air Capture (DAC) plant in Texas' Permian Basin developed by 1Point-Five, a subsidiary of Occidental. The two compressor packages will enable the plant to capture up to 500,000 metric tons of CO₂ per year when fully operational. This will be achieved by compressing the captured CO₂ for additional processing and pressurizing the final product into a pipeline for injection into underground reservoirs. Siemens Energy and partners have also been awarded a \$3.7 million grant by the U.S. Department of Energy to explore the feasibility of a multi-technology DAC hub. The DAC system will be anchored around our large-scale solid sorbent capture technology, with smaller deployments of next-generation capture technologies planned.

Share of renewable energy (%)	Fiscal year	
	2023	2022
Share of renewable electricity (of total electricity)	100	90
Share of renewable energy (of total energy)	57	50

Over the reporting period, we collected the following data regarding the level of Scope 1 and 2 emissions related to business activities. Our reporting tool enables us to increase the collection of actuals and reduce extrapolations.

Energy efficiency

Our overall primary and secondary energy consumption was 11% below the previous year's figure. Energy efficiency projects for both real estate and manufacturing operations have contributed to this net reduction. Additionally, reduced testing and the closing of locations have contributed to a decrease in natural gas consumption. The overall reduction has partly been set off due to the shift to electrification in our manufacturing processes.

Scope 1 (direct) emissions

Direct GHG emissions arise from sources in the company's ownership or under its control.

Scope 2 (indirect) emissions

Indirect GHG emissions refer to the consumption of purchased electrical energy and district heating.

In fiscal year 2023, we managed to reduce our Scope 1 and 2 emissions by around 16% or 33.46 metric tons, resulting in a Scope 1 and 2 intensity of 5.83×10^{-6} t CO₂e/€ of revenue in 2023 compared to 7.42×10^{-6} t CO₂e/€ of revenue in 2022. The main levers were an increase in green electricity, reduced overall energy consumption, reduced testing, and a continued reduction of SF₆ emissions. More than 50% of our emissions occur in Germany, China, and the U.S.².

Scope 1 and 2 emissions (1,000 metric tons CO ₂ e)	Fiscal year	
	2023	2022
Scope 1	163	188
thereof natural gas & liquid gas	87	102
thereof fuel oil, gasoline, diesel	16	15
thereof SF ₆	32	35
thereof fleet emissions	25	32
thereof other emissions	4	3
Scope 2	18	27
thereof electricity	0	9
thereof district heat	18	18
Total	182	215
Intensity (t CO ₂ e/€ of revenue)	5.83×10^{-6}	7.42×10^{-6}

² Without fleet emissions.

Atmospheric pollutant emissions

Other atmospheric pollutant emissions also have negative impacts on the environment. These include volatile organic compounds (VOCs) and ozone-depleting substances (ODS). VOCs contribute to the formation of ozone close to the earth's surface. Solvents, paints, and adhesives are examples of substances and materials that contain VOCs. ODSs are monitored to comply with the Montreal Protocol, the international convention on the protection of the ozone layer, as well as with country-specific regulations.

In calculating nitrogen oxides (NO_x), we have assumed typical combustion conditions in relevant thermal processes.

Atmospheric pollutant emissions (metric tons)	Fiscal year	
	2023	2022
VOCs	257	275
ODS (in R11 equivalent)	0.007	0.009
NO _x	66	74

Decarbonization of our supply chain

Our suppliers are an important part of the value chain, and we encourage them to take climate protection measures. Emissions reduction is an integral part of our suppliers' supply chain management (see chapter [Sustainable supply chain management](#)), and we continue to urge them to increase their efforts.

We run our Carbon Reduction@Suppliers Program in cooperation with an external service provider offering an economic model based on an input/output analysis that identifies the CO₂ footprint of all suppliers. With the procurement volume and the material-country combination, the model calculates the CO₂ footprint in the supply chain based on official statistics and studies by the OECD, World Bank, IPCC, U.S. BEA, and the U.S. and European environmental agencies (spend-based method).

For Siemens Energy, we set an ambitious target of reducing our relative Scope 3 GHG emissions from purchased goods and services, as well as transportation and distribution, by 30% per procurement volume unit (€ spent) until 2030 based on fiscal year 2018.

The calculated upstream footprint for fiscal year 2023 is 9,230 kilotons of CO₂e, resulting in an intensity of 0.414, which is 0.5% higher in total emissions but 8.3% lower in intensity compared to fiscal year 2022.

To further increase transparency regarding supplier engagement for decarbonization in fiscal year 2023, we encouraged more than 3,000 suppliers – corresponding to more than 75% of the carbon footprint in our supply chain – to participate in our decarbonization due diligence assessment (DDA) and report on their measures. These assessments will be considered as we track progress on our targets in the future.

Scope 3 upstream emissions (1,000 metric tons CO ₂ e)	Fiscal year	
	2023	2022 ¹
Total	9,230	9,182
thereof category "purchased goods and services"	8,456	8,691
thereof category "transportation and distribution"	775 ²	491
Intensity (kg CO ₂ e/€ of purchasing volume)	0.414 ³	0.451

¹ 2022 data was adjusted to include Siemens Gamesa. Due to the partially undefined material codes of the purchasing volume at Siemens Gamesa, approximately 10% of the CO₂e emissions were extrapolated.

² 325 kilotons of the 775 kilotons CO₂e emissions were calculated using a consumption-based method.

³ Reduction compared to the base year 2018 (baseline calculation was partially extrapolated) -18.6%.

Transparency and credibility on our path to net zero

Judith Osthues
Corporate Sustainability Manager, Siemens Energy

It's a question she faces each day. Just how much CO₂ does a gas turbine emit over its lifetime? Responsible for climate-related reporting and Scope 3 downstream emissions, Judith Osthues explains why a thorough, transparent approach is necessary for calculating the "use of sold product" emissions.

It's late summer, the sun is shining, and I've just taken a break in the garden outside my home office. I start going through the e-mails that have piled up over lunch – a lot of them are about numbers, quite a few really, since we're currently reviewing our Scope 3 downstream emission calculations.

Today, Siemens Energy's GHG emissions total around 1.1 billion tons across all scopes. More than 99% come from Scope 3 downstream – that is, the emissions from our products like gas turbines in the hands of our customers. By 2030, we want to reduce these emissions by 28% (from a 2019 base year) in order to keep in line with a pathway well below 2 °C. In the long-term we aspire to reach net zero across the value chain in line with a 1.5°C pathway. It's not easy to know which the most important levers are for the long term, to know how and when those levers will materialize – or, let's face it, to even know if they'll materialize at all.

01:00 p.m.

Mülheim, Germany

It's late summer, the sun is shining, and I've just taken a break in the garden outside my home office. I start going through the e-mails that have piled up over lunch – a lot of them are about numbers, quite a few really, since we're currently reviewing our Scope 3 downstream emission calculations.



Just how much CO₂e does a gas turbine emit over its lifetime? The math is simple enough. Let's have a look at a sample formula for a large gas turbine:

$$475 \text{ MW} \cdot 5500 \text{ h} \cdot \frac{232 \text{ g CO}_2\text{e/kWh}}{62 \%} \cdot 27 \text{ years} = 26 \text{ Mt}$$

In the end, we can't know exactly what happens in reality; we can only estimate. And even the well-established GHG protocol leaves room for interpretation. The best we can do is keep checking the processes and updating our data each year: Is it all still correct? Are the baseline assumptions right? Has the electricity mix changed? Are turbines being used differently?

Recently, colleagues from one of our Business Areas approached our team as they were receiving the first orders where customers wanted to add hydrogen to fuel their turbines. So, how should this project be accounted for in our GHG balance? Hydrogen can be added to our turbines, but we can't say, "Okay, just because our turbines could potentially burn 70% hydrogen, we'll calculate it that way," regardless of what they actually burn. Another parameter we need to look at are the operating hours of a gas turbine: How will the customer use it? Will it always run at baseload or will it be used as a peaker?

At least the principles we use to guide us are clear: transparency, credibility, and a rather conservative perspective. It may not seem like much, but those principles are the baseline for our Scope 3 downstream-related targets and actions, and I am happy to be part of laying the foundation together with the Business Areas.

Watch the video:



The principles we use to guide us are clear: transparency, credibility. They are the baseline for our targets and actions.



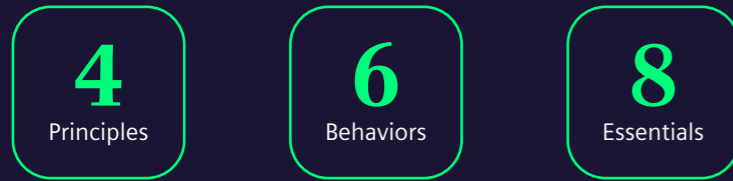
3 Responsible operations

Summary pages	42/43	Sustainable supply chain management	61
Occupational health and safety	44	Human rights	66
Featured expert: Zero Harm	49	Compliance and integrity	68
Conservation of resources	51	Working at Siemens Energy	72
Featured expert: Zero Waste	55	Featured expert: Talent Attraction & Diversity	81
Product stewardship	57	Societal engagement	83

Summary page

Zero Harm Framework

We promote a strong Zero Harm culture that aims to prevent injuries and adverse effects on people and the environment.



Occupational health and safety

Providing a safe and healthy working environment for all employees, partners, contractors, and suppliers is our utmost priority.



¹ Number of recordable injuries (TRI) x 1,000,000/work hours performed.

Conservation of resources

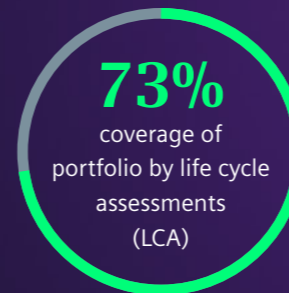
We aim to minimize our impact on the environment. Our environmental management systems are founded on the principles and elements of the international ISO 14001 and ISO 50001 standards or energy audits.



² Excluding construction and other waste.

Product stewardship

Our approach to product stewardship includes all environmental aspects, with a strong focus on climate change adaptation and resource efficiency.



Summary page

Sustainable supply chain management

We apply stringent environmental and social standards to contribute to a sustainable supply chain.



Working at Siemens Energy

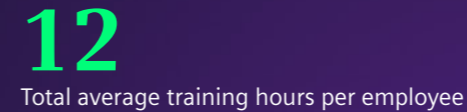
Our People Agenda promotes a thriving environment, game-changing leaders, and a vibrant workforce.

Share of females



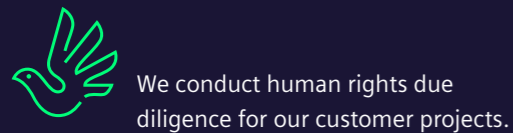
¹ SE (excluding Siemens Gamesa).

Training hours



Human rights

We are committed to ensuring respect for human rights along the value chain within our sphere of influence.



Compliance & integrity

Our company-wide zero-tolerance approach aims to ensure a strong culture of business ethics and compliance.



Societal engagement

Our global engagement addresses needs in the countries in which we operate.



Occupational health and safety



Safe workplaces and healthy employees are our utmost priority. We systematically identify risks, work toward avoiding incidents, and promote employee well-being.

- **Prevention and communication are key to implementing functioning health and safety systems**
- **Umbrella certificate for the Integrated Management Systems substitutes local certificates**
- **Strong Zero Harm culture promoted through awareness training and monitoring**

Providing a safe and healthy working environment for all employees, partners, contractors, and suppliers is one of our key objectives. Having a sound occupational health and safety approach is vital to achieve the two SDGs to which we are committed: SDG 3 “Good Health and Well-Being” and SDG 8 “Decent Work and Economic Growth.”

Our environment, health, and safety (EHS) standards are anchored in all our business practices and are aligned with our EHS Principles and Core Responsibilities as well as our Business Conduct Guidelines. At Siemens Energy, we use these as a foundation for the development of our EHS management systems and processes.

In the area of EHS, communication is key. There is a formal monthly committee meeting in the form of the EHS Collaboration Board Call, with members of the Corporate EHS team, the EHS Leads of the Business Areas, EHS Hub Leads, and the lead country EHS Leads convening to discuss EHS topics.

In addition, we organize a quarterly safety call, a health call, and an environmental call with EHS Leads in the countries and Business Areas attending. We distribute a monthly newsletter and use an internal Viva Engage (formerly Yammer) community for ongoing communications. The Business Area EHS Leads cascade all information channels accordingly. Participation is covered by open communication driving the “develop locally and share globally” philosophy.

In the reporting year, we also continued our regular safety reviews with members of the Executive Board. These were further enhanced by a process improvement to provide lessons learned (LLs) for all recordable incidents and high-potential near misses. The LLs are stored in a central repository, which is accessible to all employees.

To support the fundamental requirements for good occupational health and safety, our EHS Policy aligns with our company principles and behaviors, demonstrating

- strong leadership, ownership, and commitment,
- promotion of good health and safety conduct,
- commitment to continuous improvement,
- hazard identification, risk assessment and prevention, and
- compliance with principles, standards, and behaviors.

Formal management systems

Alongside the EHS Policy, the ISO 45001 standard provides guidance so that international and local regulations, laws, standards, and practices are observed and complied with wherever we operate. This standard provides a basis for effective management, identification of potential risks, and internal audit and review.

Siemens Energy aims to have a certifiable management system covering all employees worldwide. Each operational business within Siemens Energy operates under a relevant and maintained integrated management system covering quality (ISO 9001), environment (ISO 14001), and health and safety (ISO 45001).

During fiscal year 2023, Siemens Energy (excluding Siemens Gamesa) continued to transition from having six umbrella certificates covering ISO 9001, ISO 14001, and ISO 45001 to having one overarching multi-site certificate that covers all three standards. In the next step, countries and stand-alone certificates will be integrated into the multi-site certificate.

The Business Areas perform internal audits within their organization to prepare and maintain certifications. Siemens Gamesa has all locations covered by one certifiable management system.

Contractors and temporary workers are expected to work to the same standards as Siemens Energy employees. Contractor incidents are shared with the Business Areas and Global Functions for discussion, lessons learned, and the identification of opportunities for improvement. We also hold direct meetings with our contractors and suppliers to discuss high-impact and high-potential incidents and improvement opportunities.



Participants of the global mentoring program in EQS.

New mentoring program in EQS

Siemens Energy (excluding Siemens Gamesa) has launched a global mentoring program, which aims to professionally develop women in the EQS community over a two-to-three-year period by growing self-confidence, encouraging them to seek new challenges, and aiming to leverage their careers into leadership positions. The program connects women from all over the world, allowing them to participate in global activities with mentors from other countries and regions, practice other languages, and develop soft skills such as adaptability and resilience. As of fiscal year 2023, the program has 16 mentees, all of whom have been assigned a global Activity Mentor and a task designed to increase skills and knowledge with regard to EQS. Every six to eight months, a new group of mentees is inducted into the program.

Zero Harm at Siemens Energy

Principles

Foundation for strong and well-connected governance and assurance at all levels in our organization



Behaviors

To be demonstrated by everyone in our company, no matter the type of work



Essentials

Must be complied with by everyone performing this type of high-risk activity



All relevant data is shared with the Executive Board. Siemens Energy (excluding Siemens Gamesa) continues with its proven practice of “Eye on Safety Reviews,” which are held regularly with a member of the Siemens Energy Executive Board and are accessible to all employees on the Siemens Energy EQS SharePoint. EQS refers to our overarching system for Environment, Health, Safety, Quality, and Security.

In fiscal year 2023, further improvements in the quality of our contractor management approach included a review and standardization of our contractor pre-qualification questionnaire and approvals process. At Siemens Energy (excluding Siemens Gamesa), we also reviewed our General EHS Requirements for Contractors and have published a contractor-specific SharePoint providing access to contractor information, linked directly to the Zero Harm Framework.

Health and safety culture provides the foundation

Siemens Energy is committed to not only protecting the environment but also managing the health, safety, and well-being of our employees, partners, and other stakeholders who may be affected by our business and operational activities. That is why our priority is a strong Zero Harm Framework, which is driven by our principles, essentials, behaviors, and building blocks (see graphic on Zero Harm).

The Zero Harm Framework at Siemens Energy (excluding Siemens Gamesa) intends to set minimum expectations, placing responsibility on each local manager to develop and implement the principles, discuss elements that will be included in their program with their teams, and then reinforce them in the course of the daily work.

With our global EHS reporting tool, we can continuously monitor any concerns raised by employees, with each case treated locally according to our reporting process. Siemens Energy (excluding Siemens Gamesa) is currently implementing a new global software solution covering environmental, health, safety, security, and product safety incidents. The software is flexible, able to grow with our company's requirements, and fully operational for event management in fiscal year 2023.

Siemens Gamesa is implementing the same software for health, safety, and environment (HSE) topics. This Business Area also continues to instill a strong Zero Harm culture across the global business. In fiscal year 2023, it released the Zero Harm Framework Standard to align with that of the other Business Areas of Siemens Energy and performed a business reorganization under its Mistral program. This led to the majority of EHS resources in the business units to better support the needs of the business and drive a culture of performance accountability.

Siemens Energy (excluding Siemens Gamesa) has implemented a training platform that provides employees with the opportunity to develop both individual and team-based EHS skills and knowledge to meet regulatory requirements associated with their job roles and the minimum standards established by the Zero Harm Framework. EHS training has been aligned to provide a core set of courses directly corresponding with the EHS elements of the Zero Harm Framework.

Siemens Gamesa has a standardized training platform with the required EHS training courses made available to employees and contractors.



Celebration of our colleagues' health and safety commitment.

Zero Harm Champions League

The Zero Harm Champions League was announced on Zero Harm Day and is designed to recognize teams that demonstrate outstanding performance in one or more of the Zero Harm Behaviors or Essentials. A total of 300 teams applied, and this fiscal year, 14 teams were selected to join the champions league based on their deep commitment to health, safety, and environmental practices in their daily actions. The winners were personally congratulated by Siemens Energy's board members and shared their best practices and lessons learned with other teams across the organization.

Health and safety performance under review

Siemens Energy (excluding Siemens Gamesa) completed corporate assurance occupational safety (OS) audits related to a location's risk factors. The audits were conducted on site and across organizational levels to increase the effectiveness of our safety risk management at manufacturing, service, and project sites. Siemens Gamesa also completed OS audits (to ISO 45001 standard) during fiscal year 2023. OS audits and their results will continue to be quantified, providing details for the effective implementation of optimization measures, lessons learned, and continuous improvement recommendations.

Preventing incidents

Health and safety performance at Siemens Energy is managed via internal processes that define the requirements for the classification, recording, and investigation of incidents.

Processes at Siemens Energy (excluding Siemens Gamesa) include monthly reviews with each Business Area on how to meet its individual action plan as well as the implementation of behaviors defined in the Zero

Harm Framework. In fiscal year 2023, cranes and lifting remained one of our highest risks. Recognizing the need to protect our people working in this high-risk area, corporate EQS mandated a safety standdown, which is a call to action to review, discuss, and implement changes where applicable. Tracked via our incident reporting tool, the standdown involved 566 managers, team leads, and supervisors responsible for cranes and lifting activities. Guidance was provided for managers unable to personally lead the standdown, ensuring that the message cascaded effectively. The initiative also reached an additional 1,500 managers, team leads, and supervisors.

Moving forward, cranes and lifting safety will remain a top priority. We aim to achieve a reduction in incidents and are committed to maintaining the focus on this crucial aspect of workplace safety. By leveraging the positive results and experiences from the standdown, we are on track to create a safer environment for our people as we strive for continuous improvement in safety standards.

In fiscal year 2023, Siemens Gamesa devised a Proactive KPI Index, which is designed to monitor and promote the expected safety-related behaviors

across the business. This KPI has four main elements, which are averaged into an indexed value, these being:

- Percentage of closed actions versus total planned actions
- Percentage of inspections performed versus those defined in the inspection plan
- Level of compliance regarding the Incident Management Standard
- General proactive reporting rate (the proactive reporting rate measures the number of proactive events per one million working hours, with the following event types included: near miss, unsafe act, unsafe condition, positive observations, and observations)

This indexed KPI is made transparent via a dashboard and regularly discussed at management meetings to reinforce the expected actions and behaviors. The result for this KPI for fiscal year 2023 will be used as a benchmark for further improvement in subsequent years.

Our key focus is on the Total Recordable Injury Rate (TRIR) and serious incidents, details of which we share with the Executive Board on a monthly basis. We also report the Lost Time Injury Frequency Rate (LTIFR) to the Board every month.

At the end of the fiscal year, the overall TRIR of employees without contractors stood at 2.61 and the LTIFR of employees without contractors at 1.34.

The initiatives and action plans to bring down the LTIFR and TRIR have not yet materialized, thus affecting the overall performance. A combination of several aspects including organizational changes and workforce turnover combined with a high workload resulted in a delay of initiatives and action plans.

Our key objective is to prevent incidents, including high-consequence incidents, during the performance of work activities. The Zero Harm Framework supports our efforts to reduce the severity of injuries. In fiscal year 2023, we had 8 high-consequence work-related injuries (fiscal year 2022: 10).

Regrettably, we also had two work-related fatal accidents (fiscal year 2022: three). One fatal accident is still under investigation, the other fatal acci-

Total Recordable Injury Rate (TRIR) ¹	Fiscal year	
	2023	2022
TRIR of employees ²	2.61	2.17
TRIR of contractors ³	3.03	2.65
TRIR of employees & contractors	2.67	2.27

¹ Total Recordable Injury Rate: number of recordable injuries (TRI) x 1,000,000/work hours performed. Recordable injuries are accidents that result in lost time, restricted work, or medical treatment.
² Incl. temporary workers; excl. contractors. Siemens Gamesa has aligned with Siemens Energy definitions of worker type in fiscal year 2023: Temporary workers, previously included with contractors, were included with the Siemens Energy employees for fiscal year 2023.
³ Contractors are service providers carrying out work activities in a work environment under the control of the company. Siemens Gamesa captures all contractors; Siemens Energy (excluding Siemens Gamesa) captures contractors in projects with a volume >€5 million and classified as complex during the bid phase.

Fatalities ¹	Fiscal year	
	2023	2022
Employees	0	1
Contractors	2	2
Total	2	3

¹ Excluding cases beyond Siemens Energy's influence (e.g., force majeure, third-party violence) or outside of Siemens Energy's scope of responsibility.

dent was related to contractor contact with a crane. Each serious event or fatal accident causes grief for families, friends, and colleagues. As a company, we thoroughly investigate and assess the circumstances and consequently derive measures to prevent such accidents from happening again.

We are vigilant that employees are not exposed to occupational illnesses or work-related diseases while performing work activities. The Zero Harm building block "Safe from Workplace Exposure" at Siemens Energy (excluding Siemens Gamesa) is therefore an essential part of our Zero Harm Framework. This building block provides a set of rules to eliminate expo-

Lost Time Injury Frequency Rate (LTIFR) ¹	Fiscal year	
	2023	2022
LTIFR of employees ²	1.34	1.15
LTIFR of contractors ³	1.70	1.52
LTIFR of employees & contractors	1.40	1.22

¹ Lost Time Injury Frequency Rate: number of lost time injuries (LTI) x 1,000,000/work hours performed. LTIs are accidents that result in at least one lost day of work.
² Incl. temporary workers; excl. contractors. Siemens Gamesa has aligned with Siemens Energy definitions of worker type in fiscal year 2023: Temporary workers, previously included with contractors, were included with the Siemens Energy employees for fiscal year 2023.
³ Contractors are service providers carrying out work activities in a work environment under the control of the company. Siemens Gamesa captures all contractors; Siemens Energy (excluding Siemens Gamesa) captures contractors in projects with a volume >€5 million and classified as complex during the bid phase.

High-consequence injury rate ¹	Fiscal year	
	2023	2022
High-consequence injury rate of employees & contractors ²	0.033	0.040

¹ Work-related serious personal life-threatening or life-altering injuries as well as injuries with more than 180 days of lost/restricted work. Excluding fatalities.
² Number of high-consequence work-related injuries x 1,000,000/work hours performed. Incl. temporary workers and contractors.

Occupational illnesses ¹	Fiscal year	
	2023	2022
Occupational illness frequency rate ² of employees ³	0.25	0.28

¹ Illnesses declared as an occupational illness and recognized by an external authority/insurance company or by a physician.
² Number of occupational illnesses x 1,000,000/work hours performed.
³ Incl. temporary workers; excl. contractors. Siemens Gamesa has aligned with Siemens Energy definitions of worker type in fiscal year 2023: Temporary workers, previously included with contractors, were included with the Siemens Energy employees for fiscal year 2023.

sure hazards in the work environment. Siemens Gamesa uses the risk assessment to identify controls to avoid exposure to hazards that would lead to an occupational illness.

Risk assessment is a key Zero Harm behavior. Each employee is required to identify hazards and carry out risk assessments for all work activities and workplaces to identify and implement controls. Employees are not to start a work activity without an approved risk assessment and an understanding of the controls.

Promoting health

Within the overall management approach for occupational health and safety, prevention is our key strategy for the sustainable promotion of employee health. Each country organization, in cooperation with the relevant Business Areas at Siemens Energy (excluding Siemens Gamesa), is required to identify and implement health management programs that focus on healthy working and healthy employees – reflecting local needs and conditions.

As part of the Zero Harm Framework at Siemens Energy (excluding Siemens Gamesa), managers are required to establish programs and activities covering the following health-related building blocks:

- Fit for Work
- Health on Project Sites
- Healthy for Life
- Pandemic Management Plan
- Resilient for Work
- Safe from Workplace Exposure
- Traveler Health

These include training courses on topics such as exercise, nutrition, stress, physical well-being, psychological health, and work-life balance.

We also carried out our annual global health management survey in fiscal year 2023, which provides transparency on the health management status in each country and enables us to help each country identify areas for improvement. This includes establishing whether defined health-related

building blocks have been implemented by the countries. Further to this, Siemens Energy continues to drive the global initiative on mental health with the motto “Mental health is a Team Purple priority – Let’s make it better!” The initiative aims to increase awareness of mental health globally and to launch campaigns based on the set strategy. In connection with this strategy, a mental health app has been acquired for the staff, and a specific SharePoint and Viva Engage community have been started for additional support.

Siemens Gamesa runs a centralized health management program combined with initiatives deployed at regional levels.

The Business Area provides corporate initiatives covering the same health priorities and topics as the rest of Siemens Energy through the Health at Heart Pathway. In addition, Siemens Gamesa offers team challenges and virtual sports clubs. Also, its global health surveys apply the same criteria and are combined with a specific survey focused on stress evolution. Siemens Gamesa carries out a global psychosocial risk assessment every three years – the last one in fiscal year 2023. On the topic of mental health, it has built a strategy based on the advice of its Mental Health Scientific Advisory Board, which was established in fiscal year 2020, and is now reporting specific metrics in this field, too.

When considering global approaches, EQS representatives and health management (including mental health) specialists from the countries in which Siemens Energy operates form a team of 24 key members to discuss relevant tasks. EQS organizes the meetings, questionnaires, tools, and evaluation of data. The teams can be extended for special tasks as required.

Travel risk management

Siemens Energy takes its duty of care for traveling employees very seriously. We used to have a proprietary travel risk assessment and approval tool to ensure travel is only permitted and approved when appropriate protections are in place. In fiscal year 2023, we replaced this tool with the global travel management provider International SOS.

Employees are provided with healthcare coverage for international assignments through major providers. While this is currently managed on a country-by-country basis, all aspects of travel risk assessment and healthcare coordination, including an app for direct assistance, will be managed through our International SOS contract in the future.

Siemens Energy has a 24/7 hotline available to all employees and offers travel security awareness training through our online learning tool.



Ensuring our employees are not affected by psychosocial hazards is a key part of our zero harm program.

Psychosocial risk assessment

The European Agency for Safety and Health at Work defines psychosocial risks in the workplace as “aspects in the design, organization and direction of work and its social environment which may cause psychological, social or physical health damage in workers.” In this type of assessment, the target is to detect psychosocial hazards affecting employees and measure the risk related to them. In fiscal year 2023, Siemens Gamesa launched a psychosocial risk assessment, achieving a 63% participation rate with 18,000 answers collected. This information has allowed the company to put in place more than 5,000 different actions to mitigate this type of risk.

Environmental protection goes hand in hand with occupational safety

Benjamin Dahn
Head of EHS – Grid Technology Products, Siemens Energy

While his Business Area is taking care for the energy transition with the grand-scale production of eco-friendly power grid technology, he's taking care of the people producing it: Ben and his team pursue the vision of a "zero harm" safety culture where we're all looking out for each other.

This afternoon, I have a video conference with my colleague in Brazil, coordinating the next steps in our "Zero Harm Culture." We talk at least twice a week about work-related incidents, the circumstances that led to them, and their causes. For us, every case counts, and we use these findings to continuously improve our EHS programs.

Most incidents have a triggering human factor: the fitter at the workbench or the service technician or the people in sales who drive hundreds of kilometers a week. Our goal is to make sure they all get home safe and sound.

*01:00 p.m.
Berlin, Germany*

This afternoon, I have a video conference with my colleague in Brazil, coordinating the next steps in our "Zero Harm Culture." We talk at least twice a week about workplace accidents and the events that led up to them.



We're together on a journey to zero harm – and a driving principle behind that culture is that we take care of each other. So, it's important that everyone at Siemens Energy takes part in the conversation and asks themselves questions like, "What does occupational safety mean for me in my daily workspace?" or "How would I go about stopping an unsafe activity?"

In my Business Area we have 43 plants around the world (I work with people from China to Mexico), and if we want to identify global company trends, we have to carefully report and measure all the data. Which is one reason why we have a company-wide standard to report every accident using a tool that lets you easily categorize an incident. This helps us recognize and reward positive behavior or proactively identify unsafe situations before an accident even happens.

Then there are different measuring systems. Traditionally, for years, it was the LTIFR – Lost Time Injury Frequency Rate. It is heavily focused on lost work time, less so on the actual well-being of the workers involved. But if you think about it, workers can get injured at different severity scales on the exact same machine – a millimeter more can make the difference between a minor scratch or stitches, even if the reason for the cut is the same. That's why it's more transparent to look at the Total Recordable Incident Rate (TRIR), which considers all recordable incidents and working hours related to a common exposure of 1,000,000 h.

In my view, if you're serious about protecting people from work hazards, you also need to be serious about protecting the environment. In fact, when I was a kid, my father told me about the rainforests being depleted by mankind, and I remember saying, "Dad, I want to be an environmentalist when I grow up." We're already seeing the effects of climate change – smog, fires, floods, which pose a threat to humankind. Environmental protection thus also goes hand in hand with occupational safety for me.

Watch the video:



In my view, if you're serious about protecting people from work hazards, you also need to be serious about protecting the environment.



Conservation of resources



Across our operations and projects, we want to use natural resources in a responsible manner and avoid any negative impacts on the environment.

- **Environmental management is embedded in our processes as part of the Zero Harm Framework**
- **Climate change risks have been assessed for major locations and mitigation measures are being implemented**
- **Increased internal transparency with more automated reporting on metrics**

The number of environmental challenges around the world is growing apace: climate change, endangered biodiversity, water shortages, increased waste generation, and other factors lead to more complex environmental requirements and demand intensified approaches toward a circular economy.

At Siemens Energy, we aim to minimize our impact on the environment by, for example, managing freshwater withdrawal and emissions, protecting biodiversity, and reducing waste. With the help of our Integrated Management System (IMS), we aim to comply with applicable laws, regulations, and stakeholder expectations. Through our environmental protection measures and management systems, we contribute to SDG 6 “Clean Water and Sanitation,” SDG 7 “Affordable and Clean Energy,” SDG 12 “Responsible Consumption and Production,” and SDG 13 “Climate Action.”

Our IMS is based on the principles of the international standards ISO 9001, ISO 14001, ISO 45001, and ISO 50001 or energy audits as per national legislation. These are either certified or aimed at implementing a certifiable

management system (see chapter ↗ **Occupational health and safety**). An objective of these systems is, for example, to continuously improve environmental performance, lower environmental impacts, and increase energy efficiency (for more information on energy consumption and emissions, see chapter ↗ **Decarbonization**).

Siemens Energy continues to build on the Zero Harm culture that recognizes and reflects our societal responsibilities for environmental protection and the health and safety of our employees, business partners, and other stakeholders who may be affected by our business activities. The appointed Vice President EQS implements EHS governance requirements throughout

the company and supports the Executive Board in fulfilling its EHS duties. The Business Area functions EQS or EHS are responsible for supporting the appointed Business Area Executive Vice Presidents. At Siemens Energy, the EHS Policy – as part of the Integrated Management System – is further supported by the ↗ **Zero Harm Framework**, which aims to embed Principles, Behaviors, and Essentials at all levels of the organization (see chapter ↗ **Occupational health and safety**). In this way, the Business Areas address the relevant elements down to local environmental, health, and safety risks across the organization.

As part of our EHS management system in larger projects, we use environmental aspect assessments to evaluate potential impacts related to our business activities. The assessments include impact severity and probability, providing information for management action and opportunities for improvement. We can then also assess compliance with globally applicable basic requirements such as the IFC World Bank Guidelines.



Waste separation at new NECTAR location.

Zero waste to landfill in Brazil

The waste management program in Brazil aims to increase recyclability, reduce waste to landfill, and develop a zero-waste culture. In fiscal year 2023, the waste management operation was moved to a central location named NECTAR (circular economy and advanced resource transformation center – in Portuguese). This new location provides a place employees can visit to learn about circular economy and waste management and receive support with correct waste disposal in the factories. It is also a single location for waste disposal, enabling the recycling of difficult-to-recycle materials such as Styrofoam.

Additionally, we use our Idea Management 3i to foster ideas, initiatives, and innovations of Siemens Energy employees worldwide. Ideas with EHS content are an especially important outcome of this program, since they contribute to improving EHS aspects and can result in energy savings and cost reductions.

Meeting environmental management standards

The Zero Harm Framework and the Sustainability Vision 2040 of Siemens Gamesa provide the foundation upon which we aim to meet the growing number of environmental protection requirements imposed by both regulators and our customers, and strengthen our position as a sustainable company. In our activities, we are guided by the logic embedded in the ISO 14001 environmental management standard of identifying environmental aspects of our business operations and minimizing or mitigating negative impacts. Our main objectives focus on improving environmental performance in the areas of energy, air, water, and waste, including:

- Increasing energy efficiency by using energy management systems at our sites
- Achieving 100% green electricity by 2023
- Controlling air-pollutant emissions by replacing ozone-depleting substances and reducing solvents
- Assessing climate change risks, including water risks, and implementing local mitigation and prevention strategies
- Reducing waste materials
- Promoting zero waste to landfill by consistently preventing landfill waste

Climate change risk assessment

As climate change progresses, we are aware of the risks that could impact our business. Climate-related risks such as flooding, extreme temperatures, or hurricanes may cause an evacuation of personnel, disruptions of supply chains, or damage to facilities. We have conducted physical climate change risk assessments for 95 major manufacturing locations according to size

and energy consumption in order to evaluate changes in physical climate parameters, plan resources, and manage climate risks. This baseline assessment is now being used to identify direct financial impacts and to pinpoint and quantify mitigation measures as part of the local management systems. We also perform local risk assessments to evaluate EHS impacts and define emergency response measures at selected locations. In addition, we are working on developing an instruction to analyze levers during product design that can reduce the exposure to climate change risks.

Resources management

As a step toward resource conservation and circular economy, we pay special attention to the topics of waste and water management.

Waste

The environmental relevance of waste depends upon the type of waste in question and the methods used to dispose of it. Hazardous and non-hazardous waste fractions are each further divided into recyclable waste and waste for disposal. Waste from construction or demolition work is reported separately, since this type of waste material arises independently from production.

Our waste reporting logic aims to bring uniformity to the process of categorizing waste across all global reporting locations, and has been implemented within the environmental reporting tool for all of Siemens Energy (see chapter [Decarbonization](#)).

Our waste intensity in fiscal year 2023 was 4.94×10^{-6} metric tons per € of revenue. The increase of 3% in intensity and 11% for total waste compared to the previous year is mainly due to construction activities, which also lead to an increase in hazardous waste.

We are continuously working toward “zero waste to landfill” by increasing our share of total recycling.

Waste (1,000 metric tons)	Fiscal year	
	2023	2022
Non-hazardous waste	122	120
Hazardous waste	24	18
Construction waste	6	1
Other waste categories	2	1
Total	154	139
Waste intensity (metric tons/€ of revenue)	4.94×10^{-6}	4.79×10^{-6}

Waste recycling and disposal¹

(1,000 metric tons)

Fiscal year 2023

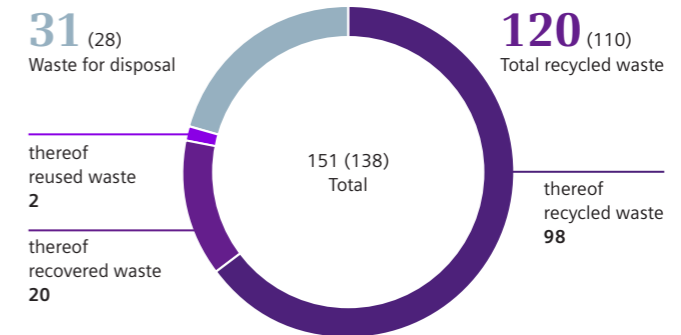


Figure for previous year in brackets
¹ Excluding construction and other waste.

Recycling (%)	Fiscal year	
	2023	2022
Share of total recycling ¹	82	81
thereof recycled	67	64
thereof reused	1	3
Share of recycled hazardous waste	34	54

¹ Excluding construction and other waste.

Waste recycling and disposal ¹ (in 1,000 metric tons)	Fiscal year	
	2023	2022
Waste for disposal	31	28
thereof reuse waste	2	4
thereof recovery	20	19
Total recycled waste	120	110
thereof recycled waste	98	88
Total	151	138

¹ Excluding construction and other waste.

Water

Water remains an important topic for Siemens Energy. We aim to carefully manage the use of fresh water in our operations as well as the impact of our projects on water resources in the surrounding areas. At Siemens Energy, water is mainly used for cooling and sanitary purposes.

Water risks are analyzed as part of the climate change risk assessment, making it easier to identify sites that are in high water risk areas. This supports locations in planning and implementing effective water management strategies, considering factors such as water stress, water pollution, and flooding. Our locations aim to reduce water usage, consumption, and related risks through their integrated management systems or by means of individual mitigation plans.

At Siemens Energy, the volume of water abstracted over the reporting period equates to 3.25 million cubic meters (fiscal year 2022: 3.45 million cubic meters). Water intensity in fiscal year 2023 was 1.04×10^{-4} cubic meters per € of revenue. This is a decrease of 6% in absolute water consumption and 12% in water intensity compared to fiscal year 2022. One factor that influenced the decrease is the greater transparency that we have achieved by implementing our global EHS reporting tool.

Wastewater from our facilities and manufacturing processes amounts to 3.27 million cubic meters (fiscal year 2022: 3.46 million cubic meters). Wastewater intensity in fiscal year 2023 was 1.05×10^{-4} cubic meters per € of revenue. This is a decrease of 5% in absolute wastewater and 12% in wastewater intensity compared to fiscal year 2022.

Water consumption (million cubic meters)	Fiscal year	
	2023	2022
Fresh water use	2.73	2.80
Ground and surface water for cooling (returned to receiving water body, chemically unchanged, but warmed)	0.50	0.62
Total	3.25	3.45
Water intensity (cubic meters/€ of revenue)	1.04×10^{-4}	1.19×10^{-4}

Water consumption

(million cubic meters)

Fiscal year 2023



3.2
Total

2.7
Fresh water use

0.5
Ground and surface water for cooling

Wastewater (million cubic meters)	Fiscal year	
	2023	2022
Wastewater from employee facilities	1.45	1.44
Wastewater from manufacturing processes	0.20	0.24
Other (incl. losses)	0.24	0.51
Conditioned cooling water discharged as wastewater	0.65	0.60
Total wastewater without chemically unchanged cooling water	2.60	2.79
Cooling water (returned to receiving water body, chemically unchanged, but warmed)	0.53	0.67
Total	3.27	3.46
Wastewater intensity (cubic meters/€ of revenue)	1.05×10^{-4}	1.19×10^{-4}



Installation of flexible photovoltaic film modules on Nuremberg power transformer factory.

Green factory in Nuremberg

The Nuremberg power transformer factory has installed a highly innovative solar system on its exterior façade. The flexible photovoltaic modules are made from 2 mm thin hydrocarbon-based materials that are ultra-lightweight. The flexible film has the world's lowest carbon footprint and can be thermally recycled at the end of its life cycle. The use of the photovoltaic film opens up new possibilities for utilizing additional areas on the factory's premises to generate solar power. The site has also established a 12-acre green area for native plants, insects, and small animals on a former sports compound. Smaller and previously unused open spaces have also been converted into flowering meadows, creating a habitat for insects and six bee colonies. The transformer factory bees' blossom honey is a popular gift for our customers.

Biodiversity

Maintaining biodiversity is crucial if we are to sustain healthy ecosystems. Siemens Energy uses natural resources (such as water and fuels) at its offices, production facilities, and project sites. This interaction with the environment could introduce negative impacts on local ecosystems, habitats, and species.

Therefore, the conservation of biodiversity is integrated into our environmental management systems as well as into instructions for both manufacturing locations and project sites, with the aim of reducing the negative impacts of our operations as much as possible.

There is also a product-related aspect to be looked at. We are analyzing and translating the requirements identified in our customers' environmental impact assessment studies as well as in regulations and standards, and incorporating them into our project-specific EHS plans and site instructions in order to manage and subsequently reduce negative impacts to a minimum.

As part of our corporate citizenship activities, our employees have identified many local biodiversity initiatives worth supporting. Siemens Energy employees can lend their support to them in order to contribute to protecting biodiversity and creating a safe environment for plants and animals. Examples include tree plantings, insect-friendly wildflower meadows, hives for wild bees, bird-nesting areas, roof greening measures, and the creation of nature pools.

Siemens Gamesa launched its own biodiversity commitment in 2022, which sets out its ambitions to manage biodiversity across operations in all countries and regions where this Business Area operates (including the supply chain). Siemens Gamesa fosters innovation and research on negative impacts of wind turbines, promotes effective and transparent reporting and communication, and develops training and awareness activities around the topic.

Environment-related incidents

Environmental incidents resulting from our business activities, including product-related incidents, can cause damage to our natural environment and surroundings.

During fiscal year 2023, we had one significant environmental incident related to Siemens Energy (fiscal year 2022: 2).

This incident is related to the release of SF₆ from a product after an operational handling incident.

As a company, we will investigate, assess, and derive measures that will prevent such incidents from happening again.

We're closing the loop on waste

Tatiana Novis Lopes Gil
Regional Environmental Manager, Siemens Energy

“Wait a minute, can you recycle that?” In Brazil, Tatiana Novis Lopes Gil is part of an innovative team that makes sustainability a part of everyday work life. They’ve eliminated the need to send waste to landfills, and now use the material as a resource in other processes, making a step toward a circular economy.

It’s early in the morning, and I’m on my way to the office, getting ready for the first meeting of the day. There is no such thing as a “regular day at the office” for me – and I love it that way. Today, we’re working on building a robust, digitalized data system that lets us look up in real time what comes in and what goes out in our waste management. And we want to keep our data as open as possible, so that anyone can do the math for themselves and understand what we’re doing on a day-to-day basis.

Our work here has two main pillars: CO₂ neutralization and a focus on circular economy approaches like our “zero waste to landfill” project. Sending waste to a landfill, even if that’s your last resort, is never ideal, because you’re basically creating a pile of trash and covering it with earth.

08:00 a.m.

Jundiaí, Brazil

It’s early in the morning, and I’m on my way to the office, getting ready for the first meeting of the day. There is no such thing as a “regular day at the office” for me – and I love it that way.



Since 2021, the project has already managed to reduce the amount of waste we send to those destinations from 295 metric tons to nearly zero by applying a few different strategies. For starters, our on-site cafeterias are now equipped with a biodigester to decompose organic waste and turn it into a domestic liquid waste, just like the one from our sinks and toilets, that can be safely delivered to the public sewage treatment system.

We're also focusing strongly on recycling and co-processing initiatives. For example, many of our suppliers use wooden pallets and crates, and we end up with a large amount of them left over. So, we're finding ways of reusing all this wood for our own packaging or returning it back to the suppliers – and even working with them on how to develop returnable containers.

From our own side, it's amazing how much better we get at separating materials for recycling when we work closely with employees and invest in their training. That's basically what we do here with easy-to-understand, gamified training sessions. And for some kinds of waste that are not suitable for recycling, we've been applying the "waste to energy" approach, in which the residue can be used as fuel by concrete plants in Brazil.

For all these initiatives to succeed and have a positive environmental impact, accountability and transparency are key. And we can all do our bit in a way that adds up globally. It's the simple stuff that people usually don't think about – but if it can be done, why not do it?

Watch the video:



From our own side, it's amazing how much better we get at separating materials for recycling when we work closely with employees and invest in their training.



Product stewardship



When designing and producing our products, we take quality, environmental, health, and safety criteria into account at every stage of the products' life cycle. We aim to minimize any negative environmental or social impact of our products.

- Improving environmental performance over our products' life cycle
- Mapping EU Taxonomy criteria based on existing processes
- Developing circular economy potentials for our products

Siemens Energy is committed to promoting greater environmental responsibility and developing environmentally friendly technologies. As a signatory to the UN Global Compact, our product stewardship activities aim to contribute to the achievement of the UN SDGs, especially SDG 12 "Responsible Consumption and Production," which seeks to couple economic growth and development with sustainable consumption and production patterns. We design our products to have a positive impact on sustainable development while at the same time reducing negative impacts that may arise from their production, use, or disposal at the end of their lifetime.

The approach to product stewardship at Siemens Energy includes all environmental aspects with a strong focus on climate change adaptation, resource efficiency, and circularity. We consider all life cycle phases, including product development and design, manufacturing, operation, service, and end of life. Measures and methods include eco-design criteria for product development, life cycle assessments (LCAs), environmental product declarations (EPDs), component upgrades, and lifetime extensions, as well as recycling at the end of product life. By analyzing our products, solutions,

and services according to business needs such as customer requirements, quantifying their impacts, and determining areas for improvement, we are building the foundation for deriving and implementing measures that contribute to a circular economy.

Product stewardship at Siemens Energy follows the principles of circularity and the key standards of the ISO 14000 series, with individual approaches for each Business Area. The approaches are centrally supported by the respective global EQS Functions.

Product stewardship is also an integral part of our Zero Harm Framework within Siemens Energy. Siemens Gamesa has specifically launched its [Sustainability Vision 2040](#). The aims and objectives of the various approaches within the Siemens Energy Business Areas are to prevent adverse effects on health and the environment due to our business and operational activities (see also chapter [Occupational health and safety](#)). At Siemens Energy (excluding Siemens Gamesa), product stewardship is covered by the Zero Harm building blocks "Material Compliance" and "Life Cycle Assessments." The Material Compliance building block provides guidance on the management, analysis, and tracking of restricted and regulated substances in products, services, and solutions. The LCA building block defines the process for evaluating the environmental impacts of our products, systems, and materi-

als over the entire life cycle. This process aims at ensuring that each business has good knowledge and understanding of the requirements for LCAs and their importance for our customers or suppliers directly engaged in the completion of an LCA. A detailed LCA process description has been launched as an instruction to ensure a harmonized approach and standardized methodology. Siemens Gamesa already covers all products by LCAs.

Managing environmental risks

As part of our holistic product stewardship approach, we take environmental risks seriously. Our approach is founded on the minimum standards set by the International Finance Corporation (IFC) for projects that are reflected in our EHS plans, internal EHS guidelines, specific EHS processes and checklists for product development, and other ESG criteria from external stakeholders.

We have further developed our risk management by including an ESG due diligence approach for customer projects. We are now screening our products, projects, and services against a list of relevant ESG criteria. In fiscal year 2022, we implemented a questionnaire in our sales process for our Business Area Grid Technologies. Training will be provided to increase awareness and expertise with regard to the criteria.

This ESG risk management combines a due diligence and a risk mitigation process. The questionnaire used here is also part of our approach to implementing the requirements of the EU Taxonomy's DNSH criteria (DNSH: Do No Significant Harm). We identified all relevant existing processes on both a corporate and Business Area or location level and completed the mapping of all requirements. In particular, our [Zero Harm Framework](#) with the

underlying building blocks serves as a reference for implementing the requirements (see chapter [↗ Decarbonization](#)).

During project execution and the delivery of products and services, we build on available environmental impact assessments or otherwise the global IFC EHS guidelines to identify measures regarding environmental protection. This includes energy consumption, energy efficiency (including our own GHG footprint), air emissions, noise, water conservation, waste management, and hazardous materials management. Additionally, physical, chemical, and radiological hazards are also part of our integrated management system approach at our locations or project sites.

Wherever possible, we partner with suppliers, contractors, customers, and other interested parties to meet product-related environmental key business requirements. Customer requirements and related resource requirements are continuously assessed in each Business Area, and coordinators for product-related topics have been appointed. We are working on several pilot projects to further increase transparency on additional Scope 3 upstream categories, combining location-specific views and product-specific accounting to establish a solid baseline and identify further reduction potentials.

Circular economy potentials of the energy transition are a special focus for Siemens Energy and, as one example, we are collaborating on the “Circular Energy Transition” research project. Started in January 2022, the project is set to run until the end of 2024 and is funded by the German Federal Ministry of Economic Affairs and Climate Action. Other project partners are the Technical University of Darmstadt, the University of Pforzheim, and research institute FfE Munich.

At Siemens Gamesa, RecyclableBlades – the world’s first wind turbine blade that can be recycled at the end of its life cycle – is an important step toward the goal of making turbines fully recyclable by 2040. RecyclableBlades are available across all Siemens Gamesa turbines. The first RecyclableBlades are operating at RWE’s German offshore windfarm Kaskasi. Additional blades are being installed at Vattenfall and BASF’s offshore windfarm Hollandse Kust Zuid in the Netherlands, and agreements have been made to supply RecyclableBlades for EDF Renewables’ offshore wind-

farm in France as well as RWE’s offshore windfarm in the UK, the Sofia project, and the Danish project Thor. GreenerTower is another innovation that increases the use of recycled steel in the towers of wind turbines (see chapter [↗ Customers and innovation](#)).

Circular economy

Siemens Energy works toward a circular economy in which the need for raw materials and the emissions generated over the product life cycle are significantly reduced by keeping used products and materials in the loop. To realize this ambition, we need to understand product life cycles to identify circularity potentials. A number of research projects with internal experts and external partners help us come closer to solutions.

Life cycle assessments and environmental product declarations

To understand and reduce the environmental impact of our products over the entire life cycle and to identify circularity potentials, we have adopted a sustainable management approach by conducting life cycle assessments (LCAs) and publishing environmental product declarations (EPDs). The LCA and EPD approach is managed globally by the EQS Function and is closely linked to organizational teams dealing with product-related environmental protection. We have developed and published our internal LCA instructions to further standardize and align our approach and respond to customer requests. LCA-related background information, like an overview of standards and links to tools and tutorials, is available on a dedicated LCA intranet site.

The results from LCAs are used to

- identify opportunities to improve environmental performance in all life cycle stages, from the design of the product to its end of life – for example, improving material selection and resource consumption, optimizing manufacturing processes, and considering further circular economy aspects throughout all life cycle stages of a product; and
- communicate environmental performance and improvement potential to internal and external stakeholders.

To increase transparency on the environmental performance of our products and facilitate dialogue with our customers and stakeholders, Siemens Energy uses EPDs that are based on ISO 14021 for Type II product declarations and labels that address environmentally relevant information for customers, mainly based on full-scale LCAs. We also carry out an external verification of our LCAs where required. A recent example from the reporting year was the LCA for a switchgear.

We continuously review our LCAs and EPDs. The table below provides a summary of the number of LCAs (full-scale and screening) and EPDs. The number of LCAs significantly increased in 2023 because all Business Areas continuously work to cover more of their products with LCAs, mainly due to customer requests.

LCAs and EPDs	September 30	
	2023	2022 ⁴
LCAs (no.)	347	311
thereof full-scale ¹	346	310
thereof screening ²	1	1
Portfolio coverage by full-scale LCAs (%) ³	73	72
EPDs (no.)	251	243

¹ Full-scale LCAs adopt a comprehensive approach, covering the environmental impacts over the entire life cycle.

² Screening LCAs cover environmentally relevant parts or phases of a product life cycle.

³ The share of full-scale LCAs is calculated based on the business segment structure. One business segment is considered to be one portfolio element. All portfolio elements containing material products have been determined to be relevant for this performance indicator. If full-scale LCAs are available for products of a portfolio element, this portfolio element is considered to be covered. The share represents the percentage of covered portfolio elements relative to the total number of relevant portfolio elements.

⁴ Due to the inclusion of customer-specific analyses, 82 full-scale LCAs and 85 EPDs have been added to the totals of 2022. These customer-specific analyses were calculated in 2022 but not considered in last year’s figures. The addition does not affect the portfolio coverage of 2022.



EcoTransparency app: Helping customers with their sustainability transition.

A greener future with EcoTransparency

The Siemens Energy EcoTransparency app is a new tool that aims to provide full environmental impact transparency, helping our customers in their transition to more sustainability. Using life cycle assessment methodology, the app calculates the carbon footprint of our products, not only of the overall product but of every element that goes into that product, including raw materials and the energy used for producing them. Our sales team uses the app to help our customers understand and make decisions based on the carbon footprint of the products they are ordering. At the same time, our product designers use it to develop more sustainable products by identifying areas for improvement.

Eco-design

To increase the sustainability of our products and comply with environmental requirements, we set a particular focus on comprehensive eco-design concepts. Our eco-design approach serves several purposes and links existing requirements with upcoming ones such as EU Taxonomy requirements. Therefore, the structure of our approach has been aligned with the structure of the EU Taxonomy DNSH criteria. The eco-design decisions we make today need to consider future legal and EHS requirements as well as the implications of resource scarcity.

The Business Areas will prioritize the review and analysis of our products, based on customer and market requirements. In the future, the results of the detailed eco-design evaluation are intended to be played back into the PLM process and considered during product development and improvement.

Material compliance

A large variety of materials and substances are used in our products, manufacturing, and services. Only a few are subject to closer scrutiny (e.g., chromium, lead, PFAS, etc.). The nature and quantity of substances and materials used in products are becoming increasingly relevant, especially if parts of the product or materials are being reused or recycled. Furthermore, the European Commission has published a list of critical raw materials that is subject to regular review and updates. Transparency regarding materials and substances is one of the key enablers for a circular economy and the upcoming EU initiative for sustainable product design.

We aim to comply with all legal requirements, such as REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), RoHS (Restriction of Hazardous Substances), and similar international requirements. Siemens Energy uses globally standardized materials and substance registers for restricted and declarable substances and products. The updated ECHA list identifies any substances that need to be declared for each product (ECHA = European Chemicals Agency). As part of the Siemens Energy supplier assessment and qualification process, suppliers are required to identify

whether any of their products or components contain substances that need to be declared according to the specific legislation. Suppliers then need to provide a detailed declaration should any such substances be used within their design and manufacturing activities.

At Siemens Energy (excluding Siemens Gamesa), we encourage our suppliers to use the industry substance management platform BOMCheck to share declarations for Substances of Very High Concern (SVHCs) and link this information to our IT systems. In this way, we can actively manage risks related to substance restrictions. The implementation of the Substances of Concern in Products (SCIP) reporting requirement, a database established under the EU's Waste Framework Directive that registers products containing SVHCs, is still ongoing.

Furthermore, these Business Areas have further developed a cross-functional material compliance approach in cooperation with the Procurement department, and implementation is ongoing. We achieved increased transparency regarding substances in our products during supplier qualification. The approach focuses on full bill-of-materials (BOM) data provision with substance management. The coverage of the value chain has progressed. We are continuing to digitize information on materials and substances and increasing the number of suppliers reporting via this platform. In addition, our new SAP system is in development to cover more material compliance aspects. For recent projects, we evaluated BOMs for compliance with REACH Lists of Declarable Substances and compiled BOM-based declaration information for our internal partners. We are currently reviewing the material data landscape for the new SAP platform to also support substance management compliance in engineering. For projects, any declaration of substances, e.g., regarding SVHCs, is possible.

The transparency of materials and substances across our product portfolio is key to a sustainable energy supply and to making informed decisions about material selection and related impacts. Furthermore, industry is currently facing the challenge to provide more detailed reporting on GHG emissions from materials to meet the requirements of the EU Green Deal. The EU Taxonomy (see chapter [Decarbonization](#)) will also lead to a need for action on the part of companies.

As part of the ongoing integration, Siemens Gamesa, within its substance management process, also evaluates requests for the use of new chemical products against a specific list of prohibited products and a list of restricted products. This process will lead to the adaptation of the Siemens Energy framework to harmonize material compliance management approaches.

Product safety

Product safety encompasses the safety of all products, solutions, and services manufactured, provided, and/or sold by Siemens Energy. These products, solutions, and services are developed according to the latest technical knowledge and comply with applicable legal requirements to ensure that they do not pose an unacceptable risk to life, health, property, or the environment. Product safety is a fundamental and indispensable principle at Siemens Energy. Our product safety strategy includes a framework with key processes, which are published in the Process Houses (e.g., Risk Assessment or Product Safety Issue (PSI) Handling). The framework is complemented by rules and regulations and an organizational set-up with clearly defined roles and responsibilities, principles for awareness, skills, and know-how.

The product safety system at Siemens Energy (excluding Siemens Gamesa) was implemented in October 2021. The system focuses on both the technical and organizational aspects of product safety. Its effectiveness undergoes continuous evaluation and improvement.

In fiscal year 2023, improvement measures included a specific training course for product safety officers and their line managers (approximately 250 persons) and the launch of an all-employee training video available in six languages (approximately 3,000 persons had participated in this training by the end of the financial year). Numerous workshops have been held to analyze our strengths and weaknesses and collaborate to better serve our customers, both internal and external.

During fiscal year 2023, no significant product safety incidents were reported.

Integration of Siemens Gamesa

Siemens Gamesa assesses the impacts of its products on the health and safety of its customers as early as the initial development stage, with the aim of improving them through design and project management policies. This is achieved by describing product safety as an umbrella term for the quality management and HSE procedures and processes we have in place to protect customers, employees, and members of the public from any risk derived from our products or our manufacturing, installation, operating, and decommissioning activities. Management procedures are in place to establish responsibilities, workflows, and activities to ensure that component designs are optimal and do not produce unnecessary hazards or endanger the health and safety of those working directly with the component.

For instance, Siemens Gamesa has issued an instruction that defines the processes for ensuring the wind turbines and/or related products that we put on the market in the European Union or European Economic Area (EEA) comply with the directives that apply inside and outside the EU, where those requirements are established by contractual obligations to customers.

Siemens Gamesa has been working on different focus areas. The Business Area has established the CMSE (Certified Machinery Safety Expert by PILZ) as the minimum certificate any product safety specialist in design development should have, with close to 90% of the specialists certified by now. This certificate is now included in the Product Safety Specialists onboarding program.

In addition, specific training programs for product safety experts have been developed to safeguard full expertise in critical product safety aspects in wind turbines, such as functional safety and major hazards.

One of our best product safety achievements in fiscal year 2023 was the implementation and training program of the new harmonized CE Marking regulation. This procedure applies to Siemens Gamesa as a whole and specifically to the process of placing a product that has been manufactured by Siemens Gamesa on the European single market and in other countries where requirements established by contractual obligations toward customers are defined as mandatory by the European Union. Ten live training sessions with close to 200 attendees completed the implementation process of this new regulation.



Reducing the environmental impact of wind turbine blades.

Sustainable balsa wood as a core material for wind turbine blades

To reduce the environmental impact of wind turbine blades, Siemens Gamesa is exploring the use of balsa wood in the structural core of their blades. Balsa wood is classified as hardwood, and it is light and adaptable. These properties make it ideal for many applications including wind turbine blades, marine, and other mobility applications. Balsa wood is fast-growing and does not require the use of fertilizers or other added resources, so, like bamboo, it can be grown more sustainably. In Central America, where it is native, balsa wood is self-sowing in sometimes inconvenient spots. Balsa can therefore be grown and harvested with little environmental impact. Siemens Gamesa's goal is to purchase balsa wood that has been responsibly sourced to fight illegal logging. The suppliers used are required to be certified by the Forest Stewardship Council, DNV-GL, or similar schemes, have signed our Code of Conduct, and are monitored regularly.

Sustainable supply chain management



Responsible sourcing requires sound supply chain management with due respect for sustainability. We work in partnership with our global suppliers to live up to international standards for responsible supply chains.

- The integration of sustainability considerations aims to make supply chains more resilient and reliable
- Risk awareness and strategic measures are cornerstones of our supplier management
- Systematic audits foster compliance with increasing international regulation

It is not only we ourselves who shape the sustainability of our operations but also our approximately 30,000 suppliers across 135 countries worldwide. Negative impacts in our supply chain, whether environmental or social, can quickly reflect on us and thereby harm our processes, reputation, and, ultimately, financial performance. With a procurement volume of €23.5 billion in fiscal year 2023 (fiscal year 2022: €21.5 billion), it is crucial that we manage our supply chain sustainably, transparently, and responsibly to make it more resilient. For these reasons, responsible sourcing is one of the material topics in our sustainability approach. We aim to achieve our goals through strong relationships with suppliers that share our values and are equally committed to the protection of human rights, fair labor practices, anti-corruption measures, and the environment.

By anchoring sustainability criteria in the selection, qualification, assessment, and development of our suppliers, we are also contributing to the UN SDGs. We see our biggest contributions to SDG 8 “Decent Work and Economic Growth” and SDG 12 “Responsible Consumption and Production.”

To contribute to these SDGs, we carefully consider labor conditions throughout upstream production processes and monitor the impact of our activities closely. We have also rolled out a global supplier decarbonization program to further increase transparency around the carbon emissions in our supply chain (see chapter 3 Decarbonization) and address climate protection within our supply chain. This, in turn, addresses SDG 13 “Climate Action.”

While it is evident that climate change will have a major impact on global supply chains, it is vital to be prepared for other risks, such as global pandemics. Since the onset of COVID-19, there have been multiple and ongoing disruptions to supply chains worldwide. With the war in Ukraine and a further COVID-19 outbreak in China, the situation has become even more challenging. These events are compounding the existing logistics shortages and interruptions. Siemens Energy Procurement has been working together with operations and our project teams to mitigate the effects and safeguard customer commitments. By establishing a systematic supply chain resilience and crisis management procedure, we have been able to detect risks early on, prepare preventive action, and define mitigation measures to reduce risk exposures.

An important factor in our risk management is our relationship with our suppliers. We therefore have processes and policies in place that aim to ensure suppliers meet specific ESG requirements.



Tackling the decarbonization challenge head on.

Decarbonization efforts in the Chinese supply chain

Siemens Energy China is working toward building a sustainable and connected supplier network as part of the global supplier decarbonization program. The procurement teams engaged with and encouraged more than 300 suppliers to implement decarbonization measures, and requested suppliers to increase their green electricity coverage to at least 70%. Proactive measures were taken to communicate with internal and external stakeholders, and a competitive price for green electricity certificates (I-REC) was successfully negotiated for the suppliers’ network. In fiscal year 2023, about 52% of the suppliers had implemented decarbonization measures, with the other suppliers continuing to be further monitored. To provide additional support, the team also conducted decarbonization knowledge training, attended by around 130 suppliers.

Binding Code of Conduct for suppliers

All suppliers and third-party intermediaries of Siemens Energy must sign the Code of Conduct (CoC) for Suppliers and Third-Party Intermediaries. The CoC is based on the Business Conduct Guidelines (BCG) and Principles of the UN Global Compact (UNGC). The CoC requires specific environmental, compliance, and labor standards to be established across all countries of operations. In fiscal year 2023, we expanded our CoC to include all aspects of the German Supply Chain Due Diligence Act. It now covers the following topics:

- **Human rights, including** (among others):
 - › Prohibition of forced labor
 - › Prohibition of child labor
 - › Non-discrimination and respect in employment
 - › Freedom of association and collective bargaining
 - › Working hours & wages for employees
 - › Life, health, and safety of employees
 - › Impact on communities
 - › Security forces
- **Environmental and climate protection, protection of natural resources**
- **Fair operating practices, including** (among others):
 - › Anti-corruption and bribery
 - › Fair competition, anti-trust laws, and intellectual property rights
 - › Conflicts of interest
 - › Anti-money laundering, terrorist financing
 - › Data privacy and cybersecurity
 - › Foreign trade regulations
- **Responsible minerals sourcing**
- **Grievance mechanism**
- **Compliance with the CoC principles in the supply chain of the supplier**

Comprehensive supplier management

Siemens Energy’s supply chain management approach defines strategic procurement processes to sustain the company’s long-term success, which are overseen by the Head of Procurement, reporting to the Executive Board. The approach includes purchasing materials and services cost-effectively, ascertaining high quality standards, and identifying and exploiting opportunities to create value by fostering compliance and sustainability along the entire supply chain.

The supplier management process encompasses an extensive range of procedures and tools to enable transparency and awareness regarding expenses, supplier data, and related risks and opportunities. It helps managers leverage the potential of our supplier network. The Siemens Energy procurement process includes criteria such as financial stability, quality, and availability, as well as sustainability criteria such as contractor safety, substance declarations, and sustainability and cybersecurity self-assessments. As part of Siemens Energy’s overall approach to decarbonize its operations throughout the value chain, we are actively encouraging our suppliers to reduce their carbon emissions as well (for more information, see chapter [Decarbonization](#)).

Risk awareness

Using our sustainability risk analysis system, we systematically identify potential risks in our supply chain every year. The cornerstones of this system are:

- Identification of risks and categorization of commodities
- Establishment of risk levels for individual countries and industries (determined using sustainability indicators for key areas such as compliance with laws, bribery and corruption, human rights in the workplace, child labor, etc.), making use of information supplied by internationally recognized organizations
- Use of different strategic measures, for example, special preparation of projects with large local procurement volumes

Cornerstones of our risk analysis system



Supplier sustainability assessments



To further strengthen Siemens Energy’s supplier sustainability risk management system, we have extended the calculation of social risk hours for our suppliers and their scope of supply to all risk categories that are addressed by the German Supply Chain Due Diligence Act. This risk indication is not limited to country risks, but also includes commodity-specific risks. It additionally supports buyers through the prioritization and nomination of high-risk suppliers for conducting external sustainability audits.

For the implementation of the updates, four training courses on the supply chain sustainability risk management system have been conducted for the global community of Siemens Energy procurement experts.

Supplier assessment

We use sustainability self-assessments (SSAs), covering all major aspects of the CoC, as part of the supplier qualification process that is regularly reviewed and updated as necessary to reflect new standards and regulations. Potential new suppliers undergo a qualification process, while existing suppliers are re-evaluated every three years.

Compared with fiscal year 2022, the number of SSAs increased by 97% to 6,819 conducted self-assessments. This can be explained by the extension of the process to all countries of Siemens Energy (excluding Siemens Gamesa), and Siemens Gamesa’s high number of new CoC registrations that increased the number of self-assessments, as well as the roll out of the ESG Risk and Performance Management Framework.

Furthermore, we conduct quality audits that include questions about sustainability, covering major aspects and requirements of the CoC. In fiscal year 2023, we conducted 740 on-site audits worldwide, compared to 961 supplier quality audits in fiscal year 2022. This decrease was due to Siemens Gamesa’s integration of Senvion and Adwen and the smaller backlog of supplier qualifications.

Insourcing of Supply Chain Due Diligence

Siemens Energy intensified its supply chain due diligence engagement with its suppliers by building up an internal Due Diligence team in India. The team will conduct supply chain due diligence with thousands of Siemens Energy suppliers globally and contribute to several due diligence laws. As part of the onboarding process, intensive on-site training on the new supply chain risk management approach was conducted in September 2023, titled Responsible Minerals Sourcing and Decarbonization@supply chain. Additionally, for the HUB Middle East Procurement and HUB Asia Pacific Procurement, on-site workshops were conducted, during which the governance and sustainability roadmaps for the regions were agreed upon.

We see external sustainability audits (ESAs) as the most effective means of reviewing our suppliers’ sustainability performance. Focusing on quality and objectivity, external audit partners conduct the ESAs. We assign repeat or follow-up audits if necessary. In fiscal year 2023, Siemens Energy conducted 194 ESAs. This number increased from 167 audits in fiscal year 2022. Furthermore, we accepted 71 ESAs of suppliers that were audited by other companies. We only accept audits that fulfill our requirements and where the full audit documentation is provided to us.

Throughout the supplier assessment processes, we remain committed to the partnership with our suppliers and to helping them improve. However, if problems persist and/or the suppliers do not show a willingness to take necessary corrective action, we remove them from our list of approved

suppliers. All local instances of blocked suppliers are reported to Corporate Procurement, which discusses and decides on the need for a worldwide block. In fiscal year 2023, no supplier was dismissed, since all suppliers with negative results are collaborating and implementing corrective actions.

In addition to the processes described above, we have a Central Warning Message system in place. This facilitates a fast, efficient response to violations of the CoC requirements. The responsible procurement departments at Siemens Energy are authorized to agree on a series of remedial steps with the supplier. Potential misconduct can be reported via the whistleblower hotlines “Speak Up” at Siemens Energy (excluding Siemens Gamesa) and the “Integrity Hotline” at Siemens Gamesa (for more information, see the chapter [Compliance and integrity](#)).

To inform Siemens Energy employees, suppliers, and further external stakeholders, a web-based training course that explains Siemens Energy’s approach to promoting sustainability in its supply chain is published on Siemens Energy’s website.

Supplier quality audits with integrated sustainability questions	Fiscal year	
	2023	2022
Number		
Europe, C.I.S. ¹ , Africa, Middle East	334	615
Americas	266	148
Asia, Australia	140	198
Total	740	961

¹ Commonwealth of Independent States.

Sustainability self-assessments (SSAs) ¹	Fiscal year	
	2023	2022
Number		
Europe, C.I.S. ² , Africa, Middle East	3,604	1,256
Americas	1,442	768
Asia, Australia	1,773	1,442
Total	6,819	3,466
Improvement measures³ agreed upon		
Legal compliance/prohibition of corruption and bribery	1,407	305
Respect for the basic human rights of employees	667	154
Prohibition of child labor	0	7
Health and safety of employees	1,393	282
Environmental protection	1,940	455
Supply chain	1,110	150
Responsible minerals sourcing	161	9
Total	6,678	1,362

¹ Siemens Energy (excluding Siemens Gamesa): To be conducted by all suppliers with a purchasing volume > €10,000 p.a.; Siemens Gamesa: To be conducted mainly by suppliers from non-OECD countries with a purchasing volume > €50,000 p.a. Questionnaires initiated and completed in the year under review.

² Commonwealth of Independent States.

³ Improvement measures agreed with suppliers relate either to actual deviations from the Code of Conduct for Suppliers and Third-Party Intermediaries or to structural improvements to management systems and a lack of specific processes and guidelines at the supplier. Siemens Gamesa data reported from May 2022 onward.

External sustainability audits (ESAs)	Fiscal year	
	2023	2022
Number		
Europe, C.I.S. ¹ , Africa, Middle East	77	61
Americas	21	16
Asia, Australia	96	90
Total	194	167
Improvement measures² agreed upon		
Legal compliance/prohibition of corruption and bribery	395	392
Respect for the basic human rights of employees	1,034	915
Prohibition of child labor	23	27
Health and safety of employees	933	895
Environmental protection	36	52
Supply chain	97	111
Total	2,518	2,392
Accepted ESAs	71	76

¹ Commonwealth of Independent States.

² Improvement measures agreed with suppliers relate either to actual deviations from the Code of Conduct for Suppliers and Third-Party Intermediaries or to structural improvements to management systems and the lack of specific processes and guidelines at the supplier.



Blockchain technology: Building transparency to support sustainable supply chains.

Due diligence: blockchain traced copper supply chains

Building transparency in dynamic multi-tier supply chains is critical to continuously improving our environmental and social footprints. All our products consist of raw materials, with the mining of minerals and metals in particular coming with potential negative environmental and social impacts. To manage these impacts, we need to go beyond our direct (tier 1) suppliers. Accordingly, Siemens Gamesa has initiated a pilot project, which is utilizing blockchain technology to improve the traceability of copper material flows within our supply chain. Blockchain technology can help build transparency for complex products and verify the chain of custody down to the mine from which the raw materials originate. The pilot project is being run in collaboration with our partners across the value chain to jointly build transparency along multi-tier supply chains.

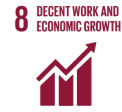
Responsible minerals sourcing

We are committed to preventing the use of minerals from conflict-affected and high-risk areas in the supply chain that are affected by the risks defined in Annex 2 of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. To this end, we have adopted a Responsible Minerals Sourcing Policy to provide a uniform, company-wide supply chain management standard. To determine the use, sources, and origin of these minerals in our supply chains, we investigate the smelters involved. Siemens Energy is part of the steering committee of the Responsible Minerals Initiative (RMI), which provides an assessment program for smelters, the Responsible Minerals Assurance Process.

When surveying our approximately 1,400 (fiscal year 2022: 1,600) relevant suppliers, we use the RMI's Conflict Minerals Reporting Template to obtain the necessary information on smelters producing tin, tantalum, tungsten, and gold (3TG). We are actively involved in the Responsible Minerals Assurance Process by screening smelters for eligibility and encouraging uncertified smelters to take part in the RMI's assessment programs. All newly reported smelters are shared with the RMI.

Based on risk sources identified by the EU, which cover armed conflicts, weak governance, and human right abuses, Siemens Energy also conducts a specific mineral risk assessment to identify other relevant minerals apart from 3TG. After cobalt, copper, and rare earths, we added mica to our supply chain due diligence processes according to the 5-step framework of the OECD Due Diligence Guidance. In addition to our RMI membership (member of the RMI Steering Committee) and strategic partnership with the European Partnership for Responsible Minerals, where we are a member of the governance board, we are actively engaged in Copper Mark, an assurance framework promoting the responsible production of copper.

Human rights



Upholding human rights in our own operations and business relationships is a fundamental responsibility for us as a global company.

- **Compliance with international conventions and principles**
- **Human rights anchored in Business Conduct Guidelines and revised Code of Conduct**
- **Human rights due diligence mitigates risks along value chain**

As a globally operating company, we are aware of the impact our business has on people around the world, especially from our large-scale energy projects. We are dedicated to responsible business conduct and committed to ensuring respect for human rights within our spheres of influence. Identifying and managing our human rights impacts and mitigating risks along our entire value chain is therefore imperative.

Our actions go beyond compliance with applicable laws and regulations; they include our commitment to:

- **International Bill of Human Rights**, consisting of:
 - › Universal Declaration of Human Rights
 - › International Covenant on Civil and Political Rights and
 - › International Covenant on Economic, Social, and Cultural Rights
- **European Convention on Human Rights**
- **ILO (International Labour Organization) Tripartite Declaration of Principles** concerning Multinational Enterprises and Social Policy

- **ILO Declaration on Fundamental Principles and Rights at Work** (in particular on the following topics: elimination of child labor, abolition of forced labor, prohibition of discrimination, freedom of association, the right to collective bargaining, and fundamental freedoms)
- **UN Sustainable Development Goals** specifically SDG 8 “Decent Work and Economic Growth,” which we have defined as one of our priority SDGs
- **United Nations Guiding Principles on Business and Human Rights** (UNGPs)
- **OECD Guidelines for Multinational Enterprises**
- **Principles of the United Nations Global Compact** (UNGC), to which we are a signatory

Identified human rights risk areas

Our risk analysis has identified the following human rights risk areas for our own business operations as well as our suppliers. The results of the risk analysis flow into our corporate decision-making processes and help us identify appropriate preventive measures.

Anchoring our commitment

Our commitment to respecting human rights is written into Siemens Energy and Siemens Gamesa Business Conduct Guidelines (BCG). Both BCGs are binding for all executives and employees worldwide. To enforce the BCG commitment, employees are trained in the respective requirements of the BCGs and are requested to acknowledge them as part of their conditions for employment (see [Compliance training program](#)).

Overview of material human rights topics



Freedom of association (collective bargaining)



Health and safety at work



Prohibition of discrimination



Fair remuneration



Prohibition of forced labor



Respect for human rights by security forces



Ban on child labor

On January 1, 2023, the Executive Board appointed Group Compliance Officer Dr. Anita Schieffer for the newly created position of Human Rights Officer. Our Human Rights Officer monitors and reports on human rights compliance to the Executive Board in the course of quarterly meetings of the Compliance Review Boards and on an ad hoc basis.

In fiscal year 2023, Siemens Energy published a Policy Statement on Respect for Human Rights and Environmental Protection on its global website. We communicated it to our employees, thus further raising awareness for human rights. We also provided information on the scope and relevance of the German Supply Chain Due Diligence Act as part of an "Integrity Week."

We maintain regular exchanges with networks such as econsense, a German sustainability network of internationally operating companies, particularly with a view to the German Supply Chain Due Diligence Act.

Dimensions of human rights



Respect for human rights in employee relations

We are committed to human rights in our employee relations. For more information, see chapter [Working at Siemens Energy – Thriving environment through inclusion and diversity](#), and for safe and healthy working conditions, see chapter [Occupational health and safety](#).

Respect for human rights in the supply chain and in business partner relations

Our business partners are required to comply with the Siemens Energy CoC for Suppliers and Third-Party Intermediaries, which is based on the principles of the UNGC and the ILO but contains more far-reaching requirements. The CoC places particular emphasis on respect for the basic human rights of employees, including fair remuneration, freedom of association, health and safety standards, and the prohibition of discrimination, forced labor, and child labor. In fiscal year 2023, we expanded our CoC to cover all aspects of the German Supply Chain Due Diligence Act. It now also includes the following topics: impact on communities, security forces, and protection of natural resources. To support our suppliers, we continue to offer training on sustainability in the supply chain.

In line with our implemented sustainability risk management system, we systematically identify potential human rights risks in our supply chain and conduct supplier assessments. For more information, see chapter [Sustainable supply chain management](#).

Human rights due diligence in customer projects

We have a dedicated team that conducts human rights due diligence on customer projects. This is mandatory in the sales phase for projects that meet defined risk criteria, and the process conforms to the UNGPs. Here, we rely on external ESG databases focusing on country-, customer-, and project-related risks. The results of the due diligence process including recommendations for mitigation measures guide the project's decision-making. We are continuously striving to improve our due diligence process.

Human rights program in Brazil

Large enterprises contribute to and support local and national development, but they also impact the surrounding population, with children and adolescents being even more vulnerable to these impacts. In Brazil, Siemens Energy (excluding Siemens Gamesa) developed a human rights program in partnership with the Childhood Foundation. The program aims to tackle sexual abuse and the exploitation of children and adolescents living in the communities surrounding major construction sites of Siemens Energy. Siemens Energy Brazil has committed itself to adopting principles and procedures that contribute to promoting and guaranteeing the rights of children and adolescents in Brazil. This includes raising awareness among and providing guidance to employees and third parties on the protection of children and adolescents, performing human rights impact assessments for projects involving construction sites, defining an action plan to prevent and address the sexual exploitation of children and adolescents, and finally, promoting decent working conditions for employees and third parties (guidelines on quality of life, housing, food, leisure, and commuting for workers).

Transparency and human rights-related query channels

We are aware that some of our business activities take place in difficult business environments and are a controversial topic of discussion among our stakeholders. We conduct ad hoc risk analyses if there is an alleged violation or if there is a notable change in the risk landscape of the supply chain. The results of these ad hoc risk analyses will be reported to the German Federal Office of Economic Affairs as of January 2024. Any violations of human rights within our areas of influence can be reported via our grievance mechanisms, including communication channels such as our "Speak Up" reporting system and ombudsperson. Please see the chapter [Compliance and integrity](#) for more information. In fiscal year 2023, we published [rules of procedure for the handling of complaints](#) via our grievance mechanism on Siemens Energy's global website.



Compliance and integrity

We are committed to ensuring that our actions are consistent with our values. Compliance is a company-wide responsibility that starts with a clear tone from the top of the organization and is based on integrity and robust risk management systems.

- **Our motto: 100% Energy, 100% Compliance**
- **Strong ethical culture supported by digital tools, awareness activities, and ongoing communication**
- **Zero-tolerance approach toward compliance violations**

Given the scale of our global operations with customers from a wide range of industries in the private and public sectors, we are confronted with complex regulatory requirements coupled with increasing stakeholder expectations regarding integrity and risk management. In this context, we are committed to a strong culture of ethics and compliance. We pursue a zero-tolerance approach toward corruption, unfair competition, and other breaches of law. When such instances occur, we take immediate action.

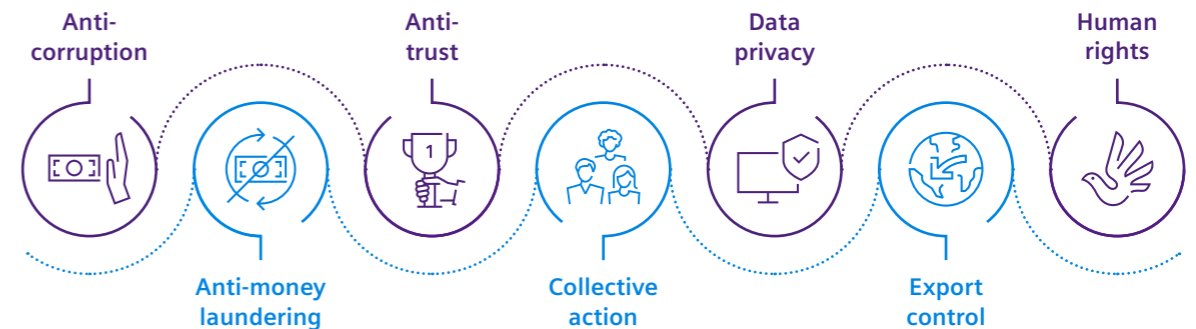
We support international organizations that strengthen responsible business practices, including the United Nations Convention against Corruption and the Anti-Bribery Convention of the OECD. Moreover, we contribute to the achievement of SDG 16 “Peace, Justice and Strong Institutions,” which calls on companies to reduce bribery and corruption in all forms. This in turn promotes fair competition – which benefits innovation-driven companies like Siemens Energy. Anti-corruption measures combined with strong compliance systems protect companies as well as their employees

and shareholders from the risk of possible misconduct. Countries also benefit from stopping corruption, since corruption impedes economic growth and hampers sustainable societal development.

For Siemens Energy, compliance means more than adhering to laws and the internal regulations detailed in our Business Conduct Guidelines (BCG). Com-

pliance is the foundation for our decisions and activities. Our motto is: 100% Energy, 100% Compliance. This applies worldwide and at all levels of the organization. Consequently, compliance is a top management priority. The Legal and Compliance department reports directly to our CEO. Moreover, our Group Compliance Officer reports on Siemens Energy compliance matters to the Executive and Supervisory Boards on a quarterly and ad hoc basis.

Compliance focus areas

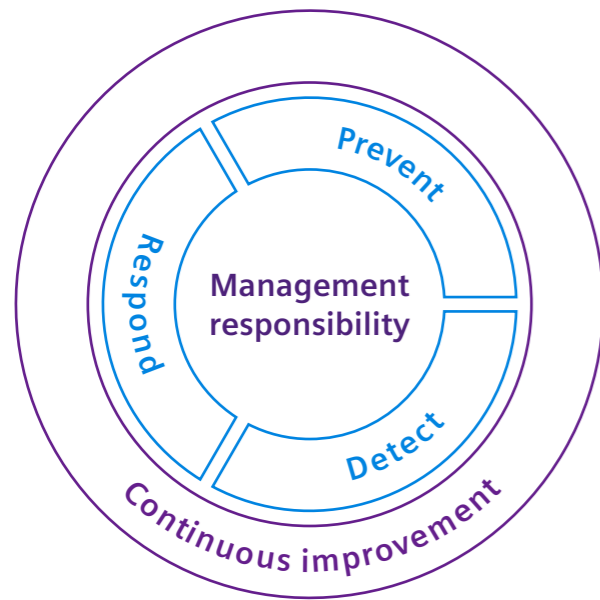


The compliance system is essential for a company-wide zero-tolerance approach

Our zero-tolerance approach requires a robust compliance system of measures to ensure that business is carried out in accordance with the law and our internal rules. The Siemens Energy-wide compliance approach is based on three levels of action: prevent, detect, respond. It is rooted in management’s responsibility and is comprised of several focus areas. These are expanded upon in our BCG.

Siemens Gamesa has implemented its own compliance system and BCG that meet the standard of Siemens Energy.

Our compliance system: Management responsibility is the focus



Preventive measures include the Siemens Energy training program, whistleblower and reporting channels such as the “Speak Up” reporting system or the ombudsperson at Siemens Energy (excluding Siemens Gamesa), the “Integrity Hotline” at Siemens Gamesa, our compliance risk management system, and the respective BCG.

The BCG for Siemens Energy outline our internal regulations. They express our values, compliance-related responsibilities, and behavioral framework for all managers, employees, and Executive Board members worldwide.

Internal investigations, including regular and ad-hoc audits, are essential for detecting and clarifying misconduct. Misconduct is met with a clear response and immediate consequences.

Moreover, we continuously refine our compliance system to mitigate challenges and risks arising from changing market conditions and our business activities.

Holistic implementation of the compliance system

Our compliance system combines strong central governance with the work of qualified compliance officers who aim to ensure its worldwide implementation.

The entire management team is required to commit to compliance. We strive to make our business decisions and activities in accordance with the relevant legal requirements and follow our values in alignment with our company policies.

We expect the same commitment from all our employees and conduct regular surveys on integrity to obtain their feedback. For example, compliance and integrity issues were again part of our global employee engagement survey this year. Based on the feedback received, we will continue our communications and training strategies, creating relevant information material for factory and service personnel.

Compliance training program

Our global compliance training program targets all managers and employees in positions with a specific risk profile. Those selected are required to complete mandatory compliance training.

Compliance training ¹	Fiscal year	
	2023	2022
Training on Business Conduct Guidelines		
Number of targeted employees completing the module	72,807	67,248
Percentage of targeted employees completing the module	95	94
Training on antitrust²		
Number of targeted employees completing the module	52,406	44,951
Percentage of targeted employees completing the module	95	95
Training on export control		
Number of targeted employees completing the module	72,044	62,934
Percentage of targeted employees completing the module	94	93
Training on data privacy		
Number of targeted employees completing the module	72,203	64,637
Percentage of targeted employees completing the module	94	86

¹ Siemens Energy addresses the same overarching topics, but the detailed content may vary. Figures contain employees who were trained in the respective modules, incl. prior years.

² Excluding Siemens Gamesa.

We maintain ongoing compliance awareness through various means. During the reporting period, this included web-based training on our signature guideline. A refresher course on our BCG is planned for the first quarter of fiscal year 2024. Dedicated compliance and integrity topics are communicated across the Group through continuous messaging on corporate social media (e.g., Viva Engage) and through integrity dialogue events, which provide a forum for managers to discuss current compliance issues with their teams.

Compliance risk management

Reliable compliance risk analysis is key to the success of our business. By identifying risks early, we make informed decisions on how best to avoid or mitigate them. We design and integrate bottom-up and top-down processes as well as tools to identify potential risk scenarios and take rapid and consistent action.

The annual assessment of compliance risks was conducted once again in fiscal year 2023. We addressed identified risks through local and central measures and monitored them in dedicated workshops. Compliance risk management is an integral part of the quarterly company-wide ERM that creates further transparency throughout the entire risk environment.

Collaboration with business partners

Siemens Energy can be held liable for the illegal actions of our business partners. As a result, Siemens Energy diligently reviews, selects, and carefully monitors business partners throughout their life cycle. We oblige our business partners to adhere to our Code of Conduct (CoC). The CoC is based on the Ten Principles of the United Nations Global Compact (UNGC) and is mandatory for all Siemens Energy business partners. It covers legal compliance in general as well as our anti-corruption policies, including provisions against anti-competitive practices and conflicts of interest. Our

approach is based on transparency and risk mitigation. The underlying principles and procedures are defined in our BCG.

All cases of compliance violations are reported quarterly to the Executive Board. Further, our process covers the entire life cycle of the business partnership. Our compulsory company-wide Business Partner Compliance Tool supports the implementation of the process. Moreover, it ensures the documentation of relevant information and actions. We continuously enhance our business partner due diligence process by systematically reviewing complex data sets, using dashboards, and harnessing analytics to improve risk management.

Channels for reporting misconduct

We offer all employees and external third parties various confidential channels for reporting potential violations. This helps identify and eliminate misconduct. It also protects whistleblowers and the company from damage that may result. Such channels include:

- Managers
- Group Compliance Officer
- Compliance department and Legal department
- Human Resources department
- "Speak Up" and "Integrity Hotline" whistleblower channels
- Ombudsperson
- Employee representatives

Information on possible violations can be given confidentially and anonymously. We do not tolerate retaliation against complainants or whistleblowers, and any attempt at retaliation will be treated as a compliance violation. The same principles apply to any reports of wrongdoing brought forward by third parties.

Our Compliance department investigates relevant reports and takes appropriate action in accordance with formal company-wide processes.

Promoting business integrity in the Middle East

To raise awareness and actively contribute to discussions that promote anti-corruption and clean business, our Compliance Lead for the Middle East, Nadeem Anwar, joined Muhanad Al-Saffar, Managing Director Iraq at Siemens Energy, in speaking at a conference organized by the OECD and GIZ. The invitation to this event about "Fighting Corruption and Promoting Business Integrity in the Electricity Sector in Iraq" confirms the external perception of our company as an expert in the fight against corruption in the regional energy sector.

Data privacy

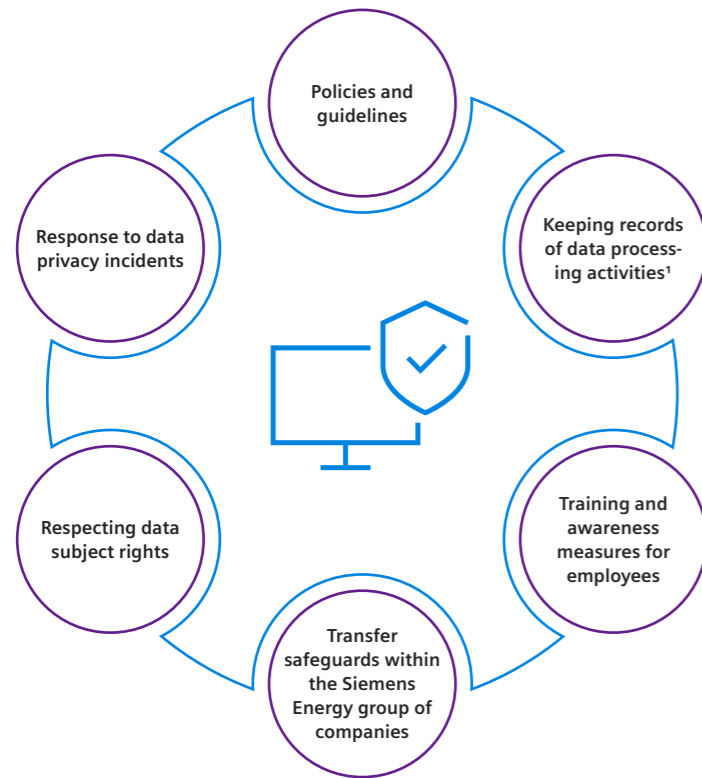
The protection of personal data plays an important role in our digitized world. We aim to handle it carefully and responsibly, respecting the privacy of the individual. Personal data is processed confidentially and only for legitimate, predetermined purposes.

To comply with data protection laws, including the General Data Protection Regulation, we have implemented the Siemens Energy data privacy management system. This system aims to ensure the protection of our customers', business partners', and employees' personal data. We predominantly operate in a B2B environment where our customers are not end consumers. Nevertheless, we process business-related personal data, such as customers' and partners' employee data (e.g., business contact information).

On June 22, 2023, Siemens Energy notified the respective authorities about a data privacy incident. As many other companies, Siemens Energy was attacked by a hacker group, which made use of a zero-day-vulnerabil-

ity in the IT application “MoveIT”. Internal investigations by Siemens Energy came to the conclusion that most of the affected data was not personal information. The personal information affected was in general business-related contact data. Until the end of the fiscal year, there has not been any response from the authorities yet. Apart from that, we are not aware of any substantiated complaints made in this reporting period relating to the protection of customer data.

Data privacy management system



¹ Documentation of the purpose, risk, and security safeguards for processing activities within the group.

Compliance indicators	Fiscal year	
	2023	2022
Compliance cases ¹ reported	126	118
Disciplinary sanctions ²	75	188
thereof warnings	41	55
thereof dismissals	28	110
thereof other ³	6	23

¹ Compliance cases include, but are not limited to, cases related to our focus areas of anti-corruption, anti-money laundering, anti-trust, data privacy, export control, and human rights.

² Numbers for disciplinary sanctions in a fiscal year do not necessarily correspond to cases reported during that period: sanctions are frequently not implemented in the same year in which the case was reported or the investigation – which follows a defined process – was completed. In addition, a single case may result in multiple sanctions, or none at all.

³ Includes loss of variable and discretionary compensation components, transfer, and suspension, but not the revocation of signatory rights.

Key compliance indicators

We respond to any alleged violation of external or internal rules in accordance with established company-wide processes. In the event of a proven violation, we take appropriate disciplinary action. Once we have completed a compliance investigation and identified a compliance violation, our internal processes provide guidance to ensure we take appropriate action with those involved. Further, we evaluate and define appropriate consequences through disciplinary processes and systematically monitor their implementation.

Our internal reviews in the course of our compliance risk management, including knowledge gained during compliance investigations and audits performed by our internal audit function together with the evaluation of case statistics, indicate that our compliance system is well-designed and effectively implemented. Based on the nature of our businesses, the environments in which we operate, and the wide range of different geographical regions, we do not regard the number of incidents as unusual. With

respect to disciplinary sanctions, the disproportionate number of sanctions in 2022 is mainly due to cases at Siemens Gamesa India.

Siemens Energy is not aware of having been convicted of any corruption, bribery, or antitrust violations in fiscal year 2023. To date, there have been no significant issues of non-compliance that have resulted in material monetary fines or non-monetary sanctions like the withdrawal of trading licenses or licenses to operate in highly regulated industries.

With regard to the process for identifying significant cases of non-compliance as well as further information on non-compliance matters, please refer to the Combined Management Report 2023, Chapter 2.8 Report on the internal control and risk management system and material risks and opportunities, as well as the Notes to the Consolidated Financial Statements, Note 18 Legal proceedings.

Achievements

Siemens Energy reached a number of significant milestones in fiscal year 2023. These included

- going live with our compliance tool (COSON) for third-party screening, compliance approval for entertainment, lodging, and non-local travel, sponsoring, donation or charitable contribution, and other contributions without consideration; and
- celebrating an Integrity Week across Siemens Energy to raise awareness for compliance and integrity.

We remain committed to harnessing the potential of digitalization to achieve additional efficiency and to further strengthen our compliance monitoring system.

We will continue to tailor our compliance system to the unique risks and opportunities of our business and the organizational structure of Siemens Energy in general.

Working at Siemens Energy



With our People Agenda and our corporate culture as a foundation, we aim to be the differentiator in the market for our customers, investors, suppliers, partners, employees, and society.

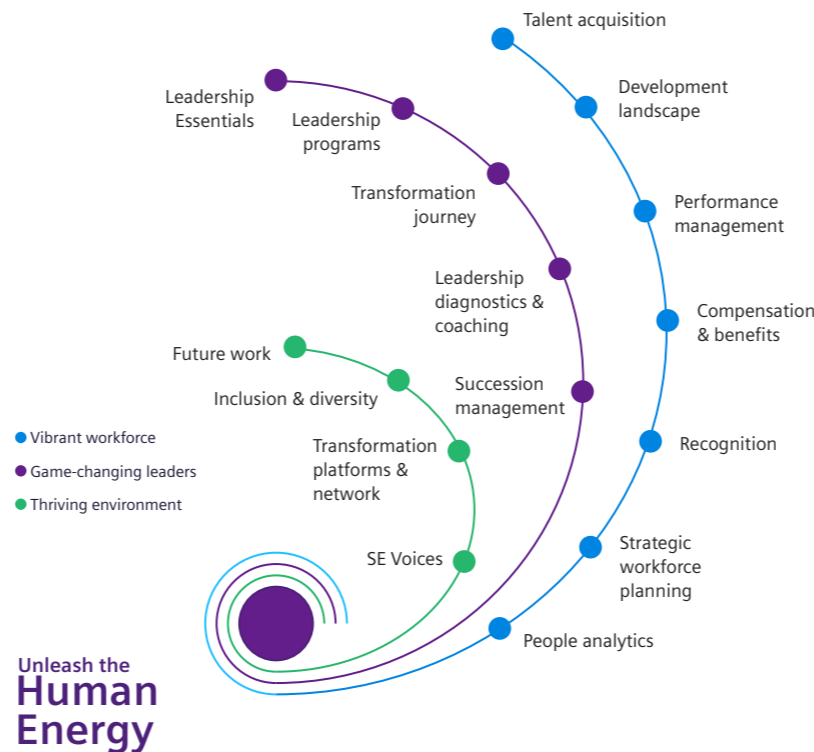
- We strive to be the employer of choice in the energy industry and to attract, develop, and retain a future-ready workforce
- We focus on creating diverse, inclusive, and welcoming workplaces where people can unleash their full potential
- We are investing in our strategic People Agenda, which is aligned with our company strategy, values, and behaviors

Through our human resources (HR) activities, Siemens Energy contributes directly to SDG 4 “Quality Education,” SDG 5 “Gender Equality,” SDG 8 “Decent Work and Economic Growth,” and SDG 10 “Reduced Inequalities.” We do this through our People Agenda, our HR Strategy designed to prepare the company for the future and drive the energy transition from a people perspective.

The People Agenda, including its programs and strategic initiatives, is founded on three main building blocks: “Thriving environment,” “Game-changing leaders,” and “Vibrant workforce.”

In the spirit of “Just Transition,” a concept that is part of the EU Green Deal, we are committed to making the transition employee-friendly and socially fair and acceptable. We do this by mirroring the political efforts in the regions affected by the shift from fossil to renewable energy with its associated evolution in the job market. We drive strategic workforce planning to obtain organizational transparency on the structural evolution and needs in

Our People Agenda



the job market, and hence our workforce, and seek to offer adequate training and provide fair conditions, such as wages and benefits.

To underline that people are a top management priority for Siemens Energy, the HR department is led directly by the CEO. The operational responsibility for topics such as talent management or compensation and benefits lies with the Centers of Competence, which regularly report to the Executive Board.

Thriving environment

We are striving for an environment for people to be self-directed, to have responsibility, and to find meaning in their work. We guide this by setting standards through our Inclusion & Diversity Framework, applying new ways of working, and establishing cross-organizational networks.

Fostering inclusion & diversity

We want everyone to bring their whole self to work and reach their full potential. Our workplace environment is open to everybody regardless of their ethnic origin, religion, world view, age, disability, gender, sexual orientation, gender identity, or gender expression. We strive to offer our employees equal treatment in a non-discriminatory work setting. To emphasize the relevance of inclusion & diversity (I&D) for Siemens Energy, our Chief Financial Officer, Maria Ferraro, is also Chief I&D Officer and leads our I&D Decision Board.



Barrier-free office at Siemens Energy in Buenos Aires.

Better accessibility in Argentina

The new offices of Siemens Energy in Buenos Aires received an accessibility certificate from the Asociación para la Lucha Contra la Parálisis Infantil (ALPI; the Association for the Fight Against Infantile Paralysis). Together with the Inclusion & Diversity team of the region, we continue to work on this initiative to adapt different workspaces to the needs of people with disabilities.

Our holistic I&D Framework supports our ambition and contributes to the promotion of I&D. The following measures were taken in fiscal year 2023, in addition to the measures established in past years, such as mandatory diverse interview panels to reduce bias in the hiring process:

- Global partnership signed on UN Standards of Conduct for Business Tackling Discrimination against LGBTI People
- I&D factor established as part of our engagement survey to measure and monitor how our employees perceive our progress on I&D
- Further drive the implementation of barrier-free workplaces in our buildings and support accessibility in standard tools such as Office 365, to address needs and challenges faced by employees with disabilities, promoting accessibility, equal opportunities, and inclusivity within the organization.

- Several activities organized by our networks, our employee resource groups, for example:
 - › International Women’s Day: two weeks of more than 20 sessions organized by the gender network with around 2,500 attendees
 - › Pride Month in June: six global sessions organized by the Pride network (2,900 views) with further regional events

Siemens Energy (excluding Siemens Gamesa) aims to reach a share of 25% women in top leadership positions by September 30, 2025, and a share of 30% women in top leadership positions by September 30, 2030. In fiscal year 2023, the share of women in top leadership positions increased to 28% (fiscal year 2022: 22%).

Siemens Gamesa aims to reach a share of 25% women in headcount and in leadership positions by September 30, 2025, and a share of 30% women in headcount and leadership positions by September 30, 2030. In fiscal year 2023, the share of women in leadership positions was 15% (fiscal year 2021: 14%).

Apart from increasing the share of women in senior leadership, ensuring equal pay for equal work is highly important for Siemens Energy. Our goal is to comply with all local regulations for measuring and reporting on equal pay. In fiscal year 2022, we began using a standardized methodology to identify potential gender differences in pay among employees across Siemens Energy, taking into consideration factors such as country, seniority,

Our Inclusion & Diversity pillars

We embed inclusion & diversity in everything we do by using a holistic frame built around 4 strategic focus areas.

Our core behavior “Be open & inclusive”

<p>1 Equity</p>  <p>We recognize the unique needs of each individual or group and remove barriers and create opportunities under which everyone can participate on equal terms.</p>	<p>2 Belonging</p>  <p>We make our mix work by creating an inclusive culture where people feel respected, engaged, and able to speak up and be themselves.</p>	<p>3 Society & partnerships</p>  <p>We work together, internally and externally, with customers and partners to support us in becoming more diverse and inclusive.</p>	<p>4 Accountable leaders</p>  <p>Our leaders are accountable and internally and publicly champion diversity, equity, and inclusion.</p>
--	---	---	--

We use “diversity” to describe our commitment to recognizing and respecting the differences between people while valuing the contribution everyone can make to our business, without any tolerance for discrimination or bias of any kind.

Valuing Inclusion

We use “inclusion” to describe our commitment to being an open and inclusive company, striving to create safe, welcoming workplaces with a culture that encourages equality and belonging.

Valuing Diversity



Celebrating differences and diversity at Siemens Energy.

Recognition for promoting LGBTQIA+ rights in Mexico

To strengthen the rights of the LGBTQIA+ community in Mexico, the Human Rights Campaign (HRC) Foundation launched the sixth annual “HRC Equidad MX: Programa Global de Equidad Laboral” in December 2022. The program is modeled after HRC’s Corporate Equality Index, the premier LGBTQIA+ workplace equality benchmarking survey in the U.S., and aims to evaluate LGBTQIA+ workplace inclusion at major Mexican businesses and multinationals. Siemens Energy received certification and earned top ratings in the 2023 report. This recognition was based on our Proud2bMe strategy to deploy actions specifically to promote inclusion and visibility for the LGBTQIA+ community in our local organization. This includes training, campaigns, safe helplines, and surveys to understand the key challenges the community is facing.

and job family. This adjusted pay gap was about 4.81% (as of September 2023). The calculation methodology was refined in fiscal year 2023 to better align with the proposed EU Pay Transparency Directive. We now use Hourly Total Actual Direct Compensation (FTE) instead of Annualized Total Target Direct Compensation (FTE), computed using payout ratios for the previous fiscal year.

On September 30, 2023, Siemens Energy employed about 1,400 people with a disability in Germany (September 30, 2022 about 1,400).

Equal pay ¹	Fiscal year	
	2023	2022 ²
Adjusted pay gap (%)	4.81	5.16
Unadjusted pay gap (%)	4.57	8.22

¹ Figures relate to Siemens Energy using a new methodology to calculate the fiscal year 2023 figures. An unadjusted pay gap refers to the difference between the earnings of men vs. women (mean male vs. female FTE Total Direct Compensation in € using actual payout values based on incentive payout ratios from the previous fiscal year converted to hourly rates) that could arise from differences in a number of factors, for example, job families, geography, relative value of the position, seniority, or gender. An adjusted pay gap refers to the part of this difference between the earnings of men vs. women that is attributable solely to gender. The pay gap KPI is expressed as the difference between the mean male pay vs. the mean female pay, divided by the mean male pay. A positive pay gap KPI is one in favor of men, a negative in favor of women.

² Fiscal year 2022 figures relate to Siemens Energy (excluding Siemens Gamesa). For fiscal year 2023, according to the previous year’s methodology, the adjusted pay gap is 5.30% and the unadjusted pay gap is 8.86%.

Global employee engagement survey

At Siemens Energy (excluding Siemens Gamesa) our bi-annual global employee engagement survey gives all employees worldwide the opportunity to share how they perceive our company, culture, leadership, team collaboration, and work environment.

In fiscal year 2023, this survey was conducted with a response rate of 77%, with approximately 70,000 comments provided. The majority of survey scores increased on a global, company-wide level compared to the previous year’s survey.

Following common industry practice, Siemens Energy (excluding Siemens Gamesa) now uses a new multi-question engagement factor, which measures the weighted average of four questions: pride, willingness to stay, motivation, and taking action. Since the introduction of the new engagement factor in the first quarter of fiscal year 2023 (72%), we have already seen an increase of 4% to 76% (fiscal year 2022: 69%). The improvement area from last year, “Active Engagement,” which measures the extent to which employees feel their team took actions to create positive change after the last survey, increased by 6% compared to the previous fiscal year. This year, it reached a score of 61%, and we strive to improve further.

Siemens Gamesa also strives to periodically carry out employee engagement surveys. In fiscal year 2023, the survey was not conducted due to integration activities. During our upcoming integration planning, we will plan an aligned timeline rollout.

Game-changing leaders

Leaders need to provide clarity and direction in uncertain conditions. Their task is to bring new strategies, new mindsets, and business transformation to life, triggered by outside market changes, and role model our Leadership Essentials.

Our six Leadership Essentials (see graphic on the next page) help Siemens Energy leaders grow, perform, and deliver our strategic goals. They define the qualities we expect of our leaders across all leadership levels and provide the language we use to hold one another accountable for shaping our culture. The Leadership Essentials are not yet rolled out in our Business Area Siemens Gamesa. During the upcoming integration planning, we strive to identify and plan potential rollout and harmonization opportunities.

Leadership essentials



Leadership development

Siemens Energy runs four leadership pipeline programs, targeting leaders at different stages of their career. All programs are designed around our values, behaviors, and Leadership Essentials. They are the foundation to build a strong and diverse leadership pipeline and enhance the overall quality and maturity of the leaders across Siemens Energy.

In addition, we created a community network for learning and ongoing growth for alumni of the leadership programs.

In fiscal year 2023, we piloted a new leadership development program for managers of managers to equip mid-level managers with the tools and frameworks they need to implement change and influence upward while nurturing a culture of trust. Furthermore, we focused on the compilation and design of a holistic and integrated leadership development landscape that is intended to be launched next fiscal year.

Succession

With our succession risk management, we strive to ensure business continuity and robust internal succession pipelines for the most critical roles across Siemens Energy.

The Executive Board reviews the key roles, quality, and robustness of the succession pipelines on a bi-annual basis. The process is supported by key performance indicators that provide transparency on the diversity of the succession lists, the percentage of candidates from career programs, and succession ratios. In addition, we run the annual Board Mentoring Program as well as bi-annual Succession Touchpoints for early talents with the Executive Board.

Siemens Gamesa is not yet integrated in the Siemens Energy succession process. During the upcoming integration planning, we aim to identify and plan potential rollout and harmonization opportunities.



SELRIseUp pilot successfully launched in China to promote lifelong learning.

Lifelong learning practice in China

“SELRIseUp” was the first program in China that specifically targeted middle-aged colleagues. The six-month program included professional communication training and enhanced learning through mentoring and shadowing opportunities. The rationale for targeting the mid-aged group was the idea that most training is directed at younger colleagues or leadership development with little training available around the importance of lifelong learning and personal growth. The learning journey was received well by the participants, with key topics including self-reflection, confidence, anxiety, and self-care while caring for others.

Vibrant workforce

Our ambition is to become the employer of choice in the energy industry. In a competitive and volatile environment, competing for talent remains a key challenge. Therefore, attracting, hiring, onboarding, developing, and retaining a diverse talent pool is key for our future success.

We are doing this by investing in our vibrant workforce. All elements aim to contribute to the implementation of our strategy in an employee-friendly and fair manner. Our focus on building an inclusive workforce is key to our efforts to attract people who drive the energy transition.

Employer branding

A strong employer brand, internally and externally, is crucial for our company's success. It aims to attract top talent, foster employee engagement and retention, enhance our competitive advantage, and demonstrate what we stand for and can offer as an employer. We focus on strengthening our employer brand through several activities, including

- conducting an employer brand health assessment to determine brand awareness among potential talent and to understand drivers for consideration;
- targeted advertising to create awareness for Siemens Energy in key markets with significant hiring demands;
- maintaining our career website with a focus on differentiating our employer value proposition;
- establishing a strong social media presence on LinkedIn, Facebook, and X (formerly Twitter) with targeted recruiting campaigns;
- tracking key performance indicators and external benchmarks to measure and optimize targeted employer branding initiatives; and
- utilizing the Employee Referral Program to enable and encourage employees to refer external candidates to join Siemens Energy.

Employer value proposition

Our employer value proposition (EVP) helps address questions such as what encourages people to join our company, perform at their best, and stay with our organization. The EVP aims to be:

- **Inspirational** – inspires people to act and realize their personal ambitions and dreams
- **Strategically aligned** – supports our brand purpose, promise, and goals, and helps build the culture and brand Siemens Energy is striving toward
- **Unique** – describes the characteristics of the employee experience that make us different from other employers
- **Focused** – emphasizes the most pressing wants and needs of the target employee persona

Siemens Gamesa is not yet integrated into the current EVP. During the upcoming integration planning, we will identify and plan potential rollout and harmonization opportunities.

Promoting early careers

We strive to attract young talents to our workplaces and encourage them to contribute to our thinking while also promoting positive collaboration and dialogue among different generations.

An example of what we offer is vocational education. With our vocational training programs in Germany, we aim to attract school graduates. As of September 30, 2023, there were 2,112 (September 30, 2022: 1,865) trainees and students enrolled in work-study programs. In addition, there were 1,104 (September 30, 2022: 897) internals and 1,008 (September 30, 2022: 968) externals from other companies. In fall 2023, a total of 408 (fiscal year 2022: 247) graduates began an internal apprenticeship or a work-study program, and there were 238 (fiscal year 2022: 275) external trainees. We also offer vocational training in several other countries.

In recruiting apprentices, we have pursued a new approach since fiscal year 2023. Instead of media advertisements for job offers, we invite applications with an online questionnaire that focuses on passion, team ability, engagement, and motivation.

The Siemens Energy Graduate Program is a two-year experience to develop, grow, and retain talented young university and doctoral graduates. Participants are hired on a permanent contract with all rights and responsibilities of an employee. In the first two years of their employment,

they are part of the program with three different assignments, including one international assignment, and participate in various development modules and training courses.

People development and retention

Siemens Energy's goal is to continuously develop and retain a robust workforce that is prepared for the challenges of the energy transition. People development and retention is one of our top strategic priorities, since it not only benefits employees on a personal level but also propels the company forward, fostering a culture of continuous improvement and innovation.

Strategic workforce planning

Strategic workforce planning (SWP) addresses structural workforce changes at an organizational level and is intended to ensure that critical roles and future-relevant skills are distributed appropriately across all levels and locations. We strive to close skills gaps and build a robust workforce by specifically focusing on:

- **Build:** upskilling and reskilling our existing workforce in strategic growth fields
- **Buy:** strategic hiring from the external market
- **Borrow:** focused contracting to balance peaks
- **Bind:** retaining mission-critical skills

In fiscal year 2023, we focused on creating transparency on strategic workforce shifts, skills gaps, and future demands required on a Business Area and Function level to come to a holistic picture for Siemens Energy, starting with the former GP business. We aim to integrate SWP into the overall strategic planning process. SWP is not yet rolled out in our Business Area Siemens Gamesa. During the upcoming integration planning, we will identify and plan potential rollout and harmonization opportunities.

Performance and growth

The performance management processes at Siemens Energy are designed to accelerate individual development and create high-performing teams. They are open to all employees and built around constant dialogue and feedback, individual goals, responsibilities, and regular checks throughout the year.

Our regular processes include dialogues about personal development and growth. We strive to establish a growth mindset throughout the entire organization that helps our employees individually and the company as a whole to thrive in a dynamic business environment. In this way, we want to enhance performance, foster a positive work culture, and attract talent.

Learning and training

Developing employees in their current roles and for their future careers is critical to the success of our business. We strive to promote lifelong learning, upskilling, and development.

At Siemens Energy, learning takes place on a wide variety of levels – on-the-job, through interactions with colleagues, and in virtual and personal internal or external learning activities.

Our learning opportunities include the following areas:

- Professional skills relevant in specific functions such as sales or project management
- Technical skills with regard to our energy technologies, products, and solutions
- Digital skills, potentially relevant for all functions, such as data analytics or cybersecurity
- Personal skills, relevant for all employees in all functions and roles, such as problem-solving, communication, or self-direction
- Self-reflection tools for employees, from simple checklists and self-assessments on skills to multi-source feedback
- Transition assistance programs to support continued employability or the management of career endings, e.g., through coaching, counselling, or a specific qualification initiative in Germany

One example of our measures in fiscal year 2023 is our establishment of learning academies with targeted learning opportunities for employees. Training courses are selected and developed with internal experts from our businesses and Functions and offered on our learning platform. We piloted a dashboard to monitor and measure our progress on learning and development. We also implemented a tool for employees to upload their exter-

Training	Fiscal year	
	2023	2022
Spend on further education (€ million)	80	69
Spend on further education per employee (€)	856	753
Total number of training hours	1,126,608	943,655
On-site	863,356	699,393
Web-based	263,252	244,263
Total average training hours per employee	12.0	10.3
On-site	9.2	7.7
Web-based	2.8	2.7

nal training certificates to better reflect the training history and learning hours per employee. A global communication campaign to promote continuous and self-directed learning and development is currently being prepared and will be launched next fiscal year.

Our learning platform offers employees worldwide access to e-learning modules as well as trainer-led learning options and coaching in different languages. The learning platform is not yet rolled out in our Business Area Siemens Gamesa. At Siemens Gamesa, the Wind University is the functional training center. It enables learning by delivering a variety of solutions through different learning platforms such as FUSE for workflow learning, LinkedIn Learning for standard learning, and the SG Learning Web as a formal learning platform.

Siemens Energy spent about €80 million on training activities in fiscal year 2023 (€69 million in fiscal year 2022). Our employees spent an average of 12 hours (fiscal year 2022: 10.3) on formal learning activities.

Training	Fiscal year	
	2023	2022
Gender¹		
Female	171,364	–
Male	948,637	–
Job families²		
Customer services	111,561	–
Engineering	106,549	–
Finance	36,396	–
Information technology	43,256	–
Internal services	50,576	–
Manufacturing	50,729	–
Project management	30,374	–
Sales	31,374	–
Supply chain management/procurement/ supply chain logistics	27,173	–
Others	69,433	–

¹ The difference is mainly due to the above-average share of product training in male-dominated areas, such as technicians working in customer service, maintenance of turbines, and manufacturing.

² Figures relate to Siemens Energy (excluding Siemens Gamesa).

Rewarding our workforce

Siemens Energy strives to offer benefit programs based on local market practice that are attractive, fair, and inclusive, taking accessibility for a diverse workforce into consideration. Some examples of our benefits are:

- We offer market-competitive retirement plans in 60 countries to around 60,000 employees focusing on fairness and flexibility for different employee groups and their needs.
- We aim to include local benefit initiatives that are environmentally friendly – e.g., subsidies for public transport systems or electric benefit cars.
- Long-service awards are provided to recognize dedicated work by employees and loyalty of service to our company.
- We seek to offer a range of opportunities to our employees to tailor their working times and locations to their needs, such as part-time and remote working.
- We aim to foster a family-friendly environment that supports our employees at crucial moments in their lives. We decided to set a global standard in this area and will develop a life-event policy in fiscal year 2024 that will grant our employees worldwide a minimum number of days off in the case of the following life events:
 - › Childbirth or adoption
 - › Death of a close family member
 - › An employee's close family member requiring care or support for serious medical reasons

This global life-event policy aims to be inclusive, accessible, and supportive to meet the diverse needs of our employees.

The benefits are not yet harmonized with our Business Area Siemens Gamesa. During the upcoming integration planning, we intend to identify and plan potential rollout and harmonization opportunities.

About 2,900 employees (September 30, 2022: about 2,900), or 3%, worked part-time and around 2,200 (September 30, 2022: about 2,100) were on leave of absence.

Siemens Energy continuously strives to provide competitive and fair compensation levels to attract, retain, and reward talents. To this end, we consider a variety of internal and external factors that are consistent with our corporate culture and values. These include internal pay equality, performance, and external competitiveness. Hiring agency workers is common, and in many cases, contracts are governed by similar or comparable wage policies to those enjoyed by company employees.

Once a year, during the global Merit Round, we review employees' salaries in a structured process to identify potential needs for adjustment. We regularly monitor the market competitiveness of our compensation in terms of compensation levels and compensation structure. In fiscal year 2023, the review showed that our pay levels are competitive worldwide. Industry wage agreements – which Siemens Energy adheres to – supersede the national minimum wage in many countries. Compensation structures depend on local market practice and the respective position value or class.

In fiscal year 2023, variable pay was governed by a global framework, which defined four incentive schemes, leveraging financial KPIs from our external financial reporting and a performance multiplier. For eligible employees of Siemens Gamesa, the variable pay is governed by a global policy as well. Siemens Gamesa Management by Objectives (SGMBO) establishes a globally applicable target structure based on four company KPIs and an individual component. The company KPIs are weighted with 70% and the individual evaluation with 30% of the variable pay of the around 12,000 employees participating in this plan. As a new KPI, Siemens Energy reports the ratio between the average salary of a median employee versus our top-paid person. For fiscal year 2023, this ratio stood at 86.

Additionally, we offer a range of share plans for employees at every level. They offer our employees the opportunity to invest and benefit from our company's long-term performance. Our share purchase program for employees at every level is called "Direct Match Program." In fiscal year 2023, it was offered in 37 countries to approximately 63,000 employees at every level – from shop floor to top management. The program is not yet rolled out at Siemens Gamesa, but this is planned for fiscal year 2024.

Our senior managers and other employees receive stock awards through a ratable vesting scheme as an essential element of the remuneration package. Senior managers fulfilling a position rated as especially relevant for the company have also been granted performance-oriented stock awards whose fulfillment is tied to specific KPIs, e.g., a sustainability target. This reflects the importance of sustainability for Siemens Energy, not only for members of the Executive Board but also for senior managers.

Recognition and celebrating success

We know that our employees are our greatest asset. That is why appreciation of our employees and a culture of recognition are important to us.

Our Share Thanks And Recognition (STAR) online platform gives an equal voice to our employees. They can show appreciation to anyone in the organization through personalized messages, e-cards, or the awarding of points. The platform was rolled out in August 2021, and as of today can be used by more than 60,000 employees in 70 countries worldwide within Siemens Energy. We plan to implement this tool at Siemens Gamesa after the main compensation elements have been harmonized. Until then, Siemens Gamesa will keep the non-monetary Thank You Awards, where employees can nominate peers, team members, and managers for acting as role models in line with the company values.

Employee representation

At Siemens Energy, we highly value employee representation and participation in accordance with national laws. In Germany, we established a regular dialogue between company management and employee representatives. At the European level, employee representation takes place in the Siemens Energy European Works Council based on the German Act on European Works Councils and the Siemens Energy European Works Council Agreement. The agreement covers all employees of Siemens Energy and its consolidated subsidiaries within the European Economic Area plus the UK.

On a national level, various forms of employee representation exist based on national regulations. In Germany, trade union representation is through the Industrial Union of Metalworkers, and in many other countries by

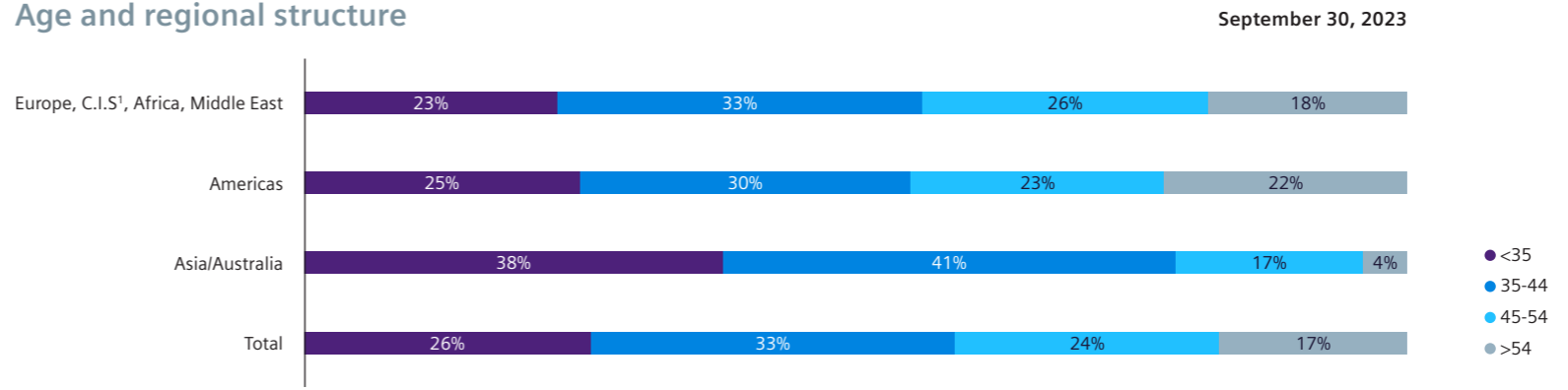
domestic trade unions. In addition, in-house employee representation is based on national regulations. At German locations, employee representation is based on the German Works Constitution Act and is realized through various employee representation bodies, in particular central works councils, combined works councils, and local works councils, which are elected by the employees. In many other countries, this is based on domestic law. The Supervisory Board of Siemens Energy also contains employee representatives as full board members who are – depending on national law – either delegated by employees or appointed by the trade union.

Employee structure

As of September 30, 2023, Siemens Energy had about 96,000 employees worldwide (September 30, 2022: 92,000), 29,000 (September 30, 2022: 28,000) of whom worked for Siemens Gamesa. The average number of employees during the fiscal year stood at about 94,000 (fiscal year 2022: 91,000).

Working contracts	Fiscal year	
	2023	2022
Employees with permanent working contract	91,191	88,014
Employees with temporary working contract	4,239	3,744
thereof female employees	927	874
thereof male employees	3,312	2,870
thereof EMEA	2,248	1,682
thereof Americas	90	110
thereof Asia/Australia	1,901	1,952

Age and regional structure



¹ Commonwealth of Independent States

Women accounted for 20.2% (September 30, 2022: 19.8%) of the workforce and 23.3% (fiscal year 2022: 22.9%) of all new hires. We expect 10.5% of employees to retire within the next 5 years (fiscal year 2022: 10.2%). The share of employees with permanent working contracts is 95% (September 30, 2022: 95.4%). The worldwide average working week at Siemens Energy was 39 hours, with no changes in comparison to 2022. The average employee age was 42.6 (fiscal year 2022: 42.7). At Siemens Energy, about 61% of employees (fiscal year 2022: about 75%) are covered by collective bargaining agreements worldwide.

Number of employees

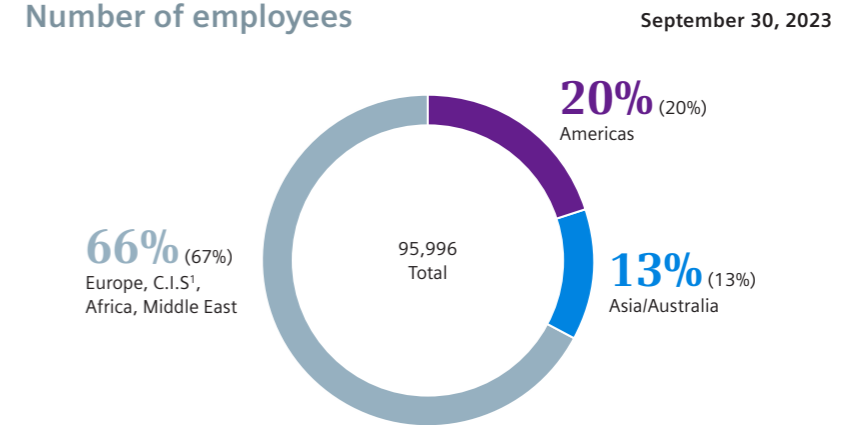


Figure for previous year in brackets.
¹ Commonwealth of Independent States.

Employee fluctuation – hires	Fiscal year	
	2023	2022
Hires (thousands)	13.5	10.9
thereof women (%)	23.3	22.9
thereof Europe, C.I.S. ¹ , Africa, Middle East (%)	59.9	59.4
thereof women Europe, C.I.S. ¹ , Africa, Middle East (%)	23.3	24.1
thereof Americas (%)	25.4	22.5
thereof women Americas (%)	23.2	20.6
thereof Asia/Australia (%)	14.8	18.2
thereof women Asia/Australia (%)	23.4	22.0
thereof age <35 (%)	56.7	57.3
thereof age 35–44 (%)	27.0	28.0
thereof age 45–54 (%)	12.0	11.3
thereof age >54 (%)	4.3	3.4
Recruitment rate² (%)	14.4	12.0

¹ Commonwealth of Independent States.

² The recruitment rate is calculated as the number of new employee hires at Siemens Energy during the fiscal year divided by the average headcount.

Employee fluctuation – exits	Fiscal year	
	2023	2022
Exits (thousands)	8.9	9.7
thereof dismissals ¹ (%)	9.5	12.5
thereof women (%)	20.3	19.6
thereof Europe, C.I.S. ³ , Africa, Middle East (%)	60.0	57.1
thereof Americas (%)	25.7	30.4
thereof Asia/Australia (%)	14.4	12.4
thereof age <35 (%)	35.7	32.6
thereof age 35–44 (%)	28.8	28.4
thereof age 45–54 (%)	14.9	15.5
thereof age >54 (%)	20.6	23.5
Turnover rate³ (%)	9.6	10.6
Turnover rate – voluntary (%)	5.0	5.3
Turnover rate – other reasons (%)	4.6	5.3

¹ Siemens Energy (excluding Siemens Gamesa).

² Commonwealth of Independent States.

³ The turnover rate is calculated as the number of voluntary and involuntary (all other) exits at Siemens Energy during the fiscal year divided by the average number of employees.

Employees on parental leave ¹	Fiscal year	
	2023	2022
Total	811	–
thereof women	283	–
thereof men	528	–

¹ Reporting on Siemens Energy (excluding Siemens Gamesa) employees in Germany only.

Contractually agreed weekly working hours (average) ¹	Fiscal year	
	2023	2022
Europe, C.I.S. ² , Africa, Middle East	38	38
Americas	42	42
Asia/Australia	41	41
Total	39	39

¹ Siemens Energy (excluding Siemens Gamesa).

² Commonwealth of Independent States.

Working hour programs (%)	Fiscal year	
	2023	2022
Employees working part-time	3.0	3.2
Women working part-time	1.9	2.1
Employees on leave of absence	2.2	2.3

Sustainability isn't just about the environment

Sarah Tabet
Head of Human Resources, Middle East Hub, Siemens Energy

Everybody knows talent drives a company's success. So, how do you attract, develop, and retain the best talent? Sarah Tabet, Head of HR for Siemens Energy in the Middle East, says the answer to talent sustainability is creating a unique set of benefits that starts with leadership, diversity, and a clear sense of purpose.

I've just returned to my desk after sharing a cup of coffee and a conversation with a colleague here in our new offices at Expo City Dubai. We connected as part of the "Coffee Roulette" initiative we host across the Middle East as a way to connect with people outside our daily work circle.

Meetings like this, which also occur virtually across the region, are part of building the company culture here at Siemens Energy. That culture and our broader employer value proposition (EVP) are essential to the long-term success of our business.

Sustainability of talent is something I think a lot about in my role. It means making sure that we can continuously attract, develop, and retain people with the capabilities required for today and for the organization's growth in the future.

Employees want to work in a culture where they can be themselves and be creative. They want to know how they add value and what's the driving purpose for them and the company. They want interesting work develop-

03:00 p.m.

Dubai, United Arab Emirates

I've just returned to my desk after sharing a cup of coffee and a conversation with a colleague here in our new offices at Expo City Dubai. We connected as part of the "Coffee Roulette" initiative we host across the Middle East as a way to connect with people outside our daily work circle.



ment opportunities in a safe and pleasant environment, where people care and can make a difference to society.

Our leaders help shape this culture by being humble and focused on the development of others, by working in collaboration with others, and by igniting change toward a more sustainable and inclusive world.

I am proud to work for a company like Siemens Energy that is focused on decarbonizing along the value chain. It's an important part of the EVP, but not the only part.

Because sustainability isn't just about the environment – it is also about people and societies. Which is why diversity and inclusion, at Siemens Energy, is not a nice to have. It's a business requirement, important for employees and for fostering the kind of creativity that leads to truly innovative solutions. For example, we focus on improving our gender diversity across the Middle East by partnering with universities that promote women engineers or women in science, technology, engineering, and math (STEM) to attract and develop young potentials into Siemens Energy.

We also work with our leaders on how to operate in today's VUCA – volatile, uncertain, complex, and ambiguous – world. It's essential to have people who are agile and resilient and have a mindset that is open to change. Which is why I also ask myself: In what small ways can I live more sustainably? For example, I can reduce water use at home, ditch plastic bottles, avoid food waste, or use the ceramic coffee mugs I make at a pottery studio – small things, sure, but small things can have a big impact if each one of us does them.

Watch the video:



Diversity and inclusion, at Siemens Energy, is not a “nice to have.” It’s a business requirement.



Societal engagement



We actively support initiatives that address specific societal needs in the countries in which we operate, contributing to STEM and climate education projects as well as disaster relief in many communities.

- **Commitment follows global framework with local flexibility**
- **Educational programs support energy transition and environmental awareness**
- **Donations amounted to €2.59 million for projects worldwide in 2023**

Societal engagement means more to us than just charity. We believe it creates shared value for society and a competitive advantage for business.

Through our engagement, we contribute to several SDGs. Our technology-related activities are driving the energy transition and helping to achieve SDG 7 “Access to Affordable and Sustainable Energy.” By providing access to education in science, technology, engineering, and mathematics (STEM), we contribute to SDG 4 “Quality Education,” SDG 5 “Gender Equality,” and SDG 10 “Reduced Inequalities.” And since our community-related activities focus on serving local needs, they relate to several SDGs in line with SDG 11 “Sustainable Cities and Communities.”

The Siemens Energy societal engagement approach combines a global framework with autonomy for local implementation in the countries in which we operate. To focus our activities and increase our impact, our global framework defines three focus areas based on our strategic context, our core competencies, the global targets for sustainable development,

and the influence that various global megatrends (demographics, urbanization, climate change, globalization, and digitalization) have on our industry and our business.

The focus areas are:

- **Driving the Energy Transition:** Supporting clean energy research and sustainable development
- **Access to Education:** Promoting science, technology, engineering, and mathematics (STEM) subjects and climate education – especially for underrepresented demographics
- **Sustaining Communities:** Disaster recovery – especially related to electricity supply

Across our regions, local Managing Directors develop local initiatives within these three global focus areas. In this way, we address the specific and unique needs of the country in question. The objective of this approach is to

- enhance relationships with customers and partners,
- boost employee engagement,
- generate awareness of our brand, and
- support the company’s competitive context.

The approach allows for 80% of donations to support the three focus areas, 10% to be discretionary – supporting causes aligned to customers and partners – and 10% to go toward activities in local communities where we have operations with a significant employment base.

Siemens Gamesa operates a digital platform to manage its social commitment projects. Aiming to ensure the greatest possible impact from these activities, Siemens Gamesa calculates a social return on investment (SROI) to quantify the social value of projects as objectively as possible. The internationally established methodology takes into account the type of project beneficiaries, location, and time invested in the project. Siemens Gamesa’s SROI in fiscal year 2023 was €14.09 for every €1 invested (fiscal year 2022: €7.63).

Since societal engagement is often driven by individuals, we encourage our employees to take social responsibility through our volunteering programs. Siemens Energy has a volunteering framework in place that encourages employees to volunteer for company-endorsed initiatives.

Siemens Energy contributes to societal development at local levels through a range of projects in the designated focus areas.

Local projects contribute to societal progress worldwide

- 1 **Olean Energy Transition Initiative**
in U.S.
- 2 **Reforestation projects**
in 16 countries, including the Amazon Rainforest
- 3 **One Earth One Ocean cleanup initiative**
in the Baltic Sea and Philippines
- 4 **First Lego League & Coding Teachers**
in Germany, India, Mexico, Morocco, Spain, U.K.
- 5 **Cooperation with universities**
in Nigeria and U.S.
- 6 **Sesame Workshop environmental education program**
in India
- 7 **International Science & Engineering Fair**
in U.S.
- 8 **Donations for victims of natural disasters**
in U.S., Pakistan, Turkey, Syria
- 9 **Just Energy Transition project/Hackathon**
in South Africa



Siemens Energy donates engineering laboratory to the University of Lagos.

Digital engineering laboratory for the University of Lagos

Siemens Energy established a state-of-the-art engineering laboratory for students at the University of Lagos, Nigeria, to support their learning in programmable logic controller (PLC) programming. With this investment, we are providing appropriate tools to support future generations in developing the skills necessary to tackle the challenges of energy security and energy transition. To further improve learning and develop better social interaction among students, Siemens Energy also added a calming room environment designed to help students and faculty decompress, destress, and get ready to learn.

Driving the energy transition

A robust energy system is one of the most important prerequisites for the sustainable development of societies. This is especially true when it comes to providing access to a reliable, sustainable, and affordable energy supply.

We draw on our core competencies and broad portfolio to help shape the energy transition by supporting clean energy research and sustainable development and projects.

In Olean, New York, U.S., Siemens Energy continued its pilot program to support workers displaced by the energy transition. The Olean Energy Transition Initiative helps workers find new careers in sustainable technologies through either re-skilling or a small business incubator initiative. In fiscal year 2023, the program was extended for an additional year to enable the community to further develop educational curriculum and training programs, obtain additional funding, and assist small business start-ups. In fiscal year 2023, the small business start-ups program was modified to shift funding from a grants mechanism to a loan program, an approach that will perpetuate the benefits of our initial funding investment by allowing for further reinvestment of the repaid loan monies. At the end of fiscal year 2023, the pilot program was developed into a blueprint that will serve as a guide for other communities affected by the energy transition.

Forests of Siemens Gamesa is a sustainable development initiative with the goal to mitigate climate change and reduce CO₂ emissions. Since its inception in fiscal year 2021, 32 forests and around 126,000 trees have been planted by volunteers in 16 countries (Germany, Denmark, U.S., Spain, Morocco, France, United Kingdom, Mexico, Brazil, China, India, Philippines, Ecuador, Vietnam, Uganda, and Ethiopia), contributing to the removal of 9,932 metric tons of CO₂. In fiscal year 2023, Siemens Gamesa created its first balsa tree forest in Ecuador with a total area of three hectares (7,500 trees) planted and nine hectares of primary rainforest protected. This project includes support for the indigenous Shuar community over the next three years.

In spring of 2023, Siemens Energy also set its focus on reforestation by partnering with China Energy Investment Corporation (China Energy) to construct a large forestland in Youyu County, located in the northwestern part of Shanxi province in China. Siemens Energy joined the well-established initiative of the Youyu Public Welfare Forest Demonstration Zone to plant approximately 100,000 trees of various types covering more than 1,000 acres of the zone. This program shows our commitment to achieving decarbonization through societal engagement as well as the company's strong desire to collaborate with partners like China Energy to launch more impactful ESG programs, establish a model for cross-country green partnerships, and enhance the environmental awareness of employees and the community.

Access to education

The energy transition, key to combating climate change, also requires investments in skills. To this end, we are working to extend educational and research opportunities to more people. Siemens Energy's strategy aims to inspire, engage, and stimulate younger generations in STEM subjects and knowledge in clean energy. Our goal is to ensure that the workforce of the future is diverse, highly skilled, and aware of the importance of a sustainable energy transition.

In May 2023, Siemens Energy participated in the International Science and Engineering Fair held in Dallas, Texas, U.S., where high school students from around the world competed with their scientific and engineering innovations, sponsoring the Sustainable Energy Category.

The Eskom Just Energy Transition Project in South Africa aims at decommissioning the Komati coal-fired power plant and repurposing the project area with renewable energy and battery projects while also creating opportunities for workers and the community. This transition requires not only technology but also the development of new skills and capabilities of workers in the energy sector. As part of the project, we created the Siemens Energy Youth Just Energy Transition Hackathon. With the goal of creating and enabling an environment for engagement with the topic of "Responsible Innovation," the hackathon prioritized SDGs 4 (quality education) and 7 (affordable and clean energy) by developing STEM-related challenges. The winner presented a convincing approach to phase out coal, involving a clever mix of jobs and skill levels built into a renewable energy plan, and a combination of technologies selected to achieve the goal.

Siemens Gamesa has focused on helping train students and educators in the use of technology. Its primary initiative to achieve this has been "Planet Rescuers," a video game on energy and sustainability in Minecraft: Education, to attract students aged eight to 14 to STEM through the popular universe of Minecraft. Confronted with real-life situations, students build individual solutions to energy and sustainability challenges while learning about the science behind them, such as ways to reduce emissions with alternatives like green hydrogen and how they can act to reduce their environmental footprint. Since it was launched in March 2021, more than 1,400 schools and an estimated total of 281,000 students worldwide have enjoyed this adventure that was created with support by volunteers from Siemens Gamesa.

Robotics are becoming a more influential presence in our lives. Therefore, Siemens Gamesa promotes robotics and project-based learning for students aged six to 16 with FIRST Lego League and for teachers with the digital platform Coding Teachers. This initiative has empowered more than 30,000 beneficiaries in the United Kingdom, Spain, Germany, Mexico, Morocco, and India, thanks to our collaboration with Lego Education through its in-class programs and its international competitions. In fiscal year 2023, a team supported by Siemens Gamesa won the FIRST Lego League's Global Innovation Award with a gravity storage system for offshore wind turbines.

In fiscal year 2023, Siemens Gamesa again organized "Universities for SDG 13," a global competition promoting university talent in the fight against climate change in partnership with the UN Sustainable Development Solutions Network. The winning project was "E-Gora: The Energy Marketplace," a solution by a team from Case Western University (U.S.). It aims to bridge the gap between different market players through a user-friendly platform that allows small investors, developers, and financial institutions, among others, to quickly and easily find information about renewable energy projects near them in which they can participate. The announcement was made during the International Conference of Sustainable Development in New York, alongside the UN General Assembly.

Siemens Gamesa also joined an initiative promoted by Sesame Workshop Inc. to teach students in India aged six to ten about environmental issues related to air quality through its program "Mera Planet Mera Ghar" (My Planet, My Home). It is an initiative in collaboration with the organization responsible for producing the iconic TV show "Sesame Street" and Lego to develop an age-appropriate curriculum, with engaging learning materials featuring Sesame Street characters.

Sustaining communities

Providing access to basic infrastructure and services is essential for sustaining thriving communities. In addition, Siemens Energy is committed to providing relief and recovery assistance to areas affected by natural disasters, particularly when the energy supply is affected.

In late September 2022, hurricane Ian struck the southwest coast of Florida in the U.S, causing widespread damage. Siemens Energy deployed two of its reverse osmosis units to the Park Royal Hospital in Fort Myers. These skids are designed to take seawater and turn it into freshwater, providing 24,000 gallons of clean water per day for approximately 150 people. The team was able to produce clean water just two days after the storm hit.

Donations by region (millions of €)	Fiscal year	
	2023	2022
Europe, C.I.S. ¹ , Africa, Middle East	1.66	2.26
Americas	0.71	0.62
Asia, Australia	0.22	0.75
Total	2.59	3.62

¹ Commonwealth of Independent States.

In October 2022, Siemens Gamesa launched a matching donation campaign to support the recovery from flooding in Pakistan. The total donation amounted to €9,978.00.

In April 2023, volunteers from windfarms in Pakistan joined forces to support those in need during Ramadan by distributing 580 food packages to help local people at nine community sites.

In fiscal year 2023, donations from Siemens Energy totaled €2.59 million (fiscal year 2022: €3.62 million).

Strategic development

In fiscal year 2024, Siemens Energy plans to evolve its societal engagement approach by combining the various existing initiatives into a common new strategy for the next three to five years. The project will consider where Siemens Energy can deliver impact in its areas of influence. We will examine the impact of the existing programs, gather expectations from stakeholders, review best practices, and define initiatives that align with our strategic context. The new strategy is being prepared for implementation starting in the second half of fiscal year 2024.



Aid on route to Turkey following the devastating earthquakes.

Earthquake relief for Turkey and Syria

After the devastating earthquakes that struck Turkey and Syria in February 2023, Siemens Energy initiated and supported a range of relief measures, including a donation campaign to the Red Cross, which raised more than €180,000. In addition, €30,000 were allocated to purchase urgently needed goods such as generators, blankets, thermal clothes, children’s boots, and coats, as well as hygiene products, all of which were sent to the Kahramanmaraş area on the day of the quake. As an energy company, we were also able to provide pro bono technical support to the relevant government agencies and customers to restart the region’s energy network. We also have an ongoing hiring scheme in place, targeting university students living in this region. Five earthquake-affected working students have now begun part-time work with Siemens Energy in engineering, finance, and field service teams.

4 Annex

The company and reporting method	88
Task Force on Climate-Related Financial Disclosures (TCFD)	89
Methodology for calculating of Scope 3 – use of sold products emissions	100
Independent auditor’s report on a limited assurance engagement	102
Imprint	104

The company and reporting method

Siemens Energy AG is incorporated as a stock corporation (Aktiengesellschaft) under German law, with its registered office in Munich, Germany. The company is entered in the commercial register of the Munich local court (Amtsgericht) under HRB 252581. Siemens Energy AG is the parent company of the Siemens Energy Group.

Siemens Energy holds a majority interest of approximately 67% in Siemens Gamesa Renewable Energy, S.A. (SGRE), Zamudio, Spain, and has acquired the outstanding shares, bringing its total shareholding to 92.72%. At an extraordinary shareholders' meeting on January 25, 2023, the shareholders of Siemens Gamesa Renewable Energy S.A. approved the company's delisting from Spanish stock exchanges. Following the approval by the Spanish National Securities Market Commission, the delisting became effective on February 14, 2023. With the approved capital reduction and cash-out of the remaining minority shareholders, Siemens Energy fully owns Siemens Gamesa effective July 12, 2023. For further information, please see our Annual Report 2023.

The shares of Siemens Energy AG are admitted to the regulated market of the Frankfurt Stock Exchange and to the subsegment of the regulated market with additional post-admission obligations (Prime Standard) (ISIN DE000ENER6Y0 / WKN ENER6Y). Siemens Energy is a member of the German DAX.

Siemens Energy changed its corporate and reporting structure as of fiscal year 2023. As a result of this reorganization, the former Divisions of the reportable segment Gas and Power (GP) have been newly structured into

Gas Services (GS), Grid Technologies (GT), and Transformation of Industry (TI), which together with Siemens Gamesa now form the four Business Areas of the Siemens Energy Group. The organizational structure and detailed product offerings are described in the chapter "At a Glance."

Reporting method

Sustainability is an integral part of our company strategy. In our Sustainability Report (hereinafter referred to as the "report"), we publish key information on our sustainability activities, including aspects such as strategy, organization, initiatives, programs, management systems, and goals. As of fiscal year 2023, Siemens Energy changed its corporate reporting structure and reports on four Business Areas: Gas Services, Grid Technologies, Transformation of Industry, and Siemens Gamesa. To comply with the specific reporting requirements applying to Siemens Gamesa imposed by Spanish legislation (Law 11/2018), Siemens Gamesa has prepared a separate Consolidated Non-Financial Statement 2023. While the strategic direction of the Business Areas is comparable, management approaches and programs may differ. We indicate deviations from a common approach in the relevant chapter.

This report has been prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative ("GRI Standards," see [GRI Content Index](#)). We use the UN Guiding Principles Reporting Framework and its narrative guidance as a guide when reporting on our human rights activities.

Reporting period and reporting boundaries

This report is based on activities carried out during Siemens Energy's fiscal year 2023 (October 1, 2022 to September 30, 2023). Any exceptions are designated as such. We report annually on our progress.

In general, the report covers all of our fully consolidated companies. Possible exceptions regarding the data pool used are indicated. Minority equity investments are not included in the report. To ensure comparability, KPIs from previous years may be adjusted where necessary, which will be indicated accordingly.

Data collection

Given Siemens Energy's size and global presence, data collection requires the use of a distributed IT and data environment. Non-financial data captured may adhere to local rules and regulations, which can deviate from the Group's reporting requirements. To ensure that the Group's non-financial reporting is consistent, the data collected is reconciled and adjusted to comply with the Group-wide reporting requirements. Any information presented in this report that is subject to significant data limitations is identified as such. The non-financial data published in this report is collected through various internal reporting systems, which, for the most part, are different from those applicable to financial information. Such data may be subject to less extensive internal documentation, data generation, and auditing requirements, including requirements related to the IT systems

used and the general control environment. To ensure data quality and preserve the value of the information, we identify and evaluate data restrictions in accordance with our internal guidelines. Where necessary, for example with a view to consistency, this may include the exclusion of affected data sources. As a result, our figures may not be comparable with the data published under the same or similar designations by other companies.

Due to rounding, the figures presented throughout this report may not add up precisely to the totals provided, and percentages may not precisely reflect the absolute figures.

Environmental reporting and collection of environmental data

Siemens Energy uses an environmental information system to collect and analyze reports from all relevant sites in all relevant countries. Reporting criteria have been defined based on the size of a location. Our major sites and offices report the full scope of parameters such as energy use, resource consumption, and emissions. Minor sites report only selected parameters that are applicable to the location. We report environmental data for continuing operations. The data has been extrapolated to 100% to ensure completeness and global coverage. We monitor our environmental impact for all office and production sites of environmental relevance, using environmental data that is gathered monthly.

Independent assurance review

We prepared our Sustainability Report in accordance with high quality standards. Consequently, we commissioned an independent auditor to conduct a limited assurance engagement of this report for the reporting period. You can find the assurance statement of Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft on [page 102](#).

Task Force on Climate-Related Financial Disclosures (TCFD)

Sustainability and climate action play a key role in our decision-making processes. We are committed to making an important contribution to the global economy's decarbonization and supporting our customers in transitioning to a more sustainable world. Our aspiration is to reach net zero across the entire value chain in line with a 1.5°C pathway. Siemens Energy has already implemented GHG emissions reduction initiatives along the entire value chain: in the supply chain, in our own operations, and through the goods and services we provide to our customers.

To create transparency on our climate actions, we disclose how we address risks and opportunities arising from climate change. Our disclosure is consistent with the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD). Please also see our [TCFD Index in the Siemens Energy Annual Report 2023, TCFD Index](#).

Climate change governance

Board oversight

At the start of fiscal year 2023, the highest governing body at Siemens Energy, the Supervisory Board, established a Sustainability and Finance Committee (formerly Innovation and Finance Committee), chaired by Joe Kaeser, Chairman of the Supervisory Board of Siemens Energy AG. Responsibilities of the committee include addressing sustainability issues, preparing resolutions of the Supervisory Board on the company's financial situation and resources, especially on the annual budget, investments, and financial measures, resolving certain transactions and measures for which the Executive Board requires approval, and regularly addressing the com-

Mapping of recommendations for climate-related financial disclosures



pany's naming, branding, and design concept. In August 2023, the Supervisory Board completed training on sustainability topics.

The Executive Board of Siemens Energy is responsible for the company’s strategy and targets, including its aspiration to reach net zero across the entire value chain, in line with a 1.5°C pathway, as well as its GHG emissions reduction targets along the entire value chain: in the supply chain, in our own operations, and through the goods and services we provide to our customers.

Each quarter, the Executive Board is informed of climate-related risks and opportunities and aligns the reporting of all significant risks and opportunities throughout the company, including those related to climate issues.

Climate action is also a regular topic on the agenda of Executive Board meetings, since sustainability is a cornerstone of our business strategy. Topics covered include adapting our business model to offer sustainable solutions to our customers as well as the progress towards achieving our SBTi commitments.

The Executive Board defines the Group-wide risk policy with the aim of managing risks and opportunities appropriately. This includes taking mitigation measures to reduce the potential impact of risks on the company to an appropriate level. The Executive Board is regularly updated and informed of the overall internal control and risk management system, audit results, and significant risks and opportunities.

Siemens Gamesa has established a Board of Directors that sets the strategic direction and ambition for sustainability in line with the corporate strategy, approves the sustainability targets, and monitors their achievement. Siemens Gamesa is also subject to our Group-wide principles for the accounting-related internal control and risk management system, and bears responsibility for complying with these principles itself. The management of Siemens Gamesa provides periodic sign-offs to the Executive Board of Siemens Energy AG, certifying the effectiveness of the respective accounting-related internal control systems, as well as the completeness, accuracy, and reliability of the financial data reported.

All sustainability activities are led by our Chief Sustainability Officer (CSO), who is also the CEO of our company. This includes Siemens Energy’s sustainability program, which is fully integrated into the company’s strategy.

Management’s role

To reflect the importance of sustainability and climate action, we have established the Siemens Energy Sustainability Council. It holds quarterly and ad hoc meetings and consists of decision-makers representing Business Areas, Regional Hubs, and Functions.

The Sustainability Council strategically oversees the Sustainability Program’s realization by making key decisions to progress the program and the implementation of sustainability, setting priorities and focal points where needed, and acting as sustainability ambassadors both inside and outside of Siemens Energy. Our CEO chairs the council in his role as CSO. He receives regular updates on the status quo of the Sustainability Program and the integration of sustainability within the company’s strategic and business decision-making.

The Vice President of Sustainability manages the Sustainability Function, which is part of the Strategy Function, and is responsible for driving and supporting the integration of sustainability within our strategic and business decision-making, embedding sustainability in business processes through incentives and initiatives, governing the Sustainability Program and its implementation in the business, and co-ordinating company-wide sustainability activities, programs, and measures. The Vice President of Sustainability also monitors business-relevant sustainability trends, identifies potential sustainability-related risks and business opportunities, and strategically assesses the impact on the company as well as the company’s influence on the external environment.

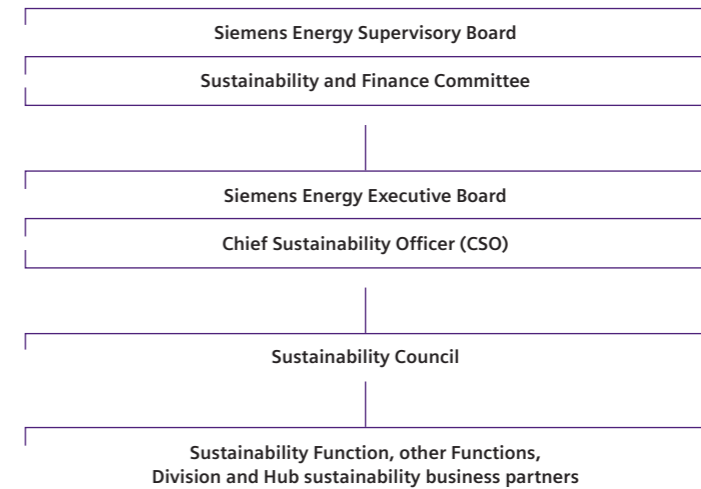
The Executive Board has established a risk management and internal control organization, led by the Head of Risk Management and Internal Control, to oversee the risk management process and further drive the integra-

tion and harmonization of existing control activities and align them with legal and operational requirements. To allow a meaningful discussion at Group level, this organization aggregates individual risks and opportunities with a similar cause and effect into broader risk and opportunity topics.

The Head of Risk Management and Internal Control reports quarterly to the Executive Board on matters relating to the implementation, operation, and oversight of the risk and internal control system and assists the Executive Board in reporting to the Audit Committee of the Supervisory Board.

Our risk management process aims to identify relevant business risks throughout the organization as potential deviations from our corporate objectives. The management of each of our defined organizational reporting units is responsible for providing all relevant risks for the respective unit.

Organization of our sustainability governance



Strategic approach

The impacts of climate change might have significant effects on our company throughout the entire value chain, including effects on markets, technologies, policy and legal matters, or reputation, as well as climate-related physical impacts on our sites, portfolio, or supply chains (e.g., from increasing extreme weather events). These changes will take place gradually over several years or decades. In particular, the trend toward decarbonization of the energy market has a significant impact on the strategy, organizational setup, and portfolio of Siemens Energy.

The markets in which we operate are experiencing rapid and significant changes due to the introduction of innovative and disruptive technologies to meet the accelerating demand for sustainable energy. Driven by global sustainability efforts, many market scenario outlooks have the following in common: electricity will grow faster than GDP, generation capacity will grow, grid investment will rise significantly, and energy efficiency will be a competitive criterion in industry.

In response to these market observations, we have based our strategy on the following pillars:

1. Low- or zero-emission power generation
2. Transport and storage of electricity
3. Reducing GHG footprint and energy consumption in industrial processes

We are driving our existing portfolio more toward sustainability (e.g., Blue Portfolio without SF₆ gases in Transmission), and in parallel, we have set up five fields of action to drive innovation within the strategic pillars to form the basis of our transformation. The fields of action cover technology development in the short term (e.g., industrial heat pumps, battery energy

storage), mid term (e.g., industrial electric heaters, industrial waste heat recovery) and long term (e.g., direct air capture, rotating olefins cracker). We expect the addressable market of the fields of action to continue to grow by ~20% CAGR until 2030. Consequently, we are increasing our R&D and expect our revenue potential to reach into the billion range in the same time frame.

We have developed a Climate Neutral Program (CNP) with the target of climate neutrality by 2030 (in our own operations). Through the CNP, we have developed reduction pathways for Scope 1 and 2 emissions, including specific Business Area targets. The strongest levers identified are:

1. Reducing energy consumption
2. Using renewable electricity
3. Reducing SF₆ emissions
4. New mobility concepts

CO₂ pricing is a further steering mechanism for achieving climate neutrality, and we believe binding CO₂ price signals can guide us toward the 1.5°C target. These price signals encourage the use of the best technologies and business models available. Internally, Siemens Energy (excluding Siemens Gamesa) implemented a policy in fiscal year 2022 to consider GHG emissions in our CapEx decisions and ensure that new investments support our Climate Neutral Program. To support low-carbon investment in our own operations, we introduced a shadow price in fiscal year 2022 of €100 per metric ton of CO₂ (see chapter ↗ [Decarbonization](#)).

Physical climate risks

The assessment of physical climate risks in our operations is managed by the EHS department in cooperation with external expert consultants. In fiscal year 2023, Siemens Energy conducted physical climate change risks

assessments for all of its major manufacturing locations around the world to assess the consequences of climate change using up-to-date climate models from Jupiter Intelligence's Climate Score Global v2.6 (sourced April 2022). These assessments considered aspects such hazard peril, hazard level, return period, criticality, and vulnerability.

All perils were reviewed, including changes in weather patterns (causing fires, hurricanes, high winds and seas, blizzards, flooding, and extreme temperatures), the frequency and/or severity of extreme weather events, and other environmental manifestations of climate change such as sea-level rise.

- Fluvial/coastal: flood depth 100-year return period
- Wind: daily maximum one-minute sustained gust
- Heat: days exceeding 35°C
- Drought: total water stress
- Hail: days on which large hail is possible
- Wildfire: annual fires per square kilometer
- Precipitation: 24-hour precipitation relative to change in % since 1995 baseline
- Thunderstorm: days on which severe thunderstorms are probable
- Cold: absolute cold waves

These risks could impact Siemens Energy's business through physical damage to sites, equipment, or stock, as well as disruptions to operations, including internal and external supply networks and employee safety, among other impacts. Such impacts could result in the evacuation of personnel, the curtailment of services or suspension of operations, inability to deliver materials to job sites in line with contract schedules, loss of or damage to equipment and facilities, supply chain disruptions, and reduced productivity.

With these assessments, the company is able to identify the physical climate change risks to which the locations are likely to be exposed in the future, such as climate perils (floods, extreme heat, droughts), so that it can identify and implement mitigation measures, e.g., invest in resilience measures, in an attempt to further reduce and manage its risk exposure.

Using the latest climate assessments, we reviewed both short-term (2030) and mid-term (2060) time horizons: each with Shared Socioeconomic Pathways, as defined by the IPCC, of SSP1-2.6 (Sustainable – 1.8°C warming by 2081–2100) and SSP2-4.5 (Middle of the Road – 2.7°C warming by 2081–2100) global warming climate scenarios. The two scenarios reviewed showed that, from a global perspective, only heat and precipitation are likely to reach high and very high hazard levels.

Siemens Energy sites have been ranked based on the predicted risk exposure, with action plans being put in place where needed. Actions include infrastructure retrofitting, increasing firefighting capabilities, removing uncovered stock, installing water reservoirs, and taking flood prevention measures.

In addition, our insurance department provides a natural hazard risk analysis for each new building project, driving the selection process for new site areas. The data and information collected allow us to identify geographical areas of particular interest to us.

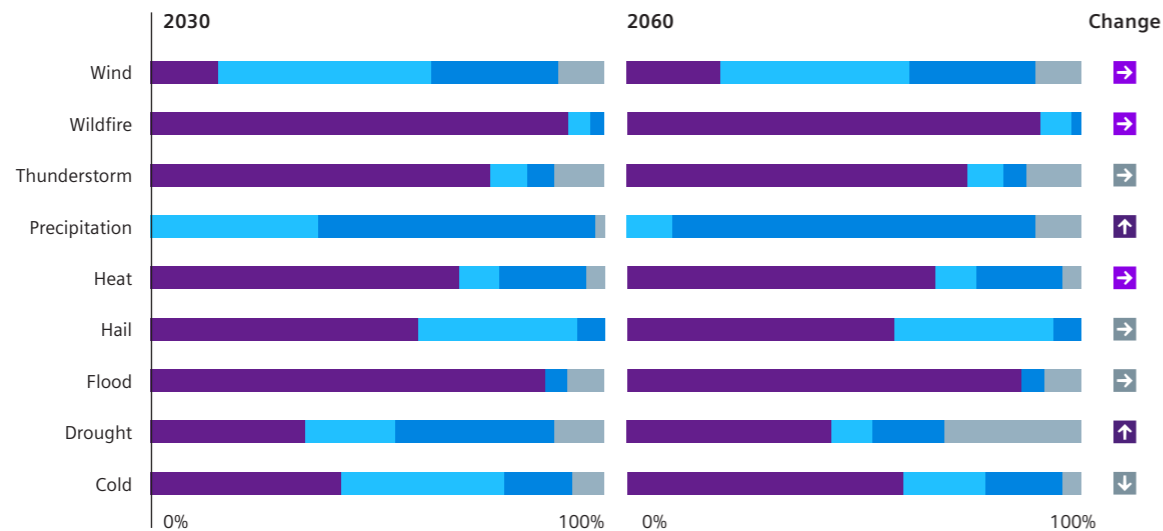
To cover the risk exposure in the supply chain, we have introduced a risk analysis procedure to systematically identify potential risks in the supply chain. Please refer to the chapter [Sustainable supply chain management](#).

Shared Socioeconomic Pathways

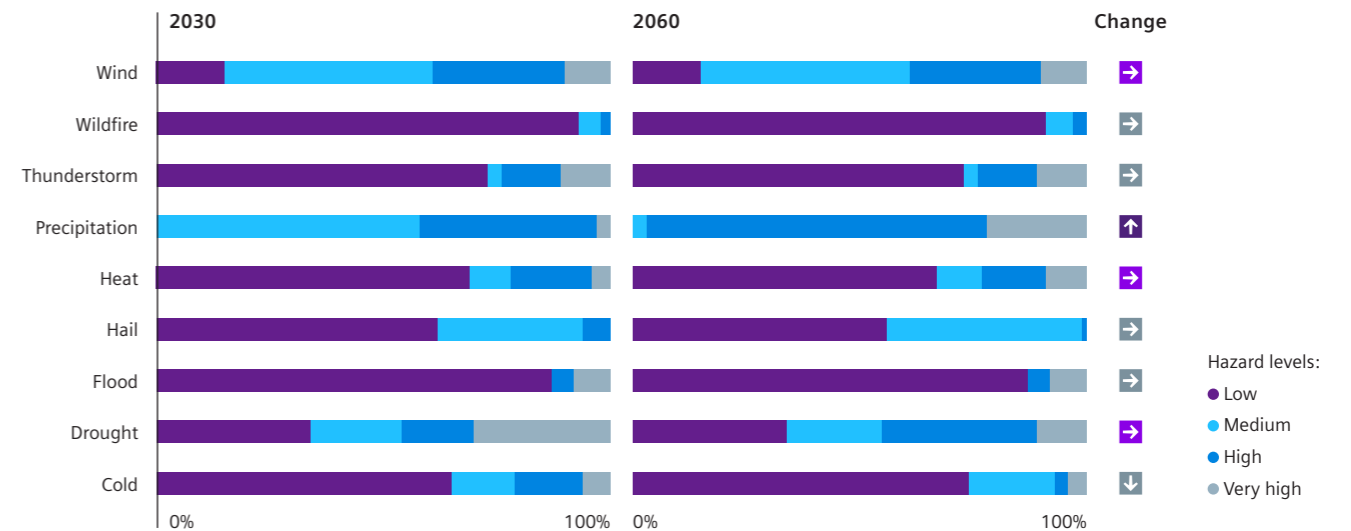
Shared Socioeconomic Pathways (SSPs) are based on the Representative Concentration Pathway (RCP) scenarios, a greenhouse gas concentration trajectory adopted by the IPCC. The SSPs are the most recent scenarios that combine the RCPs with other social, economic, and technological factors (such as the energy mix used). These are included in the Sixth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC AR6).

Physical climate risk assessment results for major manufacturing sites

SSP 1-2.6 Scenario



SSP 2-4.5 Scenario



Hazard levels:
 ● Low
 ● Medium
 ● High
 ● Very high

Due diligence

To raise awareness of ESG risks in our projects, we have introduced an ESG check early in the sales process to ensure risks are managed appropriately. We epitomize responsible business conduct and make sure to implement auditable levels of Do No Significant Harm (DNSH) criteria. A sustainability expert works alongside the sales project manager, EQS, and regional experts to ensure the risks are evaluated and any necessary mitigating actions are put in place in a timely manner.

The due diligence process also covers human rights issues.

Climate-related financing strategy

While macroeconomic uncertainties remain, we expect our addressable market to grow by 6% per year from €154 billion in 2022 to €213 billion in 2028. Due to investment programs in the U.S., in particular the Inflation Reduction Act and the Bipartisan Infrastructure Law, as well as the EU's Net Zero Industrial Act and REPowerEU energy security strategy, we expect the North American and European markets to make up >50% of our addressable market by 2028. See chapter [Decarbonization](#) for further details.

Investors are continuing to show interest in credible ESG strategies and are therefore looking for investment opportunities that align with ESG criteria. Siemens Energy successfully placed its first green bond in 2023 with a nominal value of €1.5 billion. The green bond has two tranches: a €750 million tranche with a maturity of three years and a €750 million tranche with a maturity of six years.

Furthermore, Siemens Energy is considering emissions targets in financing instruments, e.g., a revolving credit facility. Among the criteria to determine the interest rate is our emissions reduction target.

Scenario analysis

Scenario analysis allows analysts to develop an understanding of how various combinations of climate-related risks – both transitional and physical risks – may affect businesses, strategies, and financial performance over time. At Siemens Energy, climate scenarios have various facets and are used for different purposes to support our business and prepare us for requests from customers looking to achieve the Paris Agreement goals of limiting global warming and avoiding climate change impacts.

1. Corporate strategy

While we mainly use S&P Connect Inflections for our global strategic assumptions, other tools include IEA STEPS and Net Zero by 2050 (NZE 2050) as well as IRENA. They are applied in all businesses – for example, to deduce assumptions about fossil energy additions, investments, policies, and regulations. The time span until 2040/2050 reflects long cycles of energy investments. The results are used to inform management about potential opportunities and threats if the scenario “compliance with climate goals” materializes. They are also helpful for corporate strategy development, the planning process, the sales targets of our regional managers, and as a basis for our annual management decisions. Scenarios highlight the need to counterbalance fluctuating renewables and ensure the stability of the electricity grid.

2. Business strategy

For our business strategies, we use climate scenarios to be able to compare, challenge, or complement our strategic mid- to long-term sustainability-related planning processes. They also help us identify new business opportunities, such as investments in hydrogen and energy storage. Here, we use S&P Connect Inflections, as well as IEA STEPS, with the following rationale: S&P Connect Inflections, for example, is used for our Gas Ser-

vices business with customized data for market planning. Our regional strategy is based on individual NDCs. Data provided includes power generation, installed capacity, retirements, and gross capacity additions by technology and fuel type, along with further macroeconomic indicators. IEA STEPS is used to incorporate a multitude of societal (e.g., push for decarbonization) and economic indicators (e.g., GDP, inflation, population growth) and power generation-specific predictions. Based on this market model, strategic business decisions (e.g., footprint, portfolio adaptations, marketing strategies) are made, for example, to predict the evolution of the power generation market in the next 5–10 years. We also use external scenarios, especially for installed capacity/power consumption/investments (CapEx/OpEx). We compare how the markets react to extreme parameters and adjust our strategic outlook monitoring and/or our deduced strategic rationales accordingly. Recently, S&P Connect Inflections and IEA STEPS scenarios were considered, looking at indicators such as uptake of renewables, need for new high-voltage transmission lines, or demand for electrolyzers. The results confirmed our strategy.

3. Decarbonization strategy

We are committed to monitoring progress on climate action and reducing our exposure to climate-related risks. We have therefore incorporated climate considerations in our market evaluation and strategy process. This included the use of three market scenarios (S&P Connect Inflections, Green Rules, Discord) with the resulting climate outcomes for our market evaluation process for the first time in fiscal year 2023. In addition, as another first during this fiscal year, we developed a detailed annual forecast of our CO₂e emission footprint of products sold per Business Area until 2030 building on our business planning. Emission reduction levers were evaluated and decided upon.

Management approach to climate-related risks and opportunities

Enterprise risk management (ERM)

Sustainability-related risks and opportunities are analyzed as part of our specific ERM process as well as other operational processes, e.g., environment, health, and safety (EHS). The ERM methodology, including its reporting functionality, is designed to provide a comprehensive overview of business risks and opportunities across Business Areas and Functions, e.g., corporate sustainability, EHS, supply chain, and financing activities. This provides a unique perspective, allowing any deviations from the company's objectives to be detected across the entire organization.

Our risks and opportunities are categorized in a five-dimensional plan, capturing the most significant challenges to our business. They are categorized as "Climate," "Strategic," "Operations," "Financial," and "Compliance," with each category covering a broad spectrum of underlying associated topics.

Risks and opportunities are prioritized in the dimensions of impact and likelihood, considering both quantitative (financial, defined as potential loss of pre-tax profit) and qualitative impact perspectives (non-financial, defined as either business objectives, media/reputation, regulatory bodies' activities, or management time/attention). In this context, impact describes the potential adverse effect on our objectives while likelihood refers to the probability of occurrence.

The impact and likelihood of climate-related opportunities and risks are assessed on a short-term (up to 3 years)¹, mid-term (3–5 years)², and long-term (5–30 years)³ basis, giving us an understanding of climate-risk development over multiple time horizons. Multiple time horizons are particularly critical in building business resilience, understanding vulnerabilities (i.e., the susceptibility of a company in terms of its adaptive and coping capacity regarding a specific risk) and velocity (speed of a specific risk impacting the organization upon occurrence). This is especially relevant for transitional and physical climate-related risks.

Both impact and likelihood are measured on a scale ranging from 1 to 9, with the most critical scoring highest, and are used to calculate an overall exposure score for each risk and opportunity. The exposure score is used to rank the risks and opportunities, with the most critical again scoring highest, and categorize them as "low," "medium," "high," or "major."

Impact represents a financial magnitude ranging from "marginal" (up to €10 million) to "major" (exceeding €125 million). Likelihood ranges from "unlikely" (below 20%) to "certain" (above 80%).

Each risk and opportunity in the context of ERM (irrespective of the exposure level) must have a response plan to either mitigate the risk or pursue the opportunity. All response plans are agreed upon by the management level concerned and are founded on the general response strategy of "Avoid," "Reduce," "Transfer," "Watch," and "Retain" (for risks) or "Pursue" (for opportunities).

Climate-related risk and opportunity management and review

The Vice President of Sustainability hosts quarterly risk and opportunity reviews for the climate-related risks captured using the ERM reporting functionality, thus tracking changes in regulations, market shifts, and updates from across the business. High-level risk and opportunity owners are expected to join the review. This ensures a robust management review process and allows us to identify new risks and opportunities as well as any potential changes to existing ones.

An annual external audit is performed on the ERM system, including climate-related risks and opportunities, to ensure industry and regulatory standards are upheld.

Risk and opportunity reporting

All responsible risk or opportunity owners are required to update their reported description, evaluation, and key mitigation measures instantly if significant changes occur. On a quarterly basis, following the quarterly closing procedures and communicated reporting deadlines, a summarized risk and opportunity register is reported to, reviewed by, and released by the Executive Board.

Each defined organizational reporting unit reports its updated risk register to the next higher organizational level for further evaluation and analysis. Therefore, risks and opportunities with a similar cause and effect are aggregated bottom-up into broader risk and opportunity topics. The resulting aggregated topics form the basis for the evaluation of the compa-

¹ Siemens Energy defines a time horizon of up to 3 years as short-term, since for short-term analysis, the market can be derived from a bottom-up analysis of the pipeline of projects in development (while for longer-term views, we have to rely on a top-down approach).

² Siemens Energy defines a time horizon above 3 and up to 5 years as medium-term. Market developments for this horizon are typically derived from outlook scenarios as provided by third parties (e.g., S&P Connect, IEA, Bloomberg). Even if the market development may not end up being the most likely scenario, this gives us a rather conservative view that enforces reasonable planning robust enough to withstand potential deviations from the scenario assumed.

³ For the long-term horizon, we are preparing holistic long-term energy concepts for countries by using various scenarios such as S&P Connect Inflections, S&P Connect Multitech Mitigation Case, IEA STEPS, IEA APS, or IEA Net Zero by 2050. The aim is to better assess the consequences and robustness of the current and alternative energy plans we may be proposing. This helps us identify the most reasonable plan of action while maintaining adequate robustness if real-world developments differ from the assumptions made. Beyond this horizon, any predictions are subject to high uncertainty and are unlikely to have much impact on today's business. Nevertheless, we are using state-of-the-art climate models (SSPs by IPCC on the basis of the AR6) to account for any potential risks beyond this horizon.

ny-wide risk and opportunity situation and allow for a meaningful discussion of risks and opportunities at Siemens Energy Group level. Climate change is integrated into this process in that it influences risks and opportunities across the different organizational units.

The ERM reporting process is mandatory, company-wide, and includes all risks and opportunities, i.e., both climate-related and non-climate-related risks and opportunities.

Climate-related risks and opportunities

If we fail to adapt our business model and our product portfolio to specific regional demand, or are too slow in doing so, this may have a material adverse effect on our business, financial position, and results of operations. We are constantly screening climate-related developments – e.g., decarbonization programs of our customers, investor requirements, or regulatory frameworks – and identifying critical projects through a sustainability check to determine risk exposure. Relevant findings are shared with the Sustainability Council.

We have identified the Gas Services and Transformation of Industry Business Areas as the most affected by climate-related risks and decarbonization trends. They are therefore being continuously monitored through our risk management process.

Based on the common TCFD risk categorization, the table below describes both the risks and opportunities arising from climate change for our business.

Climate-related opportunities

Opportunity driver	Identified potential impact	Opportunity realization measures								
<p>Products and services</p> <p>We see the opportunity to significantly accelerate Siemens Energy’s growth by developing a green product portfolio that meets the market trend toward net zero emissions.</p> <table border="1"> <tr> <td>Exposure score:</td> <td></td> </tr> <tr> <td>Short-term</td> <td>High</td> </tr> <tr> <td>Mid-term</td> <td>High</td> </tr> <tr> <td>Long-term</td> <td>Major</td> </tr> </table>	Exposure score:		Short-term	High	Mid-term	High	Long-term	Major	<ul style="list-style-type: none"> • We strengthen our decarbonization portfolio and grow markets while we continuously adapt our business models and our product, service, and solutions portfolio to the changing customer and market behavior. • New products/projects comprise, e.g., H₂ production, SF₆-free high-voltage equipment, decarbonized heat, H₂-fired gas turbines, or energy storage for our clients in existing power plants – as standalone solutions for grids and in combination with renewable energies like PV or wind. • It is expected that many countries will increase their (financial and regulatory) support for climate-friendly technologies and solutions to reach climate neutrality. 	<ul style="list-style-type: none"> • Continuous monitoring and adaption of our portfolio based on customer and market needs. Supported by close observation of the market and regulatory developments. • Constant screening of the technology landscape to identify (early-stage) technologies that might be crucial in the mid and long term to sustain and accelerate Siemens Energy’s future business. • Investment in targeted R&D activities that support our three strategic pillars and the five fields of action. • The four global Innovation Centers will play a major role in realizing the energy transition in the regions together with our customers and our partnering ecosystem (industrial partners, academia, research institutes, start-ups). • Through the Innovation Centers, governmental programs like the Inflation Reduction Act (IRA) in the U.S. or RepowerEU in the EU are being addressed within the fields of action to maximize external funding for ongoing and new developments.
Exposure score:										
Short-term	High									
Mid-term	High									
Long-term	Major									
<p>Markets</p> <p>The opportunity that SE may increase operating earnings and/or profitability due to favorable market developments, such as positive macro-economic developments, faster market shift toward decarbonization, or additional public support for energy-related infrastructure.</p> <table border="1"> <tr> <td>Exposure score:</td> <td>Major</td> </tr> </table>	Exposure score:	Major	<ul style="list-style-type: none"> • Policies currently proposed by the European Commission, including the Net Zero Industry Act and a proposal to reform the European electricity market, may lead to increased demand for our offers. Existing governmental programs and policies may also create more market demand than we currently expect. • The increasing need for energy security and autonomy presents further opportunities for SE to expand operating earnings and profitability. This could include investing in energy infrastructure in countries that are seeking to reduce their dependence on imported energy sources. • Market shifts toward renewable energy are expected to have a positive impact on various aspects of our business, including wind power with incentives and government-funded investments becoming available across the globe (i.e., IRA bill). 	<ul style="list-style-type: none"> • SE market opportunities are monitored through the SE market evaluation process along with regular competitor analyses. SE market evaluation considers alternative market scenarios, including accelerated decarbonization, portfolio management, and R&D planning processes. • Opportunity-based capital allocation is enabled through the consideration of accelerated decarbonization market scenarios. 						
Exposure score:	Major									

Climate-related risks

Risk driver	Identified potential impact	Risk mitigation measures								
<p>Transitional – Technology</p> <table border="1"> <tr> <td>Exposure score:</td> <td></td> </tr> <tr> <td>Short-term</td> <td>High</td> </tr> <tr> <td>Mid-term</td> <td>Major</td> </tr> <tr> <td>Long-term</td> <td>Major</td> </tr> </table>	Exposure score:		Short-term	High	Mid-term	Major	Long-term	Major	<ul style="list-style-type: none"> Climate change triggers significant changes in our markets and customer requirements (e.g., decarbonized energy systems). Our operating results depend on our ability to adapt to those changes and to optimize our cost base accordingly. Even if we succeed in developing innovative technologies, our competitors may be able to commercialize similar technologies faster or more successfully than us. 	<ul style="list-style-type: none"> Analysis of our Group portfolio, identifying three areas of focus – core, growth, and transformation – to address and enhance identified technology needs in the R&D planning process and beyond. R&D roadmap and consistent decision-making for R&D reallocation reflecting strategic (transformational) focus of the company. The five fields of action are the main tool to drive transformative technology developments at SE (Siemens Energy). Their most essential task is to shape SE’s (green) technology portfolio of the future (e.g., power-to-X, heat pump) to suit future energy market demands and satisfy future customer needs (e.g., H₂ production, energy storage, resilient grids, decarbonized heat, H₂-fired gas turbines). Four Innovation Centers have been established across four regions to bring SE’s innovation activities closer to the customer and leverage regional partner ecosystems, ensuring an efficient and focused portfolio development.
Exposure score:										
Short-term	High									
Mid-term	Major									
Long-term	Major									
<p>Transitional – Market</p> <table border="1"> <tr> <td>Exposure score:</td> <td></td> </tr> <tr> <td>Short-term</td> <td>High</td> </tr> <tr> <td>Mid-term</td> <td>High</td> </tr> <tr> <td>Long-term</td> <td>Major</td> </tr> </table>	Exposure score:		Short-term	High	Mid-term	High	Long-term	Major	<ul style="list-style-type: none"> There is a risk that, due to the sustainability trend in the energy markets (e.g., the shift from fossil fuels toward renewables, intensified competitive behavior, low demand for hydrocarbons), unexpected geopolitical developments, or changes in customer preference, we may face reduced demand for certain parts of our products and services (e.g., fossil-based portfolio, countries depending on high oil prices may reduce their investment in energy infrastructure and/or default on payments). Due to the rapid rise of the trend, we may not be able to adapt our business model and product portfolio to such disruptive developments. 	<ul style="list-style-type: none"> Monitoring of market risks through the Siemens Energy common market evaluation process along with regular competitor analyses. Individual response aspects are addressed for all SE units (Divisions, Corporate Functions, Siemens Gamesa). Constant screening of climate-related developments in the decarbonization programs of customers and investors to derive risk exposure and share relevant findings with the Sustainability Council for further action in the respective area of responsibility. To raise awareness of ESG risks in our projects, we have implemented an ESG check early in the process so that any necessary mitigation actions can be identified and implemented in a timely manner.
Exposure score:										
Short-term	High									
Mid-term	High									
Long-term	Major									
<p>Transitional – Policy and legal</p> <table border="1"> <tr> <td>Exposure score:</td> <td></td> </tr> <tr> <td>Short-term</td> <td>Medium</td> </tr> <tr> <td>Mid-term</td> <td>Medium</td> </tr> <tr> <td>Long-term</td> <td>Medium</td> </tr> </table>	Exposure score:		Short-term	Medium	Mid-term	Medium	Long-term	Medium	<ul style="list-style-type: none"> The markets of our Gas and Power business are affected by changes in national energy regulations, such as support of renewable energy, carbon pricing, and climate change targets, as well as the modernization of energy and electricity markets. These will provide an incentive to adapt current products and develop sustainable solutions leveraged by supporting regulations. Risks arising from non-compliance with the Code of Conduct or with legal, contractual, or (emerging) regulatory requirements might affect Siemens Energy, e.g., through legal requirements on emissions. CO₂ taxes, financing restrictions for GHG-emitting technologies, or declining subsidy levels might affect the financial sustainability of some of our business segments. The EU Taxonomy requires Siemens Energy to publicly disclose sustainability-related financial figures, potentially affecting future investment decisions by external investors. As a result of the conflict in Ukraine, we face the risk that the energy transition in Europe might be delayed in the short term because of policymakers’ focus on securing the energy supply in Europe. This might, for example, affect plans to accelerate the expansion and integration of renewables into the energy system. 	<ul style="list-style-type: none"> Monitoring current and emerging regulations in our major markets. Raising awareness of these new regulations to assess potential impacts and develop sustainable solutions. Informing affected businesses as early as possible to create room for timely portfolio adaptations (products and services). Where applicable, informing on emerging regulations either directly through contacts with the relevant regulatory bodies, via associations, or together with similarly affected companies to avoid or lessen the foreseen impact.
Exposure score:										
Short-term	Medium									
Mid-term	Medium									
Long-term	Medium									

Risk driver	Identified potential impact	Risk mitigation measures								
<p>Transitional – Reputation</p> <table border="1"> <tr> <td>Exposure score:</td> <td></td> </tr> <tr> <td>Short-term</td> <td>High</td> </tr> <tr> <td>Mid-term</td> <td>Major</td> </tr> <tr> <td>Long-term</td> <td>High</td> </tr> </table>	Exposure score:		Short-term	High	Mid-term	Major	Long-term	High	<ul style="list-style-type: none"> • Reputational changes impact the decisions of our stakeholders, i.e., reputational damage might result in adverse effects on our business (e.g., loss of tenders, discontinuation, or adaptation of some of our products at an earlier time than expected) and financial conditions (e.g., unattractive investment opportunity for investors, divestments of ESG-oriented investors). • Increasing public pressure (e.g., media campaigns, boycotts) may accelerate the shift from fossil-based energy generation toward renewables. • If the strategic implementation deviates from what has been communicated, this may result in a lack of credibility for external stakeholders and partners. 	<ul style="list-style-type: none"> • Implementing a climate action program, including targets, to create transparency on decarbonization levers and aim to decarbonize our portfolio. • Regularly performing a double materiality analysis to understand changing stakeholder expectations. • Constantly screening climate-related developments in the strategic programs of our customers and investors to derive risk exposure and share relevant findings with the Sustainability Council for further action in the respective area of responsibility. • ESG risks in projects are addressed at different stages of the process from early bid management through to project execution involving various expert teams across the company. We work closely with Project/Customer Finance & Sales to discuss the identification and implementation of mitigation actions. • Creating transparency on ESG performance for stakeholders, e.g., through the Sustainability Report, and contributing to relevant ESG ratings and standards.
Exposure score:										
Short-term	High									
Mid-term	Major									
Long-term	High									
<p>Physical risk – Acute Increased severity of extreme weather events</p> <table border="1"> <tr> <td>Exposure score:</td> <td></td> </tr> <tr> <td>Short-term</td> <td>Medium</td> </tr> <tr> <td>Mid-term</td> <td>Medium</td> </tr> </table>	Exposure score:		Short-term	Medium	Mid-term	Medium	<ul style="list-style-type: none"> • Severe weather, such as fires, hurricanes, high winds and seas, blizzards, and extreme temperatures may lead to an evacuation of personnel, curtailment of services or suspension of operations, inability to deliver materials to job sites in line with contract schedules, loss of or damage to equipment and facilities, supply chain disruptions, or reduced productivity. Readiness for these emergencies will lead to increased resilience. • We may face the risk of failing to identify all global climate risks (e.g., floods, storms, etc.) due to changes in climate conditions that result in damage to property, an impact on business continuity, or the need for investment in preventive measures. 	<ul style="list-style-type: none"> • Continuously evaluating and monitoring changes in physical climate parameters based on global studies, weather statistics, and trends based on the international experience of insurance companies. • Performing local risk assessments based on our EHS emergency management and developing protection concepts where necessary. • Our insurance department provides a natural hazard risk analysis for each new building project that supports the selection process for the respective site areas. The data and information collected allow us to identify geographical areas where we need to pay special attention to risks from changes to physical climate parameters. • Constant improvement of our EHS Emergency Response Management System and the supply chain response. 		
Exposure score:										
Short-term	Medium									
Mid-term	Medium									
<p>Physical risk – Chronic Longer-term shifts in climate pattern</p> <table border="1"> <tr> <td>Exposure score:</td> <td></td> </tr> <tr> <td>Long-term</td> <td>High</td> </tr> </table>	Exposure score:		Long-term	High	<ul style="list-style-type: none"> • Long-term shifts in climate patterns (e.g., longer and warmer seasons, extreme cold, drought) may affect our and our customers' operations and could result in the development of new markets and business models. This would require changes to our product portfolio and project execution. • We may face the risk of failing to identify all global climate risks (e.g., floods, storms, etc.) due to changes in climate conditions that result in damage to property, an impact on business continuity, or the need for investment in preventive measures. 	<ul style="list-style-type: none"> • Creating transparency on environmental stressors and impacts to evaluate, e.g., water stress on locations. • We are analyzing the potential impacts on our locations at a global level using different pathways and taking into consideration the total insured values. • Based on this baselining, we are implementing preventive measures, supported by the integrated management systems and insurance risk reports. • Consistent improvement of our EHS Emergency Response Management System. 				
Exposure score:										
Long-term	High									

Metrics and targets

The impacts of climate change, coupled with rising global demand for energy, pose an enormous challenge to all stakeholders if we want to meet the Paris Agreement goal of limiting global warming to well below 2°C and pursue efforts to limit the temperature increase to 1.5°C. Siemens Energy aims to do its share to decarbonize the energy sector and aspires to reach net zero emissions across the value chain in line with a 1.5°C pathway.

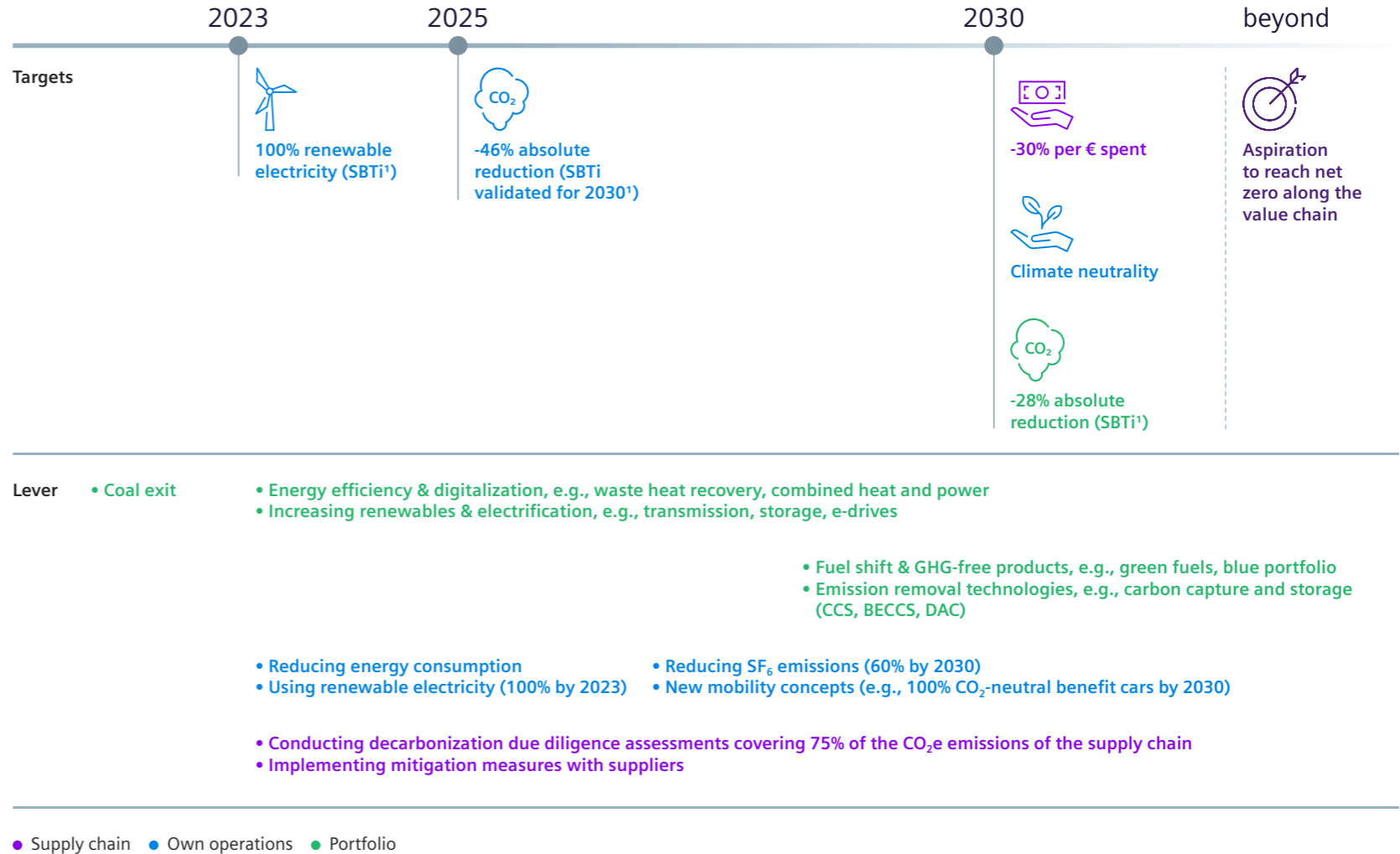
Therefore, we evaluate Scope 1, 2, and 3 emissions every year, have set ourselves both short- and mid-term targets for all scopes, and measure performance against those targets.

The greatest potential to reduce GHG emissions is in our products, solutions, and services, since they make up more than 99% of our overall footprint (Scope 3: use of sold products). We are committed to a 28% reduction by 2030 from a 2019 baseline¹. The SBTi confirms that our target for the use of our sold products is in line with the Paris Agreement goal of limiting global warming to well below 2°C. For the evaluation of emissions from the use of sold products, we follow the GHG Protocol.

Siemens Energy (without Siemens Gamesa) aims to be climate neutral in its own operations by 2030 and to compensate for remaining emissions from then on. This includes the reduction of absolute Scope 1 and 2 emissions by at least 46% by 2025 from base year 2019. This is an even greater ambition than our initial target year, which was originally 2030, as validated by the SBTi. The strongest levers to achieve climate neutrality by 2030 lie in reducing energy consumption, using renewable electricity, reducing SF₆ emissions, and introducing new mobility concepts. In fiscal year 2023, we achieved our target to have 100% of Siemens Energy’s global electricity consumption from renewable sources.

The SBTi also verified that Siemens Gamesa’s emissions reduction targets (Scope 1 and 2) align with the 1.5°C Paris Agreement goal. The verification refers to the target to reduce Scope 1 and Scope 2 emissions by 70% per

Our climate roadmap



¹ Siemens Energy (excluding Siemens Gamesa).

MW installed by 2025 from a 2017 base year. Siemens Gamesa commits to ensuring that 30% of its suppliers by spend covering purchased goods and services, as well as transportation and distribution, will have science-based targets by 2025. It also commits to increasing its annual sourcing of renewable electricity from 58% in 2017 to 100% by 2025. Our suppliers are an important part of the value chain, and we encourage them to take climate protection measures. Emissions reduction is an integral part of our suppliers' supply chain management (see chapter Sustainable supply chain management). For Siemens Energy, we have set the target of reducing our relative Scope 3 GHG emissions from purchased goods and services, as well as transportation and distribution, by 30% per procurement volume unit (€ spent) until 2030 based on fiscal year 2018.

For more information on our decarbonization efforts, energy consumption, and related GHG emissions, please refer to the chapter [Decarbonization](#).

GHG emissions

Our GHG emissions are externally verified by EY (please see [Auditor statement](#) on page 102)

Scope 3 downstream (use of sold products)

Siemens Energy's total Scope 3 emissions from the use of sold products during the reporting period was 1.1 billion metric tons of CO₂e. Compared to fiscal year 2022, this is a decrease of about 12% in total emissions and 33% in intensity. There are several reasons for the decrease in absolute emissions, including:

1. Emissions reduction by lower sold capacity (MW) in central and distributed power generation
2. Adjustment of lifetime to power generation (27 years in fiscal year 2023 vs. 28 years in fiscal year 2022)
3. Reduction in operating hours for central power generation

Scope 1 & 2

In fiscal year 2023, we managed to reduce our Scope 1 and 2 emissions by around 16% or 33.46 metric tons, resulting in a Scope 1 and 2 intensity of

5.83×10⁻⁶ t CO₂e/€ of revenue in 2023 compared to 7.42×10⁻⁶ t CO₂e/€ of revenue in 2022. The main levers were an increase in green electricity, reduced overall energy consumption, and a continued reduction of SF₆ emissions. More than 50% of our emissions occur in Germany, China, and the U.S.

Scope 3 downstream emissions (1,000 metric tons CO ₂ e)	Fiscal year	
	2023	2022 ¹
Total¹	1,098,370	1,252,319
Intensity (t CO ₂ e/€ of order intake)	0.022	0.033

¹ Includes category "use of sold products" only (well-to-tank emissions are included, biogenic emissions have been excluded). Siemens Gamesa emissions equal zero.

² Fiscal year 2022 emissions were recalculated to reflect the reduction of the expected lifetime for gas and steam turbines in power generation from 30 years to 28 years and an H₂ co-firing project in fiscal year 2022.

Scope 1 and Scope 2 emissions (1,000 metric tons CO ₂ e)	Fiscal year	
	2023	2022
Scope 1	163	188
Scope 2	18	27
Total	182	215
Intensity (t CO ₂ e/€ of revenue)	5.83×10 ⁻⁶	7.42×10 ⁻⁶

Scope 3 upstream emissions (1,000 metric tons CO ₂ e)	Fiscal year	
	2023	2022
Total¹	9,230	9,182
Intensity (kg CO ₂ e/€ of purchasing volume)	0.414 ²	0.451

¹ Fiscal year 2022 data was adjusted to include Siemens Gamesa. Due to the partially undefined material codes of the purchasing volume at Siemens Gamesa, approximately 10% of the CO₂e emissions were extrapolated.

² Reduction compared to the base year 2018 (baseline calculation was partially extrapolated) -18.6%.

Scope 3 upstream

The calculated upstream footprint for fiscal year 2023 is 9,230 metric kilotons CO₂e, resulting in an intensity of 0.414, which is 0.5% higher in total emissions but 8.3% lower in intensity compared to 2022.

EU Taxonomy

For fiscal year 2022, and in accordance with a simplified approach allowed by the EU for first-time application, Siemens Energy reported the shares of taxonomy-eligible economic activities in revenues, capital expenditure (CapEx), and operating expenditure (OpEx) in relation to the currently developed environmental targets "Climate change mitigation" and "Climate change adaptation." In fiscal year 2023, the reporting obligation also extends to the taxonomy-aligned shares of revenue, CapEx, and OpEx and the recognition of natural gas and nuclear energy activities. For further information, please refer to [Siemens Energy Annual Report 2023, EU Taxonomy](#).

EU Taxonomy (%)	Fiscal year	
	2023	2022 ¹
Share of revenue from EU Taxonomy-eligible activities	73.4	57
Share of capital expenditures from EU Taxonomy-eligible activities	72.2	79
Share of operational expenditures from EU Taxonomy-eligible activities	83.1	40
Share of revenue from EU Taxonomy-eligible and -aligned activities	37.5	–
Share of capital expenditures from EU Taxonomy-eligible and -aligned activities	51.0	–
Share of operational expenditures from EU Taxonomy-eligible and -aligned activities	40.4	–

¹ Due to the simplified approach in fiscal year 2022, there is no prior year information on taxonomy-aligned shares available. A prior year comparison of the total taxonomy-eligible shares is only possible to a limited extent due to the first-time application of the complementary delegated act on natural gas and nuclear activities.

Siemens Energy methodology for calculation of CO₂e emissions from Scope 3 – use of sold products

Siemens Energy’s decarbonization activities cover its complete value chain. Our methodology follows the recommendations of the Greenhouse Gas Protocol. We evaluate and disclose the most material categories of the GHG Protocol, including category 11 – Use of sold products, since this accounts for the vast majority of our overall GHG emissions. We seek to reduce the CO₂e emissions from the use phase of our sold products by 28% until 2030. This target has been validated by the Science-Based Targets Initiative (SBTi).

Definition: Scope 3 – Use of sold products

Scope 3 emissions arise from sources owned or controlled by other entities in the value chain (e.g., material suppliers, third-party logistics providers, waste management suppliers, travel suppliers, lessees and lessors, franchisees, retailers, employees, and customers).

Category 11 of the GHG Protocol (Scope 3: Use of sold products) includes emissions from the use of goods and services sold by Siemens Energy in the reporting year, considering the total expected lifetime emissions.

Relevance of Scope 3 – Use of sold products

In the course of our evaluation to set ourselves a science-based emission reduction target, we calculated the complete Siemens Energy CO₂e footprint based on fiscal year 2019 (Scope 1, 2, 3 up- and downstream). The results showed that >95% of our overall CO₂e footprint originates from the use of our sold products.

Sources of CO₂e emissions at Siemens Energy

- Products that directly consume energy (fuels or electricity) during use
 - CO₂e emissions are basically generated through the combustion of fossil fuels (e.g., natural gas in a gas turbine). The amount of CO₂e emissions varies depending on the type of fuel (e.g., natural gas, biomass, hydrogen) and the energy efficiency of the product (gas turbine, steam turbine, electric motor, etc.)
 - CO₂e emissions are basically generated by large electrical consumers (e.g., motors, drives, pumps) or from power losses (e.g., transformers) of the used products.
- Products that contain or form greenhouse gases that are emitted during use:
 - To a minor extent, the transmission portfolio might be emitting CO₂e due to SF₆ gas leakages during maintenance or operational use at customer sites.

Scope and boundaries

Data on CO₂e emissions is reported within the limits of the customer use phase of a product related to a certain Business Area. Therefore, CO₂e emissions occurring during other phases of the life cycle of a portfolio unit, such as in the supply chain, during production, or upon end-of-life disposal, are not considered as emissions from the use of our sold products.

SE methodology

Calculating emissions from category 11 typically requires product design specifications and assumptions about how customers use our products (e.g., use profiles, assumed product lifetimes).

Typical activity data needed to calculate emissions from products that directly consume energy (fuels or electricity) during use:

- Total lifetime expected
- Quantity of products sold
- Fuel used per use of product
- Electricity consumption per use of product

Emission factors needed:

- Life cycle emission factors for fuels
- Life cycle emission factors for electricity

Typical activity data needed to calculate emissions from products that contain or form GHGs that are emitted during use:

- Total quantity of products sold
- Quantity of GHGs contained per product
- Percentage of GHGs released throughout the lifetime of the product

Emission factors needed:

- Global Warming Potential (GWP) of the GHGs contained in the product, expressed in units of carbon dioxide per unit kilogram of the GHG

Although the GHG Protocol contains clear guidance, there are still many assumptions that must be made when calculating the footprint of a product over its lifetime. Our principles are transparency, credibility, and a somewhat conservative perspective. For our assumptions, we rely on the Business Areas as well as on external, credible sources, such as energy market forecasts from reputable providers.

At Siemens Energy, the evaluation of CO₂e emissions is based on project lists with order entry in the respective reporting year. Internal sources for calculation parameters are diverse and include several project or product databases, service databases, product brochures, and expert opinions. We use external sources for the emission factors (global grid mix, fuel combustion).

Emission factors

Siemens Energy uses life cycle emission factors (including well-to-tank emissions) to calculate Scope 3 emissions related to fuels and energy consumed. Compared to combustion emission factors, life cycle emission factors represent all emissions in the upstream supply chain of fuels and energy (incl. extraction, refining, and transportation of the raw fuel sources; excl. flaring and venting).

Emission factors for fuel combustion are based on the IPCC Default Emission Factors for Stationary Combustion in the Energy Industries while the global grid mix is based on the IEA World Energy Outlook. Emission factors are checked and updated on a yearly basis.

Further calculation parameters:

- Emissions calculated for a particular year include the lifetime emissions of all the products sold in that year. The emissions produced from our already installed fleet are not included in that year's calculation.
- Emission calculations are performed based on assumptions about yearly operating hours and an estimated lifetime in years.
- Energy efficiency is based on ISO values or expert estimates.
- Fuel type is based on internal project lists.

Service business

Service business is not part of the evaluation of Scope 3 emissions from the use of sold products. Even if we achieve higher power plant efficiencies through service upgrades that lead to a reduction and thus avoid emissions, Siemens Energy does not report the emissions avoided. Siemens Energy has decided to follow a different approach based on the overall carbon budget, i.e., absolute emissions.

Improving data quality over time

As markets are changing, we need to make sure our calculation parameters are conservative but still reflect reality. For example, the share of renewables in the global grid mix is increasing, and the emission factor for electricity is changing over time. This needs to be reflected in our calculations.

We also revisited how we consider H₂ co-firing, and thus considered the planned share of H₂ from a co-firing project in fiscal year 2022 in our calculations. A customer buying an H₂-ready gas turbine is not evidence that it will actually run on H₂. Therefore, we consider H₂ co-firing only if the customer shares a specific time plan for using H₂ and indicates to what extent H₂ is going to be used.

While gas turbines have historically been powered by fossil fuels throughout their lifetime, this will obviously change in the future. Many countries, including our most relevant customer markets, have committed to a net zero economy in 2050 and a net zero electricity system even earlier. This is why we decided to include this change in our calculations for the first time and assume that the turbines we sell now will not run on unabated fossil fuels after 2050.

Base year greenhouse gas (GHG) recalculation policy

Siemens Energy uses fiscal year 2019 as the base year for our greenhouse gas (GHG) emission calculation for Scope 1, 2, and 3 (category 11: use of sold products).

In order to accurately track progress toward our science-based targets, we will adjust our base year emissions inventory to account for significant changes, described below, if the changes drive an increase/decrease in emissions of greater than 5% versus the initial baseline, in accordance with the GHG Protocol guidance and the SBTi Net Zero Standard. We may also choose to recalculate our baseline for changes below 5%, especially when structural changes occur.

Structural changes

Structural changes that significantly impact our base year GHG emissions and may trigger an adjustment of the baseline include acquisitions, divestments, and mergers. When significant structural changes occur in the middle of a year, the current and baseline year will be recalculated for the entire year. In the event of an acquisition, in order to ensure that full and accurate data is available, a recalculation will be carried out within one year after the structural change occurred.

Calculation methodology changes

Methodology changes that significantly impact our base year GHG emissions and may trigger an adjustment of the baseline include updated emission factors, improved data accuracy, and changes in calculation methodologies.

Data errors or other changes

We will recalculate our emissions in the event that we discover a significant error or a number of cumulative errors that together are significant. A significant change in our organizational or operational boundaries may likewise result in an adjustment of the baseline.

Baseline adjustments will be made at the end of each fiscal year if we find any of the changes described above to have occurred during the reporting period that may require us to recalculate our base year. We publicly restate our baseline when we report the latest carbon footprint for the previous financial year.

Independent auditor's report on a limited assurance engagement

TO SIEMENS ENERGY AG, MUNICH

We have performed a limited assurance engagement on the sections 1 "The company", 2 "Decarbonizing our business" and 3 "Responsible operations" in the Sustainability Report of Siemens Energy AG, Munich (hereafter the "Company"), for the reporting period from October 1, 2022 to September 30, 2023 (hereafter the "report").

Our engagement did not include interviews presented in the report as well as any prospective disclosures and links to other web pages. Our engagement exclusively relates to the English PDF-version of the report, which is published at www.siemens-energy.com/sustainability-report-2023.

Management's responsibilities

The legal representatives of the Company are responsible for the preparation of the report in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (hereafter the "GRI criteria") and for the selection of the information to be assessed.

These responsibilities of the Company's legal representatives include the selection and application of appropriate sustainability reporting methods and making assumptions and estimates about individual sustainability disclosures of the group that are reasonable in the circumstances. Furthermore, the legal representatives are responsible for such internal control as they have considered necessary to enable the preparation of a report that is free from material misstatement, whether due to fraud (manipulation of the report) or error.

Independence and quality assurance of the auditor's firm

We have complied with the German professional requirements on independence as well as other professional conduct requirements.

Our audit firm applies the national legal requirements and professional pronouncements – in particular the BS WP/vBP ["Berufssatzung für Wirtschaftsprüfer/vereidigte Buchprüfer": Professional Charter for German Public Accountants/German Sworn Auditors] in the exercise of their Profession and the IDW *Standard on Quality Management* issued by the Institute of Public Auditors in Germany (IDW): *Requirements for Quality Management in the Audit Firm (IDW QS 1)* and accordingly maintains a comprehensive quality management system that includes documented policies and procedures with regard to compliance with professional ethical requirements, professional standards as well as relevant statutory and other legal requirements.

Responsibilities of the auditor

Our responsibility is to express a conclusion with limited assurance on the report based on our assurance engagement.

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" issued by the International Auditing and Assurance Standards Board (IAASB). This standard requires that we plan and perform the assurance

engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the Company's report is not prepared, in all material respects, in accordance with the GRI criteria.

In a limited assurance engagement, the procedures performed are less extensive than in a reasonable assurance engagement, and accordingly, a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgment of the auditor.

In the course of our assurance engagement we have, among other things, performed the following assurance procedures and other activities:

- Inquiries of employees and inspection of documents concerning the sustainability strategy, sustainability principles and sustainability management including the stakeholder dialog of Siemens Energy AG,
- Inquiries of legal representatives and relevant employees involved in the preparation of the report about the preparation process, about the internal control system related to this process, and about disclosures in the report,
- Inquiries of employees of the Group responsible for data capture and consolidation, about the data capture and compilation methods as well as internal controls to the extent relevant for the assurance of the disclosures in the report,

- Identification of likely risks of material misstatement in the report,
- Analytical procedures on selected disclosures in the report,
- Inquiries and inspection of documents relating to the collection and reporting of selected qualitative disclosures and data,
- Reconciliation of selected disclosures with the corresponding data in the consolidated financial statements and combined management report,
- Evaluation of the presentation of the report.

Assurance conclusion

Based on the assurance procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the sections 1 “The company”, 2 “Decarbonizing our business” and 3 “Responsible operations” in the Sustainability Report of Siemens Energy AG for the period from October 1, 2022 to September 30, 2023 are not prepared, in all material respects, in accordance with the GRI criteria.

Restriction of use

We draw attention to the fact that the assurance engagement was conducted for the Company’s purposes and that the assurance report is intended solely to inform the Company about the result of the assurance engagement. As a result, it may not be suitable for another purpose than the aforementioned. Accordingly, the assurance report is not intended to be used by third parties for making (financial) decisions based on it. Our responsibility is to the Company alone. We do not accept any responsibility to third parties. Our assurance conclusion is not modified in this respect.

General engagement terms and liability

The “General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]” dated January 1, 2017 are applicable to this engagement and also govern our relations with third parties in the context of this engagement (www.de.ey.com/general-engagement-terms). In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties. We accept no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement

to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we will not update the assurance report to reflect events or circumstances arising after it was issued, unless required to do so by law. It is the sole responsibility of anyone taking note of the summarized result of our work contained in this report to decide whether and in what way this information is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

Munich, December 1, 2023

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Breitsameter
Wirtschaftsprüferin
(German Public Auditor)

Johne
Wirtschaftsprüferin
(German Public Auditor)

Imprint

Published by

Siemens Energy AG
Otto-Hahn-Ring 6
81739 Munich
Germany

Sustainability: sustainability@siemens-energy.com
Media Relations: press@siemens-energy.com
Investor Relations: investorrelations@siemens-energy.com
www.siemens-energy.com/sustainability

© Siemens Energy, 2023
Siemens Energy is a trademark licensed by Siemens AG.

Contact

sustainability@siemens-energy.com

Picture credits

page 34: Ørsted
page 60: Siemens Gamesa

Concept, editing, and layout in cooperation with:

Accenture GmbH, Kronberg im Taunus, Germany
<https://www.accenture.com/de-de>



[siemens-energy.com](https://www.siemens-energy.com)



x.com/Siemens_Energy



[linkedin.com/siemens-energy](https://www.linkedin.com/company/siemens-energy)

Published by

Siemens Energy AG
Otto-Hahn-Ring 6
81739 Munich
Germany

Sustainability: sustainability@siemens-energy.com
Media Relations: press@siemens-energy.com
Investor Relations: investorrelations@siemens-energy.com

[siemens-energy.com/sustainability](https://www.siemens-energy.com/sustainability)

© Siemens Energy, 2023

Siemens Energy is a trademark licensed by Siemens AG.