SIEMENS energy

Sustainability Report 2022

Tackling challenges

siemens-energy.com/sustainability

It is time to act

Dear readers,

Energy is essential for life on earth, for our growth and well-being. At the same time, however, global energy-related emissions rose to their highest level ever in 2021, exacerbating the worsening climate crisis. With worldwide demand for electricity expected to increase by around 25% before 2030, the sustainability of the energy sector is a matter of urgency – as is energy security, as current geopolitical tensions clearly show.

Facing these issues means resolving the trilemma between sustainability, affordability and security of energy supply. Balancing these three is the challenge we need to tackle on a global scale.

At Siemens Energy, we are ready for honest conversations to enable effective collaboration with customers, suppliers, partners and governments.

For our part, we have the technology, the innovations and the expertise to offer solutions along the entire value chain. We put sustainability at the heart of our company strategy, reflecting all three dimensions: Environmental, Social and Governance.

We are committed to the Ten Principles of the United Nations Global Compact and are guided by the UN Sustainable Development Goals. This report shows the progress we have made on our journey so far – and it demonstrates how we will continue to develop our company into what we call an integrated energy technology company ready for the future.

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

Our sustainability performance

Decarbonizing our business

Performance indicator	Unit	2022	2021
Greenhouse gas emissions			
Scope 1+2 emissions			
absolute	1,000 metric tons CO_2 e	215	273
thereof SF_6	1,000 metric tons CO_2 e	35	41
thereof fleet	1,000 metric tons CO_2 e	32	29
Scope 3 downstream emissions[1]			
absolute	1,000 metric tons CO_2 e	1,323,012	1,369,163
intensity	metric tons CO_2 e/ € order intake	0.035	0.041
Scope 3 upstream emissions[2]			
absolute	1,000 metric tons CO_2 e	5,081	4,433[3]
intensity	kg CO_2 e/€ PVO spent	0.424	0.440[3]
Energy			
Energy consumption	million gigajoule	5.80	6.33
Share of green electricity	%	90	76

1 Includes category "use of sold products" only.

2 Includes categories "purchased goods and services" and "transportation and distribution" only. Without SGRE.

3 Due to the further development and optimization of the CO_2 calculation tool, the CO_2 emissions for fiscal year 2021 and fiscal year 2018 (baseline) were recalculated.

4 Without SGRE.

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	2022	2021
Research & development			
Research & development expenses	million €	1,078	1,155
Sustainable supply chain management			
External sustainability audits at suppliers	no.	167	157
Waste			
Waste recycling and recovery rate	%	81	82
Water			
Water consumption	million cubic meters	3.45	4.10
Product stewardship			
Portfolio coverage by Life Cycle Assessments (LCAs)	%	72	71
Employees			
Share of women in overall workforce	%	20	19
Share of women in top leadership positions[4]	%	22	21
Training hours per employee	no.	10.3	8.6
Occupational health and safety			
Total Recordable Injury Rate (TRIR) of employees[5]	no.	2.17	2.47
Societal engagement			
Donations	million €	3.62	4.71

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North Sea Initiative: An interconnected, low-carbon energy system

For decades, the North Sea has played a key role in supplying energy to Europe through its oil and gas fields. Now it is set to become the continent's largest climate-neutral energy system by 2050. By enabling a new level of connectivity and collaboration between European countries, Siemens Energy is leading an initiative that will see the North Sea help us deliver net zero.

The North Sea has significant potential and particular geological characteristics that we can use to drive the energy transition.

Against the backdrop of a deepening climate crisis, the EU made climate neutrality – the goal of net zero emissions by 2050 – legally binding in 2021. It set an interim target of a 55% reduction in emissions by 2030, calling for a "decade of action" to reach this target. The conflict in Ukraine and the ensuing energy crisis lends an even greater urgency to accelerating the transition toward a diversified supply of renewable energies.

The North Sea has significant potential and particular geological characteristics that we can use to drive the energy transition. Shallow waters and raging winds make it one of the best locations for offshore wind, and the geology that kept natural gas in place for millions of years is the perfect place to bury carbon dioxide. With locations in all eight countries that border the North Sea and an extensive range of ongoing projects in offshore wind, transmission and storage, Siemens Energy is ideally positioned to scale up and deploy new technologies across the region. Most importantly, we can draw on our pool of talented people with their diversity of skills, experience and backgrounds.

Bringing together combined Siemens Energy expertise was the idea behind our new cross-country, cross-business capture team for the North Sea. The team works across divisions and businesses to share best practices, align strategies and forge partnerships crucial for the energy transition in the North Sea.

North Sea Initiative key facts

180+ oil rigs
in the North Sea that need to be decarbonized[1]

440 Gt capacity
under the North Sea to store CO_2[2]

>210 GW offshore wind capacity
by 2050[3] (>100GW by 2030[4])

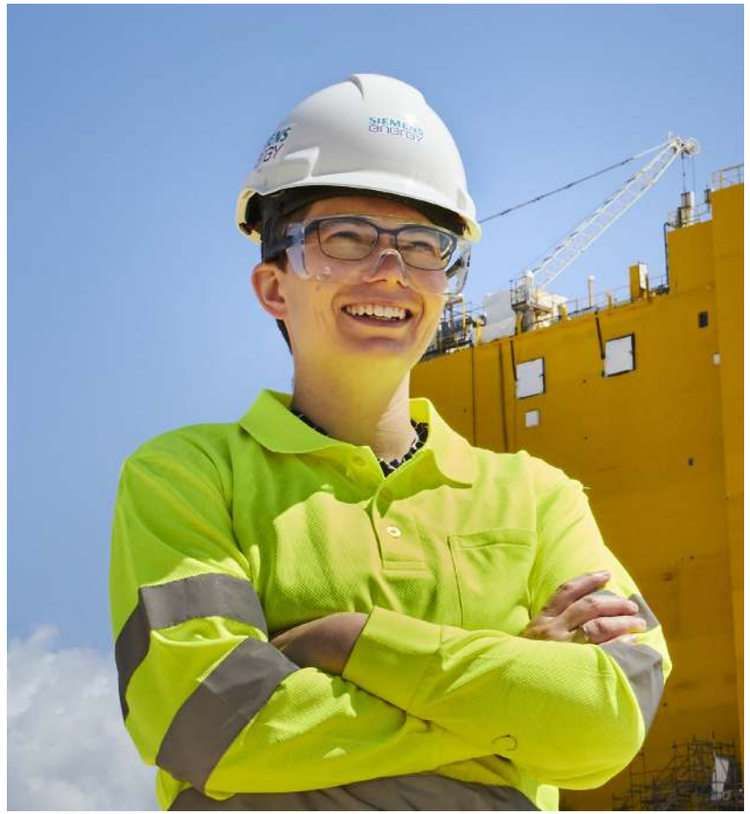
[1] Source: ↗ Number of offshore rigs worldwide (Statista, 2018)
[2] Source: ↗ Assessment of CO_2 geological storage capacity of saline aquifers under the North Sea Elsevier Enhanced Reader (Blunt and Karvounis, 2021)
[3] Source: ↗ Our energy, our future (Wind Europe, 2019)
[4] Source: Combination of the ↗ Esbjerg pledge (2022) of 65GW and ↗ UK's 2030 target (2022) of 50GW

Close collaboration with customers will be key in helping countries meet tight decarbonization deadlines, while partnerships within the energy industry will allow us to go beyond our own capabilities and be faster and more cost-efficient in developing innovations. Our collaboration with Equinor is one such example. Siemens Energy has teamed up with the Norwegian energy company to help reduce offshore platform emissions by providing electrical transmission, distribution and power management systems at their Troll West oil and gas platforms.

The North Sea can be as important for our clean energy future as it was for the era of fossil fuels. If the transition is successful, it will attract new industries, secure jobs and provide green power and energy security. Moreover, if an interconnected, low-carbon energy system can be developed in the North Sea, it can serve as a blueprint for other regions.

The energy transition in the North Sea demands scale and coordination. At Siemens Energy, we have the know-how, mindset and technology to support the entire energy value chain. We are ready to step up and work with everyone to achieve net zero in this critical decade.

Breaking ground for offshore transmission



Maria Kosse is no stranger to complexity. As Siemens Energy's lead engineer for offshore grid connection systems, her job is to make sure every component interacts perfectly. "We are talking about up to 15,000 components in 200 subsystems that must be integrated," says Maria as she surveys the mammoth project at its construction site in Cadiz, Spain.

DolWin kappa is the centerpiece of TenneT's, leading EU green offshore grid operator, DolWin6 grid connection system, a 900-megawatt link that will transport offshore wind power from the German North Sea to shore. Once installed, the platform will rise 56 meters out of the North Sea, supported by 10 steel piles anchored up to 50 meters in the seabed. There it will receive alternating current from surrounding wind farms and convert it into direct current for transport to shore.

In this aspect, DolWin kappa is unique: it is the first time worldwide that direct current gas-insulated switchgear (DC GIS) will be used offshore. Drawing on her academic background in high-voltage direct current (HVDC) transmission, Maria has been instrumental in the development of the DC GIS switchgear at Siemens Energy, from its early phase in 2016 to its successful commissioning in 2021.

The advantage of the DC switchgear is its size. While standard air-insulated switchgear takes up around 4,000 cubic meters of space, the DC GIS requires only 200 cubic meters. This is a decisive advantage on offshore platforms where space is at a premium. With this innovation, Maria and her team have broken new ground in developing a space-saving and therefore cost-saving grid access technology for offshore wind.

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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.

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.

Our products include conventional and renewable energy technologies, such as gas and wind turbines, hybrid power plants operated with hydrogen, high-voltage grid access solutions and high-voltage transformers. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader in wind power.

This wide range of offerings allows us to address the different speeds at which the energy transition is moving forward. As of September 30, 2022, Siemens Energy employs about 92,000 people in more than 90 countries worldwide.

Our company structure

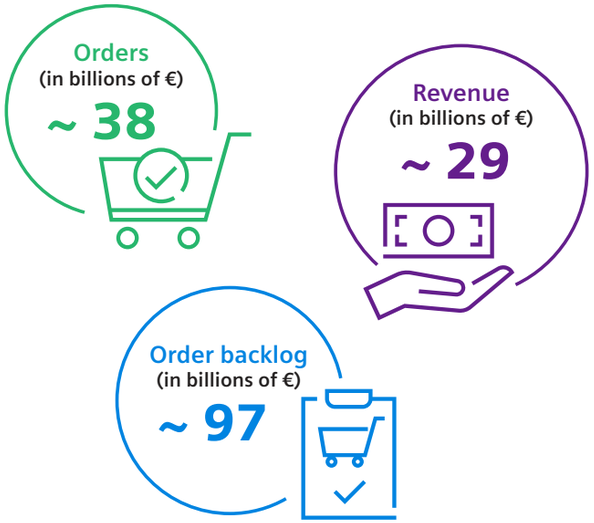
In fiscal year 2022, the company was divided into two reporting segments, Gas and Power (GP) and SGRE:

- Our GP reporting segment includes our Generation, Transmission and Industrial Applications Divisions, along with the respective service business based on customer groups and product lines, as well as our new business venture New Energy Business, developing our business in power-to-X technologies, electrolyzer systems and solutions for the production of green hydrogen using renewable energy and water.

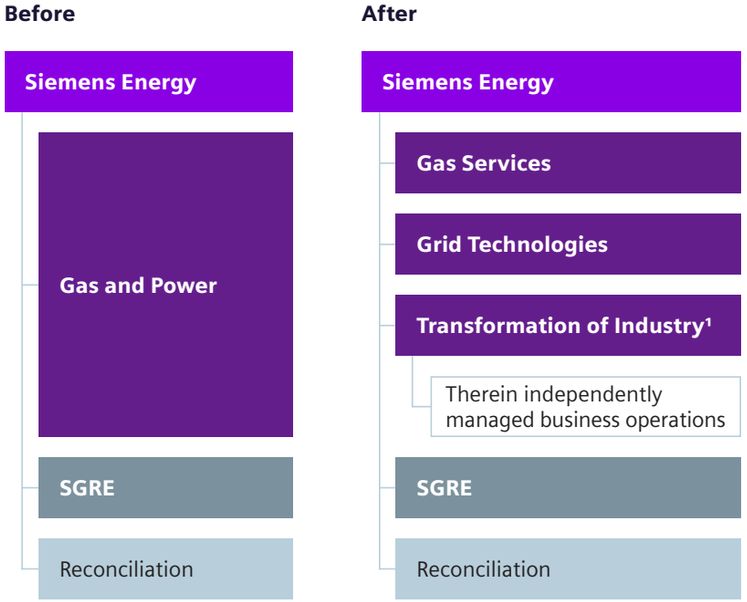
- Our SGRE reporting segment, in which Siemens Energy holds a 67% majority stake, focuses on the design, development, manufacturing, supply and installation of products as well as offering technologically advanced services for the renewable energy sector with a focus on wind turbines for various wind conditions.

As a listed company, our SGRE reporting segment has an independent sustainability strategy and publishes a separate ↗ **SGRE Consolidated Non-Financial Statement 2022**. While the strategic direction of both reporting segments is comparable, management approaches and programs may differ.

Key financial indicators



Our company structure



1 Transformation of Industry reflecting a total of four independently managed business operations (operating segments)

New organizational structure

At our Capital Market Day in May 2022, we announced a new organizational structure to support the transformation of Siemens Energy with a clear focus on environmental, social and governance (ESG). The new organization came into effect with the start of the new fiscal year on October 1, 2022. Within the new organizational structure, the former Gas and Power segment is organized into three Business Areas: Gas Services, Grid Technologies and Transformation of Industry. The corresponding financial figures will be published regularly, increasing transparency for the capital market significantly.

- Gas Services (GS) combines all business activities related to gas turbines and large steam turbines as well as the associated service business of the former Generation and Industrial Applications Divisions.
- Grid Technologies (GT) comprises the business of the former Transmission Division and, in future, the activities relating to energy storage, which were previously assigned to Generation.
- Transformation of Industry (TI) is primarily focusing on the reduction of energy consumption and CO_2 emissions in industrial processes and comprises four independent business operations:
  - Sustainable Energy Systems (SES), with the former New Energy Business and parts of Generation, deals with the topics of hydrogen, electrolyzers, power-to-X and photovoltaics, among others.
  - Electrification, Automation and Digitalization (EAD) was previously part of Industrial Applications and offers integrated EAD solutions, additional services and consulting services.
  - Industrial Steam Turbines & Generators (STG) comprises parts of the Generation and Industrial Applications business portfolios, including industrial steam turbines up to 250 megawatts, as well as service and industrial generators.
  - Compression (CP) was previously part of Industrial Applications and offers turbo and reciprocating compressors, including service, as well as compressor trains and systems.

The new operating model has fewer hierarchy levels, and the leaner structure is designed to speed up decision-making processes. Approximately 30% of the previous management positions have been eliminated, with no staff laid off in the process.

Another step in our transformation to a leading energy technology company with a clear focus on sustainability is the integration of SGRE. Siemens Energy announced a voluntary cash tender offer to acquire the remaining 33% of shares that are still in free float, with the intention of delisting SGRE from the Spanish stock exchanges. By delisting and fully integrating SGRE, Siemens Energy can simplify processes further and transition to a shared corporate structure with flatter hierarchies. The integration will also strengthen Siemens Energy's position, creating a holistic go-to-market approach and further enhancing customer focus.

Will energy security derail the energy transition?

The transition to renewable energies will have a decidedly profound impact on the world's energy landscape and magnify already rising concerns about energy security. Christian Bruch and Jason Bordoff discuss how sustainability, reliability and affordable energy interconnect.

Jason Bordoff, one of the world's leading energy and climate policy experts, is Founding Director of the Center on Global Energy Policy at Columbia University, New York, United States, and previously served as Senior Director for Energy and Climate Change on the staff of the United States Security Council.

As President, CEO and Chief Sustainability Officer of Siemens Energy, Christian Bruch defines his purpose as energizing society. "We want to ensure all people have equal opportunities to access to sustainable, reliable and affordable energy – no matter where they are."

Jason Bordoff: It has been many decades that we have largely been failing at tackling climate change. And now we are failing at energy security too. Europe is obviously having immense difficulty making it through this winter; next winter may be even harder, and this is having ripple effects in many other parts of the world.

There is a precipitating event, which is Putin's unjustified invasion of Ukraine. But we should remember: Europe was experiencing an energy crisis even before this, and there are a set of underlying factors that I think have made it even worse, because we are in a moment of transition. And so that leads to tighter markets and potential for price spikes and market crunches and volatility, which is not just bad economically and geopolitically, but risks undermining support for the energy transition itself.

So the question is: How do we react to this moment?

Christian Bruch: Jason, I agree with much of that, but for me it still remains to be seen how energy security issues will affect the transition. We are currently not on track with the transition – we might not even be on track with security nor on affordability – and we should not forget this third element. Because what is happening at the moment is that industrialized countries are exporting their inflation to poorer countries. Countries like Bangladesh as well as regions like Africa and other parts of Asia, for example, are heavily dependent on liquefied natural gas (LNG) imports and cannot afford it anymore.

Jason Bordoff: Right, this is having ripple effects in many other parts of the world, with rolling blackouts in Pakistan and Bangladesh. And coal is at record high levels as well.

Christian Bruch: So, we are seeing that this trilemma of energy security, affordability and sustainability is closely interlinked, and so far we have not made any deliberate choice in any direction. At the moment, it has had neither a positive nor negative impact on the energy transition, but we have now arrived at a point in time when we have to make the hard choices. Talking is no longer enough.

"Industrialized countries are exporting their inflation to poorer countries."

Christian Bruch, President and CEO, Siemens Energy

Jason Bordoff: I think we will never forgive ourselves if we look back on this moment of crisis and feel like we missed an opportunity to now take the urgency and imperative of energy security – meeting people's energy needs securely and affordably – and combine it with the urgency of climate action and decarbonization to make faster progress toward an energy transition.

Christian Bruch: Right, there are all the good reasons to build up renewables more quickly, to strengthen the grid and really bring energy security and sustainability closer together. But it also means we have to do certain things substantially differently going forward. At the moment, there are still measures that are driving up CO_2 emissions. We are ramping up coal in Europe. We will still have a substantial coal fleet for a long time in Asia. The current drive to build up renewables barely covers the growth in the electricity market and is not bringing CO_2 down.

Jason Bordoff: I think first there needs to be a recognition that this is almost inevitably going to be a somewhat disorderly transition. And we can try to make it as well-managed as possible, but there is reason to doubt the idea that we will get anywhere close to a goal like net zero by 2050 – which is only 27, 28 years away! The scale of the transition, the scale of the global energy system, the pace of that transition is unprecedented relative to anything we have ever seen in the history of energy. And we are going to make mistakes along the way.

I lead an organization with the word policy in its name, the Center on Global Energy Policy. I would not do that if I did not think policy were necessary, but it is certainly not sufficient. We are going to need the technologies, and Siemens Energy is one of the most important companies in the world for that.

Christian Bruch: We will need a new era of public-private partnership: good policy and strong private capital flows, both built on solid plans. Energy infrastructure needs to be comprehensively rebuilt or extended. But we should not neglect the demand side, which we can use to counter some of the volatility from generation. Additionally, we need to deal with the massive growth in electricity volume – possibly tripling in two decades. Industrial policies like those in the U.S. are needed to trigger the required grid investments, and we need to make optimal use of the assets we already have – for example, with gas and nuclear. Every technology must play its part, and efficiency will be vital.

Jason Bordoff: I think we have touched on the most important things. But maybe I will just put a spotlight on them again: sustainability, security and affordability. If you fail on any one dimension of that, I think you actually undermine the pace of the others. The potential for unrest in Sri Lanka, the iconic yellow vest protests in Paris, or if people have trouble paying their energy bills, I fear that support for strong climate action, which is what we need, may wane as a result.

So, we are going to have to pull every lever we can to deal with the immediate urgency of the crisis – finding extra supplies, maybe in the near-term ramping up a diesel facility or a coal facility here or there, building some new LNG import terminals. But I think the opportunity now is to remember that many of the things that would give you greater energy security (more energy efficiency, conservation, more electrification of the economy, more use of clean energy) point you in the direction of decarbonization as well.

You see examples across Europe and other countries where in some cases, the energy crisis is accelerating a move toward a different kind of energy system in the future. It just takes time to get there.

Christian Bruch: And I can only say: We have to speed up. We still have it in our toolbox of possibilities to influence that. Time is running out, and we really have to move to take action. While we continue to add renewable energy, we can improve energy efficiency, strengthen electrical grids and make use of the existing infrastructure. We can also develop a clear plan as to which policymakers and industries can really make decisions.

No question, we will need to push and develop new technologies. But a lot of technologies we need to drive substantial change are already available. It is our choice whether we want to turn it around.

"The question is: How do we react to this moment?"

Jason Bordoff, Founding Director, The Center on Global Energy Policy at Columbia University, New York, United States

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5 GENDER EQUALITY
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
13 CLIMATE ACTION

Sustainable energy is a critical driver for growth and prosperity worldwide. That is why sustainability is core to our company strategy and guides our transformation.

- **We are an integrated energy technology company with a focus on sustainability**
- **We strive to reduce greenhouse gas emissions to net zero across the entire value chain**
- **We collaborate closely with global partners, governments and think-tanks to accelerate the energy transition**

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. As the COVID-19 pandemic continues to impact lives and business around the globe, the war in Ukraine has further destabilized global markets, disrupted supply chains and caused energy prices to soar. Meanwhile, the climate crisis has clearly reached emergency levels, and urgent action is required if we are to meet the Paris Agreement target of limiting the global temperature rise to 1.5°C. Adding to the trilemma of availability, reliability and sustainability, the issue of energy security has now moved further into focus. Nevertheless, our priority at Siemens Energy is clear: fostering sustainability along the value chain.

With our portfolio that spans across the energy value chain and our global setup, we are in a unique position to shape the energy transition and support global development toward net zero.

Our strategy for the energy transition

Since Siemens Energy became an independent company in 2020, we have moved the company into an improved market position, established a healthy order backlog, introduced operational improvements and made first steps toward a sustainable portfolio.

We have established our company strategy on the three pillars:

- **Low- or zero-emission power generation**
  We are continually developing new products and technologies that have either zero emissions or significantly lower emissions, in both service and new units. Our SGRE reporting segment plays an essential role in the transition to zero-emission power generation.
- **Transport and storage of electricity**
  We are developing new products, services and solutions for the transport and storage of electricity, thereby expanding our transmission and hydrogen business.
- **Reducing GHG footprint and energy consumption in industrial processes**
  We are helping our process industry customers to realize sustainable concepts for their brownfield facilities and for future installations.

This overarching strategy is broken down into divisional, functional and regional plans. It is refined through a regular strategic planning process. This allows us to adapt to changing market trends and customer requirements quickly while providing a clear strategic direction.

We shape our existing business through a strategic program by developing our portfolio with a focus on sustainability and service, while becoming a data-driven company that creates value through digitalization, connectivity and automation.

Our strategic pillars

We focus on building our company based on three strategic pillars:

Low- or zero-emission power generation

Transport and storage of electricity

Reducing GHG footprint and energy consumption in industrial processes

Direct connection: HVDC transmission system between UK and Europe

Power exchange between the UK and France through the Channel Tunnel

The integration of European power markets has taken a major step forward with the installation of a new 1000-megawatt HVDC power transmission system between the United Kingdom and France. Using Siemens Energy's innovative design and technology, a 51-kilometer-long direct current cable was installed inside the Channel Tunnel that connects converter stations in Peuplingues in France and Cheriton in the UK. The system enables electricity to circulate between the two countries as needed. The biggest challenge in the design and planning process was ensuring the safety of the transmission system within the Channel Tunnel. Thorough investigation and measurement campaigns were carried out to ensure that the transmission system will not affect rail traffic through the tunnel.

The first phase of the program, called "Accelerating impact", focuses on delivering the fundamentals, co-creating innovations with customers and partners and shifting research and development (R&D) expenditures toward sustainable products and services. In this area, we continue to make substantial progress:

- We are shaping our portfolio with a focus on sustainability and service: We are planning a shift in our R&D toward the five fields of action (see chapter Customers and innovation)
- We have a strong order backlog of €62.4 billion at GP and €35.1 billion at SGRE
- Our market position has improved: We are for the first time market leader for gas turbines greater than 10 MW in fiscal year 2022
- We drove operational improvement: We optimized our capacities and increased productivity

The second phase of the program, called "Leading the energy transformation", will lay out measures to become a sustainability leader in the industry, electrify countries and communities in a sustainable, affordable and reliable manner and become a company that creates value for our different stakeholders through data-driven insights, automation and digitalization. Due to the market acceleration toward sustainability, we have started implementing the second phase one year earlier than planned.

Since the start of Siemens Energy in 2020, we have made substantial operational progress as well as portfolio changes. We are now planning the next level of activities to support our ambition to shape the energy transition. As a first step, we are reorganizing our company with a view to create the agility, focus and accountability necessary to steer our business through a continuously changing environment. We aim to address the sustainability of power generation, the coal-to-gas shift, the decentralization of energy supply and getting the existing infrastructure ready to serve a more sustainable energy world. Also, we want to help the process industries to reflect on the changes they are facing.

As part of its long-term strategy, SGRE introduced "Mistral", a new program that covers all areas of the business and prepares SGRE to meet the forecasted high demand in the wind energy industry. It is designed to lead SGRE to sustainable and profitable growth.

Despite the positive outlook for wind equipment manufacturers, challenges include rising raw material and commodity prices, supply chain disruptions, internal process delays and high production costs.

To address these challenges, three core actions in Mistral were introduced in fiscal year 2022 that will take place over three time frames:

- Product maturity and cost security in the short term: dedicated working groups to address the product maturity of the SGRE 5.X platform and to reduce non-conformance costs
- 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

Global annual investment in the energy sector should reach €4.2 trillion by 2030, 50% of which should be invested in power generation and transmission technologies[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 have spent roughly €1 billion on R&D each year over the past three years (see chapter Customers and innovation).

We provide a broad variety of products, solutions and services to our customers. As our customers are transitioning toward sustainable energy systems – and they all are at different points in their journey – we need to ensure that our products and services remain relevant in the future. Therefore, going forward, we aim to continuously develop these products and services to provide the profitability and cash flow we expect and aim to amend our portfolio accordingly.

[1] Source: IEA Net Zero Scenario.

In accordance with our ambition to become a leader in sustainability in the industry, we have started to apply sustainability criteria in portfolio decisions. This includes evaluating portfolio elements against EU Taxonomy criteria (see chapter **Decarbonization** and **SGRE Consolidated Non-Financial Statement 2022, G.2 Eligible activities**).

Reaching for net zero

In May 2022, we announced we would increase our climate action target with the long-term ambition to become net zero across the value chain (see chapter **Decarbonization**). This will require smaller and larger adjustments in our portfolio such as further SF_6-free products, the shift to green hydrogen and the development of battery energy storage. As early as November 2020, we announced that we will no longer participate in new tenders for power plants that will run exclusively on coal. For a transition period, we will continue to offer equipment for highly efficient applications such as combined heat and power generation, biomass co-firing and waste heat recovery, and will honor existing commitments. In April 2022, we also signed an agreement to divest our gas engine business to Mutares in fiscal year 2023.

To successfully combat climate change, we must begin decarbonizing our energy systems now. For the short to mid-term, power generation with natural gas will play a central role as a bridging fuel. Gas has lower CO_2 emissions compared to coal, supports energy security in times in which little to no energy can by generated by the sun or wind, can be transported cost-effectively and serves as energy storage. 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.

Still, we are facing diverse challenges around the world. We will need multiple technological solutions to provide regions with a sustainable energy supply for the future. Several key regions have already outlined targets, including large-scale investment in infrastructure and decarbonization. Siemens Energy is committed to deliver this support through our regional organization.

Successful customer acceptance test at Transformer Factory Dresden, Germany

Presidential Power Initiative (PPI)

The Presidential Power Initiative is the Nigerian government's flagship program to resolve challenges in its power grid that hamper the supply of electricity to its 219 million citizens. In July 2019, the Nigerian government signed an implementation agreement with Siemens AG (now Siemens Energy and Siemens AG) to execute the project in three phases.

The first project phase began in 2022, in which Siemens Energy is delivering in batches a total of 10 units of 132/33kV mobile high voltage substations and 132/33kV transformers to locations around Nigeria. This mobile equipment will help generate more power, reducing the country's reliance on diesel generators and thereby lowering pollution levels and emissions. Organizers behind the initiative hope that a more reliable power supply will enhance economic activity in the medium and small-scale sector and create more jobs for Nigerians.

Digitalization

Digitalization is one of the key levers to help the energy industry in its ongoing transition. At Siemens Energy, we are harnessing the power of data to accelerate sustainability using solutions to:

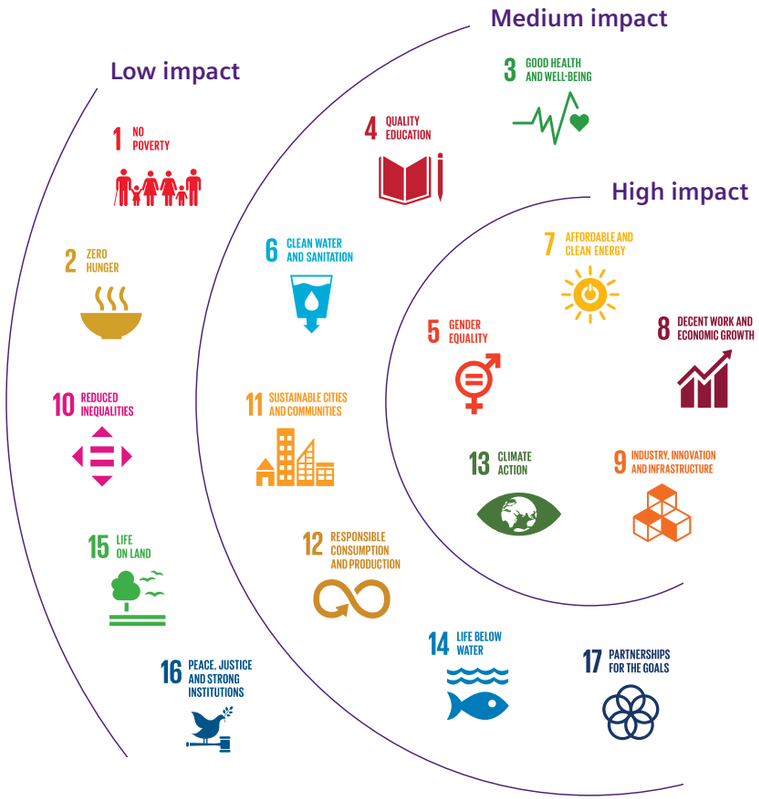
- Optimize consumption in our installed equipment: this combines our deep domain expertise of the equipment and advanced analytics techniques.
- Measure and certify end-to-end value chain compliance: for example, we have developed certification of green hydrogen via blockchain.
- Accelerate sustainability: new computing capabilities are allowing us to accelerate simulations of how new technologies will behave.

The common thread in all these approaches is our capability to simulate impacts of complete energy systems. This allows us to orchestrate 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.

Sustainable decisions

As a company with a strong focus on sustainability, it is essential that we integrate the consideration of ESG criteria in our decisions. At GP, we have done so by integrating a mandatory sustainability component in our qualification for suppliers with a purchasing volume above €10,000 and by conducting ESG due diligence in sales (see chapter **Customers and innovation**). Furthermore, we have developed a list of questions to be used when analyzing our merger and acquisition activities.

In fiscal year 2022, we went one step further and developed a criteria catalogue and scoring methodology to evaluate the ESG impacts of current and potential portfolio elements, considering both risks and opportunities. We are currently working on an evaluation approach for R&D and venture activities, taking ESG criteria such as climate impacts into consideration. Finally, it is a mandatory requirement in our capital expenditure (CapEx) projects with large investment sums to evaluate their GHG impact using a CO_2 shadow price of €100 per metric ton CO_2e.



Our impact on the Sustainable Development Goals

We have clustered the SDGs according to the impact we can have on them.

Our commitment to sustainability

Sustainability is firmly anchored in our company 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 Sustainable Development Goals (SDGs) guide us in our ambition to become a sustainability leader in the industry. To ensure our efforts have the biggest 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 creates 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 by working toward a net zero goal across the value chain.

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 the most relevant SDGs. It is also oriented toward our company 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 to reflect the voices of relevant external stakeholder groups such as customers, investors and partners.

At the core of our Sustainability Program is the goal to deliver sustainable energy systems along the entire value chain (see chapter Decarbonization). Different topics around responsible operations reflect Siemens Energy’s determination to take its ambition seriously by implementing respective programs.

Our businesses, regional entities and central Functions are responsible for implementing the Sustainability Program. Details can be found in the individual chapters of this report.

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.

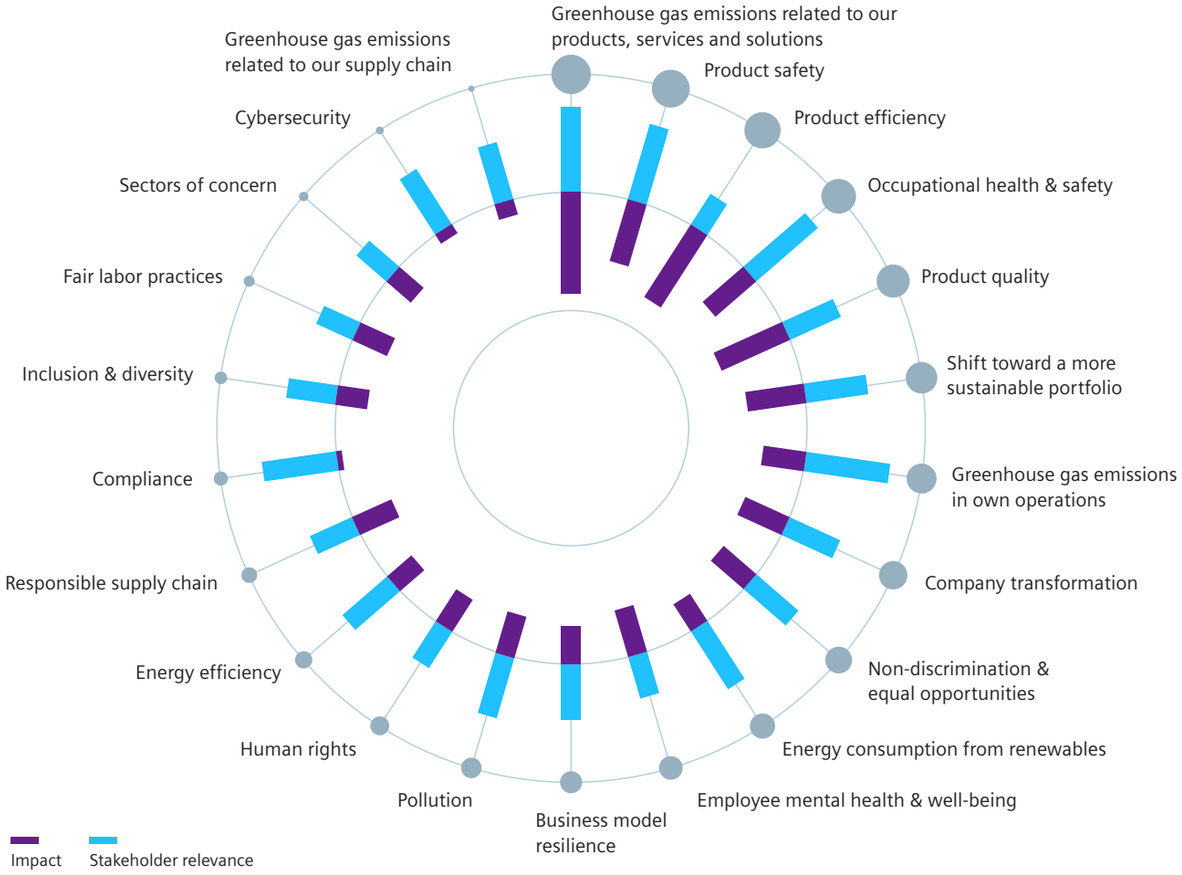
We have also established a Sustainability Council that meets on a regular basis and consists of decision makers representing Divisions, Regional Hubs and Functions. The Sustainability Council strategically oversees the implementation of the Sustainability Program by making decisions, setting priorities and focal points where needed, providing resources for implementation and being 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 the company-wide sustainability activities, programs and measures. As part of the new operating structure of the company, the Function "Strategy & Sustainability" reports directly to the CEO/CSO.

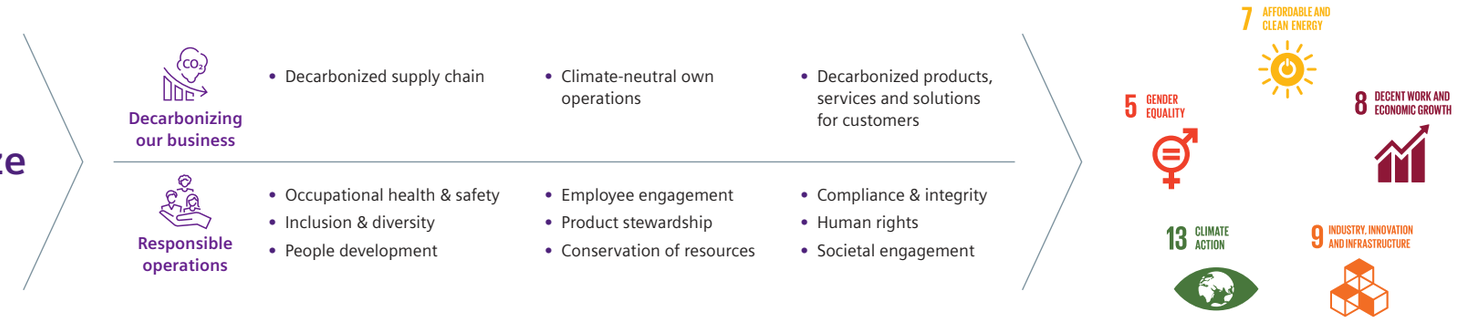
Furthermore, we have the goal to ensure all sustainability measures and initiatives are implemented in our organization and business activities. The respective organizational units have nominated sustainability business partners who implement the company program in their areas of responsibility.

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 2022, Compensation Report**.

Results of the materiality analysis



Our Sustainability Program



SGRE has its own sustainability approach, reflected in the Sustainability Vision 2040 (see ↗ SGRE Consolidated Non-Financial Statement 2022). In addition, SGRE underlined its commitment to sustainability by appointing their Chief Operating Officer (COO) to also take over as Chief Sustainability Officer (CSO) in June 2022.

Our ESG ratings show that we are on track with our Sustainability Program and in achieving our targets. Both the GP and SGRE reporting segments are rated by various ESG rating agencies, such as ISS ESG, Sustainalytics, MSCI ESG and CDP. The ratings support the objective assessment of our organization and identify areas for improvement. For more information on GP's ESG ratings and rankings, please visit our corporate website. Information on SGRE's latest ESG ratings is available on their website.

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 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 to better reflect the long-term effects of climate change on Siemens Energy by adding a "Climate" category to the four existing 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 fast an exposure will impact the organization and how resilient the organization is upon its occurrence. Therefore, vulnerability (susceptibility of a company in terms of a company's adaptive and coping capacity regarding a specific risk) and velocity (speed of occurrence of a specific risk impacting the organization) are fundamental characteristics to be respected, in particular when assessing transitional and physical climate-related risks.

Rating scores

Corporate Responsibility Prime RATED BY ISS ESG → **B- Prime**
» 1st decile rank in industry

SUSTAINALYTICS a Morningstar company → **#7 of 218**
» low risk

MSCI ESG Research → **A**
» on a scale from AAA to CCC

CDP DISCLOSURE INSIGHT ACTION → **B**
» on a scale from A to D-

For fiscal year 2022, the following risks with significant sustainability relevance were reported within the ERM:

- Critical supply chain
- Market and price development (e.g., shift from conventional toward renewable energy in the markets)
- Technology/portfolio gap compared to competitors
- Threats to cybersecurity, including product and solution security
- Climate change and decarbonization trend
- Pandemic diseases
- Adverse environment, health and safety (EHS) events
- Adverse developments in financial and bank markets (e.g., financing restrictions due to sustainability prerequisites)
- Requirements arising from ESG standards
- Allegation of compliance violation

For information related to these risks, please refer to the ↗ **Siemens Energy Annual Report 2022, Report on 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 internally and with external partners to analyze new regulations and standards, voice our position on them in cross-industrial associations and assess their importance for and effects on Siemens Energy. One example of this engagement is our participation in the Sustainable Finance Advisory Committee of the German Federal Government that aims to turn Germany into a leading location for sustainable finance.

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, European Partnership for Responsible Minerals (EPRM), OECD Multi-Stakeholder Steering Group (MSG), Copper Mark), 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 performance, decarbonization, responsible minerals sourcing	Sustainability, decarbonization, energy security, global challenges, business support	Sustainability performance, ESG-linked financing

Stakeholder engagement and collaborations

We firmly believe that sustainable development can only be achieved through the cooperation of a diverse set of actors. Regular dialogue with our stakeholders on the issues that affect our business and society is central to our sustainability strategy. Their feedback helps us respond quickly to dynamic market requirements, global developments and future trends. 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.

Close collaboration with different stakeholders is necessary to tackle the complex challenges we are facing. Working on these problems across organizations using a full range of resources, perspectives and experience can

lead to better innovation and business outcomes that benefit society. In our new Corporate Center in Berlin, Energy Sphere, we aim to lead a dialogue with politicians, customers and other stakeholders from around the world and showcase technologies to master the energy transition.

The exchange of knowledge through these engagements creates value on all sides and reduces risks externally and internally. At Siemens Energy, we continuously analyze existing partnerships and memberships. We are also continually establishing 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 in political bodies, for example in the Roundtable on clean hydrogen in the energy sector, of which our CEO is the chairman, or in Nigeria with the Presidential Power Initiative. We partner closely with government think tanks, for example in China, where Siemens Energy collaborates with the State Power Investment Corporation (SPIC), one of the world's leading power generation companies with the largest installed capacity of solar power. Through our engagement on the board of Norwegian Energy Solutions we support business leaders in their endeavor to accelerate the energy transition, drawing on their broad expertise in the oil and gas industries.

Roadmap for low-carbon development in China

Joint white paper on China's low-carbon energy development

In China, Siemens Energy has teamed up with the State Power Investment Corporation (SPIC), the world's largest solar power generation company and one of the largest energy companies in China, to study policy trends and the low-carbon development of counties across the nation. It also analyzed typical development patterns, drew comparisons between China and Germany and recommended roadmaps for the low-carbon development of China at the county level. The research was published in a white paper and released by Siemens Energy CEO Christian Bruch and SPIC Chairman Qian Zhimin in late 2022 to coincide with the 50th anniversary of German-Chinese diplomatic relations.

As part of our partnership with the International Renewable Energy Agency (IRENA), Siemens Energy is participating in a workstream that focuses on the assessment of energy healthcare facilities in Burkina Faso. In September 2022, the new IRENA Decarbonization Alliance was announced that aims to facilitate dialogue on decarbonization.

We are continuing to host our "Energy Weeks" throughout the year. The events consist of three-day virtual sessions that bring together global energy businesses, market leaders, policymakers and government representatives to discuss regional challenges and opportunities facing the energy sector in its transformation toward decarbonized energy systems.

2 Decarbonizing our business

Customers and innovation	23
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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.

46
Net Promoter Score (NPS)[1]

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

Focus
We select, prioritize and commit to ideas from a strategic perspective

Accelerate
We accelerate ideas to maturity through dedicated channels

Sustain
We strive for tangible returns and measurable value creation

€ 1.1 billion
investment in R&D

[1] Index measuring willingness of customers to recommend a company's products or services to others.

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.

Net zero supply chain

Status 11%

Target reduction of relative Scope 3 GHG emissions in our supply chain by 2030[2]:
30%

Climate neutrality in our own operations by 2030

Status 50%

Target reduction of relative Scope 1+2 GHG emissions[3] by 2025:
46%

Net zero products, services and solutions

Status 12%

Commitment via SBTi[4]:
28%
reduction of GHG from the use of sold products by 2030[3]

Status 52%

Target reduction of SF_6 emissions compared to 2019:
60%

Status 90%

Target:
100%
share of renewable electricity by 2023

SGRE: net zero by 2040

[2] kg CO_2e/€ PVO spent, base year 2018; reporting segment GP. [3] from a 2019 base; reporting segment GP. [4] SBTi = Science Based Targets initiative.

Customers and innovation

Collaboration and partnerships are invaluable for developing our diverse portfolio of innovative technologies and continuing to offer our customers tailor-made energy solutions.

- **Increased focus on our customers, transparency, accountability and a unified go-to-market approach as part of the new organizational structure**
- **Global integration fortification: we interconnect products, services, regions and industries worldwide**
- **Continuous investment in innovation and R&D to ensure competitiveness on the renewable energy market**

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 bringing 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. Advancing digitalization, the need to decarbonize 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 logical result 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 innovative company culture is based on a common mission and on 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, as we see this as the foundation for successful innovation. Our “Honestly” campaign reflects our innovation culture – we say what truly needs to be said so that we can better drive transformation forward together at speed.

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 offerings, 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, from Europe to the U.S. and Asia-Pacific.

We are increasing our customer focus, transparency and accountability. On April 1, 2022, GP implemented our new account management system and a new go-to-market approach, which is an integral part of our new operating model. The approach sets out clear responsibilities for Divisions, Regional Hubs and Corporate Functions to foster transparency, simplify processes and speed up our service (see chapter → **Siemens Energy at a glance**). To foster responsible business practices in our customer projects, GP has implemented an ESG due diligence approach early in the sales process. This has already contributed to the decision not to bid for projects where environmental and/or social risks are not acceptable.

GP 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 2022, we conducted a total of approximately 3,900 NPS interviews and received an NPS result of 46 (2021 result was 45)[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. Given the challenging external environment in fiscal year 2022, we see a one-point improvement as relatively positive. Our goal, however, is to continuously improve our customers' satisfaction. The individual Businesses evaluate the specific responses, follow up with the customers personally and take the necessary steps to improve customer experience (e.g., process amendments, training measures).

The SGRE reporting segment has its own organizational setup. Please see the ↗ **SGRE Consolidated Non-Financial Statement 2022, A.1 Siemens Gamesa at a glance**.

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, GP is 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 SDGs and further internationally established frameworks, such as the Paris Agreement.

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

Growing market: highly efficient electrolyzer stacks

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 June, we announced a joint venture with Air Liquide, a world leader in gases, technologies and service for industry and health, to build 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. The factory will supply stacks to both companies for their respective range of customers and serve the rapidly growing market.

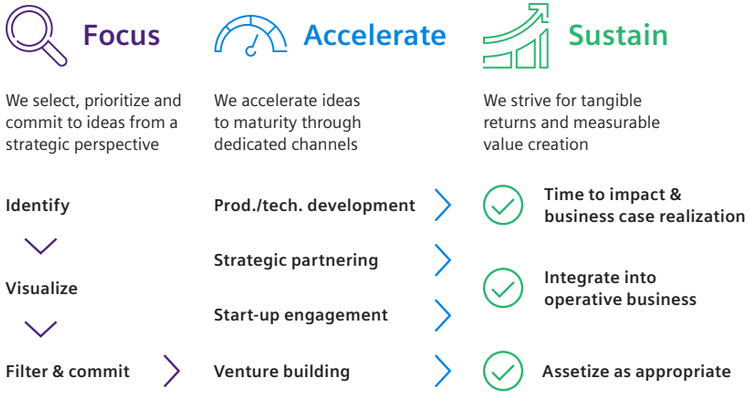
In Denmark, Siemens Energy has secured an order from European Energy for the delivery of an electrolyzer plant. The Danish developer and operator of green energy projects is developing the world's first large-scale commercial e-methanol production facility using green hydrogen from a 50-megawatt electrolyzer plant by Siemens Energy. The plant is to be built in Kassø, in the south of Denmark. Through its proximity to European Energy's 300-megawatt solar park in Kassø, the project will have access to the low-cost renewable electricity needed to produce cost-effective e-fuel.

Strengthening the core, growing from the core and transforming the future – supported by our nine technology fields – continue to be the three main aspects of our GP innovation strategy. We continue to develop our five fields of action, focusing on energy landscape transformation and the sustainability of our portfolio.

Five fields of action:

- **Decarbonized heat and industrial processes:** high-temperature heat pumps, fuel cells, industrial waste heat recovery
- **Power-to-X:** direct air capture, offshore hydrogen, e-chemicals/fuels
- **Resilient grids and reliability:** asynchronous rotating energy system stabilizers (ARESS), grid automation, Sensproducts™, remote operations services
- **Condition-based service interventions:** digital twins for energy consumption, autonomous operation, reliability or microgrids
- **Energy storage:** li-ion batteries, long-duration energy storage, redox flow

Three elements for successful innovation



We have identified and selected specific technologies for short-term, mid-term and long-term research and development within the five fields of action as the foundation for our simple, fast and unified process to build business in support of the Three Pillars of GP:

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

Our GP Technology and Innovation (TI) Council[2] continues to meet quarterly with all Executive Board members, Division Heads and our Chief Technology Officer, overseeing our activities and expenditures in the five fields of action, nine technology fields and R&D in general. Three elements are unchanged and of key importance in the implementation of our innovation approach:

1. Focus: We select, prioritize and commit to ideas from a strategic perspective

2. Accelerate: We accelerate ideas to maturity through dedicated channels:
- Product and technology development – to adjust and accelerate Siemens Energy's portfolio within company-wide guidelines
- Strategic partnering – to develop our innovation ecosystem
- Start-up collaboration – through venture clienting and venture capital
- Venture building – to grow and spin out internal ventures

3. Sustain: We strive for tangible returns and measurable value creation through business case realization, integrating ideas into our operative business

[2] TI Council does not include SGRE.

R&D at SGRE is focused on developing the next generation of technology that will lead to improved and more cost-effective products, solutions and services. SGRE is developing 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 and its production of green hydrogen. SGRE is also exploring opportunities in adjacent business fields, including other renewable energy sources, hybrid parks and storage in order to deliver solutions for the system integration of renewables.

The SGRE innovation culture team specifically supports the above with company-wide design thinking training sessions and team workshops for employees as required. These include, for example, a series of in-person internal workshops on innovation tools to solve specific challenges, started in 2022.

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. SGRE product innovations have received recognition in the industry. For example, the offshore turbine 14-222 DD won the "Product Innovation of the Year" award issued by the German Renewable Awards in November 2021.

For more details, please refer to the ↗ **SGRE Consolidated Non-Financial Statement 2022, A.1.6 Innovation, Research & Development**.

In fiscal year 2022, Siemens Energy invested €1,078 million in R&D (fiscal year 2021: €1,155 million). The resulting research intensity, defined as the ratio of R&D expenses to revenue, was 3.7% (fiscal year 2021: 4.1%). Additions to capitalized development expenses amounted to €193 million (fiscal year 2021: €188 million) in fiscal year 2022. Around 18,300 (September 30, 2021: 18,300) patents were held by Siemens Energy as of September 30, 2022. On average, we had about 5,300 (fiscal year 2021: 4,900) R&D employees in fiscal year 2022.

Hywind Tampen, pioneering floating offshore wind technology

Floating wind farms

Floating wind farm technology is offering new opportunities to harness clean offshore wind energy further out to sea, where the winds are stronger and more consistent but the sea is too deep to build fixed turbines. Siemens Gamesa Renewable Energy is a pioneer in the floating wind farm market and is involved in several projects in the North Sea, including the Karmoy demonstration project off the coast of Norway and the Hywind Scotland commercial wind farm. Its latest project, Hywind Tampen, was installed in 2022, 140 kilometers off the coast of Norway, at a water depth of 260 to 300 meters. The 11 turbines are moored on floating cylindrical spar buoys and anchored to the seabed by chains.

Innovation beyond our company borders

We know that we cannot fulfill our mission alone. Our external partnerships are valued for their potential to fulfill future business needs. Collaboration is crucial, allowing us to collect expertise, co-create new technologies and broaden our customer base. Our open innovation ecosystems 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, GP established four new Global Innovation Centers in fiscal year 2022 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 partnerships
- Closing technology gaps and accessing new business models as part of the newly-established partnership framework

GP continues to cooperate with 10 of the top 25 world-ranked universities. We work together with scientists at top universities and research institutions worldwide on the advancement of technologies that contribute to sustainable energy systems of the future, both in bilateral research and publicly funded research projects.

We are, for example, working 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. The H2Mare initiative under the consortium lead of Siemens Energy is a modular project consisting of multiple sub-projects to which more than 30 partners from industry, institutes and academia are contributing.

Furthermore, since 2020, our GP Siemens Energy Ventures (SEV) team has been focused on building, piloting and investing in ventures with potential to shape the sustainable, affordable and reliable future of energy. In the start-up ecosystem, SEV takes a "give first" approach toward co-development, meaning that SEV gives their expertise and resources to their selected start-ups first. This allows SEV to find the right mechanisms and develop the right mindset to support our customers, founders and business to accelerate our collective journey to net zero.

One example of SEV support is in the use of drones to improve on-site inspections and monitoring of power plants. The project was undertaken by our venture clienting team, which aims to solve internal business challenges using start-up solutions. We became an early customer of the start-up, enabling access to solutions that can be tailored to our needs. The challenge was to improve operation levels within a power plant, while ensuring employee safety. Having scouted start-up solutions for demonstration, we chose Percepto as our external partner. Their industry-grade drones collect data that undergoes analysis using artificial intelligence and deep-learning algorithms. The output, following each mission, consists of reports that identify relevant actions to be taken. Early identification and resolution of these issues aim to ensure production at the power plant continues. Following a successful pilot, we are scaling up the solution at eight additional sites across the world.

SGRE 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. SGRE tracks active R&D collaborations in a University Relations Dashboard, which shows more than 100 collaborations that started or were ongoing in 2022.

The start-up ecosystem is also a source of new technologies and trends for SGRE. SGRE accesses and exploits start-up innovations globally and systematically by defining its technology needs. By working with start-ups, SGRE gains access to R&D pipeline input from technologies developed by entrepreneurs. Both start-ups and SGRE can learn from each other and create knowledge by combining ideas and experience.

The Offshore Wind innovation eXchange (OWiX) is an accelerator scheme in the UK that runs competitions to connect solution providers with industry. For the field “digitalized logistics”, a port site logistics challenge was launched by SGRE within OWiX that ultimately resulted in an ongoing cooperation with UBISENSE that started in 2021. Bilateral agreements with start-ups are signed for proof of concept and market access. By utilizing the OWiX challenge, SGRE gets fast access to new ideas in the marketplace, as companies are invited to submit their solutions. Cooperating with start-ups also addresses global sustainability goals, such as SDG 12 “Responsible consumption and production”, while giving entrepreneurs access to large corporations like SGRE.

Cybersecurity

Siemens Energy cybersecurity aims to protect our business operations, information assets, data and information technology (IT) / operational technology (OT) infrastructure. In addition, its goal is to ensure 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. SGRE has set up separate cybersecurity governance and a program with similar aims: to protect information and corporate IT assets (IT cybersecurity) as well as products, solutions and services offered to the renewable energy market (OT cybersecurity). This is based on industry standards and best practices aligned with global regulatory requirements. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, A.2.1 Megatrends Accelerating the Energy Transition**.

Cybersecurity is the responsibility of every employee and thus a collaborative task, where the degree of involvement and responsibility depends on individual roles and functions. Our Cybersecurity Function's principal task consists of defining and monitoring requirements and demanding status reports from the Heads of Divisions, New Energy Business, Excellence Horizontals 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.

	Fiscal year
Cybersecurity training[1]	**2022**
Share of active Siemens Energy employees that completed web-based training in cybersecurity	99%

[1] Without SGRE.

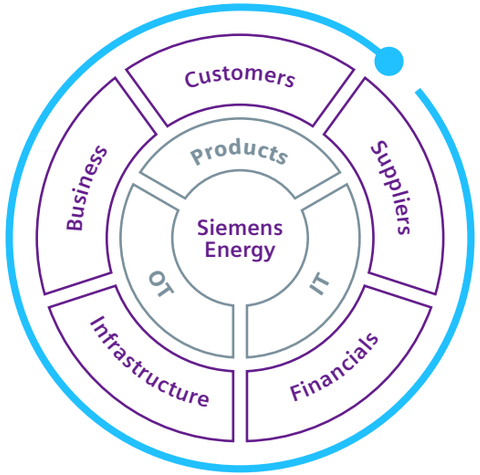
The objectives of our cybersecurity activities are to provide adequately secured products, solutions and services as well as dedicated cybersecurity support to our customers. All of this is based on secure internal IT and OT, is intended to protect all relevant assets against cyber threats and is planned to manage associated risks. This is supported by the following strategic objectives:

- Cybersecurity enables our business to protect adequately against cyber threats and helps us to create business opportunities (business enablement)
- Cybersecurity continuously improves resilience through clear and holistic accountability and ownership (operational excellence)
- Cybersecurity develops and adopts leading technologies and leverages the Siemens Energy ecosystem (technology & innovation)

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, and 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 launch of the new Cybersecurity Orbit platform gives Siemens Energy the insight to focus on upcoming trends and technologies in cybersecurity, transform them into focus areas to provide strategic guidance and launch and orchestrate innovation projects.

Our cybersecurity approach



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 cybersecurity topic for all employees and foster a culture of cybersecurity awareness. The program includes a global employee Cybersecurity Awareness Month in October with panels, podcasts, workshop sessions, news articles and multimedia learning content.

Putting renewable hydrogen on the fast track

Reaching global targets for greenhouse gas reduction will require a massive scaling-up and speeding-up of renewable hydrogen production – already in Europe alone, 20 million metric tons will be needed by 2030. So just how will the renewable hydrogen market be accelerated? The answer, say Dominique Rouge and Stefano Innocenzi, lies in new partnerships.

Dominique Rouge, Vice President of Sales & Technology, Engineering & Construction, Air Liquide, started as a research engineer and has been working with the "small molecule" hydrogen for decades.

Stefano Innocenzi, Senior Vice President for Sustainable Energy Systems, Siemens Energy, began his career designing hydrogen plants. "I have built, operated and done everything around hydrogen."

Stefano Innocenzi: Dominique, if we look at the development of renewable hydrogen, we have to some extent the issue that every new industry has, which is the chicken and egg question.

A lot of companies need clear subsidies, quotas and frameworks – as well as clear competitive costs for renewable power and electrolyzers before making an investment, but if you do not start, you will never get to the economy of scale so crucial to decarbonizing society.

Dominique Rouge: Absolutely, first we need large projects and mass, large-volume manufacturing, and that is the challenge we are addressing with our partnership, where we are joining the best of two worlds. Siemens Energy has strength in manufacturing, industrial capabilities and technology. Air Liquide has strong experience in electrolyzer operations.

Stefano Innocenzi: And our partnership will help because we will get the production volumes for our customers and the knowledge of companies that have rarely been in such a venture before, right? Normally, you rarely find those capabilities all combined in one offering. How do you think bringing them together is helping both companies drive sustainability?

Dominique Rouge: Well, we want to bring up our electrolysis capacity to 3 gigawatts before 2030. So, Air Liquide needs both large renewable hydrogen projects and mass electrolyzer manufacturing, and we need strong partnerships like ours to put those two things together.

Fundamentally, the partnership is really articulated around two strong pillars: the joint development of a new generation of electrolyzers and the large mass manufacturing of stacks. These two pillars will let us come to the market with power-to-X solutions for our customers.

Stefano Innocenzi: For us, Siemens Energy has been developing PEM electrolyzers since 1995. Having Air Liquide be part of the development around balancing stacks and operations is a big plus – in my experience, an industrial gas company like Air Liquide can only help us be more competitive!

“If you do not start, you will never get to the economy of scale.”

Stefano Innocenzi

Dominique Rouge: And Siemens Energy will be able to develop an extensive offering of renewable hydrogen supply for their customers.

Stefano Innocenzi: The two companies have been smart in that sense, really taking the opportunity to look at the win-win. And I fully agree with how you have described the two pillars: make the existing product better, develop new and innovative products, and then ramp up the manufacturing and increase the volumes and capabilities of both companies.

Dominique Rouge: I would say that is the beauty of this overall partnership.

Stefano Innocenzi: If we are smart, we will find many more areas in which we can create value with these two companies. And we will need more partnerships like this because we have these cross-sector interactions. So, what are some concrete projects allowing us to do this?

Dominique Rouge: One of the first key areas is the industrial basins where Air Liquide is already operating, but also basins for the steel industry, where we can create large electrolyzer projects.

The 200-megawatt electrolyzer project in Normandy, France, one of the largest in the world, was the opening of the partnership, and it is just one example. We also intend to do this very large mass manufacturing of stacks from a first electrolyzer factory in Berlin – there could be others in the future – quickly ramping up production to 3 gigawatts per year by 2025.

Stefano Innocenzi: What impact will all this have on industry?

Dominique Rouge: Hydrogen is really a key element in decarbonizing feedstock for the chemical and refining industry. There are already new decarbonization applications that will be based on hydrogen. In the steel industry, the switch from blast furnace to DRI (direct-reduced iron) has to be supplied with low-carbon hydrogen. And we should not forget mobility. We talk a lot about industry, but mobility is also driving the need for renewable hydrogen.

Stefano Innocenzi: And industry and mobility are the two areas identified by the European Union. If you look at Fit for 55 (the EU’s plan to reduce greenhouse gas emissions by at least 55%), these are exactly the two areas being targeted: not only heavy-duty mobility, but aviation and shipping also require new, cleaner fuels with e-fuels that can be produced from renewable hydrogen.

You know, I think Europe is the place where the majority of the activity is happening at the moment because of the strong government support and the willingness of companies and society to make this change. And now with the Ukrainian crisis, I think there is even more political need for energy independence and obviously, renewable hydrogen and renewables can support this energy.

Dominique Rouge: Well, we need real industrial solutions, not only dreamers, I would say – real industrial solutions to make it happen with a long-term plan because we also have the responsibility to bring costs down.

“We are joining the best of two worlds.”

Dominique Rouge

Decarbonization

The demand for secure energy is rising, and climate change calls for lower emissions. Our biggest lever for decarbonization is through our portfolio of products that help our customers reduce their emissions.

- **We aspire to reach net zero across the entire value chain**
- **We have defined interim targets in all scopes**
- **We have established critical levers to reach these targets**

The impacts of climate change, coupled with a rising global demand for energy, pose an enormous challenge for our planet. As this demand increases, so too could levels of damaging GHG. With the impact of the energy sector far greater than that of every other sector combined, our task as an energy company is clear: to meet the growing need for energy while actively shaping the path to decarbonization. This poses risks and opportunities for our company, which we manage in our Enterprise Risk Management (see chapter → Strategic focus).

We are following an ambitious strategy to drive the decarbonization of global energy systems. 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. On May 24, 2022, Siemens Energy hosted its Capital Market Day in Berlin, where we announced our aspiration to reach net zero across the entire value chain, in line with a 1.5°C pathway. Central to this is our target to become climate neutral in our own operations by 2030.

In 2021, the Science Based Targets Initiative (SBTi) validated the absolute GHG reduction targets for GP, not only for our own operations (Scope 1 and 2), but also for the use phase of our sold products (a category of Scope 3). This confirms that our targets are in line with the Paris Agreement.

The SBTi also verified that SGRE’s emissions reduction targets (Scope 1 and 2) are aligned to meet the 1.5°C Paris Agreement goal. SGRE achieved climate neutrality in its own operations in 2019, including offsetting unavoidable emissions. It plans to achieve its Scope 1 and 2 neutrality without offsets in 2030 by:

- Applying energy reduction, substitution and efficiency measures
- Drawing electricity supply from renewable sources
- Switching to green mobility to reduce fleet emissions
- Increasing awareness campaigns and collecting employee ideas

SGRE now aims to go beyond carbon neutrality to become a carbon sink (carbon positive) in its own operations by 2040, for example by cultivating CO_2-absorbing microalgae. Additionally, SGRE seeks a zero-emission supply chain by 2040. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C.2 Climate Change**.

In meeting the targets of the Paris Agreement, we are also helping to meet the climate and energy targets of the European Union (EU). As part of its European Green Deal, the EU has implemented a classification system – the EU Taxonomy – that aims to direct investments toward sustainable projects and activities. The Taxonomy lays down criteria for the definition of environmentally 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 will only report 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". The future reporting obligation will additionally cover Taxonomy-eligible natural gas and nuclear power activities, Taxonomy-aligned shares of revenues, CapEx and OpEx, as well as the other four environmental goals. For further information please refer to ↗ **Siemens Energy Annual Report 2022, EU-Taxonomy**.

EU Taxonomy (%)	Fiscal year 2022[1]
Share of turnover from EU Taxonomy-eligible activities	57
Share of capital expenditures from EU Taxonomy-eligible activities	79
Share of operational expenditures from EU Taxonomy-eligible activities	40

[1] Excluding natural gas and nuclear power activities (Complementary Climate Delegated Act)

Our GP climate goals are also part of our Long-Term Incentive plan and hence firmly anchored in top management compensation (see chapter ⇥ **Strategic focus** and ↗ **Siemens Energy Annual Report 2022, Compensation Report**).

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**.

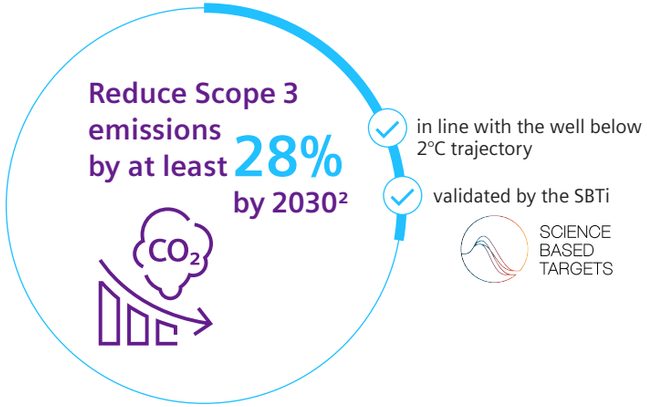
With a focus on sustainability, we will continue to transform our portfolio of products, solutions and services, and we will focus on building the company based on three strategic pillars (see chapter ⇥ **Strategic focus**):

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

As a provider of clean and affordable energy, SGRE'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. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C2.4 Strategy: Strategy to Tackle Climate Change**.

Scope 3 emissions reduction target

Our GHG emissions reduction target for Scope 3[1] emissions for the GP reporting segment:



[1] Includes category "use of sold products" only.
[2] From base year 2019.

Decarbonization at our customers

To reflect the importance of our products and solutions for decarbonizing energy systems worldwide, 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.

On our path to a net zero value chain, we at GP have set ourselves an interim target to reduce GHG emissions by 28% until 2030 from a 2019[1] base. The SBTi confirms that our target for the use of our sold products is in line with the Paris Agreement goal to limit global warming to well below 2°C. The bulk of emissions will be reduced through measures such as portfolio adjustments, fuel shifts and emission removal technologies (see chart below). We expect most of our emissions reductions from sold products will happen after 2030, as we expect markets and technologies still need to mature and scale.

[1] Baseline fiscal year 2019, 1.5 billion metric tons CO_2e.

Generating heat from cold for city buildings

Heat pump for Berlin

From data centers to manufacturing, many industrial processes generate waste heat that can be consolidated and used for heating via large-scale heat pumps. Siemens Energy has delivered a new high-temperature heat pump at Potsdamer Platz Cooling Center in Berlin that uses a seemingly paradoxical concept: generating heat from cold. For 25 years, the cooling center at Potsdamer Platz has been supplying surrounding buildings with locally generated cooling from cold water. In cooling the buildings and technical equipment, the water absorbs heat which, until now, has been returned to cooling centers and the waste heat released to the environment via cooling towers. Now, however, the new high-temperature heat pump process uses this waste as a source and, using renewable electricity and an environmentally friendly refrigerant for the heat pump, raises the residual heat up to 120°C, which then flows into the city heating network.

Our Scope 3 emissions from the use of sold products have been calculated based on the GHG protocol standards. The main drivers for GHG emissions are the direct combustion of fuels in our products as well as the electricity consumption and power losses of our products. These emissions include[2]:

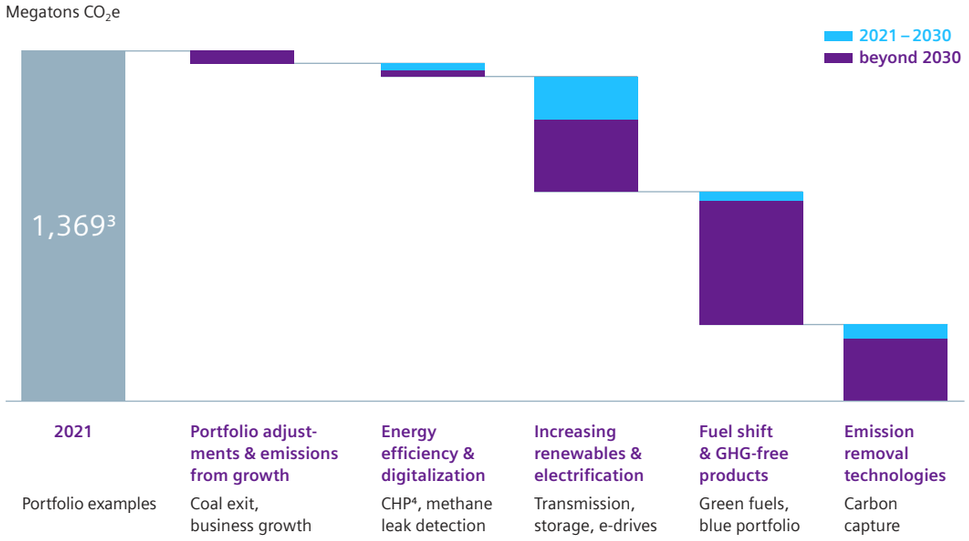
- Direct emissions: Essentially, GHG emissions are generated through combustion of fossil fuels (e.g., natural gas in a gas turbine). The amount of CO_2 equivalent (CO_2e) emissions varies depending on the type of fuel (e.g., natural gas, oil) and the energy efficiency of the product (gas turbine, steam turbine, engine, etc.).
- Indirect emissions: These are GHG emissions from large electrical consumers (e.g., motors, drives, pumps) or from power losses (e.g., transformers) from the used products. To a minor extent, the transmission portfolio emits CO_2e via SF_6 gas leakages at customers' sites.

Scope 3 downstream emissions		Fiscal year
(1,000 metric tons CO_2e)	2022	2021
Total[1]	1,323,012	1,369,163
Intensity (t CO_2e/ € of order intake)	0.035	0.041

[1] Includes category "use of sold products" only (well-to-tank emissions are included, biogenic emissions have been excluded). SGRE emissions equal zero.

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 2022 over their expected use-phase and the expected operating hours per year. With order intake, the total respective emissions

Scope 3[1] emissions reduction measures[2]



[1] Includes category "use of sold products" only.
[2] As presented at Capital Market Day in May 2022.
[3] Fiscal year 2021 GP customer emissions calculated.
[4] Combined Heat and Power.

are determined and reported. GHG emissions that occur during other phases of a product's life cycle, such as in the supply chain, production or end-of-life disposal, are not accounted for or reported on in Scope 3 downstream (use of sold products).

The 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 aware that reducing the footprint from our installed base is important to reducing global CO_2 emissions.

Siemens Energy's total Scope 3 emissions from the use of sold products during the reporting period was 1.32 billion metric tons CO_2e. Compared to fiscal year 2021, this is a decrease of about 3% in total emissions and 17% in intensity. The main reason for this decline is the coal exit announced in November 2020, according to which Siemens Energy will no longer participate in new tenders for pure coal-fired power plants. Having received an order for a large coal-fired power plant in Indonesia in fiscal year 2021 (this project-related commitment to the customer was made before our decision to phase out coal), there was no corresponding order intake in fiscal year 2022. However, the positive effect of the coal exit is mostly offset by a strong order intake for large and industrial gas turbines.

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, the GP reporting segment 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 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 50% compared to fiscal year 2019.

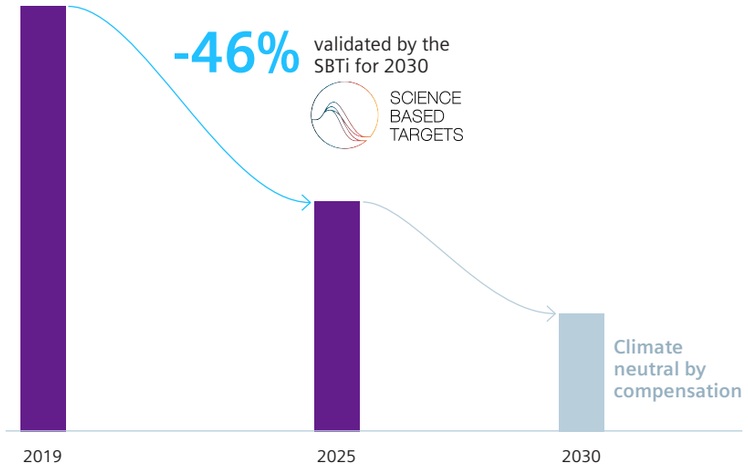
The strongest levers to achieve climate neutrality by 2030 are:

1. Reducing energy consumption
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.

2. Using renewable electricity
100% of Siemens Energy's global electricity consumption should be met by power from renewable sources by 2023. In fiscal year 2022, we achieved 90%.

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

Our GHG emissions reduction target for Scope 1 and Scope 2 emissions for the GP reporting segment:



Zero Emission Hydrogen Turbine Center, Finspang, Sweden

Climate Neutral Program

Our Climate Neutral Program was launched to help Siemens Energy reach its target to reduce emissions from our own operations (Scope 1 and 2) to carbon neutral by 2030.

One of the biggest levers to achieve this is increasing annual sourcing of renewable electricity to 100% by 2023[1]. In fiscal year 2021, around 76% of our electricity needs were covered by green electricity. For fiscal year 2022, this increased to around 90%, greater than our target of 84%.

Currently, photovoltaic (PV) systems are already in operation at Siemens Energy facilities in Germany, Croatia and Sweden, and we are installing more in Egypt, China and India. Further PVs are planned in more countries.

While increasing green electricity is essential for decarbonizing our own operations, it is only a first step in our journey to become climate neutral. We are also looking at energy efficiency, electrification and alternative sources of heat to further reduce our carbon footprint.

[1] SBTi approved.

Premiere for China: Blue GIS zero-carbon switchgear

First zero carbon emission substation of the world's biggest power grid company

The Siemens Energy High Voltage Switchgear team in Shanghai has successfully put China's first 145kV Blue GIS into operation in Wuxi, China. The project was carried out in cooperation with the State Grid Corporation of China (SGCC), the world's largest power grid company, which serves more than 1.1 billion people and supplies 88% of China's electricity. Using SF_6-free vacuum arc extinguishing and clean air insulation technology, the zero-carbon substation is an important solution for SGCC in its mission to achieve carbon neutrality.

3. Reducing SF_6 emissions

SF_6 emissions in our operations occur in products in our Transmission Division. With the expansion of our Blue Portfolio, together with the stringent measures in our facilities, we have set ourselves the target to reduce our SF_6-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, we have surpassed our ambitious reduction target. In fiscal year 2022, we achieved a reduction of 52% compared to the base year and 14% compared to fiscal year 2021.

Our SF_6/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

In fiscal year 2022, unfortunately, fleet emissions rose due to increased travel activity after the COVID-19 break. We are aiming for 100% CO_2-neutral benefit cars by 2030 by implementing our car policy globally. In Germany, for instance, employees receive better company-financed leasing conditions when choosing a battery electric vehicle or plug-in hybrid electric vehicle instead of a conventional fuel or diesel car.

	Fiscal year	
Siemens Energy fleet	**2022**	**2021**
Number of vehicles	~5,300	~5,400
Fleet consume (1,000 GJ)	435	392

SGRE has also implemented local country-specific transportation policies that ensure low-carbon mobility is the preferred option for benefit cars and promote the transition of service vehicles to low-carbon alternatives. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C2.4 Strategy: Strategy to Tackle Climate Change**.

Where SGRE cannot reduce or transition its energy in its own operations, it will compensate for the non-avoided emissions by investing in environmental projects that aim to reduce future emissions to balance its GHG footprint. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C2. Climate Change**.

Internal CO_2 pricing

CO_2 pricing is a further steering mechanism for achieving climate neutrality. We believe binding CO_2 budgets for all sectors and regions as well as clear CO_2 price signals can guide us toward the 1.5°C target. These price signals encourage the deployment of the best technologies and business models available. Internally, we have implemented a guideline to consider GHG emissions in our CapEx decisions and ensure that new investments are supporting our Climate Neutral Program. To support low carbon investment in our own operations, we introduced a shadow price of €100 per metric ton of CO_2.

In Brazil, Siemens Energy has implemented an internal carbon price. Each Business Unit pays a specified carbon fee into an investment fund, which is then used to invest in low-carbon projects. This fund was rolled out to all Latin American regions by the end of fiscal year 2022. In the first phase, the internal carbon price was collected from the Business Units (based on their previous emissions) and reverted to the fund. A project campaign was then launched to collect project ideas linked to energy efficiency and the sustainability of operations. The selected projects pitch their ideas to the Neutral CO_2 Steering Committee to grant the investment to implement them.

Energy consumption and GHG emissions

We calculate the energy consumption of our offices and manufacturing facilities by adding the primary and secondary consumption of fuels and electricity. We have implemented a new global EHS reporting tool and increased our reporting scope to include more company locations in the direct reporting, which has led to better data transparency.

Energy consumption (1,000 GJ)	Fiscal year 2022	2021
Primary energy	**2,103**	2,362
thereof natural gas & liquid petroleum gas	1,825	2,037
thereof fuel oil, coal, gasoline, diesel	211	280
thereof biogas	63	37
thereof other	5	5
Secondary energy	**3,694**	3,967
thereof electricity	3,117	3,279
thereof electricity from renewable sources	2,817	2,496
thereof district heating	577	688
Total	**5,797**	6,329
Intensity (GJ/€ of revenue)	2.00×10^{-4}	2.22×10^{-4}

Siemens Energy's total energy consumption during the reporting period was 5.8 million gigajoules (GJ), resulting in an intensity of 2.00×10^{-4} GJ/€ of revenue. Compared to fiscal year 2021, this is a decrease of 8% in absolute energy consumption, which is mainly attributable to the implementation of energy efficiency projects.

In the context of our Climate Neutral Program and our target to have 100% of our global electricity consumption from renewable sources by 2023, we managed to reduce emissions through electricity from renewable sources by about 196,000 metric tons CO_2e (fiscal year 2021: 205,000).

Renewable energy (%)	Fiscal year 2022	2021
Share of renewable electricity (of total electricity)	90	76
Share of renewable energy (of total energy)	50	40

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

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.

Scope 1 and 2 emissions (1,000 metric tons CO_2e)	Fiscal year 2022	2021
Scope 1	**188**	206
thereof natural gas & liquid gas	102	111
thereof fuel oil, gasoline, diesel	15	21
thereof SF_6	35	41
thereof fleet emissions	32	29
thereof other emissions	3	4
Scope 2	**27**	67
thereof electricity	9	34
thereof district heat	18	32
Total	**215**	273
Intensity (t CO_2e/€ of revenue)	7.42×10^{-6}	9.57×10^{-6}

In fiscal year 2022, we managed to reduce our Scope 1 and 2 emissions by around 21% or 58,000 metric tons, resulting in a Scope 1 and 2 intensity of 7.42×10^{-6} t CO_2e/€ of revenue in 2022 compared to 9.57×10^{-6} t CO_2e/€ of revenue in 2021. The main levers were an increase in green electricity, reduced overall energy consumption as well as a continued reduction of SF_6 emissions. More than 50% of our emissions occur in Germany, China and the U.S.[4].

[4] Without fleet emissions.

Atmospheric pollutant emissions
Other atmospheric pollutant emissions also have negative impacts on the environment. These include volatile organic compounds (VOC) 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. ODS 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	Fiscal year	
(metric tons)	2022	2021
VOCs	275	440
ODS (in R11 equivalent)	0.009	0.027
NO_X	74	81

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, which offers an economic model based on an input/output analysis that identifies the CO_2 footprint of all suppliers. With the procurement volume and the material-country combination, the model calculates the CO_2 footprint in the supply chain based on official statistics and studies like OECD, World Bank, IPCC, U.S. – BEA and the U.S. and European environmental agencies.

For GP, we have set ourselves 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 (€ spent) until 2030 based on fiscal year 2018.

The calculated upstream footprint for fiscal year 2022 is 5,081 kilotons CO_2e, resulting in an intensity of 0.424, which is 15% higher in total emissions but 4% lower in intensity compared to 2021.

Scope 3 upstream emissions[1]	Fiscal year	
(1,000 metric tons CO_2e)	2022	2021[2]
Total	**5,081**	4,433
thereof category "purchased goods and services"	4,833	4,223
thereof category "transportation and distribution"	248	210
Intensity (kg CO_2e/€ of purchasing volume)	0.424[3]	0.440

[1] Without SGRE.
[2] Due to the further development and optimization of the CO_2 calculation tool, the CO_2 emissions for fiscal year 2021 and fiscal year 2018 (baseline) were recalculated.
[3] Reduction compared to the base year 2018 (baseline calculation) -10.85%.

To further increase transparency regarding supplier engagement for decarbonization in 2022, we encouraged more than 2,000 suppliers that make up more than 75% of the carbon footprint in our supply chain to participate in our decarbonization due diligence assessment and report on their measures. These will be considered in future target progress tracking.

SGRE has set a target to engage 30% of its suppliers by spend, covering purchased goods and services as well as transport and distribution, to have science-based targets by 2025. Based on this short-term target SGRE aims to reach at least 50% by 2040. To achieve this, SGRE launched a new initiative to include sustainability commitments in its supplier contracts. Its Decarbonization Annex has become a part of standard SGRE contracts and aims to foster transparency and target-setting.

For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C1.10 Environmental Requirements for Suppliers**.

3 Responsible operations

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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.

4 Principles

6 Behaviors

8 Essentials

Occupational health and safety

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

2.17
Total Recordable Injury Rate (TRIR) of employees[1]

[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.

81%
share of recycling[2]

3.45 million m^3
water consumption

Product stewardship

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

72%
coverage of portfolio by life cycle assessments (LCA)

[2] Excluding construction and other waste.

Summary page

Sustainable supply chain management

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

€ 21.5 billion
procurement volume

106%
increase in supplier self-assessments

6%
increase in external sustainability audits

Working at Siemens Energy

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

Share of females

in top leadership positions[1]	Our target top leadership positions by 2025	by 2030
22%	25%	30%

[1] At reporting segment GP.

Training hours

10.3
Total average training hours per employee

Human rights

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

We conduct human rights due diligence for our customer projects

Compliance & integrity

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

Our Business Conduct Guidelines are binding for all executives and employees worldwide

94%
of employees trained on our Business Conduct Guidelines

Societal engagement

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

€ 3.62 million
total donations

Occupational health and safety

Safe workplaces and healthy employees are our utmost priority. We have clear measures in place to identify risks, avoid accidents, and promote employee well-being.

- **Prevention is our key strategy for employee health and safety**
- **Strong Zero Harm culture fosters responsible health and safety practices across the organization**
- **Environment, health and safety management system certified to ISO 45001**

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 (OHS) approach is also vital to achieve the two SDGs to which we are committed in this regard: SDG 3 "Good Health and Well-Being" and SDG 8 "Decent Work and Economic Growth".

Our standards for environment, health and safety (EHS) are anchored in all our business practices and are aligned with our EHS Principles and Core Responsibilities as well as our Business Conduct Guidelines (BCG). At Siemens Energy we use these as a foundation for the development of our EHS management approach and processes. In the reporting year, we continued our monthly safety reviews with members of the Executive Board. These were further enhanced by a process improvement to provide Lessons Learned (LL) for all recordable incidents and High Potential Near Misses. The LL are stored in a central repository, which is accessible for all employees.

To support the fundamental requirements for good OHS, 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
- Compliance with principles, standards and behaviors

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 in Siemens Energy operates under a relevant and maintained Integrated Management System (ISO 9001, ISO 14001, ISO 45001).

During fiscal year 2022, GP transitioned from having six umbrella certificates covering ISO 9001, ISO 14001 and ISO 45001 to having one overarching GP multi-site certificate that covers all three standards. In the next step, countries and stand-alone certificates will be integrated into the GP multi-site certificate.

The Business Units perform internal audits within their organization to prepare and maintain certifications.

SGRE has all locations covered by one certifiable management system. In fiscal year 2022, GP released Quality Fundamentals as a common foundation upon which we can work together to increase our quality awareness, facilitate a strong collaboration in avoiding nonconformance costs and learn from each other.

Contractors and temporary workers are expected to work to the same standards as those of Siemens Energy employees. Contractor incidents are shared with business procurement to discuss further improvements. We also discuss these with the contractors themselves and hold meetings with suppliers for high impact incidents. All relevant data is shared with the Executive Board. GP continues with the proven practice "Eye on Safety Reviews", which are held monthly with a member of the Siemens Energy Executive Board and are accessible to all employees on the Siemens Energy Environmental, Health, Safety, Quality and Security (EQS) Share Point. For further improvement in the quality of our contractor pre-qualification and approval process, we have reviewed and standardized our contractor pre-qualification questionnaire.

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 essentials, behaviors and principles (see graphic on Zero Harm).

The GP Zero Harm Framework intends to promote Zero Harm culture, 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 as part of 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. GP 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 requirements, and will be fully operational in fiscal year 2023. SGRE is implementing the same software for health, safety and environment (HSE) topics.

SGRE also continues to instill a strong Zero Harm culture across the global business. Its initiatives include “Safety is My Choice” and the 10 Life-Saving Rules.

In fiscal year 2022, SGRE created a strategic plan with the aim of enhancing their Zero Harm culture focused on prevention and based on scientific facts to achieve Zero Harm in HSE and to continuously improve the well-being of employees. The strategic plan was built around three main pillars: Engage, Empower and Ensure. Particular elements of the plan deemed strategic priorities for 2022 included:

Zero Harm at Siemens Energy

- Operational risk control, including the deployment of a global Setting to Work procedure that outlines the process by which work activities should be approached safely
- Contractor management, including performance monitoring and the launch of new requirements
- HSE competence using a competency assessment tool for HSE professionals that allows employees and managers to perform competency self-assessments and then develop appropriate action plans
- Data-driven actions with a sharp focus on eliminating incidents
- A simple and aligned safety system, including the release of an updated HSE Principles procedure

For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022 B2. Health & Safety**.

GP has implemented an EHS training tool that provides employees with the opportunity to develop both individual and team-based EHS skills and knowledge, meet regulatory requirements associated with their job roles, and integrate the Zero Harm Framework. As an improvement to the corporate training tool, we have reviewed the EHS courses and aligned them with the Zero Harm Framework to provide a core set of training courses that are directly aligned with each Zero Harm element.

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

Health and safety performance under review

GP 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. SGRE also completed OS audits (to ISO 45001 standard) during fiscal year 2022. 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 accidents

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

GP processes include monthly reviews with each Division on how to meet its individual action plan as well as implementing behaviors defined in the Zero Harm building blocks. For example, in fiscal year 2021, one of our highest risks was cranes and lifting. We therefore created a team to focus on this topic, resulting in an update to the Zero Harm Essentials for cranes and lifting and the development of a new instruction document in fiscal year 2022.

In fiscal year 2022, SGRE implemented monitoring for all actions arising from high-risk incidents and set a benchmark figure of 80% of these actions to be closed by the scheduled due date. This performance indicator is discussed alongside the Total Recordable Injury Rate (TRIR) at management meetings to prompt action where necessary and ensure these actions are closed by the specified due date.

Our key focus is on the TRIR and serious incidents, the detailed information 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 monthly as a Siemens Energy figure for GP and SGRE.

	Fiscal year	
TRIR[1]	**2022**	**2021**
TRIR of employees[2]	2.17	2.47
TRIR of contractors[3]	2.65	2.79
TRIR of employees & contractors	2.27	2.54

[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.

[3] Contractors are service providers carrying out work activities in a work environment under the control of the company. SGRE captures all contractors; GP captures contractors in projects with a volume >€5 million and classified as complex during the bid phase.

	Fiscal year	
LTIFR[1]	**2022**	**2021**
LTIFR of employees[2]	1.15	1.15
LTIFR of contractors[3]	1.52	1.30
LTIFR of employees & contractors	1.22	1.18

[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.

[3] Contractors are service providers carrying out work activities in a work environment under the control of the company. SGRE captures all contractors; GP captures contractors in projects with a volume >€5 million and classified as complex during the bid phase.

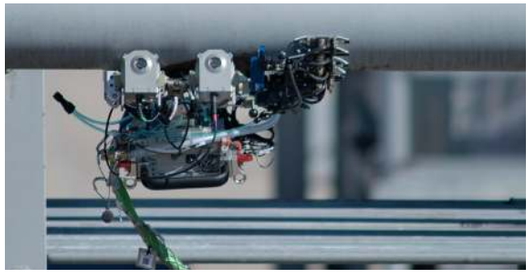
	Fiscal year	
Fatalities[1]	**2022**	**2021**
Employees	1	0
Contractors	2	5
Total	**3**	**5**

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

	Fiscal year	
High-consequence injury rate[1]	**2022**	**2021**
High-consequence injury rate of employees & contractors[2]	0.040	0.044

[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.



Ultrasonic robots: fast and safe corrosion detection

Robotic safety inspections

Siemens Energy has partnered with the U.S. firm Gecko Robotics to launch a new robot-enabled ultrasonic solution that inspects plant machinery and can detect early indicators of corrosion and defects faster and safer than a manual inspection. Where manual inspections require 10 to 12 inspectors and support personnel, this solution enables Siemens Energy to complete the same task with a smaller team. The robotic inspections are also 5 to 10 times faster than a manual inspection, reducing the time personnel are on-site and exposed to the hazards of industrial operations.

The overall TRIR of employees without contractors was 2.17 and the LTIFR of employees was 1.15 at the end of the fiscal year.

The reduction of the TRIR was achieved by the implementation of initiatives driven by the Service organization, which was the main contributor to the TRIR in fiscal year 2021. At GP, for example, each service region formulated a hub-specific EHS strategy based on pain-points of that region. GP also rolled out a Zero Harm engagement app as a platform for employees to record their EHS engagement. SGRE held weekly reviews with Business Units for greater transparency and accountability and focused on improvement projects to drive down the TRIR.

Our key objective is to prevent incidents, which also covers high-consequence incidents while performing work activities. The Zero Harm Framework and the Life Saving Rules support the efforts to reduce the severity of injuries. In fiscal year 2022, we had 10 high-consequence work-related injuries (fiscal year 2021: 11).

Regrettably, we also had three work-related fatal accidents (fiscal year 2021: five). Two of the fatal accidents were related to electrical shock, one was related to 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 respective circumstances and consequently derive measures to prevent such accidents from happening again.

We are vigilant that employees are not exposed to occupational illness or work-related diseases while performing work activities. The GP Zero Harm building block "Safe from Workplace Exposure" is therefore an essential part of our Zero Harm Framework. This building block provides a set of rules to eliminate exposure hazards in the work environment. SGRE utilizes 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 staff member 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.

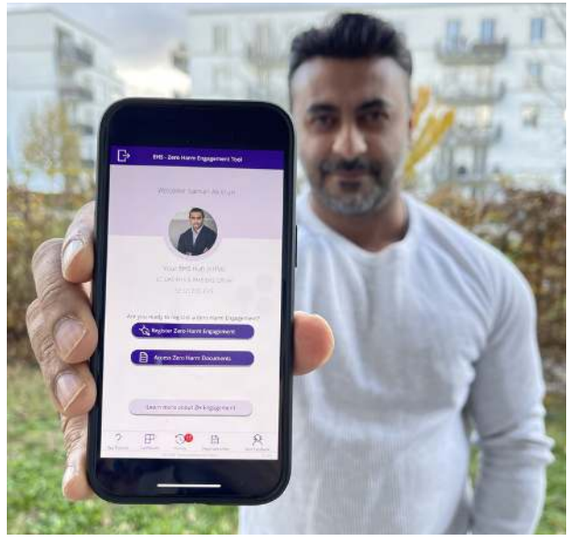
Our reporting data for occupational illness was extended from Germany to a global scope in fiscal year 2022.

	Fiscal year	
Occupational illnesses[1]	**2022**	**2021**
Occupational illness frequency rate[2] of employees[3]	0.28	0.55

[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] Data for 2022 is global. Data for 2021 only for Germany.



Zero Harm on the go: new engagement app

Zero Harm engagement app

The new EQS Zero Harm engagement app enables Siemens Energy employees to access our latest Zero Harm program wherever they are and share their learning with others. On average, 20 to 25 employees a day from all global hubs use the app to either record their engagements or consult Zero Harm documents, choosing between 15 categories, such as Customer Engagement, Safety Walk & Talk, Workshop or Field Engagement.

Promoting health

Within the overall OHS management approach, prevention is our key strategy for the sustainable promotion of employee health. Each GP Business Unit is required to identify and implement health management programs that focus on healthy working and healthy employees – reflecting local needs and conditions.

SGRE runs a centralized health management program combined with initiatives deployed at Business Unit and regional levels.

When considering global approaches, representatives from EHS, Quality Governance and Security (EQS) and specialists from the countries (health management, safety officers), including SGRE, form a team of approximately 20 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.

As part of the GP Zero Harm Framework, 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 GP global health management survey in 2022, 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 management standards have been implemented by countries or will be implemented by a certain date.

Further to this, GP launched a 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 at GP and to launch campaigns based on the set strategy.

SGRE provides corporate initiatives covering the same health priorities and topics as GP through the Health at Heart Pathway program. In addition, SGRE uses the healthy lifestyle app Care+, which includes team challenges and virtual sports clubs.

The SGRE global health surveys apply the same criteria as GP and are combined with a specific pulse check focused on stress evolution. SGRE carries out a global psychosocial risk assessment every third year.

On the topic of mental health, SGRE follows the advice of its Mental Health Scientific Advisory Board, which it established in 2020, and is now reporting specific KPIs and targets in this field too.

Travel risk management
Siemens Energy takes the duty of care of traveling employees very seriously. We use a proprietary travel risk assessment and approval tool that ensures travel is only permitted and approved when appropriate protections are in place.

Employees are provided with healthcare coverage for international assignments through major providers. While this is currently managed on a country-by-country basis, we have also contracted the global provider International SOS to manage all aspects of travel risk assessment and healthcare coordination.

Siemens Energy has a 24/7 hotline available to all employees and offers travel security awareness training through our online learning tool. Employees are provided with the location-based safety app Safeture that includes an emergency calling feature.

Positive action for employee mental health in China

Siemens Energy China: Supporting mental health

To mitigate the long-term impacts of the global COVID-19 pandemic on the mental health of employees, the Siemens Energy China Hub EHS team applied aspects of positive psychology theory to their Zero Harm Framework implementation. This involved focusing on employees' character strengths and positive outcomes in their Zero Harm activities, which included EHS awareness web training, mental health awareness via various channels (such as Yammer and WeChat) and live and virtual stress release exercises. These mental health programs particularly benefited employees during the long Shanghai lockdown.

Conservation of resources

We are mindful of the impact our activities have on the environment and are committed to the sustainable use of natural resources.

- **We strive to meet all environmental management standards**
- **Climate change risks have been assessed for all major locations**
- **Zero Harm approach embeds responsible behavior at all levels of the organization**

At Siemens Energy, we aim to minimize our impact on the environment by reducing waste, freshwater withdrawal and emissions, as well as protecting biodiversity.

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".

The number of environmental protection requirements and standards around the world is growing rapidly. With the help of our EHS management systems, we aim to comply with applicable laws, regulations and stakeholder expectations. In both the GP and SGRE reporting segments, our EHS management systems are founded on the principles and elements of the international ISO 14001 and 50001 standards (see chapter ⇥ **Occupational health and safety**) or energy audits as per national legislation. The objective of these systems is 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 instill a strong 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. Our EHS Policies for both GP and SGRE provide a global framework for local programs and initiatives. The respective Heads of EHS at GP and SGRE support the designated member of the Executive Board responsible for EHS. For further information on SGRE please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C3. Sustainable Use of Resources**.

In the GP reporting segment, the EHS Policy is further supported by the Zero Harm Framework, which aims to embed responsible principles and behavior at all levels of the organization (see chapter ⇥ **Occupational health and safety**). SGRE has specifically launched its Sustainability Vision 2040.

In this way, both reporting segments are addressing the relevant elements from global principles and behaviors to local environmental, health and safety risks in all activities across the organization.

We use environmental aspect assessments as part of our EHS management system 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.

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

Richland Facility: Award winning environmental improvements

Pollution protection – EPA awards Richland facility

Two projects at the Siemens Energy Richland (Mississippi, U.S.) facility to improve process efficiency and reduce electricity use received a Pollution Prevention Recognition Award by the U.S. Environmental Protection Agency (EPA) Region 4. The EPA recognized the measures at the facility that saw automation and air flow improvements related to compressed air systems implemented and traditional roll-up doors replaced with high-speed doors to reduce loss of air-conditioned air. The improvements resulted in over 260,000 kWh of annual electricity savings and 239,000 pounds of CO_2e avoidance.

Meeting environmental management standards

For the GP reporting segment, our Zero Harm Framework provides the foundation upon which we aim to meet the growing number of environmental protection requirements of our customers and strengthen our position as a sustainable company. In our activities, we are guided by the principles of ISO 14001. 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 sites
- Adapting the purchasing strategy toward 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
- Promoting zero waste to landfill by consistently preventing landfill waste and reducing waste materials

SGRE has defined its environmental targets as part of its Sustainability Vision 2040. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, A.7.9 Objectives, Resources and Results Evaluation**.

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 evacuation of personnel, disruption of supply chains or damage to facilities. We have conducted a climate change risk assessment that will be our baseline for future actions, and we want to evaluate changes in physical climate parameters, plan resources and manage climate risks. We also perform local risk assessments to assess and evaluate EHS impacts and define emergency response measures.

In fiscal year 2022, the climate change risk assessment was performed for all relevant locations at GP exceeding 3,000m², including manufacturing locations and larger offices. This complements the already existing assessment for all SGRE locations.

Transparency of resource use

Waste

The environmental relevance of waste depends upon the type of waste 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, as this type of waste material arises independently from production.

The Siemens Energy Waste Catalogue aims to bring uniformity to the process of categorizing waste across all global reporting locations and has been implemented for all of Siemens Energy within the new environmental reporting tool (see chapter ⇥ **Decarbonization**).

Waste intensity in fiscal year 2022 was 4.79×10^{-6} metric tons per € of revenue. This is a reduction of 6% compared to fiscal year 2021. Absolute waste reduction in fiscal year 2022 was 4% compared to the previous year.

Waste recycling and disposal[1]

Fiscal year

(1,000 metric tons)

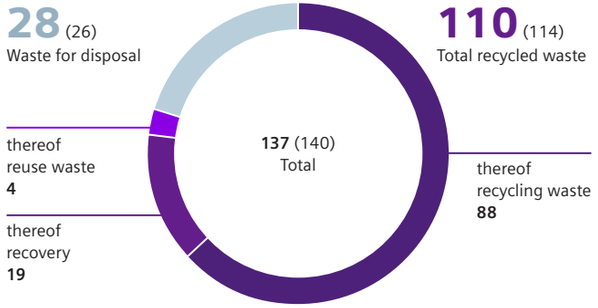


Figure for previous year in brackets

[1] Excluding construction and other waste.

Waste (1,000 metric tons)	Fiscal year 2022	2021
Non-hazardous waste	120	122
Hazardous waste	18	18
Construction waste	1	3
Other waste categories	1	3
Total	**139**	**145**
Waste intensity (metric tons/€ of revenue)	4.79×10^{-6}	5.09×10^{-6}

Recycling and recovery (%)	Fiscal year 2022	2021
Share of total recycling[1]	**81**	82
thereof recycled	64	54
thereof recovered	14	25
thereof reused	3	2
Share of recycled hazardous waste	54	68

[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. Water consumption is predominantly related to manufacturing centers and office facilities in both reporting segments, GP and SGRE. For further information on SGRE please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C3.7 Water Management**.

Water risks are now 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 and considers factors such as water stress, water pollution and flooding. Our locations aim to reduce water usage, consumption and other 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 3.45 million cubic meters (fiscal year 2021: 4.10 million cubic meters). Water intensity in fiscal year 2022 was 1.19×10^{-4} cubic meters per € of revenue. This is a decrease of 16% in absolute water consumption and 17% in water intensity compared to fiscal year 2021. One factor that influenced the decrease is the greater transparency that we have achieved by the implementation of our global EHS reporting tool.

Water consumption		**Fiscal year**
(million cubic meters)	**2022**	**2021**
Fresh water use	2.80	2.99
Ground and surface water for cooling (returned to receiving water body, chemically unchanged, but warmed)	0.62	1.08
Total	**3.45**	**4.10**
Water intensity (cubic meters/€ of revenue)	1.19×10^{-4}	1.44×10^{-4}

Wastewater		**Fiscal year**
(million cubic meters)	**2022**	**2021**
Wastewater from employee facilities	1.44	1.50
Wastewater from manufacturing processes	0.24	0.36
Other (incl. losses)	0.51	0.67
Conditioned cooling water discharged as wastewater	0.60	0.43
Total wastewater without chemically unchanged cooling water	**2.79**	**2.99**
Cooling water (returned to receiving water body, chemically unchanged, but warmed)	0.67	1.07
Total	**3.46**	**4.06**
Wastewater intensity (cubic meters/€ of revenue)	1.19×10^{-4}	1.42×10^{-4}

Water consumption **Fiscal year**
(million cubic meters)

3.5
Total

2.8
Fresh water use

0.6
Ground and surface water for cooling

Wastewater from our facilities and manufacturing processes amounts to 3.46 million cubic meters (fiscal year 2021: 4.06 million cubic meters). Wastewater intensity in fiscal year 2022 was 1.19×10^{-4} cubic meters per € of revenue. This is a decrease of 15% in absolute wastewater and 16% in wastewater intensity compared to fiscal year 2021.

New from old: recycling waste in Brazil

Zero landfill in Brazil

At Siemens Energy in Brazil, all sites have now achieved zero landfill waste generation, which means less than 1% of waste being directly or indirectly disposed in landfill[1]. This was done through increasing waste segregation, recycling and developing new solutions for waste disposal besides landfill. The sites achieved 90.5% recycling in their operations and in fiscal year 2022, only 4 metric tons of waste were sent to landfill (without debris/construction waste), down from 295 metric tons in 2021 – a reduction of 99%.

[1] Excluding construction waste.

Biodiversity

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

The conservation of biodiversity is integrated into our environmental management systems, which help us carry out our work and projects as sustainably as possible.

Many local biodiversity initiatives have been identified by our employees and are supported by Siemens Energy to protect biodiversity and create 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.

SGRE launched its own biodiversity commitment in 2022, which sets out its ambitions to manage biodiversity across operations in all countries and regions where SGRE operates (including the supply chain), foster innovation and research on the impacts of wind turbines, promote effective and transparent reporting and communication and develop 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 2022, there were two significant environmental incidents related to Siemens Energy (fiscal year 2021: two).

One was a related to an oil spill from a transformer that had been caused by an act of vandalism, and the second was the release of a moderate amount of SF_6 due to the failure of an instrumentation device during equipment testing.

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

Product stewardship

We take environmental, health, and safety criteria into account at every stage of the product life cycle and work to minimize negative effects.

- **Strong focus on climate change adaptation and resource efficiency in the product life cycle**
- **Material compliance approach provides transparency on substance management**
- **Spotlight on circularity in all our products and processes**

Siemens Energy is committed to promoting greater environmental responsibility and to developing environmentally friendly technologies. As a participant of the UNGC initiative, we aim to contribute to the achievement of the SDGs with our product stewardship activities, especially SDG 12 "Responsible Consumption and Production", which seeks to couple economic growth and development with sustainable consumption and production patterns.

Our approach to product stewardship at Siemens Energy includes all environmental aspects with a strong focus on climate change adaptation and resource efficiency. It takes into account all life cycle phases, including product development and design, manufacturing, operation, service and end of life. Measures include life cycle assessments (LCA), environmental product declarations (EPD), component upgrades,and lifetime extensions, as well as recycling. By continually analyzing our products, solutions and services, 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 key standards of the ISO 14000 series, with individual approaches for each Division. The approaches are centrally supported by the respective global EHS Functions.

Product stewardship is also an integral part of our Zero Harm approach within Siemens Energy. SGRE has specifically launched its Sustainability Vision 2040. The aims and objectives of the GP and SGRE approaches are to prevent adverse effects to health and the environment due to our business and operational activities (see also chapter **Occupational health and safety**). In GP, 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 materials over the entire life cycle. This process aims at ensuring that each business has a 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 to ensure a common methodology within GP. SGRE already has all products covered 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), internal EHS guidelines (specific EHS processes and checklists for product development and Business Unit-specific EHS plans), and other ESG criteria from external stakeholders.

We have further developed our risk management by including an ESG due diligence approach. We are now screening our products, projects and services against a list of relevant ESG criteria. We implemented a questionnaire in our sales process for our Transmission Division in fiscal year 2022. Training will be provided to increase awareness and competence regarding the criteria.

This questionnaire is also aligned with the EU Taxonomy's criteria. We will continue to develop this approach further in preparation for reporting on the EU Taxonomy (see chapter **Decarbonization**) in fiscal year 2023. This lean ESG risk management combines a due diligence and a risk mitigation process.

During project execution and delivery of products and services, we additionally identify mitigation measures based on input from the environmental impact assessments available – otherwise using IFC EHS guidelines as a basis – regarding energy consumption and efficiency (including our GHG footprint), air emissions, noise, water conservation, waste management, hazardous materials management and physical, chemical and radiological hazards as part of our EHS site management.

Wherever possible, we are partnering 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 Unit, and coordinators for product-related topics have been appointed. We are planning to further intensify collaboration with our suppliers to, for example, collect further details regarding our Scope 3 upstream emissions and identify further reduction potential.

Circularity is a high priority for Siemens Energy, and we are collaborating on a number of research projects in this area.

At SGRE, the launch of the RecyclableBlade – 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 (see highlight-box). So far, SGRE has reached agreements with a number of its major customers for RecyclableBlades. RWE is testing the blades at its offshore windpark Kaskasi, while Vattenfall and BASF are installing three at the Hollandse Kust Zuid offshore wind farm, and EDF Renewables aims to deploy several sets of RecyclableBlades at a future offshore project.

Life cycle assessments and environmental product declarations

To use resources optimally, we have adopted a sustainable management approach over the entire product life cycle by conducting LCAs and publishing EPDs. The LCA and EPD approach is managed globally by the EHS Function and is closely linked to organizational teams dealing with product-related environmental protection. We have developed and published our internal LCA standard in order to further standardize and align our approach and answer customer requests.

The results from LCAs are used to:

- Identify opportunities to improve environmental performance within the design and manufacturing processes – for example, improving material selection, optimizing manufacturing processes and closing loops in material recycling
- Communicate environmental performance to internal and external stakeholders

To increase transparency 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 plan to include external verification of our LCAs where required.

Waste-free: blade components are reusable at end of life

RecyclableBlade

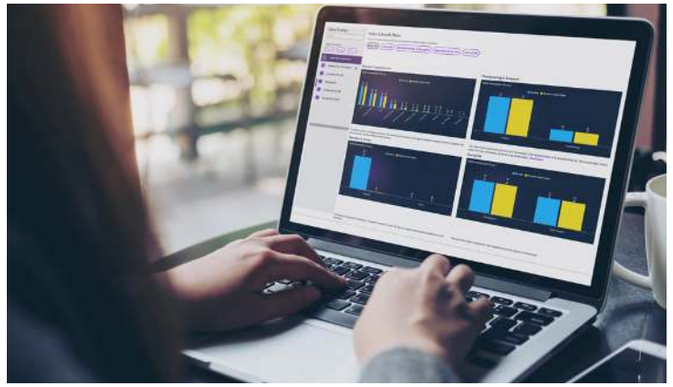
In 2021, SGRE launched RecyclableBlade, the first comprehensive recyclable rotor blade solution that is ready for commercial offshore projects. The RecyclableBlade is produced the same way as a standard blade. The only difference is the use of a new type of resin that allows the blade components to be efficiently and gently separated from one another at the end of the blade's working life. This allows the individual materials to be recycled for new applications across various industries – a major step toward creating a waste-free wind industry.

	September 30	
LCAs and EPDs	**2022**	**2021**
LCAs (no.)	**229**	124
thereof full-scale[1]	228	108
thereof screening[2]	1	16
Portfolio coverage by full-scale LCAs (%)[3]	72	71
EPDs (no.)	**158**	105

[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] 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.



Understanding impact, reducing waste and extending product lifecycles

Circular economy projects in Brazil

Siemens Energy Brazil has undertaken a circular economy project that addresses all products manufactured in Brazil, the services to reduce waste generation in manufacturing and the products' carbon footprint. In addition, an LCA was carried out for a product at the site to understand the impact of the circularity results. The outcome of this is available in the EcoTransparency App.

The Brazilian site in Jundiai has also launched the Desapega initiative, a circular economy solution to increase the lifecycle of equipment and materials that would otherwise be sent to disposal. Desapega is a marketplace tool offering the Siemens Energy Brazilian community goods for purchase or to give away.

Our EcoTransparency app, which is also based on LCAs, calculates scenarios and related impacts based on strategic and customer-specific boundary conditions (including local energy mix, load cycling, transport, material selection, etc.). It aims to derive and illustrate improved solutions with lower environmental impacts.

We continuously review our LCAs and EPDs. The table above provides a summary of the number of LCAs (full-scale and screening) and EPDs. The number of LCAs significantly increased in 2022 because all Business Units continuously work to cover more of their products with LCAs, mainly due to customer requests.

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, etc.). The nature and quantity of substances and materials used in products are becoming increasingly relevant, especially if reused and recycled. The ecodesign decisions we make today consider future legal and EHS requirements as well as the implications of resource scarcity. 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 the key enabler 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 substances registers for restricted and declarable substances and products. The lists identify any substances that need to be declared for each product and are updated every six months according to current directives from the 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.

In GP, we encourage our suppliers to use the industry substance management platform BOMCheck to share declarations for Substances of Very High Concern (SVHC) and link this information to our IT systems. In this way, we can proactively manage risks related to substance restrictions. This year we continued the implementation of the reporting requirement Substances of Concern in Products (SCIP), a database established under the EU's Waste Framework Directive that registers products containing SVHC. For one unit of GP, we have also implemented a pilot project for automated reporting to the EU system.

In GP, we have further developed our cross-functional material compliance approach (in cooperation with the Procurement department) and implemented it accordingly. 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 and the development of LCA programs to improve sustainable product design. We aim to cover the entire value chain. In 2022, our gas and steam turbine organization analyzed around 10,000 specifications and drawings of large combined cycle power plant projects and extracted and digitized material information to ensure compliance with restrictions and declaration duties. 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 evaluating the extension of our product life cycle management system to determine its potential to perform substance management compliance in Engineering.

Within its substance management process, SGRE also evaluates requests for the use of new chemical products against the SGRE-defined list of prohibited products and list of restricted products. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, C3.8 Substances**.

The transparency of materials and substances across our product portfolio is key for a sustainable energy supply, for supporting and promoting a circular economy and for 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 in order 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.

Product safety

Product safety and product quality topics are addressed for GP and SGRE via defined processes, which are published in the Process Houses, reporting lines, and organizational structures. Customers, developers and manufacturers are provided with user and service manuals that describe the safe use of products, functionality and product maintenance requirements.

The new GP product safety system was implemented in October 2021 and is valid for all GP Units. The system focuses on both the technical and organizational aspects of product safety. The technical aspect ensures that the products developed, manufactured and/or sold by GP are safe and do not cause any unacceptable risk to the life, health or property of third parties. The organizational aspect covers the implementation of responsibilities, organizational structures and processes to comply with legal requirements and relevant internal rules and regulations. The effectiveness of the product safety system was evaluated within the Siemens Energy GP annual Product Safety Report. Based on this, we have defined a product safety action plan and derived improvement measures. These included product safety training for 250 employees, product safety officers and their line managers. In fiscal year 2022 internal controls were defined and implemented. These controls focus on the company obligation toward product monitoring and internal and external product warnings.

SGRE assesses the impacts of its products on the health and safety of its customers from the initial development stages 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 as a result of poor safety design. For instance, SGRE 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 EU or EEA (European Economic Area) comply with any Directives that apply inside and outside the EU, where those requirements are established by contractual obligations to customers.

Sustainable supply chain management

Sustainable business requires a sustainable supply chain. We work in partnership with our global suppliers to uphold international standards for social and environmental responsibility.

- **Supplier management processes apply strict criteria for selection**
- **Increased supply chain risks addressed through preventative action**
- **Corporate Responsibility Self-Assessments are an integral part of the supplier qualification process**

Our supplier network extends across 139 countries worldwide. As international regulations for corporate responsibility tighten and global disruptions due to conflict, the pandemic and climate change increase, it is crucial we manage our supply chain sustainably, transparently and responsibly to make it more resilient. We aim to achieve this through solid 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 contributing to the UN SDGs. With approximately 30,000 suppliers and a procurement volume of €21.5 billion in fiscal year 2022 (fiscal year 2021: €17.3 billion), we see our biggest contributions to SDG 8 "Decent Work and Economic Growth" and SDG 12 "Responsible Consumption and Production". To meet 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 our carbon emissions in our supply chain (see chapter 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 we are 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, prepare preventive action and define mitigation measures to reduce risk exposures.

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

Binding Code of Conduct for suppliers

All GP suppliers and third-party intermediaries 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 UNGC.

The CoC requires specific environmental, compliance and labor standards to be established across all countries of operations. In June 2022, we expanded our CoC to include a cybersecurity clause. It now includes the following topics:

- **Human rights and labor practices, including** (among others):
  - Prohibition of forced labor
  - Prohibition of child labor
  - Health and safety of employees
  - Grievance mechanism
- **Environmental protection**
- **Fair operating practices, including** (among others):
  - Anti-corruption and bribery
  - Anti-money laundering, terrorism financing
  - Data privacy and cybersecurity
- **Responsible minerals sourcing**
- **Compliance with the CoC principles in the supply chain of the supplier**

Similarly, SGRE requires its suppliers to comply with its CoC for Suppliers and Third-Party Intermediaries, established in line with SGRE principles and values according to its BCG and its Global Corporate Social Responsibility Policy. Its requirements aim to ensure that working conditions in the

supply chain are safe, that workers are treated with respect and dignity, and that business operations with suppliers are ethically, socially and environmentally responsible. Next to the CoC, SGRE's Supplier Relationship Policy, General Purchasing Conditions, and internal rules and procedures all set minimum requirements for suppliers to comply with. For further information please refer to SGRE's ↗ SGRE Consolidated Non-Financial Statement 2022, E3. Responsible Supply Chain.

Comprehensive supplier management

GP'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 along the entire supply chain, identifying and exploiting opportunities to create value through procurement competence and fostering compliance and sustainability.

The supplier management process in place encompasses an extensive range of procedures and tools to enable transparency and awareness regarding expenses, supplier data and related risks and opportunities in the supply chain. It helps managers leverage the potential of our supplier network. The GP procurement process applies strict criteria for supplier selection and qualification. These include financial stability, quality and availability, together with overriding sustainability criteria, such as contractor safety, substance declarations and sustainability self-assessments. In June 2022, GP added a cybersecurity (CYS) assessment process for all suppliers for which CYS is relevant.

SGRE has introduced an upgraded ESG Risk & Performance Management Framework, advancing from risk-based assessments to risk- and impact-based assessments. This framework is composed of several complementary steps designed to accelerate sustainability throughout our supply chain. Based on an initial supplier impact screening, it encourages suppliers to provide further details on how they are working with sustainability across their own operations and supply chains.

While the framework aims to identify and reward high-performing suppliers, SGRE also helps suppliers who are not yet achieving the highest standards but are eager to improve their performance. Accordingly, SGRE will incentivize "best-in-class" and "best-in-progress" suppliers as part of the supplier selection process.

As part of Siemens Energy's overall approach to decarbonize its operations throughout the entire value chain, we are actively encouraging our suppliers to also reduce their carbon emissions. For more information, see chapter Decarbonization.

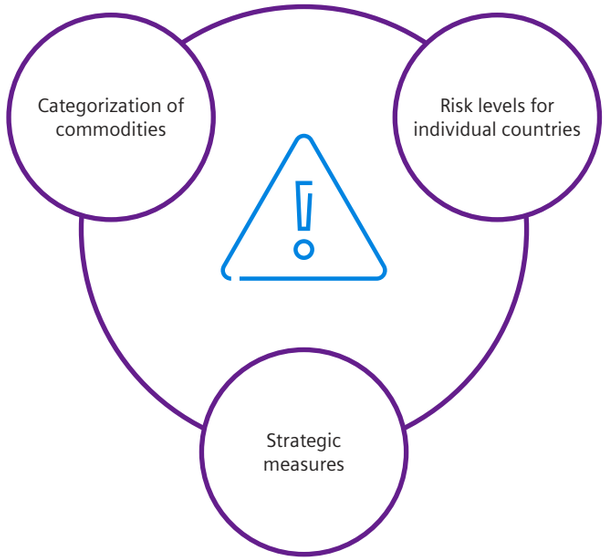
Risk awareness
Using our sustainability risk analysis system, we systematically identify potential risks in our supply chain every year. The cornerstones of this system are:

- Identification of risks and categorization of commodities
- Establishment of risk levels for individual countries (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

Supplier awards

At Siemens Energy, we celebrate our diverse small suppliers with an annual awards ceremony. This fiscal year, Siemens Energy honored four small businesses – three women-owned small businesses and one minority business – for their contribution to the success of Siemens Energy by being agile, innovative, responsive to Siemens Energy's requests and delivering on time while offering competitive prices.

Cornerstones of our risk analysis system



To further strengthen GP's supplier sustainability risk management system, we initiated the calculation of social risk hours for our suppliers and their scope of supply. These are working hours in our supply chain that might be exposed to social risks, such as those in the areas of human rights or health and safety. 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.

Supplier assessment

We use Corporate Responsibility Self-Assessments (CRSAs), 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. New potential suppliers undergo a qualification process, while existing suppliers are reevaluated every three years. Siemens Energy screens suppliers regarding all aspects of the CoC.

In fiscal year 2022, GP expanded the implementation of its CRSAs to include all suppliers[1], not just those from high-risk countries.

Compared with fiscal year 2021, the number of CRSAs increased by 106% to 3,466 conducted self-assessments. This can be mainly explained by GP's expansion to all countries and for two reasons at SGRE – a high number of new CoC registrations that increased the number of self-assessments, as well as the rollout of the ESG Risk and Performance Management Framework.

Furthermore, we conduct quality audits that include questions about sustainability that cover major aspects and requirements of the CoC. In fiscal year 2022, we conducted 961 on-site audits worldwide, compared to 424 supplier quality audits in fiscal year 2021. This significant increase was due to SGRE's integration of Senvion and Adwen and the qualification of a larger range of suppliers.

We see external sustainability audits (ESA) 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 2022, Siemens Energy conducted 167 ESAs. This number increased from 157 audits in fiscal year 2021, despite ongoing COVID-19 restrictions. Furthermore, we accepted 76 ESAs of suppliers where audits have been initiated 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, where the need for a worldwide block is discussed and decided. In 2022, no supplier was dismissed, as 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 GP and "Integrity Hotline" at SGRE. There were no cases reported in fiscal year 2022.

To inform Siemens Energy employees, suppliers and further external stakeholders, GP developed and published a web-based training in fiscal year 2022 that explains GP's approach to promoting sustainability in its supply chain.

[1] To be conducted by all suppliers with a purchasing volume > €10,000 p. a.

Reducing supplier emissions in China

With reducing its supply chain emissions (Scope 3) in mind, the China Procurement team has developed a "Decarb Toolbox" for Siemens Energy suppliers. The toolbox aims to transfer knowledge and broaden the decarbonization capabilities of suppliers by communicating guidance and methodologies regarding decarbonization in their own operations. The toolbox has been shared with 156 suppliers based in China.

The team is also working closely with three suppliers to identify CO_2 reduction lighthouse projects. Following an initial questionnaire and on-site survey, Siemens Energy provided a comprehensive review of the supplier's own operations emissions and both long-term and short-term improvement suggestions. The project aims to support our suppliers in their sustainability journey.

Supplier quality audits with integrated sustainability questions	Fiscal year 2022	Fiscal year 2021
Europe, C.I.S.[1], Africa, Middle East	615	227
Americas	148	98
Asia, Australia	198	99
Total	**961**	**424**

[1] Commonwealth of Independent States.

Procurement in Latin America promoting supplier sustainability

A series of supplier sustainability awareness sessions held in May and June 2022 aimed to inform around 200 suppliers across Latin America about Siemens Energy's sustainability strategy and its goal to decarbonize the value chain. The sessions were coordinated by a cross-functional team from the Siemens Energy Latin American Hub and included further topics such as compliance risks, environmental protection and inclusion & diversity in the workforce.

The Latin American Procurement team received responses from over 80% of their suppliers in the region.

Finally, Siemens Energy Procurement in Brazil and Colombia have developed a robust EHS assessment program for service providers to promote sustainability and manage EHS risks during purchasing. The program includes a supplier analysis to support transparency, accuracy and compliance with county laws.

Supplier sustainability assessments

Corporate Responsibility Self-Assessments (CRSA)[1]	Fiscal year 2022	Fiscal year 2021
Number		
Europe, C.I.S.[2], Africa, Middle East	1,256	614
Americas	768	355
Asia, Australia	1,442	716
Total	**3,466**	**1,685**
Agreed upon improvement measures[3]		
Legal compliance/prohibition of corruption and bribery	305	233
Respect for the basic human rights of employees	154	145
Prohibition of child labor	7	–
Health and safety of employees	282	77
Environmental protection	455	106
Supply chain	150	24
Responsible minerals sourcing	9	2
Total	**1,362**	**587**

[1] GP: To be conducted by all suppliers with a purchasing volume > €10,000 p.a.;
SGRE: 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 the lack of specific processes and guidelines at the supplier. SGRE data reported from May 2022 onward. Number of CRSAs at SGRE amounted to 1,863.

External sustainability audits (ESA)	Fiscal year 2022	Fiscal year 2021
Number		
Europe, C.I.S.[1], Africa, Middle East	61	48
Americas	16	24
Asia, Australia	90	85
Total	**167**	**157**
Agreed upon improvement measures[2]		
Legal compliance/prohibition of corruption and bribery	392	438
Respect for the basic human rights of employees	915	972
Prohibition of child labor	27	35
Health and safety of employees	895	985
Environmental protection	52	56
Supply chain	111	99
Total	**2,392**	**2,585**
Accepted ESAs	**76**	**85**

[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.

Responsible minerals sourcing

We are committed to preventing the use of minerals from conflict-affected and high-risk areas in their 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 a Responsible Minerals Sourcing Policy (formerly "Conflict Minerals Policy") in place 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 (Responsible Minerals Assurance Process).

When surveying our approximately 1,600 (fiscal year 2021: 1,800) 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 RMI's assessment programs. All newly reported smelters are shared with 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, we added copper 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 and strategic partnership with the European Partnership for Responsible Minerals, we also became a member of the Copper Mark at the end of 2021.

SGRE has revised its Rare Earth Due Diligence Program to allow for close sustainability monitoring throughout the whole permanent magnet supply chain. The program aims to foster supply chain transparency and monitor compliance with SGRE's Code of Conduct. We are therefore closely collaborating with our direct suppliers to identify all relevant indirect suppliers throughout the lower tiers. Based on this transparency, we are conducting sustainability assessments to identify risks and improvement opportunities.

Giving the energy transition a fair shake

The energy transition is having a massive impact on the world, the cost of which we are only just beginning to come to terms with. Nadja Haakansson and Kristen Panerali discuss how a trillion-dollar upheaval in global dynamics and labor can be just and fair if it places people at the center.

Kristen Panerali, Head of Energy, Material and Infrastructure Clean Power and Electrification at the World Economic Forum, began her career at the White House before moving into the energy sector where she helps shape a more sustainable, just and resilient economy.

Nadja Haakansson, Siemens Energy's Managing Director for Africa, has held different roles across a variety of geographies and Business Units at Siemens, starting in Sweden in 2005. She now focuses on the development of the African energy infrastructure, local skills and talent, and long-term prosperity for society.

Kristen Panerali: Nadja, today countries, businesses and households are facing a triple crisis of climate, energy security and affordability, especially with geopolitics and war putting added pressure on supply, demand and delivery. Yet, there are so many solutions out there that can address climate and energy security – and be deployed in a way that creates a fair, just and inclusive system. What that means is that people need to be at the center.

Nadja Haakansson: I agree, Kristen. The essence and core of a just transition is ensuring no one is left behind. And it means that when we collaboratively take collective action around outlining and implementing new energy and climate strategies, we really consider this social impact.

For example, you have communities that depend heavily on the coal business, so it is important to quickly provide the certainty that repurposing and reskilling is part of the plan – and that the green economy will provide millions of new jobs along with the repurposing of existing jobs.

Kristen Panerali: And do it in a way that lifts people out of energy poverty.

Nadja Haakansson: Absolutely. Considering that almost 800 million people globally still do not have access to energy, ending energy poverty in the developing part of the world is a key step to ensuring their socio-economic development. But developing countries depend on support from industrialized, developed parts of the world through various elements: financing, governments, policy frameworks and different ways of stimulating the massive investment required.

Kristen Panerali: And energy poverty is not only a challenge in emerging markets. Access to modern energy from heating and cooling and affordable electricity and gas is a just transition issue in developed economies too. But certainly far more investment and action are needed in emerging markets. Recently, the World Economic Forum, along with the IEA and the World Bank, put out a report showing that investments in clean energy in emerging markets have to be multi-

"A just transition is ensuring no one is left behind."

Nadja Haakansson, Managing Director of Africa, Siemens Energy

plied by seven annually until 2030 to keep the world on track to reach net zero and different SDG goals. Part of the Paris Agreement stated that the developed world must support developing regions in addressing energy supply and sustainability. Where do you see us standing today?

Nadja Haakansson: Right now, plenty of support and financial commitments have been made, such as the Global Gateway Africa-Europe Investment Package of about 150 billion euros announced earlier this year at the European Union-African Union Summit. But what is lacking is the translation of these commitments into tangible projects. At the end of the day, concrete projects must be bankable. And they must generate the benefits they intend, and attract beneficial financing conditions and concessional loans.

Kristen Panerali: There is also a real opportunity to shift the political and commercial focus beyond cost to include value. Which is why the World Economic Forum often uses a framework that focuses on value creation, evaluating how solutions can drive outcomes with enormous economic and societal returns, for example, improved energy access, job creation, economic development, emissions reduction or improved air quality. This type of system value framework can help diverse stakeholders from government and business to more easily create a common narrative and goals and evaluate solutions. There are solutions, technologies and business models being deployed around the world that are accelerating the clean energy transition in ways that deliver significant value. And it is through multi-stakeholder dialogue that governments and businesses from around the world can learn from each other about what works and what can be replicated.

Nadja Haakansson: And here we need to be mindful that the developing part of the world is not being blocked in its development, because the energy transition in the developed part of the world cannnot be compared to Africa or other developing continents. The voices of the African leaders and the African companies that I interact with reason that it would be hypocritical of a developed continent such as the EU – that for the past 200 years had massive development based on coal – to now impose their own regulation and limit a continent like Africa. Because Africa contributes minimally to global greenhouse gas emissions – less than 4 percent. And even if Africa deployed all its natural gas resources, the contribution would still be marginal.

This is where technology does play a role. We have hydrogen-capable gas turbines that, if implemented today, would reduce carbon emissions by half versus a coal-fired power plant. In the long term, these gas-fired power plants can be repurposed through simple replacements of combustion burners and combustion chambers in the gas turbines and essentially emit zero emissions with the deployment of hydrogen.

Kristen Panerali: This is also where far more focus needs to be put on local communities and workforce, putting people at the center of the transition. So going back to our conversation at the beginning.

Already there are great examples of repurposing coal plants into new clean energy facilities – and doing so in a way that engages communities and creates economic opportunity. When repurposing coal plants, you can leverage the existing grid connection, the existing land, and transform the existing infrastructure into a new opportunity for clean power and new training and jobs for the local community. The Forum has recently produced several case studies from around the world on this topic.

Nadja Haakansson: The UN climate summits are also an important platform. COP27 was hosted in Africa. And it is important to have this voice of how the developing world and the developed world can ensure close collaboration to achieve shared prosperity, to achieve the end of energy poverty, to achieve net zero and climate targets, and essentially stimulate socio-economic growth.

Kristen Panerali: The economics of clean power make sense. Plus, as clean power and electrification are expanded, it can be done in a way that creates a more just and inclusive system.

"The economics of clean power make sense."

Kristen Panerali, Head of Energy, Material and Infrastructure, World Economic Forum

Human rights

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

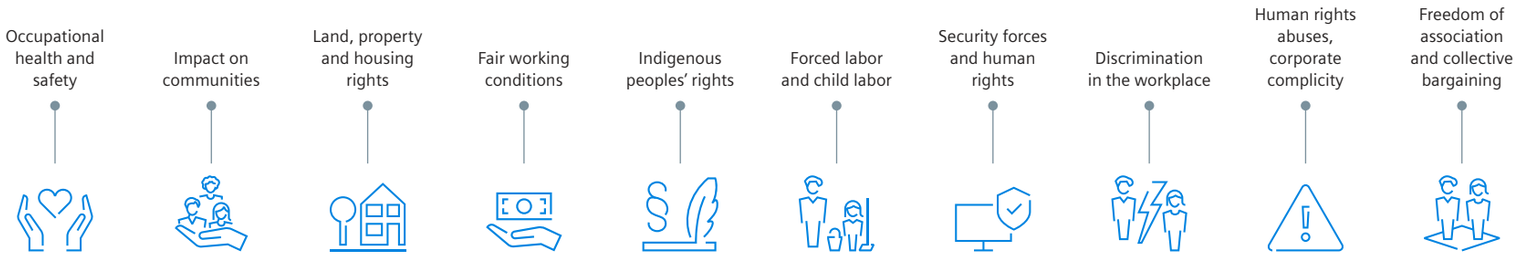
- **Adherence to international conventions and principles**
- **Human rights anchored in Business Conduct Guidelines and Code of Conduct**
- **Human rights due diligence mitigates risks along value chain**

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 are 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

Overview of material human rights topics



- **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 and 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**
- **United Nations Global Compact Principles**, to which we are a signatory (UNGC)

Identification of material human rights topics

We identified material human rights topics based on an internal materiality analysis in 2021. The topics have been identified as material from the following perspectives: "supply chain", "workplace" and "customer projects" – in summary, reflecting our value chain. Where relevant in daily business, identified risks related to the material topics will be further analyzed and potential weaknesses mitigated with respective actions to preserve human rights.

Anchoring our commitment

Our commitment to respecting human rights is written into Siemens Energy's BCG, with special emphasis on our company values: caring, agile, respectful and accountable. The BCG are binding for all executives and employees worldwide. All employees must agree to them and are given mandatory web-based training sessions on the guidelines (see ⇥ **Compliance training program**).

Due to its legal independence, SGRE has implemented its own BCG, which, in line with the group-wide approach and underpinned by a human rights policy, aim to define respect for human rights as an integral part of corporate responsibility. To enforce this commitment, employees are trained in the requirements of the BCG, and the sales team must use evaluation and approval processes that take human rights into account. SGRE carries out compliance risk assessments (CRAs), complemented by ongoing monitoring and reporting by SGRE's Chief Compliance Officer. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, D2. Human Rights**.

Dimensions of human rights

In fiscal year 2022, GP further raised awareness of human rights in its business with a training video on the topic. Following a gap-analysis regarding the requirements of the German Supply Chain Due Diligence Act, our Executive Board as well as the Sustainability Council were briefed on the next steps regarding the implementation of the law.

We maintain regular exchange 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.

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 particularly emphasizes respect for the basic human rights of employees, including fair remuneration, freedom of association, health and safety standards and prohibition of discrimination, forced labor and child labor.

To support our suppliers, we continue to offer training on sustainability in the supply chain.

According to 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 with the UNGPs. Here we rely on external ESG databases focusing on country-, customer- and project-related risks. The results of the due diligence guide the project's decision-making process. We are continuously striving to improve our due diligence process. In 2022 we analyzed the effectiveness of the criteria that trigger a mandatory human rights project due diligence. We thereby aim to capture projects with relevant risks for our business.

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 regularly report on controversial topics via ratings and rankings, such as specific human rights aspects in critical projects.

Any violations of human rights associated with 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. Siemens Energy is not aware of any confirmed human rights-related violations submitted via these channels in the reporting period.

Compliance and integrity

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Compliance is a company-wide effort, and it starts at the top. We strive to ensure all our actions are aligned with our values, at every level of the organization.

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

As we operate globally 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, violations of the principles of fair competition and other breaches of the law. When such cases do occur, we take immediate action.

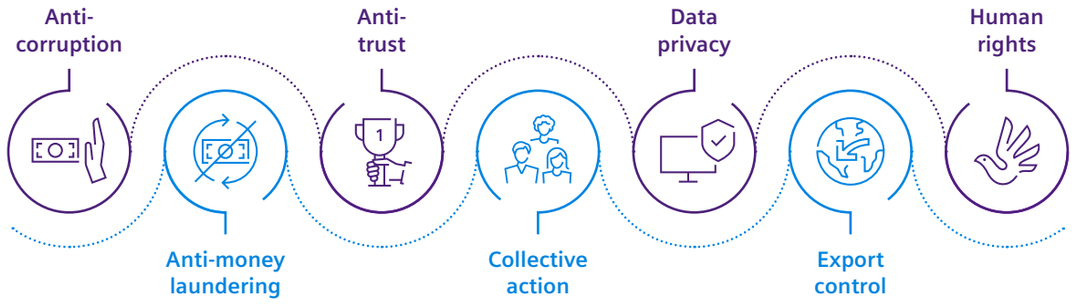
We support international organizations that strengthen responsible business practices, including the United Nations Convention against Corruption and the Anti-Bribery Convention of the OECD. Moreover, we contribute to the achievement of SDG 16 "Peace, Justice and Strong Institutions", which calls on 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, as corruption impedes economic growth and hampers sustainable societal development.

For Siemens Energy, compliance means more than adhering to laws and the internal regulations described in our BCG. Compliance is the basis for all our decisions and activities. Our premise 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, and our Group Compliance Officer reports regularly on GP and SGRE compliance matters to the Executive and Supervisory Boards.

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

Our zero-tolerance approach requires a holistic compliance system of measures to ensure that business is always carried out in full accordance with the law as well as our internal rules. The Siemens Energy-wide compliance approach is based on the three levels of action "prevent, detect, respond", centering around management's responsibility and comprising focus areas

Compliance focus areas

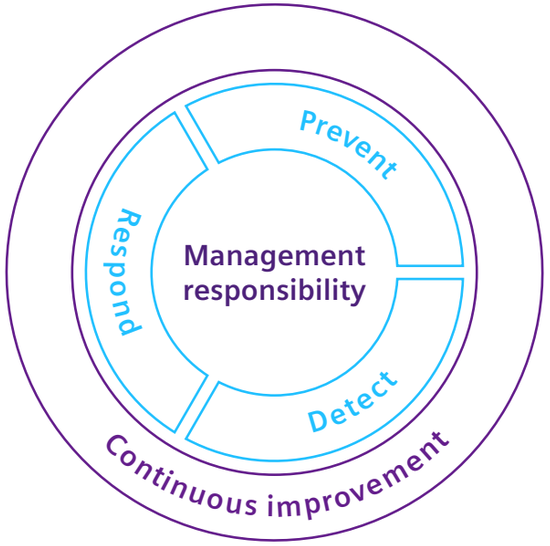


such as anti-corruption, anti-money laundering, antitrust, collective-action (GP only), data privacy, export control and human rights, which are also reflected in the BCG. For more information, see chapter Human rights.

SGRE has implemented its own compliance system and BCG that are in line with GP. For further information please refer to the SGRE Consolidated Non-Financial Statement 2022, D1. Ethics, Integrity and Anti-Corruption.

Preventive measures include the Siemens Energy training program, whistleblower and reporting channels such as our "Speak Up" reporting system at GP, the GP ombudsperson, the "Integrity Hotline" at SGRE, our compliance risk management system and the respective BCG.

Our compliance system: Management responsibility is the focus



The BCG for GP and SGRE set out our internal regulations. They express the 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.

We continuously update 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 to ensure that all business decisions and activities conform to the relevant legal requirements and follow our own values and company policies.

We expect the same commitment from all our employees and conduct regular surveys on integrity to obtain feedback from them. For example, the global employee engagement survey that we conducted this year at GP includes compliance and integrity topics. Based on the feedback we received, we created a centralized legal and compliance team development approach. In online workshops, for example, employees as well as external partners can hereby present topics from all areas relevant for the function.

Middle East Legal Awards – Compliance Innovator of the Year

Siemens Energy took the award for Compliance Innovator of the Year at the 2022 Middle East Legal Awards. Held in Dubai in May, the award honored Siemens Energy's work in conducting anti-corruption training with officials from the Ministry of Electricity in Iraq in June 2021 (see Siemens Energy Sustainability Report 2021). The training was part of Siemens Energy's Roadmap for the Electrification of the New Iraq, a series of projects launched to revamp the country's ailing electricity sector and provide Iraqis with the reliable and efficient energy necessary for economic growth.

Compliance training program

Our global compliance training program requires all managers and employees in positions with a specific risk profile to complete compliance training. The compliance officers of each company unit identify which managers and employees are required to participate and ensure they attend.

We aim to maintain ongoing compliance awareness. In this reporting period, this included ad hoc training in the field of export control to ensure the correct handling of sanctions (especially on Russia) and specific awareness activities. Dedicated compliance and integrity topics are communicated group-wide through continuous messaging on company social media (e.g., Yammer) and through integrity dialogues, which provide a forum for managers to discuss current compliance issues with their teams.

Compliance training[1]	September 30 2022	2021
Training on Business Conduct Guidelines		
Employees targeted that completed the module (no.)	67,248	60,519
Share of employees that completed the module (%)	94	83
Training on antitrust[2]		
Employees targeted that completed the module (no.)	44,951	43,304
Share of employees that completed the module (%)	95	95
Training on export control		
Employees targeted that completed the module (no.)	62,934	60,154
Share of employees that completed the module (%)	93	85
Training on data privacy[3]		
Employees targeted that completed the module (no.)	64,637	–
Share of employees that completed the module (%)	86	–

[1] GP as well as SGRE address the same overarching topics but may vary in detailed content. Figures contain employees that were trained in the respective modules, incl. prior years.

[2] Without SGRE.

[3] Prior year figures are not reported.

Compliance risk management

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

In this context, the annual CRA was conducted for GP in fiscal year 2022. At SGRE, the regular CRA is processed biennially and was also conducted in fiscal year 2022. Identified risks were addressed through local and central measures and followed up on in dedicated workshops. CRAs are an integral part of the quarterly updated company-wide ERM that creates further transparency throughout the risk environment.

Collaboration with business partners

Under certain circumstances, Siemens Energy can be held legally responsible for the actions of its business partners. We counter this risk by taking a comprehensive approach to selecting our partners, by contractually obliging them to adhere to our CoC and by monitoring ongoing collaborations. The CoC is based on the Ten Principles of the 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 process covers the entire life cycle of the business partnership. Our compulsory company-wide Business Partner Compliance Tool supports the implementation of the process and ensures the documentation of relevant information and activities. We are continuously enhancing our business partner due diligence process. We do this by systematically harnessing the potential of big data, using dashboards and analytics to improve risk management.

Channels for reporting misconduct

We offer all employees and external third parties confidential channels for reporting potential violations. In doing so, they help identify and eliminate misconduct, while protecting themselves and the company against any damage that may result. Such channels include:

- Managers
- Group Compliance Officer
- Compliance department and Legal department
- Human Resources department
- Whistleblower hotlines: “Speak Up” at GP, “Integrity Hotline” at SGRE
- Ombudsperson
- Employee representatives

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

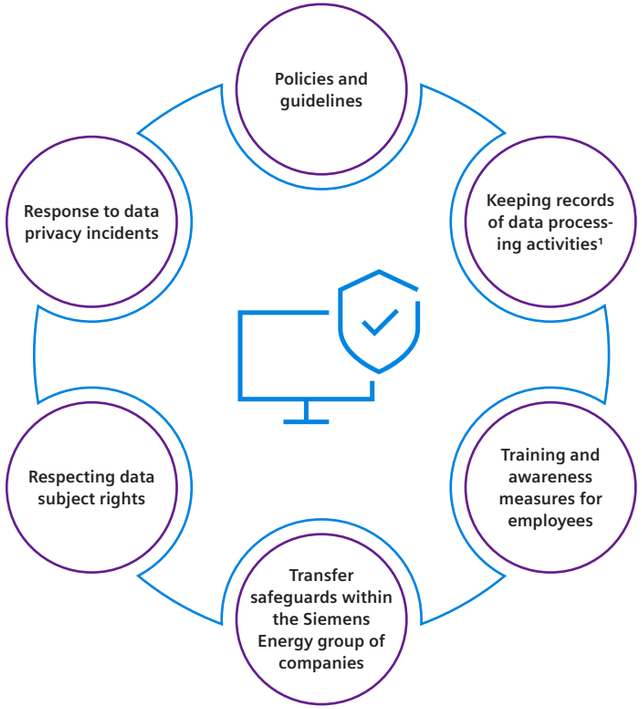
Our Compliance department investigates relevant reports based on pre-assessments and takes appropriate actions as per formal company-wide processes.

Data privacy

The protection of personal data plays an important role in our digitized world. We aim to handle it carefully and responsibly, respecting everyone’s privacy. 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, which aims to ensure the protection of our customers', business partners' and employees' personal data. Although we predominantly operate in a B2B environment where our customers are not end consumers, we nevertheless process business-related personal data, such as customers' and partners' employee data, (e.g., business contact information).

Data privacy management system



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

We are not aware of any substantiated complaints made in this reporting period relating to the protection of customer data.

Key compliance indicators

We respond to all allegations of possible violations of external and internal rules as per applicable formal company-wide processes and take appropriate disciplinary action in the event of proven violations. Once we complete a compliance investigation and identify compliance violations, our internal processes provide guidance to ensure we take appropriate action with the employees concerned. We evaluate and define consequences through disciplinary processes at central or local level and systematically monitor implementation.

The evidence demonstrates that our compliance system is well-designed and implemented effectively. Based on the nature of our businesses, the environments in which we work and the wide range of different geographical regions, we do not regard the number of incidents as unusual. With respect to disciplinary sanctions, the year-over-year increase in overall number is mainly due to cases in SGRE India.

	Fiscal year	
Compliance indicators	**2022**	**2021**
Compliance cases reported	118	103
Disciplinary sanctions[1]	188	49
thereof warnings	55	29
thereof dismissals	110	18
thereof other[2]	23	2

[1] 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 due process – was completed. In addition, a single case may result in multiple sanctions, or none at all.

[2] Includes loss of variable and voluntary compensation components, transfer and suspension, but not the revocation of signatory rights.

Siemens Energy is not aware that it has been convicted of any corruption, bribery or antitrust violations during fiscal year 2022.

Achievements

Siemens Energy reached a number of milestones in fiscal year 2022. These included:

- Developing the compliance system further by adapting the due diligence processes
- Enhancing compliance processes by further modernizing the GP compliance tool landscape
- Implementing the Compliance Projects Marketplace at GP to gain new ideas and encourage internal cooperation
- Continuing to develop the compliance training program and improving the onboarding process for new legal and compliance employees at GP
- Celebrating an integrity week across Siemens Energy to raise compliance and integrity awareness at GP, and
- Conducting extensive on-site training at SGRE India to raise awareness on compliance and integrity.

In fiscal year 2023, GP will go live with the Governance, Risk and Compliance Tool that we initiated in 2022. GP will continue to explore the possibilities of digitalization for further efficiency and to strengthen the compliance monitoring system. The cross-functional implementation of the German Supply Chain Due Diligence Act will also be a major task of fiscal year 2023 for GP as well as for SGRE.

In general, we will continue to tailor our compliance system to the individual risks and opportunities of our business and the organizational structure of Siemens Energy.

Working at Siemens Energy

4 QUALITY EDUCATION 5 GENDER EQUALITY 8 DECENT WORK AND ECONOMIC GROWTH 10 REDUCED INEQUALITIES

With our People and Culture strategy 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 develop a future-ready workforce**
- **We focus on creating diverse, inclusive and welcoming workplaces where people want to work**
- **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".

To enable our contribution to the SDGs and prepare the company for the future, GP has implemented the People Agenda. The People Agenda, including its programs and strategic initiatives, is designed around three main building blocks: Thriving environment, Game-changing leaders, and Vibrant workforce.

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.

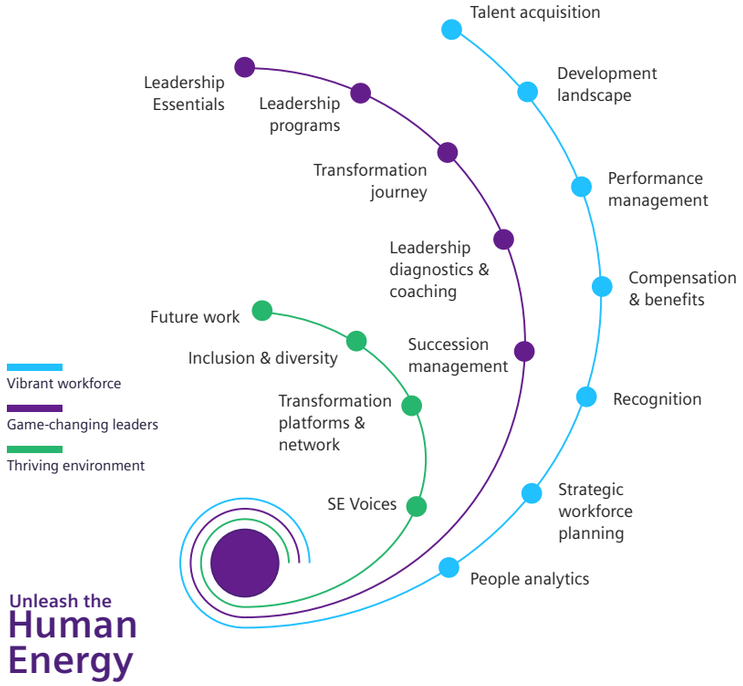
SGRE's purpose of empowering people to lead the future and its Culture of Trust program are essential to its business model. They are core to the business strategy, organization, hiring and decision-making process, daily operations and how the company and its employees grow. The SGRE people management model is committed to professional excellence and work-life quality and is structured around three main pillars: Leadership Excellence, Diversity and Inclusion, and Global Footprint. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, B1. Working at Siemens Gamesa**.

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 (I&D)
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 and gender expression. We strive to offer our employees equal treatment in a non-discriminatory work setting. To emphasize the relevance of I&D for Siemens Energy, our Chief Financial Officer, Maria Ferraro, is also Chief Inclusion & Diversity Officer.

Our People Agenda



Our holistic I&D Framework in GP supports our ambition and contributes to the promotion of I&D. At GP, among others, the following measures were taken in fiscal year 2022, in addition to the measures established in past years, such as mandatory diverse interview panels to reduce bias in the hiring process:

- The I&D Coalition of Allies at GP was established. It is chaired by the Chief Inclusion & Diversity Officer and meets on a quarterly basis to develop action plans.
- We launched a pilot Female Leadership@Scale program to accelerate the development of future female leaders (this is in addition to our Catalysta female development program).
- Diversity KPIs are shown and measured across our key succession pipelines in a succession dashboard.
- Facility upgrades of 40 offices initiated (to be completed by the end of the calender year 2022) to provide a barrier-free workplace for employees and visitors.
- In cooperation with our partner, Catalyst, one pilot MARC (Men Advocating Real Change) session was completed for our executive team in Europe to encourage male leaders to become better allies for women in the workplace.
- An ombudsperson was appointed to investigate complaints made by employees who feel they have been mistreated or experienced discrimination.

SGRE's Diversity and Inclusion (D&I) strategy is set over a two-year period and cascaded across the business. Strategic objectives are backed by specific action plans. Its efforts have been recognized by the Bloomberg Gender Equality Index for the third year in a row. Over the last year, progress was made in a number of areas:

- The D&I Governance Board, chaired by the Global Head of D&I, was founded, and regional D&I councils were established.
- A global program was initiated on preventing workplace harassment and discrimination that includes a formal complaint process and company-wide training.
- New flexible working models (including working from home part of the week) and improved digital disconnection guidelines were established.
- An inclusive leadership training was delivered for 55% of senior managers and a high rate of participation in D&I courses in LinkedIn Learning achieved.
- Equal opportunities plan implemented to increase the participation of women and other underrepresented groups.
- Transparency was created on the gender pay gap by professional category and relevant locations.

For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, B3. Diversity and Equal Opportunity**.

Our Inclusion & Diversity approach

Three focused strategy drivers serve as the foundation for a global and local program of action

Strategic intent

01 Equal opportunity

We are committed to fair and transparent practices for the attraction, promotion, development and retention of diverse people with different skills, abilities and ideas.

02 Belonging

We make our mix work by creating an inclusive culture where people feel respected, engaged, able to speak up and be themselves.

03 Society & partnerships

We work together, internally and externally, with customers and partners to support us in becoming more diverse and inclusive.

Speaking up against discrimination in the workplace

Allyship at Siemens Energy

Many people in society still experience discrimination due to their ethnic origin, gender, religion, disability, age, sexual orientation, gender identity and/or gender expression – and it is often in the workplace. At GP, we are determined for this change. To support employees at GP to feel safe to speak up honestly when mistreated, we have launched the Allyship campaign. It is a result of discussions from the diversity networks where some members came forward with stories of disrespect or racism. The campaign aims to change the internal culture and transform Siemens Energy into a truly inclusive and diverse company. It seeks to encourage kindness, respect, valuing differences and mutual support.

GP 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 2022, the share of women in top leadership positions at GP increased to 22% (fiscal year 2021: 21%). A new organizational structure was implemented at the beginning of fiscal year 2023. A systematic placement process was applied across all management levels at GP, which leads to an increase in women in top leadership positions.

SGRE 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 2022, the share of women in leadership positions at SGRE was 14% (fiscal year 2021: 13%).

Alongside 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 GP (SGRE reports gender pay differences separately), taking into consideration factors such as country, seniority and job family. This adjusted pay gap was about 5% (as of September 2022).

On September 30, 2022, Siemens Energy employed about 1,400 people with a disability in Germany (September 30, 2021 about 1,400).

	Fiscal year
Equal pay[1]	**2022**
Adjusted pay gap (%)	5.16
Unadjusted pay gap (%)	8.22

[1] Figures relating to GP. Prior year figures are not reported.
An unadjusted pay gap refers to the difference between the earnings of men vs. women (mean male vs. female FTE TDC in euros) that could arise from differences in a number of factors: job families, age or seniority as well as 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.

Transformation: Change management

To support the implementation of our new operating model (see chapter → Siemens Energy at a glance), we have introduced a holistic change management approach, interconnecting changes on the business side and the related impacts on people. This involves conducting multi-day workshops where leaders and managers collaborate to develop plans for supporting their people through that change. The individual plans cover aspects such as sponsorship, two-way communication, training and skilling and equipping managers with tools and resources to help lead change. We also offer e-learnings in multiple languages for all employees to help them navigate their personal change journeys.

Global employee engagement survey

At GP, 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 2022, the GP employee engagement survey was conducted with a response rate of 69% (fiscal year 2021: 70%), and more than 55,000 comments were provided. The majority of survey scores increased or remained stable on a global, company-wide level compared to last year's survey. Indicatively, 90% of employees (fiscal year 2021: 89%) stated they feel trusted by their manager, and 85% (fiscal year 2021: 85%) stated they believe our business contributes to cleaner business in society. With our team-led approach "Team Up For Action", teams use their results as conversation starters for open and honest discussions about the issues close to them. As a result, 74% said they discussed results and planned actions (a rise of 5% over the previous survey). We still see room for improvement around the topic of "Active Engagement", which measures the extent to which employees feel their team took actions to create positive changes after the last survey. This reporting year it reached a score of 55% (fiscal year 2021: 51%).

SGRE periodically carries out employee engagement surveys. In fiscal year 2022, the employee engagement survey was conducted with a response rate of 81% (79% in fiscal year 2021). The results reveal widespread satisfaction with the company's diversity culture (79% favorable score), along with an improved perception of the supervisor (81% favorable score) and sustainable engagement (78% favorable score). For further information please refer to ↗ SGRE Consolidated Non-Financial Statement 2022, B.1.5 Employee Survey.

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 modeling our Leadership Essentials.

Our six Leadership Essentials (see graphic below) help GP 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.

Leadership Essentials

Leadership development
GP runs four leadership pipeline and development 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.

In addition, we have created a community network for learning and ongoing growth that goes beyond the programs for alumni of the leadership pipeline programs.

SGRE has developed a leadership ecosystem to cover the needs of its leadership community. It includes a series of four leadership development programs, from early career leaders all the way up to highest management. Our global leadership programs are developed together with a world-leading business school and complemented by our internal offer. We aim to reach all management levels to build critical leadership capabilities and a strong pipeline of future leaders. See ↗ **SGRE Consolidated Non-Financial Statement 2022, B1. Working at Siemens Gamesa**.

Succession
With our succession risk management, GP strives to ensure business continuity and robust internal pipelines for key roles.

The Executive Board reviews the various pipelines on a quarterly basis. The process is supported by a dashboard that provides transparency on the diversity of the pipelines, the percentage of candidates from pipelining programs and succession ratios. In addition, we run the annual Board Mentoring Program as well as quarterly Succession Touchpoints for early talents with the Executive Board.

At SGRE, HR is responsible for identifying key roles and having a succession plan in place. All managers[1] are responsible for developing successors within their team using individual development plans to document development actions.

[1] The term manager refers to all heads as well as anyone who leads a team while being responsible for their development and growth.

Vibrant workforce

Our ambition is to become the employer of choice in the energy industry. We are doing this by investing in strategic workforce planning, employer branding, learning and development and a recognition and performance management system. All elements aim to contribute to the implementation of our strategy and to anchor our values and behaviors.

Strategic Workforce Planning (SWP)
SWP addresses structural workforce changes at an organizational level and strives to ensure critical roles and future-relevant skills are distributed appropriately across all levels and locations. We strive to close skill 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

This fiscal year, we developed and soft-launched the 4-step SWP process, including a toolbox to support SWP activities in the businesses. We have run three pilots to test the approach. We aim to run SWP continuously from fiscal year 2023, supported by data-driven insights and workforce simulation.

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

EnergySkills4Tomorrow and My Growth
The strategic upskilling framework at GP – EnergySkills4Tomorrow (ES4T) – was co-created throughout Siemens Energy, including #futurefit, and was launched in 2022. It consists of personal, digital, technical and functional skills that build a foundation and common language for SWP, learning offerings or competency management.

ES4T is anchored in My Growth, which is a portal offering self-insight tools such as multi-source feedback, self-driven coaching and personality questions to allow reflection on individual strengths and development areas.

My Performance, ES4T and My Growth offer a foundation for development conversations between employees and managers to define development goals and measures to support Siemens Energy strategy and transformation.

Training and education
The GP learning landscape provides formal training in multiple languages to all GP employees with access to a computer. The training focuses on two areas: training on our products, solutions and technologies, and training to develop and expand personal, professional and digital skills.

Training	Fiscal year 2022	Fiscal year 2021
Spend on further education (€ million)	69	58
Spend on further education per employee (€)	753	632
Total number of training hours	**943,655**	**786,721**
On-site	699,393	592,033
Web-based	244,263	194,087
Total average training hours per employee	**10.3**	**8.6**
On-site	7.7	6.5
Web-based	2.7	2.1

In fiscal year 2022, we enhanced the platform to include strategic topics and user experience to support our employees on their individual learning and development journeys. With curated learning landscapes, we provide orientation on topics such as leadership, sales, IT, digitalization and finance. Specific training programs were established in the areas of project management, leadership and onboarding.

Our GP employees spent an average of 6.8 hours on formal learning activities. To measure our employees' learning activities on separate, external platforms, we built a web interface where employees can manually record these activities. This application was made available in September 2022.

The learning policy at SGRE was released in fiscal year 2022 and is aligned with SGRE values. It covers product learning, which embraces SGRE-specific learning on process, tools, and products to ensure operational excellence, and standard learning, which covers all non-SGRE specific learning.

For standard learning, SGRE implemented LinkedIn Learning in fiscal year 2022. This gives SGRE the ability to provide equal learning opportunities for all employees, especially those not based at a large SGRE location. It gives the employees unlimited options for continuous learning and development.

With its vocational training programs in Germany, Siemens Energy aims to attract school graduates. As of September 30, 2022, there were 1,865 (September 30, 2021: 2,100) trainees and students enrolled in work-study programs: 897 (September 30, 2021: 1,062) internals and 968 (September 30, 2021: 1,038) externals from other companies. In fall 2022, a total of 247 (fiscal year 2021: 241) graduates began an internal apprenticeship or a work-study program, and there were 275 (fiscal year 2021: 280) external trainees. In addition to the apprenticeships in Germany, we also offer vocational training in several other countries.

Powering the future: vocational skills for students, engineers and technicians

Training and education in Egypt

The Siemens Energy Egyptian-German Technical Academy is committed to providing vocational skills in Egypt. Since its launch in 2020, the academy has trained over 2,500 technical students, engineering students, industry technicians, and engineers.

The academy's ongoing Training for Employment program aims to increase the youth employability rate and train technicians for the local market. In 2022, 130 students have graduated after passing 12 weeks of training in mechanics, electrics and welding and have been hired by local companies.

In the Technical Master Trainer program in cooperation with IHK Ostbrandenburg, the academy has trained and certified 16 technical master trainers. The aim of the certificate course is to empower suitable candidates to generate and deliver market-relevant courses in line with Siemens Energy and IHK requirements within the Egyptian training ecosystem.

Rewarding our workforce
As we aim for fair working conditions, industry wage agreements – which Siemens Energy adheres to – supersede the national minimum wage in many countries, especially in Western Europe. Hiring agency workers is common, and in many cases, contracts are governed by similar or comparable wage policies to those enjoyed by company employees.

Siemens Energy generally offers employees benefits based on local market practice. These can include additional time off, health benefits, family support, insurance subsidies and other perquisites.

Both GP and SGRE offer employees annual financial incentives based on individual performance as well as share purchase plans. Siemens Energy's senior leadership is additionally awarded stock entitlements partly tied to our long-term performance, including sustainability targets.

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 awarding 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.

Employee representation
At Siemens Energy, we highly value employee representation and participation in accordance with national laws. 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, inhouse employee representation is based on national regulations. In 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, it is based on domestic law. The Supervisory Board of Siemens Energy also contains employee representatives as full board members, who are – based on national law – either delegated by employees or appointed by the trade union.

Managing equality: tool for fair and equal compensation

Employee experience

The Compensation Insights platform COIN is a Siemens Energy-developed tool that enables a fair and equal compensation process. It provides data-driven recommendations that empower Siemens Energy managers across the globe to manage their compensation matters autonomously. With the data generated, we also strive to analyze and gain further insight into topics such as gender pay gap, differentiation and diversity. The platform was most recently recognized with the German iF Design Award 2022 in the category User Experience (UX).

Employee structure

As of September 30, 2022, Siemens Energy had about 92,000 (September 30, 2021: 91,000) employees worldwide[3], 28,000 (September 30, 2021: 26,000) of whom worked for SGRE. The average number of employees during the fiscal year stood year stood at about 91,000 (fiscal year 2021: 92,000).

Women accounted for 19.8% (September 30, 2021: 19.3%) of the workforce and 22.9% (fiscal year 2021: 19.4%) of all new hires. We expect 10.2% of employees to retire within the next 5 years[4] (fiscal year 2021: 10.2%). The share of employees with permanent working contracts is 95.4% (September 30, 2021: 95.1%). The worldwide average working week at GP was 39 hours with no changes in comparison to 2021. The average employee age was 42.7 (fiscal year 2021: 42.8). At Siemens Energy, about 75% of employees (fiscal year 2021: about 74%) are covered by collective bargaining agreements worldwide.

As part of our family-friendly corporate policy, GP employees in Germany, for example, are offered a range of opportunities to tailor their working times and locations to their needs, such as part-time and remote working, and are given the flexibility to care for children or sick relatives. In numerous countries, we offer employees additional support for their families and children, for example through school vouchers, allowances or additional time off. About 2,900 (September 30, 2021: about 3,000) employees, or 3.2%, worked part-time and around 2,100 (September 30, 2021: about 1,500[5]) were on leave of absence.

Age and regional structure

September 30

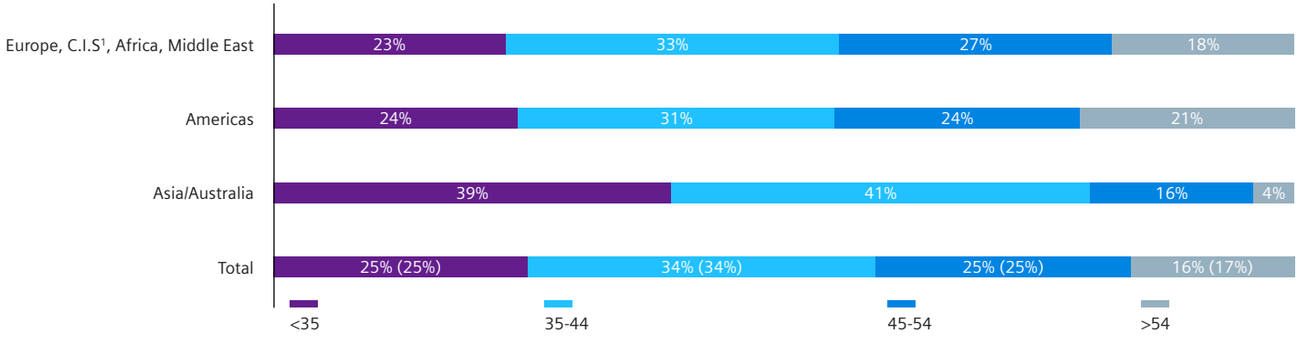


Figure for previous year in brackets.

[1] Commonwealth of Independent States.

Number of employees

September 30

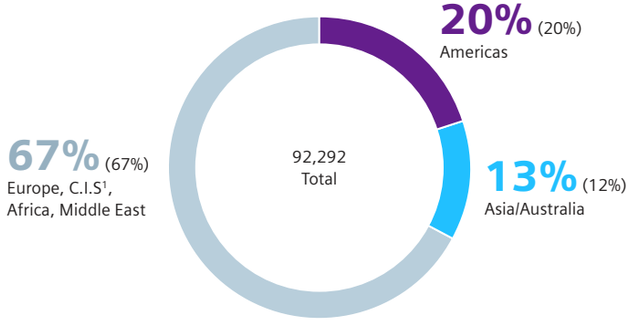


Figure for previous year in brackets.

[1] Commonwealth of Independent States.

Working contracts[1]	Fiscal year 2022
Employees with permanent working contract	88,014
Employees with temporary working contract	3,744
thereof female employees	874
thereof male employees	2,870
thereof EMEA	1,682
thereof Americas	110
thereof Asia/Australia	1,952

[1] Prior year figures are not reported.

[3] All figures in this section refer to the headcount.

[4] Employees with an age >57.

[5] Without SGRE.

Employee fluctuation – hirings	Fiscal year 2022	2021
Hirings (thousands)	**10.9**	**7.5**
thereof women (%)	22.9	19.4
thereof Europe, C.I.S.[1], Africa, Middle East (%)	59.4	55.8
thereof women Europe, C.I.S.[1], Africa, Middle East (%)	24.1	21.3
thereof Americas (%)	22.5	26.5
thereof women Americas (%)	20.6	16.2
thereof Asia/Australia (%)	18.2	17.7
thereof women Asia/Australia (%)	22.0	18.1
thereof age <35 (%)	57.3	–[2]
thereof age 35–44 (%)	28.0	–[2]
thereof age 45–54 (%)	11.3	–[2]
thereof age >54 (%)	3.4	–[2]
Recruitment rate[3] (%)	**12.0**	**8.2**

[1] Commonwealth of Independent States.
[2] Prior year figures are not reported.
[3] 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 2022	2021
Exits (thousands)	**9.7**	**9.7**
thereof dismissals[1] (%)	12.5	16.8
thereof women (%)	19.6	–[2]
thereof Europe, C.I.S.[3], Africa, Middle East (%)	57.1	51.7
thereof Americas (%)	30.4	29.4
thereof Asia/Australia (%)	12.4	18.9
thereof age <35 (%)	32.6	–[2]
thereof age 35–44 (%)	28.4	–[2]
thereof age 45–54 (%)	15.5	–[2]
thereof age >54 (%)	23.5	–[2]
Turnover rate[4] (%)	**10.6**	**10.6**
Turnover rate – voluntary (%)	5.3	4.3
Turnover rate – other reasons (%)	5.3	6.3

[1] Without SGRE.
[2] Prior year figures are not reported.
[3] Commonwealth of Independent States.
[4] 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.

Contractually agreed weekly working hours (average)[1]	September 30 2022	2021
Europe, C.I.S.[2], Africa, Middle East	38	37
Americas	42	42
Asia/Australia	41	41
Total	**39**	**39**

[1] Without SGRE.
[2] Commonwealth of Independent States.

Working hour programs[1] (%)	Fiscal year 2022
Employees working part-time	3.2
Women working part-time	2.1
Employees on leave of absence	2.3

[1] Prior year figures are not reported.

Societal engagement

We actively support initiatives that address the specific societal and environmental needs of the countries in which we operate and contribute to the future viability of these communities.

- **Global commitment to support local initiatives and engage our employees**
- **Providing relief and recovery assistance for areas affected by disasters**
- **Donations amounted to €3.62 million for projects worldwide in 2022**

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, we contribute to SDG 4 "Quality Education", SDG 5 "Gender Equality" and SDG 10 "Reduced Inequalities". And as 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, we have defined three focus areas based on our strategic context, our core competencies, the global targets for sustainable development and the influence 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 and actively reducing poverty

Across our regions, Managing Directors develop initiatives within these three focus areas. This way, we address the specific and unique needs of the respective countries. The objective of this approach is to:

- Enhance relationships with customers and partners
- Boost employee engagement
- Generate awareness of our brand
- 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.

Employees support the Kuernberg forest in Austria

The Purple Tree project

International Arbor Day is celebrated worldwide on April 25 and aims to raise awareness about the importance of forests for people and the economy. In Linz, the Siemens Energy transformers factory commemorated the day by launching its #PurpleTree initiative. For every LinkedIn post by Transformers Linz employees during April 2022 showing a picture of the specially designed Purple Tree, the company sponsored five tree seedlings for the Kuernberg Forest, a recreational area near Linz that is severely affected by climate change.

To manage its social commitment projects, SGRE launched a digital platform in fiscal year 2021. With the goal to ensure the greatest impact possible from its social commitment activities, SGRE calculates its social return on investment (SROI) to objectively quantify the social value of projects. The methodology, which is globally accepted, takes into account the type of project beneficiaries, location and time invested in the project. SGRE's SROI amounted in fiscal year 2022 to €7.63 for every €1 invested. The Social Commitment department is preparing a new strategy 2023-2025 focused on strengthening volunteering and successful projects that are closer to the business, increasing visibility and encouraging top management engagement. For further information please refer to ↗ **SGRE Consolidated Non-Financial Statement 2022, E1. Social Commitment**.

Since societal engagement is often driven by individuals, we encourage our employees to take social responsibility through our volunteering programs. GP has a dedicated volunteering framework in place that allows employees to spend up to 16 working hours annually volunteering on company-endorsed initiatives.

Likewise, the Impact Program at SGRE is a company-wide initiative to bring positive change to the communities in which SGRE operates while heightening the engagement of employees. Since its launch, SGRE has managed 51 projects in 23 countries with almost 2 million beneficiaries and the volunteering of more than 700 employees. The 6th edition of the program was open to employees from July 2022 to September 2022. The selected projects will be announced in December 2022.

Further to this, GP and SGRE are contributing to societal development all over the world through a range of projects in our designated focus areas:

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 power supply.

Local projects contribute to societal progress worldwide

1. **Olean Energy Transition Initiative** in U.S.
2. **FIRST Lego League** in Mexico, Marocco, Germany, Spain, UK
3. **Forests of Siemens Gamesa** in 13 countries and Amazon Rainforest
4. **Cooperation with universities** in China, Mexico, South Africa, Germany, Brazil, U.S.
5. **#PurpleTree project** in Austria
6. **Donations for victims of the war** in Ukraine
7. **Just Energy Transition Hackathon** in South Africa

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

In Olean, New York, U.S., GP is continuing its pilot program to support workers displaced by the energy transition. The two-year 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 2022, the focus is on supporting the community in developing educational curriculum and training programs, obtaining additional funding and setting up a grants program to assist small business start-ups. By the end of fiscal year 2023, the program will be developed into a blueprint that will serve as a guide for other communities affected by the energy transition.

SGRE launched the Forests of Siemens Gamesa, a sustainable development initiative in an effort to mitigate climate change and reduce CO_2 emissions. Since its inception, 26 forests and almost 100,000 trees have been planted by volunteers in 13 countries (Germany, Denmark, the U.S., Spain, Morocco, France, the UK, Mexico, Brazil, China, India, Uganda and Ethiopia), contributing to the removal of more than 7,100t CO_2.

Access to education
As digitalization progresses and the energy industry transforms, new skills are required. To this end, we are working to extend educational and research opportunities to more people. For both GP and SGRE, our respective strategies aim to inspire, engage and enthuse the next generation in the STEM subjects, particularly those in underrepresented demographics.

Our activities in schools included:

- Planet Rescuers, SGRE's educational videogame in Minecraft Education Edition, has been a huge success. Available for free in four languages worldwide, it has has reached more than 200,000 children in around 1,000 schools. A new chapter was launched in 2022 in which students visit an offshore wind turbine and see first-hand how green hydrogen is manufactured.
- SGRE designed a robotics program for students with FIRST Lego League to develop early engineering skills with real-world applications. In 2022 the program benefited more than 4,800 children in Mexico, Morocco, Germany, Spain and the UK.

We cooperated with universities on the following initiatives:

- In December 2021, SGRE joined forces with the United Nations Sustainable Development Solutions Network (SDSN) to promote university talent in the fight against climate change. Universities for SDG 13 is an international competition in which students from five universities work across disciplines to produce disruptive solutions for the energy transition and environmental sustainability. Universities from China, South Africa, Germany, Brazil and the U.S. took part.
- In 2022, three colleges in Mexico joined the Universities for Sustainability initiative. This learning project was launched in 2021 by SGRE and the University of Aalborg with the challenge "How to Achieve an Energy Transition with Sustainable Solutions".
- In June 2022, over 400 participants took part in the third #HackSTEM22, an online event organized by SGRE to promote STEM education through a series of webinars and a hackathon. The challenge was to create a user-friendly app to improve students' learning experience in STEM.

Sustaining communities

Providing access to basic infrastructure and services is essential for sustaining thriving communities. Siemens Energy is committed to providing relief and recovery assistance to areas affected by disasters. In addition to normal donations, GP employee and company-matching donations of €1.5 million were made via the Red Cross for victims of the war in Ukraine. After the donation program closed, many employees continued individual charitable activities, such as providing accommodation and social support for families who have been affected by the war. SGRE also matched employee donations to the International Red Cross 2:1 for a total of about CHF 0.5 million to help Ukraine's war victims.

In fiscal year 2022, donations from Siemens Energy totaled €3.6 million (fiscal year 2021: 4.7 million).

Donations by region		Fiscal year
(million €)	2022	2021
Europe, C.I.S.[1], Africa, Middle East	2.26	2.06
Americas	0.62	2.03
Asia, Australia	0.75	0.62
Total	**3.62**	**4.71**

[1] Commonwealth of Independent States.

Brainstorming for South Africa's net zero future

Just Energy Transition (JET) hackathon

In South Africa, the inaugural Siemens Energy Just Energy Transition (JET) hackathon gave a group of secondary school students the opportunity to brainstorm ideas for the country's transition to a net zero future. Given that 77% of South Africa's energy needs are provided by coal, this was no easy task. The winning school team suggested a clever mix of technologies including solar, wind, biomass and biogas and considered the costs of their proposal.

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The company and reporting method

Siemens Energy AG is incorporated as a stock corporation (Aktiengesellschaft) under the laws of Germany, 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.

The Siemens Energy business was formerly part of the Siemens Group and became an independent company by way of a spin-off and subsequent listing in September 2020. Siemens AG still holds a non-controlling interest in Siemens Energy AG of 35% (based on last voting rights notifications). Siemens Energy holds a majority interest of approximately 67% in Siemens Gamesa Renewable Energy, S.A. (SGRE), Zamudio, Spain. Siemens Energy announced a voluntary cash tender offer to acquire the remaining 33% of shares that are still in free float, with the intention of delisting SGRE from the Spanish stock exchanges.

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 is organized in two reporting segments, Gas and Power (GP) and Siemens Gamesa Renewable Energy (SGRE):

- GP includes our Generation, Transmission and Industrial Applications Divisions, with the respective service business based on customer groups and product lines, as well as our new business venture New Energy Business, developing our business with power-to-X technologies, electrolyzer systems and solutions for the production of green hydrogen using renewable energy and water. At our Capital Market Day in May 2022, we announced a new organizational structure, which came into effect on October 1, 2022. Within the new organizational structure, the Gas and Power segment is organized into three Business Areas: Gas Services, Grid Technologies and Transformation of Industry.
- SGRE focuses on the design, development, manufacturing, supply and installation of products, as well as the provision of technologically advanced services in the renewable energy sector with a focus on wind turbines for various wind conditions.

Reporting method

Sustainability is an integral part of our company strategy. In our Sustainability Report (hereinafter referred to as the "report"), we publish fundamental information about our sustainability activities such as strategy, organization, initiatives, programs, management systems and goals. As a listed company, our SGRE reporting segment has an independent sustainability strategy and publishes a separate ↗ **SGRE Consolidated Non-Financial Statement 2022**. While the strategic direction of both reporting segments is comparable, management approaches and programs may differ. We indicate deviations from a common approach in the respective chapter.

This report has been prepared in accordance with the GRI Standards – Core Option (see ↗ **GRI Content Index**). We use the UN Guiding Principles (UNGP) 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 2022 (October 1, 2021 to September 30, 2022). Any exceptions are indicated as such. We report annually on our progress.

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

Data collection

Given Siemens Energy's size and global spread, data gathering requires utilization of a distributed IT and data environment. Captured non-financial data may adhere to local rules and regulations, which may deviate from the group's reporting requirements. In order to ensure consistency of group non-financial reporting, input data is reconciled and adjusted to comply with the group's reporting requirements. All 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 the financial information. In particular, they may be subject to less extensive internal documentation, data generation and auditing requirements, including those relating to the IT systems used and the general control environment. To ensure data quality and maintain

information value, we identify and evaluate data restrictions in accordance with our internal guidelines. Where necessary and taking into account the need for 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, numbers 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. Extrapolation to 100% was applied to reflect completeness and ensure global coverage. We report environmental data for continuing operations. We monitor our environmental impact for all office and production sites of environmental relevance, using environmental data gathered quarterly.

Independent assurance review

We prepare our Sustainability Report to 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 93.

Task Force on Climate-Related Financial Disclosures (TCFD)

To create transparency on our climate actions, we disclose how we address risks and opportunities arising from climate change. To do so, we are following the recommendations developed by the G20 Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). Please also see our ↗ TCFD Index in the Siemens Energy Annual Report 2022, TCFD Index.

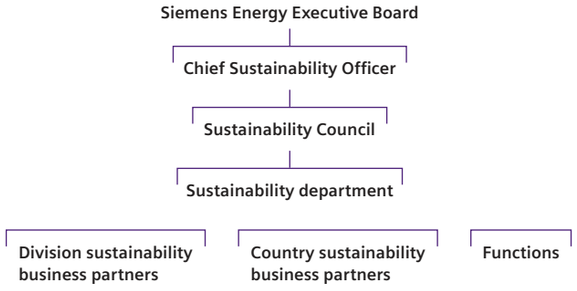
Climate change governance

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. During Capital Market Day we announced our aspiration to reach net zero across the entire value chain, in line with a 1.5°C pathway. Siemens Energy 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. Our Sustainability Program, which is fully integrated into our company strategy, is led by our Chief Sustainability Officer (CSO), who is also the CEO of our company. Climate action is a regular topic on the agenda of Executive Board meetings as sustainability is the cornerstone of our business strategy. Topics covered include adapting our business model to offer decarbonized solutions to our customers and the progress of our program to become climate neutral in our own operations by 2030. In addition, climate-related risks and opportunities are monitored. Within the Enterprise Risk Management (ERM) process, the Executive Board is informed quarterly and aligns on the reporting of all significant risks and opportunities throughout the company, including climate issues. Due to the relevance of the topic, it was decided to also include emission targets in the Senior Management's Long-Term Incentive plan. Furthermore, Siemens Energy is considering emission targets in financing instruments, such as the €3 billion Sustainability Linked Syndicated Multi-Currency Revolving Credit Facility with an international consortium of banks. Among the criteria to determine the interest rate is our emissions reduction.

To reflect the importance of sustainability and climate action, we have established the Siemens Energy Sustainability Council. It meets quarterly and on demand and consists of decision-makers representing Business Divisions (Division CEOs), Regional Hubs (Country CEOs) and Functions (Heads of).

The Sustainability Council strategically oversees the implementation of the Sustainability Program by making decisions, setting priorities and focus where needed, providing resources to implement the Program and being 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 of implementation of the Sustainability Program and an overview of topics where a decision is needed (if applicable). Climate change is also a regular topic on the agenda of Executive Board meetings and covers topics such as adapting our business model to offer sustainable solutions to our customers and the progress of our program to become climate neutral in our own operations by 2030. Climate-related risks and opportunities are monitored periodically by the Executive Board.

Organization of our sustainability governance



The Vice President Sustainability manages the Sustainability department, which is part of the Strategy Function, and is responsible for driving sustainability (including climate-related topics) within Siemens Energy and for coordinating the company-wide sustainability activities, programs and measures. Among others, the Sustainability department coordinates the Climate Neutral Program and works on portfolio topics. The implementation of climate actions in Divisions and Countries is ensured by nominated sustainability business partners. For further information, please refer to the chapterr Strategic focus.

SGRE has established a Board of Directors that sets the strategic direction and ambition for sustainability aligned with the corporate strategy, approves the sustainability targets, and monitors the achievement of these.

Management approach to climate-related risks and opportunities

In transitioning to a lower-carbon economy we may encounter considerable policy, legal, technology and market challenges. In addition, extreme weather conditions due to climate change could affect our business and have an impact on Siemens Energy in the medium and long-term. In this context, we define risks that could have a material adverse effect on our business situation, financial condition (including effects on assets, liabilities and cash flows), results of operations, reputation and opportunities that present themselves in our various fields of activity.

Climate-related risks and opportunities are analyzed within our dedicated Enterprise Risk Management (ERM) process as well as within further operational processes, such as in Environmental, Health and Safety (EHS), thus providing, for example, property risk engineering analyses for detailed location-specific EHS risks (e.g., fires, floods, windstorms). Our ERM aims at detecting the relevant business risks across the entire organization as possible deviations from the company's objectives. It is not the ultimate purpose of ERM to avoid or eliminate business risks, but to support entrepreneurial decision-making by finding the right balance of managing risks and pursuing opportunities. The management of all our defined organizational reporting units is responsible for providing all relevant risks for the respective unit.

The risk description must explain cause and effect and allow an independent expert to gain a good understanding. The risk assessment allows Siemens Energy to prioritize the identified risks and focus management attention on the most important topics. The assessment also serves as the basis for the definition of adequate response measures and monitoring activities. Please refer to the ↗ Siemens Energy Annual Report 2022, Report on material risks and opportunities.

Our risks and opportunities are categorized in a five-dimensional plan including the dimensions "Strategic", "Operations", "Financial" and "Compliance", each of them covering a broad spectrum of underlying associated topics. In fiscal year 2022, we added "Climate" as a stand-alone category with the aim to provide greater transparency on our climate risks.

Relevant risks and opportunities are prioritized in the dimensions impact and likelihood considering different impact perspectives, a quantitative perspective (financial, defined as potential loss of pre-tax profit) and qualitative perspectives (non-financial, defined as one of the four categories: business objectives, media/reputation, regulatory bodies' activities, and management time/attention). Impact is the potential adverse effect on our objectives, whereas likelihood is its probability of occurrence. Scenario analysis can inform both parameters in the context of climate risks and opportunities. Risk impact and likelihood are assessed based on a three-year time horizon through scales that are being consistently used across all defined organizational reporting units. In fiscal year 2022 we further developed the ERM to better reflect the long-term effects of climate change on Siemens Energy by adding a "Climate" category in addition to the four existing categories. This allowed us to expand the classic three-year, short-term reporting scope by mid-term (3-5 years) and long-term (5-30 years)

climate-related risks, improving the understanding of the development of climate-related risks over time. While assessing the impact of a risk, it needs to be considered how fast it is approaching the business and how resilient the organization will be upon its occurrence. Therefore, vulnerability (susceptibility of a company in terms of a company's adaptive and coping capacity regarding a specific risk) and velocity (speed of occurrence of a specific risk impacting the organization) are fundamental characteristics to be respected, in particular when assessing transitional and physical climate-related risks. Both scales range from 1 to 9, on the basis of which an overall exposure score is calculated for each risk that determines the ranking of risks against each other. Based on the calculated exposure scores, we defined four exposure levels, "low", "medium", "high" and "major". While the impact scale represents magnitudes from (corresponding financial categorization in brackets) "marginal" (up to €10 million) to "major" (exceeding €125 million), the likelihood ranges from "unlikely" (below 20%) to "certain" (above 80%). We define substantive impact on our business as a potential deviation from our objectives that is not only marginal.

Responding to risks in a first step focuses on the definition of appropriate risk strategies, including targets and response measures. In a second step, it focuses on the concrete implementation to reach the defined response targets. The key objective of the response phase is to bring the residual risk exposure to a tolerable level. For all risks and opportunities (irrespective of the exposure level), response plans have to be documented in the ERM tool. All response plans have to be agreed upon by the management level concerned and are founded on the general response strategy, which has to be mandatorily determined (to be chosen from five different risk response strategies: "Avoid", "Reduce", "Transfer", "Watch" and "Retain").

During the reporting process, each defined organizational reporting unit reports its updated risk register to the next higher organizational level for further evaluation and analysis. Thereby, individual risks and opportunities of a similar cause-and-effect nature are aggregated bottom-up into broader risk and opportunity topics. Such aggregation naturally results in a mixture of risks, including those with a primarily qualitative assessment and those with a primarily quantitative assessment. The resulting aggregated topics form the basis for the evaluation of the company-wide risk and opportunity situation and allow for a meaningful discussion of risk and opportunity at the Siemens Energy group level. Climate change is integrated into this process to the extent that it influences risks and opportunities across the different organizational units and areas assessed, e.g., in relation to corporate sustainability, EHS, supply chain or financing activities.

Assessment of physical climate risks in our operations is managed by the EHS department in cooperation with external expert consultants. Severe weather, such as fires, hurricanes, high winds and seas, blizzards, flooding and extreme temperatures may cause evacuation of personnel, curtailment of services and suspension of operations, inability to deliver materials to job sites following contract schedules, loss of or damage to equipment and facilities, supply chain disruption and reduced productivity. We continuously evaluate and monitor changes in physical climate parameters based on global studies, weather statistics and trends based on international experience of insurance companies. In addition, we perform local risk assessments based on the EHS emergency management and develop protection concepts if needed. Furthermore, our Insurance department provides natural hazard risk analysis for each new building project that drives the selection process for new site areas. The collected data and information allow us to identify geographical areas where we pay special attention at our sites to risks from changed physical climate parameters. To cover the risk exposure in the supply chain, we introduced a risk analysis procedure to systematically identify potential risks in the supply chain. Please refer to the chapters ⇥ **Decarbonization** and ⇥ **Sustainable supply chain management**.

Climate-related risks and opportunities

The impacts of climate change might have significant effects on our company throughout the entire value chain, such as on markets, technologies, policy and legal and reputation, as well as physical impacts on our sites, portfolio or supply chains, although these changes will be gradual over several years or decades. In particular, the trend toward sustainability in the energy market might force us to further review our strategy, organizational setup and portfolio. We constantly screen for climate action commitments and roadmaps, among other things, as well as upcoming regulations, to derive risk exposure and share relevant findings with the Sustainability Council for further action in the respective area of responsibility. In order to raise awareness of ESG risks in projects, we implemented an ESG check early in the process and work closely with Project/Customer Finance & Sales to ensure mitigation actions are identified and implemented in a timely manner. Furthermore, we perform carbon footprint assessments for selected customer projects to support decision-making.

The former GP Generation and Industrial Applications Divisions have been identified as most affected by climate-related risks and the decarbonization trend, therefore they are being continuously monitored through our risk management process.

Additionally, due to the variation in climate change risks across our business, we have no significant SGRE risks to report.

Based on the common TCFD risk categorization, the table below describes both the risks and opportunities arising from climate change for our business. For each of our risk mitigation measures, we highlight and pursue the respective opportunities to grow our business and contribute to more sustainable energy systems for society.

Climate-related risks and opportunities

		Risk exposure				
	Driver	Short-term[1]	Mid-term[2]	Long-term[3]	Identified potential impact	Risk mitigation and opportunity realization measures
Transitional risk	Technology	Major	Major	Major	• Climate change triggers significant changes in our markets and customer requirements (e.g., decarbonized energy systems). Our operating results depend on our ability to develop new applications while adapting our business models, offering and product portfolio 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.	• Close observation of market and regulatory developments, focusing on applications with earlier expected market maturity. • Development of new applications and continuous adaptation of our business models, offerings and product portfolio to changing customer requirements (e.g., H2 production, energy storage, resilient grids, decarbonized heat, H2-fired gas turbines). • Adaptation of business model and portfolio elements to the changing customer behavior following the disruptive developments in the energy market. • Acceleration of Siemens Energy's growth by developing a green product portfolio (e.g., power-to-X, heat pump), customer requirement-driven solutions (e.g., H2 production, energy storage, resilient grids, decarbonized heat, H2-fired gas turbines) and bringing this to market within a short time. • Provision of energy storage for our clients in existing power plants, as standalone solutions for grids and in combination with renewable energies like photovoltaic or wind. • Exploring market opportunities and future portfolio elements and setting the foundation for new businesses. • Simplification, speed-up and renewal of the way innovations are pursued, reflected in three elements: Focus: We select, prioritize and commit to ideas from a strategic perspective. Accelerate: We accelerate ideas to maturity through dedicated channels. Sustain: We strive for tangible returns and measurable value creation. • Analysis of our group portfolio using three areas of focus – core, growth and transformation – address technology needs in the R&D planning process and beyond to mitigate technology/portfolio risks. • Consistent decision-making in R&D re-allocation, from underperforming portfolio elements to new green portfolio elements reflecting the strategic (transformational) focus of the company. • Investment in targeted R&D activities that support our five fields of action to transform the future, supported by nine technology fields (see chapter Customers and Innovation).
	Market	High	High	Major	• 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), 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 a change in consumer preferences. • 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. • Market shifts toward renewable energy are assumed to have a positive impact on aspects of our business, including wind power with incentives and government-funded investments becoming available across the globe (i.e., IRA bill).	

	Driver	Risk exposure			Identified potential impact	Risk mitigation and opportunity realization measures
		Short-term[1]	Mid-term[2]	Long-term[3]		
Transitional risk	**Policy and legal**	Medium	Medium	Medium	• The markets of the gas and power business are affected by changes in national energy regulations, such as support of renewable energy, carbon pricing and climate change targets, and the modernization of energy and electricity markets. These will drive an incentive to adapt current products and develop sustainable solutions leveraged by supporting regulations. It is also expected that many countries will increase their (financial and regulatory) support for climate-friendly technologies and solutions to reach climate neutrality. • Risks arising from non-compliance with the Code of Conduct, legal, contractual or (emerging) regulatory requirements might affect Siemens Energy, e.g., through legal requirements on emissions. • CO_2 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.	• 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 (products and services) adaptations. • Where applicable, informing on emerging regulations either directly through contacts with the relevant regulatory bodies, or via associations, or together with similarly affected companies to avoid or lessen foreseen impact.
	Reputation	High	Major	High	• 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 earlier than expected) and financial conditions (e.g., unattractive investment opportunity for investors, divestments of ESG-oriented investors). However, a positive reputation may lead to better stakeholder relationships and thus may result in further business opportunities (e.g., financing, tenders, etc.). • 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.	• Implementation of a climate action program, including targets, to create transparency on decarbonization levers and aim to decarbonize our portfolio. • Active portfolio management, where sustainability/ESG fit is one of the four strategic lenses applied. • Constant screening of climate-related developments in the strategic 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. • ESG risks in projects are addressed at different stages of the process from early bid management throughout project execution involving various expert teams across the company. We work closely with Project/Customer Finance & Sales to discuss identification and implementation of mitigation actions. Furthermore, we perform carbon footprint assessments for selected customer projects to support decision-making. • Transparency creation on ESG performance for stakeholders, e.g., through the Sustainability Report and contribution to relevant ESG ratings and standards.

	Driver	Risk exposure			Identified potential impact	Risk mitigation and opportunity realization measures
		Short-term[1]	Mid-term[2]	Long-term[3]		
Physical risk	**Acute** increased severity of extreme weather events	Medium	Medium	-	• Severe weather, such as fires, hurricanes, high winds and seas, blizzards and extreme temperatures may cause evacuation of personnel, curtailment of services and suspension of operations, inability to deliver materials to job sites following contract schedules, loss of or damage to equipment and facilities, supply chain disruption or reduced productivity. Readiness for these emergencies will lead to increased resilience. • We may face the risk of missing out in identifying all global climate risks (e.g., floods, storms, etc.) due to changes in climate conditions that result in damage to property, impact on business continuity or the need for investment in preventive measures.	• Continuous evaluation and monitoring of changes in physical climate parameters based on global studies, weather statistics and trends based on international experience of insurance companies. • Performance of local risk assessments based on our EHS emergency management and development of protection concepts if needed. • Our Insurance department provides natural hazard risk analysis for each new building project that supports the selection process for the respective site areas. The collected data and information allow us to identify geographical areas where we 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.
	Chronic longer-term shifts in climate patterns	-	-	High	• 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 missing out in identifying all global climate risks (e.g., floods, storms, etc.) due to changes in climate conditions that result in damage to property, impact on business continuity or the need for investment in preventive measures.	• Transparency on environmental stressors and impacts has been created to evaluate, e.g., water stress on locations. • We are analyzing the potential impacts on our locations globally 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.

[1] Siemens Energy defines a time horizon of up to 3 years as short-term, as 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., IHS, 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 that is robust enough against potential deviations from the scenario assumed.

[3] For the long-term horizon, holistic long-term energy concepts for countries are being prepared by making use of various scenarios such as IHS Inflections, IHS Multitech Mitigation Case, or IEA STEPS, IEA SDS 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 to 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 associated with high uncertainty and supposedly little 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.

Strategic response, strategy resilience and climate scenario analysis

Climate-related risks and opportunities influence our strategy as well as financial planning – for example, in terms of portfolio adaptation, allocation of investments and R&D, our own operations and the entire value chain – to mitigate risks arising from the transition to a lower-carbon economy, such as CO_2 taxes, financing restrictions for GHG-emitting technologies or a reduction in customer demand due to a change in consumer behavior. As such, climate-related risks and opportunities might have a significant impact on our company in the short, mid and long term.

Sustainable energy is a critical driver for growth and prosperity worldwide, and we will continue to transform our portfolio of products, solutions and services with a focus on sustainability (see chapters Strategic focus and Decarbonization).

Driven by global sustainability efforts, market scenario outlooks have the following in common: electricity will grow faster than GDP, generation capacity will grow, grid investment will significantly rise and energy efficiency will be a competitive criterium in industry.

We are responding to these market observations and base 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. On the one hand, we are driving our existing portfolio more toward sustainability (e.g., Blue Portfolio without SF_6 gases in Transmission). On the other hand, we have set up five fields of action to drive innovation within the strategic pillars, in addition to renewable energy in SGRE, 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., offshore hydrogen, industrial waste heat recovery, carbon capture) and long term (e.g., direct air capture, rotating olefins cracker). We expect the addressable market of the fields of action to grow by ~19% CAGR until 2030, while we will increase our R&D with a CAGR of ~51% until 2025 and plan to increase our revenue by a CAGR of ~56% until 2030, all based on 2020 numbers. Further, we are also aligning our portfolio with our strategy – for example, the divestment of the gas engine business or the exit from new coal-fired projects.

Siemens Energy invests in targeted (mainly mid-term) R&D activities that support our Energy of Tomorrow fields of action to transform the future (see chapter Customers and innovation). Based on the Paris Agreement, we check which technologies do or do not fit in order to mitigate our investment risk and to come up with the best technologies for our clients.

Furthermore, in response to transition risks such as carbon pricing, Siemens Energy has developed a Climate Neutral Program and aims to be climate neutral by 2030 in its own operations. In the program, Siemens Energy developed reduction pathways for Scope 1 and 2 emissions and identified levers and measures, including Division targets. The strongest levers were identified:

1. Reducing energy consumption
2. Using renewable electricity
3. Reducing SF_6 emissions
4. New mobility concepts

In addition, our supply chain may face risks such as increasing procurement prices due to carbon pricing, which leads us to take coordinated action, such as engaging with our suppliers to reduce carbon emissions through our Carbon Reduction@Suppliers program (see chapter Decarbonization).

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, the use of climate scenarios has various facets and is used for different purposes to support our customers in achieving the Paris Agreement goal to limit global warming and avoid climate change impacts.

1. Corporate strategy
For our global strategic assumptions, we mainly use IHS Inflections, but also BNEF NEO, IEA Net Zero by 2050 (NZE 2050) and IRENA. They are applied in all businesses – for example, to deduce assumptions regarding 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 possible opportunities and threats if scenario compliance with climate goals materializes, as well as for corporate strategy development, the planning process, the sales targets for our regional managers and as a basis for our management decisions on an annual basis. Scenarios highlight the need for balancing fluctuating renewables and ensuring 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 related planning processes. They also help us identify new business opportunities, such as investment in hydrogen and energy storage. Here, we are using IHS Inflections, as well as IEA SDS with the following rationale: IHS Inflections, for example, is used for the Generation business with customized data for market planning. Our regional strategy is based on NDCs. Data provided are power generation, installed capacity, retirements and gross capacity additions by technology and fuel type, but also further macroeconomic indicators. IEA SDS is used to incorporate a multitude of societal (e.g., push for decarbonization) and economic indicators (e.g., GDP, 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 power generation market evolvement 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 deducted strategic rationales accordingly. Recently, IHS Inflections and IEA SDS scenarios were considered, looking at indicators such as uptake of renewables, need for decentralization, increased demand for energy efficiency and CO_2 prices for 2020-2040. The results confirmed our strategy.

3. Global decarbonization strategy

The focus on sustainability will transform the whole energy value chain over the next few decades. We consider ourselves a leading partner for energy transition for our customers and society by providing innovative technologies. This includes an understanding of the technological changes required for the next 30+ years as well as of the costs involved.

To estimate the future GHG emissions of our products, we used different market scenarios to cover various potential futures and global warming potentials. We particularly applied IHS scenarios in that context, which are to some degree comparable to the IEA scenarios. We applied the following steps: We (i) divided our business activities into group portfolio units (GPU) to cover all Siemens Energy businesses, (ii) collected GHG emissions for each GPU, (iii) categorized GPUs as either fuel burning, consuming electricity or zero emissions, (iv) selected three different market scenarios ranging from well below 2°C to above 2°C to holistically cover the broad range of possible market developments and (v) applied growth factors specific to each category based on the market assumptions of the underlying scenario.

To estimate future GHG emissions by GPU, we proceeded as follows: Since the GPUs, which are classified as fuel burning, are heavily focused on natural gas, we determined the growth rates for them mainly based on the forecasted gas capacity additions in the underlying market scenario. Likewise, we applied the global grid mix as an indicator for electricity-consuming GPUs to derive the GHG emissions. Generally, for Siemens Energy's emissions, we assumed the same growth rates as for the respective market scenario – that is, Siemens Energy develops in sync with the market, despite Siemens Energy's net zero ambitions. Based on that procedure, we calculated an annual absolute amount of GHG measured as metric tons of CO_2-equivalents (t CO_2e) for all business activities.

We applied a time span until 2050 to be in line with the global climate change target setting.

This approach enabled us to achieve transparency of GHG emissions on a fine-grained GPU level and identify the main drivers for future emissions on a GPU level, thus providing the foundation for strategic portfolio decision-making. Using this information, we strongly link GHG emissions to strategic, technology-related decisions, allowing us to look holistically at our business activities.

The main drivers for future emissions are: Growth rates derived from the scenario for group portfolio units (GPUs). As we assumed that emissions develop in sync with the market scenario, emissions increase accordingly in case of increasing capacity of unabated fossil-based global power generation. All scenarios that assume decreasing fossil-based power generation likely contribute to a well below 2°C target, and emissions decrease accordingly. The modeling of emissions on the GPU level allows us a yearly view and provides the basis for designing measures to mitigate emission increases, thus enabling strategic decision-making.

Scenario analysis provides a foundation for (i) getting transparency on the status quo of emissions (based on actual data), (ii) analytically identifying potential pathways, (iii) mirroring external market development to internal decision-making, (iv) developing potential options to mitigate emissions and (v) supporting business strategy and portfolio decisions toward a net-zero trajectory. Overall, shifting our portfolio toward decarbonization entails risks, but we see a big potential in our transforming business, for example through our fields of action.

4. Physical climate risks

We are assessing physical climate risks under different climate change scenarios, with a focus on the mid and long term (2030-2050). In some areas, long-term information until 2100 is also provided for context. While climate change effects will become more evident over the longer term, other evolving factors, such as local development, mean there is higher uncertainty around the impact on Siemens Energy's property portfolio for our most relevant locations – for example, in terms of total insured value.

The climate change scenarios are IPCC climate scenarios, called the Shared Socioeconomic Pathways (SSPs), based on the RCP scenarios. SSPs are the most recent scenarios that combine the information included in RCP with other social, economic and technological factors (such as energy mix used). These are included in the 6th Assessment Report by the Intergovernmental Panel on Climate Change (IPCC AR6).

This analysis uses climate data from Jupiter Intelligence's Climate Score Global v2.6 (sourced April 2022).

The impact and evolution assessment were conducted along:

- Hazard, peril
- Hazard level
- Return period
- Criticality
- Vulnerability

Perils and metrics assessed:

- 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 large hail possible
- Wildfire: Annual fires per square kilometer
- Precipitation: 24-hour precipitation relative to change in % since 1995 baseline
- Thunderstorm: Days severe thunderstorm probable
- Cold: Absolute cold waves

We are analyzing the potential impacts on our locations globally using different pathways and taking into consideration their total insured values. Based on this baselining, we are implementing preventive measures integrated into the local management systems.

Metrics and targets

Sustainability is a core part of Siemens Energy's strategy. Therefore, it is essential to set targets and measure performance against those targets.

We will continue to transform our portfolio, since the greatest potential to reduce GHG emissions is within our products, solutions and services. Sold products make up over 99% of our overall carbon footprint. We are committed to a 28% reduction by 2030 from a 2019 base[1]. The SBTi confirms that our target for the use of our sold products is in line with the Paris Agreement goal to limit global warming to well below 2°C.

Scope 3 downstream emissions		Fiscal year
(1,000 metric tons CO_2e)	2022	2021
Total[1]	**1,323,012**	1,369,163
Intensity (t CO_2e/€ of order intake)	0.035	0.041

[1] Includes category "use of sold products" only (well-to-tank emissions are included, biogenic emissions have been excluded). SGRE emissions equal zero.

Becoming climate neutral in our own operations is an integral part of the sustainability journey for Siemens Energy. The GP reporting segment aims to be climate neutral in its own operations by 2030. 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. The strongest levers to achieve climate neutrality by 2030 are reducing energy consumption, using renewable electricity, reducing SF_6 emissions and new mobility concepts. Furthermore, our target is to have 100% of Siemens Energy's global electricity consumption from renewable sources by 2023. In 2022, we reached 90% green electricity.

In 2020, the SBTi verified that SGRE's emissions reduction targets (Scope 1 and 2) are aligned to meet the 1.5°C Paris Agreement goal. SGRE achieved carbon neutrality in its own operations in 2019, including offsetting unavoidable emissions. It aims to become a carbon sink (carbon positive) in its own operations by 2040 and seeks a zero-emission supply chain by 2040.

Scope 1 and Scope 2 emissions		Fiscal year
(1,000 metric tons CO_2e)	2022	2021
Scope 1	188	206
Scope 2	27	67
Total	**215**	273
Intensity (t CO_2e/€ of revenue)	7.42×10^{-6}	9.57×10^{-6}

With regard to decarbonization in the supply chain, GP runs its Carbon Reduction@Suppliers Program in cooperation with an external service provider, which offers an economic model based on an input/output analysis that identifies the CO_2 footprint of all suppliers.

GP has set itself the target of reducing relative Scope 3 GHG emissions from purchased goods and services as well as transportation and distribution by 30% per procurement volume (€ spent) until 2030.

SGRE has set a target to engage 30% of its suppliers by spend, covering purchased goods and services as well as transportation and distribution, to have science-based targets by 2025. Based on this short-term target SGRE aims to reach at least 50% by 2040.

Scope 3 upstream emissions[1]		Fiscal year
(1,000 metric tons CO_2e)	2022	2021[2]
Total[2]	**5,081**	4,433
Intensity (kg CO_2e/€ of purchasing volume)	0.424[3]	0.440

[1] Without SGRE.

[2] Due to the further development and optimization of the CO_2 calculation tool, the CO_2 emissions for fiscal year 2021 and fiscal year 2018 (baseline) were recalculated.

[3] Reduction compared to the base year fiscal year 2018 (baseline calculation) -10.85%

For more information on our decarbonization efforts, energy consumption and related GHG emissions, please refer to the chapter → **Decarbonization**.

[1] Baseline fiscal year 2019, 1.5 billion metric tons CO_2e.

UN Global Compact – Communication on Progress

Siemens Energy has been a participant in the United Nations Global Compact since 2020 and is committed to its Ten Principles. Index according to the Ten Principles of the Global Compact.

Principle	System	Measures	Achievements
Principle 1 Support of human rights **Principle 2** Exclusion of human rights abuses **Principle 3** Assurance of freedom of association **Principle 4** Elimination of all forms of forced labor **Principle 5** Abolition of child labor	Our Siemens Energy Business Conduct Guidelines (BCG) provide the ethical and legal framework within which we conduct our business activities. They contain basic principles and rules for our conduct internally and externally, for example on human rights and labor standards. The BCG are binding for all executives and employees worldwide. The Siemens Energy-wide compliance approach is based on the three levels of action "prevent, detect, respond", centering around management's responsibility and comprising focus areas such as anti-corruption, anti-money laundering, antitrust, data privacy, export control and human rights, which are also reflected in the BCG. Our actions go beyond compliance with applicable laws and regulations; they include, among others, our commitment to the International Bill of Human Rights, European Convention on Human Rights, International Labour Organization (ILO), 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), United Nations Guiding Principles on Business and Human Rights (UNGPs) and OECD Guidelines for Multinational Enterprises. All of our suppliers and third-party intermediaries must sign our Code of Conduct (CoC) for Suppliers and Third-Party Intermediaries, which requires that these basic rights and principles are also upheld in our supply chain. The CoC particularly emphasizes respect for the basic human rights of employees, including fair remuneration, freedom of association, health and safety standards and prohibition of discrimination, forced labor and child labor.	All employees must agree to the BCG and are given mandatory web-based training sessions on the guidelines. Preventive measures include the Siemens Energy training program, communication channels such as our "Speak Up" reporting system at GP, the GP ombudsperson, the "Integrity Hotline" at SGRE, our compliance risk management system and the respective BCG. 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. Human rights due diligence is mandatory in the sales phase for projects that meet defined risk criteria, and the process conforms with the UN Guiding Principles on Business and Human Rights (UNGPs). The results are decisive for the project's decision-making process. Using our sustainability risk analysis system, we systematically identify potential risks in our supply chain, including bribery, corruption and human rights issues, among others. The cornerstones are the identification of risks and categorization of commodities, the establishment of risk levels for individual countries and the use of different strategic measures. Following this risk-based analysis, we have implemented Corporate Responsibility Self-Assessments (CRSAs) for suppliers in identified high-risk countries, whereby they are screened with regard to all aspects of the CoC. Furthermore, we conduct quality audits including questions about sustainability that cover major aspects and requirements of the CoC. We see external sustainability audits (ESAs) as the most effective means of reviewing our suppliers' sustainability performance and therefore increased our target for this fiscal year.	Siemens Energy has identified material human rights topics based on an internal materiality analysis from the following perspectives: "supply chain", "workplace" and "customer projects". They reflect our value chain and have been sorted according to relevance for our business. Awareness of human rights issues was raised in the reporting period in the Siemens Energy Sustainability Council, for example, the Siemens Energy Executive Board as well as the Supervisory Board were briefed on relevant topics, such as the implementation of the German Supply Chain Due Diligence Act. In fiscal year 2022, 94% of our employees were trained on the BCG. Around 75% of employees are covered by collective bargaining agreements worldwide. In the year under review, we conducted 3,466 CRSAs for suppliers. Compared to fiscal year 2021, the number increased by 106%. Furthermore, we conducted 961 quality audits with integrated sustainability questions. Compared to fiscal year 2021, the number increased by 127%. In addition, we conducted 167 ESAs, which is an increase of 6% compared to fiscal year 2021. When surveying our approximately 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). **Sustainable supply chain management, pages 53-57** **Human rights, pages 60-61**

Principle	System	Measures	Achievements
Principles 1 – 5 (cont.)	Furthermore, Siemens Energy is committed to preventing the use of minerals from conflict-affected and high-risk areas in its supply chain. To this end, we have a Responsible Minerals Sourcing Policy in place to provide a uniform, company-wide supply chain management standard. SGRE, in turn, has implemented its own compliance system and BCG that are in line with the GP approach, as well as a CoC for suppliers and third-party intermediaries according to its BCG and its Global Corporate Social Responsibility Policy. **Compliance and integrity, pages 62-65** **Sustainable supply chain management, pages 53-57** **Human rights, pages 60-61**	To determine the use, sources and origin of minerals from conflict-affected and high-risk areas 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. Based on risk sources identified by the EU, which cover armed conflicts, weak governance and human rights abuses, Siemens Energy also conducts a specific mineral risk assessment to identify other relevant minerals apart from 3TG. **Sustainable supply chain management, pages 53-57** **Human rights, pages 60-61**	
Principle 6 Elimination of discrimination Empowerment of women	At Siemens Energy, we strive to create a workplace environment that is open to everybody regardless of their ethnic origin, religion, world view, age, disability, gender and sexual orientation throughout the whole organization. We strive to offer our employees equal treatment in a non-discriminatory work setting. To emphasize the relevance of Inclusion & Diversity for Siemens Energy, we have anchored the topic to the very top of the company with Maria Ferraro, the Chief Financial Officer of Siemens Energy, also holding the role of Chief Inclusion & Diversity Officer. Our Leadership Essentials and our values – caring, agile, respectful and accountable – are key in ensuring our employees feel valued and respected. This commitment is also anchored in our BCG as well as our CoC, which emphasizes respect for basic human rights, including fair remuneration and prohibition of discrimination. SGRE's Diversity & Inclusion strategy is set over a two-year period and cascaded across the business. Strategic objectives are backed by specific action plans. **Human rights, pages 60-61** **Working at Siemens Energy, pages 66-73**	To enable our contribution to the SDGs and prepare the company for the future, GP has implemented the "People Agenda". The People Agenda, including its programs and strategic initiatives, is designed around three main building blocks: Thriving environment, Game-changing leaders, and Vibrant workforce. The SGRE people management model is committed to professional excellence and work-life quality and is structured around three main pillars: Leadership Excellence, Diversity and Inclusion, and Global Footprint. We strive to offer our employees equal treatment in a non-discriminatory work setting. To emphasize the relevance of I&D for Siemens Energy, our Chief Financial Officer, Maria Ferraro, is also Chief Inclusion and Diversity Officer. To measure progress, we have developed a global Inclusion & Diversity dashboard for the GP reporting segment. It includes performance indicators covering multivariant diversity, such as the share of women, age groups and minorities in management, as well as employee survey results. In 2022, we launched a pilot Female Leadership@Scale program to accelerate the development of future female leaders (this is in addition to our Catalysta female development program). SGRE has, for example, developed an Equal Opportunities Policy that defines positive action to increase the representation of underrepresented groups in the workforce. SGRE's purpose of empowering people to lead the future and its Culture of Trust program are essential to its business model. They are core to the business strategy, organization, hiring and decision-making process, daily operations and how the company and employees grow. **Working at Siemens Energy, pages 66-73**	GP aims to reach a share of 25% women in top leadership positions by 2025, and a share of 30% women in top leadership positions by 2030. SGRE aims to reach a share of 25% women in headcount and in leadership positions by 2025, and a share of 30% women in headcount and leadership positions by 2030. In the year under review, women accounted for 19.8% of the workforce. Women hired amounted 22.9% of all new hires. The share of female employees in top leadership positions at GP is 22% (September 30, 2021: 21%). The share of female employees in leadership positions at SGRE is 14% (September 30, 2021: 13%). On September 30, 2022, Siemens Energy employed about 1,400 people with a disability in Germany. In several countries, it is not allowed to register people with disabilities due to legal requirements. **Working at Siemens Energy, pages 66-73**

Principle	System	Measures	Achievements
Principle 7 Precautionary approach to environmental protection	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 culture, which is driven by certain essentials, behaviors and principles (see graphic on Zero Harm). At Siemens Energy, we aim to minimize our impact on the environment by reducing emissions, waste and freshwater withdrawal as well as protecting biodiversity. In particular, Siemens Energy recognizes that urgent action on climate change is required. Therefore, sustainability is an essential part of our strategy. Siemens Energy has EHS management systems in place to manage its environmental performance and comply with applicable laws, regulations and stakeholder expectations. The environmental management systems are founded on the principles and elements of the international ISO 14001 and 50001 standards or energy audits as per national legislation. Our EHS Policy 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. In the GP reporting segment, our EHS Policy is further supported by the Zero Harm Framework, which aims to embed responsible principles and behavior at all levels of the organization. SGRE also continues to instill a strong safety and Zero Harm culture across the global business. Its initiatives include "Safety is My Choice" and the 10 Life-Saving Rules. Additionally, SGRE has defined its environmental targets as part of the Sustainability Strategy Vision 2040. → Conservation of resources, pages 45-48 → Decarbonization, pages 30-36	The main objectives focused on improving environmental performance in the areas of energy, air, water and waste, including increased energy efficiency by using energy management systems at sites, adapting the purchasing strategy toward green electricity by 2023, controlling air-pollutant emissions by replacing ozone depleting substances and reducing solvents, implementation of local water strategies and risk analysis, zero waste to landfill by consistently preventing landfill waste, and reducing waste materials. As part of our climate action, we are consistently pursuing climate neutrality in our own operations and intend to be climate neutral by 2030 and to compensate for remaining emissions from then on. The main levers to achieve emissions reductions are the reduction in energy consumption, using renewable electricity, reducing SF_6 emissions and new mobility concepts. Furthermore, CO_2 pricing is an important steering mechanism for achieving climate neutrality. We believe binding CO_2 budgets for all sectors and regions as well as clear CO_2 price signals can guide us toward the 1.5°C target. At the same time, we are dedicated to delivering our customers innovative solutions that drive their energy transformation and support the decarbonization of the energy sector. We will continue to transform our portfolio of products, solutions and services and focus on building our company based on three key pillars: low- or zero-emission power generation, transport of energy and storage, and reducing our GHG footprint and energy consumption in industrial processes. In April 2021, the SBTi validated the absolute GHG reduction targets for our GP reporting segment, not only for our own operations (Scope 1 and 2), but also for our sold products (a category of Scope 3). It confirms that our targets are in line with the Paris Agreement to limit global warming. To advance climate neutrality across the entire value chain, we are also working on decarbonizing our supply chain together with our suppliers with our Carbon Reduction@Suppliers Program. In 2020, the SBTi verified that SGRE's emissions reduction targets (Scope 1 and 2) are aligned to meet the 1.5°C Paris Agreement goal. SGRE achieved climate neutrality in its own operations in 2019, including offsetting unavoidable emissions. It expanded its ambitions by setting a net zero emissions target covering Scope 1 to 3 by 2040. SGRE has defined its environmental targets as part of the Sustainability Strategy Vision 2040. → Product stewardship, pages 49-52 → Conservation of resources, pages 45-48 → Decarbonization, pages 30-36	During fiscal year 2022, GP transitioned from having six umbrella certificates covering ISO 9001, ISO 14001, and ISO 45001 to having one overarching GP multi-site certificate that covers all three standards. In the next step, countries and stand-alone certificates will be integrated into the GP multi-site certificate. In fiscal year 2022, we managed to reduce our Scope 1 and 2 emissions by around 21% to 215,000 metric tons CO_2e. Included in this is a reduction of SF_6 by 14%. As part of our SBTi commitment, we aim for a reduction of absolute Scope 1 and 2 GHG emissions by at least 46% by 2030 from the base year 2019. Furthermore, we have set ourselves the target to reduce our SF_6-related emissions by 60% by 2030 compared to a 2019 baseline. SGRE achieved climate neutrality in its own operations in 2019, including offsetting unavoidable emissions. Siemens Energy's total energy consumption during the reporting period was 5.8 million gigajoules. Compared to fiscal year 2021, this is an decrease of about 8%. Our share of green electricity was 90%, and we aim to achieve 100% by 2023. The Scope 3 downstream emissions (category "use of sold products") for fiscal year 2022 are 1.32 billion metric tons CO_2e. Compared to fiscal year 2021, this is an decrease of about 3% in total emissions. The GP reporting segment is committed to a 28% reduction by 2030 from a 2019 baseline. At the GP reporting segment, the Scope 3 upstream emissions (categories "purchased goods and services" as well as "transportation and distribution") for fiscal year 2022 5.1 million metric tons CO_2e, resulting in an intensity of 0.424 kg CO_2e per € of purchasing volume, which is 4% lower in intensity compared to 2021. For GP, we have set ourselves 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 (€ spent) until 2030 based on fiscal year 2018. SGRE has set a target to engage 30% of its suppliers by spend, covering purchased goods and services as well as transportation and distribution, to have science-based targets by 2025. Based on this short-term target SGRE aims to reach at least 50% by 2040. The absolute waste amounted to about 139,000 metric tons. The waste in fiscal year 2022 was 4% lower compared to the previous year. The share of recycling was 81%. At Siemens Energy, the volume of water abstracted over the reporting period equates to 3.45 million cubic meters, which is a decrease of 16%. Wastewater from our facilities and manufacturing processes amounts to 3.46 million cubic meters, which is a decrease of 15%. → Conservation of resources, pages 45-48 → Decarbonization, pages 30-36

Principle	System	Measures	Achievements
Principle 8 Specific initiatives to promote environmental protection	Raising our employees' awareness on environmental and climate protection is an element of both our environmental strategy and our social commitment. With internal communication measures, we help create a greater sense of responsibility for ecological issues. Diverse countries around the world engage in societal engagement initiatives on building awareness for environmental topics within our global framework on societal engagement. For the GP reporting segment, our Zero Harm Framework provides the foundation upon which we aim to meet the growing number of environmental protection requirements of our customers and strengthen our position as a sustainable company. Through the various building blocks, the framework provides content for local programs and initiatives. **Product stewardship, pages 49-52** **Conservation of resources, pages 45-48** **Societal engagement, pages 74-76**	Our EcoTransparency app enables our Sales, Product Management, and R&D departments to calculate product- and project-specific CO_2 footprints under varying scenarios. The app is based on existing life cycle assessment models and provides customers and stakeholders with additional information regarding specific footprints, thus enabling them to meet reduction targets for all environmental impact categories. With the GP societal engagement approach, we have defined a framework that includes three focus areas that reflect our global commitment but also allow local autonomy: • Driving the Energy Transition: Support clean energy R&D • Access to Education: Promote STEM (science, technology, engineering and mathematics) subjects and climate education (especially for underrepresented demographics) • Sustaining Communities: Disaster recovery (especially related to electricity supply) SGRE has defined its environmental targets as part of the Sustainability Strategy Vision 2040. **Product stewardship, pages 49-52** **Conservation of resources, pages 45-48** **Societal engagement, pages 74-76**	Local zero waste initiatives have been identified by our employees and are supported by Siemens Energy. At Siemens Energy in Brazil, all sites have now achieved zero landfill waste generation. This was done through increasing waste segregation and recycling, and developing new solutions for waste disposal besides landfill. Our sites have now achieved 90.5% recycling in their operations. In fiscal year 2022, we sent 4 metric tons of waste to landfill, down from 295 metric tons in 2021 – a reduction of 99%. In 2021, SGRE launched RecyclableBlade, the first comprehensive recyclable rotor blade solution that is ready for commercial offshore projects. The RecyclableBlade is produced the same way as a standard blade. The only difference is the use of a new type of resin that allows the blade components to be efficiently and gently separated from one another at the end of the blade's working life. This allows the individual materials to be recycled for new applications across various industries – a major step toward creating a waste-free wind industry. **Product stewardship, pages 49-52**
Principle 9 Development and diffusion of environmentally friendly technologies	Public energy infrastructure is one of the most important prerequisites for the sustainable development of societies. The greatest potential for Siemens Energy to reduce GHG emissions is in products, solutions and services. Our mission is to support our customers in transitioning to a more sustainable world by providing technologies for a sustainable, affordable and reliable energy supply, based on our innovative technologies. 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. As a provider of clean and affordable energy, SGRE's strategy has focused on opportunities to develop new onshore and offshore wind turbines with bigger rotors able to deliver higher annual energy levels at a lower cost. **Customers and innovation, pages 23-27** **Decarbonization, pages 30-36**	We will continue to transform our portfolio of products, solutions and services and focus on building our company based on three key pillars: low- or zero-emission power generation, transport and storage of electricity and reducing our GHG footprint and energy consumption in industrial processes. Through our company strategy, we are shaping our existing business by developing our portfolio with a focus on sustainability and service by allocating the R&D budget to achieve breakthrough innovations and by creating an ecosystem of partners. We are investing in targeted R&D activities that support our five fields of action to transform the future, supported by nine technology fields. **Strategic focus, pages 13-20** **Customers and innovation, pages 23-27**	In fiscal year 2022, Siemens Energy invested €1.1 billion in R&D. Our partnership ecosystem allows our businesses to cooperate in specific focus areas, for example, Siemens Energy is helping to accelerate green hydrogen production worldwide by scaling up the production of large-scale electrolyzers. In June, we announced a joint venture with the French gas network Air Liquide to build a multi-gigawatt factory for our electrolysis modules ("stacks") in Berlin. As part of our engagement with the International Renewable Energy Agency (IRENA), Siemens Energy joined the new IRENA Decarbonization Alliance in September 2022 that aims to facilitate dialogue on decarbonization. **Customers and innovation, pages 23-27** **Decarbonization, pages 30-36**

Principle	System	Measures	Achievements
Principle 10 Measures against corruption	We pursue a zero-tolerance approach toward corruption, violations of the principles of fair competition and other breaches of the law, which requires a holistic compliance system consisting of measures to ensure that business is always carried out in full accordance with the law as well as our internal rules. When such cases do occur, we take immediate action. Compliance is the basis for all our decisions and activities. The Siemens Energy-wide compliance approach is based on the three levels of action "prevent, detect, respond", centering around management's responsibility and comprising focus areas such as anti-corruption, anti-money laundering, antitrust, data privacy, export control and human rights, which are also reflected in the BCG. The BCG are binding for all employees worldwide. We support international organizations that strengthen responsible business practices, including the United Nations Convention against Corruption and the Anti-Bribery Convention of the OECD. **Compliance and integrity, pages 62-65**	The Siemens Energy 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 to ensure that all business decisions and activities conform to the relevant legal requirements and follow our own values and company policies. We expect the same commitment from all our employees and conduct regular surveys on integrity to obtain direct feedback from them. Siemens Energy continuously maintains and develops its compliance system. Our global compliance training program requires all managers and employees in positions with a specific risk profile to complete compliance training. **Compliance and integrity, pages 62-65**	On September 30, 2022, 94% of our employees were trained on the BCG, 95% on antitrust, 93% on export control and 86% on data privacy. Additionally, we developed the Compliance Awareness Campaign to strengthen internal compliance communication and revised the compliance training program to adapt it to specific requirements. In this reporting period, this included ad hoc training in the field of export control to ensure the correct handling of sanctions (especially on Russia) and specific awareness activities. **Compliance and integrity, pages 62-65**

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, 2021 to September 30, 2022 (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-2022.

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 the 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 employees responsible for data capture and consolidation as well as the preparation of the report, to evaluate the reporting processes, the data capture and compilation methods as well as regarding internal controls to the extent relevant for the assurance of the report,
- Identification of likely risks of material misstatement in the report,
- Analytical procedures on selected disclosures in the report at group level and at the level of the segments Gas and Power and Siemens Gamesa Renewable Energy,

- Inquiries and inspection of documents on a sample basis relating to the collection and reporting of selected data at group level, at the level of the segments and at selected sites,

- Inquiries of employees from the central Sustainability department and other relevant departments on material qualitative statements in the report as well as the inspection of selected underlying documents,

- Reconciliation of selected disclosures with the corresponding data in the consolidated financial statements and combined management report,

- Evaluation of the presentation of disclosures in 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, 2021 to September 30, 2022 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 2, 2022

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