Scatec

TCFD report 2023

Scatec ASA

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

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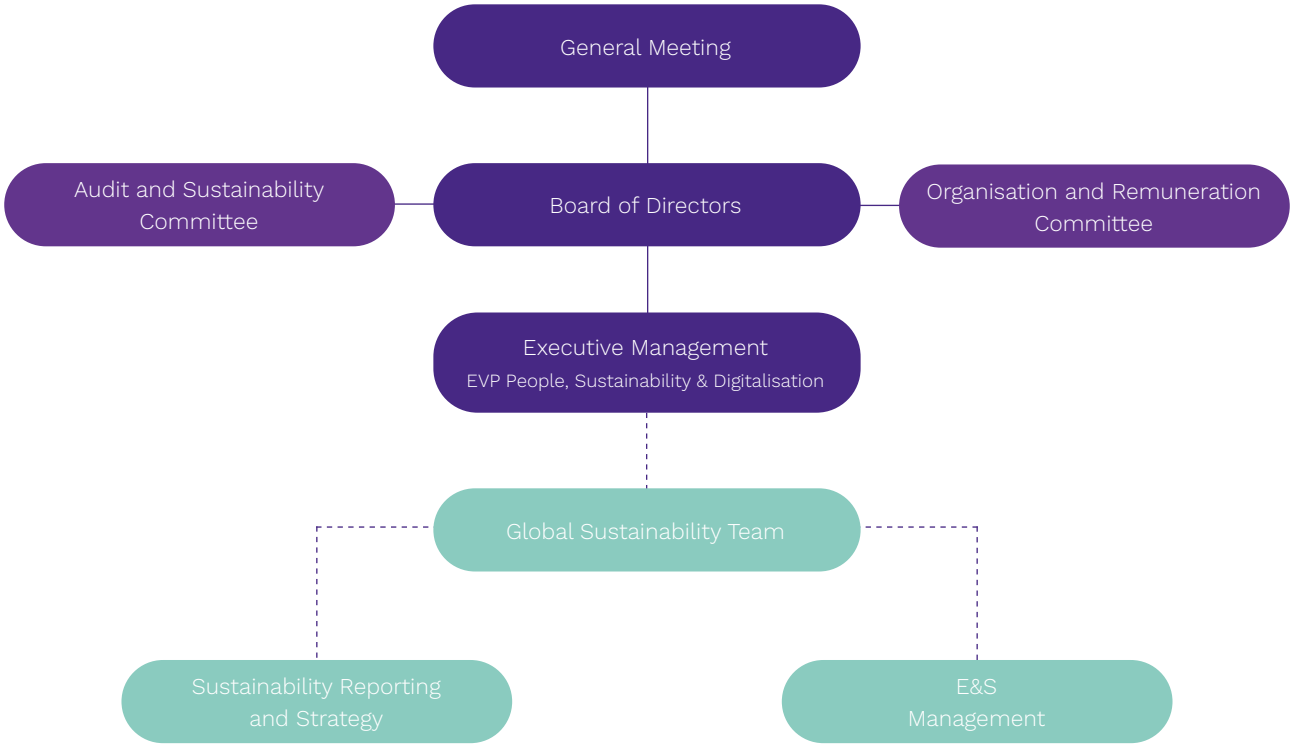
Governance

Disclose the organisation's governance around climate-related risks and opportunities

a) Describe the Board's oversight of climate-related risks and opportunities.



Scatec is a leading renewable energy provider, accelerating access to reliable and affordable clean energy in emerging markets. We develop, build, own and operate renewable energy and have 4.2 GW in operation and under construction across four continents at year end 2023. Additionally, Scatec started construction for 0.3 GW in the first quarter 2024. Managing climate change impacts, setting science-based targets, tracking our performance and accessing climate-related opportunities is an integrated part of Scatec's overall business strategy.

The highest level of responsibility sits with the Board of Directors. The Board and the Audit and Sustainability Committee, which includes Board members and the Chair, quarterly review sustainability topics and advise the Executive Management Team (EMT) on climate related matters.

The Chief Executive Officer (CEO) and the Executive Vice President (EVP) People, Sustainability & Digitalisation are responsible for assessing and managing climate-related risks and opportunities, overseeing climate target setting, and the implementation of emission reduction initiatives.

The Board receives monthly risk reports from the EMT to monitor and reviews highlights per region, country and project. This includes identifying risks that would impact our achievement of strategic objectives and, as such, guide major plans of action and business strategy.

In January 2023, Scatec's near-term and net zero targets were approved by the Science-based Targets Initiative (SBTi). The Board reviewed and approved our targets prior to submission to SBTi. Scatec's Net Zero Strategy and Roadmap detail our high-level plan and initiatives to reach our near-term targets by 2030 and net zero targets by 2040. The Board owns our Net Zero Strategy and Roadmap and the EMT is tasked with its implementation.

As climate-related issues influence both the company's risks and opportunities, these are presented to the Board based on the risk assessment process at the different organisational and regional levels, summarised in the enterprise risk management (ERM) process. This includes identifying risks that would impact the company's achievement of strategic objectives and can, as such, guide major plans of action and business plans.

The development of annual ESG key performance indicators as well as tracking and communication of progress towards targets, including our approved near-term and net zero targets, are reviewed quarterly by the Audit and Sustainability Committee.

b) Describe management's role in assessing and managing climate related risks and opportunities.

Scatec has reported on climate change through CDP since 2019 and prepared a dedicated TCFD report since 2020. Together with our mainstream annual and sustainability reporting, these reports are our main annual communication on Scatec's impact on climate change and how climate change is impacting Scatec. The processes of climate-related financial impact analysis, scenario analysis and climate reporting are important for Scatec. It helps ensure transparency, continuous improvement and enhances our understanding of how climate-related issues can affect us, how we can adapt and how we can mitigate further changes to the climate.

Scatec's EMT, led by the CEO, are responsible for managing climate change impacts as an integrated part of Scatec's overall business strategy. The EMT meet monthly and discuss various matters highlighted in their monthly operating report (MOR), including climate and environmental topics.

The CEO and the EVP People, Sustainability & Digitalisation are responsible for assessing and managing climate-related risks and opportunities held in the ERM process, influencing different organisational and regional levels. Given that Scatec is exposed to a range of operational, political, and financial risks through our business activities, we have extensive policies and procedures integrated in our Operating System to identify and manage risks related to the various parts of our business. Key policies are reviewed and approved by the CEO on an annual basis, where other documents are reviewed every three years.

Pursuing and delivering on climate-related opportunities arising from regulatory changes and expanding markets for renewable energy is central to our growth strategy. As such, pursuing climate-related opportunities is a key responsibility of the CEO. Internal sustainability-related capacity building is also a deliverable for both the CEO and EVP People, Sustainability & Digitalisation.

The Company threshold determines the payment of bonus. The threshold may reduce or, in critical situations, even annul the payment of bonus. It ensures and strengthens the link between the Company's overall financial results and the Executive's individual variable pay.

Threshold assessment includes the overall Company goals and objectives and key financial performance, which are considered to contribute to long-term growth in shareholder value. Additionally, the group's objective of being a leading Company within environment and sustainability is also considered when determining bonus threshold. This includes meeting Company ESG targets.

Assessing the Company threshold for 2023, Scatec took the following into consideration:

- Operational performance including HSSE and production performance.
- Financial performance including profitability metrics and margin achievement.
- Growth including financial close, backlog and pipeline.
- People and environment including diversity, compliance and ESG metrics.

Strategy

a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.

Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material

Scatec's business model and strategy is based on the need to transition from fossil fuels to reduce greenhouse gas (GHG) emissions, a key climate opportunity. However, climate risk, both physical risk and transition risk, could also have a range of potential impacts on Scatec's business. The most serious climate-related risks involve the physical impact of extreme weather events, including droughts and floods. Extreme weather can cause physical damage to the plants and directly affect power generation. The risk is mitigated through adequate engineering in the design phase, regular inspections and emergency plans. Transitional risks such as increased regulation, new technologies and changes to markets also affect Scatec. As climate ambitions increase, there is likely to be increased competition that can affect component and power prices, among other factors.

Table 1: Description of risks identified

Climate-related risks[1]							
Risk Category		Risk Type	Likelihood	Potential Financial Impact	Time Horizon	Description and Examples of Risk	Mitigation Strategy
Physical	Acute and chronic	Extreme weather: Heavy precipitation and flooding and disruption of sites	High	Moderate	Short-term	Scatec owns solar plants in Malaysia and Pakistan, among others, in areas at high risk of heavy precipitation and flooding. These types of extreme weather events risk disruption of operations and damaging equipment as flooding can cause erosion around the steel substructures and to infrastructure limiting site access.	Extra flood assessments were carried out. All sites have been constructed with enhanced flooding design, which drastically reduces the risk of complete production loss. Extra contingency plans were created to deal with risk.
		Extreme weather: Heavy precipitation and flooding affecting hydropower plants	Low	Major	Long - term	Scatec is invested in several hydropower plants. As climate change intensifies it is likely that extreme rainfall events will become stronger leading to increased flood risks and higher peak water flows. This can challenge hydropower dams, as reservoirs can rapidly fill and if they are not drained could exceed safe operational limits. Emergency water releases can also trigger rapid rises in water levels downstream, even when planned. This presents a risk to downstream inhabitants of dams in addition to operators and owners.	Regular inspections of dams are carried out to ensure their continued structural integrity. This is both carried out internally and using external specialists who assess extreme rainfall and climatic risks. All hydropower plants have emergency plans in case of extreme weather events to ensure continued operations of the plants and avoid dangerous operating conditions. Additionally, there is clear procedures to warn potentially affected residents if emergency releases may occur.
		Increased precipitation variability affecting hydropower plants	High	Moderate	Long-term	Climate change is also likely to cause more variability in rainfall. This can lead to larger inter-annual variability and less predictability for hydropower production. Coupled with increasing temperatures this could lead to reduced water availability for power production and therefore decreased revenues. This could also lead to more erosion of reservoir banks and therefore sedimentation if vegetation is affected, further decreasing production and increasing maintenance needs.	Climate risk analyses are carried out for all new hydropower projects to ensure that they will be financially viable despite modelled climatic changes. For existing projects climate risk analyses have been carried out to model potential variability to understand and mitigate this risk. The hydropower producers work with government authorities to protect watersheds, to ensure more consistent water availability and reduce erosion and sedimentation risks.
		Extreme wind and lightning	High	Low	Short-term	Scatec owns and operates solar plants in Brazil, Pakistan, Malaysia and South Africa where there is a risk of extreme wind and lightning, which can disrupt production and damage equipment/infrastructure. Lightning interferes with the solar panels tracking system, so the panels cannot track the sun. This lower production capacity and lead to short decreased revenues. Lightning can also damage inverters and panels leading to the need for replacements.	Extra engineering requirements including enhanced wind design, e.g. stronger sub-structures and mounting systems, and improved mechanisms that fix each panel to the sub-structure. Installed lightning protection systems that reduce the risk of interference with the panels tracking system and electrical system damage.
		Extreme heat and sandstorms	High	Low	Medium-term	Scatec owns and operates plants in Egypt's western desert which is exposed to extreme heat and sandstorms that can damage solar panels, and limit site access. Extreme heat can negatively affect our operations (for example in Pakistan, Jordan and Honduras) as the solar panels' efficiency is reduced. Extreme heat also affects employees who can experience various health issues such as heat strokes. Should employees not be able to work or travel to the plant the operations and maintenance of the solar plant can be affected.	During sandstorms we plan for only the minimum possible number of people working outside, all wearing personal protective equipment. To mitigate the risk of extreme heat to our employees, we monitor working conditions and employees' health and well-being according to the Environmental and Labour Laws.
		Extreme heat and drought increasing wildfire risk	Medium	Moderate	Short-term	Scatec operates several plants in areas with wildfire risk. These could potentially be started naturally due to lightning or due to activities under construction or operation. An uncontrolled wildfire could damage Scatec's and third-party property and pose a human health risk.	Wildfire risk is assessed during project planning and wildfire mitigation strategies are developed, and continually reviewed and updated. Mitigation can include training for employees, firefighting equipment, pre-burning vegetation and general vegetation control.

Transitional	Policy	Increased climate regulation and standards	High	Moderate	Short- term	Increasing climate regulations are an opportunity for Scatec, but can also be a risk for certain projects. These can include EU Taxonomy requirements for greenhouse gas emission reductions and new standards for Green Hydrogen and other renewable products. Fast changing regulations increases Scatec's need for compliance and reporting functions.	Scatec closely follows the development of new standards and actively incorporates requirements into its projects. For example, all new hydropower projects are screened against EU Taxonomy GHG intensity requirements with a requirement that lifetime emissions are under 100gCO2e/kWh.
	Market	Increased components and other costs due to increased demand	Medium	Major	Medium- term	As climate ambitions increase and new players enter the market there is likely to be increased competition for components required to construct renewable power plants which could increase costs and affect project profitability.	Project profitability is continually assessed throughout the development process. If costs are found to have increased such that the rate of return is not sufficient, the project will be paused until either cost is reduced or a higher PPA is negotiated. If a solution cannot be found, the project may be discontinued.

[1]The table includes examples of climate risks in our projects, however the list is non-exhaustive.

Table 2: Description of opportunities identified

Climate-related opportunities[2]							
Opp. Category		Opp. Type	Likelihood	Potential Financial Impact	Time Horizon	Description and Example of Opportunity	Strategy to Realise Opportunity
Transition	Products	Increased demand for low-emission goods	High	Medium-high	Short-term	The global increase in the demand for low-emission goods due to the Paris Agreement influenced the market for replacing fossil fuels with renewables, specifically in decentralised industrial production. Various groups would benefit from and have expressed interest in low-emission goods and replacing fossil fuels with renewables, as well as on-grid users with high cost and unreliable power. This can lead to new opportunities for Scatec to provide solar PV, wind and hybrid solutions.	Our strategy to realise the opportunity included the provision of pre-assembled and containerised solar and battery equipment that can be quickly installed as it is modular, scalable, and re-deployable. Release is now established as a dedicated, separate platform.
	Market	Access to new and emerging markets	High	Medium-high	Short-term	Opportunities exist in emerging markets due to the transition from fossil energy sources to low emissions energy sources, for example India, Columbia, among others. The electricity demand in Southeast Asia will grow significantly to 2050 fuelled by a growing population. • Given an expected increase in new PV capacity from approx. 6GW in 2018 to approx. 602GW in 2050, this provides a significant opportunity for Scatec. • New markets opening up due to climate-related financing, such as subsidies and partnerships with regional development banks to increase access to energy. The electricity demand in Middle East and North Africa (MENA) will surge over the next three decades. Rising consumption levels, a growing population and economic expansion will increase demand.	We are well positioned to capture these opportunities through our experience with public-private partnerships and innovative finance solutions in collaboration with i.e. the World Bank, the IFC, regional development banks, export credit agencies and Norfund. We have a scalable business model and continue our expansion and growth in new and existing markets.
	Products	Green hydrogen and ammonia	High	High	Short-term	Opportunity to use renewable energy to make energy dense products for export (Power-to-X). Cheaper renewables, potential surplus green energy, government support for H2 production due to essential role in decarbonisation and potential to export to other markets creases opportunities: • 40GW of green hydrogen electrolysis expected in EU alone by 2030 • Timeline to industrialise: By 2030 green H2 is likely to be cheaper than blue H2 in a lot of markets, and cheaper than grey H2 in some markets e.g., Brazil	We are well positioned to capture these opportunities through our established regional hubs, good government and financial institution relations. We will seek to develop profitable, large-scale projects where we can best utilise our project development and financing expertise.
	Resilience	Climate adaption solutions	High	Medium	Medium-term	As climate awareness and impacts increase so will the need and will to adapt. This will require investments in climate resilient infrastructure such as desalination plants.	

[2]The table includes examples of climate opportunities for Scatec, however the list is non-exhaustive.

b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.

Scatec's business model of developing, operating and owning renewable power plants is based on the need to transition from fossil fuels to reduce GHG emissions. Our strategy is therefore strongly linked to this key opportunity. The Paris Agreement and the focus on reducing GHG emissions in transitioning to a low-carbon economy has opened new markets and as such affected our strategy.

Climate-related risks and opportunities influence most areas of our financial planning and Scatec considers the short-, medium- and long-term in the process. The thresholds are defined below and apply to each risk and opportunity described below.

- Short-term = 0-1 year: Risk horizon for financing the project
- Medium-term = 1-3 years: Risk horizon for construction and energisation of projects
- Long-term = 3-25 years: Risk horizon for operations and dismantling

Our strategy has been influenced by climate-related risks and opportunities in all our business areas, as described in table 3 below.

Table 3: Description of climate-related risks and opportunities' influence on our strategy

Climate-related risks and opportunities influence on our strategy		
Business areas influenced by	Description	Strategic decisions made
Business development (products and services)	Our strategy was influenced in that we ensured the incorporation of increased investment in renewable energy and showed preparedness for increased competition and a reduction in margins. The impact of this risk on revenue is expected to be low. Whilst the increased investment and technological improvements in renewable power project components lead to more competition in the industry, it also significantly expanded our market reach. The time horizon covered is the medium- to long-term.	The following strategic decisions have been made: • Identify and fix our core markets (countries) to ensure tailored renewable solutions to Governments and utilities and to expand our solid current base, for example including South Africa and Egypt. • Diversify our utility scale-scale service offering to include Power-to-X such as green hydrogen, taking advantage of new opportunities driven by the need to cut emissions in the fertiliser and transport sectors, for example starting the commissioning of the first phase of the green hydrogen plant in Ain Sokhna, Egypt during COP27. • Added hydropower and wind technologies by purchasing SN Power hydro power and wind assets, including power projects like the Bujagali hydropower project (255MW) located on the Victoria Nile in Uganda. • Make use of the latest and most technologically improved components when constructing a solar plant (where feasible).
Supply chain	Climate-related risks and opportunities have influenced the strategy of Scatec in terms of supply chain (and/or value chain) in relation to increased policy shifts forcing more low emission power to be procured. The risk is that the demand side will outweigh the supply side which can drive costs up, and hence reduce the competitiveness long term or reduce margins short term. The impact of this risk on revenue is expected to be low. Scatec has ensured that our strategy incorporates the increased investment in renewable energy, i.e. have oversight of this investment per technology (solar, wind, storage solutions, etc.) and global markets, as well as show preparedness for increased competition and a reduction in margins. The time horizon covered is the medium-term.	The following strategic decisions have been made: • Scatec signed a three-year agreement with EcoVadis, a global supplier management platform, in Q3 2021 to ensure mandatory reporting for our key suppliers to improve information around climate impacts and risks. • Annual meetings with 3 to 6 suppliers of key components to our projects to further understand their climate change efforts and goals, including additional environmental topics, such as biodiversity and circularity. • The Board reviewed and approved Scatec's climate targets of "Zero direct emissions (Scope 1 and 2) by 2030" and "Net zero by 2040" - targets have now been approved by the Science Based Target Initiative (SBTi).

Technology and R&D	Climate-related risks and opportunities have influenced the strategy of Scatec in terms of investments in R&D as the low cost and high demand have forced suppliers to spend more on R&D to ensure that they have the most cost-efficient product with the highest output. Even though our market position can be significantly improved, it may also negatively impact the current portfolio of renewable energy projects where new and improved technology appears and may put pressure on Scatec to renegotiate current long term power sales agreements. The impact of this risk on revenue is expected to be low. Scatec has therefore ensured that our strategy incorporates the swiftly changing technological environment as well as show preparedness for potential renegotiation of power sales agreements. The time horizon covered is the long-term.	The following strategic decisions have been made: • Scatec's technology and business development departments continuously monitor all developments in the industry by making use of market insights such as Bloomberg New Energy Finance (BNEF) New Energy Outlook (NEO). • The Company maintains good and solid relationships with our customers, i.e. Governments and utilities, to be able to actively participate in discussions leading up to potential renegotiation of power sales agreements, such as active participation in annual international events and forums (Africa Energy Forum, InterSolar Europe, Zero Emissions Conference, Making Solar Bankable, Wind Europe, SAPVIA and SAWEA).
Operations	Climate-related risks and opportunities have influenced the strategy of Scatec in terms of our direct operations that are exposed to physical climate-related risk such as extreme weather (i.e. extreme winds, lightning) and flooding. This has the potential to stop parts of production until facilities are restored. The impact of this risk on revenue is expected to be low. Scatec has therefore ensured that our strategy incorporates the preparation and consideration of physical climate-related effects as well as show preparedness for the mitigation of such events, i.e. extreme weather. The time horizon covered is the medium- to long-term.	The following strategic decisions have been made: • Acute physical risks are actively considered in every stage of each power plant project. This is particularly detailed for hydropower projects where the risks are highest. For example, Scatec updated our projects' quantitative physical climate risk scenario exercise using data from the World Bank Climate Change Knowledge Portal in 2022. • All financial planning activities account for risk mitigation measures, including mandatory insurance on all climate-related risks. For example, should storms and strong winds cause damage to power projects potentially reducing production, the cost of repair is covered by insurance.

c) Describe the resilience of the organisation's strategy, taking into consideration different climate related scenarios, including a 2°C or lower scenario.

Decarbonising the power sector is key to the energy system transition. Renewables is the cleanest source of electricity, including lifecycle emissions, and is becoming the cheapest subsidy-free way of electricity generation. Electric utilities play a crucial role in a decarbonised society. In all climate scenarios that limit warming to 1.5°C, the share of electricity in final energy consumption grows steadily between 2020 and 2050.

Our portfolio is exclusively renewable. Our projects provide renewable energy to the consumers, contributing to avoid emissions from polluting fossil fuels for electricity generation. It typically takes less than a year for the avoided emissions to surpass the emissions from building the renewable projects.

Physical climate scenarios (RCP 4.5 and RCP 8.5)

We considered the resiliency of our own operated power projects in 2022 by updating our quantitative physical climate risk scenarios using data from the World Bank Climate Change Knowledge Portal. The parameters assessed were 1) change in days with over 35 degrees (extreme heat exposure) and 2) change in maximum 5-day rainfall (as an approximation for flood risk) for each operational site.

Analytical choices made were to assess increase in days with temperatures over 35 degrees in 2020-2039 and 2040-2059 in RCP 8.5 (high emission) and RCP 4.5 (intermediate emission) scenarios. Extreme rainfall risk was assessed by looking at change in maximum 5-day rainfall for the same locations, scenarios and time frames. The results were combined with our existing natural catastrophe risk database to increase understanding of related risks across our project portfolio. RCP 4.5 and RCP 8.5 were chosen as they represent a probable base case and a worst-case physical climate risk scenarios. 2040-2059 was chosen as the timeframe as our projects as typical power purchase agreement (PPA) lengths of 20 years, thus many are likely to still be operating by 2040 especially considering the potential for re-powering at a later date.

Assumptions made were related to approximate geographical areas with sites located nearby to one another assumed to be exposed to similar climatic changes. Given that the climate models have limited resolution, in some cases averages between various geographical areas were used as opposed to specific values.

Transition scenarios (BNEF NEO)

Scatec applies scenario analysis based on Bloomberg New Energy Finance's New Energy Outlook (BNEF NEO). The data focuses on the annual long-term economic analysis of the world's power sector out to 2050 and places focus on technology that is driving change in markets and business models across the sector, such as solar, wind and battery technology.

NEO includes price forecasts for coal, oil and gas around the world, and assesses the impact of the energy transition on fossil fuel demand and materials. This model also includes a net zero scenario based on electrified heat and road transport, and increased renewables. This scenario includes information on coal and gas power technology, the future grid, energy access, policy and the LCOE of phase II decarbonisation technology such as CCS, biogas, hydrogen fuel cells, nuclear and solar thermal, are also included. The time horizon considered is 2 to 3 years and due to markets and regulation changing rapidly in the renewable energy sector, it is not possible to apply our analysis with certainty for periods longer than this. The tool also informs our analysis on a market-by-market and project-by-project basis.

Scatec is using BNEF NEO to inform strategy and business decisions and we adjust our expansion strategy based on its results. It works as a tool for accompanying, validating and adjusting our own analysis. A summary and example of the results conducted in the scenario analysis, is for instance that BNEF NEO's results show that all renewables will see massive growth and supply 85% of energy in 2050 in a green scenario. The tool also expands on energy storage and notes that lithium-ion currently enjoys more technology benefits, regarding research and development and manufacturing capacity, than any other form of storage. Further, net zero will require the deployment of 118 GW wind and 395 GW solar per year up to 2030.

Scatec considered all scenarios through the use of NEO and combines these with other scenario sources and local information when creating market analyses.

Risk management

Disclose how the organisation identifies, assesses, and manages climate-related risks.

a) Describe the organisation's processes for identifying and assessing climate related risks.

b) Describe the organisation's processes for managing climate related risks.

c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.

Scatec's process of identifying, assessing and responding to climate-related risks and opportunities is integrated into our multi-disciplinary company-wide risk management process. To ensure that the group assesses and manages risks in each business phase, the Company's Operating System (OS) offers the blueprint for understanding, evaluating and managing all company risks.

The thresholds below apply to each risk and opportunity:

- Short-term = 0-1 year: Risk horizon for financing the project
- Medium-term = 1-3 years: Risk horizon for construction and energisation of projects
- Long-term = 3-25 years: Risk horizon for operations and dismantling

Description of the process used by Scatec to determine which climate related risks and opportunities could have a substantive financial or strategic impact on our business:

Scatec's core business is the development, construction, ownership and operation of renewable energy power plant/project. Each project will need to pass three Decision Gates (DG) prior to a final investment decision and subsequently realisation. A DG is a specific point reached within each phase in the development process where a critical decision will be taken, either to proceed with a project or not. All DG's require review of risk assessments incl. the climate and environmental impact, and mitigation of identified risks.

Corporate overview:

An aggregated risk overview and Risk Matrix is developed by the EMT based on inputs from the Corporate and Project Risk assessments for the communication of risk within the Management team on a bi-weekly basis, which again is shared with the Board monthly and annually. New risks, deterioration or existing risks are highlighted. This includes short-, medium- and long-term project risks such as physical conditions and weather, technology, engineering, legal, reputational, market and regulatory risks.
An annual Management Review process is carried out in accordance with ISO 9001, including an assessment of the effectiveness of actions taken to address risks and opportunities associated with the integrated management system at Scatec.
For the annual reporting, each of the most significant risks are placed as an agenda point for Board meetings the following year. Thresholds for what risks and opportunities that are evaluated to have a substantive financial impact, at corporate level, are defined below.

Given the above context to the DGs, the steps in the risk management process are as follows:

1. Identification of a risk
2. Understanding of magnitude and potential impact of a risk and potential mitigation measures
3. Presentation and discussion of each risk and relevant mitigation measures through monthly reporting processes and meetings
4. Continuous monitoring and reporting of each risk
5. Annual review of company-wide risk picture and management system to the Board

The four DGs are as follows:

- DG0 - Opportunity: The possibility of a project is explored and assessed via desktop research, applications to tender, etc. Climate related risks are considered through high level screening.
- DG1 - Feasibility and Development: An opportunity is developed, including site, systems, business case, permitting, PPA negotiation, etc. The Business Development (BD) team conducts assessments, undertakes stakeholder engagements, and secure partnerships. Climate and environmental risks are assessed, such as weather, reputation, market and regulatory risks, and included in the project's risk registry and updated monthly. The risk matrix is assessed and mitigation measures identified (operational/design changes) before the project progresses.
- DG2 - Structuring: The financing and ownership components including debt/equity structuring and due diligence of the project are discussed and formalised at this stage. Scatec's Finance and Tax teams as well as Project Structuring team will lead in this phase.
- DG3 - Delivery: The final investment decision is made where equity is committed. Should the project be approved, the construction phase will begin. Scatec's EPC team as well as the Operations & Maintenance (O&M) team implements relevant risk mitigation measures.
- DG4 - Power Production: Prior to a project moving into operation, it must clear DG4, where the same risks are assessed again. Once the project has been constructed, the operations phase will commence where energy will be generated for a period of usually 20-25 years. The Asset Management (AM) and O&M teams take control over the projects in this phase, and conducts annual risk assessments, including climate risk. The AM and O&M teams will review mitigation measures with the Sustainability team, such as structural improvements to guard equipment against wind and storm damage.

Table 4: Description of risk types included in climate-related risk assessment.

Risk types in climate-related risk assessment			
Risk type		Relevance in risk assessment	Description
Transition risks	Emerging & current regulations	Relevant, always included	Current and emerging regulation is included as a part of our multi-disciplinary company-wide risk management process and is continuously monitored as a part of all risks. As part of market entry or new investment decisions in an existing market or annual review of portfolio diversification, the current regulation is thoroughly assessed both with internal and external consultants. Emerging and current regulations, such as the EU Taxonomy, green energy standards, energy subsidies and grants, are assessed by project developers, managers and internal and third-party specialists. Potential new regulations or amendments of existing regulation is assessed both with internal and external parties. Specific reviews are carried out when making new investment decisions, entering new markets and during an annual portfolio review. We include regulations related to countries national energy mix, investments in renewables, and energy subsidies, in our risk assessments as this could impact our competitive position.
	Technology	Relevant, always included	Technology and technological developments are included as a part of our multi-disciplinary company-wide risk management process and are continuously monitored as a part of all risks. In each Decision Gate, a risk review is performed as to the adequacy of the technical solution chosen and also the future risk that new technology entering the market, may have on the asset. Technology risk is also assessed during operations to ensure spare parts are available and assess if better options have become available since construction. We include new solar technology developments and the development of alternative renewable energy technologies, in our risk assessments.
	Legal	Relevant, sometimes included	Scatec considers legal risks when developing new projects or updating existing agreements. Legal litigation related to climate change is not considered relevant for Scatec. Relevant legal risk is mostly related to our hydropower projects due to potential impacts on downstream communities from water amount variances. Too little water could result in problems for fishing communities and freshwater supplies whilst too much water can lead to flooding and inundation of communities. This risk can be affected by the potential for increased risk of extreme precipitation events or droughts due to climate change. The local governments have most responsibility for these risks as the hydropower operators have limited control over discharge volumes. However, if a significant event were to occur, there could be financial consequences for the hydropower operator. As Scatec's hydropower projects are joint ventures, most of these risks are shared with Scatec impacted as an investor.
	Market	Relevant, always included	Market risk is included as a part of our multi-disciplinary company-wide risk management process and is continuously monitored as a part of all risks. As part of market entry or new investment decisions in an existing market or annual review of portfolio diversification, the current market as well as 20+ year projections of the market are thoroughly assessed both with internal and external consultants. We include market developments in pricing and demand related to renewable power in our risk assessments.
	Reputation	Relevant, always included	Reputational risk is included as a part of our multi-disciplinary company-wide risk management process and is continuously monitored as a part of all risks. This risk is one that is both high in terms of likelihood and negative impact potential. Hence, each business decision is taken after reputational risk has been fully discussed. Examples of reputational risks that are included in our risk assessments are: • National climate vulnerability and political risk • Heavy transport of equipment • Handling of waste • Project potential negative impact on local communities and the local environment associated with the project development.
Physical risks	Acute	Relevant, always included	Acute physical risks are included as a part of our multi-disciplinary company-wide risk management process and is continuously monitored as a part of all risks. The Company operates globally, with a presence in 15 countries (such as South Africa, Malaysia, Pakistan among others), and directly and indirectly employs thousands of people across various construction sites. Hence, it is always a relevant risk that extreme weather may cause physical impact on both people and assets. Acute physical risks included in our risk assessments are extreme weather, winds and lightning risk for solar projects, and extreme precipitation and flooding, as this could affect our operations. We regularly experience extreme weather events, and actively work to mitigate the risk and adapt to reduce the impact on our installations and people. An example of an acute physical risk considered in our climate-related risk assessment is extreme wind that can damage equipment, limit access to the sites and lead to the disruption of production. These events can lead to lowered productivity during operations and/or delays during the construction period as well as costs to replace broken equipment. This risk is considered during planning and design to ensure mounting systems are strong enough to handle heavy wind loads.
	Chronic	Relevant, always included	Chronic physical risks are included as a part of our multi-disciplinary company-wide risk management process and is continuously monitored as a part of all risks. As part of the Decision Gate, chronic impacts of climate change are addressed on a 25 - 30 year basis. Typical risks discussed, assessed and mitigation sought are changes in water availability/annual floods and drought which reduces access to water and extreme heat, which results in efficiency losses.

Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

a) Disclose the metrics used by the organisation to assess climate related risks and opportunities in line with its strategy and risk management process

b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Scatec reports our direct and indirect greenhouse emissions associated with building and operating our projects in accordance with the Greenhouse Gas Protocol.

Table 5: Climate accounting 2021-2023

GRI standard	Metrics	Unit	Total 2023	Total 2022[3]	Total 2021	2024 targets	2030 targets
GRI 302-1	Energy consumption within the organisation						
	Energy consumption (electricity and fuel)	MWh	25,909	26,829	19,305	N/A	
	Electricity use	MWh	22,635	16,417	15,527	N/A	
	Renewable electricity consumption (I-RECs)	MWh	16,560	11,653	2,514		
	Renewable electricity consumption (I-RECs)	%	73	71	16	80	100
GRI 302-3	Energy intensity						
	Electricity production (100%)	GWh	3,615	3,898	3,823		
	Energy consumption per unit of produced energy (operational control)		0.007	0.008	0.006	N/A	
GRI 305-1	Direct GHG emissions (scope 1)	tCO2e	1,167	1,442	1,237		-97%
GRI 305-2	Energy indirect GHG emissions (Scope 2)						-97%
	Total location-based GHG emissions	tCO2e	10,230	8,055	8,690		
	Total market-based GHG emissions	tCO2e	2,598	2,199	7,508		
GRI 305-3	Other indirect GHG emissions (Scope 3)		418,324	1,470,910	28,951	N/A	
GRI 305-4	Emissions intensity	gCO2e/kWh	116	377	8	N/A	-55%

[3]The total emissions reported for 2022 is restated.

In 2023, our total emissions amounted to 422,089 mill tonnes CO2e (market-based).

- Emissions in scope 1 and 2 combined increased by 3% from 2022.
- Our share of renewable energy consumption, both through using our own electricity produced on sites and purchase of I-RECs for electricity consumed from the grid, amounted to 73% in 2023.
- The climate emissions associated with our value chain (scope 3) reached 418,324 mill tonnes CO2e in 2023.
    - Scatec had three projects under construction in Brazil, Pakistan and South Africa during 2023.
    - Emissions from capital goods decreased from 2022, while those from upstream transportation and purchased goods/services increased. The majority of capital goods for these three projects were procured prior to construction start, while there is often a time lag in terms of transportation of goods to site. While construction services commenced during 2022, it was fully underway in 2023.
    - Business travel, employee commuting, investments and waste emissions remained largely aligned between 2022 and 2023.
- The emissions intensity for produced energy decreased due to the completion of capital goods purchases in the previous year, from 377 gCO2e/kWh in 2022 to 116 gCO2e/kWh in 2023.

Refer to our corporate website for more detailed information on our climate accounting.

Reporting methodology

Scatec's carbon footprint accounting is in accordance with the GHG Protocol and our GHG emissions have been calculated since 2018. It is divided into three scopes:

Scope 1: direct emission sources, including all use of fossil fuels for onsite backup generators, transportation (in owned, leased vehicles), and emissions of SF_6 from electrical equipment.

Scope 2: indirect emissions from purchased electricity from the grid in the countries where we operate. Presented below in location- and market-based calculation method.

Scope 3: indirect upstream and downstream emissions from the company's activities, such as purchased capital goods, other goods and services, construction waste, well-to-wheel emissions related to fuel- and energy consumption, transportation, travel, and investments.

Assurance

Scatec's material sustainability aspects in reporting on GRI indicators, conducted in accordance with the International Standard on Assurance Engagements (ISAE 3000), was reviewed by PricewaterhouseCoopers (PwC), who is also the auditor for our annual financial statements and related reports. PwC completed a full verification of all GRI disclosures covering each material GRI topic within the scope of a limited assurance.

Please refer to the limited assurance statement and our GRI Content Index (version 01, dated March 19, 2024), available on our corporate website.

c) Describe the targets used by the organisation to manage climate related risks and opportunities and performance against targets.

Scatec takes a science-based approach to climate change. In 2022 we set targets following the Science-Based Targets initiative's (SBTi) Net Zero framework, which were validated by the SBTi in January 2023.

Near-Term Targets *Reductions by 2030 from 2019*	• reduce absolute scope 1 GHG emissions by 95% • source 100% renewable electricity annually by 2030 • reduce scope 3 GHG emissions 55% per kWh
Long-Term Targets *Reductions by 2040 from 2019*	• maintain at least 99% absolute scope 1 and 2 GHG emissions reductions from 2030 through 2040. • reduce scope 3 GHG emissions 97% per kWh by 2040

In 2023, we published our Net Zero roadmap detailing the six key initiatives Scatec will work to implement to reach our Science Based Targets Initiative (SBTi) approved climate targets.

Scope 1		**#1: Electric mobility**	Reduce dependency on fossil fuels for mobility and facilitate the transition to electric vehicles
		**#2: SF6**	Reduce emissions and find alternatives to the usage of the highly potent climate gas present in switchgear
		**#3: Biofuels**	Reduce dependency on fossil fuels in operations
		**#4: Back-up power**	Reduce dependency on fossil fuel-based back-up generators and increase renewable share of consumed electricity
Scope 2		**#5: Electricity use**	Ensure we continue to purchase renewable electricity certificates for consumed electricity
Scope 3		**#6: Supplier engagement**	Reduce value chain emission from purchased goods and services

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