



TCFD report

2022



**TCFD**

TASK FORCE ON  
CLIMATE-RELATED  
FINANCIAL  
DISCLOSURES



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# Reporting on climate risks and opportunities

## The TCFD recommendations

There is a growing demand for standardised, climate-related risk disclosure in the financial sector, and creditors and investors are increasingly asking for reporting that is consistent, comparable, and clear. The Task Force on Climate-Related Financial Disclosure (TCFD) developed the TCFD disclosure recommendations to enhance market transparency and stability through more standardised reporting of financially material climate-related risks and opportunities.



The TCFD recommendations are grouped into four core areas of disclosures: governance, strategy, risk management, and metrics and targets. Moreover, the framework divides risk into three main categories:

- risks related to the transition to a low-carbon economy
- risks related to the physical impacts of climate change
- and climate-related opportunities connected to the two

## Scatec's approach

Scatec has reported on climate change through the Carbon Disclosure Project (CDP) since 2019 and have prepared a dedicated TCFD report since 2020. Together with our annual and sustainability reporting these reports are our main annual communications on Scatec's impact on climate change and how climate change is impacting Scatec.

The process of climate-related financial impact analysis, scenario analysis and climate reporting is 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.

## Governance

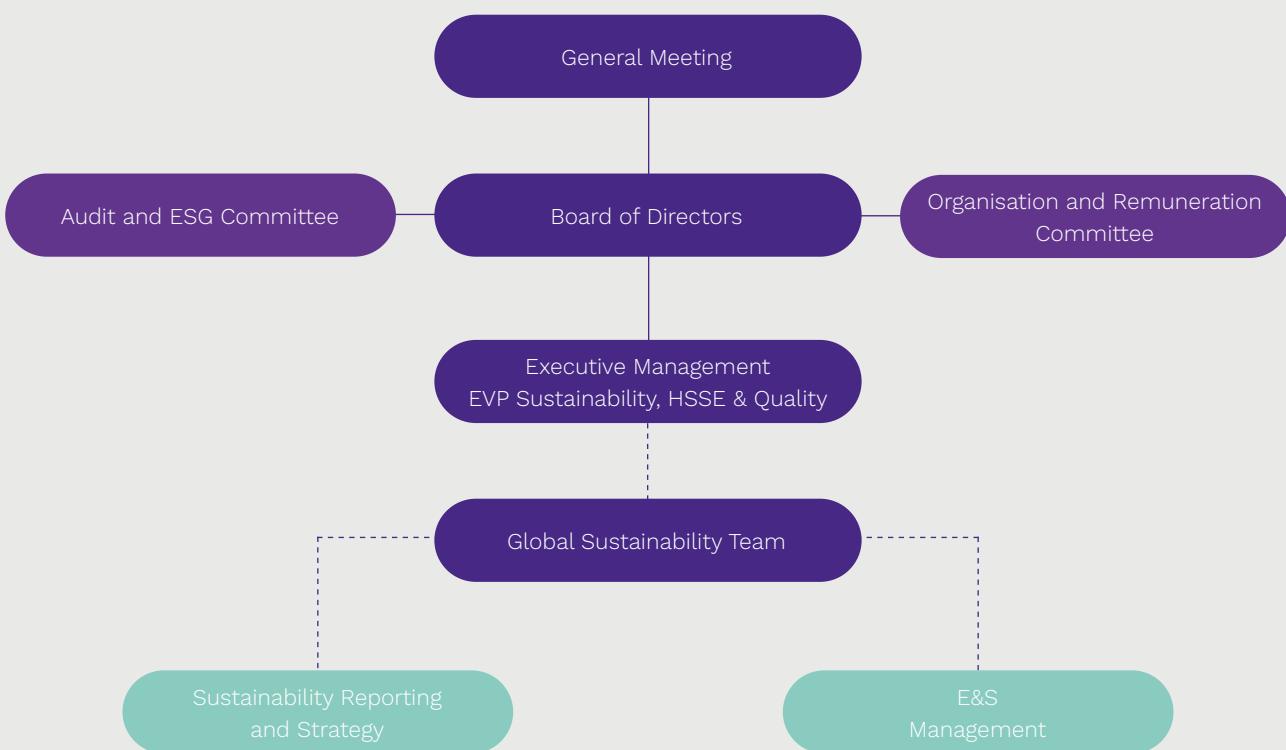


Disclose the organisation's governance around climate-related risks and opportunities

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

Managing climate change impacts 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 ESG Committee, which includes Board members and the Chairman, regularly review sustainability issues and advise the board on issues such as climate targets. The CEO and the EVP Sustainability, HSSE & Quality are responsible for assessing and managing climate-related risks and opportunities.

All risks to Scatec are subject to an annual full risk review and climate-related risks are assessed by the Board as part of the annual review of the Decision Gate framework and Operating System processes and procedures.



The Board receives monthly risk reports from the Executive Management Team to monitor and review highlights per location and project. This includes identifying risks that would impact our achievement of strategic objectives and can as such guide major plans of action and business strategy. Key policies are reviewed and approved by the Board of Directors annually.

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

The highest-level management position responsibility for climate-related issues is the Chief Executive Officer and the EVP Sustainability, HSSE & Quality. They are part of the Executive Management Team and are responsible for assessing, managing and taking an early and active role in understanding the most important environmental and social risks during project development and operations, including climate-related risks and opportunities. Scatec's projects are often affected by climate change, which require follow-up on severe non-compliances or risks identified through the project phases.

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.

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 Sustainability, HSSE & Quality.

## Strategy



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

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

In 2022, assessments of physical climate risk were carried out for all our hydropower assets by a third party. The findings provide detailed insights and valuable learnings about individual sites, with no high risks identified without existing mitigation measures in place. To improve our climate risk management across all sites, we created a tool for climate risk mapping which we used at the project level for all our solar and wind projects.

In previous years Scatec has assessed climate risk and opportunities for the operational portfolio of projects and held interviews and workshops with internal stakeholders. Transitional opportunities from access to new markets and increased demand for our low-carbon energy production continues to be the main opportunities for Scatec, with physical risks from extreme weather being the main risk. Key findings from the climate risk and opportunity assessment are summarised in table 1 and 2 below.

To assess transitional opportunities, we use tools such as Bloomberg New Energy Finance's New Energy Outlook (BNEF NEO) to consider market and price developments to inform our strategy and business decisions. Considering policy developments and stakeholder preferences, Scatec set science-based net-zero climate targets for our business during 2022. In January 2023 the targets were approved by the SBTi, taking us a step further in our climate strategy efforts towards 2040.

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 greenhouse gas (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.

Regulatory changes influence our strategy and our confidence in various markets. In 2022, Scatec named Terje Pilskog the new CEO, expanded the management team and made decisive moves to sharpen our strategy. Our regional approach entails that management will be even closer to Scatec's main markets to drive growth opportunities for the company and ensure long-term success. Each region, namely Sub-Saharan Africa, Middle East & North Africa (MENA), Asia, and Latin America/Europe, will be responsible for the company's operating power plants and business development.

Many regions are already experiencing negative impacts due to climate change as global average temperatures having already risen by over 1.1 degrees. A temperature rise of over 1.5 degrees appears likely which will exacerbate these impacts further. Scatec is therefore developing new renewable energy solutions to increase climate change resilience. This includes using renewable energy to power desalination plants and rapidly deployable solar and battery hybrid power plants to replace lost hydropower generation due to drought through the Release concept.

We operate projects with power purchase agreements (PPAs) often with a 20–25-year contract period, therefore considering long term risks, including climate risks, is essential. Climate risks are considered in all business areas, including Power Production (operations and maintenance (O&M) and asset ownership), Solutions (supply chain management and engineering), business development, and finance.

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

Our growth opportunities are connected to the efforts made across the world to combat climate change and the related energy market changes linked to regulation, market access, costs, and demand. Transitioning to a 2°C or lower scenario would increase the need for Scatec's products and services and be positive for Scatec overall. The faster the world reduces emissions to reach 2 degrees or below the greater the potential opportunities for Scatec in the short and medium term. However, a fast transition scenario creates transitional risk. The main risks for our business are availability and price of components due to demand potentially outstripping supply, and rapid changing regulatory framework.

In 2022 we carried out project level climate risk assessments for all projects. These assessments by the local project teams used an internally developed climate risk tool which included regional data from the World Bank Climate Change Knowledge Portal. Extreme heat exposure was assessed via increase in days with temperatures over 35 degrees in 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 both at the site level and across our project portfolio.

Table 1: Description of risks identified

Climate-Related risks							
Risk Category		Risk Type	Likeli-hood	Potential Financial Impact	Time Horizon	Description of Risk	Mitigation Strategy
Physical Acute and chronic	Extreme weather: Heavy precipitation and flooding and disruption of sites	High	Moderate	Short-term		Scatec owns three solar plants in Malaysia, in areas at high risk of heavy precipitation and flooding. These types of extreme weather events risks 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.
						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 also 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 and understand and mitigate this risk. The hydropower producers also work with government authorities to protect watersheds, to ensure more consistent water availability and reduce erosion and sedimentation risks.
						Scatec owns and operates solar plants in Brazil 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	Short-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 as the solar panels' efficiency is reduced.	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 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.	
	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, fire fighting equipment, pre-burning vegetation and general vegetation control.

Transitional	Policy	Increased climate regulation and standards	High	Moderate	Short- term	<p>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.</p>	<p>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.</p>
	Market	Increased components and other costs due to increased demand	Medium	Major	Medium- term	<p>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.</p>	<p>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.</p>

Table 2: Description of opportunities identified

Climate-related Opportunities						
Opp. Category	Opp. Type	Likelihood	Potential Financial Impact	Time Horizon	Description of Opportunity	Strategy to Realise Opportunity
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 have increased the market for replacing fossil fuels with renewables, specifically in decentralised industrial production.	Our strategy to realise the opportunity includes the provision of pre-assembled and containerised solar and battery equipment that can be quickly installed as it is modular, scalable, and re-deployable. To execute this strategy, a dedicated New Business Venture team that is responsible for leading this development successfully, has been appointed. The ability to build strong partnerships with financing and project partners, such as lenders, Governments, NGOs and industry players, will also be essential.
					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 and hybrid solutions.	
Transition	Access to new and emerging markets	High	Medium-high	Short-term	Opportunities in emerging markets due to the transition from fossil energy sources to low emissions energy sources.	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.
					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.	
Products	Green hydrogen and ammonia	High	High	Short-term	Opportunity to use renewable energy to make energy dense products for export (Power-X).	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.
					Cheaper renewables, potential surplus green energy, government support for H2 production due to essential role in decarbonisation and potential to export to other markets creates opportunities:	
					<ul style="list-style-type: none"> <li>40GW of green hydrogen electrolysis expected in EU alone by 2030</li> <li>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</li> </ul>	
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.	

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 and Products and Services	Need to prepare for increased investment in renewable energy and competition reducing margins. The increased investment and technological improvements in renewable power plant components led to more competition in the industry, and it also significantly expanded our market reach.	Expanded our reach to more countries by offering solar solutions to the Governments and utilities.
		Diversified our utility scale-scale service offering to include containerised solar, hybrid power plants (e.g. solar and battery storage), wind, hydropower, and Power-X (e.g. green hydrogen and ammonia).
		Expanded our Business Development Team including with a dedicated M&A team to ensure we are able to identify and access increased opportunities.
		Make use of the most technologically advanced components during construction where feasible.
Supply chain	Risk that the demand will outweigh supply driving costs up, thereby reducing margins in the short term and competitiveness in the long term.	We previously implemented of our Supplier Development Program (SDP) which aims to proactively work with our key suppliers to enhance their social and environmental performance.
		We have continued engagement with suppliers to maintain relationships in the areas of climate reporting and emissions reduction programs including through meetings with key suppliers. We additionally have started to use Ecovadis to screen for poor performing suppliers and are developing competitive criteria to favour suppliers with lower carbon production methods.
Technology and R&D	Need to adapt to fast changing technological environment as well as show preparedness for potential renegotiation of power sales agreements.	Our technology and business development departments continuously monitor industry developments and work to improve efficiency and plant power output where possible.
		We maintain 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.
Operations	Need to incorporate assessment of and mitigate impacts of physical climate-related effects, i.e. extreme weather.	Acute physical risks are actively considered in every stage of each renewable power plant project. All sites are ISO 14001 certified to ensure continued work on environmental issues.
		All Financial planning activities account for risk mitigation measures, including mandatory insurance on all climate-related risks.

## 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.

Scatec has extensive policies and procedures in place as part of our Operating System to actively identify risks connected with various parts of our operations, including climate risk as shown in Table 5. The risks are ranked and prioritised according to a traffic light system, indicating the importance and urgency relating to proposed actions. The traffic light system, based on the risk matrix, is created at each Decision Gate, where the probability and potential impact of each risk is evaluated. The main climate-related risks relate to the development, construction, and operations phase of each project.

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  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.
	Technology	Relevant, always included  In each Decision Gate, a risk review is performed as to the adequacy of the technical solution chosen, and 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.
	Legal	Not relevant  Scatec predominantly develops and constructs renewable power plants and is not exposed to serious environmental lawsuits in comparison with other energy companies, primarily in the oil and gas sector, who run the risk of severe environmental externalities.  Legal litigation related to climate change is therefore not considered relevant for Scatec.
	Market	Relevant, always included  The current market as well as >20 year projections of the market are thoroughly assessed both with internal and external consultants. Market developments in pricing and demand related to renewable power plants are included in our risk assessment including when entering new markets, deploying new technologies and during an annual risk review.
	Reputation	Relevant, always included  Each of our business decisions are taken after reputational risk has been fully reviewed. Examples of reputational risks: <ul style="list-style-type: none"><li>o National climate vulnerability and political risk</li><li>o Heavy transport of equipment</li><li>o Handling of waste</li><li>o Project potential negative impact on local communities and local environment</li></ul>
Physical risks	Acute	Relevant, always included  We operate globally, and 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: <ul style="list-style-type: none"><li>o Extreme weather</li><li>o Winds and lightning risk for solar projects</li><li>o Extreme precipitation &amp; flooding (extra focus for hydropower)</li></ul>
	Chronic	Relevant, always included  Chronic impacts of climate change are addressed on a 25 - 30 years basis as part of the Decision Gates in our Operating System. Typical risks discussed, assessed and mitigated are: <ul style="list-style-type: none"><li>o Drought and water availability (extra focus for hydropower)</li><li>o Extreme heat, which results in efficiency losses</li></ul>

- 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 and influences most areas of our financial planning.

Scatec considers both the short-, medium- and long-term financial and strategic time horizons when assessing risks in general and climate assessments.

Table 5: Definition of time horizons

Time Horizon	Years	
Short-term	0-1	Risk horizon for financing projects (until financial close)
Medium-term	0-3	Risk horizon for construction of projects until commercial operations date (COD)
Long-term	3-25	Risk horizon for operations until decommissioning

The context of the risk assessments can be divided into two; Corporate & Department Risk Management and Project Risk Management:

### Project Risk Management

Project level climate risks have previously been integrated into existing risk processes, but from 2022 projects will also have climate specific risk assessments. Our Operating System includes specific Decision Gates that each project needs to pass before being realised. These represents steps in the project development.

Risk assessments are carried out within this decision gate structure. Decision gate (DG) 0, DG1 and DG2 are supervised by the Executive Management Team. DG3 is supervised by the Management Team and the Board of Directors. Prior to an asset being placed in operation, it must clear DG4, where the same risks are addressed once again. The steps in our project risk management process are as follows:

**Identification of risk:** Prior to each decision gate, and especially DG2 and DG3, relevant departments including Sustainability, Business Development, Solutions, Project Finance, Engineering, Procurement and Construction (EPC) list all risk identified related to a project within their areas of specialty, reporting into the complete project risk matrix. This includes assessing short-, medium- and long-term project risks including climate risks such as extreme heat and precipitation.

**Risk assessment** of the potential magnitude and likelihood of risks.

**Risk consequence** at project level is assessed relative to total EPC value, see table 6. Additional non-financial ways to assess potential climate risk size consequence will be developed in 2023 to assist project level climate risk assessment at an early stage.

**Presentation and discussion** of consolidated risk assessment covering all aspects of the project, in monthly reporting processes and meetings.

**Risk mitigation** through specific actions e.g, through risk reduction, sharing, substitution, transfer, acceptance.

**Continuous monitoring** and reporting of each risk.

**Assessment of risks at a portfolio level** by technology, region etc., for input into corporate risk management.

Table 6: Thresholds for assessing if substantive financial or strategic impact

Consequence	Minor	Moderate	Major
Percentage of EPC value	<0.5%	0.5-1.5%	>1.5%

## Corporate Risk Management

The steps in our corporate risk management process are as follows:

**Business Units:** Create holistic risk overview covering relevant department's area of responsibility as part of the overall organisation. This includes a dedicated climate risk assessment prepared by the sustainability department.

**Power Production (Asset Ownership and Asset Management):** Create consolidated risk assessment covering all aspects of an asset, established at handover during commercial operation date (DG4) and continuously updated with inputs from Loss Prevention framework, Natural Catastrophe Risk Analysis, Global Peril Diagnostics and input from the AO and AM teams.

**Power Production (O&M):** A Hazard Identification and Risk Assessment process is applied in the O&M phase, covering various forms of baseline and issue-based risk assessments.

**Corporate Overview:** An aggregated risk overview and Risk Matrix is developed by the Executive Management Team 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 present it to the Board of Directors 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. Threshold for what risks and opportunities that are evaluated to have a substantive financial impact, at corporate level, are defined below.

Table 7: Thresholds for assessing if substantive financial or strategic impact

Financial impact	Low	Medium	High
USD	<50,000	50,000-5,000,000	>5,000,000

## 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

Scatec's overall corporate ambition is to have increase our renewable energy generation capacity in operation or under construction by 1,5 GW per year towards 2027. The table below details our capacity development from 2020.

Table 8: Installed renewable energy capacity and GHG emissions avoided 2020-2022

Renewable energy capacity, production and emissions avoided 2020-2022				
Metric	Unit	2020	2021	2022
Total plants in operation*	GW	1.57	3.36	3.37
Total electricity generated*	GWh	1,602	3,823	3,898
Total GHG Emissions avoided*	MtCO <sub>2</sub> e	1.6	4.9	4.7
Emissions avoided by Scatec operated power plants**	MtCO <sub>2</sub> e	1.6	2	2

\*All solar, wind and hydropower plants where Scatec has an investment share irrespective of size.

\*\* Does not include hydropower investments as Scatec does not have operational control.

### Emission intensity threshold

Stricter emission intensity requirements for energy production in a lifecycle perspective through the EU Taxonomy affects Scatec on a strategic level. Therefore, Scatec introduced a requirement in its risk management system to only develop projects with estimated emissions below 100g CO<sub>2</sub>e/kWh and aim to only develop projects with emissions below 50g CO<sub>2</sub>e/kWh. In 2022, we assessed our solar PV projects against the Taxonomy's technical criteria included climate risk analysis and climate emissions intensity calculations on a project basis.

A lifecycle assessment of climate emissions for all our operating hydropower assets was carried out by the International Hydropower Association (IHA). The lifecycle emissions of Scatec's hydropower assets are estimated to be ranging from 1.2g - 21.6gCO<sub>2</sub>e/kWh – significantly below the threshold in the Taxonomy of 100gCO<sub>2</sub>/kWh.

Our Release projects were also assessed, and country climate risk studies were utilised for all projects during 2022.

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

Scatec report our direct and indirect greenhouse emissions associated with building and operating our power plants in accordance with the Greenhouse Gas Protocol.

## Reporting methodology

Scatec's carbon footprint accounting is in accordance with the Green House Gas (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 SF6 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.

Table 9: GHG emissions 2020-2022

Metric	Unit	2019	2020	2021	2022
Energy use (electricity and fuel)	MWh	21,506	19,712	19,305	27,182
Scope 1	tCO <sub>2</sub> e	1,987	1,011	1,237	3,131
Scope 2 (Location-based)	tCO <sub>2</sub> e	6,657	8,875	8,690	8,357
Scope 2 (Market-based)	tCO2e	6,682	6,106	7,508	800
Scope 3	tCO2e	345,035	175,867	28,951	1,468,943
<b>Total GHG Emissions (Market-based)</b>	<b>tCO2e</b>	<b>353,704</b>	<b>182,984</b>	<b>37,696</b>	<b>1,472,873</b>



In 2022, Scatec's total GHG emissions amounted to 1.5 mill tonnes CO<sub>2</sub>e (market-based).

Combined, emissions in scope 1 and 2 have decreased by 55% from 2021 to 2022. The reduction is mainly due to a higher share of sourced Renewable Energy Certificates for electricity consumed from the grid and use of own electricity on sites. In 2022, we achieved 83% renewable electricity, exceeding our 2022 target of 65%.

The GHG emissions associated with our value chain and capital goods increased considerably in 2022. Scatec started the construction of three new solar projects in South Africa, Brazil and Pakistan during the year, which led to increased emissions from purchased components and transport. Since 2019, total GHG emissions have tripled, mainly due to the large increase in scope 3.

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 approved by the SBTi in January 2023.

## Net zero by 2040

Scatec's SBT approval comes after a thorough validation process, and confirms that our targets are in line with the latest climate science from the Intergovernmental Panel on Climate Change (IPCC) to limit warming to 1.5°C. Our targets require us to minimise direct emissions by 2030 and achieve net zero emissions across our value chain by 2040.



### 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

## Main measures and performance indicators

Some of the most important measures are climate emission thresholds, emission reduction activities and pilots, and contributions to society by helping avoid emissions from use of electricity. To chart the key actions needed to meet our targets we have begun developing a climate strategy and will proceed with emission reduction projects in 2023.

<b>Scope 1</b>	 <b>VEHICLES</b> Zero emissions vehicles and chargers at all operational sites	 <b>SF6</b> Reduce use & leakages of sulphur hexafluoride	 <b>GENERATORS</b> Emissions free back up power at operational sites
<b>Scope 2</b>	 <b>ELECTRICITY</b> 100% electricity from renewables		
<b>Scope 3</b>	 <b>MODULES &amp; TRACKERS</b> Higher efficiency, low GHG emissions modules & trackers	 <b>TURBINES</b> Green and recycled steel	 <b>TRANSPORTATION</b> More shipping & rail, electrification, e-fuels and biofuels

We plan to reduce emissions through our project phases, such as using renewable power during construction and operation. Our main targets and KPIs related to climate risks and opportunities are listed below.

Table 10: KPI performance against target, 2020-2022

KPI	Unit	Actual 2022	Actual 2021	Actual 2020	Actual 2019	Target 2030
GHG emissions (Scope 1 and 2) <sup>1)</sup>	tonnes CO2e	3,930	8,745	7,117	8,669	-97%
GHG emissions (Scope 3) <sup>2)</sup>		1,468,943	28,951	175,867	345,035	
GHG emissions intensity (Scope 3) <sup>3)</sup>	tonnes CO2e/GWh	410	8	62	209	-55%
Deploy electric vehicles (EVs) for sites	sites w/EVs	0	0	0	0	100%
Annual energy production <sup>4)</sup>	GWh	3,898	3,823	1,602	926	
Renewable electricity consumption (I-RECs)	% RE use	83	16	34	0	100%

To achieve the current share of renewable energy, Scatec has purchased I-RECs from a third-party provider for our electricity usage in Honduras and Malaysia in 2022 to guarantee it originates from a renewable source. For our power plants in Brazil, Egypt, South Africa, Argentina and Vietnam, we cancel our own I-RECs for 2022. The volume of I-RECs will likely increase in the coming years to reach the 100% RE target for 2030.

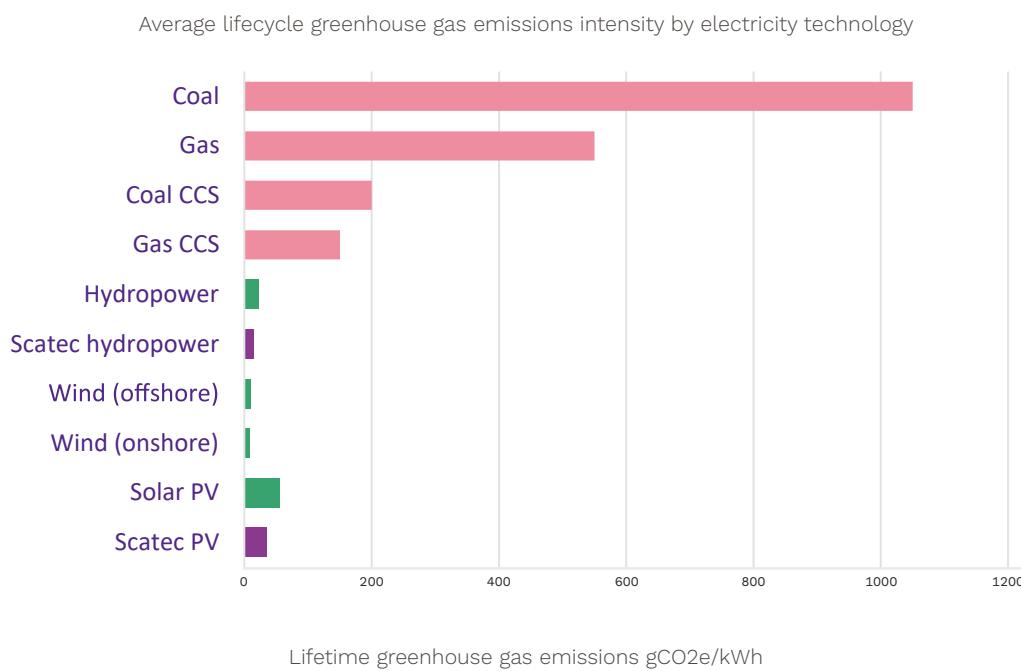
<sup>1</sup>Scope 2 is reported following the market-based approach based on I-RECs.

<sup>2</sup>We report on all relevant and material scope 3 categories. Refer to our corporate website for our detailed climate accounting.

<sup>3</sup>Scatec is continuously improving the value chain GHG emissions collection and management. These results are subject to future updates.

<sup>4</sup>Energy production is reported for all projects on a proportionate basis.

GHG emission intensity over a lifetime varies based on the electricity generation technology. The graph below show the difference between conventional power production from coal and gas, and how it compares with renewables and Scatec renewable energy production specifically.



Scatec's scope 3 emission intensity for produced energy (tCO2e/GWh) has increased from 209 tCO2e/GWh in 2019 to 410 tCO2e/GWh in 2022, due to the increased purchase of capital goods.



