Scatec

TCFD report

2021

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Content

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 areas of disclosure that represent core elements of how organisations operate: governance, strategy, risk management, and metrics and targets. Moreover, the framework separates recommended disclosures into three main categories: risks related to the transition to a lower-carbon economy, risks related to the physical impacts of climate change, and climate-related opportunities.

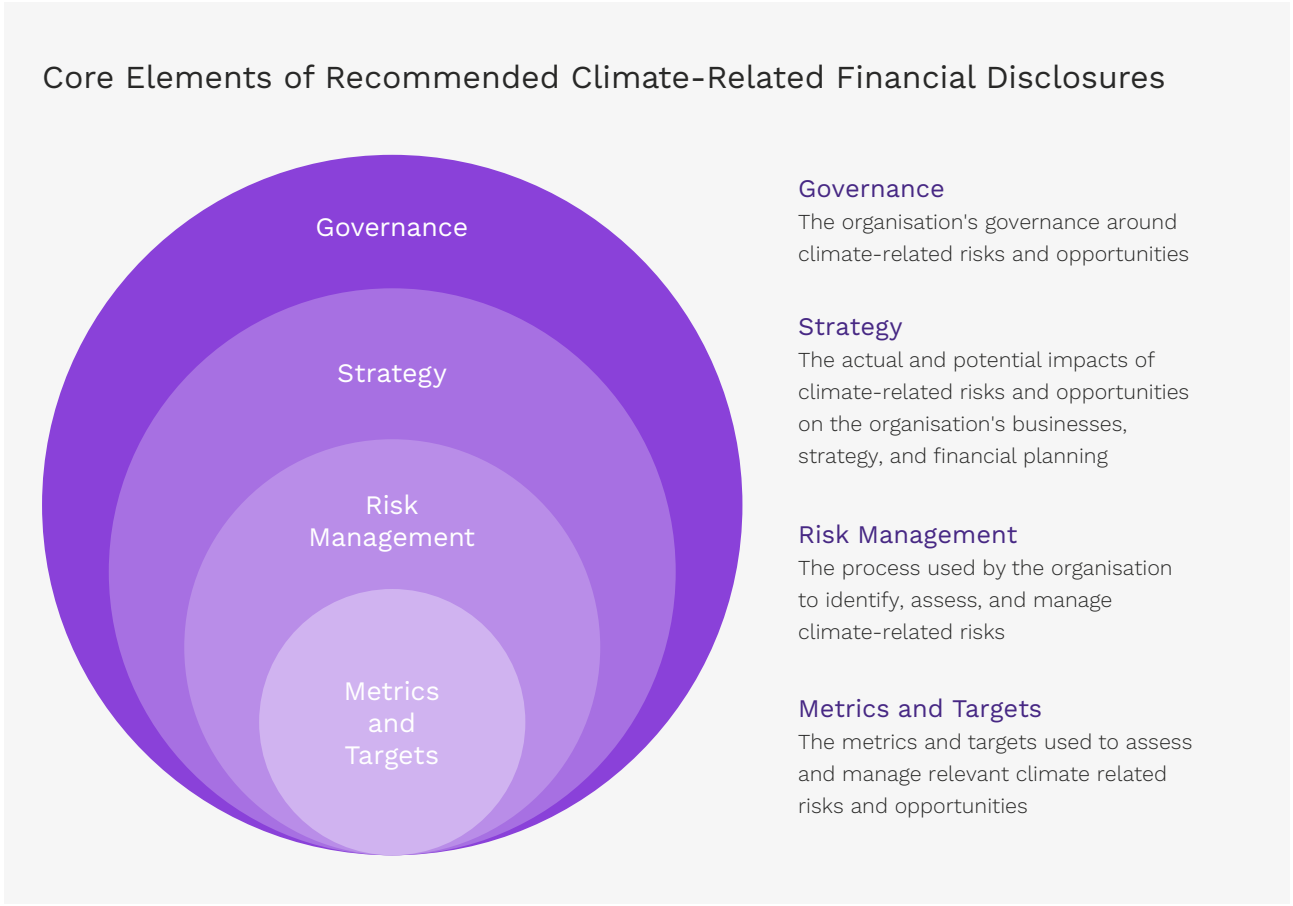


Figure 1: Reprinted from "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures" (June 2017)

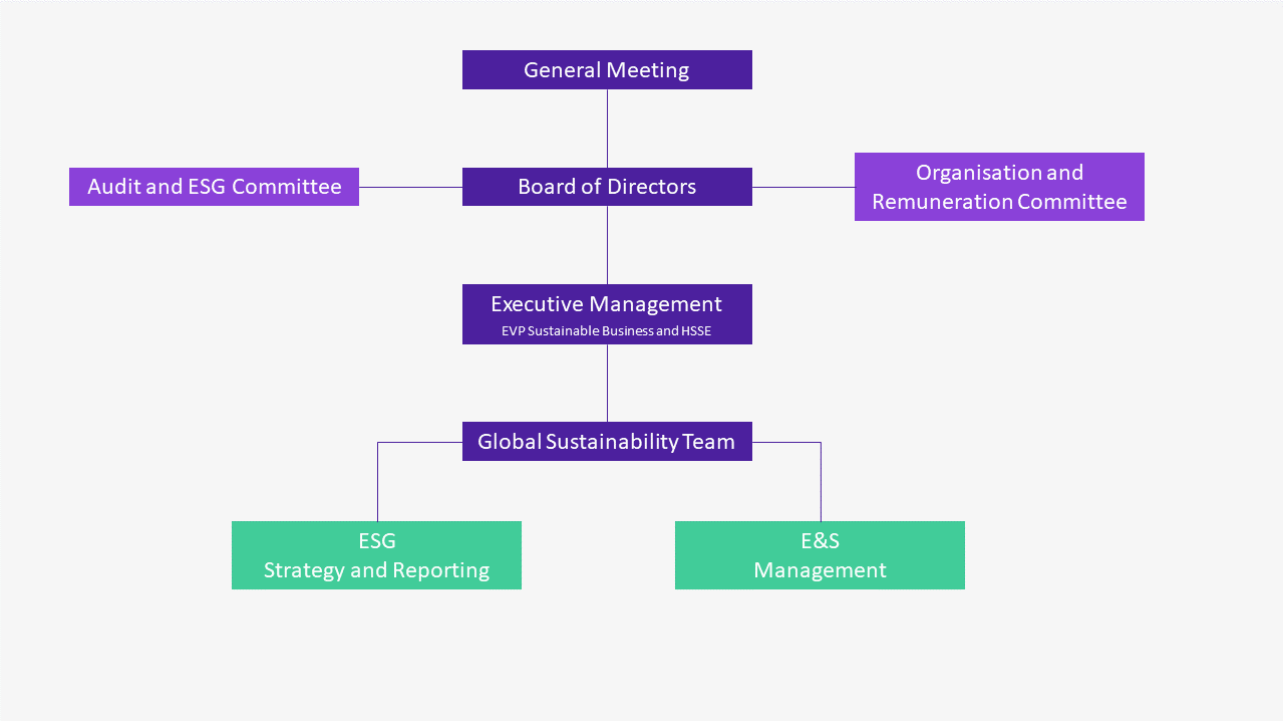
CDP Climate and TCFD reporting

Scatec has reported to the Carbon Disclosure Project (CDP) Climate questionnaire since 2019 in addition to preparing a dedicated TCFD report since 2020. These reports, in addition to our annual and sustainability reporting, are our main annual communications on Scatec's impact on climate change and how climate change is impacting Scatec. Our climate-related financial impact and scenario analysis and reporting is an important process for Scatec. It helps ensure transparency, but also improves our understanding of how climate-related issues can affect us, and how we can mitigate the upcoming changes.

Governance

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

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



Climate-related issues are an integrated part of our overall business strategy, and the overall highest-level of responsibility sits with the Board of Directors, led by the Chairman. 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 (DG) framework and processes and procedures within the Operating System (OS) that are being further described in the Risk Assessment chapter. The Board members of the ESG Committee, which includes the Chairman, spend additional time reviewing sustainability issues, including climate change, and advise the board on issues such as climate targets.

The Board receives monthly risk reports from the Executive Management Team on the projects and business functions. The Board monitors and reviews the reports highlighting the risks per location and per project. This includes identifying risks that would impact our achievement of strategic objectives and can as such guide major plans of action and business plans. 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 DG, where the probability and potential impact of each risk is evaluated. Key policies are reviewed and approved by the Board of Directors annually.

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 Executive Vice President Sustainable Business & Health, Safety Security and Environment (EVP Sustainable Business & HSSE). They are part of the Executive Management Team reporting directly to the Board of Directors on a monthly basis.

The CEO and the EVP Sustainable Business & HSSE are responsible for assessing and managing climate-related risks and opportunities. Given that Scatec is exposed to a variety of operational, political, and financial risks through our business activities, Scatec has extensive policies and procedures to identify and mitigate risks as part of its Operating System (OS), further described in the Risk Management chapter. This to actively manage risks related to the various parts of our operations.

Their responsibilities also include taking an early and active role in understanding the most important environmental and social risks during project development and operations, which often are affected by climate change. This also requires following-up on severe non-compliances or risks identified.

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 Sustainable Business & HSSE.

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.

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

In 2021, Scatec assessed climate risk and opportunities (R&Os) for the current operational portfolio of projects. Interviews and workshops were held with internal stakeholders to identify potential climate R&Os for Scatec. Transitional opportunities from access to new markets and increased demand for our low-carbon energy production were confirmed as most material issues for Scatec, with physical risks from extreme weather being the most material risk. Key findings from the climate risk and opportunity assessment are summarised in table 2 and 3 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.

Climate-related risks and opportunities (R&O's) influence most areas of our financial planning, and Scatec considers both the short-, medium- and long-term financial and strategic time horizons when assessing these R&O's.

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

Table 1: Definition time horizons.

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 2021, Scatec established a dedicated Merger & Acquisition (M&A) team to identify and capitalise upon these and other opportunities. This includes developing decentralised renewable energy production for industrial clients, new technologies such as green hydrogen and other opportunities to capture the growing demand for low carbon products and services.

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.

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. Therefore a 2°C or lower scenario would likely be very positive for Scatec overall. The faster the world reduces emissions to reach 2 degrees or below future the greater the potential opportunities for Scatec. The key transitional risk in a fast transition scenario however is availability of components, due to demand potentially outstripping supply.

We considered the resiliency of our own operated power plants in 2021 by carrying out a physical climate risk scenario exercise using data from the World Bank Climate Change Knowledge Portal. Extreme heat exposure was assessed for each operational site looking at 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 across our project portfolio.

Climate-related risks

Risk Category		Risk Type	Likelihood	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.
		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 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 are being carried out to model potential variability to 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.
		Extreme wind and lightning	High	Low	Short-term	Scatec owns and operates two 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.

Table 2: Description of risks identified.

Climate-related risks

Risk Category		Risk Type	Likelihood	Potential Financial Impact	Time Horizon	Description of Risk	Mitigation Strategy
Physical	Acute and chronic	Extreme heat and sandstorms	High	How	Medium-term	Scatec owns and operates 6 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. 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, fire fighting 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.	Scatec closely follows the development of new standards and actively incorporates requirements into its projects. Existing hydropower investments for example have been assessed against EU Taxonomy GHG intensity requirements and new hydropower projects are screened against these requirements.
	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 at 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.

Table 2: Description of risks identified.

Climate-related opportunities

Opportunity Category		Opportunity Type	Likelihood	Potential Financial Impact	Time Horizon	Description 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 have increased 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. These include mining companies that have off-grid operations powered by diesel, the United Nations and, small utilities with diesel or thermal generation, 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.	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.
	Market	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. 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 also lead to further electricity 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 led by our Business Development Team.
	Products	Green hydrogen and ammonia	High	High	Short-term	Opportunity to use renewable energy to make energy dense products for export (Power-X). Key drivers are cheaper renewables, potential surplus green energy, government support for H2 production due to essential role in decarbonisation and potential to export to other markets: • Potential size: 40GW of green hydrogen electrolysis expected in EU alone by 2030 • Timeline to industralise: 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 are project development and financing expertise. We are exploring these opportunities and will seek to develop profitable, large-scale projects where we can best utilise are project development and financing expertise
	Resilience	Climate adoption 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.	

Table 3: Description of opportunities identified.

Our strategy has been influenced by climate-related risks and opportunities in all our business areas, as described in table 4 below.

Climate-Related R&O's Influencing our Strategy		
Business Areas Influenced by Climate-Related R&O's	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.

Table 4: Description where and how Climate-Related Risk and Opportunities have influenced our Strategy.

Risk Management

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

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, this includes climate risks as shown in Table 5. The main climate-related risks relate to the development, construction and operations phase of each project.

Risk types in climate-related risk assessment

Risk type		Relevance in risk assessment	Description
Transition risks	Emerging and 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: • National climate vulnerability and political risk • Heavy transport of equipment • Handling of waste • Project potential negative impact on local communities and local environment
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: • Extreme weather • Winds and lightning risk for solar projects • Extreme precipitation & flooding (extra focus for hydropower)
	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: • Drought and water availability (extra focus for hydropower) • Extreme heat, which results in efficiency losses

Table 5: Description of risk types included in climate-related risk assessment.

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

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

Scatec's process of identifying, assessing and responding to climate-related risks and opportunities (R&O's) is integrated into our multi-disciplinary company-wide risk management process.

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 (DGs), see table 7, that each project needs to pass before being realised. Risk assessments are carried out within this decision gate structure.

The steps in our risk management process are as follows:

- Identification of risk: Prior to each DG, specifically DG2 and DG3, relevant departments (including Sustainability, Business Development, Solutions, Project Finance, Engineering, Procurement and Construction) 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 below.

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

Table 6: Threshold for assessing if substantive financial or strategic impact.

- 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.

DG 0, 1 and 2 are supervised by the Executive Management Team. DG 3 is supervised by the Management Team and the Board of Directors. Prior to an asset being placed in operation, it must clear DG 4, where the same risks are addressed once again.

Decision Gates (DG) Process description for assessing development of new projects			
Phase			Description of Phase
Continous Risk Assessment	DG0	Opportunity	The possibility of a project is being explored and assessed via desktop research, applications to tender, environmental and social screening, etc. The Business Development team is responsible for this phase. Within this phase, the responsibility to identify and map climate-related risks lie with both the Business Development and Solutions departments.
	DG1	Feasibility & Development	An opportunity is developed, including site development, system design, business case development, permitting, PPA negotiation, etc. The Business Development team works on the practicalities around developing a renewable power plant, conducting assessments, undertaking stakeholder engagements, and securing partnerships. Within this phase, various departments (including Business Development, Solutions, Project Finance, Engineering, Procurement and Construction) work together to list all risk identified related to a project within their areas of specialty, reporting into the complete project risk matrix.
	DG2	Structuring	The financing and ownership components including debt/equity structuring and due diligence of the renewable power plant are discussed and formalised. The Finance and Tax teams, as well as Project Structuring team are responsible in this phase.
	DG3	Delivery	The final investment decision where equity is committed, is made in this phase. If the project is approved, the construction phase will begin. The Engineering, Procurement and Construction team, as well as the Operations & Maintenance team will be actively involved in this phase.
	DG4	Power Production	The financing and ownership components including debt/equity structuring and due diligence of the renewable power plant are discussed and formalised. The Finance and Tax teams, as well as Project Structuring team are responsible in this phase.

Table 7: Description of the Decision Gates

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): Hazard Identification and Risk Assessment process applied in the O&M phase, covering various forms of baseline- and issue based- Risk Assessments.
- Corporate Overview: Aggregated risk overview and Risk Matrix 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 and to the Board of Directors. This includes short-, medium- and long-term project risks such as physical conditions and weather, technology, engineering, legal, reputational, market and regulatory risks. Threshold for what risks and opportunities that are evaluated to have a substantive financial impact, at corporate level, are defined below.

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

Table 8: Thresholds for assessing if substantive financial or strategic impact

- The matrix is reviewed by the Executive Management Team on a bi-weekly basis and they present it to the Board of Directors both monthly and annually where new risks, deterioration or existing risks are highlighted.
- 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.

Metrics and Targets

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

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 15 GW of renewable generation capacity in operation or under construction by the end of 2025. We report our direct and indirect greenhouse emissions associated with building and operating our power plants in accordance with the Greenhouse Gas Protocol. We additionally calculate the emissions avoided by our projects relative to the average emissions of the relevant national grid.

Renewable energy capacity, production and emissions avoided 2019-2021				
Metric	Unit	2019	2020	2021
Total plants in operation*	GW	1.19	1.57	3.36
Total electricity generated*	GWh	926	1,602	3,832
Total GHG emissions avoided*	MtCO2e	0.9	1.6	4.8
Emissions avoided by all power plants according to Scatec Equity share	MtCO2e	0.5	0.9	2.0
Emissions avoided by Scatec operated power plants**	MtCO2e	0.5	1.6	2.0

*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

Table 9: Installed renewable energy capacity and GHG emissions avoided 2019-2021

Energy use GHG emissions 2019-2021				
Metric	Unit	2019	2020	2021
Energy use (electricity and fuel	MWh	18,283	14,393	13,168
Scope 1	tCO2e	1,846	755	916
Scope 2 (Location-based)	tCO2e	5,109	5,688	4,952
Scope 2 (Market-based)	tCO2e	5,109	2,909	3,763
Scope 3	tCO2e	241,249	5,954	25,110
Total GHG Emissions (Market-based)	**tCO2e**	**248,249**	**9,618**	**29,789**

Table 10: GHG emissions 2019-2021.

- The total GHG emissions from our activities in 2021 amounted to 29,789 tCO2e (tonnes of carbon dioxide equivalent) including scope 1 emissions, market-based Scope 2 emissions and the seven relevant Scope 3 categories from the table above. Scope 1 emissions increased slightly from 2020 due to four projects moving into the operations phase during 2021, in addition to increased maintenance activities at some sites.
- The increase in location-based Scope 2 emissions is due to a reduction of electricity usage in Egypt where reactive power services during the night were no longer required from 2021. Market based emissions increased due to usage in other areas increasing and as we were unable to procure the I-RECs as planned in Malaysia due to lack of supply.
- The increase in Scope 3 emissions from 2020 is primarily due to procurement for Release projects and the inclusion of hydropower investments and upstream emissions from electricity production in all regions.
- The overall decrease in emissions versus 2019 reflects less procurement and construction activity.

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. In 2021, 12 countries reported their activity data that was included in the carbon footprint accounting.

Scope 1 covers all direct emission sources, including all use of fossil fuels for stationary combustion resulting from onsite backup generators, transportation (in owned, leased, or rented vehicles), and fugitive emissions of sulphur hexafluoride (SF6) from electrical equipment. Emission factors used for fuels are from the Department for Environment, Food, and Rural Affairs (DEFRA), 2021. Data is collected monthly and reported externally annually.

Scope 2 includes indirect emissions related to purchased energy. These GHG emissions are reported for offices and onsite maintenance facilities. The electricity emission factors are based on national gross electricity production mixes from the International Energy Agency's statistics (IEA Stat). Emission factors per fuel type are based on assumptions in the IEA methodological framework. Primarily two methods are used to "allocate" the GHG emissions created by electricity generation to the end consumers of a given grid. These are the location-based and the market-based methods. The location-based method reflects the average emission intensity of the grids on which energy consumption occurs. The market-based method reflects emissions from electricity that companies have purposefully chosen (or not chosen). Our Scope 2 emissions are reported using both methods. Data is collected monthly and reported externally annually.

Scope 3 includes indirect emissions resulting upstream and downstream of the company's activities. Emissions from capital goods are calculated based on procurement figures and best available emissions factors (either standard values or environmental product declarations (EPDs)). Emissions for purchased goods and services, such as from construction are based on actual activity data collected by contractors. Fuel- and energy-related activities (not included in scope 1 or scope 2) are calculated based on scope 1 and 2 activity data using emission factors per fuel type based on assumptions in the IEA methodological framework. Upstream transportation and distribution are calculated using the EcoTransIT online calculator based on actual volumes transported from manufacturer port of origin to site. Business travel emissions are based on data gathered by and received from Scatec's travel agencies. Employee commuting emissions are calculated based on data collected from an employee survey and Defra emission factors. Investments are calculated based on equity share of scope 1 and 2 emissions Waste data is estimated by a third party based on the total number of permanent employees. Data is collected and reported externally on an annual basis.

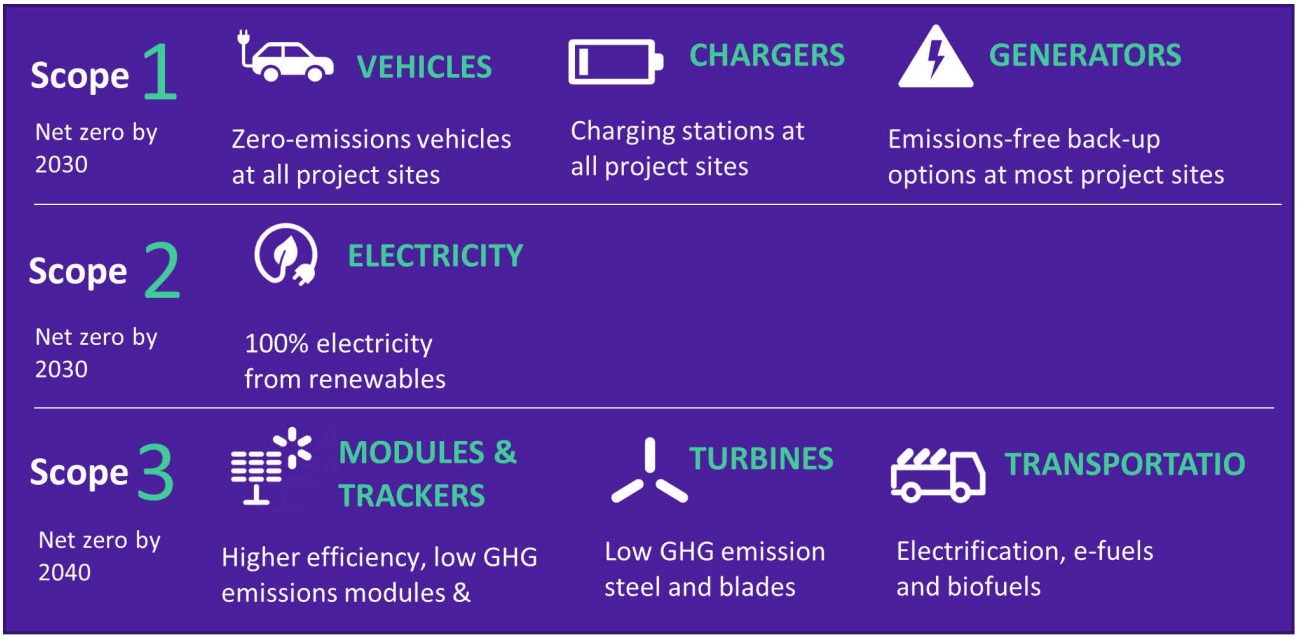
Describe the targets used by the organisation to manage climate related risks and opportunities and performance against targets.

Net zero by 2040

We have set an absolute reduction target for Scope 1 and 2 to reduce our GHG emissions 100% by 2030, from a 2019 base year. Additionally, we have set an intensity reduction target for Scope 3 emissions to reduce our GHG emissions 97% per kWh by 2040, from a 2019 base year. This is aligned with the science-based target net zero requirements, set by the Science Based Target Initiative (SBTi). In 2022 the target will be submitted to the SBTi for validation and approval.

To chart the key actions needed to meet our targets we have developed a climate roadmap (see high level summary below in table 9). A public version of the roadmap will be published in 2022 describing how we plan to reach net zero in 2040 and what the key challenges and assumptions will be. In 2022 we will identify and prioritise which power plants should first invest in zero emission technologies such as battery storage to replace diesel generators and electric vehicles to replace diesel vehicles.

Some of the most important measures that are needed to reach our climate targets



Scatec has purchased International Renewable Energy Certificates (I-RECs) for our power plant in Egypt to guarantee that our electricity is coming from a renewable source. This volume of I-RECs will increase in the coming years to cover other power plants. As our climate targets are newly developed and subject to approval by the SBTi, we cannot report any substantial progress, but we plan to establish new pilot initiatives in 2022 to reduce site emissions and trial necessary technologies.

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