

Scatec

Net  
Zero  
Roadmap

2023



Our vision

Improving our future



Our mission

To deliver competitive and sustainable renewable energy globally, to protect our environment and to improve quality of life through innovative integration of reliable technology

Our values

Driving results  
Changemakers  
Predictable  
Working together

## Content

Note from the CEO	4
Our commitment to a sustainable future: SBTi validated Climate Targets	5
Scatec's Net Zero Roadmap	7
Net Zero Initiatives	9
Definitions and acronyms	17



Refer to our corporate website for our reports:  
<https://scatec.com/>



## Note from the CEO

# Net zero by 2040

The urgency of the climate crisis requires rapid emissions cuts to reach a state of “net-zero” as quickly as possible.

According to the Bloomberg New Energy Outlook, 85 per cent of the world’s energy production will have to come from renewable energy if we are to reach the global net-zero objective by 2050.

Huge investments in solar, wind, and batteries are vital to reach this goal. As a renewable energy developer, we have a key role in mobilising this investment.

To decarbonise the global community, renewable energy must be available and dependable. We work every day to produce low cost and reliable electricity in an energy and carbon efficient manner. A global transition to renewable energy in line with the Paris Agreement presents opportunities for us to leverage on, as we strive towards a more sustainable future.

However, it is equally important that we take responsibility for our own carbon footprint and work towards decarbonising our own operations. By doing so, we can lead by example and inspire others to follow suit.



Terje Pilskog, CEO

# Our commitment to a sustainable future

## SBTi validated Climate Targets

### NET ZERO by 2040



2030	2040
Scope 1: <b>95%</b> reduction	Scope 1 & 2: <b>99%</b> reduction
Scope 2: <b>Zero</b> emissions	
Scope 3: <b>55%</b> reduction/ kWh	Scope 3: <b>97%</b> reduction/ kWh

Scatec is aiming for net zero by 2040. This is where the emissions throughout our value chain are reduced to as close to zero as possible. Any remaining emissions that cannot be mitigated must then be offset by permanent greenhouse gas removals from the atmosphere.

Scatec recognizes the urgent need to address climate change and are committed to doing our part to help achieve the Paris Agreement's goal of limiting global temperature rise to 1.5°C above pre-industrial levels.

As part of this commitment, we have set ambitious climate targets in line with the Science Based Targets initiative (SBTi). By validating our targets through SBTi, we can be confident that our targets are in line with the latest climate science.

*"We are very pleased to have received the validation of our science-based net zero targets by SBTi. During 2023, we have worked to develop a net zero roadmap that shows the key initiatives we will work to implement towards 2040. We now look forward to embarking on this critical journey towards net zero."*

- Roar Haugland,  
EVP People, Sustainability & Digitalisation



# How does Scatec impact the climate?

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 power plants 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 power plant.

For a comprehensive review of our risks and opportunities associated with climate change, including how we manage and monitor them, and how they are incorporated into our strategy, please refer to our annual [TCFD Report](#).

Below is a table detailing Scatec's latest Greenhouse Gas (GHG) inventory. As part of our commitment to sustainability, we continuously work to improve our GHG accounting methods and increase the precision of our captured data. The table below provides an overview of our most recent emissions across scopes 1-3, and follows the [GHG Protocol](#) Framework.

GRI STANDARD	METRICS	UNIT	TOTAL 2023	TOTAL 2022 <sup>1</sup>	TOTAL 2021	2024 TARGETS	2030 TARGETS
<b>GRI 302-1</b>	<b>Energy consumption within the organisation</b>						
	Energy consumption (electricity and fuel)	MWh	25,909	27,182	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
<b>GRI 302-3</b>	<b>Energy intensity</b>						
	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	
<b>GRI 305-1</b>	<b>Direct GHG emissions (scope 1)</b>	<b>tCO<sub>2</sub>e</b>	<b>1,167</b>	<b>1,442</b>	<b>1,237</b>	<b>N/A</b>	<b>-97%</b>
<b>GRI 305-2</b>	<b>Energy indirect GHG emissions (Scope 2)</b>					<b>N/A</b>	<b>-97%</b>
	Total location-based GHG emissions	tCO <sub>2</sub> e	10,230	8,055	8,690		
	Total market-based GHG emissions	tCO <sub>2</sub> e	2,598	2,199	7,508		
<b>GRI 305-3</b>	<b>Other indirect GHG emissions (Scope 3)</b>		<b>417,643</b>	<b>1,470,910</b>	<b>28,951</b>	<b>N/A</b>	
<b>GRI 305-4</b>	<b>Emissions intensity</b>	<b>gCO<sub>2</sub>/kWh</b>	<b>116</b>	<b>377</b>	<b>8</b>	<b>N/A</b>	<b>-55%</b>







1) The total emissions reported for 2022 is restated.

# Scatec's Net Zero Roadmap

Our net zero roadmap outlines the specific initiatives and actions we will implement to work towards achieving our science-based targets for 2030 and net zero emissions by 2040. This plan integrates climate mitigation into our day-to-day operations, driving necessary changes to our operations, technology, and behaviour. The plan includes six initiatives, which were selected based on an analysis of climate emissions over the past few years across all three scopes.

By implementing this roadmap, we will reduce our environmental impact and contribute to global efforts to address climate change in line with the Paris Agreement. We are committed to transparency and accountability and will continuously monitor and report on our progress towards net zero emissions.

## Overview of the six key initiatives in our roadmap

Scope 1	 <b>#1: Electric Mobility</b>	Reduce dependency on fossil fuels for mobility and facilitate the transition to electric vehicles
	 <b>#2: SF6</b>	Reduce emissions and find alternatives to the usage of the highly potent climate gas present in switchgear. SF6 gas (Sulfur hexafluoride) is a greenhouse gas that is mainly used in medium and high-voltage switchgears in the electric power grid
	 <b>#3: Biofuels</b>	Reduce dependency on fossil fuels in operations
Scope 2	 <b>#4: Back-up power</b>	Reduce dependency on fossil fuel-based back-up generators and increase renewable share of consumed electricity
	 <b>#5: Electricity use</b>	Ensure we continue to purchase renewable electricity certificates for consumed electricity
Scope 3	 <b>#6: Supplier engagement</b>	Reduce value chain emission from purchased goods and services

Each initiative will develop specific targets and indicators, update relevant policies, and explore opportunities and dependencies across the other initiatives. We will also anchor our work at each project site to ensure that we are effectively addressing local challenges and opportunities.

Planning for the future will be a critical component of our net zero roadmap, as we strive to stay ahead of emerging trends and technologies. By taking a comprehensive and proactive approach, we aim to make a meaningful contribution to the decarbonisation of our industry and the communities in which we operate.

## Governance

The net zero roadmap is designed to be adaptable and responsive to changing circumstances and emerging opportunities. The action plan is led by our Vice President (VP) of Sustainability Reporting and Strategy, who is supported by the Executive VP of Sustainability. Each of the six initiatives are led by individuals with topic-specific knowledge and expertise, while the Executive Management Team (EMT) sponsors oversee the implementation. The EMT regularly reviews progress and identifies areas for improvement, and the Board of Directors is actively involved in monitoring progress. This governance structure ensures clear lines of responsibility and continuous follow-up on the net zero action plan.

## Identified risks to our Net Zero Roadmap

Scatec is fully committed to achieving our science-based net zero target and playing our part in combatting climate change, but we do recognize that we face challenges.

As early movers in the decarbonisation of renewable electric utilities, we are aware of the technological risks associated with achieving our climate strategy. While low carbon technology that will further reduce our carbon footprint holds great promise, it is not yet fully mature, and we cannot reach our targets without significant improvements in this area. To mitigate these risks, we must engage with stakeholders continuously, testing equipment and being an active part of the development process.

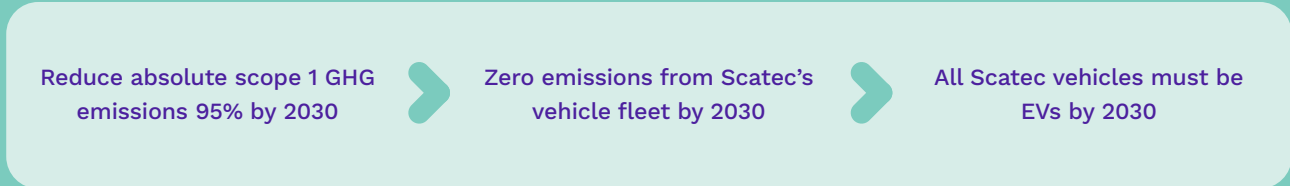
In addition to technological risks, we also face challenges related to our sites' locations and legal frameworks. Many of our sites are in remote areas with limited low-carbon infrastructure, less developed sustainability regulations, and a lower level of political emphasis on climate mitigation. To mitigate the risks associated with our geographical locations, we must act as pioneers in the market and effectively engage with local stakeholders, as well as on-site and off-site suppliers. By building a coalition of partners who share our vision, we can work together to try to overcome these challenges and achieve our ambitious climate goals.

Our net zero roadmap is a first attempt at concretising areas we will have to follow up in order to progress towards our Science-based target. We have identified the major areas for improvement by analysing our historic emissions data and creating initiatives to address them. However, we acknowledge that our emission profile could change as we mature our projects and expand into new business areas. In particular, we anticipate that future waste-related scope 3 emissions could be significantly higher than they are now. Although waste handling and circular economy initiatives are not currently part of our net zero plan, we are actively working on these topics. We recognise that our analysis has limitations, but we remain committed to constantly improving and refining our approach.





# Initiative 1: Electric Mobility



## Background

- More than 80% of GHG emissions in scope 1 come from the use of combustion engine vehicles in 2023.
- To reach our SBTi target for 2030, nearly all GHG emissions from transportation must be abated.
- Scatec has committed to 100% of maintenance vehicles to be electric by 2030.
- Scatec has approximately 100 vehicles in projects and operations today. With increased activity, the need for vehicles will also increase. Double-cab pick-up trucks are most common, followed by sedans. Some sites also utilize ATVs, while other sites have buses for employee transport to and from sites.



### Barriers and challenges

- Lack of availability of electric vehicles in the markets we operate.
- Lack of charging infrastructure in the markets where we operate.
- Lack of experience in operating project sites with electric vehicles.
- Different transportation use and needs across projects.



### Key focus 2024

- Market research and internal analysis of charging needs.
- Roll out pilots at multiple project sites to test equipment in our operations.
- Ensure charging infrastructure is integrated in all new projects.
- Ensure electric vehicles are the prioritised option when purchasing new vehicles.

## Initiative 2: SF6



Reduce absolute scope 1 GHG emissions 95% by 2030



Minimizing risk of SF6-emissions and leakages by 2030



Implement SF6-free equipment at all new plants

### Background

- SF6 gas (Sulfur hexafluoride) is a greenhouse gas that is mainly used in medium and high-voltage switchgears in the electric power grid.
- SF6 is the most potent greenhouse gas we know – 1 ton of SF6 equals 23,500 tCO2e.
- Approximately 10% of our scope 1 GHG emissions in 2023 related to SF6.
- All high voltage circuit breakers and most medium voltage switchgear operated by Scatec contain SF6 today. Although this gas is within a closed loop, leakages from the equipment can occur.
- Global producers of medium and high voltage switchgear have started the development of SF6-free equipment, and we want to take active part in this development.
- EU regulators have introduced a provisional agreement banning medium voltage SF6 containing equipment by 2030, and high voltage equipment by 2032. We expect other regulators to follow in due time.



### Barriers and challenges

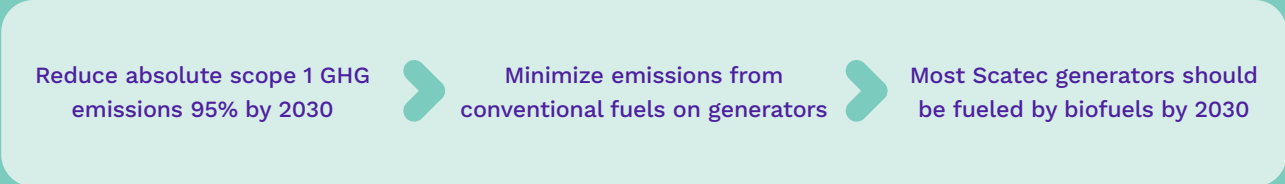
- Availability of SF6-free equipment.
- Lack of experience operating sites with SF6-free equipment.
- New technology currently under development.
- Additional cost of SF6-free equipment.



### Key focus 2024

- Engage with relevant technology providers of SF6-free equipment.
- Amend design guidelines to include options for SF6-free equipment.
- Build competence on the applicability of SF6-free equipment in the organisation.

# Initiative 3: Biofuels



## Background

- Diesel usage on equipment other than vehicles is a material source of scope 1 GHG emissions.
- Our sites depend on reliable back-up power – today this is ensured through diesel generators.
- Scatec does not see biofuel usage as a major long term mitigation initiative, but rather as a short to medium term alternative to quickly reduce climate emissions.



### Barriers and challenges

- Availability and the use of biofuels is highly dependent on a project site's geographic location.
- The usage of biofuels is a short-term climate change mitigation solution – the extent of the initiative must be weighed against technology maturity and availability of alternative solutions.



### Key focus 2024

- Assess the availability of biofuels at Scatec's locations.
- Reduce emissions through increased biofuel usage in locations with known availability.
- Evaluate emission savings potential through biofuels.

## Initiative 4: Back-up power



Reduce absolute scope 1 GHG emissions 95% and 100% of consumed electricity is renewable by 2030



Decrease dependency on generators and grid electricity



Include self-produced back-up power in new projects

### Background

- All sites depend on reliable back-up power – today this is ensured through diesel generators.
- Scatec expects increased electricity consumption in the future, and we are not certain that we are able to purchase renewable electricity certifications for the total amount. We therefore need to plan for increased consumption of own electricity.
- Building large scale back-up power for own consumption requires changes to how we design our plants and is primarily considered for future projects.



#### Barriers and challenges

- The technology used for back-up power at the scale Scatec requires is under development and is developing fast.
- We must evaluate technology maturity and implement back-up power when the technology is reliable.
- The decision of building back-up power for own consumption is interlinked with other net zero initiatives. We must find the most appropriate action on a case-by-case basis.

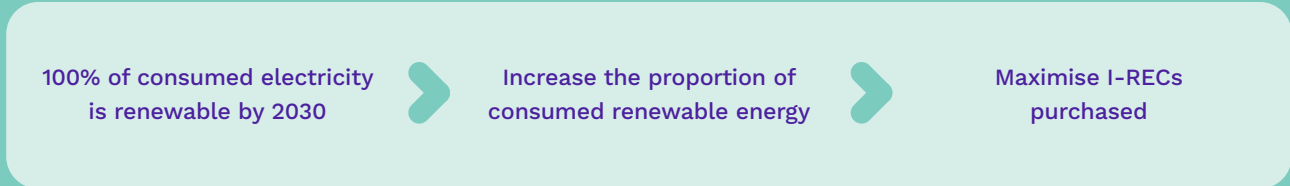


#### Key focus 2024

- Evaluate implications and applicability of off-grid power solutions.
- Map possibility of back-up power for own consumption.
- Build competence and follow the technology development.



# Initiative 5: Electricity use



## Background

- Scatec is connected to and consume electricity from the local grid for our operations and administrative activities.
- In most of the markets we are present, we can purchase renewable electricity certificates (I-RECs) for our electricity consumption. At some locations, we can also choose to cancel I-RECs issued from our facilities. In either case, as holders of I-RECs we can guarantee that our electricity consumption can be tracked to renewable energy generation.
- The market for I-RECs is evolving and we observe rapid movements in demand and supply, affecting the market prices and potentially creating uncertainties for future costs. Additionally, I-REC's are not yet available for issuance, or tracking, in many (less developed) jurisdictions where we have operations.
- We expect that I-RECs will remain the principal method to ensure renewable electricity for Scatec's existing plants until at least 15 years post commissioning.



### Barriers and challenges

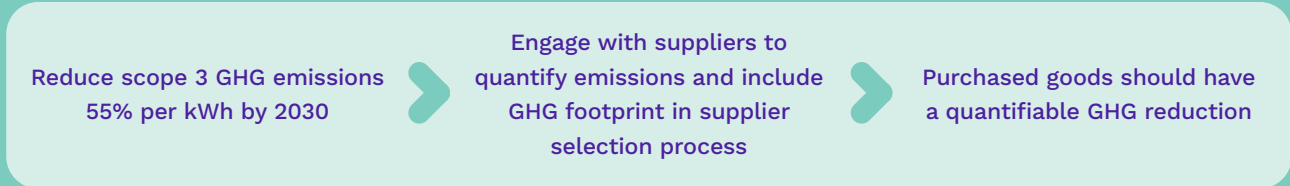
- Regulatory differences in feasibility or availability of acquiring renewable energy certificates for Scatec's electricity consumption.
- The quantity of renewable energy certificates Scatec should purchase in the future depends on the reliability and implementation of net zero technology, notably back-up power facilities and electric mobility.
- RE100 regulations do not recognise I-REC's from plants commissioned more than 15 years ago.



### Key focus 2024

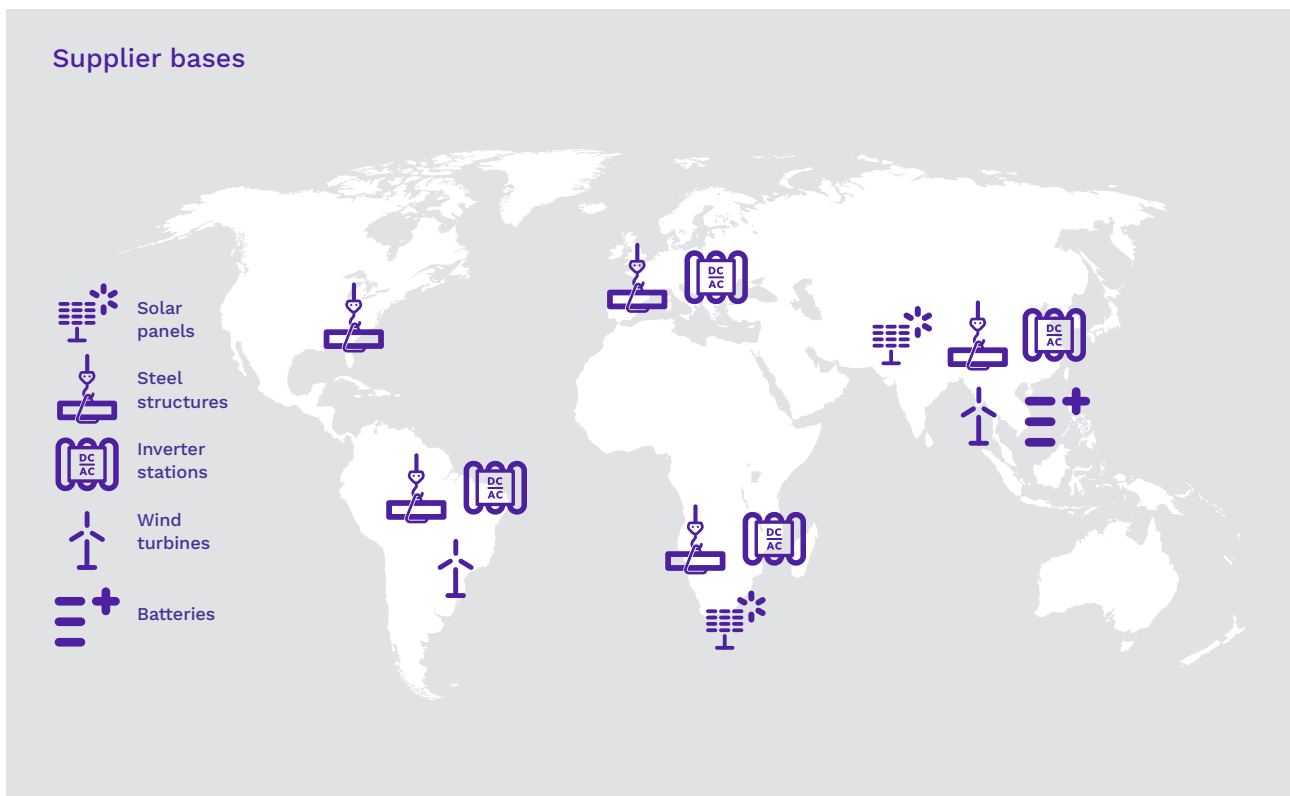
- Map availability and limitations of renewable energy certificates at our current and future project sites.
- Build further competence and follow the market development.
- Evaluate possibilities in close cooperation with the other net zero initiatives.

# Initiative 6: Supplier engagement

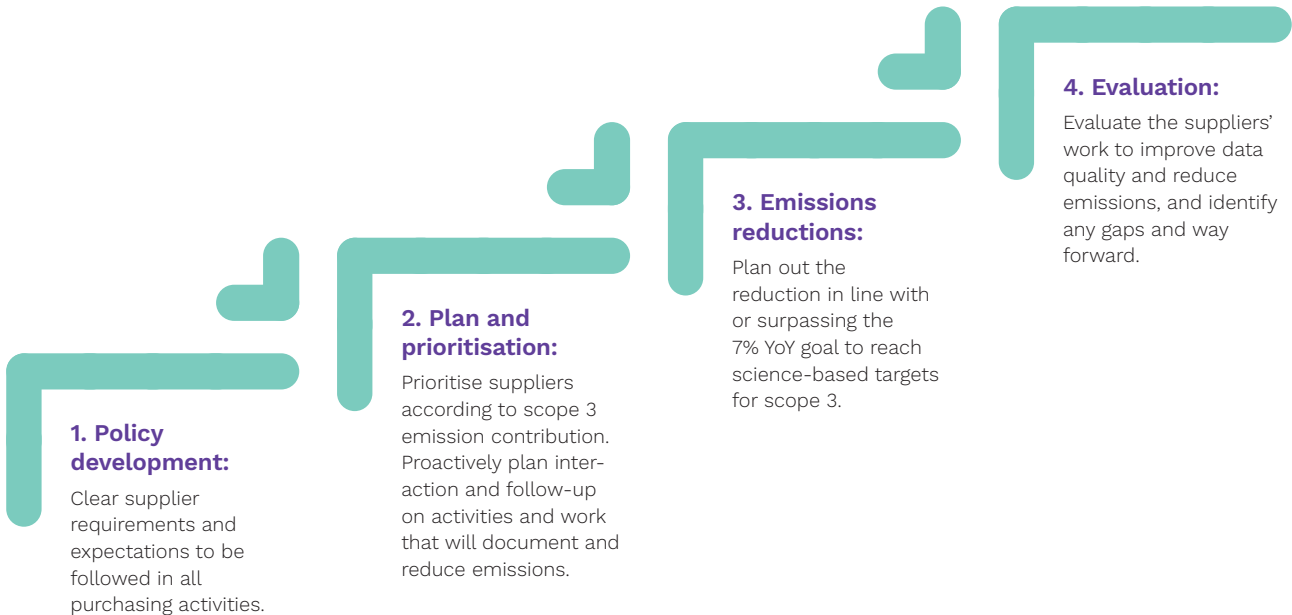


## Background

- Emissions from purchased capital goods constituted about 90% of Scatec's value chain (scope 3) emissions in 2023.
- Scatec's indirect climate emissions are closely linked to new projects. Examples of such value chain emissions are the production of solar modules, steel structures, inverter stations, wind turbines and batteries. See map below for an overview of our supplier base for our main procurement items.
- Reducing emissions in the value chain require us to actively engage with current and future suppliers. While Scatec has the possibility to choose suppliers based on upstream emissions, the different component producing industries will also have to address industry specific challenges to climate mitigation.



Cycle of engagement with strategic suppliers to reduce emissions:



**Barriers and challenges**

- Reducing indirect emissions in our value chain takes time, as we are dependent on our supplier's own efforts to reduce emissions.
- The level of maturity of our strategic suppliers.
- Producers of components for energy production depend on value chains where climate mitigation historically has received limited attention.
- There are currently very few low carbon alternatives available for most of our components.



**Key focus 2024**

- Workshops with 100% of strategic suppliers on climate and net zero initiatives.
- Assess the readiness of 100% of strategic suppliers to provide low carbon components.
- Update our procurement contracts with specific GHG parameters for new projects.

## We're in this together – industry initiatives

In Scatec, we understand that engaging with policy stakeholders is crucial for achieving our climate mitigation goals. We believe that such engagement can help establish the necessary regulatory and economic frameworks to support the transition towards a low-carbon, sustainable future. As a result, we actively collaborate with organisations that allow us to advocate for stronger climate policies and practices within our industry, and that can help drive the systemic change required to address climate change. Below are some examples:



### Solar Power Europe

Scatec is a member of Solar Power Europe (SPE), a European association working to promote solar energy and improve industry wide cooperation. We believe solar and renewables are the future, and that industry cooperation is essential. We therefore actively participate in several SPE work streams including sustainability.



### Science Based Target Initiatives

We want our climate target to be robust and grounded in science. We have therefore had our net zero target validated by the Science Based Target initiative (SBTi). The SBTi partnership between CDP, the UNGC and WWF whose aim is to increase business climate ambition to align it with the cuts needed to limit global warming.



### Ultra-low carbon solar alliance

We played a role in establishing new standards for solar on the technical committee for the Ultra Low-Carbon Solar Standard. As a representative of companies purchasing large number of solar modules, we are keen for a robust and useable standard that will allow us to differentiate and buy low carbon solar panels.



### PV Cycle

One of the most effective ways to reduce the emissions of products is to use recycled rather than virgin raw materials. We are therefore aiming to recycle as much of components as possible when they reach end of life. To support this goal, we have become a member of PV Cycle, an organisation that connects solar waste recyclers with those who have solar waste to dispose of in order to increase recycling rates.



## Definitions and acronyms

<b>GHG</b>	greenhouse gas
<b>GW</b>	Giga (billion) watt, used as unit of capacity of a power plant to generate power
<b>I-REC</b>	International Renewable Energy certificate (type of guarantee of origin scheme)
<b>kWh</b>	kilo (thousand) watt hour, a unit of energy
<b>Net-Zero</b>	an equilibrium state where greenhouse gas emissions are balanced by permanent removals from the atmosphere
<b>PV</b>	photovoltaic, the most common type of solar generation technology
<b>RE100</b>	Climate Group RE100, a global initiative bringing together the world's most influential businesses committed to 100% renewable electricity
<b>SBTi</b>	Science Based Target Initiative
<b>SPE</b>	Solar Power Europe, a European focused solar policy and advocacy membership organisation
<b>tCO<sub>2</sub>e</b>	tonne of Carbon dioxide equivalent

The Scatec logo features the word "Scatec" in a bold, white, sans-serif font. The letter "S" is stylized with three short, curved lines above it, resembling a sun or a signal. The background of the logo area is a teal color that transitions from a light blue sky and green field at the top to a darker teal at the bottom.

# Scatec

[www.scatec.com](http://www.scatec.com)