TT Environmental Solutions – ESG Reporting

Author

Basak Yeltekin,
Head of ESG

Basak is Head of ESG at TT. Working alongside the Investment, Risk and Marketing teams, she helps to integrate ESG across our long-only products. Before joining TT in 2020, Basak spent six years at Norges Bank Investment Management, where she collaborated closely with the Investment teams and senior management to integrate ESG into their investment process. Prior to Norges, she was a Portfolio Manager on Harvard University's endowment fund, investing in Emerging Markets in a long/short equity strategy. Basak graduated cum laude with an A.B in Economics from Princeton University. She also has an MSc in Management and Regulation of Risk from London School of Economics.

Firm ESG Update

2023 was a year of growth for ESG at TT International. TT's new Article 8 funds – Sustainable EM and Global SMID – reached their one-year mark, outperforming their benchmarks. Sustainable EM is an Article 8 version of our existing EM strategy and actively targets alignment with the UN Sustainable Development Goals using a proprietary scoring framework and seeks to invest at least 80% of the fund's capital in companies that promote the SDGs through their operations and/or products. In our Global SMID strategy, we seek to invest in a diversified portfolio of small and mid-cap companies which present the opportunity for long-term growth, within the environmental, technological, demographic, and sociological, top-down, and opportunistic global themes. Our Article 9 Environmental Solutions strategy reached its 3rd anniversary, outperforming its benchmark by 4% gross per annum since inception.

We grew our ESG team with the hiring of new analysts. Mubaasil Hassan joined us from Curation, where he worked as a sustainable finance specialist for two years. He has a BSc (Hons) in Investment and Financial Risk Management from Cass Business School. Ella Chattock joined our team in December 2023 having achieved a First Class BA (Hons) in Human Geography from the University of Exeter.

ESG products: We won the ESG Investing award for 'Best ESG Investment Fund: Global Thematic' for our Environmental Solutions strategy for the second year in a row in 2023. We also achieved the Responsible Investment Association Australasia (RIAA) certification for this strategy where we were recognised as a Responsible Investment Leader, ranking in the top 20% of 272 investment managers.

Active ownership: We had 63 targeted ESG engagements with 58 companies. We voted at 435 meetings and published our voting records on our website.

We continued to engage with our investee companies on climate risk, biodiversity, human and labour rights, shareholder rights, capital allocation, and executive remuneration.

We became a signatory to the Net Zero Asset Manager Initiative in September 2023 and continued our Climate Action 100+ engagements with Petrobras and Samsung Electronics. We joined the Nature Action 100 engagement initiative in December 2023 and were selected for the Grupo Mexico, Glencore, Vale, Zijin Mining, and Inner Mongolia Yili engagements. Nature Action 100 is a global investor engagement initiative focused on driving greater corporate ambition and action to reverse nature and biodiversity loss. The initiative engages companies in key sectors that are deemed to be systemically important in reversing nature and biodiversity loss by 2030.

Processes: We held monthly ESG risk meetings on our long-only portfolios with the portfolio managers and TT Risk team. At these meetings, we review the portfolio companies with relatively high governance risks (including accounting flags), low ESG scores, controversies, and high carbon emissions.

Reporting: We published our third stewardship report and renewed our status as a signatory to the UK Stewardship Code. In our UN PRI assessment, we scored very strongly on ESG incorporation for long-only equities (5 stars / 94%) and achieved 4 stars on Policy, Governance, and Strategy and for Hedge Funds, improving our scores and ranking ahead of our peers in these categories.

Regulatory: We completed the first year of detailed SFDR reporting for our Article 8 and 9 funds.

TT Environmental Solutions – ESG Reporting

The Overall Sustainability-Related Impact

During the relevant period, the TT Environmental Solutions Fund held 100% of its invested capital in sustainable investments with an environmental objective.

How did the sustainability indicators perform?

In targeting sustainable investments, the fund seeks to invest over 80% of its invested capital in issuers that generate at least 50% of revenues or operating profits from activities which contribute to the solution of an environmental problem. However, the Fund may also invest up to 20% of its invested capital in companies that are making a material improvement to environmental issues but whose revenues or operating profits from such activities do not yet account for 50% of the business. To assess the success of the Fund in achieving its objective, we verify the revenues or operating profits derived from environmental solutions for each company that the Fund invests in using both public company disclosure and equity research.

The fund consistently complied with this threshold in the reporting period, ending the year at 76.6% of its assets (and 84.6% of its invested capital) in issuers that generated at least 50% of its revenues or operating profits from activities that contribute to the solution of an environmental problem.

On a weighted average basis, 72.7% of the revenues of our portfolio were generated from the provision of environmental solutions (80.2% across the invested capital).

The carbon footprint of the portfolio (scope 1 and 2 emissions) increased during the fiscal year from 49 tonne CO_2e per USD million invested at the beginning of the year to 59 tonne CO_2e per USD million invested at the end of the year, based on available information, versus a benchmark figure of 86 tonne CO_2e per USD million invested. The carbon footprint of the portfolio increased largely due to the increase in the portfolio weights of Renewi and Smurfit Kappa. The portfolio's avoided carbon emissions as disclosed by the investee companies was 9.0 times its carbon footprint.

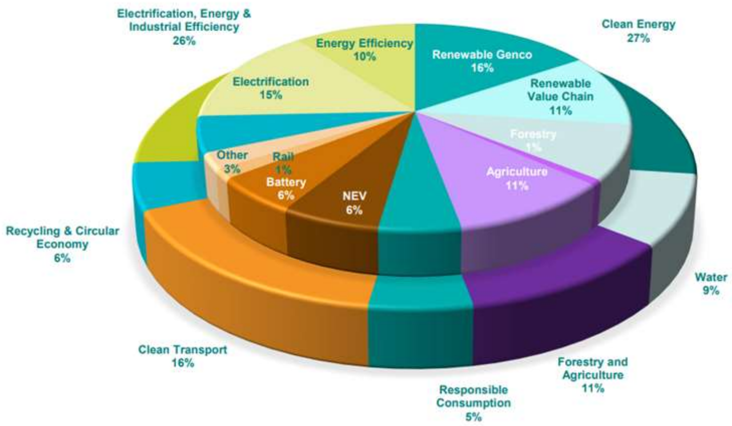
Top investments

The top 5 investments of the TT Environmental Solutions Fund as of 31-December-2023 were:

Largest Investments	Sector	% of assets	Country
Cadeler	Industrials/Clean Energy	7.2%	Denmark
Smart Metering Systems	Industrials/Electrification, Industrial and Energy Efficiency	5.7%	Britain
KWS SAAT SE & CO KGAA	Consumer Staples/Forestry and Agriculture	5.6%	Germany
Serena Energia	Utilities/Clean Energy	5.2%	Brazil
Nexans	Industrials/Electrification, Industrial and Energy Efficiency	4.0%	France

In which economic sectors were the investments made?

The investments were in the following sectors: (i) clean energy; (ii) clean transport; (iii) forestry and agriculture; (iv) responsible consumption; (v) recycling and circular economy; (vi) sustainable use and protection of water; and (vii) electrification, electrical and industrial efficiency.



TT Environmental Solutions – ESG Reporting

Fund ESG Dashboard

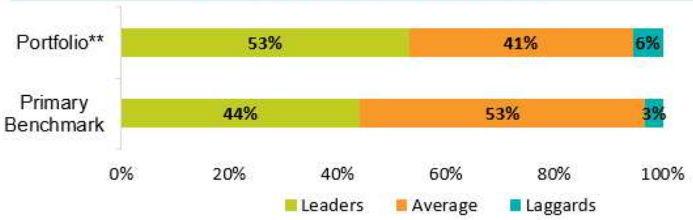
Carbon Footprint and Avoided Emissions

	TT ESF	MSCI ACWI	Portfolio vs Benchmark
Carbon footprint (CO2t per $1m invested)	59	86	-32%
Carbon intensity (CO2t per $1m sales)	104	172	-39%
Coverage including cash	100.0%	99.9%	

Our portfolio's avoided carbon emissions as disclosed by the investee companies is 9.0x its carbon footprint*

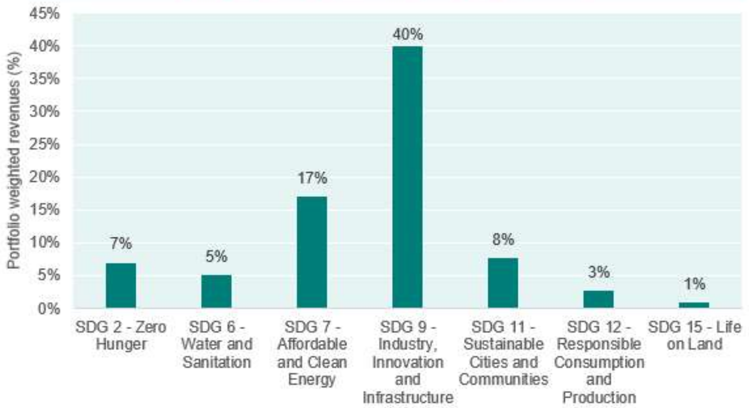
EU Taxonomy Alignment

MSCI ESG Ratings Distribution



	Portfolio	Primary Benchmark
Weighted Avg. ESG Score	6.94	6.81

SDG-aligned revenues of our portfolio



Source: TT International, MSCI, Bloomberg. Data as of 31 December 2023.

*41 companies with reported or estimated carbon emissions, 22 companies reporting emissions avoided through their activities. **4 companies not covered by MSCI ESG ratings

MAIN PILLARS OF THE STRATEGY'S IMPACT

Impact through engagement on specific issues and by means of thematic engagement

- Numerous examples of improved capital markets outcomes and disclosure, consistent with our engagement efforts
- Since inception to December 2023, we have had 122 engagements in the strategy (including our thematic biodiversity letter project to 32 companies)

Providing primary capital to help scale environmental solutions

- Participated in 5 IPOs to date
- Participated in 18 follow-on capital raises

Lowering implied cost of capital for businesses in capital hungry growth phase

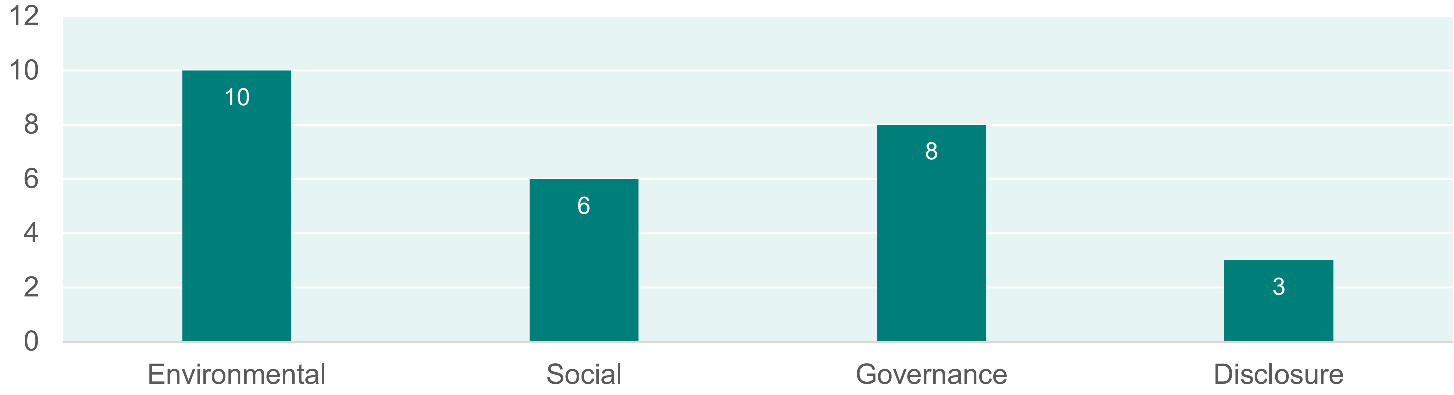
- Secondary markets help drive correct pricing & capital allocation between competing solutions
- Our expertise helps to drive prices to appropriate levels

Unique impact through TT's charitable donations, creating meaningful environmental outcomes

- Our total charitable contribution as of Q4 2023 was $668,424
- We currently support Heal (rewilding), The University of Western Australia Oceans Institute (supporting academic research into the marine environment), Thousand Year Trust (restoring Britain's ancient rainforests), and The Global Returns Project (selects the most effective not-for-profit organisations tackling the climate and nature crisis and directs our giving).

Engagement Breakdown by Theme

- 19 targeted engagements in 2023 with 17 companies in the Environmental Solutions strategy covering environmental, social, governance topics and ESG disclosure



Engagement highlights

We discussed the solar supply chain with **Sungrow's** board secretary, received the company's list of suppliers, and performed further due diligence into their suppliers to understand any human rights / Xinjiang related risks. Sungrow's products do not involve any Xinjiang supply chain, and they only provide the inverters (and not the modules that are at high-risk of having polysilicon from Xinjiang).

We engaged with **Renewi** in May 2023, requesting an update on the company's net zero emissions roadmap, the new targets for the carbon intensity of its sites, and the project to set SBTi-aligned targets. Renewi said it reduced Scope 1 & 2 emissions by 60kT / 9% to 580kT CO_2e in FY23 year-on-year and is targeting a 50% reduction by 2030. The firm also reiterated its commitment to the SBTi and that it commenced the review and approval process with them.

We engaged with the **Renewi** management in November 2023 about the rejected Macquarie takeover offer, focusing on the company's view that the Macquarie offer undervalued the company compared to Renewi's plan to continue as a listed company and reach EUR 3bn of revenues in five years with high single digit margin profitability. The meeting strengthened our view that Renewi is uniquely positioned as a market leader in Europe's most advanced recycling markets with advanced technologies.

In June 2023, we engaged with **Befesa** on its decarbonisation plan, noting that the firm's absolute and relative emissions have been rising steadily since 2017, and asked Befesa whether it expects this trend to continue. We also asked the firm whether carbon offsets will be used to reach net zero targets and what the firm's plans are regarding reducing reliance on coking coal. Finally, we asked Befesa which technologies it will rely on to achieve its net zero target. Befesa provided limited additional information compared to what we had previously gleaned from its sustainability report. The firm said it has explored multiple options to increase its renewable electricity consumption and that it is confident it will achieve the CO_2 reduction target by 2030. The firm said the 2050 target relies on technologies including solar, biocoke, hydrogen, and potentially new recycling technologies. With regards to coking coal, Befesa said it has seen promising early-stage outcomes from testing hydrogen at one plant. Befesa did not confirm if carbon offsets will be required to reach its 2050 target.

In June 2023, we met with **SABESP**'s CEO and CFO and discussed environmental, social, and governance topics following a potential privatisation. Specifically, we focussed on the environmental capex needed to increase the sewage treatment coverage from 84% to 100%, as well as designing the future tariff structures to adjust for hydrological problems in a more unpredictable future due to climate change. On the social side, we discussed employee relations, specifically how the company may conduct a cost-cutting programme. On the governance side, we sought to understand what the privatisation may mean for corporate governance, golden share, voting limits, and changes in remuneration structure.

In September 2023, we had an in-depth engagement about **SABESP**'s decarbonisation and followed up with a letter to the CEO where we emphasised that SABESP should set SMART (specific, measurable, achievable, relevant, and time-bound) targets on its carbon emissions, along with a publicly communicated target for methane capture rate, and that this would be taken very positively by the market and would enhance the company's investability.

Engagement highlights cont.

We discussed environmental impacts with **Boralex** after the company published its Environmental Mission Statement where it committed to take concrete steps to protect biodiversity, including but not limited to threatened species, at every stage of its projects, and implement and maintain a sustainable procurement charter to guide in the selection of goods and services suppliers. We wanted to understand the concrete steps Boralex planned to take on these objectives. We asked about the company's assessment of biodiversity risks regarding the expansion of Des Neiges wind project, Canada's largest wind farm, which was allegedly placing at risk threatened species such as Bicknell's Thrush, bats, and the woodland caribou due to deforestation and the construction of access roads. Boralex explained that they held public information sessions before any concrete development plans were drawn up and they are not facing strong opposition. There are further mitigation mechanisms in place to preserve land in other locations for 20 years. The company outlined its 5 priorities for suppliers as mitigation of environmental impacts, respect for human rights, preventing anti-corruption, helping with local development, and promoting health and safety, and that Boralex is dedicated to promoting responsible ESG practices, including those pertaining to human rights, across the supply chain and this commitment extends to providers of solar panels. Boralex also had its strategic suppliers complete the EcoVadis assessment, and the companies that completed this assessment were awarded additional points in the evaluation of bids exceeding CAD 150,000. Finally, we discussed the company's poison pill. The company defended the rationale behind the poison pill, arguing that it was adopted to ensure that all Boralex shareholders be treated equally and fairly should the corporation be subject of a take-over bid or other unsolicited attempt of gaining control.

We met with **Terna**'s Sustainability and IR teams and discussed the WWF complaint that Terna's Thyrrenian Link in Termini Imerese was cutting 1,600 olive trees against decisions from consultation proceedings and replanting them with inadequate spacing. We learnt that Terna had taken over this project from another developer and that it had pledged to plant a significantly greater number of trees. The company consults with the NGOs and works with universities on biodiversity research.

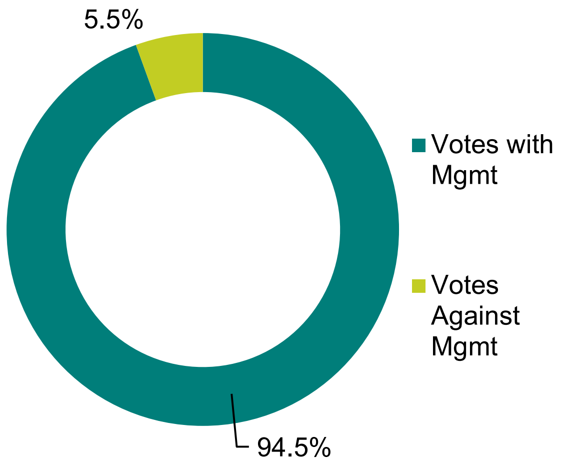
We discussed **Orsted**'s biomass exposure with the director of Bioenergy Sustainability, primarily discussing the company's sources of biomass feedstocks. We also asked the company about their expectations from the Danish biomass review which conducted analysis to help the government decide whether all energy plants and industrial consumers can be part of the sustainability criteria from 2025 and if some of the criteria should be adjusted. Orsted shared their expectations from this review, which they said would largely endorse their existing practices. We also asked the company about the assumptions underlying the life-cycle analyses for biomass.

We intensively engaged with **Serena Energia** on board composition and the company's efforts to increase gender diversity starting in August 2023 with a letter to the chair of the board. We continued to raise this topic with the company over meetings in December 2023 and in 2024. The company started a board refreshment process via an external agency and had advanced discussions with two senior executives for the independent NED role, but due to the time commitment involved, the candidates could not commit to taking the role. However, the company has taken the positive step of looking to recruit female directors, which we believe will succeed next year.

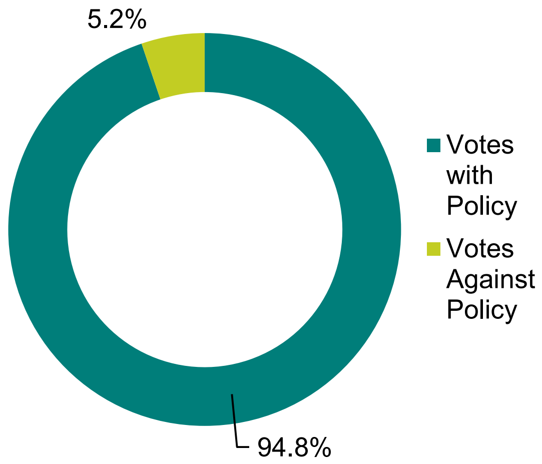
We met with **KWS SAAT SE & CO KGAA** and asked about allegations that KWS produces and markets seeds of Clearfield rapeseed varieties ("Varieties made Tolerant to Herbicides," or VrTH) obtained by laboratory mutagenesis. They are regulated Genetically Modified Organisms (GMOs) which must therefore be subject to GMO assessment, traceability, and labelling. The company explained that it fully follows the law; they also explained that they created a license platform for seeds, which is open source.

We gave **Agronomics** detailed feedback as to how they could improve their ESG disclosure. We encouraged the company to disclose the aggregate environmental benefits of their portfolio of investments.

Proxy voting – Alignment with management



Proxy voting – Alignment with Policy



Source: ISS

Proxy voting - Highlights

- We voted our shares successfully at 61 meetings (out of 62 meetings, or 98%) in the twelve months ending 31-December-2023.
- Votes cast during the reporting period were least in line with management on Strategic Transactions matters, where only 65% of votes followed management recommendations. These were loan guarantees to subsidiaries proposed by our Chinese holdings, CATL, Sungrow, and Ming Yang, due to lack of disclosure and financial support disproportionate to the level of ownership and overall high level of guarantees at the firm level.

Proxy voting – Significant examples

- **Knorr-Bremse AG (05/23) Advisory Vote to Ratify Named Executive Officers' Compensation**
  ISS recommended a vote against the executive compensation due to discretionary adjustments made to the short-term incentive plan in 2022 without adequate disclosure justifying the changes made. We voted with management on this resolution because we felt the adjustments related to COVID and Russia were acceptable, and total pay was less than the median of peers.

- **Elia Group (05/23) Approve Remuneration Policy**
  ISS recommended voting against Elia's remuneration policy because it allowed for one-off cash for special performances without any cap. We had discussed remuneration with the company at our in-person meeting in March 2023. We did not feel that exorbitant one-off cash payments were possible for the company given the 45% ownership by the municipal holding Publi-T. Regarding the lack of share-based compensation, we agreed that it was not as feasible for Elia because of its public ownership. We believed that the proposed 25% salary rise was justified, as the CEO's total pay was less than the median of peers at 0.8 times and voted with management on this resolution.

- **SABESP (08/23) Appoint Internal Statutory Auditor(s)**
  ISS recommended voting in favour of the appointment of internal statutory auditors; however, Glass Lewis pointed out that there is no independent member of the fiscal council. The primary responsibility of the fiscal council is to oversee management's activities, analyse the company's financial statements, and report its findings to the shareholders. Given that this body has an important accountability function, we concluded that the company should appoint at least one independent member, and we voted against the appointment of another non-independent member (Eduardo Alex Barbin Barbosa) to the Supervisory Council.

Weighted average carbon intensity – (t CO_2E/$m sales)

	Portfolio	Benchmark
Weighted Avg. Carbon Intensity	71	129

Source: MSCI

Carbon intensity: Portfolio coverage 91% (excluding cash); benchmark coverage 100%. Figures not scaled to 100%.

Top 5 contributors to weighted average carbon intensity

Rank	Company	Portfolio weight	GICS Subsector	Carbon intensity	Contribution to weighted average carbon intensity
1	Cadeler	7.2%	Construction & Engineering	139	14.1%
2	SABESP	2.6%	Water Utilities	357	12.8%
3	Smurfit Kappa	3.1%	Paper & Packaging	226	9.7%
4	Owens Corning	1.9%	Building Products	303	8.0%
5	Renewi	1.6%	Environment & Facilities Services	324	7.5%

Source: MSCI

Comments

- **SABESP** (14% of the portfolio's carbon intensity) supplies 28.7 million people with water and provides sewage collection services to 25.5 million people in the Sao Paolo state in Brazil. 95% of the company's greenhouse gas emissions are scope 1 emissions from sewage extraction and treatment. SABESP is investing in 34 solar PV plants to achieve 45% of the company’s total energy consumption from self-production. This investment will help to decarbonise SABESP’s operations, with energy savings fully paying back the investment in less than five years.
- **Cadeler** (13% of the portfolio’s carbon intensity) is the global leader in the offshore wind installation with four vessels in operations and seven more new-builds under construction. Cadeler’s main direct source of emissions is the consumption of fuel to operate its vessels. It aims to reduce this negative impact by investing in greener designs for vessels under development and by working to improve the performance of the existing vessels. It is committed to a reduction of its Scope 1 and 2 emission intensity by 50% by 2030 and 100% sourcing of electricity from renewable sources, aiming for net zero operations by 2035.
- **Smurfit Kappa** (10% of the portfolio's carbon intensity) is a world leader in paper-based packaging. The company has an SBTi-approved near-term target of well-below 2°C by 2030 with its target to reduce Scope 1 and 2 GHG emissions intensity by 38% by 2030 (vs 2019). Smurfit Kappa is also aiming for net zero emissions by 2050 and looking to move targets strategically from relative to absolute emissions between 2024 and 2030.
- **Owens Corning** (8% of the portfolio’s carbon intensity) is a major provider of residential insulation, which helps to improve the thermal efficiency of buildings and thus reduces their CO2 footprint. In 2023, over 59% of revenue came from products that help customers save energy and avoid emissions. Owens Corning has an SBTi approved target for a 50% reduction in absolute Scope 1 and market-based Scope 2 GHG emissions by 2030 (vs 2018).
- **Renewi** (8% of the portfolio’s carbon intensity) is one of Europe’s largest independent recycling companies. The company has SBTi-aligned targets to reduce its scope 1 & 2 emissions by 50% by 2030 and reduce Scope 3 emissions by 25% by 2030 against a 2022 baseline year. Renewi is aiming to fully transition to Euro 6 zero-emissions fuel trucks in its waste collection fleet by 2025 and only use renewable energy by 2030.

Summary

Ticker: SRNA3 BS

Headquarters: Brazil

GICS Industry: Independent Power and Renewable Electricity Producers

Environmental solutions revenue: 100%

MSCI rating: A

Portfolio weight: 5.2%

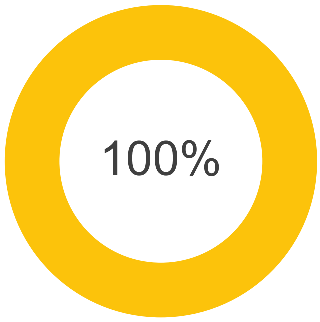
Clean Energy – Serena Energia

Environmental Solution

Serena Energia is a 100% pureplay renewables operator and one of Brazil's largest operators of renewable capacity. As of end-23, the firm's installed capacity was 2.7 GW, the vast majority of which is wind, along with small exposures in solar and hydro.

During 2023, Serena Energia had a significant increase in capacity, resulting in a 27% year-on-year increase in energy production. This was Serena's largest investment program in its history with 148 turbines commissioned at green field developments. In 2023, Serena's operation avoided approximately 340,000 tons of CO2 emissions.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

96% of Serena Energia's revenues was deemed to be aligned to the EU taxonomy in 2023.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	75%	2030	2021
2	Scope 1 & 2	Carbon Neutrality	2030	2021

The remaining 25% of the company's Scope 1 & 2 emissions will be offset with carbon credits in pursuit of a carbon-neutral status by 2030. The company aims to replace the use of fossil fuels with biofuels by 100% by 2028 and has set qualitative goals to improve the data collection of its Scope 3 emissions.

Active Ownership

In August 2023, we sent a letter to the chairman encouraging the company to improve gender diversity at the board. Serena responded that half of the executives are female; however, it did start a board refreshment process via an external agency and had advanced discussions with two senior executives for the independent NED role, but due to the time commitment involved, the candidates could not commit to taking the role. However, the company has taken the positive step of looking to recruit female directors, which we believe will succeed next year.

Summary

Ticker: IFX GY

Headquarters: Germany

GICS Industry: Semiconductors & Semiconductor

Environmental solutions revenue: 18%

MSCI rating: AA

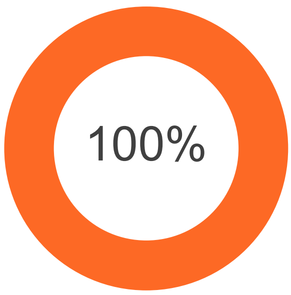
Portfolio weight: 3.3%

Clean Transport – Infineon

Environmental Solution

Infineon is a German semiconductor company with a significant exposure and expertise in power semiconductors. Infineon's products are critical in enabling electrification for renewable energy generation and electric vehicles. Revenues from these two end-markets accounted for 18% of revenues in 2023 but have grown rapidly and are expected to increase to more than 25% in the medium term. We are particularly excited by Infineon's SiC portfolio. EV inverters that use this technology will have better energy efficiency resulting in emissions savings, and fast charging capabilities that will help drive penetration of EVs. We think there is a strong chance Infineon can replicate the success they have had in silicon IGBTs with their SiC portfolio.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

Infineon reported 57% of its 2022 revenues to be eligible with the EU Taxonomy. The taxonomy eligible activities include the manufacturing of low carbon technologies such as inverters for the conversion of direct current into alternating current in photovoltaic systems. However, no revenue was deemed to be EU taxonomy-aligned at this time.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	70%	2025	2019
2	Scope 1 & 2	Carbon Neutrality	2030	2019

Active Ownership

We previously engaged with Infineon on the long-standing legal dispute between the insolvency administrator of Qimonda AG and Infineon Technologies AG. We aimed to understand the material impact any possible settlement may have on the company. We also engaged with the company about remuneration after the AGM proxy included language around temporary deviations from the management compensation systems. We specifically sought to understand if a temporary deviation may come about as the result of a strategic decision such as M&A. Infineon clarified that this was directly a result of the SRD II directive and strategic business decisions alone should not trigger that option.

Summary

Ticker: BLD UN

Headquarters: US

GICS Industry: Household Durables

Environmental solutions revenue: 100%

MSCI rating: AA

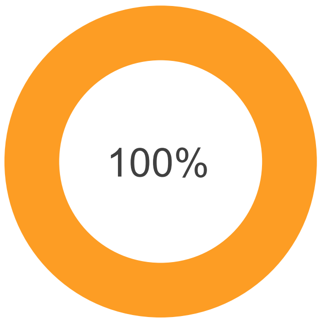
Portfolio weight: 1.1%

Electrification, Industrial and Energy Efficiency – TopBuild

Environmental Solution

TopBuild is North America's largest installer of insulation for residential properties with approximately 40% market share and an increasingly strong position in insulation installation services for commercial and industrial end-markets. The operations of buildings accounted for 30% of global energy consumption and 26% of energy-related emissions. Insulation can reduce energy demand over the full lifecycle of any structure by up to 50%. Additionally, insulation energy savings in the first year of use are approximately 12x the energy used in producing insulation. We view TopBuild as a critical enabler in delivering these carbon savings.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

54% of Topbuild's revenue is deemed to be EU taxonomy aligned.

Emissions Targets

In 2021, TopBuild started quantifying its Scope 1 GHG emissions to better understand the impact of its operations on the environment. TopBuild's Scope 1 emissions are comprised mainly of emissions from fuel combustions and hydrofluorocarbons (HFC), which comprise a portion of the blowing agents used as a propellant for spray foam insulation.

TopBuild does not currently set emissions targets; however, the company's direct emissions intensity has declined by 40% over the last two years while its business has grown by 40%. This reduction was achieved through a combination of increased fleet efficiency (despite utilising a larger fleet) and reduced usage of HFC-containing spray foam.

Active Ownership

We are in the process of engaging with the firm on the absence of emissions targets.

Summary

Ticker: KWS GY

Headquarters: Germany

GICS Industry: Food products

Environmental solutions revenue: 100%

MSCI rating: BBB (last rated)

Portfolio weight: 5.6%

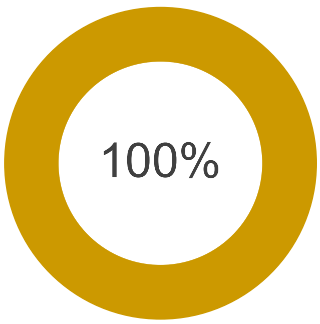
Forestry and Agriculture – KWS SAAT

Environmental Solution

KWS SAAT is an agricultural seed company that derives 100% of its revenues from seed technology. Its products target numerous environmental problems:

- Climate adaptation - seeds which are more resilient to drier, hotter climates. Changes in abiotic stresses require new characteristics of seeds. Changes in climate also potentially alters patterns of weeds and fungal diseases.
- Water scarcity - seeds that can cope with less watering.
- Biodiversity - if better seed genetics can increase the productivity of land, then less land is required for farming and more can be preserved for biodiversity. Food demand is expected to increase 60% by 2050 and larger populations reduce available land for cultivation.
- Pollution - better quality seeds potentially require less fertiliser (and potentially less pesticides).

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

As a plant breeding company, KWS's business activities are not currently defined in Annexes I and II to the Delegated Act of June 4, 2021. Consequently, its revenue-generating activities for the fiscal 2022/2023 are not taxonomy-eligible.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	50% (absolute)	2030	2020
2	Scope 1 & 2	Net Zero	2050	2020

Active Ownership

In 2023, we asked about allegations that KWS produces and markets seeds of Clearfield rapeseed varieties which are made tolerant to herbicides (or VrTH). These seeds, obtained by laboratory mutagenesis, are regulated Genetically Modified Organisms (GMOs) which must be subject to assessment, traceability, and labelling. KWS explained that it fully follows the law and has created an open-source license platform for seeds.

TT Environmental Solutions – ESG Reporting

Summary

Ticker: RWI NA

Headquarters: United Kingdom

GICS Industry: Commercial Services & Supplies

Environmental solutions revenue: 100%

MSCI rating: AA

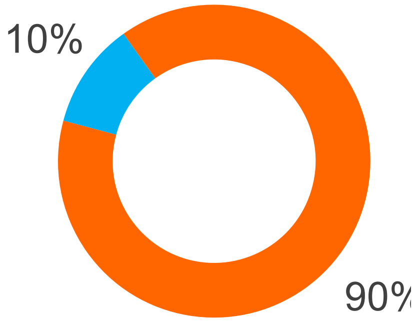
Portfolio weight: 1.6%

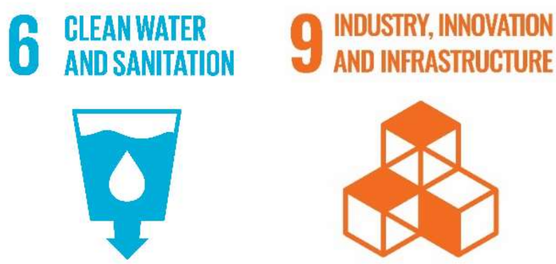
Recycling and Circular Economy - Renewi

Environmental Solution

Renewi is a waste recycling company that turns waste into useful materials such as paper, metal, plastic, glass, and wood. It aims to be a pure-play recycler, thus facilitating a circular economy. In FY23, the group's activities helped avoid 2,548,000 tonnes of emissions.

SDG Aligned Revenues





EU Taxonomy Aligned Revenues

100% of Renewi's revenues are deemed to be aligned with the EU Taxonomy.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	50% (absolute)	2030	2022
2	Scope 3	25% (absolute)	2030	2022

Active Ownership

We engaged with Renewi in May 2023, requesting an update from the firm on its net zero emissions roadmap and new targets for the carbon intensity of its sites. We also asked about Renewi's project to set SBTi-aligned targets and development of a Scope 3 footprint. Renewi said it reduced its scope 1 & 2 emissions by 60kT / 9% year-on-year to 580kT CO2e in FY23 and is targeting a 50% reduction by 2030. The firm also said that it is committed to SBTi and has commenced the review and approval process with them. Subsequently, the company has released absolute scope 1, 2, and 3 emissions reduction targets.

We engaged with the Renewi management in November 2023 about the rejected Macquarie takeover offer, focusing on the company's view that the Macquarie offer undervalued the company compared to Renewi's plan to continue as a listed company and reach EUR 3bn of revenues in five years with high single digit margin profitability. The meeting strengthened our view that Renewi is uniquely positioned as a market leader in Europe's most advanced recycling markets with advanced technologies.

Summary

Ticker: G1A GY

Headquarters: Germany

GICS Industry: Machinery

Environmental solutions revenue: 41.5%

MSCI rating: AAA

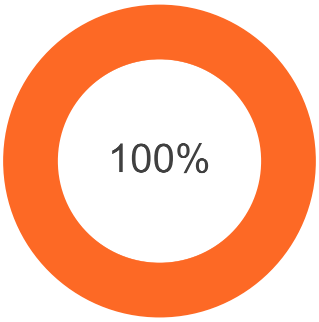
Portfolio weight: 3.0%

Responsible Consumption – GEA

Environmental Solution

GEA is one of the world's largest systems suppliers for the food, beverage, and pharmaceutical sectors. The firm's food & healthcare technologies provide solutions for precision fermentation and plant / nut-based protein. GEA also provides automation solutions for dairy processing, thereby reducing energy intensity. The firm has designed zero-water milk powder plants in India that consume no fresh water to operate, condensing evaporated water and reusing it for chilling and cleaning. GEA also provides a heat pump solution for spray dryers which allows milk producers to reduce their energy consumption by up to 49%.

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

GEA reported 12% of its 2023 revenues to be aligned with the EU Taxonomy. GEA's Taxonomy aligned activities include the manufacturing of heat pumps, new food projects, plants for the production of active material for lithium batteries for the automotive sector, and plants for water extraction.

Emissions Targets

	CO_2 emissions included	Reduction target	Target year	Baseline year
1	Scope 1 & 2	80% (absolute)	2030	2019
2	Scope 3	27.5% (absolute)	2030	2019

Active Ownership

In March 2023, we engaged with GEA with regards to health & safety, the environmental impact from its products, and EU Taxonomy assessment. We had noted that the company had a higher-than-average injury rate and we aimed to understand whether GEA had any plans to address this. The company acknowledged the health & safety issue and said that it had a plan to improve its safety record. The company is certifying all its production sites to ISO 45001 (64% are certified today vs 24% in 2021). GEA also committed to disclosing its EU Taxonomy alignment and the environmental benefits of its products which goes far beyond the requirements of the EU Taxonomy. GEA launched its new green label, "Add Better," in 2023 and reported that 41.5% of its 2023 revenues was from this category of products.

Summary

Ticker: SBSP3 BS

Headquarters: Brazil

GICS Industry: Water Utilities

Environmental solutions revenue: 100%

MSCI rating: BB

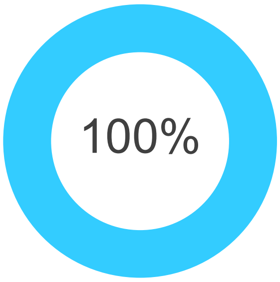
Portfolio weight: 2.5%

Water – Cia de Saneamento Basico do Estado de Sao Paulo (SABESP)

Environmental Solution

Cia de Saneamento Basico do Estado de Sao Paulo (SABESP) supplies 28.7 million people with water and provides sewage collection services to 25.5 million people in the Sao Paolo state in Brazil. Many areas in Brazil do not have plumbing connected to them, but SABESP has 93% sewage collection coverage with 85% of households connected to sewage treatment today, which prevents substantial discharge into rivers. SABESP plans to invest R$34 billion (US$6.1 billion) in systems expansion by 2028 (R$6.4 billion in water systems, and R$27.6 billion in sewage.)

SDG Aligned Revenues



EU Taxonomy Aligned Revenues

21% of SABESP's revenue is deemed to be EU taxonomy aligned.

Emissions Targets

In September 2023, we had an in-depth engagement about SABESP's decarbonisation strategy and followed up with a letter to the CEO where we emphasised that SABESP should set SMART (specific, measurable, achievable, relevant, and time-bound) targets on its carbon emissions, along with a publicly communicated target for methane capture, and that this would be taken very positively by the market and would enhance the company's investability. Shortly after our engagement, SABESP disclosed its plan to invest in 34 solar PV plants and target to achieve 45% of the company's total energy consumption from self-production. This investment will help to decarbonise SABESP's operations, with energy savings fully paying back the investment in less than five years. While SABESP has not yet set emissions targets, during our engagement in May 2024, the company said it has a deadline to outline decarbonisation targets by December 2024 and that these targets will cover scope 1,2, and 3 emissions.

Active Ownership

In June 2023, we met with SABESP's CEO and CFO and discussed environmental, social, and governance topics following a potential privatisation. Specifically, we focussed on the environmental expenditure needed to increase treatment coverage from 84% to 100%, as well as designing the future tariff structures to adjust for hydrological problems in a more unpredictable future due to climate change. On the social side, we discussed employee relations, specifically how the company may conduct a cost-cutting programme. On the governance side, we sought to understand what the privatisation may mean for corporate governance, golden share, voting limits, and changes in remuneration structure.

Year-end holdings and environmental rationale

AGRONOMICS – Agronomics is a holding company which invests in companies involved in lab-based meat and animal product cultivation. Lab-based meat and animal products offer gains from reduced carbon/methane intensity of production, reduced water usage, lower land use / biodiversity impacts, and less pollution (pesticides, fertilisers, herbicides). 100% of Agronomics' capital is invested in companies which are contributing to environmental solutions.

AIXTRON SE – Aixtron is a German semiconductor firm that produces components for silicon carbide (SiC) and gallium nitride (GaN). SiC technology will play a key role in the field of electromobility, both in the electric drive train and in high-performance charging infrastructure. GaN power electronic devices enable more efficient power solutions for low-to-mid voltage applications such as consumer products and data centres. Aixtron makes fabs for wide-bandgap power semiconductors, saving energy compared to established silicon-based technology by significantly reducing energy losses during the conversion of current and voltage (e.g. when charging and discharging batteries and electric vehicles or in power supply units and switches in the power grid). 73.4% of Aixtron's revenues were aligned to the EU Taxonomy in 2023 and therefore directly linked to climate mitigation.

BEFESA SA – Befesa recycles steel dust from electric arc furnace plants (EAF dust/EAFD) and aluminium and is the global leader in EAFD recycling. It is a key player in the steel industry and the circular economy, with 1.9 million tonnes of residue recycled and 1.7 million tonnes of valuable materials recovered annually. It contributes significantly to the increasing efficiency of raw material use in the metals industry. 100% of revenues stem from environmental solutions.

CADELER – Cadeler positioned itself as one of the largest offshore wind turbine installations fleet operators through its acquisition of Eneti. Compared to 2018, growth and electrification of the energy system is expected to require 40% more electricity consumption by 2035, which requires a five-fold increase in renewable generation. Within that growth, offshore wind is the biggest growth vector. As reiterated by wind turbine OEMs, supply chain and timely execution of projects remains a key issue. The creation of a dependable leading player with scale benefits makes Cadeler a key facilitator of wind power and addresses an acute bottleneck for the growth in renewables. 100% of its revenues stem from environmental solutions.

CERES POWER HOLDINGS PLC – Ceres has unique solid oxide technology that it licenses to global OEMs. The solid oxide tech is reversible across fuel cell mode and into electrolysis applications. It has a licensing model that embeds its technology with world class leaders in their fields to address climate change and air quality challenges in a range of areas like transportation and data centres. 100% of its revenues stem from environmental solutions.

CHROMA ATE – Chroma is a leading power electronic testing/measurement, automation solution and turnkey solution provider. The firm has a large variety of testing products for temperature and environment testing and control. Chroma has three testing equipment segments: EV test solutions, semiconductor/photonics test solutions, and turnkey test and automation solutions. Applications for its test solutions are used in thermal management in applications such as EV, semiconductor, photonics, solar, and LED. Chroma has leading market shares in the EV and 3D sensing testing markets. 40% of Chroma's revenues are estimated to be from environmental solutions.

CIA SANEAMENTO BASICO DE SP – SABESP supplies 28.7 million people with water and provides sewage collection services to 25.5 million people in the Sao Paolo state in Brazil. Many areas in Brazil do not have plumbing connected to them, but SABESP has 93% sewage collection coverage with 85% of households connected to sewage treatment, which prevents substantial discharge into rivers. SABESP plans to invest R$34 billion (US$6.1 billion) in systems expansion by 2028. 100% of the firm's revenues are from clean water and sanitation.

CONTEMPORARY AMPEREX TECHNOLOGY – CATL is the world's largest producer of EV batteries. It has a target to have 500 Gwh capacity by 2025, which will account for a third of the global battery demand. Its products are essential for OEMs to grow their electric vehicle fleet. In addition, CATL has a stationary battery storage business which helps residential and non-residential sites to store the energy that they generate. Through its support for the development of EV technology, CATL is contributing to climate mitigation and reduced pollution. 100% of revenues and profits are related to battery manufacturing or services.

CORBION NV – Corbion's Sustainable Food Solutions business produces fermentation-based natural preservation products and solutions that reduce food waste. For example, Corbion's Ultra Fresh Premium Advantage (enzyme blend) extends the shelf life of a loaf of commercial white bread by 7 days. Corbion has a JV with Total which produces PLA (polylactic acid), a bioplastic that uses natural renewable feedstock. PLA is biodegradable and recyclable, and the production process for making PLA is four times less CO2 intensive than that of making synthetic plastics. While PLA is more expensive than synthetic plastic, it is considerably more cost effective than other bioplastics. By replacing fossil-based plastics with PLA plastics, users will be able to substantially reduce their Scope 3 GHG emissions. 57% of the firm's 2023 revenues count towards environmental solutions.

DSM-FIRMENICH AG – DSM primarily contributes to environmental solutions with its animal nutrition business, both with its existing portfolio of products and its innovation portfolio. The key environmental rationale for our investment is its Bovaer product which reduces methane emissions in ruminants. Bovaer is a novel methane inhibitor for cows and other ruminants such as sheep, goats, and deer. Methane is 28x times more potent as a greenhouse gas than CO2, and ruminants emit 20% of all methane emissions globally. A quarter daily teaspoon of Bovaer per cow suppresses the enzyme that triggers methane production in a cow's rumen and consistently reduces enteric methane emissions by 30% for dairy cows and 45% for beef cows, with some trials showing reductions as high as 90%. DSM-Firmenich therefore contributes to a significant and immediate reduction of the environmental footprint of beef and dairy products, with the company estimating that the product saves 1 tonne of CO2 equivalent per cow per year. 1.2% of the firm's revenues count towards environmental solutions.

ECOLAB INC – The World Resources Institute projects that in a business-as-usual scenario, the world will face a 56% freshwater deficit by 2030, placing urgent pressure on businesses to rethink the way water resources are managed. Ecolab helps businesses around the world to achieve water conservation goals by improving the heating and cooling, industrial processing, wastewater treatment, and cleaning and sanitizing processes of their customers. The company employs innovative water technologies to help customers conserve industrial water and reduce freshwater use. Ecolab solutions reduce water use at customer sites by over 120 times than that of their own annual water withdrawal footprint; there is also an associated emissions benefit since there is less water that needs to be moved. In 2023, the firm helped customers save 226 billion gallons of water and avoid 3.8 million metric tonnes of GHG emissions. EcoLab reports that 66% of its revenues delivered environmental benefits in 2023.

EDP RENOVAVEIS SA – DPR is one of the largest wind and solar players globally, with 16.6GW of installed capacity spread across North America (8.4GW), Europe (6.0GW), South America (1.25GW), and APAC (0.9GW). EDPR also invests in new technologies such as storage and green hydrogen. 100% of EDPR's revenue is from renewable energy.

ENPHASE ENERGY INC – Enphase is a manufacturer of microinverter solutions which are a key component in solar systems as they enable the conversion between DC and AC. In addition to microinverters, Enphase also has energy storage and EV charging solutions. In 2023 alone, 22 TWh were generated by Enphase's microinverters, preventing 15 million metric tonnes of CO2 equivalent from entering the atmosphere. 100% of Enphase's revenues are from environmental solutions.

GEA GROUP AG – GEA is one of the world's largest systems suppliers for the food, beverage, and pharmaceutical sectors. The firm's food and healthcare technologies provide solutions for precision fermentation and grinding media for plant based/nut-based protein. GEA also provides automation solutions for dairy processing, thereby reducing energy intensity. The firm designed zero-water milk powder plants in India that consume no fresh water for operations. GEA also provides a heat pump solution for spray dryers which allows milk producers to reduce their energy consumption by up to 49%. Other examples of resource-saving products are centrifuge cooling with 100% less water consumption, aseptic fillers with 91% less water consumption for new machinery and 83% less for service upgrades, and aseptic blower with 31% less energy consumption. 41.5% of GEA's revenues were from environmental solutions in 2023. The company estimates that these products will save a total of 5 million tonnes of CO2 over their life cycle and 16.4 million cubic metres of water at customers' premises.

GREENCOAT RENEWABLES PLC – Greencoat Renewables invests in renewable energy infrastructure assets, with a portfolio of more than 1.5GW as of 31 December 2023. In 2023, the company completed four acquisitions totalling EUR 524 million, increasing its portfolio to 39 renewable generation and storage assets across six European markets. 100% of its revenues stem from clean energy.

GRENERGY RENOVABLES – Grenergy is a mid-cap renewable developer listed in Spain. It develops projects in Latin America (predominantly Chile) and Europe (Spain). The company is active in solar PV but also develops long duration batteries. The group is monetising its Spanish assets and investing in high-return Chilean projects which involve long-duration batteries in conjunction with solar plants. Almost all the groups' projects are contracted and linked to long-term PPAs. The company has 475MW of Battery Energy Storage System (BESS) capacity under construction in the Atacama Desert in Chile, which has the highest level of solar radiation in the world. 100% of its revenues stem from from clean energy.

HANSOL CHEMICAL CO LTD – Hansol is included in the portfolio due to its production of EV battery materials. Hansol produces anode binder and separator binder for EV batteries. Anode binders are used to bond copper foil to Anode Active Materials. Separator binders are used to coat ceramic on separator film to enhance thermal stability and prevent shrinkage. Although a small part of the battery cost (<1%), the binder is a critical element of the chemistry. Hansol is one of the few Korean companies able to produce high grade binder and is currently taking share within the two Korean EV battery makers who outsource binder production (SDI and SKI). Over time, we expect Hansol to win share with international battery producers such as Panasonic, CATL, and NorthVolt. In 2023, approximately 11% of the company's revenues came from LiB materials, but we forecast this to reach 23% by 2025. By enabling the EV revolution, we believe that Hansol is contributing to climate mitigation and reduced pollution.

HUBBELL INC – Hubbell manufactures electrical and electronic products for commercial, industrial, utility, and telecommunications markets. The firm has two main business divisions: Utility Solutions and Electrical Solutions. Utility Solutions includes front-of-the-meter solutions for utility customers such as components for transmissions and distribution, as well as advanced metering infrastructure. Electrical solutions include behind-the-meter-solutions for commercial and industrial consumers including connectors, wiring systems, and enclosures, as well as other critical components supporting electrification. Hubbell's operations support the proliferation of renewables, which increases grid complexity and drives the need for smart grid solutions and grid hardening to counteract failures due to weather events and climate change. Secular grid modernisation is expected to drive strong growth for Hubbell as utilities upgrade an ageing grid and have greater renewable energy in the generation mix. 100% of Hubbell's revenues stem from electrification.

INFINEON TECHNOLOGIES AG – Infineon is a German semiconductor company with a significant exposure and expertise in power semiconductors. Infineon's products are critical in enabling electrification for applications such as renewable energy generation and electric vehicles. Revenues from these two sources accounted for 18% of the company's revenues in 2023 but are expected to increase to more than 25% over the medium term. We are particularly excited by Infineon's SiC portfolio. Electric vehicle inverters using this technology will have better energy efficiency driving emissions savings, and fast charging capabilities that will drive EV penetration. We think there is a strong chance Infineon can replicate the success they have had in silicon IGBTs with their SiC portfolio.

KINGSPAN GROUP PLC – Kingspan's manufactures and supplies high-performance insulation products that are used in both the commercial and residential construction industry. Buildings are a significant consumer of energy globally principally through heating and cooling. Kingspan's products deliver significantly improved thermal efficiency performance compared to traditional insulation, thereby generating significant reduction in the energy consumption of buildings. In addition, the company provides daylighting and ventilation solutions that further reduce energy consumption, as well as water management systems that help to conserve and recycle water. 95% of Kingspan's revenues are from environmental solutions.

KNORR-BREMSE AG – Knorr-Bremse is a global market leader in braking and systems for rail and commercial vehicles. Whilst braking systems account for ~5% of the cost of the train at the point of manufacture, aftermarket sales are 2-3x higher than the original equipment provision. Strict regulations relating to mileage or age determine when brakes are replaced, and with the rail network due to be used more intensively to meet emission targets, Knorr-Bremse facilitates climate mitigation. Rail produces 29g of CO_2 per passenger km vs flying at 214g over long distances. 64% of the company's revenues are environmental solutions (rail systems and fuel efficiency for commercial vehicles.)

KWS SAAT SE & CO KGAA – KWS SAAT is an agricultural seed company with 100% of revenues from seed technology. Its products target numerous environmental problems:

- Climate adaptation - seeds which are more resilient to drier, hotter climates. Changes in abiotic stresses require new characteristics of seeds. Changes in climate also potentially alters patterns of weeds and fungal diseases.
- Water - seeds that can cope with less watering.
- Biodiversity - if better seed genetics can increase the productivity of land, then less land is necessary for farming and more can be preserved for biodiversity. Food demand is expected to increase by 60% by 2050 and greater populations reduce the available land for cultivation.
- Pollution - better quality seeds potentially require less fertilisers (and potentially less pesticides).

NARI TECHNOLOGY CO LTD-A – NARI Technology is a leading power grid secondary equipment and systems provider in China. Secondary equipment, systems, and software are used for the dispatch, controlling, and monitoring of primary power grid equipment (which is equipment for direct transmission / distribution of electricity). This is becoming increasingly important as the increase in renewable energy and EV adoption makes it increasingly difficult to manage power demand and supply fluctuations on the grid, which requires investments to digitalise the grid to maintain its reliability. 100% of the firm's revenues are from environmental solutions.

NEXANS SA – The company facilitates the transmission of electricity with its technologies. Currently there is no better way to move electricity at scale from point to point than through cables, despite the lost power due to resistivity. Typically, 6% of power moved is lost down the wire/cable depending on the distance. In comparison, storage with a very high-quality battery will bleed 2% of power per month, or 24% per year. 75% of the firm's 2023 revenues were from electrification and other environmental revenues (wind turbine internal cabling and Solar low-voltage cabling).

NOVONESIS (NOVOZYMES) – Novozymes is a Danish biotechnology company which develops, produces, and sells enzymes for industrial use. The company's biosolutions in textile, brewing, household care, and grain processing enable customers to reduce their water consumption compared with conventional methods or prevent water pollution by reducing reliance on hazardous chemicals. The company also has biosolutions which promote the development and deployment of low-carbon fuels for the transport sector. The firm's biosolutions improve yields in agriculture by improving plants' access to nutrients in the soil and by improving animals' uptake of energy, proteins, and minerals in the feed. The firm's solutions in food and beverages lower the environmental footprint of food production and consumption by reducing food waste and enabling the use of local raw materials. The company recently merged with Chr. Hansen to create Novonesis. Chr. Hansen is a global, differentiated bioscience company that develops natural ingredient solutions for the food, nutritional, pharmaceutical, and agricultural industries. The firm has a crop health division which improves nutrient efficiency, and it is also involved in bioprotection which reduces food spoilage and increases food safety. Based on our analysis and discussions with the company, we estimate that Novonesis derived 56% of its revenues from environmental solutions.

ON SEMICONDUCTOR – A key part of Onsemi's product portfolio is the power semiconductors that are used for applications such as renewable energy generation, energy storage, electric vehicles, and electric vehicle charging. For EV vehicle applications, Onsemi's key product is silicon carbide power semiconductors; this semiconductor solution uses a wide bandgap material and delivers higher energy efficiency for the EV traction inverter which can increase the driving range. We think higher performing solutions such as Onsemi's are key to improving the energy benefits of EVs and can help drive faster adoption for range conscious consumers. Currently 11% of Onsemi's revenues stem from this environmental solution. We expect that this can increase to ~20% with increased contribution from EVs.

OWENS CORNING – As a major provider of residential and commercial use insulation, Owens Corning contributes to improving the thermal efficiency of buildings which account for a quarter of global energy-related emissions. Insulation reduces the CO2 footprint of buildings and thus helps with climate mitigation. The firm reported that in 2023, 59% of its revenues came from products that help customers save energy and lower emissions.

RENEW ENERGY GLOBAL PLC – As a producer of 100% clean energy (wind, solar and hydro), Renew Energy Global contributes to climate mitigation. As of FY2023, ReNew had 6.4% of India's total installed renewables capacity and helped mitigate 0.5% of India's annual carbon emissions. 100% of its revenues stem from environmental solutions.

RENEWI PLC – Renewi is a waste-to-product company that turns waste into useful materials such as paper, metal, plastic, glass, wood. It aims to be a pure play recycler, facilitating a circular economy. The group has three main divisions: Commercial Waste (industrial and commercial waste collection and processing and secondary materials production across the Netherlands and Belgium), Mineralz & Water (processing and cleaning contaminated soil and tar and turning it into building products such as gravel, sand, and filler), and Specialities (glass recycling and waste and electrical and electronic equipment recycling). As such, it works to produce less waste and results in a reduction of carbon emissions. In FY23, the group's activities helped avoid 2,548,000 tonnes of emissions. 100% of Renewi's revenues are from environmental solutions.

S.O.I.T.E.C. – SOITEC is a French technology company with particular strength in the manufacture and sale of engineered wafers. Engineered wafers deliver significant advantages to customers due to higher energy efficiency and performance characteristics. SOITEC has three business segments – communications, automotive & industrial, and smart devices. In communications, Soitec's materials have become the de facto choice for a number of smartphone modules due to the 25% higher efficiency vs competing technologies. In this area, SOITEC sees a strong content opportunity afforded by the move to 5G smartphones and updated Wi-Fi generations. In the automotive sector, the company is working on the development and commercialisation of Smart SiC technology for electric vehicle applications. SOITEC's technology will deliver better performance and more reuse capability than incumbent SiC wafer technology, resulting in emissions savings and an opportunity to take a significant share of this growing market. 69% of SOITEC's 2023 revenues are from environmental solutions.

SAMSUNG SDI CO LTD – Samsung SDI is the world's fourth largest producer of EV battery cells. Its products are essential for OEMs to grow their electric vehicle fleet. In addition, SDI has a stationary battery storage business which helps residential and non-residential sites to store the energy that they generate. Through its support for the development of EV technology, Samsung SDI is contributing to climate mitigation and reduced pollution. 58% of the company's 2023 revenues were from EVs and ESS.

SERENA ENERGIA SA – Serena Energia is a 100% pureplay renewables operator and is one of the largest operators of renewable capacity in Brazil. As of end-23, the firm's installed capacity was 2,683 MW, the vast majority of which was wind, with small exposures to solar and hydro. 100% of Serena's revenues are from environmental solutions.

SHIMANO INC – Shimano is a leading bicycle and fishing tackle brand. The core activity of Shimano contributes to climate mitigation through displacing more carbon intensive modes of transport with eco-friendly alternatives. In 2023, 77% of Shimano's revenues came from bicycle components, thereby supporting low-carbon transport options.

SIGNIFY NV – Signify's core activity – producing LED bulbs/luminaries – contributes to environmental solutions since its products are significantly more environmentally friendly (reduced energy use, longer life) than conventional incandescent/halogen bulbs. Through its digital LED technology, Signify offers smart LED, connected and solar lighting that is up to 80% more energy efficient, compared with conventional technologies, which are still widely used. 85% of the company's 2023 revenues are thus from environmental solutions. By reducing energy consumption, Signify is primarily helping with climate mitigation. Signify reported 21 million tonnes of avoided emissions, a multiple of 135x its Scope 1+2 emissions. Signify is 100% carbon neutral in its operations.

SMART METERING SYSTEMS PLC – The core business and key value driver is the installation and ownership of smart meters across residential & commercial customers in the UK. Smart meters are an integral part of a flexible, decentralised, and decarbonised energy system. They help consumers reduce emissions by decreasing their energy demand, enabling dynamic pricing tariffs to support low-carbon electric heating, and promote improved measurement of energy efficiency performance and support new business models for buying low carbon heating. In addition to the smart meter opportunity, the company has embarked on pursuing a range of other CaRe opportunities, leveraging its existing infrastructure and expertise, across grid-scale battery storage, Behind-the-Meter solar and battery solutions, EV charging infrastructure, and heat networks and meters. 100% of SMS's revenue contributes to environmental solutions.

SMURFIT KAPPA GROUP PLC – Smurfit Kappa is one of the leading providers of paper-based packaging in the world. Smurfit's products are 100% renewable and produced sustainably, and they provide an important alternative to plastic packaging, which is highly damaging to the environment. Paper-based packaging has the highest recycling rate of all packaging materials. The company is also involved in recycling and forestry. These activities accounted for 87.4% of revenues in 2023.

STEICO SE – Steico develops, produces, and markets ecological construction products made of renewable materials and is the European market leader for wood fibre insulation materials. It is Steico's core insulation business that is the principal contributor to solving an environmental solution. Buildings are a significant consumer of energy globally, principally through heating and cooling, and are one of the largest contributors to global emissions. Therefore, improving insulation in buildings is widely recognised as one of the best, and cost effective, ways to tackle reducing global emissions. 100% of Steico's revenues are from insulation.

SUNGROW POWER SUPPLY CO LT – Sungrow specialises in the R&D, manufacturing, sales and service of solar energy, wind energy, energy storage, hydrogen energy, electric vehicles, and other new energy power supply equipment. PV inverters, Sungrow's core product line, have been sold to 150 countries and regions worldwide. In 2023, the company witnessed a significant increase in PV inverter shipments, and the firm's power electronic converters accumulated an installed capacity of over 515GW. 100% of Sungrow's revenues are related to clean energy.

SUNNOVA ENERGY INTERNATIONAL – Sunnova International is a leading 'energy as a service' provider with customers across the US and its territories. Sunnova's goal is to become the source of clean, affordable, and reliable energy for homeowners and businesses. The core activity of the group is the installation of solar systems for homeowners and businesses. The group has approximately 10% of the US residential solar installation market and this share has been increasing. In total, residential solar penetration in the US is ~4%. We see scope for this to materially increase over the coming years and believe that Sunnova will be critical in driving adoption. Sunnova has the goal to build a customer base by year end 2023 whose systems will offset 52 million MTCO2e over their useful life. As of end 2022 the company had built a customer base whose systems would offset 38.8 million metric tonnes of CO2e over their useful life. Because of this Sunnova contributes to climate mitigation. 100% of the company's revenues are from the provision of clean energy.

TOPBUILD CORP – TopBuild is North America's largest installer of insulation for residential properties with ~40% market share and an increasingly strong position in insulation installation services for commercial and industrial end markets. Insulation is critically important from an environmental standpoint due to the large carbon footprint of buildings; insulation energy savings in the first year of use are approximately 12x the energy used in producing insulation. We view TopBuild as a critical enabler in delivering these carbon savings. TopBuild's scale results in a competitive advantage in purchasing raw materials which has led to best-in-class margins and free cash flow generation. The company has successfully redeployed capital in acquisitions resulting in a larger scale and stronger competitive advantage, and we believe there are still ample inorganic opportunities for the company to continue this growth strategy. 100% of the firm's revenues are from environmental solutions.

WEYERHAEUSER CO – Weyerhaeuser is the largest private timberland owner in North America, with 10.5 million acres owned in the US and 14.1 million licensed in Canada under long-term contracts. Weyerhauser has estimated that its forests store 2.3-3.6bn tons of CO_2e. Carbon sequestration of trees as they grow removes carbon from the atmosphere. Carbon removal activities store the equivalent of 32m metric tons of CO_2 in their wood products annually, the equivalent of taking 7 million cars off the road. On a net basis Weyerhaeuser absorbs 25mt CO_2e annually. The firm plants 150 million trees annually, and 100% of timberlands are reforested. Active forest management also reduces the risk of wildfires, insect infestations, and disease which can cause catastrophic carbon losses. WY's main contribution to solving environmental problems is through climate mitigation. 95% of the company's revenues emanate from environmental solutions.

XYLEM INC – Xylem is a global water technology provider that helps its customers solve water challenges across utility, industrial, commercial, and residential markets. Xylem's customers face challenges ranging from inefficient and aging water distribution networks and energy-intensive and unreliable water and wastewater management systems; droughts and pollution which limit the amount of water readily available; or exposure to natural disasters such as floods or droughts which require improvements in resilience. Xylem's water infrastructure business accounts for 43% of revenue and is broken into two parts: transport is 83% of divisional revenue, which is the collection of water from source (aquifers, lakes, rivers) and distribution via various pumping solutions. The remaining 17% is treatment, both influent (filtration, ultraviolet, o-zone systems) to provide safe water and effluent (desalination, disinfection) so it can be returned safely to the environment. Xylem's products also include water boosters for HVAC or fire protection systems and pumps, heat exchangers, and controls to provide cooling to power plants and manufacturing facilities. 100% of the company's revenues emanate from environmental solutions.

Other investments held during the year

ADVANCED DRAINAGE SYSTEMS INC – According to The American Society of Civil Engineers, 6 billion gallons of drinking water is lost to leaking pipes, with an estimated 240,000 mains breaks occurring every year. This accounts for 14-18% of daily treated water lost due to inefficient pipe infrastructure, which is equivalent to the drinking needs of 15 million households. Pipes laid in the 1920s have a lifespan of one hundred years, and those installed after WWII have a lifespan of 75 years. Therefore, much of the underground pipeline network will be due for replacement in the next two decades. Advanced Drainage Systems (ADS) addresses this problem with its plastic piping solutions, which avoids welding and can be fitted in larger "plug-in" parts, which minimises leaks as the infrastructure ages. Advanced Drainage Systems also takes a circular approach to its manufacturing, with 60% of its raw pipe materials from recycled materials: In 2019 ADS consumed 30% of US recycled plastic, making it is the second largest plastic recycler in the country. In fiscal 2023, it purchased 540 million pounds of recycled plastic. The amount of recycled plastic ADS consumed in FY23 reduced greenhouse gas emissions by over 650 million pounds, which is equivalent to taking 63,000 cars off the road. 100% of revenue is focused on environmental solutions. We exited our investment due to concerns on the demand outlook given ADS' high exposure to new build construction and the risk of slowdown due to increasing interest rates. Given our exposure to other construction related names in the portfolio (such as Owens Corning), we sold ADS to reduce our overall sector exposure.

ALUPAR INVESTIMENTO SA– Alupar contributes to climate mitigation through its two business areas - electricity transmission and electricity generation. Alupar's generation portfolio (784 MW at end 2023) is 100% renewable (hydro, small hydro, but also wind and solar). The company has over 1GW of further development projects in its pipeline, principally wind projects. 100% of the firm's revenues go towards environmental solutions. We exited our investment as there was no further upside to our price target.

BORALEX INC – As a producer of clean energy (wind and solar, hydro), 100% of Boralex's generation is from renewable sources following the sale of its 12 MW Blendecques cogeneration plant, the last thermal asset in its French portfolio. At the end of 2023, Boralex had more than 3 GW of installed capacity and aims to reach 10-12 GW of installed capacity by 2030. We exited our investment as part of a portfolio-wide action to reduce exposure to rate-sensitive equities against the backdrop of rising US bond yields.

CHINA THREE GORGES RENEWABLES GROUP CO LTD – China Three Gorges Renewables specialises in renewable power generation. By the end of June 2023, CTGR has expanded its footprint to thirty provinces, autonomous regions, and municipalities in China, with combined installed capacity for grid-connected wind, photovoltaic and small and medium-sized hydropower projects exceeding 28 million kilowatts. 100% of the revenues were from environmental solutions. We exited our investment to reduce exposure as part of a broader decision to reduce Chinese market exposure. In China we have decided to focus on owning only globally unique businesses which we cannot replicate elsewhere, and the generic genco exposure of China Three Gorges Renewables was not sufficiently differentiated from other renewable gencos in the portfolio.

CHUNBO CO LTD – Chunbo produces chemicals for lithium-ion batteries that power electric vehicles. 68% of its revenues were from environmental solutions. We exited our investment due to reduced confidence in the supply/demand outlook for battery additives. We also had concerns that Chinese supply would disrupt their competitive position.

ELIA – Elia is a transmission system operator in Belgium (Elia) and Germany (50Hertz) and is preparing its onshore and offshore grid infrastructure for the integration of large volumes of renewable generation. The group also has a 50% share in Nemolink which builds subsea interconnectors linking Belgium to the UK, enabling the integration of the electricity grids of continental Europe and UK. It also has unregulated activities which include Windgrid, which focuses on offshore wind developments outside of Europe, as well as re.alto which is a European marketplace dedicated to the exchange of energy data and services. 100% of Elia's revenues are from environmental solutions. We exited our position as part of portfolio adjustment to reduce exposure to high duration (rate sensitive) assets. We decided to concentrate our exposure in such assets in companies which we felt had greater upside.

GUANGDONG JIA YUAN TECHNOL – Jia Yuan is engaged in the manufacture of high performance ultra-thin copper foil. Copper foil is used as the anode current collector in lithium-ion batteries. Through its contribution to the EV battery supply chain, Jia Yuan is contributing to climate mitigation and reduced pollution. 90% of its revenues stem from environmental solutions, although this number is expected to grow, given the accelerating EV demand. We exited our investment as we lost confidence on the supply/demand outlook in copper foil on weakening demand and emerging oversupply.

INDUSTRIE DE NORA SPA – The group manufactures electrodes that are an integral part of electrolysers, which make hydrogen. They are the world's largest supplier of high performing catalytic coatings and insoluble electrodes for electrochemical and industrial applications, as well as a leading provider of equipment, systems, and disinfection and filtration solutions for water and wastewater treatment. Thus, De Nora's core activities are cleaner water and cleaner energy from hydrogen. At least 45% of its revenues in 2025 could be EU taxonomy aligned, and potentially up to 70% if water technologies are included. We exited our investment due to limited upside to our target price.

LINDSAY CORP – Lindsay provides irrigation solutions for farmers globally. Their mechanised pivot irrigation systems apply water more efficiency and save water. In addition, with appropriate irrigation, agricultural yields are enhanced, which means that more food can be grown on less land. This results in a positive impact on biodiversity. 87% of Lindsay's revenues were from environmental solutions in FY23. We exited our investment due to reduced confidence in the demand outlook for irrigation products given a series of results that diverged from management's guidance.

MING YANG SMART ENERGY GRO-A – Ming Yang manufactures and distributes renewable energy equipment. The company produces fans, fan blades, fan accessories, and other products. Ming Yang also operates power generation, power distribution and other businesses. Ming Yang is a leader in large-scale wind turbines in China, with first mover advantages such as fast product updates, lower costs, and higher power generation. We exited our investment due to the deteriorating competitive outlook, which was pressuring average selling prices and gross margins, with limited prospects of turnaround.

NIU TECHNOLOGIES-SPONS ADR – NIU Technologies is a leading high-end e-scooter manufacturer. Its lithium-ion battery powered e-scooters not only present a lower carbon footprint than traditional diesel-powered motorcycles but are also replacing traditional low-end lead-acid battery powered e-scooters which reduce the second-derivative pollution caused by disposal of lead-acid batteries after-use. We exited our investment due to a lack of confidence in management after repeated earnings misses and below-expected domestic and international sales. Furthermore, NIU only had a US listing which concerned us as we felt that the forced delisting of Chinese companies was a realistic prospect.

ORSTED – Orsted develops, constructs, and operates offshore and onshore wind farms, solar farms, energy storage facilities, renewable hydrogen and green fuels facilities, and bioenergy plants. The company is aiming for 99% of its energy generation to come from renewable sources by 2025 and to reach 50 GW in installed renewable capacity by 2030. Orsted is a world leader in offshore wind, having developed around a third of the global capacity installed, excluding mainland China. We exited our investment after Orsted's exposure to non-permitted revenue streams rose above the 10% limit.

PLANET LABS PBC – Planet Labs is a leading provider of daily earth observation data. They provide this service utilising their 200+ constellation of satellites equipped with high resolution imaging capabilities. This data set powers decision making in a myriad of industries including agriculture, forestry, mapping, and government. Using the data Planet Labs provides customers can measure and monitor ecological change, improve the efficiency of their operations, and improve transparency and reporting of environmental metrics.

We consider Planet Labs to be contributing to climate mitigation, pollution reduction, and biodiversity protection given the breadth of customers and applications of the data they provide. However, given that their most significant environmental revenues are currently for the agricultural use case the main environmental solution would be biodiversity. Current and expected revenue contributions from the agriculture vertical are expected to be approximately 25%. Examples of environmental applications of their data include forecasting and enhancement of crop yields, land management and monitoring, and wildlife population tracking. We exited our investment since revenue growth was proving slower than anticipated resulting in continued cash burn, and we became increasingly concerned that Planet Labs might face a funding crunch.

RE:NEWCELL AB: Renewcell was founded in 2012 and is the world's first and only 100% textile-to-textile cotton recycler with its Circulose pulp, a cellulose pulp made from 100% recycled textiles ready to be used in apparel production. According to the Ellen MacArthur Foundation, less than 1% of clothing is recycled into new garments today, with the rest being used in low-value solutions or discarded in landfills. Given that Renewcell's technology can facilitate a closed-loop value chain, Circulose presents an optimal solution to this issue. Virgin cotton production consumes vast amounts of water, resulting in the creation of desert landscapes, soil erosion and the destruction of ecosystems. Plastic fibers used in clothing such as polyester contribute massively to microplastics in the oceans when washed in conventional washing machines. The fashion industry has an outsized environmental problem and is aware of the damage they are doing. Circulose represents an elegant solution which is compatible with their existing requirements, being chemically and physically very similar to cotton. 100% of Renewcell’s sales come from Circulose. We exited our investment after the company announced it was struggling to place product - one of their key offtakers was building excessive levels of inventory and announced it would not be making further purchases. This cancellation of a key sales channel immediately brought the company's balance sheet under stress. In the months after our exit, the company declared bankruptcy.

SHENZHEN KEDALI INDUSTRY – Shenzhen Kedali is the largest supplier of Lithium-Ion batteries (LiBs) structural parts (battery cell casing and cover) in China with the majority of their sales coming from EV LiBs and small amount from consumer related LiB. Their products are key components for both prismatic and cylindrical LiBs which account for 87% and 6% respectively of the GWHs sold in China in 2021. From the end of 2022 the company started mass producing 4680 cylindrical structural parts which will support the adoption of more energy efficient and lower cost cells. Given the high threshold of safety for automotive end market the structural integrity of the cell and module is of utmost important to battery manufacturers and auto OEMs. Due to this, we saw Shenzhen Kedali as key in enabling the transition to electrification of transportation. We exited our investment due to increasing concerns on the health of the EV market.

SOLAREDGE TECHNOLOGIES INC – SolarEdge develops smart technology, in particular inverters, that help photovoltaic systems provide solar energy. It addresses a range of energy market segments through its PV, storage, EV charging and batteries, plus grid services. PV systems allow customers to generate more power at a much lower carbon footprint than conventional energy methods. 100% of Solaredge’s revenues stem from environmental solutions. We exited our investment due to the deteriorating outlook for European and US inverters due to oversupply and NEM3.0 respectively. We also had a relative preference for Enphase.

STEM INC – Stem provides products and services that are key to decarbonising the electricity grid. Their storage solutions facilitate the adoption of renewables by alleviating concerns related to intermittency. In addition to helping increase the penetration of renewables, Stem’s software solutions can help optimise energy management loads improving efficiency for end users. 100% of Stem’s operations are related to battery storage and grid services. We exited our investment due to accounting and governance concerns as we struggled to reconcile the difference between GAAP gross margins and company's reported adjusted gross margins and the auditor’s qualified opinion, as well as continued selling from management.

TERNA ENERGY SA – Terna Energy is the largest investor in the renewable energy sector in Greece and continues its growth plan to reach 6.4 GW of Renewable Energy Source plants until 2029. The company is committed to a sustainable energy future by undertaking projects in wind, hydro, solar, and integrated waste management. We exited our investment due to limited upside to our target price and as we preferred other stocks within the renewable genco space.

TERNA-RETE ELETTRICA NAZIONALE – Terna is Europe’s largest independent electricity transmission system operator. Within the context of the energy transition, Terna is responsible for guaranteeing the secure provision of electricity, the adequacy of the system and the quality of service at the lowest possible cost for the end user and works to foster the integration of renewables and the electrification of consumption. We exited our investment as part of a portfolio wide action to reduce exposure to rate sensitive equities in light of rising US bond yields which impacted the attractiveness of renewable assets globally; there was also limited upside to our target price.

VESTAS WIND SYSTEMS A/S – Vestas is a leading onshore wind turbine manufacturer, with a growing presence in offshore through its consolidation of the JV with Mitsubishi Heavy Industries. 100% of its revenue stems from environmental solutions. Vestas' sustainable energy solutions have prevented 1.5 billion tonnes of carbon dioxide from entering the atmosphere contributing to climate mitigation. We exited our investment due to increased competition from Chinese turbines, high capex expected for the period ahead, profitable service business margins contracting and backlog shortening, and concerns around increasing debt levels.