

An aerial photograph of a city street intersection, showing various buildings, trees, and a baseball field. A large teal curved shape overlays the bottom left portion of the image, containing the text.

clean energy starts with sustainability

Ceres Sustainability Report 2023

About this report

This is Ceres’ second Sustainability Report reflecting our journey in progressing our environmental, social and governance (“ESG”) initiatives and standards.

Operating sustainably is not simply about preserving and improving the environment in which we live, but it is also about ensuring that we make a positive societal contribution and maintain strong governance. Through widely used ESG frameworks and standards, we aim to be transparent in the risks and opportunities we face and to communicate the current management of our impacts – for the benefit of all our stakeholders.

All data covers the calendar year January to December 2022, unless otherwise specified. For questions about the report, please contact our investor relations team on investors@cerespower.com.

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Chair's introduction

A year on from our last report and world average temperatures continue to hit new highs with the hottest July on record, heatwaves witnessed across Europe, Asia and the US, and extreme marine heatwaves, including in areas such as the North Sea.

Wholesale change of our global energy systems is a significant challenge, but what is clear from both these events and our modelling of climate change is that it can't wait; we must accelerate progress. We need rapid deployment of technologies that significantly reduce greenhouse gas emissions whilst continuing to meet our energy and economic demands. We must scale solutions available today, globally and at pace, at the same time as developing new technologies for the future.

Ceres is right at the heart of this energy transition and our 600-strong team is busy expediting the delivery of green energy technology to global partners to support their transition to a cleaner and more sustainable future. It is also keeping an eye on what comes next.

Achieving net zero is contingent on bold decisions from governments and companies. We are seeing some signs of progress. The [Hydrogen Council](#) estimates that over 1,000 hydrogen projects are underway worldwide, more than 350 of which have been announced in the past year. They are expected to result in \$320 billion worth of investments by 2030.

There is a lot of investment, but there is still much more to do.

The [UK Climate Change Committee's \("CCC"\) latest annual progress report to Parliament](#) expresses real concern about the ability of the UK Government to meet its climate targets. As the Chair of the CCC's Adaptation Committee I find it disheartening to see the erosion of the UK's ambitions to be a global climate leader and the potential impact on UK businesses and UK competitiveness in the green tech space.

Ceres' licensing business model provides unique and powerful advantages: enabling the adoption of green energy technology at speed, and building on the capability of global partners to establish localised supply chains, skills, manufacturing and systems and products suited to their end markets and applications.

Zero-carbon electricity systems are the absolute priority for decarbonisation. Ceres' fuel cell systems, such as those developed by Bosch, Doosan and Weichai, provide highly efficient, fuel-flexible and environmentally friendly power generation systems. These systems are scalable and versatile, with applications including providing local power, running huge data centres or reinforcing grids under increasing pressure from electrification.

In addition, Ceres' technology is inherently reversible. In electrolyser mode it provides a highly efficient, low-cost and sustainable route to produce green hydrogen when powered with renewable electricity. Whilst the debate continues about the full extent of global hydrogen applications, it is clear that its use will be unavoidable in decarbonising essential emissions-intensive industries such as steelmaking, cement and marine transport, and there is growing evidence for a major role in long-term energy storage in renewables-based energy systems.

Ceres has been named the winner of the Royal Academy of Engineering's 2023 MacRobert Award. Judge, Professor Sir Richard Friend FREng FRS said: "**Ceres technology electrolyzers show the lowest conversion losses I have come across. They are spectacularly efficient. That is a huge game-changer for hydrogen generation. It's very exciting.**"

[Click here to watch the video](#)

Ceres recognises the importance of building sustainability and resilience into how we do business. The future skills, finance and governance considerations that guide current decision-making processes are being developed to be robust to an uncertain future. We continue to evolve our thinking, processes and procedures, including the initial reporting against the Task Force on Climate-related Financial Disclosures later in this report. The analysis of the risks and opportunities that exist for Ceres, and the wider social and governance considerations, continues to drive the evolution of the strategy to enable a green and healthy planet.

Professor Dame Julia King, Baroness Brown of Cambridge
FREng FRS FMedSci
Senior Independent Director and Chair of the ESG Committee



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Who we are

Purpose

Our ultimate purpose is to help sustain a clean, green planet by ensuring there is clean energy everywhere in the world.

Clean energy for a clean world.

Positioning

Ceres is a leading developer of clean energy technology, fuel cells for power generation and electrolyzers for green hydrogen. Our licensing model has seen us establish partnerships with some of the world’s most progressive companies, such as Bosch, Doosan, Shell, and Weichai, to develop clean energy systems and products for power generation, transportation, industry, and everyday living at the scale and pace needed to address climate change.

Living our values



We commit wholeheartedly

We care deeply about our purpose, our people, our partners and our planet.



We are creative collaborators

We believe in partnership. We work with each other, our partners, and our suppliers to solve problems faster, develop smart ideas and ensure superior results. We adapt, respond quickly, and are prepared to move fast.



We pioneer with precision













We are innovative but with purpose. We define problems as accurately as possible to create practical solutions. We like the constraints of big challenges so we can develop ground-breaking ideas that work. We take measured risks in areas where risk is well rewarded.



Sustainability roadmap

Our sustainability progress and future goals





Tackling climate change is what drives us; we are committed to enabling a net zero world through our technology. Our aim is to ensure our sustainability strategy keeps pace with this ambition such that we maintain a sustainable business and make a positive impact on our people, communities, partners and planet.

Progress achieved	Current actions < 1 year	Future actions 1 - 3 years
<div><ul style="list-style-type: none">SECR verified Scopes 1 and 2 and analysis of Scope 3 emissions.Market-based Scope 2 emissions zero since October 2020.</div> <div><ul style="list-style-type: none">Disclosing water use since 2020.Environmental management system certified to ISO 14001.</div> <div><ul style="list-style-type: none">Exceeded targets for female recruitment.Launch of the Ceres Academy training and development platform.</div> <div><ul style="list-style-type: none">Sustainability strategy and policy developed and embedded in the existing governance and reporting framework.ESG Committee established as a formal subcommittee of the Board.</div>	<div><ul style="list-style-type: none">Create Science Based Targets initiative's ("SBTi") guided Net Zero strategy, setting near term emissions intensity targets.Task Force on Climate-related Financial Disclosures ("TCFD") report including initial review of physical and transition risk reporting.</div> <div><ul style="list-style-type: none">Seeking ISO 50001 accreditation for energy management systems.Assess and reduce waste to landfill.</div> <div><ul style="list-style-type: none">Second annual Gallup 12 employee survey rolled out in summer 2023.Maturing and reporting of ESG KPIs in annual review of remuneration benchmarking and awards.</div> <div><ul style="list-style-type: none">Refreshing of the materiality risk assessment.Second publication against the Sustainability Accounting Standards Board framework.</div>	<div><ul style="list-style-type: none">Circular economy embedded in product design, recycling and reuse targets.Understand product impact in service with cradle-to-grave and Scope 4 emissions analysis.</div> <div><ul style="list-style-type: none">Achieve CDP rating on climate change, forests and water security.Taskforce for Nature-related Financial Disclosure; water targets; biodiversity net gain targets.</div> <div><ul style="list-style-type: none">Develop a diverse and motivated workforce with a culture of collaboration, focused on our mission to deliver "clean energy for a clean world".Enhancing our team's skills for a green transition through growth and training.</div> <div><ul style="list-style-type: none">Embedding sustainability consideration across our operations, with net zero impact on emissions from design to development through production.</div>

Goal

Multi-gigawatts of manufacturing capacity under licence with global partners.

Enabling significant carbon reduction versus alternative power and hydrogen production methods.

- Ceres' ESG pillars
-  Science-based climate action
-  Processes that support nature
-  A green transition that works for people
-  Governance enabling the right decisions



Sustainability key performance indicators

	2020	2021	2022
Economic	12 months to 31 December	12 months to 31 December	12 months to 31 December
Revenue (£ million)	21.7	30.8	22.1
Gross profit (£ million)	14.6	19.0	13.0
Gross margin (%)	67%	66%	59%
Environmental			
Carbon emissions (tonnes CO ₂ e)	21,950	29,675	18,723
Emissions intensity (tonnes CO ₂ e)/£ REV per £100,000	101	96	85
Energy consumption (MWh)	6,954.3	7,699.7	8,653.7
Water use (m ³)	2,000	5,793	5,513
Percentage of electricity from renewable sources	—	100%	100%
Social			
RIDDOR rate	0.0	0.0	0.0
Employee share option scheme (participation levels as %)	57%	74%	63%
Women in the workforce (%)	18%	20%	21%
Training and development investment	£108,000 (£332/employee)	£329,000 (£673/employee)	£401,000 (£704/employee)
Employee retention rate	91%	94%	84%



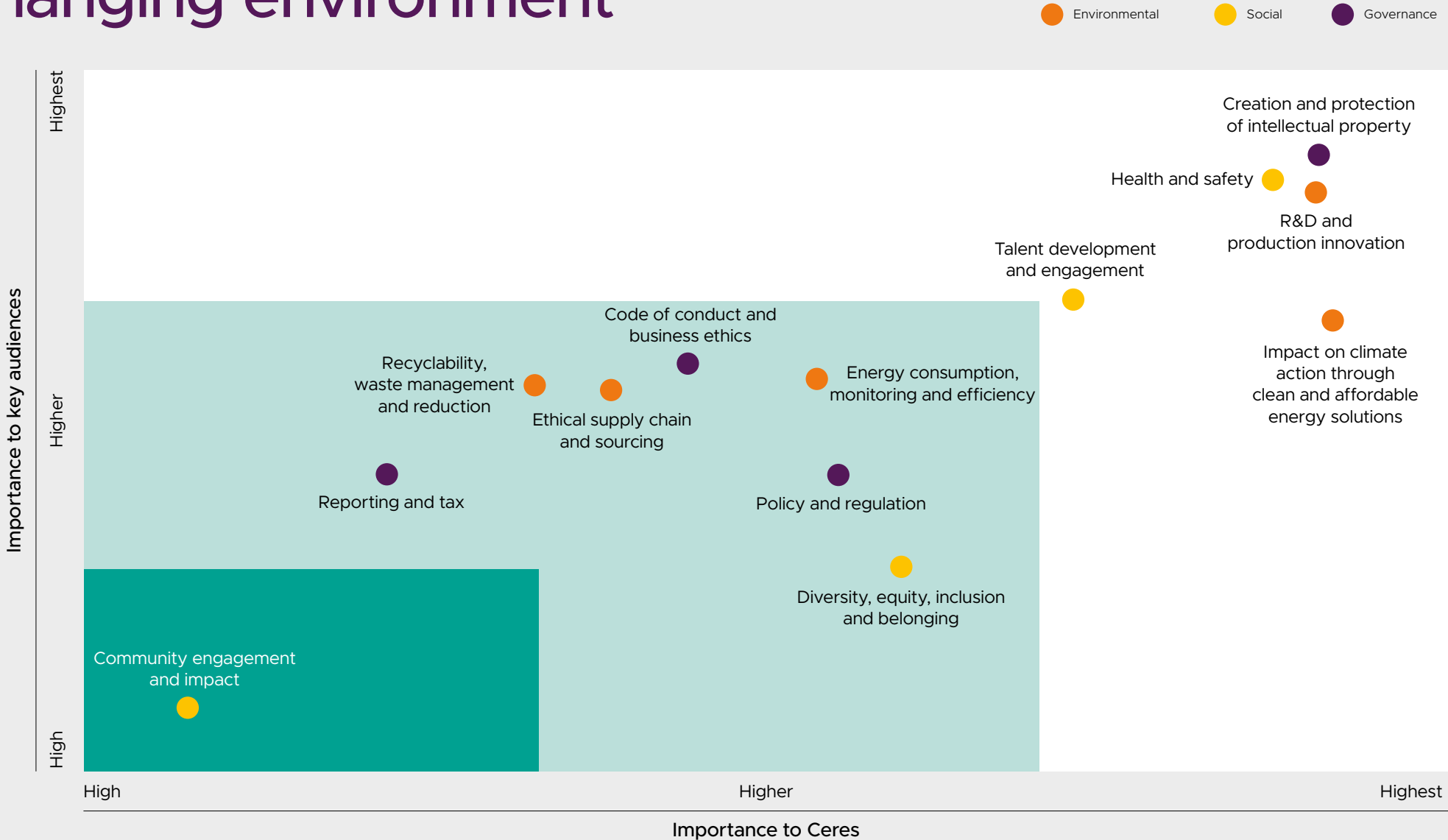
Materiality matrix

Materiality in a changing environment

Ceres is a fast-growing business within a rapidly evolving market: technology to decarbonise hard-to-abate sectors. The business, social and natural environment that Ceres operates in is constantly changing. Despite being ideally situated at the centre of the low-carbon transition, to ensure our continued sustainable development we must understand the changing demands, issues and opportunities that are most material to Ceres and understand how closely aligned our activities are to internal and external stakeholder expectations, including our partners and communities.

In 2023, we undertook another materiality assessment to update our strategy and materiality matrix as shown here with the top 13 issues ranked against their importance for both Ceres and aggregated stakeholders. We surveyed internal and external stakeholders including a mix of employees, existing and potential investors, partners and our supply chain on an unattributed basis. The updated review of material topics to Ceres has been reflected in this year's matrix.

We continue to ensure our strategy and understanding of external expectations are updated such that we can deliver best value in our business activities, for our shareholders, partners, communities, and planet.





UN Sustainable Development Goals

Ceres supports the United Nations (“UN”) Sustainable Development Goals (“SDGs”) to “end poverty, protect the planet and ensure prosperity for all”. The Company is a proud member of the UN Global Compact Network and a critical part of our guidance comes from the UN SDGs, which encompass poverty, inequality, climate, environmental degradation, prosperity, peace and justice. Ceres believes there are five of the 17 goals where we can make a positive difference and have the biggest impact, they frame our thinking on how we can play our part in creating a better and fairer world by the UN’s target date of 2030.



Goal 7 Affordable and clean energy

Ceres’ activities
Ceres aims to play a central role in the global energy transition to affordable clean power. Running on today’s natural gas infrastructure, the solid oxide fuel cell (“SOFC”) achieves electrical efficiency of 60% and provides useful temperatures for heating and hot water, delivering a total efficiency of >85%. SOFC emits no SOx, NOx, or particulates and delivers power at a 30% carbon emission reduction compared to the combustion engine. In electrolyser mode it provides a highly efficient, low-cost and sustainable route to produce green hydrogen when powered with renewable electricity.

➔ For more on our role in the energy transition, see page 9 in the report



Goal 9 Industry, innovation and infrastructure

Ceres’ activities
Ceres continues to evolve its unique platform technology for both SOFC and solid oxide electrolysis cell (“SOEC”) to increase efficiency and maturity. Both ground-breaking technologies can be integrated into industries that are difficult to decarbonise through electrification alone, such as steel making, cement, and marine transportation. Ceres has committed £100 million to the development of its application in SOEC, which can deliver green hydrogen at <40 kWh/kg, around 25% more efficiently than incumbent lower temperature technologies.

🖱️ For more on our technology, see our website



Goal 11 Sustainable cities and communities

Ceres’ activities
Our vision is to help provide secure, clean, affordable energy to the next generation of cities’ transportation, commercial and data centre requirements. Ceres’ partner Bosch is now scaling this technology, building towards a production capacity of 200 MW per year in Germany starting in 2024, which will be enough to supply approx. 400,000 people with household electricity. Our partner Doosan is building an initial 50 MW production capacity by 2024 that could scale to 170 MW aiming to develop utility-scale power systems to provide clean power to cities.

🖱️ Read more on Ceres’ collaboration with Bosch



Goal 12 Responsible production and consumption

Ceres’ activities
By harnessing the considerable efficiency gains of our technology, we can cut energy consumption and so reduce GHG emissions. Ceres aims to produce hydrogen efficiencies at around 25% greater than other technologies, in the range of mid 80s to 90% where it is possible to make use of available heat from industrial processes to drive high efficiency. Ceres’ platform solid oxide technology includes high levels of recyclability inherent in its design while we work across our supply chain to ensure sustainable sourcing and operating practices are employed.

➔ For more on our supply chain, see page 20 in the report



Goal 13 Climate action

Ceres’ activities
By establishing partnerships with established original equipment manufacturers (“OEM”), Ceres has the chance to rapidly deploy its technology, hastening its role in climate action. Reaching multi-gigawatts of global capacity by 2030 has the potential to displace up to 1.6 million tonnes of CO₂ per gigawatt each year, compared to conventional technology in an average G20 country. This is the equivalent to nearly half a million people’s emissions. Internally, Ceres monitors its own energy consumption and carbon emissions of upstream and downstream activities while continually ensuring the newest innovations minimise the impact of energy generation.

🖱️ For more information on Ceres’ emission impact, try our carbon calculator



Environment



“

Ceres plays a central role in the transition to a clean energy system with its unique technology that delivers both low-carbon power and green hydrogen. What drives the business and its employees is tackling climate change and its strategy towards sustainability is no different.”

Mark Garrett

Chief Operating Officer

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Our story in the energy transition

Platform technology to address decarbonisation

The largest contributor to GHG emissions is from the use of energy: electricity and heat production, industry, transportation, and other energy accounts for around 70% of global anthropogenic GHG emissions according to the [Centre for Climate and Energy Solutions](#).

Decarbonising these vast sectors is one of the world's greatest challenges yet a huge opportunity for Ceres.



Power generation



Decarbonising parts of the energy system through electrification will contribute to an increase in energy demand requiring 7.1TW of clean energy capacity to be installed by 2030 according to the [WMO](#). Ceres' fuel cells generate electricity highly efficiently, supporting greater electrification and the need for scale, flexibility, storage, and resilience in national grid systems. We calculated up to 45% reduction in CO₂ emissions compared to consuming electricity from the centralised grid of the average G20 country whilst using natural gas, producing near zero emissions as well as zero nitrogen oxides, sulphur oxides or particulate air pollutants. Using hydrogen our fuel cells run with zero emissions. To discover multiple use cases and the associated emissions savings try our [online carbon saving calculator](#).

7.1TW

The World Meteorological Organization's ("WMO") estimate of clean energy capacity to be installed by 2030 to reach the Paris Agreement's long-term global goal.

45%

Reduction in CO₂ emissions compared to consuming energy from the centralised grid.

Green hydrogen



In addition, to hit a net zero future we will require a green molecule to address fossil fuel dependent sectors that cannot be addressed by electrification alone. Hydrogen, or hydrogen as a precursor to other future fuels, is increasingly recognised as a solution to these hard-to-abate industries such as steel, cement and fertiliser production. The IEA forecasts that to meet this demand the world needs 3,585GW of global hydrogen electrolyser capacity, from a cumulative installed base of around 1GW today. Ceres' differentiated SOEC technology offers distinct advantages of efficiency with early testing delivering green hydrogen at <40kWh/kg at a system level, around 25% more efficiently than incumbent technologies. To understand more on our approach to green hydrogen watch our recent [Technology teach-in](#).

3,585 GW

IEA estimate of global electrolyser capacity needed to meet the 2050 demand for green hydrogen.

<40kWh/kg

Ceres testing has demonstrated delivery of green hydrogen around 25% more efficiently than incumbent technologies.

Emissions and energy reporting

Understanding the impacts of our activities

At Ceres we enable the decarbonisation of multiple markets by developing highly differentiated technology that scales through global partnerships. As a licensing business, we continually innovate and release new versions of our technology, requiring highly talented engineers, technicians, chemists, and material scientists. This world leading R&D, along with commercial, administrative and finance functions, occurs in Horsham, UK. We also operate our Redhill site: a small pilot production plant moving from 3MW to 5MW of capacity that allows us to produce demonstration and test products and develop manufacturing automation techniques for our stacks. In 2023 Ceres has opened two more facilities: a Cleantech Test Centre in Nuneaton, UK and an office in Brighton, UK. Neither were included in the presented emissions data, but both will be accounted for in the future.

While our technology will lead to huge carbon abatement and carbon savings, we seek to understand our own direct and indirect emissions relative to our global positive impact from our two sites in the UK. Since 2020 we have been working with a third party, Ricardo, to report against SECR requirements and to go above and beyond to develop a more detailed understanding of our Scope 3 emissions whilst ensuring integrity of our data and the analysis process.

For Ceres' 2022 SECR report, a more detailed characterisation of emissions factors by spend type has superseded the earlier method of spend based estimation. Year-on-year changes in carbon emissions are therefore not directly comparable, with spend increasing by 14% on capital goods and 17% on goods and services from 2021 to 2022. This represents an important step in improving our methods of data collection and Ceres will continue to refine emissions analysis using the best available tools in future reports.

SECR, Scope 3 and energy analysis for the 12 months to December

			2020		2021		2022	
	Disclosure	Description	Emissions ¹ (tCO ₂ e)	Energy (kWh)	Emissions ¹ (tCO ₂ e)	Energy (kWh)	Emissions ¹ (tCO ₂ e)	Energy (kWh)
SECR mandated	Scope 1	Direct emissions: Fuel used from transport and consumption of natural gas ²	368	1,997,664 ³	398 ³	2,168,437	411	2,243,492
	Scope 2	Indirect emissions: Electricity purchased and used for operations	861	4,901,240	Nil ⁴	5,481,294	Nil ⁴	6,340,242
	Scope 3	Other indirect emissions: Company-funded fuel used in employee owned vehicles	14	55,404 ³	12	50,014	17	69,931
Additional analysis	Scope 3	Other indirect emissions: Upstream and downstream emissions that occur in the value chain ⁵	20,707		29,265		18,295	
	Total	Total carbon emissions	21,950		29,675 ⁶		18,723 ⁶	
	Carbon intensity revenue	Total carbon emissions per £100k revenue	101		96		85	
	Carbon intensity headcount	Total carbon emissions per employee	68		61		33	

1. Market-based emissions: CO₂e calculated from fuel used in company vehicles, electricity purchased, and natural gas consumed for ongoing operations, converted to tCO₂e using government-approved conversion factors.

2. Other gas use and emissions from test stands and international travel excluded.

3. Values updated relative to 2020 and 2021 Annual Report data as emissions reporting refined. Fuel used in personal vehicles previously reported as leased vehicles, thus sitting in Scope 1 instead of the correct Scope 3 emissions.

4. Starting from October 2020, we secured 100% renewable energy supply until September 2024, certified by TotalEnergies, which assures our energy supply is backed by relevant Renewable Energy [Guarantee of Origin](#) (“REGO”) certificates.

5. Purchased goods and services account for the largest percentage; see the following page for the breakdown.

6. The decrease in emissions from 2021 to 2022 was driven by more detailed characterisation of emissions factors.



Targeting net zero

Net zero globally and locally

Working towards global net zero

Our own technology can help accelerate the transition to a clean future, both as a means of converting fuels such as hydrogen, ammonia and other sustainable fuels into clean power, but also as a means of producing green hydrogen through electrolysis. We are already working with some of the world's largest engineering and technology companies, such as Bosch in Germany, Doosan in Korea and Weichai in China, to deploy our technology in systems and products that address climate change and air quality challenges for industry, data centres, transportation and everyday living. Our ambition is to enable the world to transition to cleaner, more sustainable forms of energy and in doing so make big savings in carbon emissions as our partners scale up from the mid-2020s.

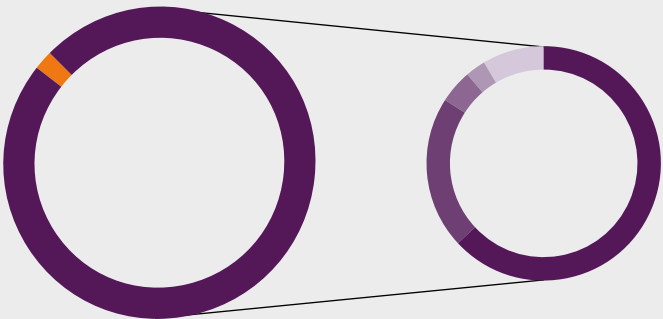
Acting locally to improve our performance

Alongside the role our technology plays in enabling the energy system to decarbonise, we also need to act sustainably in decarbonising our own business. This is small when compared to the impact our technology can have, but important because we are committed to being consistent with our values when it comes to climate change.

As we grow over the next few years our own emissions will inevitably increase through the investment in extra manufacturing and testing capacity. Nevertheless, we plan to reduce our carbon intensity – or emissions per £100,000 of turnover. We are also developing an ambitious net zero strategy, guided by science based targets initiative (“SBTi”) for a 1.5°C scenario future, where SBTi outlines the methodology to develop our emissions intensity targets which will mitigate the inevitable emissions increase due to organisational growth for the next few years, whilst still allowing the growth that will lead to global cumulative benefits over time.

Total emissions

- Scope 1: 2%
- Scope 2: 0%
- Scope 3: 98%



Scope 3 emissions

- Purchased goods and services: 63%
- Purchased capital goods: 21%
- Downstream leased assets: 4.6%
- Fuel- and energy-related activities: 2.8%
- Remaining 11 categories: 85%

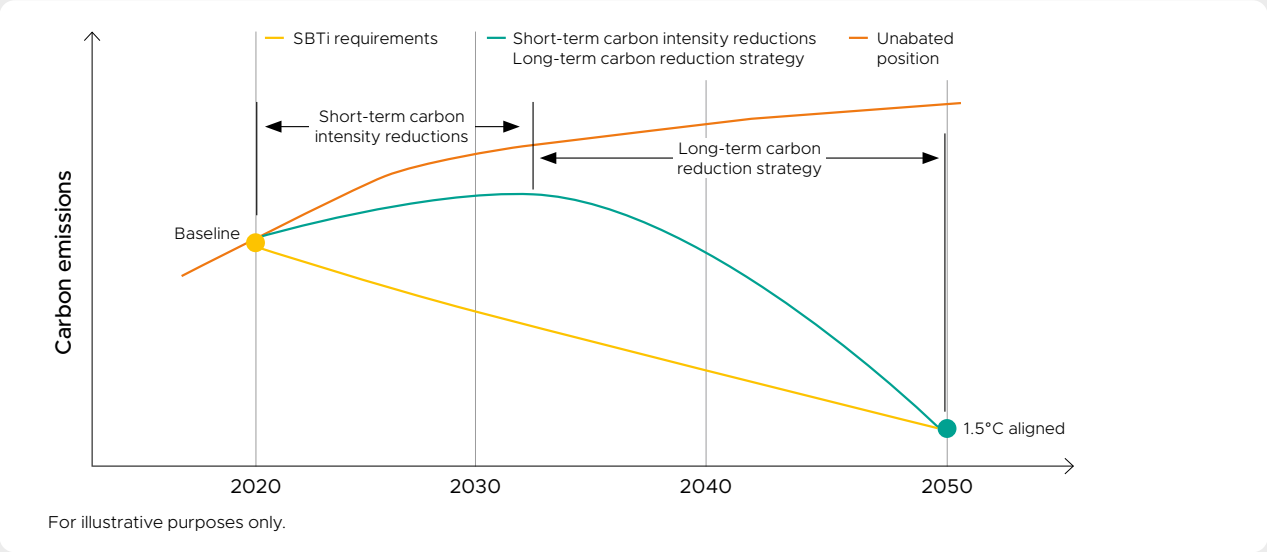
A breakdown of our total GHG emissions for 2022, where the largest contributor by far is Scope 3 or emissions from our value chain. Using the GHG Protocol categories, purchased goods and services, including capital goods and processing of sold goods, make up the majority of our Scope 3 emissions at 84%.

Understanding and improving our emissions data

Ceres is targeting net zero, and to do so we are first improving our GHG emissions data collection process and data quality. We engage with Ricardo Energy & Environment who verifies that our scopes 1, 2 and scope 3 data sources and calculations are robust using the spend based methodology in alignment with the Greenhouse Gas Protocol Accounting and Reporting Standard and scope 3 guidance documents and in accordance with ISO 14064-1.

Recently Ceres has adopted Sweep as our emissions management system going forward. Sweep provides centralised carbon data storage that can track our emissions in near real-time while supporting Ceres' progress towards net-zero. Designed to comply with the TCFD and SBTi frameworks, Sweep can help identify hotspots and monitor our progress against our goals.

“Our ambition is to enable the world to transition to cleaner, more sustainable forms of energy and in doing so make big savings in carbon emissions as our partners scale up from the mid-2020s.”





Sustainable design

A history of sustainable innovation

Based on research spun out of Imperial College in London in the early 2000s, Ceres’ technology improves the high efficiency of solid oxide technology whilst lowering the temperature and improving thermal cycling robustness, key breakthroughs to enable commercialisation and industrialisation of SOFC technology. Ceres continues to innovate, developing and releasing new versions that improve all aspects of the design: robustness, cost, and efficiency. Our mission is to sustain a clean, green planet and our ethos of sustainability is also built into our technology by design.

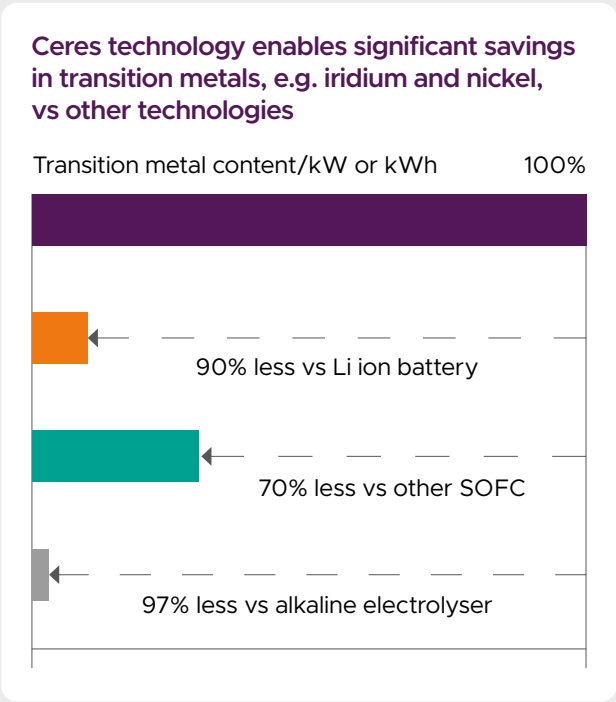
A large benefit of our breakthrough technology is that we can use commonly found materials to build our cells. Ceres uniquely uses an automotive-grade steel comprising 95% of our current generations’s stack mass, where we currently use approximately 40% recycled steel. Ceria, the most abundant rare earth and a commonly found material, forms the active chemistry of our cells and precious metals account for less than 2% by weight of our stacks, considerably lower than conventional electrode supported solid oxide technology. Aside from performance benefits, there are huge environmental and sustainability benefits using steel and other abundant materials.

This world class technology will abate emissions magnitudes higher than its own life cycle emissions, since it can produce low to zero-carbon power with zero nitrogen oxides, sulphur oxides or particulate air pollutants using a variety of fuels and can also produce green hydrogen. Our partners’ requirements feed into the process of developing our design; the core Ceres technology can be manufactured with conventional high-volume manufacturing equipment from the solar PV industry reducing cost. Yet as the design authority and as production of our cells scale, embedding sustainability considerations into our design becomes increasingly important. Given this we have undertaken a cradle-to-gate life cycle assessment to give clarity to the environmental impact of the production of our current generation 5kW stack and legacy 1kW stack for comparison.

Substage	Legacy 1kW stack (kg CO ₂ e)	5kW stack (kg CO ₂ e)
Raw materials	295	1,192
Manufacturing	136	643
Transport	6	32
Total	437	1,867
Total/kW	437	373

We have quantified the impacts associated with raw material extraction and processing, transport of materials to the Ceres manufacturing site, manufacturing of the unit by Ceres, and packaging of the unit when ready for distribution, standardised to kilograms of carbon dioxide equivalents (kgCO₂e). We continue to look beyond our own emissions and decisions on next generation technology are already being made with consideration to further reduce carbon intensity. We are re-evaluating the LCA of our upcoming generation of stacks this year.

We recognise the importance of looking beyond carbon impact to consider the circular economy for raw materials. As a next step we will undertake a full evaluation of the end-of-life recyclability or reuse of our technology, cradle-to-grave, and will seek to lead the industry for our technology, embedding sustainability considerations into the very heart of our development and the transfer of IP under licence to our partners.



“Aside from performance benefits, there are huge environmental and sustainability benefits using steel and other abundant materials.”



Recyclability and waste

Continuing to reduce our impact

As part of sustainable design of our technology, we understand how important the goal of shifting to the circular economy is for our planet. For our technology this journey means recycling as much of the material as possible. Our sustainable design ensures recyclability is ingrained in the R&D and design process for our solid oxide technology; however, we continue developing our knowledge on the recyclability of our cells and the processes required to do this.

We are constantly looking to improve the percentage of our general waste streams that are recycled, which sits at 62% at our Horsham site and 81% at our Redhill site, whilst improving the value recovery of our own operations. We are undertaking steps to avoid landfill wherever possible, ensure that waste treatment along all waste streams is segregated and auditable, and that residual value is recovered where possible. We plan to improve our energy monitoring in both sites, where we are working with an external consultant to understand our significant energy uses, how we will monitor them and how we can push our energy efficiency by setting energy intensity targets in the future.

We have taken further steps to reduce our own waste as we work towards establishing a stack and cell recycling partner which will avoid cradle-to-grave emissions through recycling steel and other materials to recover residual value, whilst ensuring the security of our IP. We will also aim to broaden our understanding of manual processes to disassemble our cells and stacks from our pilot plant, requiring broader connections in recycling supply chains as we further improve disassembly and recovery of materials in the UK.

By 2030 our partners will reach multi-gigawatts of global capacity and both ourselves and our partners consider the environmental implications of our stacks at their end of life. Ceres is seeking to investigate the feasibility of automating stack disassembly processes for the cost-effective recovery of precious metals and the subsequent mitigation of CO₂e emissions, ultimately reducing our cradle-to-grave emissions of our cells and stacks.



Social



“

Ceres takes a holistic approach to climate change and sustainability, underpinned by wider social and governance considerations. This includes expanding and investing in our workforce and developing people to deliver today's technology and the innovation needed for a green energy future.”

Michelle Traynor
People Director

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Health and safety

Maintaining operational safety

Ceres is committed to ensuring the health and safety of everyone who works for or has contact with our Company.

In 2022, the Total recordable incident rate (“TRIR”) for the Group was 0.18, continuing a downward trend from 0.36 the previous year, which compares favourably to the manufacturing sector average of 3.0. Ceres has continued to achieve zero Reporting of Injuries, Diseases and Dangerous Occurrences (“RIDDORs”) year-on-year.

Our health and safety team is embedded across all our operations and supports the wider team in implementing best practice in the advanced technology and manufacturing activities that drive our IP. All employees receive detailed health and safety inductions and annual refresher courses. We recognise that health and safety is everyone’s responsibility and we encourage a culture of transparency and improvement. Accidents, incidents, near misses and safety improvements are recorded electronically through our HSE issue reporting system. Weekly safety reports are provided to the Executive management for review and both UK sites are subject to monthly safety audits. Health and safety is a standing agenda item at weekly delivery meetings, every All Hands – our monthly all company meeting – and meetings of the Board of Directors.

The Company seeks to maintain effective systems, plans and training for managing the health, safety and welfare of all our employees and, in addition, for managing the environmental impact of our operations, to ensure that all risks are properly assessed and controlled, so far as is reasonably practicable. It is Company policy to consult with employees, partners, suppliers and contractors on health, safety and environmental issues to minimise risk and to continually improve the accident record.

“

We recognise that health and safety is everyone’s responsibility and we encourage a culture of transparency and improvement.”

Certification and awards



Ceres’ Quality Management System is certified to ISO 9001:2015. Certificate number FS 738105.



Ceres Power Limited has been certified by BSI to ISO 14001:2015 under certificate number EMS 761891.





Diversity, equity, belonging and inclusion

Building a diverse and inclusive culture

We call it DEBI, diversity, equity, belonging, and inclusion, and it encompasses our belief that talent and ingenuity stem from a variety of perspectives and experiences. We believe that having an open and inclusive culture makes for a stronger, more diverse, and welcoming company in which our people can grow, thrive and be at their best every day.

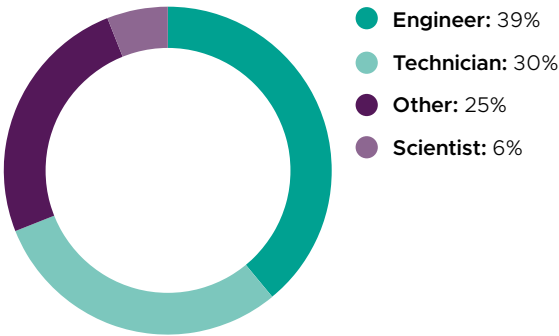


We are pleased to report that we have continued to improve our gender diversity, with 21% of Ceres roles being held by women as at 31 December 2022, compared to 20% a year prior. We continually seek to improve our diversity with 27% of new recruits in 2022 being women against a target of 25%. We are increasing this target to 30% in 2023.

During 2022 we celebrated events including Pride with our Rainbow Café, and raised funds for our charity partner Switchboard, allowing them to open a new LGBTQ+ helpline number this year. We also celebrated World Day for Cultural Diversity, which saw our 42 represented nationalities within Ceres host a veritable feast for both our technology innovation centre and our production site, with dishes from across the world gracing our canteen spaces.

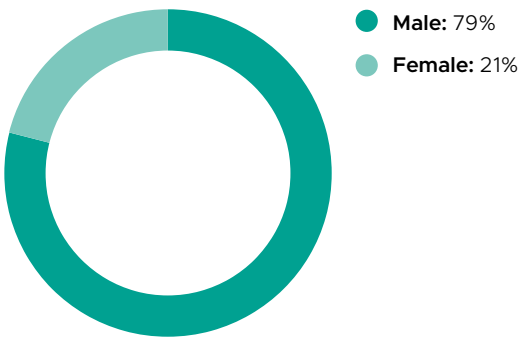
Other events for employees include our buddy scheme, where new employees are assigned a buddy from outside their team, to support with knowledge sharing and integration. We also run a reverse mentorship scheme, where senior colleagues can learn from others around their lived experiences and challenges they have faced at work, arming them with knowledge to support equality, diversity and inclusion. We have revitalised the Ceres Horsham offices creating our collaboration space, encouraging employees to collaborate in new ways and creating an inclusive environment for all.

Workforce: 2022 split by roles



	2021	2022
Engineer	171	221
Technician	166	170
Other	113	144
Scientist	39	35

Workforce: 2022 gender split



	2021	2022
Male	393	451
Female	96	119

Copies of our 2022 Gender Pay Report and Diversity & Inclusion Policy can be found on the [Company website](#).



A voice to all employees

We commit wholeheartedly



Clean energy starts with our people. Ensuring our people can shape and contribute directly to our strategy, voice their ideas and opinions, and feel these are listened to, is critically important to Ceres.

The annual employee engagement survey saw us achieve a great engagement score of 80%, from a response rate of 83%. We welcomed an increase in suggestions and feedback for improvement, building on the progress from our inaugural survey last year.

Actions over the last 12 months have included creating more opportunities for our people to come together to both collaborate and socialise after several years of growth and adjustments to new ways of working, updating our career framework and competency matrix, and supporting and enabling a high number of role changes and promotions across the business.

Our purpose to help sustain a clean, green planet clearly remains a strong unifying factor for our people, who fundamentally enjoy working together, viewing colleagues as being committed to doing quality work, and respecting each other's passions and talents.

We are committed to ensuring our people have a voice and in addition to our engagement surveys, we have established monthly Ceres Experience Check-ins with our people led by our People team to get feedback on the extent to which we are delivering on our strategy, values and commitments. We have also appointed Trine Borum Bojsen, Non-Executive Director, as the designated Employee Engagement Director creating opportunities for our people to have a direct feed into the board. In July 2023, Trine hosted a series of open forum sessions, including joining the women of Ceres for the first workshop of its kind to discuss the lived experiences of the female employees.

“

Ceres is a company which listens to people at all levels and acts on that feedback. This is rare.”

Anonymous quote from the engagement survey



Attracting and retaining talent

Skills for a green energy future

Ceres is an inspiring place to work, and our people care deeply about our purpose, our technology, our partners, and each other. We offer employees the opportunity to collaborate creatively to solve complex problems and challenges, to experiment and innovate and push the boundaries of our technology, within a supportive culture and work environment that allows them to learn, grow, achieve great things and be the very best version of themselves.

Having experienced exceptionally high retention rates during the COVID-19 pandemic, our retention rate fell to 84% in 2022. This largely mirrors the general attrition rates observed across our industry in what has been described as the 'Great Reshuffle' and reflects the increased competition for talent in our sector.

Employee retention rate

84%



We recognise that nurturing and developing our talent is critical to support retention and success. Building on our Ceres Academy programmes, which continue to support the development of our existing and future managers and leaders, we have invested further in developing our people with technical training, change management and building positive mental health. We supplement this with technical mentoring, coaching and wellbeing programmes to enable our people to thrive and drive great results.

We have continued to invest in establishing an early careers framework that works with schools to promote STEM careers and offers a range of opportunities including work experience, internships, apprenticeships and our well-established graduate development programme.

Our Reimagine competition, targeted at secondary schools across the UK, aims to inspire the next generation of innovators and creatives to tackle the global climate crisis and mission for net zero through the art of animation.

We offer all our employees the opportunity to have a vested interest in the success of our business through our share save scheme, which attracts high levels of participation. This is further supported and supplemented via our bonus and Long Term Incentive Plan schemes.





Community impact

Positive social impact

Our Connect employee group is key to our collaboration across the business, comprised of 25 employees representing of the various Company departments.

The Chair is elected on an annual basis and has a seat on the ESG Committee. Connect seeks to build an inclusive culture and a progressive working environment and to contribute to the societies in which we operate. Everyone is encouraged to get involved in the wide variety of events organised or championed by Connect and its members; here are just some examples of these:



Springboard

Springboard was chosen as Ceres' first annual charity partner and the Company has been proud to sponsor several activities and take part in events over the year. Based in Horsham for over 30 years, Springboard offers support, inclusive play and leisure opportunities to children and young people of all abilities. Its aim is to improve physical and emotional wellbeing, increase life skills and independence, reduce isolation by building friendships and relationships, and provide accessible recreation.

St. Catherine's Hospice

St. Catherine's Hospice, Crawley, provides vital care to patients with life-limiting illnesses in Sussex and East Surrey. Its work is made possible through the local community who donate and volunteer with the organisation. Ceres employees participate – alongside many others living and working locally – in walking the annual 13 and 20-mile walking routes to raise vital funds for St. Catherine's work.



Living our values
Clean energy competition

Reimagine

In collaboration with STEM Learning UK, Ceres hosts a science animation competition for secondary schools in the UK with the aim to inspire the next generation of innovators and creatives to think about the global climate challenge and to bring their own creativity to tackling the mission for net zero.

Now in its third year, we were delighted to collaborate with Horsham-based animation studio Creative Assembly and welcome judges from across UK industry to view the children's animations. Over 20 schools submitted entries and we welcomed three teams to an awards ceremony at the Science Museum in London. We look forward to launching the next edition this month, with the aim to encourage a greater diversity of students into science, technology, engineering and maths – and maybe just find some new ways for STEM and arts to collide and collaborate. You can find out more information on the competition [website](#).

Entries received for the 2022 Reimagine competition

21

REIMAGINE Clean Energy Competition





Supply chain

Continued improvement of supply chain sustainability

As a signatory to the UN Global Compact we procure in accordance with the Ten Principles, ensuring human rights, labour, environment and anti-corruption risks and impacts are considered as part of our procurement strategies and decisions.

During 2022 we introduced our first Procurement Policy, and internal Sustainable Procurement and Supply Chain Assurance policies, all aligned to ISO 20400. Collectively these policies set out the standards we measure ourselves and our supply chain against. We are proud that our Environmental Management System was ISO 14001 certified in 2022, demonstrating the progress we are making on managing environmental impacts in our supply chain. Looking forward, we will build on the successes of 2022 by introducing our first Supplier Code of Conduct and supplier manual, setting out clearer expectations and standards for suppliers, as we strive to continually improve supply chain sustainability.

Governance

“

We recognise that strong governance is essential to support the long-term sustainable growth of the business. The Board is accountable to the Company's shareholders for its governance, and it forms a critical part of our business integrity and of maintaining our stakeholders' trust.”

Deborah Grimson
General Counsel and Company Secretary

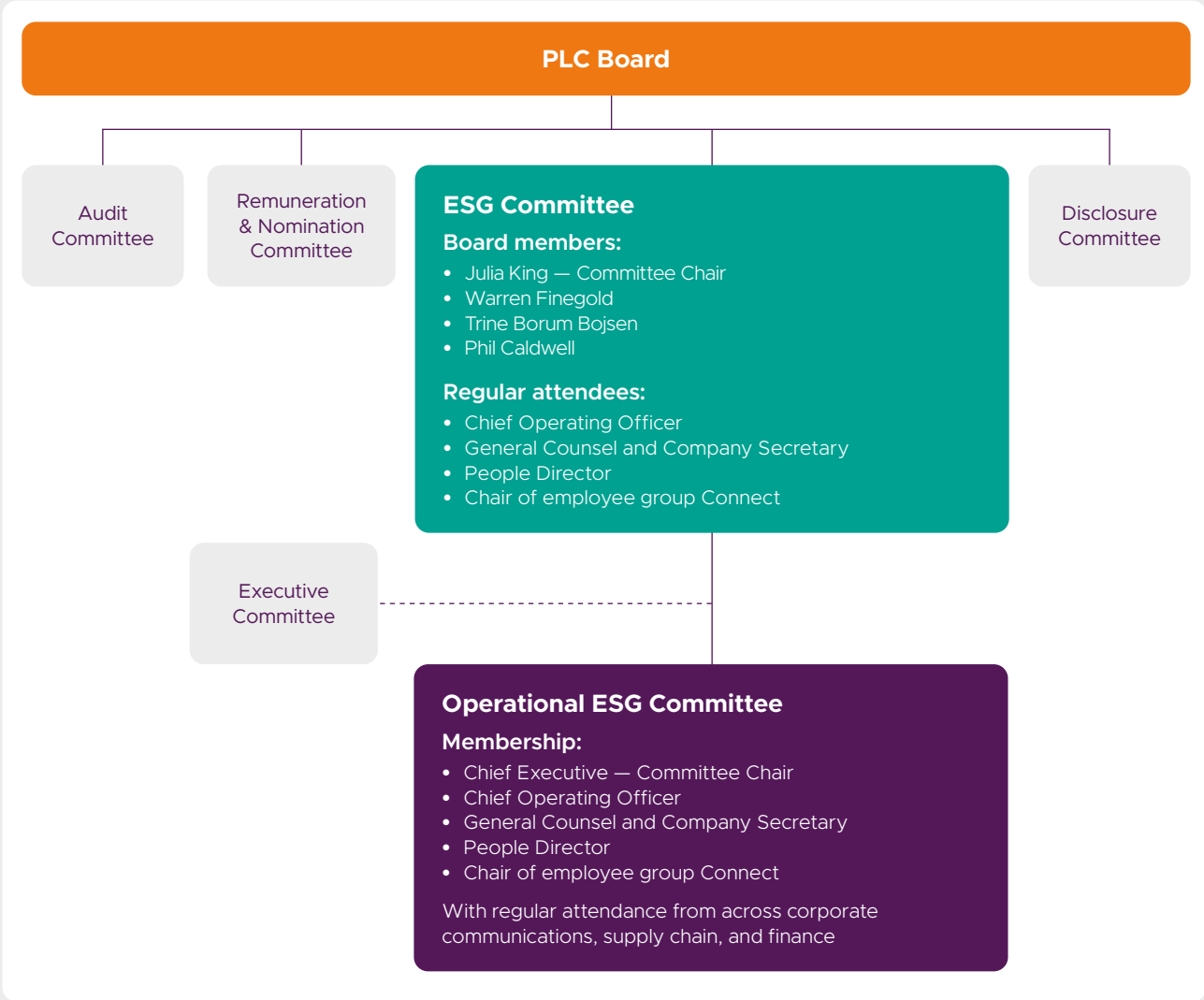
In this section

- 22 Board oversight of ESG
- 23 Governance framework
- 24 Embedding sustainability in our organisation
- 25 Managing sustainability risks
- 26 **Task Force on Climate-related Financial Disclosure**
- 31 **SASB Index**



Board oversight of ESG

An effective approach to sustainability



Regulatory frameworks and compliance

Ceres is focused on and committed to upholding sound corporate governance practices, and providing stakeholders with strong disclosure and transparency across all aspects of our business. Governance is overseen by the Board of Directors, which is responsible for establishing the purpose and values and setting the vision and strategy for the Company to deliver value to its stakeholders through implementing its business plan.

Skills and resources

We seek to ensure that we have the appropriate skills as a business to deliver our ESG objectives, to develop and recommend to the Board sustainability targets and key performance indicators and receive and review reports on progress towards the achievement of such targets and indicators. This year, Non-Executive Director Julia King was appointed as Senior Independent Director and is also Chair of the ESG Committee. Julia has significant ESG credentials and experience as Chair of [The Carbon Trust](#), a Non-Executive Director of Ørsted, Chair of the Adaptation Committee of the Climate Change Committee and a former member of the Government Hydrogen Advisory Council. Ceres has also become a signatory of the UN Global Compact, taking advantage of the access to the UK chapter and its Academy Platform for resources and skills development.

Policies and procedures

Ceres conducts all business activities in an honest, ethical and socially responsible manner, aiming to align with best practice and to be a responsible employer. The Ceres Code of Ethics and Business Practice sets out this behaviour as a good corporate citizen which applies to interactions with, and between, our employees, but also with broader stakeholders, including the partners, suppliers, shareholders and wider society.

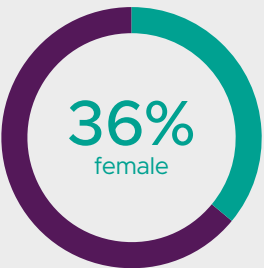
A copy of the ESG & Sustainability Policy can be found along with other Company policies on the Sustainability section of the Ceres website at Reports and policies – Ceres.

For more information on the Board and its interaction with our wider stakeholders, please refer to the Corporate Governance Report included in the Ceres 2022 Annual Report.

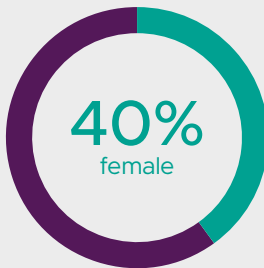
[Ceres Annual Report 2022](#)

“Ceres is focused on and committed to upholding sound corporate governance practices, and providing stakeholders with strong disclosure and transparency across all aspects of our business.”

Board of Directors

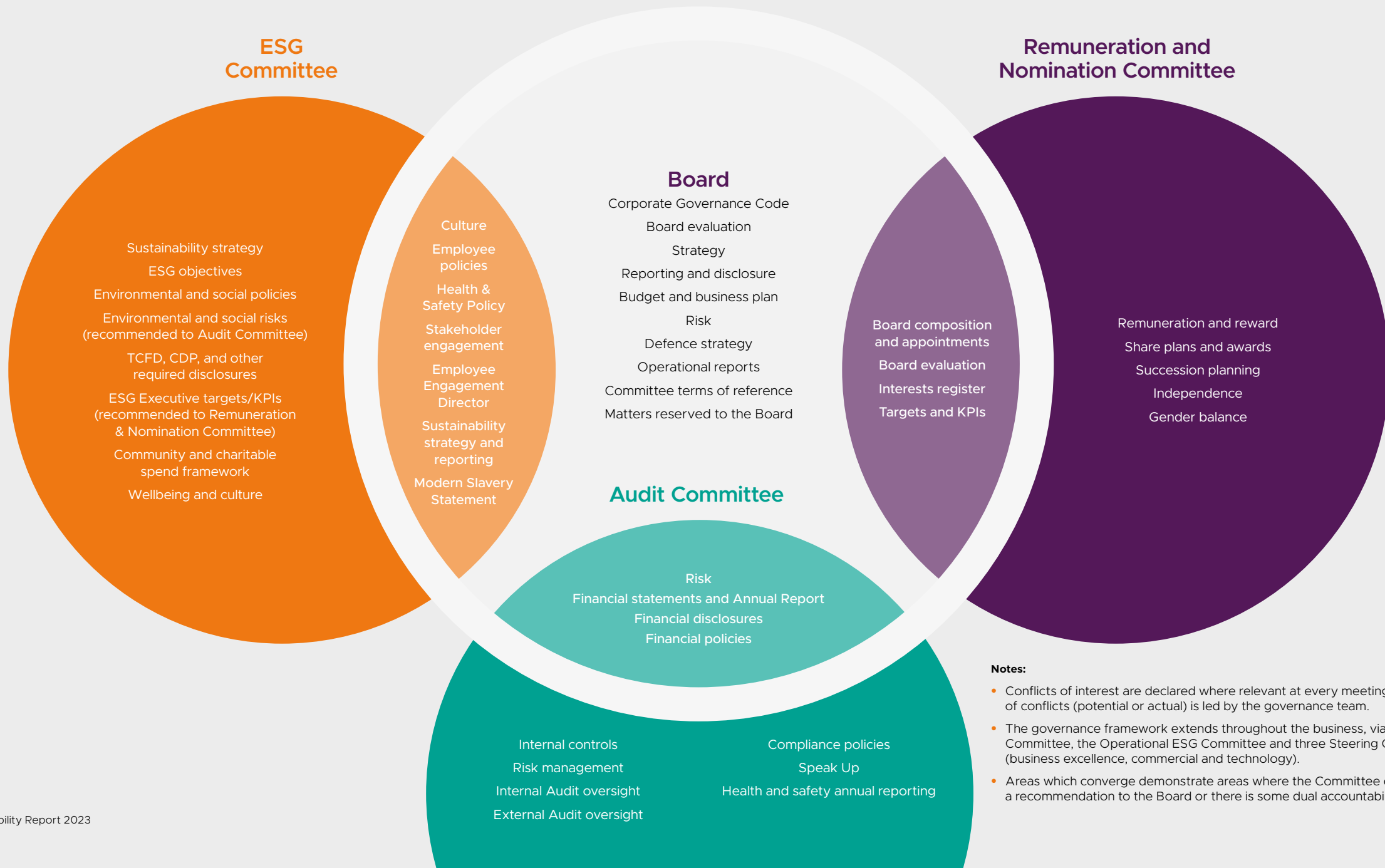


Executive team





Governance framework



- Notes:**
- Conflicts of interest are declared where relevant at every meeting; management of conflicts (potential or actual) is led by the governance team.
 - The governance framework extends throughout the business, via the Executive Committee, the Operational ESG Committee and three Steering Committees (business excellence, commercial and technology).
 - Areas which converge demonstrate areas where the Committee either makes a recommendation to the Board or there is some dual accountability.



Embedding sustainability in our organisation

Guiding a sustainable and resilient business

Ceres endeavours to adopt values and standards designed to help guide employees in their conduct and business relationships.

The Company is therefore committed to:

- complying with all relevant legislation, regulations and codes of practice which apply to the Company, including requirements related to environmental and social impacts;
- the implementation and enforcement of effective policies and procedures to reflect a zero-tolerance approach to bribery and corruption;
- measuring performance and promoting continual improvement through setting annual objectives and targets; Specific ESG-related KPIs have been introduced for the Executive team, proposed by the ESG Committee and agreed by the Board; and
- operating a Board level ESG Committee.

In addition to the oversight provided by the Board, strategy set out by the Committee and reporting delivered with leadership from the Chief Executive, ESG is embedded throughout the organisation. The operational functions of the business, from procurement and the supply chain, to manufacturing and test, and to health and safety and facilities, are deeply involved in evaluating, monitoring and improving our ESG behaviours and actions. Collection of our Scope 3 data has provided an important baseline against which to measure our impact and improvements – done through quarterly workshops with the operational organisation. More widely, Ceres holds activities to involve the skills and passion of the wider organisation including the Energy Savings Challenge and the Day of Difference as well as multiple touch points with the internal and wider communities through our employee group, Connect. Our internal auditor attends all ESG workshops that are relevant to the review and input of risks and opportunities.



“The operational functions of the business; from procurement and the supply chain, to manufacturing and test to health and safety and facilities are deeply involved in evaluating, monitoring and improving our ESG behaviours and actions.”

Supply chain

Sustainability cuts across all aspects of our business, from energy consumption to resource use to waste. At Ceres, management of our operations and supply chain focuses on embedding sustainability considerations into every aspect of the development and transfer of technology to global partners.

Internal audit

Strong ESG practice, as with any risk area, requires alignment across various functions and operations of the business. The internal auditor is positioned to support the ESG Committee and management with objective assurance, insights, and advice on ESG matters.

Connect

At Ceres, sustainability considerations are the heartbeat of our technology and our purpose. Many employees choose to work for Ceres because it aligns with their own values. We try to support that mission by embedding sustainability in employees' daily work, projects, and decision-making.



Managing sustainability risks

Adapting to a changing world

The responsibility of every business to ensure proper oversight of climate-related risks and opportunities has never been higher and Ceres has taken steps to ensure that ESG, including climate-related, risks are given due consideration as an integral component of Ceres' corporate risk reporting process.

The Board is ultimately responsible for the Company's risk framework, with the Audit Committee playing a central role in the review of the Group's financial reporting, risk review and internal control processes.

We have taken steps to formalise the review of risks and actions by the establishment of an ESG Committee of the Board, which met for the first time in 2023 and is chaired by Non-Executive Director Julia King.

It operates in conjunction with the existing Operational ESG Committee, chaired by Phil Caldwell. As the Chief Executive Officer, Phil is responsible for identifying, managing and mitigating these risks, with support from other Operational ESG Committee members from across legal, operations, human resources and communications.

📖 To read more about the Committees of the Board, see the Corporate Governance section starting on page 42 of the 2022 Annual Report.

➔ You can find our first TCFD Report on page 26 of this report.





Task Force on Climate-related Financial Disclosures

Aligning with TCFD recommendations

This is our first step towards aligning with the recommendations of the Task force on Climate-related Financial Disclosures (“TCFD”) and setting out our assessment of climate-related risks and opportunities.

The process has allowed us to identify potential risks and opportunities that climate change presents to our business, enabling us to better prepare for an uncertain future and ensure that our business strategy is resilient to the significant transition that will be required to achieve a net zero future.

In this report we have made climate-related financial disclosures consistent with the TCFD’s recommendations and Recommended Disclosures pursuant to Listing Rule 9.8.6R(8) The following table summarises our disclosures and refers to where further detail on climate-related financial disclosures can be found in this report or on our Company website.

In completing this report, we have used the TCFD guidance material including the TCFD technical supplement on the use of scenario analysis, TCFD Guidance on Metrics, Targets, and Transition Plans, and the TCFD Guidance for All Sectors to cover the four pillars of recommended climate-related financial disclosures.

This first step has been valuable in identifying areas to be routinely considered in business and investment decisions and we are working to further align and be more transparent on our disclosures in line with evolving guidelines and to better communicate the work that we are doing internally.

1

Governance

Disclose Ceres' governance around climate-related risks and opportunities.

- a. Describe the Board's oversight of climate-related risks and opportunities.
- b. Describe management's role in assessing and managing climate-related risks and opportunities.

The Board is responsible for the Group's risk framework, which includes climate-related risks and opportunities. We have taken steps to formalise the review of ESG risks and actions by the establishment of an ESG Committee of the Board. It meets at least twice a year and otherwise as required. The Chair reports formally to the Board after each meeting (twice per year) on all matters within its duties and responsibilities.

In addition to the oversight provided by the Board, the Chief Executive Officer chairs an Operational ESG Committee and is responsible for identifying, managing and mitigating ESG risks, with support from other operational Committee members from across finance, legal, operations, human resources and communications. It meets at least quarterly and the Chair of the Operational ESG Committee also reports to the Board after each meeting to ensure the Board is kept up to date with progress throughout the year.

Links:

- 📄 See Board governance, Annual Report page 47
- ➔ See ESG governance and oversight, page 22
- ➔ See Sustainability roadmap, page 4
- ➔ See Materiality matrix, page 6
- 📄 See Stakeholders and S172 Statement, Annual Report page 18
- 🖱️ Terms of reference for the ESG Committee can be found on our website here
- 🖱️ See our strategy and business model
- 📄 See Remuneration Report, Annual Report page 55



Task Force on Climate-related Financial Disclosures continued

2

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the Company’s business, strategy and financial planning, where such information is material.

- a. Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.
- b. Describe the impact of climate-related risks and opportunities on the organisation’s businesses, strategy and financial planning.
- c. Describe the resilience of the organisation’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Ceres’ ambition is to enable the world to transition to cleaner more sustainable forms of energy and in doing so make big savings in carbon emissions as our partners scale up from the mid-2020s. The growing demand for clean energy technologies creates a strong business opportunity for Ceres, but changing political landscapes and legislation may also create market uncertainty and Ceres is alive to the potential for higher operating costs due to the constraint on critical skills, resources, and materials.

Alongside the role its technology plays in enabling the energy system to decarbonise, Ceres seeks to act sustainably in decarbonising its own business. Failure to meet stakeholder expectations on ESG obligations is considered a principal risk for the business. This is addressed through the Company’s strategic planning and ESG priorities. In 2023, Ceres aims to build a science-based carbon reduction pathway in line with SBTi guidance to achieve net zero emissions before 2050.

To align decision making and ownership, ESG metrics are included in the KPIs to be met for Executive remuneration.

In this first TCFD report, the ESG Committee has assessed the potential severity of risks and the possible benefits of the opportunities with the aim of minimising the impact and adapting to opportunities. For this initial year, we used three climate scenarios over two time periods to model the resilience of the business against our identified potential risks.

For further details on the climate-related risks and opportunities that may impact Ceres’ business, please refer to the Scenario analysis on pages 29 and 30 of this report.

Links:

- Results of the scenario analysis are outlined on pages 29 and 30
- See Managing sustainability risks on page 25
- See Carbon saving calculator
- See Sustainability roadmap, page 4
- See Materiality matrix, page 6

3

Risk management

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

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

Climate change is a key risk, and a cross-disciplinary ESG risk register has been compiled by the executive and management team. The register spans areas covering ESG issues, with each focusing on a shifting landscape over various time periods. Each risk is assigned a severity, probability of occurrence, and impact on the business and Group with proposed responses and analysis of post-mitigation severity.

The risk register is reviewed by the ESG Committee and significant risks referred to the Audit Committee for inclusion in the Board-level risk register. All risks with a high impact are raised to the Board and considered in step with the business, strategic and financial planning. In addition, a materiality analysis is conducted by the ESG Committee every two years to identify and prioritise material ESG issues through engagement with various stakeholders.

Existing and emerging regulatory requirements related to climate change are considered in both our response as a business, but also with regard to opportunities for the business. For example, changing legislation on air quality and emissions is driving the move towards the adoption of greener technology solutions.

Climate adaption risks are also considered at a site level. Integrated Management Systems (IMS) cover the business’ main sites, its Technology Innovation Centre in Horsham and Manufacturing Innovation Centre in Redhill, and hosts ISO9001 and ISO14001 management systems. Each site is audited externally (every three years) or internally. We have also sought to collaborate with the licensee partners and understand their mitigation and adaptation plans for their key manufacturing sites for our technology.

With regards to the supply chain, sustainability risks (including natural and climate-related hazards), are embedded into Supplier Risk Assessment. This process enables to define risk mitigation action plans with suppliers, as well as prioritise multi sourcing strategies. The Company continually monitors events and critical supplier locations to shorten reaction time when events occur and minimise business impact.

At present, the impact of climate-related matters is not material to the Ceres’ financial statements.



Task Force on Climate-related Financial Disclosures continued

4

Metrics and targets

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

- Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management processes.**
- Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks.**
- Describe the targets used by the organisation to manage climate-related risk and opportunities and performance against targets.**

Metrics to assess climate-related risks and opportunities include climate risk and environmental profiling data including life cycle analysis, water use, energy use and carbon emissions intensity. Each year, Ceres discloses its greenhouse gas ("GHG") emissions for Scope 1, 2 and limited Scope 3 SECR verified emissions reporting. Starting in 2022 we have provided spend base data for additional Scope 3 emissions covering our value chain.

In addition, Ceres has started to consider the potential positive impact, from carbon avoided through use of its technology. For further information, see the Carbon saving calculator on the website.

Ceres is targeting net zero, and to do so we are first improving our GHG emissions data collection process and data quality. We engage with Ricardo Energy & Environment, which verifies that our Scope 1, 2 and 3 data sources and calculations are robust, where we currently use a manual process to collect, categorise and calculate our emissions using the spend-based methodology in alignment with the [Greenhouse Gas Protocol Accounting and Reporting Standard](#) and Scope 3 guidance documents and in accordance with ISO 14064-1.

To enable a successful net zero strategy, we will need to focus on high-impact hotspots of our emissions. As we improve our emissions calculation process and the granularity of our data, we can create emissions reduction pathways such as the purchasing of our steel to produce our fuel cells. Since our supply chain constitutes a large proportion of our emissions, supply chain engagement and sustainable procurement will play a key role in meeting these targets. In the future we will pair up more accurate and specific emissions calculation methods with our ongoing life cycle assessment (LCA) work, to better identify where emissions reductions can be achieved and to improve the accuracy of our emissions reporting.

Links:

- See energy use and GHG emissions reporting, page 10
- See Sustainability roadmap, page 4
- See Carbon saving calculator - Ceres

Reaching multi-gigawatts of global capacity by 2030 has the potential to displace up to

1.6 million tonnes of CO₂ per gigawatt each year

compared to conventional technology in an average G20 country





Task Force on Climate-related Financial Disclosures

Scenario analysis

Ceres has analysed climate related risks and opportunities that may impact its business operations. In accordance with TCFD guidelines, the risks are differentiated as transition or physical risks, with impacts assessed across three different scenarios over two time periods, until 2030 and to 2050. This aligns with our proposed approach to developing a Net Zero Strategy with guidance from the Science Based Targets initiative.

- 1.5°C scenario - Limiting global temperature to 1.5°C would require strong policy implementation from governments to enforce emissions reductions, likely with variation across industries. This would result in swift adoption of new, clean technologies and significant penalties for non-compliance.
- 2.0°C scenario – This scenario would result in more moderate adoption of new, clean technologies, but would be supported with greater use of carbon-removal technologies. Legislation would be introduced early and become more globally consistent and binding over time.
- +3.0°C scenario – The current policies of global governments are not aggressive enough to adequately limit global temperatures and are projected to result in a global

temperature increase of more than 3.0°C. This scenario is likely to result in significant physical risks, with potentially greater impacts on global operations and supply chains.

Ceres aims to embed its technology with global partners, who then design and manufacture products and systems at scale for various applications and geographies. From its base in the UK, Ceres focuses on innovation and R&D, transferring technology under licence. Hence, this first disclosure of scenario analysis reflects this business model and small asset footprint, and represents a high-level assessment of the climate risks and opportunities to Ceres as it stands today.

As partners adopt its clean energy technology and build global capacity and scale, Ceres will seek to disclose its climate-related risks and opportunities with greater detail and accuracy. Scaling technology comes with an environmental cost, likely to be reflected in our analysis of climate related risks, but any increase in the environmental impact of Ceres's own footprint is likely to be drastically outweighed by the opportunity its technology will have on the world's ability to decarbonise.

Opportunities for the energy transition		Scenario	2030	2050	Ceres' opportunity
Policy incentives and capital allocation for scaling of clean energy technologies	Increased funding from public sector and investors to accelerate scaling up of fuel cell and hydrogen technologies	1	High	High	Ceres indirectly benefits from global partners accessing government funding e.g. Bosch recently received €160m of European subsidies for its SOFC manufacturing
		2	Moderate	High	
		3	Low	Moderate	
Technology revolution to support the energy transition, requiring huge amounts of renewable energy and green hydrogen	Prosecute our licensing model to deliver clean energy technology that bridges molecules and electrons	1	High	High	Hydrogen is predicted to account for ~18% of primary energy and create a ~\$2.5tn market opportunity
		2	Moderate	Low	
		3	Low	Moderate	





Scenario analysis continued

Risk			Impact on Ceres' business	Scenario	2030	2050	Ceres' actions
Transition risks	Policy and legal	Increased regulations and pricing on GHG emissions	Greater costs associated with emissions reduction, monitoring and reporting obligations	1	<div></div>	<div></div>	<ul style="list-style-type: none">• Pursue carbon abatement through SBTi guided carbon reduction pathway• Set clear strategy to reduce the carbon footprint of our business• Assess carbon intensity of supply chain through Scope 3 emissions assessment
				2	<div></div>	<div></div>	
				3	<div></div>	<div></div>	
	Market	Global economic and physical disruption increasing cost and availability of resources	Higher operating costs due to increased price and reduced availability of critical skills, resources and materials	1	<div></div>	<div></div>	<ul style="list-style-type: none">• Engage with supply chain on climate-related and sustainability risks• Procurement strategy to ensure multiple sources of key materials• Integrate implication of climate change into development of assets and partners• Building our skills pipeline for a green energy future
				2	<div></div>	<div></div>	
				3	<div></div>	<div></div>	
	Policy and legal	Changing geopolitical landscape and legislation	Incompatibility with our technology resulting in reduced production and royalties or limited opportunity for growth	1	<div></div>	<div></div>	<ul style="list-style-type: none">• Continuing evaluation of global climate regulation and policy landscape• Monitoring of changes in global sustainability regulations• Engagement with government to understand expectations and directives
				2	<div></div>	<div></div>	
				3	<div></div>	<div></div>	
	Reputation	Enhanced emission-reporting obligations	Lack of transparency and adherence could limit access to financing while threatening a strong and sustainable stakeholder base	1	<div></div>	<div></div>	<ul style="list-style-type: none">• Transparent disclosure of ESG performance• Include cost of carbon in forward financial planning• Strong governance and investor relations communication
				2	<div></div>	<div></div>	
				3	<div></div>	<div></div>	
	Technology	Uncertainty in market signals due to cost to transition to lower emissions technologies	Slower than expected take up of new technologies and decarbonisation due to macro factors, cost concerns, security of supply etc.	1	<div></div>	<div></div>	<ul style="list-style-type: none">• Stay at the leading edge of innovation, with a focus on cost, life and durability• Flexible technology that meets emissions standards for multiple applications and geographies• Horizon scanning for further and future technologies beyond solid oxide
				2	<div></div>	<div></div>	
				3	<div></div>	<div></div>	

Risk			Impact on Ceres' business	Scenario	2030	2050	Ceres' actions
Physical risks	Acute	Increasing frequency of severe climate events	Impacts on production plants or their suppliers thus resulting in lost royalties Increased cost of insurance for physical assets	1	<div></div>	<div></div>	<ul style="list-style-type: none">• Strong business continuity planning• Diversification of license partners• Diversification of applications and geographies
				2	<div></div>	<div></div>	
				3	<div></div>	<div></div>	
	Chronic	Increasing temperatures affecting working environment and natural resource availability	Increased capital and operations costs to maintain product quality eg. water scarcity and power supply disruptions	1	<div></div>	<div></div>	<ul style="list-style-type: none">• Integrate implication of climate change into asset and site resilience• Collaboration with partners on development of manufacturing sites• Build strong and localised supply chains
				2	<div></div>	<div></div>	
				3	<div></div>	<div></div>	

Legend for the climate-related risks table:

- Low financial risk
- Moderate financial risk
- High financial risks

Scenario 1: Strong policy induction limits global temperatures to 1.5°C

Scenario 2: Moderate adoption of new, clean technologies results in 2°C temperature rise

Scenario 3: Current policies of global governments are not aggressive enough, resulting in +3.0°C temperatures

SASB index

For full details on Ceres compliance with SASB reporting, see our SASB report on the [Ceres website](#).

Code	Metric	Reference
Energy management		
RR-FC-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	➔ See Sustainability key performance indicators, page 5
Workforce health and safety		
RR-FC-320a.1	(1) Total recordable incident rate, (2) fatality rate	➔ See Health and safety, page 15
RR-FC-320a.2	Description of efforts to assess, monitor, and reduce exposure of workforce to human health hazards	➔ See Health and safety, page 15
Product efficiency		
RR-FC-410a.2	Average energy efficiency of fuel cells as (1) electrical efficiency and (2) thermal efficiency, by product application and technology type	➔ See UN SDGs, page 7
RR-FC-410a.4	Average operating lifetime of fuel cells, by product application and technology type	📖 See Annual Report 2022, page 13
Product end-of-life management		
RR-FC-410b.1	Percentage of products sold that are recyclable or reusable	➔ Not included at this time, more information about recyclability and reusing inquiries on page 13
RR-FC-410b.2	Weight of end-of-life material recovered, percentage recycled	➔ See Recyclability and waste, page 13
RR-FC-410b.3	Description of approach to manage use, reclamation, and disposal of hazardous materials	➔ See Recyclability and waste, page 13
Materials sourcing		
RR-FC-440a.1	Description of the management of risks associated with the use of critical materials	➔ See Scenario analysis, page 30
Activity metrics		
RR-FC-000.A	Number of units sold	➔ See Emissions and energy reporting, page 10
RR-FC-000.C	Total energy production capacity of fuel cells sold	➔ For our capacity, see Emissions and energy reporting, page 10. or our partners capacity, see UN SDGS, page 7

Ceres operates a technology licensing business model; we do not intend to mass manufacture technology or products at scale. Ceres has elected to remove references to batteries, which are not within the scope of its business.



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