C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Littelfuse is a diversified, industrial technology manufacturing company empowering a sustainable, connected, and safer world. Working across more than 20 countries, our approximately 18,000 global associates partner with customers to design and deliver innovative, reliable solutions. Serving over 100,000 end customers, our products are found in a variety of industrial, transportation, and electronics end markets—everywhere, every day. Headquartered in Chicago, Illinois, United States, Littelfuse has been driving innovation and technology, and building communities for over 95 years.

Over the past few years, Littelfuse has strategically positioned the business within the long-term structural growth themes of sustainability, connectivity, and safety. We have proven our commitment to being our customer's supplier of choice by enhancing our global capabilities and product portfolio through organic investments and strategic acquisitions. In 2022 we achieved record levels of sales, earnings, and cash generation, including double-digit sales growth in each of our business segments. We achieved these outstanding results by continuing to expand our leadership in high-growth end markets with significant new business wins and strategic acquisitions.

The global structural themes of sustainability, connectivity, and safety are interconnected and are driving innovation and growth across the industrial, transportation and electronics end markets we serve. Given our company's diversified technologies and capabilities we play a significant role in the advancement of these themes.

Within our industrial end markets, our capabilities are critical to enabling customers' high-voltage applications focused on sustainability and safety. In renewables our company-wide portfolio and variety of new products won us significant business to grow our market share. In the area of safety, new electrical standards require our application expertise and innovative solutions to achieve compliance. In commercial and residential HVAC, systems are required to meet energy efficiency and safety standards. Efficiency and safety requirements also pertain to electrical infrastructure, motor drives, power supplies, factory automation, and manufacturing equipment.

In transportation, we are partnering with our customers to drive key developments in the electrification and electronification of passenger and commercial vehicles. We secured electric vehicle design wins for battery management systems, high-voltage power, distribution, and on-board chargers.

In electronics, with the ongoing push towards energy efficiency and battery power, we serve customers in appliances, general-purpose tools and electronics, and electric bicycles. Greater connectivity requirements drove new business in data centers, telecom infrastructure, and building technologies and automation. Our products are vital to safety, as we serve customers across security systems and a variety of medical devices.

Littelfuse is committed to conducting its manufacturing and distribution operations in a responsible manner that protects the environment and ensures the safety and welfare of its employees, customers, and communities.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 2 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 3 emissions data for
1 year

C0.3

(C0.3) Select the countries/areas in which you operate.

China
Germany
Italy
Japan
Lithuania
Mexico
Philippines
Portugal
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	LFUS

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	The Board of Directors has delegated responsibility for oversight of the Company's sustainability program to the Nominating and Governance Committee ("NGC"). The Board of Directors delegated their oversight responsibility to the NGC to ensure the sustainability program received appropriate input and direction from members of the Board with expertise in climate-related issues and governance issues. The NGC regularly reviews the Company's sustainability program, various climate-related issues including the Company's participation in the CDP disclosure program and approves the publication of the annual sustainability report. The Audit Committee of the Board of Directors annually reviews physical climate-related risks within the Company's business continuity plan and enterprise risk management program.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing and guiding strategy Monitoring progress towards corporate targets Other, please specify (Annual Approval of Sustainability Report)	<Not Applicable>	A key element of our business strategy is to achieve double-digit revenue growth by pursuing high-growth markets and geographies and making strategic acquisitions. For Littelfuse, those high-growth markets include products that enable increased energy efficiency and renewable energy. Therefore, the CEO and Board review the overall company strategy, the allocation of budgets for expansion in these high-growth markets, and potential mergers and acquisitions of companies that align with these growth targets. The Nominating and Governance Committee of the Board of Directors has oversight responsibility for the Company's sustainability program, and overall strategy. This includes review and approval of the targets, and progress published in the annual sustainability report.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	The climate-related competence of certain members of our Board of Directors was based upon prior C-suite management experience with oversight responsibility or providing guidance and direction for sustainability and environment, health and safety programs at publicly traded companies.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
General Counsel

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Managing climate-related acquisitions, mergers, and divestitures
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
The Chief Legal Officer (General Counsel) has overall responsibility for establishing the Company's climate-related strategy, goals and targets, and for maintaining our ESG Policy, integration within our operations and training initiatives. The Chief Legal Officer also serves as the Executive Vice President, Mergers & Acquisitions and has overall responsibility for the Company's mergers and acquisitions strategy.

Position or committee
Sustainability committee

Climate-related responsibilities of this position
Providing climate-related employee incentives
Integrating climate-related issues into the strategy
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Corporate Sustainability/CSR reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Annually

Please explain
The Global Sustainability Steering Committee, acting under the direction of the Chief Legal Officer, meets on a regular basis to drive sustainability initiatives, including development of goals and key performance indicators, and monitor performance of initiatives for each material topic. The Committee additionally reviews feedback from stakeholders and develops the overall climate-related strategic roadmap with short-term, mid-term, and long-term priorities that is approved by the Chief Legal Officer.

Position or committee
Environmental, Health, and Safety manager

Climate-related responsibilities of this position
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Other, please specify (The Global EHS Director reports directly to the Chief Legal Officer)

Frequency of reporting to the board on climate-related issues via this reporting line
Not reported to the board

Please explain
The Global EHS Director assists in developing the Company's climate-related targets, and engages with the key manufacturing sites to conduct energy audits, and provide environmental data, evaluate progress, and recommend any necessary corrective action plans. In addition the Global EHS Director serves on the Global Steering Committee, and helps to evaluate climate-related risks and opportunities and develop action plans to mitigate any risk identified.

Position or committee
Environment/ Sustainability manager

Climate-related responsibilities of this position
Providing climate-related employee incentives
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Other, please specify (The Sustainability Manager reports directly to the Chief Legal Officer)

Frequency of reporting to the board on climate-related issues via this reporting line
Half-yearly

Please explain
The Sustainability Manager has overall responsibility for managing the Global Sustainability Steering Committee, making recommendations on climate-related topics, analyzing stakeholder feedback, and setting and monitoring progress towards climate-related targets. The Sustainability Manager provides input to internal audit and helps drive climate-related risk and opportunity management. In addition, the Sustainability Manager is responsible for global sustainability reporting, and communication initiatives including employee engagement.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Yes, we provide non-monetary incentives to our manufacturing locations for achievement of certain sustainability-related performance milestones within our Littelfuse Operating System program. In addition, as part of our Enterprise Lean Six Sigma, we have global recognition programs for projects that drive waste reduction across the business. We plan to further expand our recognition programs for all employees in the next two years.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Other, please specify (All manufacturing site employees)

Type of incentive
Non-monetary reward

Incentive(s)
Internal company award
Internal team/employee of the month/quarter/year recognition

Performance indicator(s)
Progress towards a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Energy efficiency improvement
Increased share of low-carbon energy in total energy consumption
Increased share of renewable energy in total energy consumption
Reduction in total energy consumption

Incentive plan(s) this incentive is linked to
Not part of an existing incentive plan

Further details of incentive(s)
We provide non-monetary incentives to our manufacturing locations for achievement of certain sustainability-related performance milestones within our Littelfuse Operating System program. In addition, as part of our Enterprise Lean Six Sigma, we have global recognition programs for projects that drive waste reduction across the business.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The Littelfuse Operating System (LFOS) includes achievement awards for our manufacturing sites to complete various levels of excellence that support our corporate strategy. A facility may progress from Bronze, to Silver, to Gold status as part of LFOS. Achievement of the Gold status would indicate that the site is a key contributor to climate-related issues, including achievement of best-in-class water, waste, energy, and GHG reduction or conservation.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	We assess short-term, physical climate-related risks such as cyclones, hurricanes, and typhoons as risks that may impact the company within the next two years . Assessment of these physical risks are addressed at the manufacturing site level and includes regular review of facility infrastructure. This timeframe aligns to the Company's strategic plan and is consistent with the Enterprise Risk Management process.
Medium-term	2	4	We assess medium-term, climate-related risks and opportunities as those that may impact the company within the next two to five years. We look for opportunities to improve the material usage and energy efficiency of our products during this timeframe. This timeframe aligns to the Company's strategic plan and is consistent with the Enterprise Risk Management process.
Long-term	5		We assess long-term climate-related risks and opportunities as those that may impact the company in more than five years. We establish and evaluate our GHG reduction targets around these timeframes. This timeframe aligns to the Company's strategic plan and is consistent with the Enterprise Risk Management process.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Our global risk and opportunity identification process is in line with industry standards and our financial reporting thresholds. Any significant impact to Littelfuse – whether it is financial, operational, compliance, or strategic – is classified as an impact greater than 5% of pre-tax income. However, with respect to risks related to climate change, we have identified risks and opportunities at a lower impact level given that many risks and opportunities related to climate change will require proactive measures and actions to be taken by our Management.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Through an integrated approach starting with our Board of Directors oversight, identification, and management by our leadership team as well as management processes and detailed operations focus, we are committed to managing risk appropriately for our company. We sufficiently identify and weigh the potential risk and potential reward, and find appropriate means to control risk.

Our approach: The Board's role in risk oversight includes receiving regular reports from members of management on areas of material risk to the Company, including operational, financial, legal, regulatory, compensation and strategic risks. These reports include communications from management when potentially significant new risks develop. The full Board, or the appropriate committee, receives these reports from management to enable it to understand our risk identification, risk management and risk mitigation strategies. Our Board committees meet regularly and report to the full Board on risk management matters. This enables the Board and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

The Company manages risk through an Enterprise Risk Management (ERM) process, which is in place to identify, monitor and mitigate risks that could materially impact the organization's ability to meet strategic and financial performance objectives. Executive leadership owners are identified for each significant risk. These owners manage mitigation activities and continually monitor the risk through key indicators. The Company's significant risks are re-evaluated every six months, with additional assessments based on significant changes to the company's portfolio, global footprint, or business landscape.

In addition to managing global, enterprise risk through it's ERM, we are dedicated to maintaining business continuity and mitigating the impact of various risks at our manufacturing sites, including related to physical climate change resulting from events like hurricanes, cyclones, heatwaves, cold waves, and floods. Our manufacturing sites have comprehensive business continuity plans in place to address these potential challenges, and these plans are reviewed and evaluated annually to assess the overall risk to the company's operations.

In 2022, we formed a cross-functional Climate Risk and Opportunities Committee to formalize and broaden the company's process to identify both physical and transition climate risks and opportunities. The Committee, overseen by the Chief Legal Officer, works in conjunction with various functions across the company to systematically identify and evaluate these risks and opportunities. With a focus on ensuring alignment with the company's overall ERM, the Committee meets every six months to assess significant changes in the company's portfolio, global footprint, or business landscape. CDP benchmarking data is also utilized to inform the Committee and assess what risk and opportunities our industry peers are identifying. Utilizing the key risk types identified by the Task Force on Climate-Related Financial Disclosure, our Committee reviews each risk type, the primary potential impact on Littelfuse, time horizon, likelihood and impact. Any significant risks and opportunities identified by the Committee are reviewed by the senior leadership team, and necessary mitigation or action plans are approved and implemented.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. The Company is subject to numerous foreign, federal, state, and local regulations relating to air and water quality, the disposal of hazardous waste materials, safety and health. Compliance with applicable environmental regulations is managed by our global EHS function. In addition, with the increasing product regulations that impact our business, such as REACH, RoHS, Dodd-Frank Act, etc., we have a dedicated Product Environmental Compliance Committee formed to help assess impact and monitor compliance. As we closely monitor our compliance with these regulations and through these mitigation actions, we do not currently view these regulations as having a material risk on our business.
Emerging regulation	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. We manufacturer and sell products globally and fully expect greenhouse gas regulations to evolve. We are constantly monitoring potential changes in regulations and evaluate this risk at least annually to identify any material regulations and potential impact on Littelfuse. Currently, we do not view any emerging regulation as presenting a material risk on our business.
Technology	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. As the world transitions to a low-carbon economy, and increases the use of renewable energy sources, our primary risk driver is related to transition of lower emission technology and equipment within our manufacturing sites. As our corporate strategy is based on the structural themes of sustainability, connectivity, and safety, driving innovative development of components that enable lower-emission products is a key growth opportunity for Littelfuse across the industrial, transportation and electronics end markets we serve. Given our diversified technologies and capabilities we play a significant role in the advancement of these themes.
Legal	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. The risk of climate-related regulations and litigation are inherent to our business as a global diversified industrial technology manufacturing company. Compliance with laws and management of litigation, including climate-related, is managed by our global Legal function and accordingly we do not currently view climate-related litigation as a material risk to our business.
Market	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. The primary drivers of market-based risks for Littelfuse includes changes in customer's applications and increasing cost of raw materials. As customers increasingly require products that support a low-carbon economy, our ability to adapt and continue to innovate with our customers will be critical to our operations. We further anticipate that as the requirement for materials supporting energy efficient products and manufacturing increase, the availability and cost of our raw materials may impact our profitability.
Reputation	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. Customers and investors are increasingly making decisions based our climate-related considerations, however, through our stakeholder engagement described in our Sustainability Report we are monitoring such feedback and at this time do not view climate-related reputational risk material to our business.
Acute physical	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. The assessment and mitigation plans for climate-related acute physical risks such as hurricanes, flooding, or cyclones, are unique to each of our facilities and managed through our facility-level business continuity management (BCM) processes. The BCM team utilizes climate-related risk data from Moody's four twenty-seven (427) platform to help inform decisions around development of necessary mitigation plans. As noted in section 2.3a, we consider the risk of a potential physical climate change event as possibly material.
Chronic physical	Relevant, always included	Our cross-functional Climate Risks and Opportunities Committee assess each risk type identified by the Task Force on Climate Related Financial Disclosure for material risk and opportunities equally. Similar to the mitigation of acute physical risks, we have integrated the assessment of chronic physical risks into our facility-level BCM process. Additionally, the use of the 427 climate-risk data helps drive our decisions on priority mitigation initiatives. For example, we have identified several manufacturing locations in areas of water stress and have therefore emphasized water conservation programs as a priority in those locations. Accordingly, certain potential chronic physical risks are considered to be possibly material to our business.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Cyclone, hurricane, typhoon

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

We have manufacturing sites located in the Philippines, China, Taiwan, and Japan that may be more susceptible to extreme weather events such as hurricanes, typhoons, and flooding that could damage or destroy our facilities or suppliers' facilities, resulting in interruption of production capacity and an increase in operational cost.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The potential financial impact of acute physical risks has not yet been quantified financially.

Cost of response to risk

Description of response and explanation of cost calculation
Littelfuse partners with FM Global engineering who is a leader in the loss prevention space. We utilize FM Global to identify, minimize, and mitigate risks and various exposures to our facilities on a global basis. Short-term events at a site will trigger the Emergency Preparedness and Response Plan, which includes mitigation. The plants have invested in fire prevention and in mitigating high winds, flooding, and loss of power to the grid. Our Lipa, Philippines site installed solar panels on 18,900 square meters. This reduces our greenhouse gas impact and also has the potential to provide faster recovery time, during a natural disaster, if the solar panel power generating system is not damaged.

Comment
As we further assess financial impacts, we may adjust the level of risk.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Water scarcity

Primary potential financial impact
Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
We have manufacturing sites located in Mexico, certain southern U.S. states, and in certain regions in China that are at higher risk for water stress. Water scarcity could impact our semiconductor manufacturing locations that consume more water for production purposes, resulting in higher operating costs to address a potential water shortage.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The impact has not yet been quantified financially.

Cost of response to risk

Description of response and explanation of cost calculation
Littelfuse partners with FM Global engineering who is a leader in the loss prevention space. We utilize FM Global to identify, minimize, and mitigate risks and various exposures to our facilities on a global basis. Short-term events at a site will trigger the Emergency Preparedness and Response Plan, which includes mitigation.

Comment
As we further assess financial impacts we may adjust the level of risk related.

Identifier
Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Customers are continually changing their applications and increasing the requirement for low emission products. To maintain/grow market share and deliver strong financial performance it is imperative that we proactively identify these changing requirements and timely develop new, innovative products that we can timely bring to market.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We have not yet quantified the financial impact of this risk.

Cost of response to risk

Description of response and explanation of cost calculation
We work closely with our customers in the industries and end markets that we serve to quickly identify changing requirements. Through our organic and acquisition strategies and investments we are positioning ourselves well to capture the opportunities associated with these structural growth themes of sustainability, connectivity, and safety. For example, within industrial end markets, our technical expertise and high-performing technologies are critical in enabling customers' high-voltage applications focused on sustainability and safety. We won significant business in renewables, for solar, wind and energy storage systems. In transportation end markets, we secured electric passenger and commercial vehicle design wins for battery management systems, high-voltage power distribution and on-board chargers.

Comment
As we further assess financial impacts we may adjust the level of risk related.

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Market	Increased cost of raw materials

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
As climate-related regulations continue to increase, the demand for low emission products will increase the cost of the raw materials for such products. We expect these costs could materially impact our financial performance.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We have not yet quantified the financial impact of this risk.

Cost of response to risk

Description of response and explanation of cost calculation
Increased cost of raw materials for high and low emission products will impact the entire industry, therefore, our competitors will face the same challenges. Through our organic and acquisition strategies and investments, we believe we are positioned well to compete in this environment and continue executing our long-term growth strategy. We have proven our strong operational performance as well which will help us effectively manage costs.

Comment
As we further assess financial impacts, we may adjust the level of risk.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of new products or services through R&D and innovation

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Transition to a low-carbon market is a significant growth opportunity for Littelfuse. We deliver a broad product portfolio of components and solutions to our customers that help enable our customers' low-carbon applications, including but not limited to, renewables (solar, wind), energy storage, industrial motor drives, power management, HVAC, electric vehicles, and electric vehicle charging infrastructure. Part of our strategy is to also acquire companies that produce products to help enable low-emission applications. For example, we recently acquired Western Automation which produces components for renewables and off-board electric vehicle charging infrastructure.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We have not yet quantified the financial impact of this opportunity.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Our strategy is to continually develop and acquire high-performing products and capabilities to address the increasing demand for low-emission applications. For example, the focus on carbon and environmental impact reductions to reduce global warming is driving the transition from traditional power generation technologies of coal and nuclear to renewable energy generation (wind, solar, and hydro). We design and manufacture a range of components like power and protection semiconductors, fuses, relays, and sensors for all power generation types. A few component examples include DC-AC inverters, output protection, auxiliary power supply, diode arrays, TVS diodes, phase control thyristors, arc-flash relays, varistors, power distribution blocks, many power and protection semiconductor components, current limiting fuses, etc. Overall, we are positioned very well to grow with the evolving end-markets and applications.

Comment
As we further assess the financial impact, we may adjust the opportunities.

Identifier
Opp2

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Transition to a low-carbon market is a significant growth opportunity for Littelfuse. We deliver a broad product portfolio of components and solutions to our customers that help enable our customers' low-carbon applications, including but not limited to, renewables (solar, wind), energy storage, industrial motor drives, power management, HVAC, electric vehicles, and electric vehicle charging infrastructure. Part of our strategy is to also acquire companies that produce products to help enable low-emission applications. For example, we recently acquired Western Automation which produces components for renewables and off-board electric vehicle charging infrastructure.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We have not yet quantified the financial impact of this opportunity.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Our strategy is to continually develop and acquire high-performing products and capabilities to address the increasing demand for low-emission applications. For example, the focus on carbon and environmental impact reductions to reduce global warming is driving the transition from traditional power generation technologies of coal and nuclear to renewable energy generation (wind, solar, and hydro). We design and manufacture a range of components like power and protection semiconductors, fuses, relays, and sensors for all power generation types. A few component examples include DC-AC inverters, output protection, auxiliary power supply, diode arrays, TVS diodes, phase control thyristors, arc-flash relays, varistors, power distribution blocks, many power and protection semiconductor components, current limiting fuses, etc. Overall, we are positioned very well to grow with the evolving end-markets and applications.

Comment
As we further assess the financial impact, we may adjust the opportunities.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Transition to a low-carbon market is a significant growth opportunity for Littelfuse. We deliver a broad product portfolio of components and solutions to our customers that help enable our customers' low-carbon applications, including but not limited to, renewables (solar, wind), energy storage, industrial motor drives, power management, HVAC, electric vehicles, and electric vehicle charging infrastructure. Part of our strategy is to also acquire companies that produce products to help enable low-emission applications. For example, we recently acquired Western Automation which produces components for renewables and off-board electric vehicle charging infrastructure.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We have not yet quantified the financial impact of this opportunity.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
Our strategy is to continually develop and acquire high-performing products and capabilities to address the increasing demand for low-emission applications. For example, the focus on carbon and environmental impact reductions to reduce global warming is driving the transition from traditional power generation technologies of coal and nuclear to renewable energy generation (wind, solar, and hydro). We design and manufacture a range of components like power and protection semiconductors, fuses, relays, and sensors for all power generation types. A few component examples include DC-AC inverters, output protection, auxiliary power supply, diode arrays, TVS diodes, phase control thyristors, arc-flash relays, varistors, power distribution blocks, many power and protection semiconductor components, current limiting fuses, etc. Overall, we are positioned very well to grow with the evolving end-markets and applications.

Comment
As we further assess the financial impact, we may adjust the opportunities.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan
No, our strategy has been influenced by climate-related risks and opportunities, but we do not plan to develop a climate transition plan within two years

Publicly available climate transition plan
<Not Applicable>

Mechanism by which feedback is collected from shareholders on your climate transition plan
<Not Applicable>

Description of feedback mechanism
<Not Applicable>

Frequency of feedback collection
<Not Applicable>

Attach any relevant documents which detail your climate transition plan (optional)
<Not Applicable>

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future
We have established our science-based emissions reduction target of 38% by 2035, in line with keeping global temperatures below 2°C above pre-industrial levels. During 2021, we executed global energy self-assessments within our manufacturing locations and have started to engage external energy auditors in 2022 to help us develop SMART goals to meet this scope 1 and scope 2 emission reduction target. Littelfuse is focusing in 2023 on continuing to operationalize our sustainability program and has invested in a central database to better track, analyze, and report on our sustainability performance. Littelfuse intends to utilize this tool to continue to review and modify our targets in the future, including consideration of alignment with the Science Based Targets Initiative.

Explain why climate-related risks and opportunities have not influenced your strategy
<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	No, and we do not anticipate doing so in the next two years	Important but not an immediate priority	The use of climate-related scenario analysis may be important in the future to analyze risks and opportunities derived from climate change impacts, as the accuracy of such models evolves. Our immediate priority is on implementing a more focused climate-related risk assessment, in addition to our existing enterprise risk management program, in alignment with the TCFD framework. We also believe that investor expectations and the global regulatory environment will drive the prioritization of climate-related scenario analysis for Littelfuse.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Over the last decade, consistent with our growth strategy, we have positioned our company within the mega structural growth theme of sustainability, including, but not limited to, applications like alternative energy (i.e., renewables, solar and wind, and energy storage) electrification, and power management. These types of applications represent climate-related opportunities to increase our product content, and ultimately revenue, with customers as we help to empower their applications. Our business leaders along with our financial planning team identify high-growth and high-return opportunities for capital allocation purposes and to identify capital expenditures/investments required to support our long-term growth targets. For example, we invest in new products to broaden our portfolio, and to expand our capabilities, which may include asset/footprint additions and strategic acquisitions (i.e., Embed acquisition – firmware and software services). Regarding climate-related risks, we also consider and incur direct and indirect costs related to addressing environmental matters, for example where and how we manufacture our products, including performing site resource audits and engaging with suppliers, and the impact on the environment, and what raw materials are consumed during product development and production to understand the impact on the environment and climate, and consider alternatives.
Supply chain and/or value chain	Yes	As part of our supply chain climate-related risks and opportunities strategy, we conduct a supplier risk assessment, scoring our key partners in different environmental, social and governance practices to determine potential supply disruptions or regulatory issues. We incorporate sustainability criteria into supplier selection and performance evaluations. To reduce single sourcing dependence on high-risk areas, we have developed suppliers diversification and work to nearshore critical materials closer to our production sites, besides relocating some of our production lines closer to our customers. We continuously monitor regulatory changes and transportation routes for potential disruptions. Littelfuse engages with our suppliers to ensure alignment with our Code of Conduct principles and encourages them to adopt sustainable practices. Our Continuity Business Plans support our resilient supply operations.
Investment in R&D	Yes	The company's products help empower customers' applications which address climate-related issues like, but not limited to, renewable energy, electric vehicles and charging infrastructure, and power management. Our combined engineering and business leaders consider climate-related matters to identify product opportunities. This evolving analysis helps to inform our R&D efforts and investments, for example innovative products for electrification and electronification of vehicles, and alternative energy applications.
Operations	Yes	Our Littelfuse Operating System (LFOS) is aligned with our strategic priorities through the creation of True North Metrics. Each True North Metric has an owner and all our manufacturing sites are assessed on their progress towards meeting established KPIs for each metric. Climate-related risks and opportunities have impacted our company's strategy through the creation of multiple climate-related True North Metrics, including sustainability, business continuity planning, and supply chain management. We have dedicated 1% of our manufacturing employee base to hire personnel dedicated to implementing our Lean manufacturing philosophy, and our LFOS globally. Through these resources, we drive accountability for our global locations to achieve key milestones related to climate issues.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation	These types of applications represent climate-related opportunities to increase our product content, and ultimately revenue, with customers as we help to empower their applications. Our business leaders along with our financial planning team identify high-growth and high-return opportunities for capital allocation purposes and to identify capital expenditures/investments required to support our long-term growth targets. For example, we invest in new products to broaden our portfolio, and to expand our capabilities, which may include asset/footprint additions and strategic acquisitions (i.e., Embed acquisition – firmware and software capabilities). Regarding climate-related risks, we also consider and incur direct and indirect costs related to addressing environmental matters, for example where and how we manufacture our products, including performing site resource audits and engaging with suppliers, and the impact on the environment, and what raw materials are consumed during product development and production to understand the impact on the environment and climate, and consider alternatives.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, and we do not plan to in the next two years	<Not Applicable>

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Is this a science-based target?
No, but we anticipate setting one in the next two years

Target ambition
<Not Applicable>

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Intensity metric
Other, please specify (Metric tons of CO2e per Million $ USD Sales)

Base year
2019

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
19

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
59

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
78

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
99

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
99

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
<Not Applicable>

% of total base year emissions in all selected Scopes covered by this intensity figure
99

Target year
2035

Targeted reduction from base year (%)
38

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]

% change anticipated in absolute Scope 1+2 emissions
38

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
13

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
42

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
55

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
We used SBTi methodology to calculate our Scope 1 and Scope 2 reductions to well below 2 deg C using the SBT tool (v1.2.1). A few weeks after we publicly announced the target, SBTi announced that they would no longer accept a 2 deg C target and would only accept a 1.5 deg C target.

In 2022, we introduced a central platform that enables our manufacturing facilities to input their environmental data and identify opportunities for GHG, energy, water, and waste reduction. By focusing on our sites with the most significant environmental impact, we can efficiently take actions to achieve our goal of a 38% reduction in scope 1 and scope 2 GHG emission by 2035. As a result, we have decided to report only GHG emissions and reduction initiatives from our in-scope manufacturing sites, as our non-manufacturing locations make up less than 1% of our total emissions. Each year as part of our GHG Inventory Management Plan review, we will review the total emissions of all global non-manufacturing locations and report additional information if the total emissions exceed 5% of our overall emissions.

Plan for achieving target, and progress made to the end of the reporting year
During 2021 we completed self-audits through a robust energy checklist to help each site identify opportunities for reducing their energy consumption. Our program further encourages our sites to:

1. Identify all significant energy using (SEU) equipment at the facility
3. Ensure that SEU equipment meets industry standards for current energy-efficient technologies available and has variable frequency drive capabilities

4. Measure, record, and monitor energy usage. Analyze performance and trends during plant management review meetings
5. Develop an action plan to achieve energy efficiency

While energy efficiency in facilities is our focus, we also look to increase the use of renewable energy in our operations with PPAs (power purchasing agreements), solar panels, and other sources. For example, we made significant progress towards the achievement of our GHG emission target, driven by our Lipa, City, Philippines site initiating a project to install solar panels on 18,900 square meters of idle roof space. We expect this long-term investment to significantly reduce our emissions.

In 2022, select facilities further engaged external consultants to evaluate their energy opportunities. The initial results of these engagements on our overall energy intensity decreasing by 11% in 2022, our use of renewable energy increasing by 138%, and overall energy consumption increase of 7%.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	1	9
Implementation commenced*	1	10
Implemented*	11	4028
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes	Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
370.24

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
63278

Investment required (unit currency – as specified in C0.4)
69451

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Reduction of electricity consumption in one of Littelfuse's manufacturing facilities in China.

Initiative category & Initiative type

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)
185.29

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
43561

Investment required (unit currency – as specified in C0.4)
195928

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Reduction of electricity consumption in one of Littelfuse's manufacturing facilities in China.

Initiative category & Initiative type

Waste reduction and material circularity	Waste reduction

Estimated annual CO2e savings (metric tonnes CO2e)
4.52

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 3 category 5: Waste generated in operations

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
25830

Investment required (unit currency – as specified in C0.4)
32000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Reduction of waste in one of Littelfuse's manufacturing facilities in China.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
78.43

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
14000

Investment required (unit currency – as specified in C0.4)
14285

Payback period
1-3 years

Estimated lifetime of the initiative
3-5 years

Comment
Reduction of electricity consumption in one of Littelfuse's manufacturing facilities in China.

Initiative category & Initiative type

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)
78.7

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
26000

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Reduction of electricity consumption in one of Littelfuse's manufacturing facilities in Japan.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
129.62

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
50000

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
>30 years

Comment
Reduction of electricity consumption in one of Littelfuse's manufacturing facilities in Japan.

Initiative category & Initiative type

Waste reduction and material circularity	Waste reduction

Estimated annual CO2e savings (metric tonnes CO2e)
45.07

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 3 category 5: Waste generated in operations

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
37000

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
3-5 years

Comment
Reduction of waste in one of Littelfuse's manufacturing facilities in Mexico.

Initiative category & Initiative type

Non-energy industrial process emissions reductions	Process equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
614.11

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
20000

Payback period
No payback

Estimated lifetime of the initiative
3-5 years

Comment
Reduction of refrigerants use in one of Littelfuse's manufacturing facilities in Mexico.

Initiative category & Initiative type

Energy efficiency in production processes	Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
355.9

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
126000

Investment required (unit currency – as specified in C0.4)
257597

Payback period
4-10 years

Estimated lifetime of the initiative
11-15 years

Comment
Sourcing of renewable electricity in one of Littelfuse's manufacturing facilities in the Philippines.

Initiative category & Initiative type

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)
156.6

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
344875

Investment required (unit currency – as specified in C0.4)
690038

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Sourcing of renewable electricity in one of Littelfuse's manufacturing facilities in the Philippines.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Littelfuse is committed to operating in compliance with all applicable environmental regulations in countries where we operate, and our global EHS team monitors our compliance with emissions reduction standards and regulations.
Financial optimization calculations	Our standard Return on Investment criteria for capital projects includes the consideration for emission reduction benefits.
Internal incentives/recognition programs	We use the Littelfuse Operating System (LFOS) to establish uniform processes for our sustainability focus to continuously improve energy, water and waste reductions. Each site develops action plans and implement projects to reduce our overall environmental footprint which will decrease our overall operating cost.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Power	Other, please specify (Power Management Semiconductors, Power Distribution Modules, Ground Fault Relays, Fuses, etc.)

Description of product(s) or service(s)
The list of products above all contribute to a lower carbon footprint. There are two ways Littelfuse is impacting the carbon footprint: 1.) Littelfuse designs smaller and lighter components to enable our customers to reduce the size and weight of end products and 2.) Littelfuse is empowering its customers applications focused on sustainability (renewable energy, power efficiency, electrification, etc.).

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
No

Methodology used to calculate avoided emissions
<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
<Not Applicable>

Functional unit used
<Not Applicable>

Reference product/service or baseline scenario used
<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario
<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions
<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	In 2022, we introduced a central platform that enables our manufacturing facilities to input their environmental data and identify opportunities for GHG, energy, water, and waste reduction. By focusing on our sites with the most significant environmental impact, we can efficiently take actions to achieve our goal of a 38% reduction in scope 1 and scope 2 GHG emission by 2035. As a result, we have decided to report only GHG emissions and reduction initiatives from our in-scope manufacturing sites, as our non-manufacturing locations make up less than 1% of our total emissions.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because the impact does not meet our significance threshold	<Not Applicable>	Littelfuse defines a "Significance Threshold" requiring a change in the base year emissions as a significant structural or methodology change or discovery of error(s) resulting in at least a 5% change in total corporate-wide GHG emissions over or under the emissions that would result if a correction is not made. Also, a Significance Factor of 20% change in individual facility GHG emissions from the previous year's emissions will trigger an internal verification review for that facility. The Sustainability Team will evaluate the Significant Thresholds on an annual basis and may make adjustments to the thresholds as deemed appropriate once additional historical data is developed for the facilities.	Please select

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
28093

Comment
Slight modification to this emissions total has been made (reduction of 140 metric tons CO2e) as we have re-aligned on reporting emissions only from our manufacturing locations.

Scope 2 (location-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
106915

Comment
Slight modification to this emissions total has been made (reduction of 2,297 metric tons CO2e) as we have re-aligned on reporting emissions only from our manufacturing locations.

Scope 2 (market-based)

Base year start
January 1 2019

Base year end
December 31 2019

Base year emissions (metric tons CO2e)
89109

Comment
Slight modification to this emissions total has been made (reduction of 2,296 metric tons CO2e) as we have re-aligned on reporting emissions only from our manufacturing locations.

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
208915

Comment
Modification to this emissions total has been made from our prior CDP disclosure (a 6.6% reduction of 14,782 metric tons CO2e) as we have further improved our methodology to collect and categorize our spend data .

Scope 3 category 2: Capital goods

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
32602

Comment
Slight modification to this emissions total has been made from our prior CDP disclosure (reduction of 34 metric tons CO2e) as we identified a rounding error in our prior disclosure.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
42583

Comment
Slight modification to this emissions total has been made from our prior CDP disclosure (reduction of 464 metric tons CO2e) as a result of further data validation of our internal audit.

Scope 3 category 4: Upstream transportation and distribution

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
123877

Comment
Prior 2019 base year has been reset to 2021 to ensure consistent reporting methodology and process governance.

Modification to this 2021 emissions total has been made from our prior CDP disclosure (a 62.5% increase of 47,658 metric tons CO2e) as our assumption on the split between air, ground and water freight was modified to reflect actual spend-based percentages for each freight mode, rather than volume.

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
1373

Comment
Prior 2019 base year has been reset to 2021 to ensure consistent reporting methodology and process governance.

Slight modification to this 2021 emissions total has been made from our prior CDP disclosure (increase of 229 metric tons CO2e) as a result of further data validation of our internal audit.

Scope 3 category 6: Business travel

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
2644

Comment
Prior 2019 base year has been reset to 2021 to ensure consistent reporting methodology and process governance.

Scope 3 category 7: Employee commuting

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
19892

Comment
Modification to this emissions total has been made from our prior CDP disclosure (a 208% increase of 13,438 metric tons CO2e) as we modified our reporting methodology to be based on emission estimates from publicly available statistics describing the commuting travel modes' breakdown and average distances by location, and on travel mode-specific emission factors from UK Government (DEFRA-BEIS) 2022 Conversion Factors for Company Reporting of GHG emissions. Emissions from teleworking were estimated based on the number of employees working from home by location multiplied by a ratio of incremental electricity and natural gas use from a baseline due to working from home. Baseline and ratio of incremental energy intensity come from IEA. Electricity emissions factors come from IEA (2021) and EPA's eGrid 2021.

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
24594

Comment
Prior 2019 base year has been reset to 2021 to ensure consistent reporting methodology and process governance.

Modification to this emissions total has been made from our prior CDP disclosure (a 62.5% increase of 9,462 metric tons CO2e) as our assumption on the split between air, ground and water freight was modified to reflect actual spend-based percentages for each freight mode, rather than volume.

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
32622

Start date
January 1 2022

End date
December 31 2022

Comment
2022 Scope 1 emissions reported in this question include emissions of the 27 manufacturing sites included in our 2022 GHG inventory boundary (cf. response to question C5.1b).

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
35962

Start date
January 1 2021

End date
December 31 2021

Comment
Slight modification to this emissions total has been made (reduction of 115 metric tons CO2e) as we have re-aligned on reporting emissions only from our manufacturing locations.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
27076

Start date
January 1 2020

End date
December 31 2020

Comment
Slight modification to this emissions total has been made (reduction of 352 metric tons CO2e) as we have re-aligned on reporting emissions only from our manufacturing locations.

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)
28093

Start date
January 1 2019

End date
December 31 2019

Comment
Slight modification to this emissions total has been made (reduction of 140 metric tons CO2e) as we have re-aligned on reporting emissions only from our manufacturing locations.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
We report both Scope 2 location-based and Scope 2 market-based emissions, although our reduction target is based on Scope 2 (market-based) emissions.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
133534

Scope 2, market-based (if applicable)
106747

Start date
January 1 2022

End date
December 31 2022

Comment
2022 Scope 2 emissions reported in this question include emissions of the 27 manufacturing sites included in our 2022 GHG inventory boundary (cf. response to question C5.1b).

Past year 1

Scope 2, location-based
117696

Scope 2, market-based (if applicable)
112256

Start date
January 1 2021

End date
December 31 2021

Comment
Slight modification to this emissions total has been made (reduction of 2,177 metric tons CO2e for Scope 2, location-based and market-based emissions) as we have re-aligned on reporting emissions only from our manufacturing locations.

Past year 2

Scope 2, location-based
106597

Scope 2, market-based (if applicable)
89995

Start date
January 1 2020

End date
December 31 2020

Comment
Slight modification to this emissions total has been made (reduction of 2,212 metric tons CO2e for Scope 2, location-based emissions) as we have re-aligned on reporting emissions only from our manufacturing locations.

Past year 3

Scope 2, location-based
106915

Scope 2, market-based (if applicable)
89109

Start date
January 1 2019

End date
December 31 2019

Comment
Slight modification to this emissions total has been made (reduction of 2,297 metric tons CO2e for Scope 2, location-based and 2,296 metric tons CO2e for Scope 2, market-based emissions) as we have re-aligned on reporting emissions only from our manufacturing locations.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions
Certain information has been excluded from this disclosure pursuant to sites acquired through the C&K Switches acquisition and the Embed Limited acquisition that closed in 2022, however, information regarding their emissions was not available. Within our GHG Inventory Management Plan, we obtain emissions data from newly acquired manufacturing locations the first full year after acquisition and therefore, will report any significant emissions from these locations starting in 2023.

Scope(s) or Scope 3 category(ies)
Scope 1
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting
Scope 3: Downstream transportation and distribution

Relevance of Scope 1 emissions from this source
Emissions excluded due to a recent acquisition or merger

Relevance of location-based Scope 2 emissions from this source
Emissions excluded due to a recent acquisition or merger

Relevance of market-based Scope 2 emissions from this source
Emissions excluded due to a recent acquisition or merger

Relevance of Scope 3 emissions from this source
Emissions excluded due to a recent acquisition or merger

Date of completion of acquisition or merger
July 19 2022

Estimated percentage of total Scope 1+2 emissions this excluded source represents
<Not Applicable>

Estimated percentage of total Scope 3 emissions this excluded source represents
<Not Applicable>

Explain why this source is excluded
Within our GHG Inventory Management Plan, we obtain emissions data from newly acquired manufacturing locations the first full year after acquisition and therefore, will report any significant emissions from these locations starting in 2023.

Explain how you estimated the percentage of emissions this excluded source represents
<Not Applicable>

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
272331

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Total spend on production materials and services (incl. maintenance, repair and operations) was multiplied by spend-based emission factors from DEFRA Table_13_Indirect_emissions_from_supply_chain_2007-2011.

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
39650

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Total spend on capital equipment was multiplied by a spend-based emission factor from DEFRA Table_13_Indirect_emissions_from_supply_chain_2007-2011.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
44909

Emissions calculation methodology
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3)Accounting and Reporting Standard. Activity data were taken from scopes 1 and 2. Emissions were calculated using the well-to-tank (WTT) conversion factors from UK Government (Defra) 2021 Conversion Factors for Company Reporting of GHG Emissions.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
147054

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Emissions were calculated based on the total spend on Global Freight-IN during the reporting year. Prior year assumption on the split between air, ground and water freight was modified to reflect actual spend-based percentages for each freight mode. Total spend on each freight mode was multiplied by the associated spend-based emission factor from DEFRA Table_13_Indirect_emissions_from_supply_chain_2007-2011.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1613

Emissions calculation methodology
Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Emissions were calculated based on waste data reported by most Littelfuse sites. Sites reported the type of waste, the weight or volume disposed and the disposal method (we distinguished between recycling, combustion/incineration, composting and landfill). Emissions were calculated using the waste conversion factors from UK Government (Defra) 2021 Conversion Factors for Company Reporting of GHG Emissions.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
10292

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. This category includes air travel, auto rental, public transportation (including trains) and hotel stays. Emissions were calculated based on total spend on airfare, lodging and other travel expenses during the reporting year. Total spend on each business travel expense type was multiplied by the associated spend-based emission factor from DEFRA Table_13_Indirect_emissions_from_supply_chain_2007-2011.

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
20541

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. This category includes emissions from employee commuting (20,390.45 metric tons CO2e) and emissions from employee teleworking (150.60 metric tons CO2e). The number of employees commuting into an office location and working from home was established based on employee headcount by location. Emissions from commuting were estimated based on publicly available statistics describing the commuting travel modes' breakdown and average distances by location, and on travel mode-specific emission factors from UK Government (DEFRA-BEIS) 2022 Conversion Factors for Company Reporting of GHG emissions. Emissions from teleworking were estimated based on the number of employees working from home by location multiplied by a ratio of incremental electricity and natural gas use from a baseline due to working from home. Baseline and ratio of incremental energy intensity come from IEA. Electricity emissions factors come from IEA (2021) and EPA's eGrid 2021.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not applicable to Littelfuse as we don't have any upstream leased assets.

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
23910

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The methodology used is the WRI/WBCSD GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Emissions were calculated based on the total spend on Global Freight-OUT during the reporting year. Prior year assumption on the split between air, ground and water freight was modified to reflect actual spend-based percentages for each freight mode. Total spend on each freight mode was multiplied by the associated spend-based emission factor from DEFRA Table_13_Indirect_emissions_from_supply_chain_2007-2011.

Processing of sold products

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We intend to evaluate this category in the future.

Use of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Our products do not directly emit greenhouse gas emissions.

End of life treatment of sold products

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We intend to evaluate this category in the future.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not applicable to Littelfuse as we don't have any downstream leased assets.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not applicable to Littelfuse as we don't have any franchises.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not applicable to Littelfuse.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No additional Scope 3 upstream emissions are applicable to Littelfuse.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No additional Scope 3 downstream emissions are applicable to Littelfuse

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date
January 1 2021

End date
December 31 2021

Scope 3: Purchased goods and services (metric tons CO2e)
208915

Scope 3: Capital goods (metric tons CO2e)
32602

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
42583

Scope 3: Upstream transportation and distribution (metric tons CO2e)
123877

Scope 3: Waste generated in operations (metric tons CO2e)
1373

Scope 3: Business travel (metric tons CO2e)
2644

Scope 3: Employee commuting (metric tons CO2e)
19892

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)
24594

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment
The differences in emission disclosures from our 2022 CDP response for certain Scope 3 categories is detailed below, as further detailed in the comments to question 5.2:
Category 1, purchased goods and services: 14,782 mtCO2e lower than prior disclosure
Category 2, capital goods: 34 mtCO2e lower than prior disclosure
Category 3, fuel and energy related activities: 464 mtCO2e lower than prior disclosure
Category 4, upstream transportation: 47,658 mtCO2e higher than prior disclosure
Category 5, waste generated in operations: 229 mtCO2e higher than prior disclosure
Category 7, employee commuting: 13,438 mtCO2e higher than prior disclosure
Category 9, downstream transportation: 9,462 mtCO2e higher than prior disclosure

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	299	Biogenic carbon emissions within our operations include stationary combustion of ethanol and biodiesel fuels in our Mexico, Italy, and Philippines locations.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.00005546

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
139409.39

Metric denominator
unit total revenue

Metric denominator: Unit total
2513900000

Scope 2 figure used
Market-based

% change from previous year
22.5

Direction of change
Decreased

Reason(s) for change
Change in renewable energy consumption
Change in revenue

Please explain
The decrease in the intensity figure is in part (1) a result of the increase in Littelfuse's total revenue in 2022 compared to 2021 (+21%), and (2) a result of the 138% increase in use of renewable energy in 2022 compared to 2021.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	5134.59	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	8.022	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	99.822	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	3322.52	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	17467.239	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	6630.24	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
China	13929.595
Germany	1359.677
Italy	203.031
Japan	5.802
Lithuania	56.97
Mexico	1355.899
Philippines	2963.726
Portugal	2.86
United Kingdom of Great Britain and Northern Ireland	438.475
United States of America	12346.399

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

By activity

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Carling Technologies-Brownsville	202.292	25.91682	-97.46951
Carlingswitch Manufacturing-Zhongshan	15.076	22.47165	113.40834
Cole Hersee-Muzquiz	176.86	27.87482	-101.49265
CSP-Componentes Semiconductores-Almada	2.86	38.634	-9.17898
Dongguan Littelfuse Electronics	9.18	22.84057	113.72257
Hartland Controls Rock Falls	247.618	41.77496	-89.72412
Interruptores de Mexico-Matehuala	121.628	23.66899	-100.65055
IXYS Integrated Circuts Division-Beverly	11493.959	42.57897	-70.9101
IXYS Semiconductor-Lampertheim	1359.677	49.6006	8.47857
IXYS UK Westcode-Chippenham	438.475	51.46655	-2.11101
Littelfuse De CV-Piedras Negras (NADC+Relays)	47.647	28.67606	-100.58715
Littelfuse Asia Sales B.V.-Lipa SBU	104.303	14.02732	121.17697
Littelfuse Commercial Vehicle Product Italy-Legnago	203.031	45.18775	11.28605
Littelfuse De CV-Piedras Negras(ICP+PCP)	839.892	28.67606	-100.58715
Littelfuse Electronics-Kunshan	452.003	31.35204	120.93503
Littelfuse Phils.-Lipa EBU	2546.339	14.02732	121.17697
Littelfuse Semiconductor-Wuxi	9987.802	31.48129	120.45658
Littelfuse Shanghai	3441.863	31.17587	121.37361
Littelfuse Tsukuba	5.802	35.9474	140.38883
Littelfuse-Kaunas	56.97	54.90541	23.99933
Productos Electromecanicos BAC-Matamoros	169.871		
Reaction Technology Epi-Allen	402.531	33.08117	-96.67839
Shanghai Hartland Controls	17.104	31.42972	121.37361
Suzhou Littelfuse OVS-Suzhou	6.568	31.35611	120.75701
Zilog Philippines-Taguig	313.084	14.46974	121.0118

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Fugitive Emissions	27516.551
Mobile Combustion - Owned Fleet	122.383
Stationary Combustion	5023.499

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
China	62699.901	62699.901
Germany	4401.006	4280.758
Italy	314.912	292.01
Japan	2436.95	2436.95
Lithuania	374.524	782.06
Mexico	27774.932	24325.886
Philippines	23966.272	492.05
Portugal	119.154	91.594
United Kingdom of Great Britain and Northern Ireland	1089.066	988.85
United States of America	10356.899	10356.899

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility
By activity

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Carling Technologies-Brownsville	473.005	473.005
Carlingswitch Manufacturing-Zhongshan	2038.976	2038.976
Cole Hersee-Muzquiz	840.549	723.713
CSP-Componentes Semiconductores-Almada	119.154	91.594
Dongguan Littelfuse Electronics	11822.272	11822.272
Hartland Controls Rock Falls	113.605	113.605
Interruptores de Mexico-Matehuala	5786.77	4982.41
IXYS Integrated Circuits Division-Beverly	4096.357	4096.357
IXYS Philippines-Binan	157.242	157.242
IXYS Semiconductor-Lampertheim	4401.006	4280.758
IXYS UK Westcode-Chippenham	1089.066	988.85
Littelfuse De CV-Piedras Negras(NADC+Relays)	1206.307	1038.631
Littelfuse Asia Sales B.V.-Lipa SBU	4303.622	
Littelfuse Commercial Vehicle Product Italy-Legnago	314.912	292.01
Littelfuse De CV-Piedras Negras(ICP+PCP)	14815.463	12756.114
Littelfuse De CV-Piedras Negras(K10)	2961.642	2961.642
Littelfuse Electronics-Kunshan	5478.63	5478.63
Littelfuse Phils.-Lipa EBU	19170.6	
Littelfuse Semiconductor-Wuxi	35735.481	35735.481
Littelfuse Shanghai	3237.971	3237.971
Littelfuse Tsukuba	2436.95	2436.95
Littelfuse-Kaunas	374.524	782.06
Productos Electromecanicos BAC-Matamoros	2164.199	1863.376
Reaction Technology Epi-Allen	5673.932	5673.932
Shanghai Hartland Controls	742.928	742.928
Suzhou Littelfuse OVS-Suzhou	3643.644	3643.644
Zilog Philippines-Taguig	334.807	334.807

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Purchased and Used Electricity	132046.703	105260.043
Purchased and Used Steam	1486.914	1486.914

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

No

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	5509	Decreased	4	Littelfuse significantly increased its usage of renewable energy
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions	7833	Increased	5.6	Increased scope 1 & 2 emissions (market-based) due to acquisition of 3 new manufacturing facilities included in 2022 emissions data
Mergers		<Not Applicable>		
Change in output	10053	Decreased	7.2	Decreased output in 2022, resulting in decreased fuels and electricity consumption.
Change in methodology		<Not Applicable>		
Change in boundary	1080	Decreased	0.8	Removed 11 non-manufacturing sites from our 2022 GHG Inventory boundary due to the low emissions impact.
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	25306.32	25306.32
Consumption of purchased or acquired electricity	<Not Applicable>	51435.88	207160.51	258596.39
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	8709.16	8709.16
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0.44	<Not Applicable>	0.44
Total energy consumption	<Not Applicable>	51436.31	241175.99	292612.3

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value
Please select

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Not consumed by Littelfuse.

Other biomass

Heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Not consumed by Littelfuse.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Not consumed by Littelfuse.

Coal

Heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Not consumed by Littelfuse.

Oil

Heating value
HHV

Total fuel MWh consumed by the organization
2097.62

MWh fuel consumed for self-generation of electricity
106.8

MWh fuel consumed for self-generation of heat
1990.82

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Gas

Heating value
HHV

Total fuel MWh consumed by the organization
23208.7

MWh fuel consumed for self-generation of electricity
1362.91

MWh fuel consumed for self-generation of heat
21845.79

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Not consumed by Littelfuse.

Total fuel

Heating value
HHV

Total fuel MWh consumed by the organization
25306.32

MWh fuel consumed for self-generation of electricity
1469.71

MWh fuel consumed for self-generation of heat
23836.62

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	0.44	0.44	0.44	0.44
Heat	23836.62	23836.62	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption
Mexico

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Diverse renewable electricity sources (solar, wind))

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
8662

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Mexico

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Philippines

Sourcing method
Retail supply contract with an electricity supplier (retail green electricity)

Energy carrier
Electricity

Low-carbon technology type
Geothermal

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
32969

Tracking instrument used
I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
Philippines

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Germany

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Diverse renewable electricty sources (solar, wind))

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
7815

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Germany

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Lithuania

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
90

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Lithuania

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

Country/area of low-carbon energy consumption
Portugal

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Renewable energy mix, please specify (Diverse renewable electricity sources (wind, hydropower))

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
331

Tracking instrument used
No instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute
Portugal

Are you able to report the commissioning or re-powering year of the energy generation facility?
No

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
<Not Applicable>

Comment

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
China

Consumption of purchased electricity (MWh)
99114.29

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
8709.16

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Germany

Consumption of purchased electricity (MWh)
14743.74

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Italy

Consumption of purchased electricity (MWh)
1300.12

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Japan

Consumption of purchased electricity (MWh)
5096.09

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Lithuania

Consumption of purchased electricity (MWh)
2124.35

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Mexico

Consumption of purchased electricity (MWh)
69751.21

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Philippines

Consumption of purchased electricity (MWh)
33660.49

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
Portugal

Consumption of purchased electricity (MWh)
656.5

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)
5631.74

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

Country/area
United States of America

Consumption of purchased electricity (MWh)
26518.29

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Waste

Metric value
19679

Metric numerator
19679

Metric denominator (intensity metric only)

% change from previous year
42

Direction of change
Increased

Please explain
We have improved our global waste data collection and reporting process during 2022 and have started to monitor and disclose our waste disposal methods. In 2022, we recycled 70% of our waste generated.

Description
Other, please specify (Water Withdrawal)

Metric value
1911

Metric numerator
1911

Metric denominator (intensity metric only)

% change from previous year
27

Direction of change
Increased

Please explain
We have improved our global water data collection and reporting process during 2022 and have started to standardize our water conservation efforts globally. In 2022, we recycled 6% of our water.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

We currently are not regulated by a carbon pricing system at our sites, but our manufacturing operations are in countries with carbon pricing systems for other sectors, for fossil fuels, or under consideration for manufacturing. We anticipate being regulated within 4 - 10 years (2026 - 2036).

We have taken significant action to create a formal GHG Inventory Management Plan that is reviewed and updated on an annual basis to ensure we have global emissions available if mandated by future regulation or if emissions become subject to taxation in any countries where we operate. We regularly monitor compliance with all global regulations.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Collect climate-related risk and opportunity information at least annually from suppliers

% of suppliers by number
21

% total procurement spend (direct and indirect)
50

% of supplier-related Scope 3 emissions as reported in C6.5
0

Rationale for the coverage of your engagement
Our initial risk assessment efforts focused on direct material suppliers as they represent the largest spend category in our supply chain.

Impact of engagement, including measures of success
During 2022, we screened approximately 572 of our significant direct material suppliers from an ESG risk perspective. The areas of focus where we will engage our suppliers to ensure their ESG performance meets our criteria include:

- Ethics
- Health & Safety
- Environment
- Labor

This risk assessment will further be incorporated into our new supplier screening process to ensure that these key ESG factors are considered during our supplier onboarding process. Additionally, as part of our Purchase Terms and Conditions, we request our suppliers to comply with all regulations related to environmental controls, employee health and safety and responsible sourcing practices.

Comment
These results help inform our decisions regarding our strategic partners.

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Other, please specify (Supplier Sustainability Self-Assessment)

% of suppliers by number
41

% total procurement spend (direct and indirect)
79

% of supplier-related Scope 3 emissions as reported in C6.5
0

Rationale for the coverage of your engagement
Our supplier sustainability self-assessment was sent to our direct material suppliers to understand their sustainability programs and practices. We chose these suppliers based on an internal risk assessment that identified this group of suppliers as our highest priority. Further, our direct material suppliers have the greatest impact on climate-related issues through the emissions generated as a result of their operations, therefore, focusing our resources initially on this supplier group will allow us to make the biggest impact. The information gathered from this self-assessment has provided us with the necessary insight to further align our supplier engagement strategy concerning where our suppliers are with key climate-related issues.

Impact of engagement, including measures of success
We distributed the sustainability self-assessment to approximately 2,779 direct material vendors and received responses from 1,130 vendors, or 41%. The results of this self-assessment indicated that of our responding suppliers, 72% had environmental policies and systems. This engagement helps drive our decisions around strategic supplier partnerships.

Comment
Based on the results of the supplier self-assessment and supplier ESG risk score, we will prioritize our strategic partners and work with suppliers on any necessary improvement action plans.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number
1

% of customer - related Scope 3 emissions as reported in C6.5
0

Please explain the rationale for selecting this group of customers and scope of engagement
We regularly receive requests from our customers to provide information about our overall sustainability program. We respond and direct our customers to data from our CDP filings, sustainability report and Ecovadis filing. In 2022, we responded to 198 customer requests related to various environmental, social, and governance topics.

Impact of engagement, including measures of success
During 2022, we began analyzing the information being requested by our customers to better understand whether our existing sustainability disclosures met their requirements. Our existing sustainability disclosures provided sufficient information to 97% of our customers. We further met with customers who required additional information to further collaborate and discuss our sustainability program objectives.

Type of engagement & Details of engagement

Collaboration & innovation	Other, please specify (Collaboration to improve product sustainability)

% of customers by number
1

% of customer - related Scope 3 emissions as reported in C6.5
0

Please explain the rationale for selecting this group of customers and scope of engagement
We partner with customers to improve the safety, reliability and performance of their products that use electrical energy. Customer-driven innovation and in-house engineering capabilities are empowering a more sustainable world with many of our products being the most energy-efficient solution in the market. For example, within our semiconductor business, our products:

- Increase energy efficiency within end-applications
- Enable the use of renewable energy (solar, wind)
- Provide sustainable alternatives such as heat pumps that replace the use of natural gas

Impact of engagement, including measures of success
In 2022 we achieved record levels of sales, earnings, and cash generation, including double-digit sales growth in each of our business segments. We achieved these outstanding results by continuing to expand our leadership in high-growth end markets with significant new business wins and strategic acquisitions – built on the foundational structural themes of sustainability, connectivity, and safety. 2022 was a remarkable year for Littelfuse.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?
No, and we do not plan to have one in the next two years

Attach commitment or position statement(s)
<Not Applicable>

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
We leverage trade associations such as the Responsible Business Alliance (RBA), NAEM (National Association of EHS&S Management) and AIAG (Automotive Industry Action Group) to inform our overall climate change strategy. These organizations provide guidance and in some cases offer valuable benchmarking information that we consider when developing our strategy.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (NAEM: National Association of EHS&S Management)

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
NAEM takes the position that it's time for the world to collaborate on solutions that will reduce its greenhouse gas emission. In this effort NAEM has published several reports that help guide corporations on taking climate action. We are not attempting to influence their position, since we agree with it.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
0

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (AIAG (Automotive Industry Action Group))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
Suppliers should develop, implement, and support a proactive approach to environmental responsibility through environmental protection practices, conserving natural resources and reducing overall environmental footprint of production, goods and services throughout their life cycle. Suppliers should implement an environmental management system that includes the following:

• Carbon Neutrality: Suppliers should strive to set science-based and time-bound emission reduction goals and renewable energy objectives that are aligned with the Paris Agreement, and put in place measures that drive forward the decarbonisation of the entire value chain.

The above is excerpted from the recently issued, updated version of the "Automotive Industry Guiding Principles to Enhance Sustainability Performance in the Supply Chain," the reference document for suppliers that aims to address the latest trends and industry expectations on supply chain sustainability. This document was prepared and updated by the Automotive Industry Action Group (AIAG) and Drive Sustainability.

The organization is a not-for-profit where companies in the mobility industries have worked collaboratively to drive down cost and complexity in the supply chain.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
0

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Trade association
Other, please specify (Manufacturers Alliance (MAPI))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The MAPI Foundation provides educational resources to manufacturing executives and educates the public about critical domestic and global challenges in manufacturing. MAPI offers access to different councils, including 26 councils that regularly discuss topics related to climate change such as: Supply Chain, Environmental, Health & Safety, Sustainability, and Risk Management. Through the business insights, research, peer roundtable discussion and benchmarking opportunities, we are able to help inform our sustainability and climate-related strategies based in industry input and practices. We have not tried to influence their position, since we agree with it.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
0

Describe the aim of your organization's funding
<Not Applicable>

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In voluntary sustainability report

Status
Underway – previous year attached

Attach the document
2021 Littelfuse Sustainability Report - final.pdf

Page/Section reference
GHG Emissions Reduction – Target Setting - 36
Our Performance – 40-41
Energy Efficiency - 37
Water Usage – 38-39
Greenhouse Gas Emissions – 40-41
Waste & Hazardous Material Management – 42-43
Sustainable Supply Chain - 45

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
We attached the 2021 report because we file CDP prior to issuing the 2022 report.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Global Reporting Initiative (GRI) Community Member	Littelfuse is a member of the Global Reporting Initiative Community and engages with the GRI reporting service to review and validate the information provided in the voluntary sustainability report is in alignment with the GRI reporting framework. In addition, certain team members have GRI Sustainable Professional Certification and participate in the educational programs offered within the community.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	No, and we do not plan to have both within the next two years	<Not Applicable>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, and we do not plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
No and we don't plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No and we don't plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, and we do not plan to undertake any biodiversity-related actions	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	Please select

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Executive Vice President, Chief Legal Officer	Other C-Suite Officer

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

We strive to operate a sustainable global supply chain to minimize our environmental impact, while also responsibly sourcing materials in an ethical manner that supports human rights. By implementing these sustainable practices throughout our supply chain, we aim to create long-term value for our stakeholders and benefit the communities where we live, work and operate.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	2513900000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

CDP Filing

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	Focusing only on the larger customers
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Unknown. We make tens of thousands of products and we have over 1600 customers.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

We can allocate by percentage of sales for larger customers, but anything more than that would be costly. We need to invest in reducing our emissions, not allocating them.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member
Schneider Electric

Group type of project
Change to supplier operations

Type of project
Other, please specify (SE is launching new tools on their Zero Carbon Project portal that we will use to help us improve our efforts at decarbonization.)

Emissions targeted
Actions that would reduce our own operational emissions (our scope 1 & 2)

Estimated timeframe for carbon reductions to be realized
Other, please specify (Unknown until we review the tools)

Estimated lifetime CO2e savings
0

Estimated payback
Other, please specify (Unknown until we review the tools)

Details of proposal
Schneider Electric assists their customers in looking at their carbon footprint and recommending GHG reduction projects. Our manufacturing facilities are looking for ideas and recommendations. We will be learning from the new tools SE is rolling out.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?
No, I am not providing data

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below
I have read and accept the applicable Terms