Amara Raja Batteries Ltd - Climate Change 2023

C0. Introduction

C0.1

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

Amara Raja Group of companies with their flagship company Amara Raja Batteries Limited is one of the largest manufacturers of Automotive and Industrial batteries in India. Amara Raja Batteries Limited (ARBL) is a prominent player and technology leader in the Indian storage battery industry and has a significant market share in the manufacture of lead-acid batteries for industrial and automotive applications. ARBL has operational facilities located at Tirupati and Chittoor and has a total of 2289 employees and 5704 workers. ARBL has prestigious original equipment manufacturers like Maruti Suzuki India Limited, Hyundai Motors India Limited, Ford India Limited, Tata Motors Limited, Mahindra and Mahindra Limited, Honda Cars India Limited, Renault Nissan, Honda Motorcycles & Scooters India Private Ltd, Royal Enfield, Bajaj Auto Ltd, and many more as its clients. The Company's Industrial and Automotive batteries are exported to 49 countries across the globe. Through our wide retail network, we distribute top-notch automotive and home UPS/Inverter batteries which are available pan-India under the brand names Amaron® and PowerZone™. Our products and services are preferred by major industry segments such as telecom (service providers and equipment manufacturers), UPS, Indian Railways, Motive, and Power and Gas among others. Amara Raja is a symphony of diverse elements coming together and moving forward in perfect harmony. The five values of Amara Raja are represented by the five colors, which symbolize the five elements of nature and the mind state required for each value. The five core values are Innovation – Excellence- Entrepreneurship- Experience – Responsibility. More information about ARBL is available on the website https://www.amararaja.com.

The Corporate Social Responsibility report is available on the following link https://www.amararajabatteries.com/images/AMARA%20RAJA%20AR%202022%20FLIP%20BOOK/assets/pdf/CSR.pdf. Corporate Governance Report is available in the following link https://www.amararajabatteries.com/images/AMARA%20RAJA%20AR%202022%20FLIP%20BOOK/assets/pdf/CGR.pdf.

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
April 1 2022

End date
March 31 2023

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
1 year

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

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.
India

C0.4

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

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, an ISIN code	INE885A01032
Yes, another unique identifier, please specify (Corporate Identity Number (CIN))	L31402AP1985PLC005305

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
Director on board	Our Executive Director (ED) is a member of ARBL's Board of Directors and chairs the Sustainability Committee which plays a role in providing overall guidance on all identified key ESG issues and reviews the company's progress towards sustainability goals. The board is briefed on various climate-related issues, yearly targets, site performance, and progress of targets by our ED. ED is also authorized to sanction CAPEX & OPEX budgets and other necessary resources for the implementation of climate adaptation and mitigation actions. Our ED's responsibilities also include taking decisions related to Procurement, Human Resources, Finance, Legal, and operations which support the implementation of our Climate strategy.
Chief Sustainability Officer (CSO)	Chief Sustainability Officer (CSO) Oversees the overall execution, mission, and efficacy of the sustainability program and its function. He is the convener of monthly Sustainability committee meetings & member of the high-level Growth Committee (GROCOM). GROCOM constitutes of all the Business Heads, Group function heads, and senior leaders from all businesses of the Group. This committee focuses on the review & approval of group-level policies including for sustainability and climate change along with tracking and driving the progress on group-level priority projects. The following are his key responsibilities: • Assesses and analyzes company policies and processes in accordance with the organization's commitment to sustainability. • Brainstorms and identifies creative ways to balance business obligations and sustainability outcomes. • Build capacity within the organization on matters related to sustainability & climate change. • Proposes and implements strategies to address various environmental concerns including climate change, energy use, conservation, reduction of pollution, recycling, building and facility design, and general education on sustainability. • Evaluates the efficacy of sustainability programs; recommends and implements improvements as necessary. • Conduct benchmarking across sectors and identify projects to mitigate any adverse environmental impacts • Compiling comprehensive reports that clearly outline the identified climate risks, their likelihood, and potential consequences. • Collaborating with internal stakeholders and effectively communicating climate risks to external stakeholders via sustainability reports, and disclosure frameworks (e.g., BRSR, Sustainability report, CDP, TCFD).
Chief Operating Officer (COO)	The Chief Operating Officer is a member of the high-level Growth Committee (GROCOM) as well as the Sustainability Committee. The following are his key responsibilities: • Ensuring regulatory compliance • Assess climate-related risks and formulate operation-level policies and procedures to mitigate the same. • Collection of ESG & Climate-related data and metrics. • Set targets for energy conservation & emission reductions and drive energy efficiency projects • Identification, Implementation, and monitoring of climate action programs. • Promote ongoing dialogue with internal and external stakeholders in order to develop constructive and transparent relationships. • Champion culture change within the organization through engagements & capability building.
Board-level committee	Sub-committees are constituted under ARBL Board. While the risk committee undertakes ESG and climate risk analysis, the Audit committee ensures compliance with the board resolutions. We have established a Sustainability committee under Executive Director (ED) and convened by the Chief Sustainability Officer (CSO) to define the ESG roadmap & monitor progress on a monthly basis. The roles and responsibilities of the Sustainability and Risk Management committees are defined below. Sustainability Committee: We have taken ambitious targets on energy & carbon, water and wastewater management, circular economy, improving diversity as well as continue doing good for communities where we operate. The year is marked by a renewed effort to build sustainability capability amongst leaders, and we covered more than 600 people in as many as 23 training programs. We have also reached out to our supply chain partners and built consensus on a common ESG vision including climate change and collaboration for the greater good. Key deliverables: • Identifying climate-related risks & formulating strategies to mitigate those risks • Develop & roll out ARBL sustainability framework and assurance protocol • Define ESG goals and monthly monitoring of progress • Build ESG capability within the organization • Review ESG projects (planned/potential) and provide inputs/ support • Conduct periodic benchmarking and bring in external/customer perspective Risk Management Committee: The Risk Management Committee is responsible for reporting progress on our risk mitigation efforts to the Board on a quarterly basis and plays a vital role in strategic supervision and devising the organization's long-term strategic risk management approach. This committee meets quarterly to ensure a common approach which is consistent with the ARBL's strategy and policy on climate change.

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 – all meetings	Overseeing major capital expenditures Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Reviewing and guiding the risk management process	<Not Applicable>	The board conducts ESG performance review quarterly which includes climate actions and plans as part of the agenda. The board reviews Business Responsibility and Sustainability Report (BRSR) along with a detailed presentation on key ESG aspects, energy, and carbon emissions, principle-wise status of ARBL w.r.t the identified 9 principles of BRSR, Key Sustainability KPIs are reviewed by the Board. The board is appraised of the Sustainability Committee's work and progress of identified projects. The inputs by board members are discussed in the Sustainability committee to further refine the ESG vision for the organization.
Scheduled – some meetings	Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy	<Not Applicable>	The board conducts ESG performance review quarterly which includes climate actions and plans as part of the agenda. The board reviews Business Responsibility and Sustainability Report (BRSR) along with a detailed presentation on key ESG aspects, energy, and carbon emissions, principle-wise status of ARBL w.r.t the identified 9 principles of BRSR, Key Sustainability KPIs are reviewed by the Board. The board is appraised of the Sustainability Committee's work and progress of identified projects. The inputs by board members are discussed in the Sustainability committee to further refine the ESG vision for the organization.

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 Nomination and Remuneration Committee defines the criteria and competency requirement including educational qualifications, positive attribute, and independence of a Director and recommend to the Board of Directors. The sustainability committee identifies the training needs of senior leaders and other functional leaders. Training on Business Responsibility and Sustainability reporting along with ARBL's Sustainability vision was conducted for the Board members to sensitize them on matters related to Environment, sustainability & Governance, and applicability to the organization. Workshops were conducted on Climate change strategy and Net Zero Planning for GROCOM members to build capacity as well obtain concurrence. Multiple other training programs were conducted for functional heads and their teams on topics like Carbon footprinting, Environmental sustainability, GHG Accounting, SBTi-based targets, SDG Goal setting, Sustainable sourcing, Green manufacturing, Life Cycle Assessments, Gender diversity & Diversity, equity, inclusion, and belonging (DEIB), environmental legislation, benchmarking, etc.	<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
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Monitoring progress against climate-related corporate targets

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

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

Please explain
Our ED is a member of ARBL's Board of Directors and chairs the Sustainability Committee which plays a role in providing overall guidance on all identified key ESG issues and reviews the company's progress towards sustainability goals. The board is briefed on various climate-relate issues, yearly targets, site's performance, and progress of targets by our ED. ED is also authorized to sanction CAPEX & OPEX budgets and other necessary resources for the implementation of climate adaptation and mitigation actions. Our ED's responsibilities also include taking decisions related to Procurement, Human Resources, Finance, Legal, and operations which support the

implementation of our Climate strategy.

Position or committee
Sustainability committee

Climate-related responsibilities of this position
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
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
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The Company has an executive sustainability committee which consists of Senior leadership of ARBL which oversees the progress and implementation of sustainability-linked initiatives on a monthly basis. The committee is chaired by Mr. Harshavardhana Gourineni, ED and all direct reportees are members of the committee.

The broad responsibilities of the sustainability committee is:

• Define ESG metrics and monthly monitoring of progress
• Review ESG projects (planned/potential) and provide inputs/ support
• Identify training needs and Build ESG capability within the organization
• Conduct periodic benchmarking and bring in external/customer perspective
• Develop & roll out AR sustainability framework and assurance protocol

Position or committee
Chief Sustainability Officer (CSO)

Climate-related responsibilities of this position
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate
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
More frequently than quarterly

Please explain
The Chief Sustainability Officer (CSO) oversees the overall execution, mission, and efficacy of the sustainability program and its function. He is a member of high-level Growth Committee (GROCOM) and the convener of monthly Sustainability committee meetings.
The following are his responsibilities:
• Assesses and analyzes company policies and processes to identify areas in and processes to which improvements can be made in accordance with the organization's commitment to sustainability.
• Brainstorms and identifies creative ways in which the company can balance business obligations with the goal of respecting, supporting, and improving the local and global environments.
• Build capacity within the organization on matters related to sustainability & climate change.
• Proposes and implements strategies to address various environmental concerns including climate change, energy use, conservation, reduction of pollution, recycling, building and facility design, and general education on sustainability.
• Evaluates efficacy of sustainability programs; recommends and implements improvements as necessary.
• Conducts research to identify environmental and sustainability concerns, interests, and issues.
• Compiling comprehensive reports that clearly outline the identified climate risks, their likelihood, and potential consequences.
• Collaborating with internal stakeholders across various departments to ensure a thorough understanding of climate risks and their integration into business plans and strategies.
• Effectively communicating climate risks to external stakeholders such as investors, regulators, customers, and the wider public. This includes transparently sharing information through sustainability reports, disclosure frameworks (e.g., BRSR, Sustainability report, CDP, TCFD).

Position or committee
Chief Operating Officer (COO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Implementing a climate transition plan

Managing value chain engagement on climate-related issues
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
More frequently than quarterly

Please explain
The Chief Operating Officer is a member of high-level Growth Committee (GROCOM) as well as Sustainability committee. The following are his responsibilities:
• Ensuring regulatory compliance
• Assess climate related risks and formulate operation level policies and procedures to mitigate the same.
• Collection of ESG & Climate related data and metrics.
• Set targets for energy conservation & emission reductions.
• Identification, Implementation and monitoring of climate action programs.
• Promote ongoing dialogue with internal and external stakeholders in order to develop constructive, transparent relationships.
• Champion culture change within the organization through engagements & capability building.

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	One of the strategic objectives defined for ARBL as a business is reduction in carbon emissions (Operational excellence). Leadership's incentives as well as performance-based compensation packages are based on defined Key Responsibility Areas.

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
Director on board

Type of incentive
Monetary reward

Incentive(s)
Bonus – set figure
Salary increase

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
The performance review period is the financial year beginning in April & ending in March. Performance review is carried out against the set targets and bonuses and increments are decided on the same basis.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The performance is reviewed annually against the business Balance Score Card (BSC) where CO2 reduction targets are included as part of Operational Excellence. The BSC is reviewed at the Executive Committee level on a regular basis.

Entitled to incentive
Chief Operating Officer (COO)

Type of incentive
Monetary reward

Incentive(s)
Bonus – set figure
Salary increase

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
This position does not have an incentive plan

Further details of incentive(s)
The performance review period is the financial year beginning in April & ending in March. Performance review is carried out against the set targets and bonuses and increments are decided on the same basis.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The performance is reviewed annually against the business Balance Score Card (BSC) where CO2 reduction targets are included as part of Operational Excellence. The BSC is reviewed at the Executive Committee level on a regular basis.

Entitled to incentive
Chief Sustainability Officer (CSO)

Type of incentive
Monetary reward

Incentive(s)
Bonus – set figure
Salary increase

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
This position does not have an incentive plan

Further details of incentive(s)
The performance review period is the financial year beginning in April & ending in March. Performance review is carried out against the set targets and bonuses and increments are decided on the same basis.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The performance is reviewed annually against the business Balance Score Card (BSC) where CO2 reduction targets are included as part of Operational Excellence. The BSC is reviewed at the Executive Committee level on a regular basis.

Entitled to incentive
All employees

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Salary increase

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target

Incentive plan(s) this incentive is linked to
This position does not have an incentive plan

Further details of incentive(s)
The performance review period is the financial year beginning in April & ending in March. Performance review is carried out against the set targets and bonuses and increments are decided on the same basis.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The employees have defined KRAs on environment and energy reduction as applicable and required to demonstrate achievement against Amara Raja core value of "Responsibility towards environment, society and customers"

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	5	The climate related risks and opportunities identified to have an immediate impact on the company's business i.e. within five years, are categorized under short-term horizon.
Medium-term	5	10	Potential climate related risks and opportunities that may impact company's business in the near future (5-10 years) are categorized into medium term.
Long-term	10	28	Long term business risks and opportunities are usually anticipated and identified based on scenario analysis, international guidelines and market predictions, etc. Therefore, the climate risks and opportunities identified to have an impact beyond 10 years duration are termed as long term. Our definition for long term coincides with our Net-Zero Goal 2050.

C2.1b

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

To determine and define substantive financial or strategic impact on our business, our organization adopts a collaborative and systematic approach through the utilization of an exhaustive risk matrix, developed through a dedicated workshop with our leadership team. Through engagement and deliberation on various physical and transitional risks, we define and establish a comprehensive understanding of the potential impacts on our business both in the immediate future and over a long-term timeframe.

In order to comprehensively assess the climate transitional risks faced by our business, we have implemented a robust risk assessment process. This approach focuses on identifying potential risks that could have a significant financial or strategic impact on our operations.

To begin, our core sustainability and scenario analysis team has collaborated closely with leadership to define the organizational context. This involved assessing the range of products and geographies where we operate, as these factors play a critical role in determining the scope and magnitude of climate risks.

To predict climate transitional risks in the near-term, we have gathered essential data from reputable and authentic sources, including the World Bank climate knowledge portal. This data provides valuable insights into climate change-related trends and patterns, enabling us to evaluate both acute and chronic climate-related risks that could emerge in the future.

In addition to examining climate-related data, we have also closely monitored global trends concerning carbon taxes and border carbon adjustment taxes. These evolving regulatory measures can significantly impact our business's competitiveness and financial position, making them vital considerations in our risk scenario analysis. We have also kept a close eye on the progress made by the Government of India regarding its Nationally Determined Contributions (NDCs) to combat climate change, as this can further influence the regulatory landscape in our operation.

Based on the information gathered, we have conducted a plausible climate risk scenario analysis for two distinct scenarios: the Hot World scenario (4 Degree Celsius path) and the transitional scenario (2 Degree Celsius Path). These scenarios provide us with a forward-looking perspective on the potential risks and challenges that our business might encounter in the face of varying degrees of global warming and transitional measures.

By undertaking this comprehensive risk assessment and scenario analysis, we aim to proactively prepare our business for the potential impacts of climate change and ensure that we are resilient, adaptive, and well-positioned for sustainable growth in a rapidly changing world.

Based on the detailed scenario analysis and workshop discussions, the committee has identified both risks and opportunities for ARBL.

In terms of climate-related risks, it has been projected that the southern part of India may experience increased rainfall intensity, leading to a higher risk of floods. Fortunately, ARBL's current assets are not situated in a river floodplain area, thus minimizing the exposure to the frequent occurrence of such risks. However, the company may experience flash flooding due to changes in rainfall intensity. Therefore, we should remain vigilant and be prepared to address any potential impacts on its assets and operations caused by extreme weather events.

Another identified risk is the potential increase in temperatures. Rising temperatures can adversely affect the OPEX of the company due to reduced productivity of assets and personnel. High temperatures may result in heat-related issues, such as increased worker absenteeism and decreased machine outputs, leading to higher OPEX and reduced overall efficiency.

On the positive side, the workshop team has recognized several opportunities for ARBL. The committee emphasized that transitional regulatory risks and border carbon tax issues are of significant concern in the near future. In response to this, the company has already made substantial investments in solar power generation, with a capacity of 59.1 MW. (Existing) and 7.5 MW (under commissioning) Additionally, ARBL has ambitious plans to install an additional 190 MW of solar power over the next decade. This proactive approach toward renewable energy will not only help reduce the company's Scope 2 greenhouse gas (GHG) emissions but also position ARBL favorably in a carbon-conscious regulatory environment, potentially attracting more customers and investors.

By acknowledging and addressing these risks while capitalizing on the opportunities presented by renewable energy investments, ARBL is taking crucial steps to navigate the challenges posed by climate change and regulatory transitions. This strategic approach will enable the company to build resilience, enhance sustainability, and ensure long-term success in an increasingly climate-conscious and environmentally-focused business landscape.

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

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
ARBL leverages enterprise risk management (ERM) framework to identify, assess, and respond to climate-related risks. The risk management framework delineates process of risk assessment, compilation of risk registers and associated action plans, mapping of events and its mitigation. Quarterly structured risk meetings are convened at corporate level wherein risks are reviewed for impact and likelihood along with its mitigation plan. Climate impacts are assessed based on its impact on the business and likelihood of occurrence. After the risk prioritization has been carried out, formal mapping of risks and mitigation plans on a risk matrix is done. For each of the risk identified, a ‘risk owner’ is assigned at the corporate level who is accountable for the progress on the actions taken for mitigating risk. Risk management targets and indicators are clearly defined as part of the risk scorecard, while performance evaluation is regularly done at the management level.

The outcome of risk committee and status of mitigation plan is delved upon during sustainability committee and form as deliverable for energy committees at the site.

Risk Matrix Workshop:
Our commitment to defining substantive financial and strategic impact begins with a dedicated workshop involving key stakeholders from our senior leadership team. This workshop serves as a platform for comprehensive discussions and deliberations, bringing together diverse perspectives and expertise. By actively involving our leadership team, we ensure a holistic understanding of the risks and their implications for our organization.

Exhaustive Risk Matrix:
During the workshop, an exhaustive risk matrix is developed, capturing a wide range of potential risks that can affect our business. The risk matrix serves as a visual representation, categorizing risks based on their likelihood and potential impact. Through a collaborative effort, the senior leadership contribute their insights and expertise to shape the matrix, ensuring its accuracy and relevance.

Physical and Transitional Risk Analysis:
Within the workshop, particular focus is given to identifying and analyzing both physical and transitional risks. These risks are discussed in detail, exploring their direct and indirect impact on our business operations and strategic objectives.
Physical risks encompass a range of factors, such as natural disasters, supply chain disruptions, infrastructure vulnerabilities, or accidents. By engaging in comprehensive discussions, we evaluate the severity and likelihood of these risks and their potential financial or strategic consequences.
Transitional risks, which arise from technology advancements, regulatory changes, market shifts, or societal trends, are also thoroughly examined. Our senior leadership bring their expertise and industry knowledge to identify transitional risks that could significantly impact our business, either by presenting new opportunities or posing substantial challenges.

Agreement and Finalization:
Throughout the workshop, consensus is sought among the senior leadership to identify critical risks that will have a substantive impact on our business. Through open deliberation and engagement, potential risks are assessed, prioritized, and refined to reflect the collective understanding and expertise of our leadership team. Two scenarios of 4 degrees & 1.5 degrees were considered. By reaching agreement and finalizing the identified risks, we establish a clear understanding of the potential financial and strategic impact they may have on our organization. This consensus enables us to align our efforts, resources, and strategies to effectively manage and mitigate these risks.

Through a collaborative workshop involving our senior leadership, our organization defines substantive financial and strategic impact by developing an exhaustive risk matrix. By debating and discussing various physical and transitional risks, we arrive at a comprehensive understanding of potential threats and opportunities. This collaborative approach ensures that our business is well-prepared to address and mitigate risks, leading to sustainable growth and resilience in an ever-changing business landscape.

Value chain stage(s) covered
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

Description of process
As part of our risk management framework, we engage frequently (at least annually) with our key upstream and downstream stakeholders such as, suppliers, regulators, local communities, investors and consumers to capture their emerging concerns due to physical or transition climate change risk & their contribution to mitigate climate change related impacts.
Customers: Our customers are reputed multinational and domestic automobile manufacturers as well as power, telecom, railways and other major sector players having their ambitious climate change related objectives. We constantly engage with our customers through various stakeholder engagement programs and customer feedback Programme to understand their goals and priorities related to climate. This also gives us a platform to explore any demand for low carbon products by our customers. As part of ARBL being their upstream value chain partner, our customers expect us to disclose our sustainability & climate action plan, data, targets, performance, disclosures etc. on a periodic basis. We proactively share the required information with them and participate in various workshops and meetings organized by them on sustainability & climate action subjects. As of now around 20 of our national & international customers who contribute to a significant chunk of our total revenue are engaging with us for partnership on sustainability & climate change.

Supplier Engagement:
We have a Sustainable sourcing policy which clearly specifies our endeavor to procure sustainable products and services thereby reducing our carbon footprint. In line with our commitment to sustainability, we strongly encourage all our suppliers to identify the sources of their emissions, including CO2, other greenhouse gases, SOx, NOx, and particulate matter. We recommend that they adopt progressive measures to reduce these emissions. By adopting these measures, our suppliers can play a significant role in contributing to a cleaner and more sustainable environment. All our suppliers are required to sign off our Supplier code of conduct which mandates their commitment towards environment & sustainability.

We constantly engage with our suppliers through workshops & training programs to sensitize them on sustainability & climate action as well our expectations from them. Our supply chain management as well as sustainability teams provide required handholding to our suppliers. During the year we carried out ESG workshop covering more than 60% of our critical suppliers by value. As part of our supplier onboarding, we carry out detailed due diligence to evaluate them against ESG & Sustainability criteria. We also conduct regular audits of all existing suppliers and ensure corrective & preventive actions. 50% of critical suppliers were assessed on sustainability performance in FY 22-23.

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	As part of the risk assessment process, ARBL always includes the compliance towards various statutory regulations and also assesses the emerging regulations in consultation with internal and external stakeholder to identify the potential risks to the business and derive appropriate mitigation measures. Below presents the typical risk assessment process of current regulation of SEBI. Ensuring the disclosure of energy and carbon intensity figures in line with industry benchmarks brings substantial benefits to our business, including compliance with SEBI requirements for mandatory disclosures in the Business Responsibility Sustainability Report. To achieve this, we have conducted comprehensive Life Cycle assessments for our products, gaining valuable insights into their climate change impact across their entire life cycle. By benchmarking our performance against industry peers, we can identify areas for improvement and proactively implement measures to mitigate any negative effects. Moreover, to uphold the accuracy and credibility of our greenhouse gas data, we have sought external assurance for the data obtained, further reinforcing our commitment to transparency and sustainability.
Emerging regulation	Relevant, always included	As part of the risk assessment process, ARBL always includes the compliance towards various statutory regulations and also assesses the emerging regulations in consultation with internal and external stakeholder to identify the potential risks to the business and derive appropriate mitigation measures. Below presents the typical risk assessment process of emerging regulation on carbon tax. Proactively planning and aligning with future carbon tax regulations is vital to avoid compliance risks, penalties, and legal actions. It gives us a competitive edge, attracting environmentally conscious stakeholders and investors. Early implementation of emission reduction strategies maintains cost-efficiency and prevents rising operational expenses. Moreover, it safeguards our reputation and ensures broader market access in regions with stringent carbon requirements, positioning us as a responsible and sustainable industry leader.
Technology	Relevant, always included	As part of the risk assessment process, ARBL always includes the risk associated with the existing technology and its relevance in the emerging markets and also assesses the need of new and emerging technologies in the global market. Below presents the typical risk assessment process of emerging technology in battery industry and how ARBL strives to adopt to the future market demand. The potential market shift towards Lithium Ion and new energy batteries poses a significant risk to our business, specifically concerning the phasing out of lead-acid batteries by some of our customers, particularly in the Industrial sector. To address this challenge proactively, we have devised a robust mitigation plan. This plan includes the establishment of a Li-Ion pilot plant and investing in Research and Development (R&D) initiatives to further advance Lithium Ion technology and Lead Acid battery. Additionally, we are strategically planning to set up a substantial 16 GWH (gigawatt-hour) manufacturing facility for Lithium-Ion batteries. By taking these measures, we aim to adapt to the changing market demands, secure our position in the emerging Lithium Ion market, and continue catering to the evolving needs of our customers in the face of potential Lead Acid battery phase-out.
Legal	Relevant, sometimes included	To address this risk proactively, we are committed to continuing the implementation of comprehensive emission reduction plans. By prioritizing sustainability and adopting energy-efficient practices, we aim to minimize our carbon footprint and reduce our emissions.
Market	Relevant, always included	Non-compliance with regulations and failure to meet our key customers' net-zero plan and scope 3 reduction targets present significant risks to our business. The potential impacts include a surge in imported raw material costs and the imposition of additional import duties by the host country, further straining our operational expenses. Moreover, the risk of our products being disqualified due to inadequate carbon intensity could lead to the loss of key market opportunities for electric vehicles and renewable energy power storage. As our key customers, including domestic and international auto OEMs, are committed to stringent net-zero plans and scope 3 reduction targets, failing to align with these goals may result in losing their business and market share. To safeguard our position and maintain competitiveness, it is imperative that we prioritize compliance, adopt sustainable practices, and actively work towards achieving our customers' ambitious sustainability objectives.
Reputation	Relevant, always included	Reputational risk is always included in our climate-related risk assessment. Being one of the largest manufacturers of batteries in India, we are expected to manage climate-related risk proactively. Failing to manage the risks and opportunities of climate change, compliance issues related to emission/ green energy related obligations, and failure to meet commitments could result in reputational impairment and may even result into public and regulatory opposition to ARBL's projects and/or operations. Furthermore, a low score on climate and ESG framework could lead to reputational loss. This will have a direct impact on increase in cost-of-capital, perceived risk amongst the investor community and high legal /litigation costs.
Acute physical	Relevant, always included	As part of the risk assessment, ARBL conducts a climate scenario analysis to assess physical risks from climate change for their manufacturing operations. Below presents the typical physical risk assessment process adopted. The risk of an increase in runoff from nearby areas due to an inadequate drainage system poses significant challenges for our business. The potential impact of such a scenario includes damage to our electrical systems, which could lead to costly repairs and downtime. Moreover, the inadequate drainage system may cause delays in the supply of raw materials, disrupting our production operations and resulting in delayed production schedules. As a consequence, our output may be reduced, affecting our ability to meet customer demands and potentially leading to reputational damage. To mitigate these risks, we plan to invest in improving our drainage infrastructure and implement effective water management strategies to safeguard our electrical systems, ensure smooth operations, and maintain uninterrupted production schedules, thus safeguarding our business continuity and reputation in the market.
Chronic physical	Relevant, always included	As part of the risk assessment, ARBL conducts a climate scenario analysis to assess physical risks from climate change for their manufacturing operations. Below presents the typical physical risk assessment process adopted. The risk of facing a higher than 50% probability of high temperatures throughout the year in south Asian regions by the end of 2040, as per the IPCC report, presents various impacts on our business. One of the significant impacts is the increase in air conditioning costs, as we may need to utilize cooling systems more frequently to maintain a comfortable indoor environment for employees and workers. Additionally, the rise in temperatures can lead to higher costs for work zone worker comfort and ventilation, as we prioritize ensuring a safe and conducive working environment. The increase in fuel oil evaporation rates due to higher temperatures can also result in elevated logistics costs. Moreover, the risk of more frequent epidemic incidents due to extreme heat may lead to an increase in employee and worker absenteeism, affecting productivity and overall business operations. To address these challenges, we must proactively implement measures such as energy-efficient cooling systems, heat stress management protocols, and health and safety initiatives to protect our workforce and maintain smooth operations in the face of rising temperatures.

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

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In today's global business landscape, we face multiple challenges that can impact our operations and market position. These challenges include increased imported raw material costs, additional import duties imposed by host countries, product disqualification due to carbon intensity non-compliance, and the risk of losing advantage and market share in emerging markets for electric vehicles (EV) and renewable energy power storage.
Rising imported raw material costs pose a significant challenge for business. Fluctuating global market conditions and supply chain disruptions can lead to higher expenses, squeezing profit margins. To mitigate this, we must optimize their supply chains and explore alternative sourcing strategies.
Additional import duties imposed by host countries create further challenges. These duties can result from changes in trade policies or protectionist measures. We need to adapt by revisiting pricing strategies, exploring local manufacturing options, or negotiating with stakeholders to maintain market access.
Sustainability concerns are paramount, and product disqualification due to carbon intensity non-compliance can have severe consequences. Failing to meet requirements or lacking third-party verification risk reputational damage, loss of market share, and restricted market access. We need to invest in sustainable practices, adopt renewable energy sources, and comply with evolving regulations.
The potential loss of advantage and market share in emerging markets for EV and renewable energy power storage presents a considerable risk. Stiff competition, technological advancements, and evolving regulations require us to continuously innovate, improve product offerings, and establish strategic partnerships to secure their position in these promising markets.
To navigate these challenges, we must be agile, innovative, and adaptable. Monitoring market trends, diversifying supply chains, embracing sustainability practices, and investing in research and development are vital strategies. By proactively addressing these challenges, we can ensure long-term growth and sustainability in a dynamic global business environment.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
1599584224

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

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

Explanation of financial impact figure
If ARBL chooses not to adopt climate mitigation measures and continues with a business-as-usual scenario, its carbon emissions are projected to reach 383,934 tons. As a consequence of this significant carbon footprint, ARBL would be liable to pay up to $130 per ton of carbon emitted in the international market and INR 2000 in the domestic market. Such potential financial liabilities highlight the importance of proactively implementing climate mitigation measures to reduce emissions and minimize the associated costs and environmental impact.

Cost of response to risk
6800000000

Description of response and explanation of cost calculation
Track global regulatory carbon prices: Businesses need to monitor and stay informed about the regulatory carbon pricing mechanisms implemented worldwide in the regions where they operate. This includes staying updated on carbon pricing policies and initiatives that aim to put a price on carbon emissions.

Implement GHG emission inventory programs: To effectively manage their carbon footprint, companies should establish GHG emission inventory programs that assess and quantify greenhouse gas emissions across their supply chain and value chain. This involves measuring emissions from various sources, including direct emissions (scope 1), indirect emissions from purchased electricity (scope 2), and other indirect emissions associated with activities in the value chain (scope 3).

Develop a Net Zero plan with stage-wise decarbonization: Businesses should develop a comprehensive Net Zero plan that outlines a roadmap for achieving carbon neutrality. This plan should include stage-wise decarbonization strategies for scope 1, scope 2, and scope 3 emissions.

By tracking global regulatory carbon prices, implementing GHG emission inventory programs, and developing a Net Zero plan with stage-wise decarbonization, businesses can effectively manage their carbon emissions, align with international projections, and contribute to global efforts to combat climate change.

As part of the climate strategy ARBL has projected about 680 crores of investment in Renewable/ Clean Energy by the year 2027. However this would depend on the evolving Andhra Pradesh state Renewable energy policy.

Comment

Identifier
Risk 2

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

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
In today's global business landscape, we face multiple challenges that can impact our operations and market position. These challenges include increased imported raw material costs, additional import duties imposed by host countries, product disqualification due to carbon intensity non-compliance, and the risk of losing advantage and

market share in emerging markets for electric vehicles (EV) and renewable energy power storage.
Rising imported raw material costs pose a significant challenge for business. Fluctuating global market conditions and supply chain disruptions can lead to higher expenses, squeezing profit margins. To mitigate this, we must optimize their supply chains and explore alternative sourcing strategies.
Additional import duties imposed by host countries create further challenges. These duties can result from changes in trade policies or protectionist measures. We need to adapt by revisiting pricing strategies, exploring local manufacturing options, or negotiating with stakeholders to maintain market access.
Sustainability concerns are paramount, and product disqualification due to carbon intensity non-compliance can have severe consequences. Failing to meet requirements or lacking third-party verification risk reputational damage, loss of market share, and restricted market access. We need to invest in sustainable practices, adopt renewable energy sources, and comply with evolving regulations.
The potential loss of advantage and market share in emerging markets for EV and renewable energy power storage presents a considerable risk. Stiff competition, technological advancements, and evolving regulations require us to continuously innovate, improve product offerings, and establish strategic partnerships to secure their position in these promising markets.
To navigate these challenges, we must be agile, innovative, and adaptable. Monitoring market trends, diversifying supply chains, embracing sustainability practices, and investing in research and development are vital strategies. By proactively addressing these challenges, we can ensure long-term growth and sustainability in a dynamic global business environment.

Time horizon
Long-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
14113755972

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

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

Explanation of financial impact figure
If ARBL chooses not to adopt climate mitigation measures and continues with a business-as-usual scenario, its carbon emissions are projected to reach 1315416 tons. As a consequence of this significant carbon footprint, ARBL would be liable to pay up to $450 per ton of carbon emitted in the international market by the year 2050 . The liability estimation of carbon tax for Indian scenario has considered to be INR 2000 as the carbon market in India is under evolving and future state is unpredictable at this instance. Such potential financial liabilities highlight the importance of proactively implementing climate mitigation measures to reduce emissions and minimize the associated costs and environmental impact.

Cost of response to risk
10800000000

Description of response and explanation of cost calculation
ARBL is committed to achieving carbon neutrality through a multi-faceted approach that involves exploring additional renewable energy (RE) power options. Our primary goal is to reduce Scope 1+ Scope 2 by 60% emissions by the year 2032 and ultimately achieve net-zero emissions through the widespread adoption of renewable energy sources by 2050.

To attain these ambitious targets, ARBL is actively investing in and exploring various RE power options. These may include harnessing solar, wind, hydroelectric, and other sustainable energy sources to power our operations. By transitioning to renewable energy, we aim to substantially reduce our carbon footprint and minimize greenhouse gas emissions associated with our electricity consumption. However this would depend on the evolving Andhra Pradesh state Renewable energy policy.

Moreover, ARBL recognizes that achieving carbon neutrality is not solely reliant on offsetting Scope 2 emissions. As part of our long-term vision, we are dedicated to becoming a net-zero company by 2050. To realize this, we are committed to a comprehensive Net Zero plan, which entails an incremental shift towards renewable energy sources across our operations, supply chain, and value chain. This plan will encompass stage-wise decarbonization strategies, aligning with international projections and best practices.

Through our unwavering commitment to exploring additional RE power options and embracing a holistic approach towards carbon neutrality, ARBL aims to be at the forefront of sustainable business practices. By setting ambitious targets and implementing proactive measures, we strive to lead by example in the global fight against climate change and contribute to building a greener and more sustainable future for generations to come.

Comment
GOI has defined updated NDCs to achieve reduced emissions from industry sector and building sector also. Perform, Target and Achieve (PAT) scheme has been defined by BEE for some sectors and the same will be extended to manufacturing sector by 2030.

Identifier
Risk 3

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

Risk type & Primary climate-related risk driver

Acute physical	Heavy precipitation (rain, hail, snow/ice)

Primary potential financial impact
Increased capital expenditures

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

Company-specific description

Unforeseen events and challenges can disrupt business operations and result in adverse impacts. Damage to electrical systems can cause significant interruptions, leading to delays in raw material supply and subsequent disruption of production operations. These delays can have a cascading effect on production schedules, resulting in reduced output and potential losses. To mitigate these risks, businesses must prioritize preventive maintenance, implement robust contingency plans, and establish effective communication channels with suppliers to minimize the impact of such disruptions. By proactively addressing these challenges, companies can strive to maintain smooth operations, ensure timely supply chain management, and optimize output levels to meet customer demands.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
4450714285

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

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

Explanation of financial impact figure
ARBL has identified the flooding as a high impacting acute physical risk through scenario analysis using flood risk assessment tool of World Resource Institute. Taking these factors into account, financial risk has been arrived with a consideration of number of days the plant would undergo shutdown due to flooding in the operation or supply and value chain. Recognizing the impact that these events could have on our revenue by disrupting plant operations, we are actively evaluating risk mitigation measures to safeguard business continuity and ensure the resilience of our operations in the face of a changing climate and increased flood risks.

Cost of response to risk
2225357143

Description of response and explanation of cost calculation
As part of our commitment to mitigating the impacts of land use change and floods, we will actively engage in detailed micro-watershed land use change and flood monitoring activities in collaboration with local administration. By closely monitoring and studying the land use patterns within micro-watersheds, we aim to gain valuable insights into potential flood risks and develop appropriate strategies to address them.

Furthermore, we are dedicated to conducting thorough asset integrity evaluations to assess the vulnerability of our assets to floods and high humidity environments. This evaluation process will enable us to identify areas of potential risk and implement necessary measures to safeguard our assets and ensure their long-term integrity.

To bolster our resilience to flooding, we will implement robust flood control programs within our facilities. This includes the construction of protective infrastructure, the implementation of advanced drainage systems, and the adoption of effective flood prevention measures. Through these programs, we aim to minimize the impact of flooding on our operations and ensure the continuity of our business.

In cases where certain assets are deemed highly vulnerable to flooding, we are committed to exploring and executing relocation strategies. By relocating these assets to safer areas, we can significantly reduce their exposure to flood risks and protect their functionality and longevity.

Through these commitments, we strive to proactively manage land use change and flood risks, prioritize asset protection, and ensure the safety and sustainability of our operations.

It has been considered that business may invest at least 50% of the anticipated financial impact in mitigating the climate related risk through various activities such as improving the storm water drain capacity, level raising the critical areas & equipment and improving the storage capacity of raw materials & critical goods across the facility and building resilience in the supply chain.

Comment

Identifier
Risk 4

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

Risk type & Primary climate-related risk driver

Chronic physical	Heat stress

Primary potential financial impact
Increased indirect (operating) costs

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

Company-specific description
Prediction of increase in ambient temperatures by about 1 to 1.5 Deg Celsius in next 50 years as per IPCC report for South Asian countries with high certainty. It is anticipated that the use of HVAC and equipment cooling system will significantly increase across the operation. Also it is expected that employee may frequently get ill which may result in reduction in efficiency and production. This may also have an direct effect on the supply chain and value chain operation as well.

Time horizon
Long-term

Likelihood
Very likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
4250000000

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

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

Explanation of financial impact figure
The estimated annual increase in operational costs resulting from chronic physical risks is based on several factors, including the heightened usage of HVAC systems and a rise in employee absenteeism due to health issues exacerbated by the effects of climate change. These factors have been carefully considered to project the potential financial impact on our operations and to develop appropriate strategies to address and mitigate these risks proactively.

Cost of response to risk
3400000000

Description of response and explanation of cost calculation
As part of our commitment to enhancing productivity, increasing life and reliability, and improving energy efficiency, we will take proactive measures to address various challenges. Firstly, we will prioritize reducing indoor thermal emission loads and enhancing work zone comfort to increase productivity. This includes implementing strategies to minimize heat sources, optimizing ventilation systems, and ensuring a comfortable working environment for our employees.

Secondly, in our Li battery manufacturing processes, we will evaluate the cooling loads required and adopt low-energy and renewable energy-powered cooling systems. By carefully assessing cooling requirements and implementing sustainable cooling solutions, we aim to increase the life and reliability of our Li batteries while minimizing energy consumption and environmental impact.

Lastly, we are committed to enhancing reliability and energy efficiency by phasing out old motors and replacing them with climate-resilient and energy-efficient motors. This transition will not only improve the resilience of our operations but also contribute to reducing energy consumption and minimizing our carbon footprint.

Through these commitments, we strive to optimize productivity, increase the life and reliability of our products, and enhance energy efficiency across our operations. By embracing sustainable practices and investing in climate-resilient technologies, we aim to achieve our goals while minimizing environmental impact and supporting a sustainable future.

It has been considered that business may invest at least 80% of the anticipated financial impact in mitigating the climate related risk through various activities such as improving the HVAC system and employee well being, supply chain and value chain management.

Comment

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?
Direct operations

Opportunity type
Resilience

Primary climate-related opportunity driver
Participation in renewable energy programs and adoption of energy-efficiency measures

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
As a company, we recognize the importance of addressing environmental concerns and seizing opportunities for sustainable development. In light of this, we have identified three key areas to focus on in the future:

Tracking Global Regulatory Carbon Prices: We understand the significance of keeping track of global regulatory carbon prices in regions where our business operates. This allows us to stay informed about evolving carbon pricing mechanisms and incorporate them into our strategic planning.

Implementing GHG Emission Inventory Programs: We recognize the importance of conducting GHG emission inventories not only within our own operations (Scope 1 and Scope 2) but also throughout our supply chain and value chain (Scope 3). By implementing comprehensive inventory programs, we can better understand and manage our emissions footprint across the entire value chain.

Developing a Net Zero Plan with Decarbonization Stages: We are committed to developing a robust Net Zero plan that outlines a staged approach for decarbonization. This plan will encompass reductions in emissions from Scope 1, Scope 2, and Scope 3 sources. It will align with the projected border carbon price scenarios, such as USD 130

per ton by 2027 and USD 450 per ton by 2050, as projected by reputable organizations like the World Bank (WB) and the International Energy Agency (IEA).

By addressing these opportunities in the future, we aim to align our operations with global environmental goals, mitigate our carbon footprint, and contribute to a sustainable future for our company and the planet.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
1599584224

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

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

Explanation of financial impact figure
If ARBL chooses not to adopt climate mitigation measures and continues with a business-as-usual scenario, its carbon emissions are projected to reach 383,934 tons. As a consequence of this significant carbon footprint, ARBL would be liable to pay up to $130 per ton of carbon emitted in the international market and INR 2000 in the domestic market. Such potential financial liabilities highlight the importance of proactively implementing climate mitigation measures to reduce emissions and minimize the associated costs and environmental impact.

Cost to realize opportunity
6800000000

Strategy to realize opportunity and explanation of cost calculation
As ARBL, it is our responsibility to proactively manage our carbon emissions, aligning with global efforts to combat climate change. We must monitor regulatory carbon prices, establish GHG emission inventory programs, and develop a comprehensive Net Zero plan with decarbonization strategies. By implementing these measures, we can effectively address climate change, contribute to the global cause, and strive towards achieving carbon neutrality. As part of the net zero plan, ARBL has identified an opportunity of installing 200 MW of Renewable/ clean energy by 2032 with an investment of 680 Cr. However this would depend on the evolving Andhra Pradesh state Renewable energy policy.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Upstream

Opportunity type
Markets

Primary climate-related opportunity driver
Access to new markets

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
As a company, we perceive the following activities as opportunities to address in the future:

Implementing Trade Regulations: By implementing all activities stated under "Trade Regulations," we can align our operations with relevant regulations and requirements. This will not only ensure compliance but also foster a positive image and reputation in the market.

Tracking and Reviewing Client's CDP Disclosures and Net Zero Plans: By actively tracking and reviewing our clients' CDP (Carbon Disclosure Project) disclosures and net zero plans on an annual basis, we can stay informed about their sustainability efforts. This presents an opportunity to identify areas of collaboration, showcase our commitment to climate action, and strengthen our partnerships.

Evaluating Business Continuity Risk: Conducting periodic evaluations of business continuity risk by the stakeholder and risk committee allows us to proactively identify potential risks and develop mitigation strategies. By addressing business continuity risks, we can ensure the long-term stability and resilience of our organization.

Negotiating Partnerships for Climate Action: Engaging in negotiations with original equipment manufacturer (OEM) clients to establish partnerships for climate action provides an opportunity for long-term agreements and assured business. By aligning our efforts with OEM clients' sustainability goals, we can strengthen our position in the market and enhance our competitive advantage.

Overall, viewing these activities as opportunities allows us to proactively address environmental concerns, strengthen client relationships, mitigate risks, and position ourselves as a leader in climate action and sustainability.

Time horizon
Long-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
ARBL has identified various engagements with the supply chain and value chain as part of the net zero plan to achieve the carbon neutrality. However the financial impact figure for the supply chain and value chain is highly uncertain to assess at this juncture.

Cost to realize opportunity
1044625612

Strategy to realize opportunity and explanation of cost calculation
ARBL is actively pursuing carbon neutrality by exploring renewable energy options to reduce Scope 1+2 emissions by 60% by 2032 and achieve net-zero emissions through widespread adoption of renewable energy by 2050. Our comprehensive Net Zero plan includes stage-wise decarbonization strategies across operations, supply chain, and value chain, demonstrating our commitment to combatting climate change and fostering a sustainable future. In order to meet the net zero target in our supply chain, one of the key opportunity that has been identified is secondary lead smelting process improvement either through RE or fuel switch and promoting low carbon transportation/ no carbon transportation in our supply chain and value chain.
With due considering of the annual growth it has been anticipated that ARBL would invest 25% of the carbon tax that has been envisaged in the year 2050 in the supply chain and value chain towards the carbon reduction initiatives.

Comment

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
Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan
No

Mechanism by which feedback is collected from shareholders on your climate transition plan
We do not have a feedback mechanism in place, but we plan to introduce one within the next two years

Description of feedback mechanism
<Not Applicable>

Frequency of feedback collection
<Not Applicable>

Attach any relevant documents which detail your climate transition plan (optional)

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
<Not Applicable>

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	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	Climate data, including temperature projections, precipitation patterns, and extreme weather events, were obtained from reputable climate models and databases. The RCP 8.5 scenario was used as a basis for analyzing climate projections, considering the high-emission trajectory that this region may face without significant climate policies. The analysis involved localized and relevant information for Tirupati and Chittoor's specific geographical area. By integrating climate projections with local geographic information, the study identified key climate-related risks to Tirupati and Chittoor. Under the RCP 8.5 scenario, temperatures in Tirupati and Chittoor are projected to rise significantly by the end of the century. By 2100, average temperatures could increase by approximately 4.0 to 5.5 degrees Celsius above pre-industrial levels. The frequency and intensity of heatwaves in these regions are expected to increase. Prolonged heatwaves could have adverse effects on public health, agriculture, and overall living conditions. Climate projections indicate a possible shift in precipitation patterns, leading to increased variability in rainfall. This could result in more frequent and intense monsoonal rains or extended dry spells, posing challenges for water resource management and agriculture. These regions may experience water scarcity due to changing precipitation patterns and increased evaporation rates. This can impact water availability for residents, agriculture, and industries in the region. The region could witness a rise in the frequency and intensity of extreme weather events such as cyclones, heavy storms, and flash floods, potentially leading to infrastructure damage and disruption of essential services.
Transition scenarios: IEA NZE 2050	Company-wide	<Not Applicable>	ARBL, has conducted a assessment of Transition Risks induced by climate change using the IEA Net Zero Emissions by 2050 (NZE 2050) scenario. IEA's NZE 2050 scenario aligns with the objective of achieving net-zero greenhouse gas emissions by 2050, with specific targets such as 625 GW of annual capacity additions of Solar Renewable Energy (RE) by 2030 and achieving net zero electricity by 2040 across globe. In the same regard, ARBL has also committed to invest in solar and other RE power to the tune of 200 MW by 2032 with an investment of 1080 crores and also moving 100% of internal logistics to low carbon/ no carbon transportation through EV by 2032 and net zero by 2050.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

What will be the financial impact on the business due to climate change?

Results of the climate-related scenario analysis with respect to the focal questions

If climate change is not adequately addressed, businesses may face several negative impacts:

Physical Damages and Operational Disruptions:
Climate change can lead to more frequent and severe extreme weather events, such as storms, floods, and heat waves. These events can cause physical damage to business infrastructure, disrupt supply chains, and interrupt operations. Companies may incur significant costs for repairs, replacements, and business continuity measures.

Increased Costs and Reduced Profitability:
Climate change can lead to rising costs for resources, such as energy, water, and raw materials, as well as increased insurance premiums. Businesses may also face regulatory costs associated with compliance with climate-related policies and regulations. These factors can reduce profitability and erode competitive advantage.

Supply Chain Risks and Disruptions:
Climate change impacts can disrupt supply chains, affecting the availability and cost of inputs and leading to delays in production and delivery. We may face challenges in sourcing materials, components, and finished products, impacting our ability to meet customer demands and potentially resulting in reputational damage.

Market Shifts and Changing Consumer Preferences:
Climate change awareness is growing among consumers, leading to changing preferences and demands for sustainable products and services. Businesses that do not address climate change adequately may face market shifts, declining sales, and difficulty attracting and retaining customers.

Legal and Regulatory Risks:
Failure to comply with climate-related regulations and requirements can expose businesses to legal and regulatory risks, including fines, penalties, and lawsuits. Additionally, companies that do not align with evolving sustainability standards may face reputational damage and loss of investor confidence.

Financial Risks and Investor Pressure:
Climate change poses financial risks to businesses, including stranded assets (e.g., investments in fossil fuel-related infrastructure becoming obsolete), devaluation of high-carbon assets, and potential loss of access to capital as investors increasingly prioritize climate-related considerations.

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	The rapid progress in battery technology, a key driver of future innovation, coupled with the impact of climate change, has significantly boosted the adoption of batteries for renewable energy storage and electric vehicles, with a strong emphasis on the eco-friendliness of these products. As a result, we are confident that these concerted efforts will generate substantial growth in the company's sales.
Supply chain and/or value chain	Yes	Addressing climate change on a global scale necessitates coordinated actions from suppliers, customers, and ARBL. By engaging in these collective efforts, we can enhance our corporate image among consumers and ultimately drive positive growth in our company's sales. To ensure accountability throughout our supply chain, we have implemented a code of conduct that all suppliers must adhere to. Furthermore, as a precautionary measure to mitigate potential risks within our supply chain, we mandate all new partners to sign and submit the agreement, reflecting our commitment to minimizing such risks.
Investment in R&D	Yes	ARBL has strategically decided to invest in a state-of-the-art Research and Development (R&D) facility with a focus on advancing lithium-ion battery technology and enhancing attributes of lead acid batteries. This decision offers several benefits for the company: Technological Advancement: The R&D facility allows ARBL to demonstrate its commitment to innovation and staying ahead in the lithium-ion battery field. Through exploring new materials, designs, and manufacturing processes, the company can achieve breakthroughs that improve battery performance, energy density, and longevity. Product Improvement: With rigorous testing and prototyping, the R&D facility enables ARBL to identify areas for improvement and enhance battery efficiency, safety, and overall performance. This leads to the production of higher-quality batteries that meet evolving customer needs. Cost Efficiency: Investing in R&D helps ARBL identify cost-saving measures and optimize the manufacturing process, leading to economies of scale and reduced manufacturing costs. These efficiencies can be passed on to customers, making ARBL's batteries more competitive in the market. Market Differentiation: The R&D facility allows ARBL to create cutting-edge battery technologies, differentiating its products from competitors. This attracts new customers, fosters brand loyalty, and establishes ARBL as a battery industry leader. Environmental Sustainability: ARBL's R&D efforts focus on developing environmentally friendly battery technologies, such as materials with reduced environmental impact and improved energy efficiency. This contributes to global efforts in combating climate change and promoting a greener future.
Operations	Yes	The company has made improvements to its renewable infrastructure and remains dedicated to energy efficiency improvement. This commitment is demonstrated through the upgrading of process technology, efficient production scheduling, and the implementation of various energy-saving initiatives. A few initiatives are mentioned below. Renewable energy initiatives: Commissioned 52.1 MW of renewable power infrastructure with more 7.5 MW in the pipeline for implementation. ARBL has achieved cost savings of INR 4.2 crores by implementing the below-listed projects promoting energy efficiency: • Improving heater control system for lead pots • Conversion of V-belt drive to direct coupling in FA\ FE Systems • Cooling tower process pump automation by providing VFD • Replacement of old conventional chargers with IGBT chargers • Axial Fans (HVLS) in Finishing areas • Replacement of conventional lights with LED lights • Oven Control Panels Upgradation with IGBT technology • Install auto descaling system for Acid chillers • Elimination of Dumper washing tunnel blower line1 • Interlinking of FA System WRT production lines • Manually alternate Street lightings switch on in North and South side • Timer base switch on Lighting (6.00 PM to 06.00 AM) • Skin temperature reduction in lead melting pots • Replacement of conventional motors with BLDC motors in HVAC AHUs. • Finishing line 2 conveyor motor 2HP to 1 HP changed • Power factor improvement in SDB level • Replacement of pneumatic vibrators with electrical vibrators • Occupancy Sensors for Stores, chargers' room, Formation tubs, and other utility buildings to control lighting energy • Replace AODD pumps with energy EODD pumps in ETP • Installed VFD for Treated water transfer pump at ETP @20 HP • Reduction of Compressed air leaks in the shop floor • Energy Optimization in curing and drying ovens

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	Direct costs Indirect costs Liabilities	Financial Burden: Without adequate climate change mitigation measures, ARBL would likely be subject to carbon taxes levied by governments. Carbon taxes are imposed on companies based on their greenhouse gas emissions, particularly carbon dioxide (CO2) emissions. These taxes aim to discourage high-emission activities and encourage a transition to cleaner and more sustainable practices. Failure to implement effective mitigation measures would result in increased costs for ARBL, reducing profitability and competitiveness in future. Reduced Competitiveness: If ARBL does not prioritize climate change mitigation, it may lag behind competitors who have embraced sustainable practices and implemented mitigation measures. In a global marketplace increasingly focused on environmental responsibility, customers, investors, and regulatory bodies place value on companies that actively address climate change. Failure to do so may lead to reputational damage and a loss of market share, as consumers and stakeholders prefer environmentally conscious alternatives. Regulatory Compliance Challenges: In many jurisdictions, governments are enacting stricter environmental regulations and policies to combat climate change. These regulations may include emission limits, reporting requirements, and the imposition of carbon taxes. Failure to comply with such regulations could result in legal and regulatory challenges, including fines, penalties, and potential disruptions to ARBL's operations. Market Access Limitations: Some countries and trading blocs have started implementing policies that restrict or tax products based on their carbon footprint. Failure to address climate change adequately may result in limitations or additional costs for accessing such markets. ARBL's products could face barriers or trade restrictions, making it difficult to expand into regions that prioritize sustainability and have stringent climate-related policies. Investor and Stakeholder Pressure: Investors and stakeholders are increasingly considering environmental factors in their decision-making processes. Failure to demonstrate a commitment to climate change mitigation may result in diminished investor interest, reduced access to capital, and increased scrutiny from shareholders and other stakeholders. This pressure can have long-term consequences for ARBL's financial stability and growth prospects.

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	Yes, we identify alignment with our climate transition plan	<Not Applicable>

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric
CAPEX

Type of alignment being reported for this financial metric
Alignment with our climate transition plan

Taxonomy under which information is being reported
<Not Applicable>

Objective under which alignment is being reported
<Not Applicable>

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
12650000000

Percentage share of selected financial metric aligned in the reporting year (%)
21.74

Percentage share of selected financial metric planned to align in 2025 (%)
3.16

Percentage share of selected financial metric planned to align in 2030 (%)
75.1

Describe the methodology used to identify spending/revenue that is aligned
ARBL has proactively embraced climate scenario modeling to predict and assess future carbon emissions, enabling the company to gain insights into the potential impacts of climate change. By employing this approach, ARBL has evaluated and quantified the associated costs of climate mitigation measures necessary to curb carbon emissions effectively. Through extensive analysis and modeling, ARBL has identified the potential trajectory of its carbon emissions under different scenarios. This predictive capability allows the company to understand the magnitude of its environmental footprint and assess the risks associated with failing to mitigate climate change adequately. In conjunction with scenario modeling, ARBL has also conducted a comprehensive assessment of climate mitigation costs. By evaluating various strategies and technologies, the company has determined the financial implications of implementing measures to reduce greenhouse gas emissions. This analysis considers factors such as investment in renewable energy, energy efficiency improvements, carbon offsetting initiatives, and other relevant mitigation actions.

C4. Targets and performance

C4.1

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

Absolute target
Intensity target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition
1.5°C aligned

Year target was set
2023

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2022

Base year Scope 1 emissions covered by target (metric tons CO2e)
2282

Base year Scope 2 emissions covered by target (metric tons CO2e)
267904

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
270186

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year
2027

Targeted reduction from base year (%)
30

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
189130.2

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
6159

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
242867

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
249026

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]
26.1054730198209

Target status in reporting year
New

Please explain target coverage and identify any exclusions
The target was set in FY 2022-23, and the baseline is FY 2021-22. Covers 100% scope-1 & Scope-2 in all the manufacturing facility of Amara Raja Batteries Limited in India. Our baseline Scope 1+2 emissions is 270,186 T. 'Do nothing' scenario with current intensity (adjusting for inflation and 1.5% energy efficiency) shall be 383,934 T. Considering 30% reduction in Scope 1+2 by FY27, reduction needed = 194,804 T of CO2.

Plan for achieving target, and progress made to the end of the reporting year
In the reporting year (FY-22-23) we have installed 59.1 renewable infrastructure an investment of 300 Cr. Also, another 7.5 MW of renewable power is planned in FY 23-24 with an investment of 40Cr and 120MW of renewable power in FY 25-26 with an investment of 600Cr. ARIBL also has the plan to phase out the high GWP refrigerants (R404) in FY 24-25, Fuel switching to Gas & EV in internal logistics movement in FY 25-26.

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

Target reference number
Abs 2

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition
1.5°C aligned

Year target was set
2023

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2022

Base year Scope 1 emissions covered by target (metric tons CO2e)
2282

Base year Scope 2 emissions covered by target (metric tons CO2e)
267904

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
270186

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2032

Targeted reduction from base year (%)
60

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
108074.4

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
6159

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
242867

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
249026

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]
13.0527365099105

Target status in reporting year
New

Please explain target coverage and identify any exclusions
The target was set in FY 2022-23, and the baseline is FY 2021-22. Covers 100% scope-1 & Scope-2 in all the manufacturing facility of Amara Raja Batteries Limited in India. Baseline: 270,186 T. Do Nothing Scenario: 500,648 . Reduction achieved by FY27: 1,98,960 T Remaining: 1,89,273 T.

Plan for achieving target, and progress made to the end of the reporting year
In addition to the initiative identified in Abs-1, the following plan is in place Additional 70 MW Renewable Energy, 100% EV for employee and internal logistics, Energy efficiency projects delivering 1.5% YOY reduction, Tree plantation 100,000.

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

Target reference number
Abs 3

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition
1.5°C aligned

Year target was set
2023

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2022

Base year Scope 1 emissions covered by target (metric tons CO2e)
2282

Base year Scope 2 emissions covered by target (metric tons CO2e)
267904

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
270186

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2040

Targeted reduction from base year (%)
90

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
27018.6

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
6159

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
242867

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
249026

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]
8.7018243399403

Target status in reporting year
New

Please explain target coverage and identify any exclusions
The target was set in the FY 2022-23, and the baseline is FY 2021-22. Covers 100% scope-1 & Scope-2 in all the manufacturing facility of Amara Raja Batteries Limited in India.

Plan for achieving target, and progress made to the end of the reporting year
In addition to Abs-1 & Abs-2 the following plan is in place for 100% Firm 24x7 renewable electricity with energy storage, 100% shift towards Electric or hydrogen driven vehicles, 100% recycled Raw Material & Tree plantation.

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

Target reference number
Abs 4

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition
1.5°C aligned

Year target was set
2023

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2022

Base year Scope 1 emissions covered by target (metric tons CO2e)
2282

Base year Scope 2 emissions covered by target (metric tons CO2e)
267904

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
270186

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2050

Targeted reduction from base year (%)
100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
6159

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
242867

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
249026

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]
7.83164190594627

Target status in reporting year
New

Please explain target coverage and identify any exclusions
The target was set in the FY 2022-23, and the baseline is FY 2021-22. Covers 100% scope-1 & Scope-2 in all the manufacturing facility of Amara Raja Batteries Limited in India.

Plan for achieving target, and progress made to the end of the reporting year
In addition to Abs-1, Abs-2 and Abs-3, the following plan were identified for achieving the goal, 100% RE and 100% EV .

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

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?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition
1.5°C aligned

Year target was set
2023

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution

Category 12: End-of-life treatment of sold products
Category 13: Downstream leased assets

Intensity metric
Metric tons CO2e per unit revenue

Base year
2022

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
29.18

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)
0.807

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.218

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
0.078

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
0.232

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)
0.117

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)
15.116

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
0.025

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)
45.782

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
45.782

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
<Not Applicable>

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
<Not Applicable>

% 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
100

% 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
100

% 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
100

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
100

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
100

% 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
100

% 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
100

% 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
100

% 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
100

% of total base year emissions in all selected Scopes covered by this intensity figure
100

Target year
2032

Targeted reduction from base year (%)
30

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
32.0474

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions
23

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
27.87

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)
0.663

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.185

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
0.189

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
0.208

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)
0.107

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)
9.356

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
0.025

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)
38.608

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
38.608

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]
52.233046466588

Target status in reporting year
New

Please explain target coverage and identify any exclusions
The target was set in the FY 2022-23, and the baseline is FY 2021-22. The target covers company-wide scope-3 emissions for relevant categories.

Plan for achieving target, and progress made to the end of the reporting year
The following plan were identified, part procurement from Net Zero committed supplier, Logistics decarbonization (ship/train), RE for secondary lead smelters , Nature based solutions – mangroves and wetland protect, Ocean sequestration using Olevine

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

Target reference number
Int 2

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition
1.5°C aligned

Year target was set
2023

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 12: End-of-life treatment of sold products
Category 13: Downstream leased assets

Intensity metric
Metric tons CO2e per unit revenue

Base year

2022

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
29.18

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)
0.807

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.218

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
0.078

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
0.232

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)
0.117

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)
15.116

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
13.025

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)
45.782

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
45.782

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
<Not Applicable>

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
<Not Applicable>

% 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
100

% 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
100

% 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
100

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
100

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
100

% 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
100

% 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
100

% 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
100

% 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
100

% of total base year emissions in all selected Scopes covered by this intensity figure
100

Target year
2040

Targeted reduction from base year (%)
50

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
22.891

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions
50

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
27.87

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)
0.663

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.185

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
0.189

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
0.208

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)
0.107

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)
9.356

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
0.025

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)
38.608

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
38.608

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]
31.3398278799528

Target status in reporting year
New

Please explain target coverage and identify any exclusions
The target was set in the FY 2022-23, and the baseline is FY 2021-22. The target covers company-wide scope-3 emissions for relevant categories.

Plan for achieving target, and progress made to the end of the reporting year
In addition to Int-1, the following plan were identified, decarbonization of secondary lead smelters, prefer supply chain partners with Net Zero Commitments, decarbonization of the secondary lead & decarbonization of upstream, downstream transportation (EV & Hydrogen). Incentivizing the value chain.

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

Target reference number
Int 3

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition
1.5°C aligned

Year target was set
2023

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 12: End-of-life treatment of sold products
Category 13: Downstream leased assets

Intensity metric
Metric tons CO2e per unit revenue

Base year
2022

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
29.18

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)
0.807

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.218

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
0.078

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
0.232

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)
0.117

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)
15.116

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
0.025

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)
45.782

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
45.782

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
<Not Applicable>

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
<Not Applicable>

% 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
100

% 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
100

% 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
100

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
100

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
100

% 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
100

% 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
100

% 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
100

% 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
100

% of total base year emissions in all selected Scopes covered by this intensity figure
100

Target year
2050

Targeted reduction from base year (%)
90

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
4.5782

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions
-78

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
27.87

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)
0.663

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
0.185

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
0.189

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
0.208

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)
0.107

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)

9.356

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
0.025

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)
38.608

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
38.608

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]
17.4110154888627

Target status in reporting year
New

Please explain target coverage and identify any exclusions
The target was set in the FY 2022-23, and the baseline is FY 2021-22. The target covers company-wide scope-3 emissions for relevant categories.

Plan for achieving target, and progress made to the end of the reporting year
In addition to Int-1 & Int-2, the following plan were identified, decarbonization of secondary lead smelters, prefer supply chain partners with Net Zero Commitments, decarbonization of the secondary lead & decarbonization of upstream, downstream transportation (EV & Hydrogen). Incentivizing the value chain.

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?
Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2023

Target coverage
Company-wide

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2022

Consumption or production of selected energy carrier in base year (MWh)
377329.722

% share of low-carbon or renewable energy in base year
0

Target year
2032

% share of low-carbon or renewable energy in target year
61

% share of low-carbon or renewable energy in reporting year
12

% of target achieved relative to base year [auto-calculated]
19.672131147541

Target status in reporting year
New

Is this target part of an emissions target?
Yes, it is part of the Absolute targets (Abs-1, Abs-2).

Is this target part of an overarching initiative?
Other, please specify (It is part of an Overarching Initiative. We intent to get this initiative approved through SBTi in next two years.)

Please explain target coverage and identify any exclusions
The target was set in the Financial Year (FY 2021-22) and the current reporting year is FY 2022-23. The initiative is part of the solar power installation to reduce the scope 2 emissions as covered in absolute targets.

Plan for achieving target, and progress made to the end of the reporting year
In FY 2022-23 about 59.1MW solar power system is installed & 7.5 MW rooftop solar is under commissioning with an investment of 300 Cr. A plan to install 120MW renewable power in FY 2025-26, 70MW renewable power in FY 28-29.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1
Abs2
Abs3
Abs4
Int1
Int2
Int3

Target year for achieving net zero
2050

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Please explain target coverage and identify any exclusions
The target was set in the FY 2022-23, and the baseline is FY 2021-22. Covers 100% scope-1 & Scope-2 in all the manufacturing facility of Amara Raja Batteries Limited in India.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year
100% RE and 100% EV, Carbon Sequestration and offsetting for remaining, Hydrogen and biomass for 100% fuel application, Tree plantation. Investment of about 1000Cr is planned in next 10 years for installation of renewable power.

Planned actions to mitigate emissions beyond your value chain (optional)

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*	8	328000
Implementation commenced*	1	8680
Implemented*	1	33514
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

Low-carbon energy consumption	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
214830

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)
216000000

Investment required (unit currency – as specified in C0.4)
1080000000

Payback period
4-10 years

Estimated lifetime of the initiative
16-20 years

Comment
Installation of renewable energy to at tune of 200MW over a period on next 10 years.

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	ARBL identified the energy reduction initiative in line with the corporate long-term commitment beginning of every year and the budget for the same will be allocated part of the annual budget. Also, the facility has a provision to request an additional budget
Dedicated budget for low-carbon product R&D	ARBL identified the renewable power installation initiative in line with the corporate long-term commitment beginning of every year and the budget for the same will be allocated as part of the annual budget. Also, the facility has a provision to request an additional budget
Internal price on carbon	Adopting an internal carbon pricing mechanism holds immense potential benefits for ARBL. It ensures efficient resource allocation, lowers operational costs, and reduces the risk of regulatory non-compliance. The company gains the opportunity to capitalize on cost-saving measures and drive sustainability initiatives effectively. Moreover, implementing internal carbon pricing positions ARBL as a responsible and sustainable company, earning the trust and support of investors and stakeholders, ultimately enhancing its reputation and facilitating access to capital in the dynamic business landscape.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
No

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
Yes

C5.2

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

Scope 1

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
2282

Comment
Greenhouse gas (GHG) emissions have been estimated for each of the 3 defined scopes as per the guidelines outlined in the GHG Protocol (a widely recognized methodology for measuring and managing GHG emissions) for two manufacturing sites in India, both of which are directly operated and controlled by ARBL. The process involved data collection from the manufacturing sites, which includes, energy consumption, fuel usage, and other relevant emissions.

Scope 2 (location-based)

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
267904

Comment
Greenhouse gas (GHG) emissions have been estimated for this scope as per the guidelines outlined in the GHG Protocol (a widely recognized methodology for measuring and managing GHG emissions) for two manufacturing sites in India, both of which are directly operated and controlled by ARBL. The greenhouse gas (GHG) emissions covered in this scope involves power purchased from the grid for ARBL manufacturing sites defined above.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 1: Purchased goods and services

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
253794

Comment
Based on the average data method, about 95% of the raw materials by weight the above-identified sites have been covered in this estimation. These raw materials include Lead & Lead alloys, Sulphuric acid, and polypropylene.

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

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

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
7023

Comment
The transportation of raw materials for two manufacturing facilities was recorded based on actual data from internal records. The modes of transportation are through road and sea, with no involvement of rail movement. This data was captured using the distance-based method, which is based on the distances travelled during the transportation of the raw materials.

Scope 3 category 5: Waste generated in operations

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
1901

Comment
The estimation process took into account all the wastes generated from the two manufacturing plants. Each waste type was considered individually, and specific emission factors were applied during the estimation

Scope 3 category 6: Business travel

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
680

Comment
This estimation of emissions is based on transportation through road and air travel. For road travel, the distance-based method was utilized to calculate emissions. This method takes into account the distance travelled and the amount of fuel consumption during road transportation. For air travel, the spend-based method was adopted to calculate emissions on a per-passenger basis from the air ticket.

Scope 3 category 7: Employee commuting

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
2023

Comment
The emission calculation in this category is on the basis of a fuel-based method. However, it is to be noted that employee commuting through the usage of one's own vehicle was not included in the estimation.

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
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
1017

Comment
Emissions in this category were estimated based on the following assumptions: (1). Supply trucks, with a carrying capacity of 20 tons, covered an average distance of 500 kilometers and (2). The calculation of emissions was performed using the fuel-based method.

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
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
131452

Comment
The emissions under this category specifically focus on the percentage of raw virgin lead utilized in the production process. The usage of secondary lead, which is recovered and utilized as a raw material is not included in this consideration as it will be a double accounting.

Scope 3 category 13: Downstream leased assets

Base year start
April 1 2021

Base year end
March 31 2022

Base year emissions (metric tons CO2e)
222

Comment
The emission estimation for this category is based only on Scope 2 emissions associated with leased assets.

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.
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
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)
6159

Start date
April 1 2022

End date
March 31 2023

Comment
The absolute CO2 equivalent emissions reported here include all emission sources from manufacturing sites of ARBL located in India. About 60% increase in the Scope-1 emission as compared to the previous year is attributed to the installation of the Zero Liquid Discharge facility, as this ZLD facility is operated through LPG. Moreover, the HSD consumption in the boiler and refrigerant refill of R404 has also significantly increased in the reporting year. The increase in HSD for DG was due to a power outage for about 2 months.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
2282

Start date
April 1 2021

End date
March 31 2022

Comment
The absolute CO2 equivalent emission reported here includes all sources from the manufacturing of ARBL sites located in India.

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 have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment
The calculations used here are based on India's average emission factor from Central Electricity Authority (CEA)

C6.3

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

Reporting year

Scope 2, location-based
242867

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
April 1 2022

End date
March 31 2023

Comment
The absolute CO2 equivalent emission reported here covers the grid power for the manufacturing sites of ARBL located in India. The emission factor used is Location-based and is from CEA. There has been a 10% reduction in emissions from the previous year due to the installation of renewable energy (Solar based Power) and also various other energy efficiency measures undertaken by the company in the reporting year.

Past year 1

Scope 2, location-based
267904

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
April 1 2021

End date
March 31 2022

Comment
The absolute CO2 equivalent emission reported covers the grid power for the two manufacturing sites of ARBL located in India. The emission factor of CEA (Location - based figure) is used.

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?
No

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)
289436

Emissions calculation methodology
Supplier-specific method
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emission Calculations have been done as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). Based on actual procurement data for each supplier, about 95% of the raw material used by mass are covered under this category. The emission factor used for this computation is based on USEPA data.

Capital goods

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 refers to capital equipment purchases, which are one-time investments and need-based procurements. Capital goods purchase is need-based and not a regular activity for our business operations. Hence not considered as material topic.

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

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 are in a process of collecting the data

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
6891

Emissions calculation methodology
Fuel-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
The Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). Upstream transportation covers raw material transportation by Road & Ship. Supplier information on the quantity of material transported by ship and road respectively, along with respective emission factors taken from authentic secondary sources were used for this calculation.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1930

Emissions calculation methodology
Average data method
Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). The entire quantity of waste generated in the process is disposed of through an authorized agency. The quantity of waste sent to individual agencies calculated along their respective emission factor (taken from USEPA for each category of waste) has been considered for this estimation.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1971

Emissions calculation methodology
Spend-based method
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). Road & Air transportation for business travel is considered under this category. Emission data obtained from the supplier for air travel (based on the air ticket) is used for the estimation. For road travel, the fuel-based method is used, based on the data provided by the travel desk.

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
2164

Emissions calculation methodology
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). Employee commute is calculated based on the data provided by the travel vendor. A fuel-based method is adopted for this estimation.

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
In our business operation, no upstream leased assets are used for the storage of raw materials. Hence this emission category is not relevant to our operations

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1118

Emissions calculation methodology
Fuel-based method

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

Please explain
Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). Due to the availability of limited data in the downstream distribution, the following assumptions were considered for estimation: (1) Downstream transportation of 500km average distance with a 20-ton truck based on Raw Material consumption.

Processing 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
Based on the nature of our business operations, this category of emission is not applicable to us. As the product sold by the facility is a capital good and is an end-use product (Battery).

Use 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
Emissions associated with power consumption for Battery recharge are relevant. However, the data availability for the power consumption and mix of renewable and non-renewable are highly uncertain. Hence, this estimation has not been estimated for the current year. However, we are planning to include this emission category in the next three years based on data maturity.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
97168

Emissions calculation methodology
Average product method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). ARBL has increased the use of secondary lead through the "end of life" treatment process. In this emission, Only raw virgin lead used in the reporting year has been considered for the end of treatment as the secondary lead is recovered and used as raw material (accounted in Category-1 under raw material).

Downstream leased assets

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
269

Emissions calculation methodology
Supplier-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard). Only Scope-2 of leased assets was evaluated. Scope -1 is not considered due to non-availability and /or uncertainty of data. Most of the utilities (leased) are managed by the building owner, hence no direct emissions are envisaged.

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
ARBL does not have any control over the franchisees as it is operated by the franchisee independently. Also the emissions will be insignificant and therefore emission from franchisees are not considered.

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
ARBL has not made any investment in the reporting year.

Other (upstream)

Evaluation status

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

Other (downstream)

Evaluation status

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

C6.5a

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

Past year 1

Start date
April 1 2021

End date
March 31 2022

Scope 3: Purchased goods and services (metric tons CO2e)
253794

Scope 3: Capital goods (metric tons CO2e)
0

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
0

Scope 3: Upstream transportation and distribution (metric tons CO2e)
7023

Scope 3: Waste generated in operations (metric tons CO2e)
1901

Scope 3: Business travel (metric tons CO2e)
680

Scope 3: Employee commuting (metric tons CO2e)
2023

Scope 3: Upstream leased assets (metric tons CO2e)
0

Scope 3: Downstream transportation and distribution (metric tons CO2e)
1017

Scope 3: Processing of sold products (metric tons CO2e)
0

Scope 3: Use of sold products (metric tons CO2e)
0

Scope 3: End of life treatment of sold products (metric tons CO2e)
131452

Scope 3: Downstream leased assets (metric tons CO2e)
222

Scope 3: Franchises (metric tons CO2e)
0

Scope 3: Investments (metric tons CO2e)
0

Scope 3: Other (upstream) (metric tons CO2e)
0

Scope 3: Other (downstream) (metric tons CO2e)
0

Comment
Emission Calculation has been performed as per IPCC & GHG Protocol (Corporate Value Chain (Scope 3) Reporting and Accounting Standard).

C-CG6.6

(C-CG6.6) Does your organization assess the life cycle emissions of any of its products or services?

	Assessment of life cycle emissions	Comment
Row 1	Yes	LCA has been done through third party.

C-CG6.6a

(C-CG6.6a) Provide details of how your organization assesses the life cycle emissions of its products or services.

	Products/services assessed	Life cycle stage(s) most commonly covered	Methodologies/standards/tools applied	Comment
Row 1	Representative selection of products/services	Cradle-to-grave	ISO 14040 & 14044	LCA is undertaken to assess the environmental profile of the lead acid batteries and identify the hotspots in the value chain of the product for optimization and further reduction of environmental impacts. This study will help in providing: • An indication of the environmental performance of the product being analyzed and suitable optimizations could be done. • Detailed knowledge of significant parameters of characteristic products for improving sustainability performance in the supply chain. • Development of suitable environmental and sustainable strategies (short term and long term) could be adopted. • R&D team could run various scenarios on raw material, process, and energy efficiency improvements, resource conservation, waste reduction, and recycling.

C6.7

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

No

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

23.9

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

249026

Metric denominator

unit total revenue

Metric denominator: Unit total

10385

Scope 2 figure used

Location-based

% change from previous year

23

Direction of change

Decreased

Reason(s) for change

Change in renewable energy consumption

Please explain

The emission Intensity of ARBL for FY 2022-23 is 23.9 tCO2e/Cr as against the intensity of 31 tCO2e/Cr in FY 2021-22. ARBL has installed 59.1 MW of solar power and has also undertaken various energy conservation measures. Moreover, the facility has installed the Zero Liquid Discharge (ZLD) which operates using LPG. This LPG contributes to additional scope-1 emissions as compared to the previous year. The absolute emission reduction is 8% in FY 2022-23 and a 23% reduction in intensity against the previous year.

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	2809	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	3350	IPCC Fifth Assessment Report (AR5 – 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)
India	6159

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
Tirupati - Karakambadi	2464	13.673249	79.503676
Amara Raja Growth Corridor (ARGC)- Chittoor	3695	13.210177	79.040186

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Diesel Generator	830
Boiler - HSD	311
ETP-ZLD (LPG Based)	828
Lead Melting Furnace (LPG & Acetylene)	651
Internal Cargo Transportation (HSD)	180
Chiller & Air conditioning (Refrigerant)	3350
Fire Extinguisher (CO2)	9

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)
India	242867	

C7.6

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

By facility

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)
Tirupati-Karakambadi	92848	
Amara Raja Growth Corridor (ARGC)- Chittoor	150019	

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	33514	Decreased	12	Total renewable energy generated for FY 2022-23 is 47203277 KWh, from 59.1 MW solar plant and planned to install another 7.5 MW in the current year. which contributed to a reduction in the scope-2 emission of 33514 tCO2e (Avoided emission) compared to last year. Facilities certified under ISO 50001:2018 for energy management systems. ARBL has also received Golden Peacock award.
Other emissions reduction activities	25037	Decreased	9	Emission from grid power in FY2021-22 is 267904TCO2e & in FY2022-23 is 242867 TCO2e. 9% emission reduction from the grid power is achieved irrespective of an increase in production from 8031 million ampere hour to 8824 million ampere-hour. Facilities certified under ISO 50001:2018 for energy management systems. ARBL has achieved cost savings of INR 4.2 crores by implementing the below-listed projects promoting energy efficiency: • Improving heater control system for lead pots • Conversion of V-belt drive to direct coupling in FA\ FE Systems • Cooling tower process pump automation by providing VFD • Replacement of old conventional chargers with IGBT chargers • Axial Fans (HVLS) in Finishing areas • Replacement of conventional lights with LED lights • Oven Control Panels Upgradation with IGBT technology • Install auto descaling system for Acid chillers • Elimination of Dumper washing tunnel blower line1 • Interlinking of FA System WRT production lines • Manually alternate Street lightings switch on in North and South side • Timer base switch on Lighting (6.00 PM to 06.00 AM) • Skin temperature reduction in lead melting pots • Replacement of conventional motors with BLDC motors in HVAC AHUs. • Finishing line 2 conveyor motor 2Hp to 1 Hp changed • Power factor improvement in SDB level • Replacement of pneumatic vibrators with electrical vibrators • Occupancy Sensors for Stores, chargers' room, Formation tubs, and other utility buildings to control lighting energy • Replace AODD pumps with energy EODD pumps in ETP • Installed VFD for Treated water transfer pump at ETP @20 hp • Reduction of Compressed air leaks in the shop floor • Energy Optimization in curing and drying ovens
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
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?

Location-based

C-CG7.10

(C-CG7.10) How do your total Scope 3 emissions for the reporting year compare to those of the previous reporting year?
Increased

C-CG7.10a

(C-CG7.10a) For each Scope 3 category calculated in C6.5, specify how your emissions compare to the previous year and identify the reason for any change.

Purchased goods and services

Direction of change
Increased

Primary reason for change
Change in product efficiency

Change in emissions in this category (metric tons CO2e)
35642

% change in emissions in this category
14

Please explain
14% increase in the emission is due to the use of a higher quantity of Secondary recycled lead from recyclers. Emission factor of secondary lead is higher when compared to primary lead.

Upstream transportation and distribution

Direction of change
Decreased

Primary reason for change
Other emissions reduction activities

Change in emissions in this category (metric tons CO2e)
132

% change in emissions in this category
2

Please explain
2% reduction was made due to other emission reduction initiatives such as local purchase for the feasible raw materials

Waste generated in operations

Direction of change
Increased

Primary reason for change
Unidentified

Change in emissions in this category (metric tons CO2e)
29

% change in emissions in this category
1.5

Please explain
1.5% increase was made due to an increase in production from 8031 million ampere hour to 8824 million ampere-hour

Business travel

Direction of change
Increased

Primary reason for change
Change in physical operating conditions

Change in emissions in this category (metric tons CO2e)
1292

% change in emissions in this category
190

Please explain
Business travel has increased post Covid Scenario

Employee commuting

Direction of change
Increased

Primary reason for change
Change in physical operating conditions

Change in emissions in this category (metric tons CO2e)
141

% change in emissions in this category
6.9

Please explain
The company provides vehicle through third party for Employee commute. The distance covered has increased compare to previous year.

Downstream transportation and distribution

Direction of change
Increased

Primary reason for change
Change in output

Change in emissions in this category (metric tons CO2e)
101

% change in emissions in this category
9.9

Please explain
9.9% increase is due to change in the production capacity.

End-of-life treatment of sold products

Direction of change
Decreased

Primary reason for change
Change in material efficiency

Change in emissions in this category (metric tons CO2e)
34285

% change in emissions in this category
26

Please explain
Reduction in the use of primary lead compare to previous year.

Downstream leased assets

Direction of change
Increased

Primary reason for change
Change in output

Change in emissions in this category (metric tons CO2e)
48

% change in emissions in this category
21

Please explain
21% increase is due to change in the number of leased assets and operation time.

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	No
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	11121.55	11121.55
Consumption of purchased or acquired electricity	<Not Applicable>	0	342065.68	342065.68
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	47203.27	<Not Applicable>	47203.27
Total energy consumption	<Not Applicable>	47203.27	353187.23	400390.5

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
HHV

Total fuel MWh consumed by the organization
4231.21

MWh fuel consumed for self-generation of electricity
3076.27

MWh fuel consumed for self-generation of heat
1154.94

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
Calculated based on the power production capacity of each fuel type such as diesel, LPG, Acetylene.

Other biomass

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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 renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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

Coal

Heating value
Please select

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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

Oil

Heating value
HHV

Total fuel MWh consumed by the organization
4231.21

MWh fuel consumed for self-generation of electricity
3076.27

MWh fuel consumed for self-generation of heat
1154.94

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
Oil based fuel (HSD) used in boilers and DG set.

Gas

Heating value
HHV

Total fuel MWh consumed by the organization
6890.34

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
6890.34

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 based fuel used (LPG & Acetylene) in furnace and ZLD for heat generation.

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

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

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

Total fuel

Heating value
HHV

Total fuel MWh consumed by the organization
11121.55

MWh fuel consumed for self-generation of electricity
3076.27

MWh fuel consumed for self-generation of heat
8045.28

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
Calculated based on the power production capacity of each fuel type such as diesel, LPG, Acetylene. Oil based fuel (HSD) used in boilers and DG set. Gas based fuel (LPG & Acetylene) used in furnace and ZLD for heat generation.

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	50279.54	50279.54	47203.27	47203.27
Heat	8045.28	8045.28	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2g

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

Country/area
India

Consumption of purchased electricity (MWh)
342065.68

Consumption of self-generated electricity (MWh)
47203.3

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]
389268.98

C-CG8.5

(C-CG8.5) Does your organization measure the efficiency of any of its products or services?

	Measurement of product/service efficiency	Comment
Row 1	Yes	ARBL is India's first AGM (Absorbent Glass Mat) two-wheeler and car battery manufacturer. The Company is working towards introducing world-class proprietary 'Duraframe' plate technology and expanding the product portfolio leveraging its cutting-edge AGM and EFB technologies. Absorbent Glass Mat (AGM) batteries have a very low internal resistance, are capable to deliver high currents on demand and offer relative long service life, even when deep-cycled. AGM is maintenance free, provides good electrical reliability and is lighter than the flooded lead-acid type. It stands up well to low temperatures and has a low self-discharge. The leading advantages are a charge that is up to five times faster than the flooded version, and the ability to deep cycle. AGM offers a depth-of-discharge of 80 percent; the flooded, on the other hand, is specified at 50 percent DoD to attain the same cycle life. our focus for the upcoming fiscal is on research and development, circularity, capacity optimization, and geographic expansion into new markets. We plan to introduce more value-added products such as AGM batteries, further incorporate stamped grid technology to reduce conversion costs and raw material usage, and delve into bi-polar technology for future performance requirements. We are the first Company in India to manufacture Valve Regulated Lead[1]Acid (VRLA) batteries that provide performance reliability, consistency, durability and minimal maintenance, even in the most demanding situations.

C-CG8.5a

(C-CG8.5a) Provide details of the metrics used to measure the efficiency of your organization's products or services.

Category of product or service
Batteries (including fuel cells)

Product or service (optional)
Absorbent Glass Mat (AGM) batteries have a very low internal resistance, are capable to deliver high currents on demand and offer relative long service life, even when deep-cycled. AGM is maintenance free, provides good electrical reliability and is lighter than the flooded lead-acid type. It stands up well to low temperatures and has a low self-discharge. The leading advantages are a charge that is up to five times faster than the flooded version, and the ability to deep cycle.

% of revenue from this product or service in the reporting year
72

Efficiency figure in the reporting year
80

Metric numerator
%

Metric denominator
Please select

Comment
Absorbent Glass Mat (AGM) batteries have a very low internal resistance, are capable to deliver high currents on demand and offer relative long service life, even when deep-cycled. AGM is maintenance free, provides good electrical reliability and is lighter than the flooded lead-acid type. It stands up well to low temperatures and has a low self-discharge. The leading advantages are a charge that is up to five times faster than the flooded version, and the ability to deep cycle. AGM offers a depth-of-discharge of 80 percent; the flooded, on the other hand, is specified at 50 percent DoD to attain the same cycle life.

C9. Additional metrics

C9.1

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

Description
Waste

Metric value
29151

Metric numerator
Metric Ton

Metric denominator (intensity metric only)

% change from previous year
3

Direction of change
Increased

Please explain
ARBL has adopted a systematic approach towards lead management, right from procurement through processing, waste generation to recovery. In the post use phase, we have designed a closed loop system, through which we procure old and used batteries from dedicated dealers, recycle the material through third party recyclers, and procure the used lead to manufacture new batteries. Further, we have mechanisms to refurbish and reuse the old batteries. ARBL participates in the BWMR (Battery Waste Management Rules) Project, initiated by the Government of India. We create awareness among end customers by displaying messages on warranty cards, requesting them to deposit used batteries at designated collection centers which have been set up throughout India. We have been recycling lead by collecting scrap batteries and offering replacements for the same to customers. The used batteries are carefully transported to designated smelting plants for safe lead-recycling, ensuring zero harm to the environment. Currently 70% of lead used in manufacturing comes from recycled sources and we strive to increase this proportion by setting up more used battery collection mechanisms. We also plan to create captive infrastructure for recycling lead out of used batteries at our own operating areas.

Description
Energy usage

Metric value
1444924

Metric numerator
Giga Joules

Metric denominator (intensity metric only)

% change from previous year
5.2

Direction of change
Increased

Please explain
ARBL continued its focused energy conservation efforts through up-gradation of process technology, effective production scheduling and various energy saving initiatives including the installation of energy efficient equipment. Renewable energy initiatives are Successfully commissioned 59.1 MW Solar generation plant and has planned to install another 7.5 MW in the current year. Avoided 33,500 Tons of CO2 emissions on account of this project in 2022-23. Benefits out of energy conservation measures. Got “Energy efficient unit” award from CII, during the 23th National Awards for Excellence in Energy management 2021. Cost saving of Rs 42 Mn with energy conservation projects in the plants.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	ARBL has invested in a state-of-the-art R&D facility to assemble battery packs as well as to manufacture lithium cells. This was a first-of-its-kind facility by a private player in India. These projects are broadly classified under lead optimization research.

C-CG9.6a

(C-CG9.6a) Provide details of your organization's investments in low-carbon R&D for capital goods products and services over the last three years.

Technology area
Renewable energy

Stage of development in the reporting year
Small scale commercial deployment

Average % of total R&D investment over the last 3 years
60

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)
3000000000

Average % of total R&D investment planned over the next 5 years
60

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
Successfully commissioned 59.1 MW Solar generation plant and has planned to install another 7.5 MW in the current year. Avoided 33,500 Tons of CO2 emissions on account of this project in 2022-23

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
DNV GHG Assurance Statement_ARBL- 22-23. V02F signed.pdf

Page/ section reference
BRSR report FY22-23, Principle 6 & DNV Independent assurance statement page-2

Relevant standard
ISO14064-1

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
DNV GHG Assurance Statement_ARBL- 22-23. V02F signed.pdf

Page/ section reference
BRSR report FY22-23, Principle 6 & DNV Independent assurance statement page-2

Relevant standard
ISO14064-1

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services
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
Scope 3: End-of-life treatment of sold products
Scope 3: Downstream leased assets

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
DNV GHG Assurance Statement_ARBL- 22-23. V02F signed.pdf

Page/section reference
BRSR report FY22-23, Principle 6 & DNV Independent assurance statement page-2

Relevant standard
IS)14064-1

Proportion of reported emissions verified (%)
100

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, we do not verify any other climate-related information reported in our CDP disclosure

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?

ARBL is committed to environmental responsibility and recognizes the importance of complying with regulatory frameworks aimed at reducing carbon emissions. As part of their strategic vision to expand their market worldwide, ARBL has proactively planned to comply with the Emissions Trading System (ETS) across globe.

The ETS is a key policy mechanism that puts a cap on greenhouse gas emissions from various sectors, including energy-intensive industries. By participating in the ETS, ARBL aims to align itself with international best practices for carbon management and demonstrate its commitment to sustainable business operations.

Complying with the ETS will not only ensure ARBL's adherence to environmental regulations but also enhance the company's market position globally. As the ETS serves as a benchmark for carbon pricing and emission reduction measures, ARBL's participation will provide a competitive advantage by demonstrating their commitment to mitigating climate change and reducing carbon footprint.

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?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price
Shadow price

How the price is determined
Alignment with the price of allowances under an Emissions Trading Scheme

Objective(s) for implementing this internal carbon price
Change internal behavior
Drive energy efficiency
Drive low-carbon investment

Scope(s) covered
Scope 1
Scope 2
Scope 3 (upstream)
Scope 3 (downstream)

Pricing approach used – spatial variance
Uniform

Pricing approach used – temporal variance
Static

Indicate how you expect the price to change over time
<Not Applicable>

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)
2000

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)
13000

Business decision-making processes this internal carbon price is applied to
Capital expenditure
Operations
Procurement

Mandatory enforcement of this internal carbon price within these business decision-making processes
Yes, for all decision-making processes

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan
Not adopting an internal carbon pricing mechanism could have significant impacts on ARBL. It may lead to inefficient resource allocation, higher operational costs, and increased risk of regulatory non-compliance. The company might miss out on cost-saving opportunities and fail to capitalize on sustainability initiatives. Additionally, ARBL could face investor and stakeholder pressure, affecting its reputation and access to capital. Adopting internal carbon pricing helps accurately assess carbon costs, incentivize emission reductions, and position ARBL as a responsible and sustainable company in a changing business landscape.

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
Engagement & incentivization (changing supplier behavior)

Details of engagement
Run an engagement campaign to educate suppliers about climate change
Provide training, support, and best practices on how to make credible renewable energy usage claims

% of suppliers by number
6

% total procurement spend (direct and indirect)
60

% of supplier-related Scope 3 emissions as reported in C6.5
60

Rationale for the coverage of your engagement
ARBL covered around 60% of their value chain partners by value under the supplier sustainability summit for class A, B & C category suppliers.

Impact of engagement, including measures of success
ARBL have not found any significant negative impact on the environment throughout our value chain. However, we have taken steps to ensure that our procurement policies promote environmentally friendly and responsible practices. ARBL aims to comply with all relevant environmental laws and regulations in the regions where we operate and from which we source materials, products, and services

Comment

C12.1b

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

Type of engagement & Details of engagement

Education/information sharing	Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number
50

% of customer - related Scope 3 emissions as reported in C6.5
50

Please explain the rationale for selecting this group of customers and scope of engagement
The Company has run several awareness and advertisement campaigns such as
a) Printed messages on warranty cards for disposing end-of-life products at designated collection centers
b) Campaigns on safe recycling of Used Lead Acid Batteries (ULABs) and best environmental practices
c) sharing of ARBL climate related data & targets
Product information display:
All the company's product labels carry necessary information about safe & responsible usage (through operating & maintenance guidelines), cautionary information & end-of-life disposal.
ARBL's customer complaints mechanism addresses product, quality, service, warranty, and related grievances. Our customers can use a digital platform or the "Amaron Konnekt" mobile app to log complaints for quick resolution. We also have a 24x7 helpline that our customers can call for any queries or concerns.

Impact of engagement, including measures of success
ARBL works with multiple partners and suppliers to deliver high-quality products and services to customers. We conduct stringent audits and reviews and take corrective actions, if required, to ensure compliance. No significant risks have been identified from assessment of our value chain partners.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?
Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Complying with regulatory requirements

Description of this climate related requirement
ARBL has a sustainable procurement policy that covers all the suppliers. Conducted awareness sessions on energy conservation to suppliers. ARBL is deploying a Vendor portal to enhance our supply chain efficiency by managing the procurement process and suppliers efficiently and effectively. Vendor Portal will ensure end-to-end collaboration in the supply chain and allow Amara Raja to meet changes in demand more accurately and in time. We will also be able to manage supplier contracts effectively through benchmarking process leading to efficiencies in procurement. The policy relating to ethics, bribery and corruption extends beyond our Company employees, both permanent and temporary, Directors and also covers the Amara Raja group of Companies.

% suppliers by procurement spend that have to comply with this climate-related requirement
100

% suppliers by procurement spend in compliance with this climate-related requirement
50

Mechanisms for monitoring compliance with this climate-related requirement
Grievance mechanism/Whistleblowing hotline

Response to supplier non-compliance with this climate-related requirement
Retain and engage

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?
Yes

Attach commitment or position statement(s)
From the Desk of the Executive Director.pdf

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
Achieve 100% reduction of scope 1 and scope 2.
Achieve at least 90% reduction of Scope 3 emissions by 2050.
Offset the remaining emissions through nature based solutions .
Go beyond the Net Zero targets through carbon sequestration , capture and reuse etc.

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
Confederation of Indian Industries (CII)

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
ARBL does not currently have a specific policy on "Policy Advocacy." However, we actively engage in advocacy efforts concerning policies that impact the Battery Industry and our organization. We are represented in 11 trade and industry chambers/associations, including the Indian Battery Manufacturing Association, Auto Component Manufacturers Association, Recycling and Environment
Association of India, Confederation of Indian Industries (CII) at the national level, and the United Nations Global Compact (UNGC) and World Economic Forum (WEF) at the global level. Additionally, we collaborate with statutory authorities to address regulatory policies.

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 other regulatory filings

Status
Complete

Attach the document
ARBL AR 2023.pdf

Page/Section reference
Annexure IV of Annual Report (Business Responsibility and Sustainability Report) and Natural Capital Section, Page 88

Content elements
Governance
Risks & opportunities
Emissions figures
Other metrics

Comment

Publication
In voluntary sustainability report

Status
Complete

Attach the document
ARBL TCFD Report Fy23.pdf

Page/Section reference

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify (Organisation ESG vision)

Comment
TCFD 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	UN Global Compact	We are a signatory to the ten principles of the UNGC on human rights, labour rights, environment and anti-corruption, and committed to demonstrating progress on the United Nations Sustainable Development Goals (SDGs).

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?
No

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
No publications	<Not Applicable>	<Not Applicable>

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	Chief Sustainability Officer	Chief Sustainability Officer (CSO)

SC. Supply chain module

SC0.0

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

SC0.1

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

	Annual Revenue
Row 1	10385

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).

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
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	
Customer base is too large and diverse to accurately track emissions to the customer level	
Doing so would require we disclose business sensitive/proprietary information	
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	

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.

Covered under challenges mentioned in SC 1.3. The data with respect to energy consumption line wise is proprietary information and would require establishing detailed measurement protocols to assign allocation numbers to multiple customers in multiple geographies. As an organization we are committed to reduce our Scope 1+2 emissions by 30% by 2027 from baseline year 2021-2022.

SC2.1

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

Requesting member
Eaton Corporation

Group type of project
Please select

Type of project
Please select

Emissions targeted
Please select

Estimated timeframe for carbon reductions to be realized
Please select

Estimated lifetime CO2e savings

Estimated payback
Please select

Details of proposal

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