

C0. Introduction

C0.1

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

HWASEUNG Enterprise Co. Ltd. ("HWASEUNG Enterprise" hereafter) is a leading athletic footwear and headwear manufacturing group with operations in Southeast Asia. Hwaseung Enterprise produces Footwear, Headwear, and Apparel Brands such as Adidas, Nike, Lacoste, Allbirds, and Hoka & Fanatics, among others. The company operates as a subsidiary of Hwaseung Industries Co. Ltd. HWASEUNG Enterprise, headquartered in South Korea and has operations in Vietnam, Indonesia, and China.

HWASEUNG Enterprise is fully committed to Global Climate Action, and it is the first Footwear Manufacturing Company to be a signatory to The UNFCCC Fashion Industry Charter for Climate Action.

At HWASEUNG Enterprise, we recognize and support the Paris Agreement in limiting global temperature rise to 1.5 Degrees Celsius above pre-industrial levels. As a signatory to the UNFCCC Fashion Industry Charter for Climate Action, we are committed to reducing 50% absolute GHG emissions by 2030 against a baseline of 2020 and achieving Net Zero emissions by 2050.

HWASEUNG Enterprise has established the Climate Action Policy and working on;

- Energy efficiency across our operations and value chain
- Securing 100% of electricity from renewable sources by 2030
- Elimination of coal from owned and supplier sites latest by 2025
- Development of low carbon products by sourcing 100% of priority materials by 2030
- Engaging with suppliers to adopt a 50% absolute target by 2030 and Net Zero by 2050
- Closely working with logistic service providers for transition to Zero Emission transportation
- Creating awareness and collaborating with stakeholders to develop a pathway for 2030 targets and Net Zero by 2050
- Integrating low carbon technologies/options in financial decisions, including new projects, facilities, and acquisitions.
- Quantifying and reporting GHG emissions on an annual basis and communicating efforts to a 1.5-Degree pathway
- Actively supporting UNFCCC to deliver shared commitments outlined in the Fashion Industry Charter for Climate Action

At HWASEUNG Enterprise, we aspire to lead the Fashion Industry sector towards Decarbonization by adopting eco-friendly technologies, practices, resource conservation, and proactive engagement with stakeholders.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	Yes	1 year

C0.3

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

China
Indonesia
Viet Nam

C0.4

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

USD

C0.5

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

Operational control

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a CUSIP number	241590

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(s)	Please explain
Chief Executive Officer (CEO)	CEO reviews and approves the Climate Action Policy, Climate Strategy, directions and resources for implementation of climate action to fulfill the commitment of the UNFCCC Fashion Industry Charter, well aligned with 1.5 Deg C pathways as per the Paris Agreement and applicable UN SDGs such as SDG#7, SDG#12 and SDG#13 for accelerating the climate action.
Board-level committee	The board-level Committee consists of C-Suites / Strategic Advisor/Sustainability Sr. Director. To review climate-related issues & our commitment and update the plan, HWASEUNG Enterprise has quarterly Sustainability Board-level committee meetings. The Committee reviews the policy, strategy, initiatives, and action plans. Climate Action Policy is in place to address the climate change issues to fulfill the commitment of the UNFCCC Fashion Industry Charter well aligned with 1.5 Deg C pathways as per Paris Agreement and applicable UN SDGs such as SDG#7, SDG#12 and SDG#13 supporting the accelerating climate action. We aspire to be the leader in Climate Action in the fashion industry sector.
Chief Operating Officer (COO)	COOs manage facilities GHG emissions based on UNFCCC commitment aligned with Brands / and internal target, ensure resources allocation and review climate performance. Each COO has its Sustainability and Climate Action related KPIs incorporated in their Cascading Goals for a year, cascaded down to their bottom-most level of organization.
Other, please specify (Executive Strategic Advisor)	Executive Strategic Advisor planning of Sustainability strategy including Climate Action. At HWASEUNG Enterprise, climate action is at the core of sustainability agenda and Ex Strategic Advisor plans appropriate strategies, initiatives and actions for all the businesses across all geographies of operations. The overall Climate Action agenda is aligned with UNFCCC FICCA commitments, requirements of Brands and organizational own aspirations to be the sustainability leader in the Fashion Industry sector. This role also supports facilities across businesses and geographies in resources allocation for implementation of Sustainability and Climate Action projects such as Rooftop Solar through on-site and off-site PPAs, IRECs, Coal-Phase out Action Plan and Energy Assessments. Ex Strategic Advisor is the key member of Sustainability Board committee for giving strategic directions to the organization.
Other, please specify (Senior Director Sustainability)	Establish Climate Action Policy, strategy and initiatives for implementation of Climate Action Policy, target setting aligned with 1.5 Deg C & UN SDGs, Measure, Monitor and Review Climate Performance at HWASEUNG Enterprise level including manufacturing operations across all geographies. Planning and implementation of RE100 using Rooftop Solar Systems, Energy Efficiency, LCAs, Supply Chain emissions, Zero Emission logistics, creating awareness among internal & external stakeholders, internal carbon pricing for promotion of green & low carbon technologies, annual carbon performance reporting, etc. Aligned all climate related actions with corresponding UN SDGs such as SDG#7 on Clean & Affordable Energy, SDG#12 on Responsible Production & Consumption and SDG#13 on Climate Action. Also actively participating as a member of UNFCCC Fashion Industry Charter Working Groups on low carbon manufacturing, low carbon materials and coal phase out action group.

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	<ul style="list-style-type: none"> Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues 	<Not Applicable>	Rooftop Solar Project (RTS) RTS as most prioritized plan across HWASEUNG Enterprise facilities. To update PPA, Documentation, Construction Phase, Operation schedule, HWASEUNG Enterprise has - Weekly Meeting with Consulting for every perspective of RTS - Quarterly Meeting / Sustainability Board Meeting Each COO has Rooftop Solar Construction & Operation target as KPIs Climate Action focused location specific projects such as Coal Phase Out as important plan for HWASEUNG Enterprise Sustainability commitment for UNFCCC. HWASEUNG Enterprise is trying to convert from Coal-Boiler to Biomass boiler.

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 Board committee is comprised of; Vice Chairman, CEO, CFO, Executive Strategic Advisor, Executive COOs and Senior Director of Sustainability. All Board members are senior executives/professionals are visionaries and have rich experience and global exposure on climate action policies and sectoral climate requirements. The Senior Director of Sustainability is a qualified sustainability professional with Masters in Environmental Engineering and having more than 27 years of manufacturing sustainability experience and guiding the Board on climate science and technology.	<Not Applicable>	<Not Applicable>

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (Board Sustainability Committee)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (Executive Strategic Advisor)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Financial Officer (CFO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Chief Operating Officer (COO)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Environment/ Sustainability manager	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Sustainability Officer (CSO)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Process operation manager	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Sustainability Governance structure has three levels from top management to bottom levels of organization as below, which includes governance of Climate Action.

1st Level: Sustainability Committee at the Board level, chaired by Vice Chairman.

2nd Level: Sustainability Committee at Business unit, chaired by Executive COOs

3rd Level: Sustainability committees at manufacturing operations level chaired by COOs

At 1st level, the Board Sustainability committee comprises of Vice Chairman, CEO, CFO, Executive Strategic Advisor, Executive COOs and Senior Director of Sustainability. This committee is chaired by Vice Chairman and overall responsible for climate action performance of HWASEUNG Enterprise. This Committee is responsible for identifying the climate related regulatory risks, change in physical climate and socio-economic risks resulting from climate change and the associated opportunities. The Committee has developed a dedicated Climate Action policy, aligned with UNFCCC Fashion Industry Charter for Climate Action as per 1.5 Deg C pathway, with 50% GHG emission reduction by 2030 and Net Zero by 2050. The Sustainability Committee of the Board reviews the Climate Change related risks, initiatives and performance once in every three months. The climate change targets have been integrated in Balance Score Card (BSC) and are cascaded down to business units, manufacturing operations and functions. The progress made by the company, business units and manufacturing operations is reviewed in consolidated manner by the Committee of Sustainability Board, on quarterly basis and necessary guidance and directions are provided for achieving the desired carbon emission reduction targets.

The company level short, medium and long term low carbon strategy has been prepared on the basis of life cycle approach wherein environmental and carbon emissions across life cycle stages are evaluated, providing strategic inputs for design and development of low carbon products for the future. Our climate action strategy is aligned with global and national commitments like; UN Sustainable Development Goals, the Paris Agreement, requirements of Brands/Customers and other relevant policies/requirements of clean energy transition of countries of operations.

At 2nd level, below the Sustainability Committee at Board level, we have a Business Unit level sustainability committee, chaired by Executive COOs. To mitigate the impacts of climate change, Company has set short-term, medium term and long terms sustainability and GHG emission reduction targets and working towards 1.5 Degree Celsius Scenario, implementing energy conservation/energy efficiency projects, scaling up sourcing of renewable energy, coal phase-out action, etc. and is working persistently towards achieving them. The progress and performance of each business and manufacturing locations in achieving their set targets is reviewed by the committee on bi-monthly basis.

At 3rd level, the Sustainability committee are formed which are chaired by the COOs covering all manufacturing facilities under their organization structure. Implementation and monitoring of sustainability and climate action initiatives and performance is carried at micro-level by these committees. This committee meets on a monthly basis to review and improve the Sustainability performance of the organization. Definite goals and targets are set for each manufacturing facility and functions therein at the beginning of the year for energy conservation and GHG reduction by 5 - 3% year-on-year depending on their energy intensiveness, maximizing use of renewable energy (we are signatory to Fashion Industry Charter for Climate Action and committed to securing of 100% electricity from renewable source by 2030), Coal phase-out by 2025 and implementing energy conservation initiatives. Cross-Functional Teams (CFTs) are formed at manufacturing locations to ensure implementation of climate action plans. We have initiated training on climate change to steer forward our climate action agenda. Our training sessions are aimed at creating awareness among our employees, suppliers and value chain partners on the Global Climate change scenario, climate science, Paris agreement, GHG protocol, ISO-14064/65, Carbon footprint mapping, Internal Carbon pricing, Science Based Targets initiative, low carbon materials, etc. These training's will be mainly organized for SEA teams, energy cells, Research and Development, supply chain teams across all manufacturing locations.

Overall HWASEUNG Enterprise organization governance structure of sustainability and climate action is developed and implemented by the Executive Strategic Advisor and Sustainability Senior Director covering all businesses across all geographies of operations.

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	HWASEUNG Enterprise offers monetary and non-monetary incentives for the management of climate-related issues, including in the form of employee recognition and awards. In addition, as of 2021, HWASEUNG Enterprise has established Cascading Goals reaching across all levels of the organization globally, from the CEO to Executive COOs to COOs and finally down to relevant operational teams and functions. The Cascading Goals will be reflected in the annual employee performance appraisal process and bonus. They will include specific KPIs on the development of and progress against environmental data reporting and quality, energy efficiency and renewable energy action plans and environmental targets

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	Type of incentive	Activity incentivized	Comment
Board/Executive board	Monetary reward	Emissions reduction target	Carbon performance is linked with performance incentives. Annual targets are set and initiatives are implemented across the organization and regular reviews and conducted for monitoring performance against targets.
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	Carbon performance is linked with performance incentives. Annual targets are set and initiatives are implemented across the organization and regular reviews and conducted for monitoring performance against targets.
Chief Operating Officer (COO)	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction target Efficiency target	Carbon performance is linked with performance incentives. Annual targets are set and initiatives are implemented across the organization and regular reviews and conducted for monitoring performance against targets.
Director on board	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction target Efficiency project Efficiency target Behavior change related indicator	Carbon performance is linked with performance incentives. Annual targets are set and initiatives are implemented across the organization and regular reviews and conducted for monitoring performance against targets.
Environment/Sustainability manager	Monetary reward	Emissions reduction project Energy reduction target Efficiency project Efficiency target	Carbon performance is linked with performance incentives. Annual targets are set and initiatives are implemented across the organization and regular reviews and conducted for monitoring performance against targets.
Energy manager	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Efficiency target	Carbon performance is linked with performance incentives. Annual targets are set and initiatives are implemented across the organization and regular reviews and conducted for monitoring performance against targets.

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	Time horizon for addressing climate-related risks and opportunities is aligned with other business practice time horizons. In this time horizon of 0 - 5 years in short term, HWASEUNG Enterprise anticipate thrust and emergence of low carbon economy as part of commitment towards Paris Agreement and UN SDGs (SDG#7, SDG#12 & SDG#13). Accordingly, it is closely observing and tracking changes in worldwide policies and regulatory framework which is encouraging and enforcing low carbon requirements in fashion industry sector. We are collaborating with Government of Vietnam for their Clean Energy Transition Program to minimize carbon emissions. We are also working closely with Brands for prioritizing and accelerating decarbonization strategy and plans. HWASEUNG Enterprise has been addressing these climate risks in a systematic & structured manner by creating climate awareness and collaborating with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installing rooftop solar (RTS) through on-site & off-site PPAs, IRECs, coal phase out action, etc.
Medium-term	5	10	Time horizon for addressing climate-related risks and opportunities is aligned with other business practice time horizons, for demonstrating leadership in climate change mitigation and adaptation. In medium term time horizon of 5 - 10 years, Medium-Term definition - Initiatives / Action Plans are expected to have positive result with CO2 Emission Reduction & Investment over than 5 years. These big projects are analyzed thoroughly for potential CO2 Emission Reduction, ROI, UNFCCC commitment, Brand Targets and then define project timelines.
Long-term	10	20	Time horizon for addressing climate-related risks and opportunities is aligned with other business practice time horizons. Paris Agreement and Sustainable Development Goals (SDGs) are the key drivers for making this world a sustainable habitat. Worldwide, there has been increase in implementation of policies and regulatory framework like carbon taxes to promote low carbon economy in all sectors and every field. Fashion Industry sector is considered to be one of the largest contributors of carbon emissions in global GHG inventory. Post Paris Agreement, focus on decarbonization of fashion sector has been magnified and we anticipate rapid transition of Fashion Industry towards low carbon manufacturing and products. Accordingly, in long term horizon of 10- 20 years, we are working on future-ready Strategy & Objectives covering Scope-1, Scope-2 and Scope-3 emissions. This strategy is aligned with UNFCCC Fashion Industry Charter for Climate Action in line with 1.5 Deg C pathways with aggressive absolute target of 50% GHG emission reduction by 2030 and Net Zero by 2050. This strategy will ultimately address all relevant climate risks. HWASEUNG Enterprise has been addressing these climate risks in a systematic & structured manner by creating climate awareness and collaborating with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installing rooftop solar (RTS) through on-site & off-site PPAs, IRECs, coal phase out action, sourcing of 100% priority materials, Zero Emission Logistics, Supply Sustainability, etc.

C2.1b

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

Worldwide, manufacturers are working towards reducing and eliminating carbon emissions through innovative advance technologies. HWASEUNG Enterprise is committed to minimize carbon emissions from products, operations and services. We have aligned our climate action strategy with global commitments like UN Sustainable Development Goals (SDGs) and Paris Agreement in line with 1.5 Deg C pathways, targeting 50% GHG emission reduction by 2030 and Net Zero by 2050. The Climate Action is integral to our overall business strategy considering the regulatory and physical impacts, requirements of associated Brands, manufacturing operations and supply chain. We are investing in design & development of advance technology solutions for mitigation of climate risks.

At HWASEUNG Enterprise, we consider following as substantive strategic or financial impact of climate change;

- (i) Regulatory requirements of geographies of our operations
- (ii) Expectations and requirements of associated brands/customer requirements
- (ii) 5% and more CAPEX investment towards climate action projects.
- (iii) Disruption of supply chain for more than one day at any manufacturing unit, due to extreme weather conditions.
- (iv) Suggestions and concerns raised by investors and financial institutions.

HWASEUNG Enterprise conducts detailed assessment of each and every climate action related projects on the basis of investment, ROI, potential GHG savings, cost savings, strategic impact on business outcome with respect to fulfillment of our UNFCCC commitment of Fashion Industry Charter for Climate Action aligned with 1.5 Deg C pathways.

C2.2

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

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

The Sustainability Board is responsible for overall process of risk management in the organization. At the company level, we have identified Climate Change as an enterprise level risk & opportunity. With an institutionalized approach aligned with the company's objectives. Climate change concerns, increases in material/fuel prices, government regulations, brand requests (such as CO2 emissions norms and higher demand for low-carbon production) and promotion of new technologies. Commitment to sustainability encourage associated Brands/customers to look beyond standard purchasing factors (such as price, design, performance, brand image and features) for differentiation as used in the footwear/apparel manufacturing. Such Brands/consumer preferences could gradually impact the company's ability to manufacture & provide various footwear/apparel products. There has been growing awareness and demands from various stakeholders including Brands/customers and investors for reduction of GHG emissions from manufacturing and supply chains. Two of biggest footwear/apparel markets in the world viz. U.S.A & Europe are demanding more sustainable & renewable manufacturing operations and products. As a result, these brands are demanding manufacturers to participate in decarbonization journey and achieve the 50% GHG Emission reduction by 2030 and Net Zero by 2050. Company's operations may be impacted if Company fails to develop, or experiences delays in developing, sustainable & renewable products and and meet the specific requirements of government regulations. This can adversely impact Company's sales, results of operations and financial condition. To deal with carbon transition risks associated with manufacturing operations and supply chains, it is critical to align businesses in this rapidly changing scenario towards low carbon world. We have focusing on transition to sourcing of electricity from renewable sources, phasing out of coal and improving energy efficiency across all operations and value chain. We have identified long term climate risks associated with our manufacturing operations which includes risks related to extreme weather conditions, associated health impacts due to increased temperature and other impacts on our manufacturing operations across all geographies. We are working on necessary mitigation plans to address these physical climate risks. In addition to the company level risks, we have processes in place for identification & assessment of asset level risks. These risks are mitigated by the facility management on day to day basis. Cross-Functional Teams (CFTs) are formed at manufacturing locations to ensure implementation of climate change action plans. Lessons learned are incorporated into future site planning, supplier selection process, risk mitigation planning and strategic development. Besides, the energy conservation ENCON teams are responsible for identification of risks and opportunities at manufacturing operations level. At HWASEUNG Enterprise, we are translating the climate change risks into opportunities through energy conservation initiatives, long term Power Purchase Agreements (PPAs) yielding electricity cost savings, use of locally grown/available biomass for avoiding dependence of imported coal with fluctuating prices and encouraging sustainable innovation across the organization under the "Reimagine - Recreate" theme. The Sustainability Board Committee quarterly reviews Climate Change related risks, initiatives and performance. The Sustainability Board Committee is responsible for overall risks and opportunities identification related to climate change at the company level. We are using life cycle perspective to identify "what if" scenarios on "cradle to gate" basis. This process is used strategically to identify the climate hot spots, risks and opportunities and optimize our products and processes designs to support the delivery of sustainable low carbon products. Cross-Functional Teams (CFTs) are formed at manufacturing locations to ensure implementation of climate change action plans.

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	Worldwide all nations are working towards 1.5 Deg C pathways for controlling carbon emissions from all sectors as per Paris Agreement and also to achieve the UN SDGs especially SDG#7 on Clean & Affordable Energy, SDG#12 on Responsible Production & Consumption and SDG#13 on Climate Action. Accordingly, these requirements are getting embedded in policies and regulations of countries where we operate. We are closely observing carbon related regulations and associated fines/penalties, being implemented in developed world and proactively preparing ourselves for safeguarding from such regulatory risks. One such current regulation is to monitor and report carbon emissions to the authorities on annual basis. As footwear/apparel manufacturer, HWASEUNG Enterprise consumes direct and indirect energy and contribute to GHG emissions from operations, products and value chain. Hence, any policy and regulatory developments to control adverse impact of climate change from footwear/apparel industry & material supply seeking to promote adaptation to climate change, is of great relevance and has been included in the risk assessment process. Fashion industry manufacturing Facility's CO2 emission mostly contributed from use of electricity. Hence, HWASEUNG Enterprise is trying to secure electricity from renewable sources (Rooftop Solar PPAs) and working on Sustainable Materials & Process. Regulations for installation of Rooftop Solar in Vietnam, China and Indonesia are different. In Vietnam, many of our manufacturing operations are located within different Industrial Zone, but these industrial zones have varied rules for installation of RTS installation. We are working in cooperation with authorities The Sustainability Board is continuously monitoring and reviewing current regulatory requirements in countries of operations and updating sustainability strategy, appropriately.
Emerging regulation	Relevant, always included	Paris Agreement and UN Sustainable Development Goals (SDGs) are the key drivers for making this world a sustainable habitat. Worldwide, there has been increase in implementation of policies and regulatory framework like carbon taxes to promote low carbon economy in all sectors and every field. Footwear / Textile manufacturing s are considered to be one of the major contributors of carbon emissions in global GHG inventory. Post Paris Agreement, focus on decarbonization of Footwear / Textile sector has been magnified and we anticipate carbon regulations for Footwear / Textile manufacturing industry and products. Being an Footwear / Textile manufacturer, we consume direct and indirect energy and contribute to GHG emissions. So any policy and regulatory framework development to control carbon emissions and that seek to promote adaptation to climate change, is of great relevance and has been included in the risk assessment process. For complying with such emerging regulations on carbon and exhaust emissions from products, our Research and Development team is continuously working to keep us ready for this emerging regulatory transition risks. Other relevant demands include use of biodegradable & low carbon materials for Sustainable Operation. As a signatory to UNFCCC for Climate Action, HWASEUNG Enterprise aligned with other brands & suppliers to jointly sign on PDP (Power Development Program) in Vietnam for governmental cooperation on Renewable Energy. With this kind of effort, HWASEUNG Enterprise is trying to reduce carbon emissions. The Sustainability Board is continuously monitoring and reviewing new policies and emerging regulatory requirements in countries of operations and updating sustainability strategy, appropriately.
Technology	Relevant, always included	Footwear / Textile manufacturing s are considered to be one of the increasing contributors of carbon emissions in global GHG inventory. Focus on decarbonization of Footwear / Textile sector has been magnified and we anticipate carbon regulations for limiting carbon emissions from products. In view of meeting the challenges of decarbonization of Footwear / Textile sector and to contribute to achieve the UNFCCC / 50% GHG Emission Reduction by 2030, worldwide Footwear / Textile manufacturers are working on development of sustainable and renewable materials to reduce use phase carbon emission. Various Footwear / Textile materials development is in progress for recyclable & sustainable product . As mega brands are promoting use of renewable, recyclable materials to minimize GHG emissions from Footwear / Textile, changes in technological advancements has become relevant for us to achieve near zero carbon emissions from our products from manufacturing and supply chains. HWASEUNG Enterprise continuously seeking and working on Sustainable Materials such as Biodegradable Materials, Recyclable EVA, natural Rubbers, recycled plastics through extensive research and collaboration with Brands and supply chain partners. The Sustainability Board is continuously reviewing new technologies, materials and other advance developments and updating sustainability strategy, appropriately.
Legal	Relevant, always included	Our manufacturing facilities are highly regulated and we may incur significant costs to comply with, or address liabilities under, environmental, health and safety laws and regulations applicable to them. The fashion industry is subject to a rapidly evolving regulatory landscape with associated climate related regulations and policies that impact our manufacturing facilities. Violation of laws and regulations could result in the imposition of significant fines and penalties; the suspension, revocation or non-renewal of our permits; production delays or limitation; or the closure of our plants. We could incur additional compliance costs to avoid facing significant civil and regulatory penalties, and our competitors may gain an advantage by adopting new emissions-reducing and sustainable materials before we do. The Sustainability Board is continuously monitoring and reviewing current and futuristic legal requirements in countries of operations and updating sustainability strategy, appropriately.
Market	Relevant, always included	There has been growing awareness about climate change among stakeholders like Brands/consumers, investors and society at large. This is resulting in steadily increase in demand of more sustainable Footwear / Textile products, recyclable materials and renewable-energy based facilities. It is also creating a market distinction and providing competitive advantage to manufacturers. Considering changing market demands, HWASEUNG Enterprise is working on developing and delivering sustainable & recyclable products and demonstrating leadership in Fashion Industry. Example: In view of big brand's shift to low-carbon strategy, HWASEUNG Enterprise has prepared the decarbonization strategy aligned with 1.5 Deg C as a signatory to UNFCCC FICCA, which is not only fulfilling, but exceeding the decarbonization requirements of all major brands. The Sustainability Board is continuously monitoring and reviewing changing requirements of market, brands and customers and updating sustainability strategy, appropriately.
Reputation	Relevant, always included	HWASEUNG Enterprise is a signatory to UNFCCC Fashion Industry Charter for Climate Action (FICCA). We are the first signatory for UNFCCC among Footwear Manufacturers. This demonstrates our commitment towards climate action.
Acute physical	Relevant, always included	Extreme weather conditions can pose a business continuity risk to our manufacturing operations as we have more than 50,000 employees across 3 countries of operation in Vietnam, Indonesia and China which are vulnerable to climate change impacts. The South-East Asian countries like Vietnam, Indonesia , are already extremely humid & hot. To manage temperature & humidity for better working place & conditions, is one of the most important factor for productivity. Flood / droughts in hot & humid weather is frequent. This weather condition also has impact on our upstream and downstream supply chains. To deliver our products, we have 3 options, Trucking / Shipping / Air and they are vulnerable to extreme weather conditions.
Chronic physical	Relevant, always included	Chronic physical risks like rising mean temperature is always relevant for the company, as it will have impacts like increase in temp in working areas, financial implications for providing comfort conditioning in working places, health impacts on employees, availability of labour in extreme weather conditions for manufacturing of products. Chronic physical risks also vary with geographies of our manufacturing locations and can have impact in terms of availability of water, food and other resources for the labour/employees. We are evaluating such long term chronic physical risks and suitable adaptation measures to mitigate associated chronic physical climate risks.

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

Chronic physical	Changing temperature (air, freshwater, marine water)
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Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

With human-induced climate change, weather events such as storms, heat waves and floods will become more frequent and intense. HWASEUNG Enterprise factories and production line are located in China and Southeast Asia (e.g. Vietnam, Indonesia). Floods and typhoons happen frequently in Vietnam, while tornadoes and landslides are the most common natural disasters in Indonesia. The consequences of natural disasters will become more severe, with risks of damaging properties, factory temporary shutdowns and loss of life. This in turn might disrupt our supply chain and production capacities.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

2900000

Potential financial impact figure – maximum (currency)

20300000

Explanation of financial impact figure

The financial impact is estimated based on projected loss of revenues across our sites globally from factory temporary shutdowns during and after natural disasters, with assumptions made on the frequency of natural disasters and number of days factories cannot operation.

Cost of response to risk

142000

Description of response and explanation of cost calculation

A rough estimation is made based on the cost to repair and maintain Hwaseung's factories that are affected by weather events. Mitigation system, including pump installation, DG Set operations, adaptation management (sourcing elsewhere), slope maintenance and recovery expenditures are taken into consideration.

Comment

Further analysis should be completed to assess the potential financial impacts and cost of response to risk.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation	Shifts in consumer preferences
------------	--------------------------------

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Environmental sustainability is a growing concern for customers. As consumers increasingly embrace social causes and environmental protection, they seek products and brands that align with their values. In order to mitigate this risk, HWASEUNG Enterprise has been actively collaborating with its clients to identify opportunities to improve the sustainability performance of its products, including using recycled materials, close-loop recycling, enhancing the durability of the products and enhancing end user engagement and awareness.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

8700000

Potential financial impact figure – maximum (currency)

43500000

Explanation of financial impact figure

The reputation of HWASEUNG Enterprise and demand from consumers are highly correlated to the company's sales and revenues. For this reason, the potential financial impact is estimated as a proportion of our annual revenues lost.

Cost of response to risk

3000000

Description of response and explanation of cost calculation

The financial impact can be categorized into two aspects: operating expenditures (OPEX) and capital expenditures (CAPEX). In terms of OPEX, there will be an increase in costs from procuring raw materials that are more sustainable and durable. Moreover, an increase in CAPEX will also be expected, due to acquisition of new plants and equipment.

Comment

As a supplier and manufacturer, this is considered as an indirect impact for HWASEUNG Enterprise. We are collaborating with our clients to ensure their brand value is aligned with sustainability to meet their customers' demand.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services
---------------------	--

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Mandates and regulations on carbon emissions are a potential risk if Hwaseung is unable to reduce its energy and carbon footprint. This could lead to higher indirect and direct operating costs (e.g. higher costs of goods sold, taxes, fines) and reputational damage. Hwaseung has been actively participating and engaging in sustainable development in the industry. In 2021, HWASEUNG Enterprise joined the UNFCCC's Fashion for Global Climate Action Initiative, committing to a reduction of 50% in absolute GHG emissions across its value chain by 2030, with 2020 as the base year and Net Zero by 2050.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

2900000

Potential financial impact figure – maximum (currency)

20300000

Explanation of financial impact figure

HWASEUNG Enterprise continually strives to not only meet but also exceed local regulations and to demonstrate robust sustainability management practices in line with the UNFCCC's Fashion Charter aspirations. We foresee that our annual operating and capital costs will increase to ensure compliance with upcoming regulatory and sectoral requirements, including to invest in new equipment and infrastructure, and to implement our sustainability strategy. Potential financial impact is estimated on the basis of lost of revenues & penalties imposed by authorities in case of regulatory non-compliances.

Cost of response to risk

100000

Description of response and explanation of cost calculation

In order to comply with current regulations and mandates, Hwaseung shows continuous effort to invest and develop new technologies and equipment, aiming to reduce the company's carbon footprint and resource consumption. In particular, advancement in boiler operation is one of the main focuses of Hwaseung, as part of the coal phase out solutions. Additionally, expenditure is required to develop sustainable strategies and management system. Cost of reponse to risk is estimated on the basis of potential penalties by regulatory authorities.

Comment

As a strict minimum, Hwaseung will ensure compliance to all environmental regulations it is subject to. As a member of UNFCCC's Fashion Charter, we strive to align our strategy with the goals of the Paris Climate Change Agreement.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)
----------------	--

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Facilities which are exposed to extreme weataher including not only for Flood but also Hurricane, typhoon is vulnerable for productivity decrease caused by those weather conditions. Extreme weathers have various impacts on Operation Facilities. They are normally located in south-east asia, so we can expect especially in summer, there are usually Flood / Typhoon etc. These weather conditions caused Production Stop / Logistics Difficulty / Isolated Workers etc.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

2900000

Potential financial impact figure – maximum (currency)

40600000

Explanation of financial impact figure

HWASEUNG Enterprise has \$869,921,511 on 2021. And, one day sales is estimated as 2,900,000 (300 working days). So, if we stop production for 1 day incurred by extreme weather conditions, we lose \$2,900,000. If this production stop continues for 2 weeks, it increses to \$40,600,000.

Cost of response to risk

284000

Description of response and explanation of cost calculation

A rough estimation is made based on the cost to repair and maintain Hwaseung's factories that are affected by weather events. Mitigation system, including pump installation, DG Set operations, adaptation management (sourcing elsewhere), slope maintenance and recovery expenditures are taken into consideration.

Comment

Further analysis should be completed to assess the potential financial impacts and cost of response to risk.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical	Cyclone, hurricane, typhoon
----------------	-----------------------------

Primary potential financial impact

Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Due to rise in average global temperatures, our weather conditions have become almost unpredictable, experiencing heavy rains and floods across our countries of operations like Vietnam, Indonesia and China. Such sudden changes in climate change would affect our production, as it would then become difficult for suppliers to deliver material on time. Transportation difficulties would become a major issue in such times, and sometimes such extreme weather conditions can also lead to supply chain interruptions. Failure of suppliers to supply materials would impact our manufacturing operations. Hence, disruption of supply chain due to extreme climate/weather conditions poses a business continuity risk and considered to be critical for our manufacturing business.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

2900000

Potential financial impact figure – maximum (currency)

20300000

Explanation of financial impact figure

A rough estimation is made based on the cost to repair and maintain Hwaseung's factories that are affected by weather events. Mitigation system, including pump installation, DG Set operations, adaptation management (sourcing elsewhere), slope maintenance and recovery expenditures are taken into consideration.

Cost of response to risk

182000

Description of response and explanation of cost calculation

A rough estimation is made based on the cost to repair and maintain Hwaseung's factories that are affected by weather events. Mitigation system, including pump installation, DG Set operations, adaptation management (sourcing elsewhere), slope maintenance and recovery expenditures are taken into consideration.

Comment

Further analysis should be completed to assess the potential financial impacts and cost of response to risk.

Identifier

Risk 6

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)
----------------	--

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Due to rise in average global temperatures, our weather conditions have become almost unpredictable, experiencing heavy rains and floods across our countries of operations like Vietnam, Indonesia and China. Such sudden changes in climate change would affect our distribution of finished good across the markets spread over the world and it would then become difficult to deliver finished goods on time. Transportation difficulties would become a major issue in such times, and sometimes such extreme weather conditions can also lead to disruption in our distribution network, posing a business risk.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

2900000

Potential financial impact figure – maximum (currency)

20300000

Explanation of financial impact figure

A rough estimation is made based on the cost of stoppage of Hwaseung's factories 1 day to 1 week due to disruption of downstream supply chains affected by extreme weather events.

Cost of response to risk

450000

Description of response and explanation of cost calculation

The response to above situations will need creation of temporary additional warehouses and necessary arrangement for finished goods storage during the disruption of downstream supply chain

Comment

Further analysis should be completed to assess the potential financial impacts and cost of response to risk.

Identifier

Risk 7

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Technology	Transitioning to lower emissions technology
------------	---

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

HWASEUNG Enterprise supply chain includes one of the manufacturing facility using coal boiler. As we are committed to UNFCCC FICCA, we are working on phasing out of coal and transitioning to biomass as an alternate low carbon fuel for boilers. The availability of suitable biomass in the region, cost fluctuations, boiler modifications involves cost/investment and can have impact on direct cost.

Time horizon

Medium-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)

575000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The potential financial impact is estimated on the basis of phasing out Coal boiler and installation / modification of boiler suitable for use of biomass.

Cost of response to risk

3000000

Description of response and explanation of cost calculation

The cose of response to risk is estimated on the basis of loss of revenue because of not switching to clean-fuel technologie.

Comment

Further analysis should be completed to assess the potential financial impacts and cost of response to risk.

Identifier

Risk 8

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Emerging regulation	Mandates on and regulation of existing products and services
---------------------	--

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Materials used in the product also contributes to carbon emissions and as a signatory to UNFCCC FICCA, we are committed to use priority low carbon materials in our products by 2030. This will lead to discontinuing of use of existing materials (energy intensive) and switching to environment-friendly low carbon material, which may cost more than current materials and thus, will increase direct cost of production.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

43500000

Potential financial impact figure – maximum (currency)

87000000

Explanation of financial impact figure

Potential financial impact is estimated on the basis of restrictions on use of conventional materials and increased use of priority materials as expected by brand & customers

Cost of response to risk

5503900

Description of response and explanation of cost calculation

The cost of response to risk is estimated on the basis of potential investment required for identification & sourcing priority low-carbon materials for design & development of

low-carbon products

Comment

Further analysis should be completed to assess the potential financial impacts and cost of response to risk.

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

With continuous improvements in production and distribution processes, HWASEUNG Enterprise can benefit from a reduction in operating costs, such as electricity, fuel, machinery repair and maintenance, wastewater discharge, etc. As a key apparel and footwear manufacturer in Asia, HWASEUNG Enterprise has been developing innovative solutions in its production line. Due to the high water consumption in the dyeing process, HWASEUNG Enterprise initiated research on the wastewater recycling to minimize the environmental footprint of the products we manufacture. Moreover, HWASEUNG Enterprise strives for energy efficiency in its production line and manufacturing facilities, achieved by a continuous systematic evaluation of resource efficiency and optimization of production processes.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1770000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The Potential Financial Impact from Cost Savings is estimated from a high-level assessment of energy efficiency reduction potential across the Hwaseung Enterprise group.

Cost to realize opportunity

2600000

Strategy to realize opportunity and explanation of cost calculation

The investment is estimated from a high-level assessment of energy efficiency reduction potential across the group

Comment

We are in the process of developing a continuous improvements system, where we will identify, measure and implement carbon reduction opportunities across all of our sites globally, with the intent to set site-level targets and KPIs by the end of 2021.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

The apparel, footwear and textile industry comprises a large number of factories, which altogether consume a significant amount of energy and electricity. HWASEUNG Enterprise is in the process of developing its renewable energy strategy, leveraging both renewable energy procurement and on-site generation. This includes the installation of solar rooftop panels across its operations in Vietnam, Indonesia and China. In addition to a reduction in emission, most of our low-carbon energy opportunities present an a financially positive business case, with an average payback of 6-7 years. In addition, HWASEUNG Enterprise prioritized energy efficiency improvements as part of their operation strategies. We are in the process of identifying low-carbon fuels for heating, including for example rice husk pellets in Vietnam.

Time horizon

Medium-term

Likelihood

Virtually certain

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)

467000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Implementation of renewable energy and low emission transition strategies help to secure economical benefits in the long run. HWASEUNG is currently assessing various RE options, including installation of solar PV panels on our rooftops. The provided range is based on different business models (e.g. direct investment, leasing) over a 10-year period.

Cost to realize opportunity

350000

Strategy to realize opportunity and explanation of cost calculation

Initial advisory cost is required to facilitate adoption of RE strategies, particularly in the case of PPA for Rooftop Solar Project & Transitioning to Biomass Savings are calculated on the basis of electricity cost saving after installation of Rooftop Solar and Use of Biomass in place of Coal

Comment

Hwaseung is currently developing rooftop solar projects in regions where we operate, including Vietnam, Indonesia and China. Also working on phasing out of Coal and use of Biomass. This strategy can help reducing cost of our daily electricity consumption & coal consumption

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

As part of its commitment to sustainability, Hwaseung is collaborating with clients to develop more sustainable products. This opportunity can not only create revenue growth from increased demand for sustainable products, but can also reinforce Hwaseung Enterprise's reputation and position in the marketplace. In order to reduce the carbon emissions of its products, Hwaseung is in the process of evaluating the feasibility of using more recycled materials in its products. We also continuously strive to enhance our manufacturing processes to use less resources (energy, water, materials, chemicals, etc.) Besides, our R&D department is studying and developing biodegradable and eco-friendly materials for footwear, apparel and accessories.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

43500000

Potential financial impact figure – maximum (currency)

87000000

Explanation of financial impact figure

The potential financial impact is estimated as an annual increase in our revenues from the sales of more sustainable products. The progress and maturing of low-emission good will help Hwaseung yielding and securing revenue in sales. Therefore, the financial impact is estimated based on a set of assumptions made to our annual revenues.

Cost to realize opportunity

4000000

Strategy to realize opportunity and explanation of cost calculation

Investing in research and development is a key factor to improve environmental sustainability through innovative products and services. A ballpark estimate on Hwaseung's expenditure on developing low emission goods is made, considering the cost of R&D in the area, innovation and laboratory investment.

Comment

We are continuously improving and promoting sustainability across our operations. We are also innovating and investing in new products and services that are more sustainable with recycled materials through R&D.

C3. Business Strategy

C3.1

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

Row 1

Transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a transition plan within two years

Publicly available transition plan

<Not Applicable>

Mechanism by which feedback is collected from shareholders on your transition plan

<Not Applicable>

Description of feedback mechanism

<Not Applicable>

Frequency of feedback collection

<Not Applicable>

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

<Not Applicable>

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

As per UNFCCC Fashion Industry Charter for Climate Action, there are 2 options for 1.5°C alignment. 1. SBTi 1.5°C 2. 50% Reduction on GHG Emission by 2030 HWASEUNG Enterprise is a signatory to UNFCCC Fashion Industry Charter for Climate Action and has opted for and committed to Option 2 of aggressive absolute 50% GHG emission reduction by 2030 and working towards Net Zero by 2050. Accordingly working on pathways for reducing GHG emissions by 50% by 2030 over 2020 baseline emission. Major levers for GHG emission reduction are; energy efficiency, securing renewable energy and phasing out of coal. A roadmap has been prepared for phase-wise implementation of RTS (Rooftop Solar) across HWASEUNG Enterprise facilities in Vietnam and Indonesia. Similarly, energy saving measures action plans are being prepared and implemented across the operations. We are also working on phasing out of coal from one of our facilities in Vietnam and initiating use of biomass. Feasibility studies have been conducted and implementation is in progress. Above efforts will help us achieving 50% reduction in GHG emissions (Scope-1 & Scope-2) by 2030 as per our UNFCCC FICCA commitment, aligned with 1.5 Deg C transition scenario. HWASEUNG Enterprise has prepared the climate action strategy in a systematic & structured manner covering creation of climate awareness and collaboration with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installation of rooftop solar (RTS) in a phased manner through on-site & off-site PPAs across our Vietnam and Indonesia facilities, IRECs, coal phase out action, etc. We are also working on screening and action plans for Scope-3 emissions. We are working closely with UNFCCC Working Groups on Low Carbon Manufacturing and Materials. We have initiated Life Cycle Assessment of products for measuring GHG emissions on life cycle basis from sourcing to end-of-life. This will enable us to measure & minimize Scope-3 emissions from our value chain.

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
Transition scenarios	Customized publicly available transition scenario	Company-wide	1.5°C	As per UNFCCC Fashion Industry Charter for Climate Action, there are 2 options for 1.5°C alignment. 1. SBTi 1.5°C 2. 50% Reduction on GHG Emission by 2030 HWASEUNG Enterprise has opted for and committed to Option 2 of absolute 50% GHG emission reduction by 2030 and working towards Net Zero by 2050 as aligned with 1.5°C transition scenario. Accordingly, working on pathways for reducing GHG emissions by 50% by 2030 over 2020 baseline emission as per 1.5°C. Major levers for GHG emission reduction are; energy efficiency, securing renewable energy, IRECs and phasing out of coal. A roadmap has been prepared for phase-wise implementation of RTS (Rooftop Solar) across HWASEUNG Enterprise facilities in Vietnam and Indonesia. Similarly, energy saving measures action plans are being prepared and implemented across the operations. We are also working on phasing out of coal from one of our facilities in Vietnam and initiating use of biomass. Feasibility studies have been conducted and implementation is in progress. Above efforts will help us achieving 50% reduction in GHG emissions (Scope-1 & Scope-2) by 2030 as per our UNFCCC FICCA commitment, aligned with 1.5 Deg C transition scenario. We are also working on screening and action plans for Scope-3 emissions. We are working closely with UNFCCC Working Groups on Low Carbon Manufacturing and Materials. We have initiated Life Cycle Assessment of products for measuring GHG emissions on life cycle basis from sourcing to end-of-life. This will enable us to measure & minimize Scope-3 emissions from our value chain.

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

As per UNFCCC Fashion Industry Charter for Climate Action, there are 2 options for 1.5°C alignment. 1. SBTi 1.5°C 2. 50% Reduction on GHG Emission by 2030 HWASEUNG Enterprise is a signatory to UNFCCC Fashion Industry Charter for Climate Action and has opted for and committed to Option 2 of absolute 50% GHG emission reduction by 2030 and working towards Net Zero by 2050 as aligned with 1.5°C. This clear and aggressive target of 50% GHG emission reduction by 2030 with reference to 2020 baseline has made us identify and define distinctive levers for GHG emission reduction actions across operations, products and value chain, which is aligned with 1.5°C scenario as per UNFCCC Fashion Industry Charter for Climate Action. The focal questions to work towards transition scenario of 1.5 Deg C with 50% emission reduction by 2030 included comprehensive coverage all business and manufacturing operations wise emissions, sources of emissions, type of energy sources, estimated opportunities of energy efficiency improvements across all manufacturing operations, potential of Rooftop Solar (RTS) for each manufacturing location and associated carbon emission reduction, possibilities of receiving IRECs for manufacturing facilities, potential carbon emissions avoidance by phasing out coal and transitioning to biomass, availability of substitute alternate low GWP materials, supply chain sustainability, optimization of logistics for minimizing carbon emissions.

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

As per UNFCCC Fashion Industry Charter for Climate Action, there are 2 options for 1.5°C alignment. 1. SBTi 1.5°C 2. 50% Reduction on GHG Emission by 2030 HWASEUNG Enterprise has opted for and committed to Option 2 of absolute 50% GHG emission reduction by 2030 and working towards Net Zero by 2050 as aligned with 1.5°C. Accordingly, working on pathways for reducing GHG emissions by 50% by 2030 over 2020 baseline emission as per 1.5°C. Major levers for GHG emission reduction are; energy efficiency, securing renewable energy and phasing out of coal. A roadmap has been prepared for phase-wise implementation of RTS (Rooftop Solar) across HWASEUNG Enterprise facilities in Vietnam and Indonesia. Similarly, energy saving measures action plans are being prepared and implemented across the operations. We are also working on phasing out of coal from one of our facilities in Vietnam and initiating use of biomass. Feasibility studies have been conducted and implementation is in progress. Above efforts will help us achieving 50% reduction in GHG emissions (Scope-1 & Scope-2) by 2030 as per our UNFCCC FICCA commitment. HWASEUNG Enterprise has prepared the climate action strategy in a systematic & structured manner covering; creation of climate awareness and collaboration with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installing rooftop solar (RTS) through on-site & off-site PPAs, IRECs, coal phase out action, etc. According to our 1.5 Deg Transition Scenario analysis for 50% GHG emission reduction by 2030, we are likely to achieve nearly 5 - 7% GHG emission reduction through energy efficiency improvements, 25 - 30% carbon emission avoidance due to sourcing of renewable energy including IRECs, and nearly 10 - 15% carbon emission reduction due to phasing out of coal and transitioning to biomass. These focused efforts are likely to help us reduce our emissions by 50% by 2030, fulfilling our UNFCCC commitment. We are also working on screening and action plans for Scope-3 emissions. We are working closely with UNFCCC Working Groups on Low Carbon Manufacturing and Materials. We have initiated Life Cycle Assessment of products for measuring GHG emissions on life cycle basis from sourcing to end-of-life. This will enable us to measure & minimize Scope-3 emissions from our value chain. We are working on identification of priority low carbon materials as well as low carbon manufacturing technologies. We are also evaluating logistical modes and distances for optimization of supply chain GHG emissions.

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	We are working on pathways for reducing GHG emissions by 50% by 2030 over 2020 baseline emission as per 1.5°C. This has been integrated in overall business strategy and Decarbonization roadmap has been prepared with identified major levers for GHG emission reduction as; energy efficiency, securing renewable energy, phasing out of coal, sourcing of priority material, Zero emission logistics and collaboration with internal & external stakeholders. This decarbonization roadmap has been prepared taking into account climate risks associated with current & emerging regulatory requirements, physical risk of extreme weather conditions, technologies, disruption of supply chain and distribution network, reputational risk in case of not fulfilling commitments. A roadmap has been prepared for phase-wise implementation of RTS (Rooftop Solar) across HWASEUNG Enterprise facilities in Vietnam and Indonesia. Similarly, energy saving measures action plans are being prepared and implemented across the operations. We are also working on phasing out of coal from one of our facilities in Vietnam and initiating use of biomass. Feasibility studies have been conducted and implementation is in progress. We have started working on low carbon priority materials for minimizing product emissions. Above efforts will help us achieving 50% reduction in GHG emissions (Scope-1 & Scope-2) by 2030 as per our UNFCCC FICCA commitment, aligned with 1.5 Deg C transition scenario.
Supply chain and/or value chain	Yes	We are working closely with UNFCCC Working Groups on Low Carbon Manufacturing and Materials. We have initiated Life Cycle Assessment of products for measuring GHG emissions on life cycle basis from sourcing to end-of-life. This will enable us to measure & minimize Scope-3 emissions from our value chain. We are also evaluating logistical modes and distances for optimization of supply chain GHG emissions.
Investment in R&D	Yes	We are also working on screening and action plans for Scope-3 emissions. We are working closely with UNFCCC Working Groups on Low Carbon Manufacturing and Materials. We have initiated Life Cycle Assessment of products for measuring GHG emissions on life cycle basis from sourcing to end-of-life. This will enable us to measure & minimize Scope-3 emissions from our value chain. We are working on identification of priority low carbon materials as well as low carbon manufacturing technologies.
Operations	Yes	HWASEUNG Enterprise has been addressing these climate risks in a systematic & structured manner by creating climate awareness and collaborating with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installing rooftop solar (RTS) through on-site & off-site PPAs, IRECs, coal phase out action, etc.

C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets	HWASEUNG Enterprise has been addressing climate risks in a systematic & structured manner by integrating and addressing in overall business strategy. Climate action has been integrated in strategies by all major brands and preferential treatment is anticipated to those who will demonstrate agility towards adaptation and mitigation of climate change in line with 1.5 Deg C transition scenario. This can impact revenues if unable to meet clean product requirements, direct & indirect costs due to clean/renewable energy sources or clean technologies, capital expenditure for energy efficiency improvement, capital allocation for energy efficiency & clean technologies, carbon emission liabilities/implications of acquisitions and may limit access to capital if failed to deliver on climate action. The climate action strategy covers key action of; creating climate awareness and collaborating with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installing rooftop solar (RTS) through on-site & off-site PPAs, IRECs, coal phase out action, etc.

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2
Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Other (upstream)
Other (downstream)

Base year

2020

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

38027

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

116249

Base year Scope 3 emissions covered by target (metric tons CO2e)

913203

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

1067479

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 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

100

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

100

Target year

2030

Targeted reduction from base year (%)

50

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

533739.5

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

60328

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

123466

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

831105

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

1014899

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

9.85124765920454

Target status in reporting year

Underway

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

HWASEUNG Enterprise is a signatory of the UNFCCC Fashion Industry Charter for Climate Action. By doing so, HWASEUNG Enterprise is aiming to do its share to limit global warming to well below 1.5°C above pre-industrial levels. Among the pledges of UNFCCC signatories, Hwaseung Enterprise committed to 50 percent aggregate GHG emission reductions in Scope 1, 2 and 3 emissions by 2030 against a baseline of no earlier than 2015. 2020 was selected as the base year as it contains the latest set of up-to-date environmental data and is most aligned with Hwaseung Enterprise's business and operations. Base year emissions currently consist of our Scope 1 and 2 emissions, and Scope 3 emissions from a preliminary mapping leveraging the GHG Protocol Scope 3 Evaluator. Our Scope 3 inventory will be refined in coming years to provide more accurate data, particularly for Scope 3 emissions that are the most material to our business. * The reason why Baseline Year CO2 Emissions are revised (Scope 1 / Scope 2) 1. One facility in Indonesia which purchased electricity in 2020 increased from 1,217 GJ to 2,434 GJ. / Based off Issued Invoice 2. The key change is with 2020 Scope 2 market-based emissions, which increased from 86,094 tCO2e to 117,172 tCO2e. This increase is caused by a revision in the IEA grid electricity factor for Vietnam, which nearly doubled from 0.10047222 kg CO2e / MJ to 0.181166666667 kg CO2e / MJ. Unfortunately, – we pulled out the data from an environmental management software called Sphera, so it could be an update in historical grid factors from IEA or Sphera, or even a manual input error. 3. Scope 1 emissions increased slightly from 34,042 tCO2e to 38,027 tCO2e in 2020 as we updated the emission factors for fuels other than electricity from UK DEFRA to GHG Protocol (in alignment with adidas's reporting system)

Plan for achieving target, and progress made to the end of the reporting year

HWASEUNG Enterprise has taken up several initiatives in a systematic & structured manner for achieving targets covering , by creating climate awareness and collaborating with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installing rooftop solar (RTS) through on-site & off-site PPAs, IRECs, coal phase out action, etc. With above efforts, we are able to achieve 9.85% of Reduction in GHG Emission in the reporting year.

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

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

2021

Target coverage

Company-wide

Target type: energy carrier

All energy carriers

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Base year

2020

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

326018

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

0.24

Target year

2030

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

70

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

4.17

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

5.63360091743119

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, this is part of our emission target. HWASEUNG Enterprise has the aggressive target 50% absolute GHG emission reduction by 2030 and working towards Net Zero by 2050, And this target is equivalent to SBTi aligned with 1.5 Deg C pathway.

Is this target part of an overarching initiative?

RE100

Other, please specify (HWASEUNG Enterprise is a signatory to UNFCCC Fashion Industry Charter for Climate Action and opted for choice 1(b) of aggressive target of absolute 50% GHG reduction by 2030 and Net Zero by 2050 aligned with 1.5 Deg C. This is equivalent to SBTi.)

Please explain target coverage and identify any exclusions

HWASEUNG Enterprise is a signatory to UNFCCC Fashion Industry for Climate Action. There were two options aligned with 1.5 Deg C pathways as below; 1(a) Science Based Targets Initiative with Net Zero by 2050 1(b) Absolute 50% reduction by 2030 and Net Zero by 2050 HWASEUNG Enterprise has opted for choice 1(b) of aggressive absolute 50% GHG emission reduction target by 2030 and Net Zero by 2050. Therefore, as a signatory of the UNFCCC Fashion Industry Charter for Climate Action, HWASEUNG Enterprise is committed to set and achieve the targets aligned with 1.5 Deg C, which is equivalent to SBTi. We are committed to secure 100% renewable energy by 2030 and phasing out of coal and not installing any new coal-fired boilers or other sources of coal-fired heat and power generation as soon as possible and latest by 2025. In addition, Hwaseung Enterprise committed to phase out coal from all its applications by 2030 at the latest.

Plan for achieving target, and progress made to the end of the reporting year

HWASEUNG Enterprise has a climate action strategy prepared in a systematic & structured manner covering; climate awareness and collaborating with internal & external stakeholder, aggressively pursuing the energy efficiency across all manufacturing locations, conducting energy assessments to identify opportunities for improvement in energy efficiency, installing rooftop solar (RTS) through on-site & off-site PPAs, IRECs, coal phase out action, etc. This has resulted in increase in RE to 4.17%, well on track to 100% RE to be achieved by 2030, which will enable us to achieve 50% GHG reduction by 2030, aligned with 1.5 Deg C pathway.

List the actions which contributed most to achieving this target

<Not Applicable>

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	65	10538.5
To be implemented*	10	502.2
Implementation commenced*	15	753.4
Implemented*	6	2203.2
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

323

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

Scope 1

Voluntary/Mandatory

Voluntary

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

57200

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

0

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

HWASEUNG Vietnam - Basic work for Internal Energy Efficiency. - Regular Leakage Check -Reduce leakage with an improved maintenance program. Additionally, replace/repair all broken pipes and valves. Meanwhile, reinforce staff training to prohibit wasteful compressed air practices. Normally with a good maintenance program, it is possible to reduce 5 -10% (or more) compressed air leakage depend on existing situation.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

194

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

Scope 1

Voluntary/Mandatory

Voluntary

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

34300

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

0

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

HWASEUNG Vietnam - Optimise compressed air pressure setpoint - Immediate & Basic work for Energy Efficiency - HSV had a team who is responsible for monitoring and controlling the compressed air system, make sure that it works smoothly. The team Bchecks each compressor every day and cleans them every week. The pressure setpoint is stable at 7 bar for all operations at HSV. However, the discharge pressure set point of the compressor is suspected to be higher than the highest-pressure demand of any process machines requirement. Typically, 6% additional energy will be consumed by increasing 1 bar of pressure. The highest-pressure requirement equipment is the automatic pneumatic valve. Normally, the pneumatic valve could operate with compressed air supply at less than 5 bar.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

67

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

Scope 1

Voluntary/Mandatory

Voluntary

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

11900

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

0

Payback period

<1 year

Estimated lifetime of the initiative

<1 year

Comment

HWASEUNG Vietnam - Conduct Regular Maintenance on Chillers in HSV -Effective maintenance allows facilities to keep the equipment operating efficiently. A maintenance plan for the chillers, including their fans and pumps, should be developed and routinely completed (e.g. every 1-2 months). Maintenance activities can be classified as either preventive or predictive. Preventive maintenance addresses routine system needs such as cleaning, lubrication, periodic adjustments, and removal of contaminants. Predictive maintenance focuses on tests and inspections that detect deteriorating conditions

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

132

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

Scope 1

Voluntary/Mandatory

Voluntary

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

22900

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

0

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

HWASEUNG Polytech in Vietnam - Introduce regular leakage check program Reduce leakage with an improved maintenance program. Additionally, replace/repair all broken pipes and valves. Meanwhile, reinforce staff training to prohibit wasteful compressed air practices. Normally with a good maintenance program, it is possible to reduce 5 - 10% (or more) compressed air leakage depend on existing situation.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

79

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

Scope 1

Voluntary/Mandatory

Voluntary

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

13700

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

0

Payback period

<1 year

Estimated lifetime of the initiative

11-15 years

Comment

HWASEUNG Polytech in Vietnam - Optimize compressed air pressure setpoint It is recommended to lower the pressure setpoint in order to reduce electrical consumption of air compressors. The recommended pressure set point is from 6 bar. Reducing central air pressure to nearer highest demand pressure can yield significant savings. Pressure mapping will identify sources of pressure drop

Initiative category & Initiative type

Energy efficiency in buildings	Lighting
--------------------------------	----------

Estimated annual CO2e savings (metric tonnes CO2e)

9

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

Scope 1

Voluntary/Mandatory

Voluntary

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

1500

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Polytech in Vietnam - Turn off lights when not in use - Efforts needed Lights and machinery should be turned off when not in use. HSP could conduct training, set up reminders in the work areas and assign a technician and/or production manager who will be responsible for checking and turning off the lights, fans, equipment in their area when not in use (e.g. break, lunch, health check). In the long-term, it is recommended that HSP for establishment the energy management team for monitoring and controlling operation of the above systems during break times.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

15

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

Scope 1

Voluntary/Mandatory

Voluntary

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

2600

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

HWASEUNG Polytech in Vietnam - Cooling towers and pumps optimisation Effective maintenance allows facilities to keep the equipment operating efficiently. A maintenance plan for the cooling towers, including their fans and pumps, should be developed and routinely completed (e.g. every 1-2 months). Maintenance activities can be classified as either preventive or predictive. Preventive maintenance addresses routine system needs such as cleaning, lubrication, periodic adjustments, and removal of contaminants. Predictive maintenance focuses on tests and inspections that detect deteriorating conditions.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

10

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

Scope 1

Voluntary/Mandatory

Voluntary

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

1600

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Polytech in Vietnam - Online Monitoring of chiller efficiency Online monitoring system for chillers is just installed but there is no record. It is recommended that HSP conducts periodic maintenance and monitoring of chiller systems. This includes: • Maintain a daily operating log: Daily monitoring and tracking of operating parameters such as high pressure – low pressure, 35 inlet-outlet temperature, etc... Regular monitoring will help indicate if any problems are developing. • Heat transfer checking (refrigerant/water temperature comparisons) on both the evaporator and condenser sections. Fouling and scale can reduce efficiency. Some manufacturers offer calculators to estimate how much money is being expended due to scale or fouling in chillers. Every 6 months: HSP needs a contractor for the chillers maintenance program. Chiller maintenance regimes are critical for maximising efficiencies from chillers and chilled water systems. Good maintenance regimes can save substantial amounts of energy.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

16

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

Scope 1

Voluntary/Mandatory

Voluntary

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

7000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Daeyoung Vietnam - Introduce regular leakage check program Reduce leakage with an improved maintenance program. Additionally, replace/repair all broken pipes and valves. Meanwhile, reinforce staff training to prohibit wasteful compressed air practices. Normally with a good maintenance program, it is possible to reduce 5 - 10% (or more) compressed air leakage depend on existing situation.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

7

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

Scope 1

Voluntary/Mandatory

Voluntary

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

3000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Daeyoung Vietnam - Optimise compressed air pressure set point It is recommended to lower the pressure set point in order to reduce electrical consumption of air compressors. The recommended pressure set point is from 5.5-6 bar. Reducing central air pressure to nearer highest demand pressure can yield significant savings. Pressure mapping will identify sources of pressure drop. Pressure drop in piping along compressed air distribution should be noticed and hence machine performance should be evaluated after pressure set-point adjustment.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

23.6

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

Scope 1

Voluntary/Mandatory

Voluntary

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

2290

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Unipax in Vietnam - Improve regular air leakage check program Reduce leakage with an improved maintenance program. Additionally, replace/repair all broken pipes and valves. Meanwhile, reinforce staff training to prohibit wasteful compressed air practices. Normally with a good maintenance program, it is possible to reduce 5 -15% (or more) compressed air leakage depend on existing situation.

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

86

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

Scope 1

Voluntary/Mandatory

Voluntary

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

7241

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Indonesia - Introduce regular leakage check program

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

121

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

Scope 1

Voluntary/Mandatory

Voluntary

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

9905

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Indonesia - Optimize compressed air pressure setpoint

Initiative category & Initiative type

Energy efficiency in buildings	Lighting
--------------------------------	----------

Estimated annual CO2e savings (metric tonnes CO2e)

1

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

Scope 1

Voluntary/Mandatory

Voluntary

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

96

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Indonesia - Eliminate double layer lamp

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

43

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

Scope 1

Voluntary/Mandatory

Voluntary

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

90

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Indonesia - Turn off AC when not in use and partially

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

27

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

Scope 1

Voluntary/Mandatory

Voluntary

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

5076

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Dalian in China - Introduce regular leakage check program

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

10

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

Scope 1

Voluntary/Mandatory

Voluntary

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

2538

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

0

Payback period

<1 year

Estimated lifetime of the initiative

1-2 years

Comment

HWASEUNG Dalian in China - Optimize compressed air pressure setpoint

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

5

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

Scope 1

Voluntary/Mandatory

Voluntary

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

1015

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Dalian in China - Conduct regular maintenance on chillers

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

7

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

Scope 1

Voluntary/Mandatory

Voluntary

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

1296

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Tong Liao in China - Circulating heating pump dismantling

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

0

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

Scope 1

Voluntary/Mandatory

Voluntary

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

22

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Tong Liao in China - Air Cooling temperature set in proper level

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

10

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

Scope 1

Voluntary/Mandatory

Voluntary

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

1800

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Tongliao in China - Introduce Regular Leakage check program

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

4

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

Scope 1

Voluntary/Mandatory

Voluntary

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

720

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Tongliao in China - Optimise compressed air pressure

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

14

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

Scope 1

Voluntary/Mandatory

Voluntary

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

2400

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Tong Liao in China - Turn off the light in lunch break time

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

16

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

Scope 1

Voluntary/Mandatory

Voluntary

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

4061

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Chao Yang in China - Regular Leakage check for compressed air

Initiative category & Initiative type

Energy efficiency in buildings	Maintenance program
--------------------------------	---------------------

Estimated annual CO2e savings (metric tonnes CO2e)

32

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

Scope 1

Voluntary/Mandatory

Voluntary

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

8049

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

HWASEUNG Chao Yang in China - Optimize compressed air pressure setpoint

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	To drive investment in emissions reduction activities, HWASEUNG Enterprise implemented internal study for Emission Target setup / Internal Action Plans & Best Practices / Prioritization. Based on this, Budget Allocation is made after detailed evaluation of investment, potential GHG savings, cost savings, ROI. Further these saving measures are prioritized on the basis of ROI and budget will be allocated in subsequent years These investment & Budget Allocation toward emission reduction activities are regularly reviewed by Sustainability Board Committee
Dedicated budget for low-carbon product R&D	Approximately appointed R&D Budget for \$5.5M which includes low-carbon product development, alternative environmentally-friendly materials, manufacturing processes etc. These investment & Budget Allocation toward product stewardship activities are regularly reviewed by Sustainability Board Committee
Internal price on carbon	We are planning to implement shadow price for carbon, implementation of clean technologies in our manufacturing operations across geography.
Employee engagement	At the beginning of the year, we are identifying the needs of climate related training for various level of employees and planning training calendar along with required resources.
Partnering with governments on technology development	We are supporting Clean Energy Transition Program (PDP8) of Governemtn of Vietnam for promoting use of renewable energy
Internal incentives/recognition programs	Monitoring incentives are incorporated in Cascading Goals of All employees . At the beginning of the year, GHG Reduction Goals are finalized for all levels of employees and incentives are offered after achieving the redution goals, and necessary budget provisions are made

C4.5

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

Yes

C4.5a

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

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify (Recycled Claim Standard (RCS) - Version 2.0 -)

Type of product(s) or service(s)

Other	Other, please specify (Footwear)
-------	----------------------------------

Description of product(s) or service(s)

Footwear containing this 29% Recycled post-consumer polyester (RM0189) + 37% Natural rubber (RM0132) + 34% Thermoplastic Polyurethane (RM0262)

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify (Life Cycle Assessment as per ISO 14040 / 44 and Material Emission from Higgs and other similar tools)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-gate

Functional unit used

Tons of CO2

Reference product/service or baseline scenario used

The current product without recycle material is considered for the baseline scenario

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-gate

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

7454

Explain your calculation of avoided emissions, including any assumptions

We estimated avoided emission on the basis of emissions from virgin materials used in original products against recycled materials used in above product

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

1

C5. Emissions methodology

C5.1

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

No

C5.1a

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

Row 1

Has there been a structural change?

Yes, an acquisition

Name of organization(s) acquired, divested from, or merged with

UNIPAX VI THANH CO., LTD.

Details of structural change(s), including completion dates

On 01st, May, 2021 HWASEUNG Enterprise acquired Unipax Vi Thanh, located in Lot A13- A17, Vi Thanh industrial and handicraft cluster, Ward VII, Vi Thanh City, Hau Giang Province, Vietnam, which is a factory producing Headwear products.

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	The boundary of HWASEUNG Enterprise expanded by adding a new factory area - UNIPAX Vi Thanh with a total construction land area is 20 200 m2

C5.1c

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

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	Yes	As HWASEUNG Enterprise expanded the boundary by adding one more factory, we added the range to calculate the emission, including 18 factories instead of 17. In addition to above, we recalculated emissions considering for reasons below 1. One facility in Indonesia which purchased electricity in 2020 increased from 1,217 GJ to 2,434 GJ. / Based off Issued Invoice 2. The key change is with 2020 Scope 2 market-based emissions, which increased from 86,094 tCO2e to 117,172 tCO2e. This increase is caused by a revision in the IEA grid electricity factor for Vietnam, which nearly doubled from 0.10047222 kg CO2e / MJ to 0.181166666667 kg CO2e / MJ. Unfortunately, – we pulled out the data from a environmental management software called Sphera, so it could be an update in historical grid factors from IEA or Sphera, or even a manual input error. 3. Scope 1 emissions increased slightly from 34,042 tCO2e to 38,027 tCO2e in 2020 as we updated the emission factors for fuels other than electricity from UK DEFRA to GHG Protocol (in alignment with adidas's reporting system)

C5.2

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

Scope 1

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

38027

Comment

Scope 1 emissions increased slightly from 34,042 tCO2e to 38,027 tCO2e in 2020 as we updated the emission factors for fuels other than electricity from UK DEFRA to GHG Protocol

Scope 2 (location-based)

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

117172

Comment

The key change is with 2020 Scope 2 market-based emissions, which increased from 86,094 tCO2e to 117,172 tCO2e . This increase is caused by a revision in the IEA grid electricity factor for Vietnam, which nearly doubled from 0.10047222 kg CO2e / MJ to 0.181166666667 kg CO2e / MJ. Unfortunately, – we pulled out the data from a environmental management software called Sphera, so it could be an update in historical grid factors from IEA or Sphera, or even a manual input error.

Scope 2 (market-based)

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

116249

Comment

The key change is with 2020 Scope 2 market-based emissions, which increased from 86,094 tCO2e to 116,249 tCO2e . This increase is caused by a revision in the IEA grid electricity factor for Vietnam, which nearly doubled from 0.10047222 kg CO2e / MJ to 0.181166666667 kg CO2e / MJ. Unfortunately, – we pulled out the data from a environmental management software called Sphera, so it could be an update in historical grid factors from IEA or Sphera, or even a manual input error.

Scope 3 category 1: Purchased goods and services

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

684169

Comment

No change in Scope 3 Emissions

Scope 3 category 2: Capital goods

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

74468

Comment

No change in Scope 3 Emissions

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

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

25862

Comment

No change in Scope 3 Emissions

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

15118

Comment

No change in Scope 3 Emissions

Scope 3 category 5: Waste generated in operations

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

4662

Comment

No change in Scope 3 Emissions

Scope 3 category 6: Business travel

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

1127

Comment

No change in Scope 3 Emissions

Scope 3 category 7: Employee commuting

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions, We have included in Scope 1 emissions

Scope 3 category 8: Upstream leased assets

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions

Scope 3 category 10: Processing of sold products

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions

Scope 3 category 11: Use of sold products

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

61634

Comment

No change in Scope 3 Emissions

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

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

29402

Comment

UK DEFRA 2020 Based / No change in Scope 3 Emissions

Scope 3 category 13: Downstream leased assets

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions

Scope 3 category 14: Franchises

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions

Scope 3 category 15: Investments

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

16961

Comment

No change in Scope 3 Emissions

Scope 3: Other (upstream)

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions

Scope 3: Other (downstream)

Base year start

January 1 2020

Base year end

December 31 2020

Base year emissions (metric tons CO2e)

0

Comment

No change in Scope 3 Emissions

C5.3

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

Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

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)

60328

Start date

January 1 2021

End date

December 31 2021

Comment

Scope 1 Emission across 18 facilities in Vietnam / Indonesia / China

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

38027

Start date

January 1 2020

End date

December 31 2020

Comment

The data has changed a bit compared to the previous report, from 34,042 tCO2e to 38,027 tCO2e (2020) because of the revision of emission factors in line with the most up-to-date carbon inventory methodology and electricity grid factors. We have also added 2 entities which are under HWASEUNG Enterprise.

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

Our Scope 2 emissions inventory includes all the following emission sources that are generated by our sites globally: - Purchased electricity consumption, both from the grid and from renewable sources (e.g., PPA); and - Purchased steam consumption. Other potential Scope 2 emission sources (e.g., purchased heat and cooling) are irrelevant to our operations. Scope 2 emissions are quantified and reported with location-based and market-based methods. Location-based emissions are quantified using the national grid factors published by the International Energy Agency (IEA). Market-based emissions are quantified using the emission factor hierarchy presented in the GHG Protocol Scope 2 Guidance.

C6.3

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

Reporting year

Scope 2, location-based

123916

Scope 2, market-based (if applicable)

123466

Start date

January 1 2021

End date

December 31 2021

Comment

Scope 2 Emission across 18 facilities in Vietnam / Indonesia / China with Location & Market based emission factors

Past year 1

Scope 2, location-based

117172

Scope 2, market-based (if applicable)

116249

Start date

January 1 2020

End date

December 31 2020

Comment

Scope 2 Emission across 18 facilities in Vietnam / Indonesia / China with Location & Market based emission factors

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 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)

565651

Emissions calculation methodology

Spend-based method

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

0

Please explain

We have used 'Quantis' tool of GHG Protocol to calculate this emission in Scope 3

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

70212

Emissions calculation methodology

Spend-based method

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

0

Please explain

We have used 'Quantis' tool of GHG Protocol to calculate this emission in Scope 3

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

39576

Emissions calculation methodology

Spend-based method

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

0

Please explain

We have used 'Quantis' tool of GHG Protocol to calculate this emission in Scope 3

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

24743

Emissions calculation methodology

Spend-based method

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

0

Please explain

We have used 'Quantis' tool of GHG Protocol to calculate this emission in Scope 3

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1266

Emissions calculation methodology

Spend-based method

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

0

Please explain

We have used 'Quantis' tool of GHG Protocol to calculate this emission in Scope 3

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

944

Emissions calculation methodology

Spend-based method

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

0

Please explain

We have used 'Quantis' tool of GHG Protocol to calculate this emission in Scope 3

Employee commuting

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

This emissions are included within Scope 1 emissions

Upstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2.368

Emissions calculation methodology

Spend-based method

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

0

Please explain

We have used 'Quantis' tool of GHG Protocol to calculate this emission in Scope 3

Downstream transportation and distribution

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

HS Enterprise has HS Logistics & HS Global as Logistics Company. Their emission is already included within Scope 1

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

For our products of fashion industry, Processing is not required

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

74257

Emissions calculation methodology

Average data method

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

0

Please explain

HWASEUNG Enterprise calculated Emission for Product Use based off Average energy consumption per Cycle Footwear / Apparel Lifetime - 2 years , Average weight as 0.5 kg / Source: <https://www.parcl.com/education/customers/shipping-weight/> Average energy consumption per cycle composed of Washer / Dryer for estimation of GHG Emission Washer Average power 1,300 Watts Average cycle duration 1.5 hour Average washer load 7 kg % of load from one item 7% Energy consumption per washing cycle and item 0.139285714 kWh Dryer Average power 3,000 Watts Average cycle duration 2 hour Average dryer load 5 kg % of load from one item 10% Energy consumption per washing cycle and item 0.6 kWh Total 0.739285714 kWh Source: <https://www.buildwithrise.com/stories/how-much-electricity-does-it-use> So, based off average Washer / Dryer Energy Consumption, we calculated with our Sold Product Emission

End of life treatment of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

35771

Emissions calculation methodology

Average data method

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

0

Please explain

HWASEUNG Enterprise calculated CO2 Emission for End of life treatment of sold products based off - Source: UK DEFRA 2020 - Reuse - Household residual waste - Landfill

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

HWASEUNG Enterprise doesn't have any major downstream leased assets

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

HWASEUNG Enterprise doesn't have any Franchises

Investments

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

18681

Emissions calculation methodology

Spend-based method

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

0

Please explain

The only relevant investment from HWASEUNG Enterprise consists of an investment in a joint venture in Indonesia. All investments over which HWASEUNG Enterprise have operational control are included in our Scope 1 and 2 emissions.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

There are no other upstream emissions

Other (downstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

There are no other upstream emissions

C6.5a

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

Past year 1

Start date

January 1 2020

End date

December 31 2020

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

684169

Scope 3: Capital goods (metric tons CO2e)

74468

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

25862

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

15118

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

4662

Scope 3: Business travel (metric tons CO2e)

1127

Scope 3: Employee commuting (metric tons CO2e)

0

Scope 3: Upstream leased assets (metric tons CO2e)

0

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

0

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

0

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

61434

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

29402

Scope 3: Downstream leased assets (metric tons CO2e)

0

Scope 3: Franchises (metric tons CO2e)

0

Scope 3: Investments (metric tons CO2e)

16961

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

0

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

0

Comment

All material Scope 3 emission sources are captured in the categories above.

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

0.000181

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

183976.81

Metric denominator

unit total revenue

Metric denominator: Unit total

1011687718

Scope 2 figure used

Market-based

% change from previous year

28

Direction of change

Increased

Reason for change

As compared to 2020, there is an increase in emissions intensity per revenue observed in 2021. This was caused by an increase in our absolute emissions from organic growth, from 2020 to 2021.

C7. Emissions breakdowns

C7.1

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

No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Viet Nam	55627
Indonesia	4513
China	371

C7.3

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

By facility

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
HwaSeung Vina Co., Ltd.	350	10.734209	106.918808
HWASEUNG Polytech Co., Ltd.	12225	10.738146	106.917883
HWASEUNG PHOSPIN CO., LTD	46	10.73366	106.913798
UNIPAX CO., LTD	28	10.934748	106.886616
HWASEUNG Long Thanh CO., LTD	18	10.862277	106.920776
HWASEUNG SOC TRANG CO., LTD	15	9.649864	105.962225
HWASEUNG CHANG CHUN CO., LTD	293	10.439817	107.219241
DAEYOUNG TEXTILE VIETNAM CO., LTD	41206	10.702726	106.938499
HWASEUNG RACH GIA CO., LTD	61	10.00367	105.131832
S-PRINT CO., LTD	28	10.81098	106.91272
UNIPAX VI THANH CO., LTD	19	9.761646	105.439719
HWASEUNG DALIAN CO., LTD	308	39.080867	121.682169
HWASEUNG TONG LIAO CO., LTD	63	43.675583	122.213789
DAE YOUNG TEXTILE INDONESIA CO., LTD	2273	6.92439	110.263101
HWASEUNG INDONESIA CO., LTD	413	6.715791	110.724612
PT CIPTA HARMONY JAVA	1827	6.337931	107.12687
HWASEUNG Global & Lgostics	1339	10.734209	106.918808

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Indonesia	39467	39017
China	10392	10392
Viet Nam	74057	74057

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)
HWASEUNG DALIAN CO., LTD	4821	4821
HWASEUNG TONG LIAO CO., LTD	4110	4110
HWASEUNG CHO YANG CO., LTD	1460	1460
DAE YOUNG TEXTILE INDONESIA CO., LTD	2290	1841
HWASEUNG INDONESIA CO., LTD	36619	36619
PT CIPTA HARMONY JAVA CO., LTD	557	557
HWASEUNG PHOSPIN CO., LTD	3356	3356
UNIPAX CO., LTD	2193	2193
HwaSeung Vina Co., Ltd.	36979	36979
BRANCH OF INTERNATIONAL B2B SOLUTION CO., LTD	1464	1464
HWASEUNG Long Thanh CO., LTD	1139	1139
HWASEUNG SOC TRANG CO., LTD	3884	3884
HWASEUNG CHANG CHUN CO., LTD	1338	1338
Daeyoung Textile Vietnam Co., Ltd	5425	5425
HWASEUNG RACH GIA CO., LTD	7097	7097
HWASEUNG Polytech Co., Ltd.	9295	9295
S-PRINT CO., LTD	1452	1452
UNIPAX VI THANH CO., LTD	434	434

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?**

Increased

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	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	10163	Decreased	5.5	Carbon emission saved due to Increase in renewable energy consumption = 5.5% of Carbon emissions (Scope 1+2)
Other emissions reduction activities	2203.2	Decreased	1.1	By implemented the Energy Efficiency Improvement Action Plan as figured in C4.3b: reduces compressed air distribution system leakage, optimize compressed air pressure setpoint; effective maintenance to improve energy efficiency; saving electricity, etc., our Group has decreased carbon emissions by 1.1%
Divestment	0	Please select	0	No significant divestment in the reporting year
Acquisitions	453	Increased	0.24	The gross global emissions scope 1 and 2 are using market-based method In 2021, HWASEUNG Enterprise acquired 1 company (Unipax Vi Thanh) that has the emissions scope 1 +2 is : 453 tCO2
Mergers	0	No change	0	No significant merger in the reporting year.
Change in output	29228	Increased	15.8	* 2021 / Coal Consumption Facilities Production Increased * 2021 / Indonesia - Covid impact relatively lower than others for Business Operation In 2020, we have 4 facilities had just been established (Vietnam 3 factories, Indonesia 1 factory) from the middle or the end of the year, which is included a textile company (dyeing, printing, finishing) that has significant emissions because of using coal for boiler and furnace, accounted for overall 19% of the emissions increased in 2021. In 2020, these factories operated for only a few months, not an entire year. In 2021, besides expanding the existing factories' production volume and acquiring one more factory, the newly established factories were operated entire year with a higher production capacity that added much more emissions into account. Therefore, the emissions increased in 2021. The total emissions increased by 29,228 tons of CO2e,
Change in methodology	35063	Increased	22.7	2. The key change is with 2020 Scope 2 market-based emissions, which increased from 86,094 tCO2e to 117,172 tCO2e. This increase is caused by a revision in the IEA grid electricity factor for Vietnam, which nearly doubled from 0.10047222 kg CO2e / MJ to 0.18116666667 kg CO2e / MJ. Unfortunately, – we pulled out the data from an environmental management software called Sphera, so it could be an update in historical grid factors from IEA or Sphera, or even a manual input error. 3. Scope 1 emissions increased slightly from 34,042 tCO2e to 38,027 tCO2e in 2020 as we updated the emission factors for fuels other than electricity from UK DEFRA to GHG Protocol (in alignment with adidas's reporting system)
Change in boundary	453	Increased	0.24	The gross global emissions scope 1 and 2 are using market-based method In 2021, HWASEUNG Enterprise acquired 1 company (Unipax Vi Thanh) that has the emissions scope 1 +2 is : 453 tCO2
Change in physical operating conditions	0	No change	0	No change in physical operating conditions
Unidentified	0	No change	0	No unidentified reasons or exclusions
Other	0	No change	0	No other reasons or exclusions

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

C8. Energy

C8.1

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

More than 5% but less than or equal to 10%

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	325.55	207664.35	207989.9
Consumption of purchased or acquired electricity	<Not Applicable>	14922	165866.87	180788.87
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	2863.33	2863.33
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	1431.67	<Not Applicable>	1431.67
Total energy consumption	<Not Applicable>	16679.22	376394.55	393074.77

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	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
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

LHV

Total fuel MWh consumed by the organization

325.51

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

325.51

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Biomass is used for generation of heat purpose

Other biomass

Heating value

Please select

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

Please select

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

HHV

Total fuel MWh consumed by the organization

125341.67

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

56403.75

MWh fuel consumed for self-generation of steam

68937.91

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Coal is used for generation of heat & steam

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

4006.71

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

4006.71

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Oil (Petrol, Diesel, Fuel-oil) are mostly used for generation of heat and for internal & external transportation

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

73325.97

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

13198.67

MWh fuel consumed for self-generation of steam

60127.29

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Gas (Natural Gas, CNG, LPG, NGL) are mostly used for generation of steam

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

Heating value

Please select

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

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

202999.86

MWh fuel consumed for self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-generation of heat

73934.64

MWh fuel consumed for self-generation of steam

129065.22

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Total Fuels are used for Generation of Heat & Steam in manufacturing of operations

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	1431.67	1431.67	1431.67	1431.67
Heat				
Steam				
Cooling				

C8.2e

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

Sourcing method

Purchase from an on-site installation owned by a third party

Energy carrier

Electricity

Low-carbon technology type

Solar

Country/area of low-carbon energy consumption

Viet Nam

Tracking instrument used

Contract

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

1431.67

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

Viet Nam

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2020

Comment

This is for self-generated/self-consumption Electricity with Rooftop Solar Energy

Sourcing method

Unbundled energy attribute certificates (EACs) purchase

Energy carrier

Electricity

Low-carbon technology type

Solar

Country/area of low-carbon energy consumption

Viet Nam

Tracking instrument used

I-REC

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

14922

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

Viet Nam

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2020

Comment

We have 3 Facilities having rooftop solars contributing to these I-RECs (HS Rach Gia : 3,760 MWh / HS Soc Trang : 1,362 MWh + CC Vina 9,800 MWh)

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

China

Consumption of electricity (MWh)

16608.13

Consumption of heat, steam, and cooling (MWh)

0

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

16608.13

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Indonesia

Consumption of electricity (MWh)

51503.33

Consumption of heat, steam, and cooling (MWh)

0

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

51503.33

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Viet Nam

Consumption of electricity (MWh)

114109.04

Consumption of heat, steam, and cooling (MWh)

2864.25

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

116973.29

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

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

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

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

The transition to low-carbon world needs to reinvent development in every field, including energy, transport, housing, production, farming, finance and consumption. And to attain the desired results, it has been proposed to put a price to carbon.

Internal Carbon price is a risk management tool, to become resilient to regulatory climate policies and support decarbonization strategy. Its objective is to influence business decisions and encourage economic decision-makers to invest in clean energy, low-carbon technologies, products & services.

HWASEUNG Enterprise has decided to implement Internal Carbon price for the following purposes:

- Effectively achieve the carbon emission reduction targets
- Protect against compliance risks relating to future carbon pricing and decarbonization policies
- Prepare for the future climate action policies, which influences operating conditions (costs, changes in energy supplies or systems, etc.)
- Direct investments to low-carbon technologies more effectively;
- Drive Research and Development, and identify new markets.

Out of the three internal carbon pricing options, HWASEUNG Enterprise has decided to use Internal Carbon Pricing as the Shadow price, which systematically incorporates price into economic assessment of investment projects related to production, Research and Development, strategic transactions and for developing a new business activity, if any. We are working on estimation of Internal Carbon Price(ICP) as shadow price to drive investments in clean technologies to reduce carbon emissions. The internal carbon price will be estimated on the basis of investment in climate action projects and GHG emission savings across all geographies of operations. We are also developing the process for implementation of ICP on pilot basis and it will be reviewed on annually.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

100

Rationale for the coverage of your engagement

We have a large network of suppliers spread across the geographies of our operations in Vietnam, Indonesia and China. As a signatory to UNFCCC Fashion Industry Charter for Climate Action, it is important for us to engage with the supply chain and sensitize them about climate change and associated risks. We are collecting data of Energy, GHG and Environment. We are promoting use of renewable energy and energy efficiency among our supply chain partners, so that we can achieve carbon emission reduction in value chain.

Impact of engagement, including measures of success

We are able to monitor the carbon emissions from our supply chain and planning initiatives to reduce carbon emissions from major emitters. We are also promoting energy efficiency and renewable efficiency across the supply chain.

Comment

Above data includes 14 Key-Suppliers of HWASEUNG Enterprise.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Collaborate with suppliers on innovative business models to source renewable energy

% of suppliers by number

7.1

% total procurement spend (direct and indirect)

3.7

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

100

Rationale for the coverage of your engagement

We are working with our suppliers for working on Decarbonization and sensitizing them on our Climate Action Policy aligned with 1.5 Deg C as per UNFCCC Fashion Industry Charter for Climate Action (FICCA) and associated commitments to achieve our aggressive target of absolute 50% GHG emissions by 2030 and Net Zero by 2050.

Impact of engagement, including measures of success

We are working on phasing out of Coal-related production and transitioning to biomass for one of our suppliers

Comment

Feasibility study has been completed and Action Plan is being made for Coal-Phase out

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

100

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

100

Please explain the rationale for selecting this group of customers and scope of engagement

We are working with customers/Brands for working on Decarbonization and sensitizing them on our Climate Action Policy aligned with 1.5 Deg C as per UNFCCC Fashion Industry Charter for Climate Action (FICCA) and associated commitments to achieve our aggressive target of absolute 50% GHG emissions by 2030 and Net Zero by 2050. We are keeping them up-to-date on our Climate Action Strategy, initiatives and action plans related to phase-wise implementation of RTS through on-site PPAs, IRECs, Coal Phase-out, Energy Efficiency improvements, etc. We are regularly sensitizing these customers/Brands through real/virtual meetings, sharing of press release, podcast giving details of our sustainability journey.

Impact of engagement, including measures of success

As a result of engagement, there is active participation from suppliers in Sustainability Journey of HWASEUNG Enterprise

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

We have a large network of suppliers spread across the geographies of our operations in Vietnam, Indonesia and China. As a signatory to UNFCCC Fashion Industry Charter for Climate Action, it is important for us to engage with the supply chain and sensitize them about climate change and associated risks. With this objective, we are planning the Sustainable Value Chain Initiative for implementation in a phased manner, aiming to cover all our suppliers ultimately. HWASEUNG Enterprise is formulating the "Sustainability Guidelines for Value Chain" and Data template covering key topics like Energy, GHG, Environment, Governance Mechanism, Management System Certification, Health and Safety, Labor and Human rights, Mode of logistics, Transparency and Reporting. We are promoting use of renewable energy and energy efficiency among our supply chain partners, so that we can achieve carbon emission reduction in value chain.

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

Implementation of emissions reduction initiatives

Description of this climate related requirement

We are expecting suppliers to undertake emission reduction initiatives for reducing emissions by 3 to 5% year on year

% 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

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Response to supplier non-compliance with this climate-related requirement

Retain and engage

Climate-related requirement

Setting a low-carbon energy target

Description of this climate related requirement

We are expecting suppliers to improve renewable energy consumption by 3 to 5% year on year

% 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

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Response to supplier non-compliance with this climate-related requirement

Retain and engage

Climate-related requirement

Purchasing renewable energy

Description of this climate related requirement

We are expecting suppliers to improve renewable energy consumption by 3 to 5% year on year

% 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

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Response to supplier non-compliance with this climate-related requirement

Retain and engage

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

We are expecting suppliers to comply with applicable regulatory requirements

% 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

100

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

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

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

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)

JOINT STATEMENT OF SUPPORT FOR HIGH-AMBIITION POWER DEVELOPMENT PLANNING IN VIETNAM We, the undersigned, are a group of international and domestic companies doing business in Vietnam, and we encourage the Government of Vietnam to issue and implement a Power Development Plan VIII ("PDP8") that prioritizes renewable energy investment and accelerates Vietnam's clean energy transition. The signatories of this statement are committed to using cleaner, more sustainable energy to power our businesses. We want to be part of the solution by working in partnership with the government to proactively formulate and strengthen policies and long-term planning mechanisms to drive expanded renewable energy investment in Vietnam. We have witnessed the power of clean energy to enhance Vietnam's regional leadership, unlock cost-effective electricity options for businesses, and scale investment in Vietnam's economy. The Government of Vietnam's supportive policy environment and programs have, in recent years, catapulted the country to a position of global leadership in clean energy installations. Vietnam has become a shining example of how cost-effective solar and wind energy can mobilize private sector investment and help decarbonize the energy mix, while also supporting progress toward the goals of the Paris Agreement. We applaud the Government of Vietnam's recent announcements at COP26 related to achieving net-zero emissions by 2050, ceasing issuance of new permits and new construction of unabated coal-fired power generation projects by the 2040s, and scaling the deployment of clean power generation. Continued government leadership can help Vietnam build its competitive advantage as companies make decisions about where to source products and make investments. Leveraging the PDP8 to scale clean energy targets will signal that Vietnam has a clear long-term vision for growing its energy sector to better meet future demand through clean, reliable, affordable solutions, while leveraging private sector capital to reduce public spending on power generation investments. We encourage the Government of Vietnam to build upon its progress and bolster the country's momentum in clean energy growth by taking advantage of Vietnam's vast clean energy potential, declining renewable energy costs, and the growing demand from the commercial and industrial sectors and global supply chains to procure and utilize renewable energy. Our companies hope clean energy investment and deployment will be prioritized in the Government of Vietnam's power development planning and policy decisions through key elements, such as: • Increased solar and wind energy targets to support Vietnam's climate goals while advancing companies' decarbonization efforts and broader investment opportunities. • Expanded long-term mechanisms for corporate and industrial zone clean energy purchases including finalization of the Direct Power Purchase Agreement pilot program and a future regulation to make its provisions permanent. • Greater emphasis on energy storage and flexibility solutions to increase clean energy utilization and grid stabilization. • Expanded opportunities for private sector investment in grid infrastructure to ensure the build-out of a clean, reliable, resilient grid as energy demand in Vietnam grows. • Reduced coal and natural gas targets to reduce reliance on imported fossil fuels and ensure clean, costeffective sources of energy continue to grow in Vietnam. • Accelerated progress toward a net-zero power system, including legislation that enshrines net-zero goals into law, to solidify Vietnam's competitive advantage and leadership role. We thank the Government of Vietnam for its demonstrated commitment to expanding renewable energy. We recommend that the government continue to prioritize ambitious clean energy targets through a finalized PDP8 and a supportive renewable energy policy landscape that enables expanded clean energy opportunities in Vietnam. We stand ready to partner with the Government of Vietnam and supportive market stakeholders to unlock investment, achieve goals on an accelerated timeline, and scale Vietnam's sustainable, resilient, and affordable energy transition
[Final] CEIA Vietnam Joint Statement to GVN (1).pdf

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

The Sustainability Board Committee quarterly reviews Climate Change related risks, initiatives and performance. The Sustainability Board Committee reviews engagement activities with external stakeholders which includes engagement with government of Vietnam

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>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate

Adaptation and/or resilience to climate change
Electricity grid access for renewables

Specify the policy, law, or regulation on which your organization is engaging with policy makers

The Ministers of: Natural Resources and Environment, Industry and Trade, Transport, Agriculture and Rural Development, Construction and Chairman of the Provincial People's Committee of Government of Vietnam

Policy, law, or regulation geographic coverage

Regional

Country/region the policy, law, or regulation applies to

Viet Nam

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

HWASEUNG Enterprise is supporting the Clean Energy Transition Program under PDP8 of Government of Vietnam.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement 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

Underway – previous year attached

Attach the document

ESG Assessment_Sustainability_Korean Stock Committee_v2.xlsx

Page/Section reference

Please refer to excel sheet for Carbon Emissions Disclose to Korea Stock Exchange Committee

Content elements

Governance

Emissions figures

Emission targets

Comment

HWASEUNG Enterprise is preparing and filing ESG report asper Korean Stock Exchange requirement and we are disclosing carbon performance in this report.

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	Yes, both board-level oversight and executive management-level responsibility	HWASEUNG Enterprise has a Board Sustainability Committee which addresses sustainability issues including biodiversity. This board committee considers biodiversity-related issues when reviewing and guiding the business strategy, major plans of action, risk management policies, annual budgets, and future financial planning, or when setting the organization's performance objectives, monitoring implementation and performance, and overseeing major capital expenditures, acquisitions, and divestitures.	<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, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

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

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	No, but we plan to assess biodiversity-related impacts within the next two years	<Not Applicable>

C15.4

(C15.4) 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	Yes, we are taking actions to progress our biodiversity-related commitments	Education & awareness

C15.5

(C15.5) 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, we do not use indicators, but plan to within the next two years	Please select

C15.6

(C15.6) 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
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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 Executive Officer	Chief Executive Officer (CEO)

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	

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.

Requesting member

Please select

Scope of emissions

Please select

Allocation level

Please select

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Please select

Allocation method

Please select

Market value or quantity of goods/services supplied to the requesting member

Unit for market value or quantity of goods/services supplied

Please select

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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
-----------------------	--

SC1.4

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

Please select

SC2.1

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

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

Please select

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Please select

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