C0.简介

C0.1

（C0.1）请对您的组织进行一般说明及介绍。

Zhen Ding Technology Holding Limited (Zhen Ding Tech.)

Founded in 2006, Zhen Ding Tech. Group Technology Holding Limited is a professional service provider that offers one-stop solutions for the design, development, manufacturing, and sales of all types of printed circuit boards, including flexible circuit boards (FPC), substrate-like PCBs (SLP), high-density interconnect (HDI) PCBs, rigid printed circuit boards (RPCB), IC substrates, rigid-flex PCBs, chip-on-film (COF), and modules.

Zhen Ding Tech.'s experienced management team is led by Charles Shen, the chairman. We cooperate with world leading customers and utilize advanced technologies to construct manufacturing sites on the basis of high efficiency and low cost. We continuously promote four modernized manufacturing engineering processes: efficiency, rationalization, computerization, and automation.

Zhen Ding Tech.'s R&D center is located in Taiwan. We have established manufacturing sites in Shenzhen, Huai'an Qinhuangdao and Taoyuan. We also set up several service centers in Taiwan, China, Japan, India, USA, Singapore, and Finland to provide our customers with immediate professional and superior services.

While pursuing for the excellence in both technology and innovation, we, on the other hand, fully understand that the dedication on the pollution prevention and resource conservation are the foundation for environmental sustainability. In addition, Zhen Ding Tech. is actively establishing a new model of PCB production base with environmental excellence.

All of our manufacturing sites have been assessed by the third party in compliance with the requirements of the cleaner production, and we will continue to conduct the carbon-reduction activities to establish a greener enterprise culture. To protect our mother earth has always been the top priority and obligation of Zhen Ding Tech.

Human resourcing is the key to the enterprise operation and development. Zhen Ding Tech's core values: people-oriented, integrity, responsibility, and excellence. Zhen Ding Tech. is dedicated and very cautious on to selecting, educating, using and retaining the outstanding personnel. In this way, we cooperate with colleges in order to secure the source of the good quality human resource we need. On the other hand, we provide wide ranges of trainings on job professions, management skills, industrial knowledge and other specific requests to build up competency for our company. We also provide our employees with a comfortable working and living environment and a variety of clubs and recreational activities to satisfy the personal needs of our employees. We intend to share the benefits of our growth with our employees.

Zhen Ding Tech.'s vision is "Continuous technology development for better human life; continuous environment excellence to create a greener earth". We will continue to dedicate effort in establishing PCB business platform and developing PCB related businesses to become the leader of the industry.

C0.2

（C0.2）说明您报告数据的年份的开始和结束日期，并说明您是否会提供过去报告年的排放数据。

第1行

起始日期
2022年1月1日

结束日期
2022年12月31日

如果您在提供以往报告年份的排放数据，请说明
是

请选择您将提供的范围一排放数据的以往报告年数
1年

请选择您将提供的范围二排放数据的以往报告年数
1年

请选择您将提供的范围三排放数据的以往报告年数
1年

C0.3

（C0.3）选择贵组织运营所在的国家/地区。
中国

C0.4

（C0.4）请选择整个回复中的财务信息所涉及的货币单位。
TWD

C0.5

（C0.5）请选择最符合您气候相关业务影响的报告边界的选项。请注意，此选项应与您选择的合并温室气体排放清单的方法保持一致。
运营控制

C0.8

（C0.8）贵组织有ISIN代码或其他独特的识别码吗（例如股票代码、CUSIP等）？

注明您能否为贵组织提供一个独特的识别码	请提供贵组织的唯一标识符
是的，一个ISIN代码	(KY)G989221000

C1.管理

C1.1

（C1.1）贵组织董事会层级是否对气候相关议题进行监督？
是

C1.1a

（C1.1a）请就气候相关议题，明确董事会中每个人的职位和责任（不涉及人名）。

个人或委员会的职位	气候相关问题的责任
董事	Board of Directors oversees the risks and opportunities associated with climate risks. Zhen Ding established the Sustainability Committee on December 28, 2021, composed of the Chairman of the Board of Directors as the convener and two independent directors. The Sustainable Development Committee is responsible for reviewing the implementation status of climate change-related issues and appoints a project manager to reports to the Board of Directors on the strategy and operational direction of climate change related issues, monitor risk events, review energy saving and carbon reduction targets and annual budgets, and the implementation outcomes of climate change-related issues.

C1.1b

（C1.1b）请提供气候相关问题的董事会监管详情。

频率，以及哪些气候相关问题属于预定日程项	整合气候相关问题的治理机制	董事会层级监督的范围	请详述
预先安排 - 所有会议	审核和指导年度预算 监督主要资本支出 监督收购、兼并和资产剥离事宜 检查创新/研发优先事项 监督和指导员工激励措施 审核和指导战略 监督和指导转型计划的制定 监测转型计划的实施 监督和指导情景分析 监督公司目标的设定 监测实现公司目标的进展 监督和指导公共政策合作 监督价值链参与 审核和指导风险管理流程	<Not Applicable>	The Board takes on the responsibility of overseeing and guiding the Company's climate change management strategies. Zhen Ding has also set up the Sustainable Governance Implementation Team and Environment and Energy Conservation Implementation Team to manage climate-related risks. These teams provide quarterly reports to the Chairman for thorough discussion and decision-making.

C1.1d

（C1.1d）贵组织是否至少有一名董事会成员有能力处理气候相关问题？

	董事会成员有能力处理气候相关问题	用于评估董事处理气候相关问题能力的标准	无董事级别气候问题处理能力的主要原因	解释为何贵组织没有至少一名董事会成员拥有处理气候相关问题的能力，以及是否计划在未来改善董事会层面的能力
第1行	是	The following criteria are used to evaluate the competence of board members concerning climate-related issues: 1. Climate Policy and Regulation: Knowledge of national and international climate policies, agreements , and regulations, and their implications for the company's operations. 2. Climate Risk Management: Ability to identify, assess, and manage climate-related risks that may affect the company's long-term sustainability and performance. 3. Sustainability and ESG Expertise: Familiarity with Environmental, Social, and Governance (ESG) practices and how they relate to climate issues, and the ability to integrate sustainability considerations into business strategies. For example, Dr. Yeh was elected as an independent director at the 2023 AGM. Dr. Yeh is a Professor at the Graduate Institute of Environmental Education, National Taiwan Normal University. He has held positions such as Chief Executive Officer of the National Council for Sustainable Development and Deputy Minister of Environmental Protection Administration at the Executive Yuan.	<Not Applicable>	<Not Applicable>

C1.2

（C1.2）提供在董事会层级之下，负责气候相关议题的最高管理职位或委员会。

职位或委员会
首席执行官（CEO）

本职位气候相关职责
设定气候相关公司目标
监测气候相关公司目标的进展情况
管理可能影响气候的公共政策合作
管理气候相关问题的价值链参与
管理气候相关风险和机遇

职责范围
<Not Applicable>

报告制度
直接向董事会报告

通过本报告线向董事会报告气候相关问题的频率
每季度

请详述
Our CEO, who is also a board member, participates in the management review meetings held every quarter. During these meetings, the CEO assesses and monitors climate-related targets and performance to ensure progress and alignment with the company's climate goals.

职位或委员会
可持续发展委员会

本职位气候相关职责
管理气候减缓活动的年度预算
管理与低碳产品或服务（包括研发）相关的主要资本和/或运营支出
提供气候相关员工激励措施
制定一个气候转型计划
实施气候转型计划
将气候相关问题纳入战略
进行气候相关的情景分析
设定气候相关公司目标
监测气候相关公司目标的进展情况
管理可能影响气候的公共政策合作
管理气候相关问题的价值链参与
评估气候相关风险和机遇

职责范围
<Not Applicable>

报告制度
直接向董事会报告

通过本报告线向董事会报告气候相关问题的频率
每季度

请详述
The Sustainable Governance Implementation Team and Environment and Energy Conservation Implementation Team are appointed as the groups responsible for managing climate risks. In order to assess and manage climate related risks and opportunities, the groups study international climate related trends, gain a deeper understanding of stakeholder needs, and plan strategies and implementation plans for climate related issues.
The Sustainable Governance Implementation Team and Environment and Energy Conservation Implementation Team review the implementation status of management plans to the Chairperson of the Board on a quarterly basis for in-depth discussion and decision-making.
The Environment and Energy Conservation Implementation Team holds quarterly meetings on the Seven Greens, and it is responsible for promoting energy conservation projects at the manufacturing sites and reviewing the KPIs of each department to reduce greenhouse gas emissions and mitigate climate change.

C1.3

（C1.3）贵公司是否提供管理气候相关议题的奖励机制，包括目标实现时的奖励方法？

	请为气候相关议题的管理提供奖励措施	备注
第1行	是	

C1.3a

（C1.3a）请进一步说明气候相关议题管理的奖励机制（不涉及具体人名）。

有权获得奖励
环境/可持续发展经理

奖励的类型
财务奖励

激励措施
奖金 – 设定数字
晋升

加薪

绩效指标
实现气候转型计划关键绩效指标KPI
气候相关目标进展情况
实施气候相关目标
减排倡议实施
减少绝对排放
降低排放强度
能源效率改善
加强与供应商在气候相关问题的合作
提高供应商对气候相关要求的合规性
公司气候相关可持续发展指数（例如DJSI、CDP气候变化得分等）方面表现
实施气候相关问题的员工宣传活动或培训计划

激励计划 激励措施与下列相关
短期与长期激励计划

激励措施的更多细节
When the environmental or sustainable manager completes the climate related OKR, financial reward will be given.
For example, evaluating operational sation, identifying areas for improvement, setting goals, and enhancing the resilience of enterprises to cope with climate change and their competitiveness in the market can result in financial rewards.

解释此激励措施如何有助于实施贵组织的气候承诺和/或气候转型计划
This measure can encourage the management of climate related departments to actively engage in action of climate change

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有权获得奖励
能源经理

奖励的类型
财务奖励

激励措施
奖金 – 设定数字
晋升
加薪

绩效指标
实施气候相关目标
减少绝对排放
能源效率改善

激励计划 激励措施与下列相关
短期与长期激励计划

激励措施的更多细节
For example, we are establishing a solar power generation project, and when the energy manager drives the project to be implemented and the solar power generation achieves a certain level of scale, financial rewards will be given

解释此激励措施如何有助于实施贵组织的气候承诺和/或气候转型计划
Can promote energy managers to actively engage in energy-saving work

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有权获得奖励
采购经理

奖励的类型
财务奖励

激励措施
奖金 – 设定数字
晋升
加薪

绩效指标
加强与供应商在气候相关问题的合作
提高供应商对气候相关要求的合规性

激励计划 激励措施与下列相关
短期与长期激励计划

激励措施的更多细节
We set phased goals, such as: assuming we have a total of 100 suppliers in 2022, our goal is to achieve compliance with climate related requirements for all suppliers by 2025, 10% by 2022 (100 * 10%=10 suppliers), 30% by 2023 (100 * 30%=30 suppliers), and so on.
KPI completion will result in a certain amount of promotion, salary increase, or bonus.

解释此激励措施如何有助于实施贵组织的气候承诺和/或气候转型计划
This measure can enable supply chain managers to consider climate related issues in the supply chain

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有权获得奖励
全体员工

奖励的类型
财务奖励

激励措施
奖金 – 设定数字

绩效指标
减排倡议实施
减少绝对排放
能源效率改善

激励计划 激励措施与下列相关
短期与长期激励计划

激励措施的更多细节
For example, if employees propose solutions that can optimize/improve energy efficiency discovered during the work process and apply them in practice, they will receive financial rewards.

解释此激励措施如何有助于实施贵组织的气候承诺和/或气候转型计划
Divide the overall goal into small goals, and integrate small energy-saving benefits into large benefits.

C2.风险和机遇

C2.1

(C2.1) 贵组织是否有识别、评估和应对气候相关风险和机遇的流程？
是

C2.1a

(C2.1a) 贵司如何定义短期、中期和长期时间范围？

	从（年份）	至（年份）	备注
短期	1	3	Short-term (1-3 years)
中期	3	5	Medium-term (3-5 years)
长期	5	10	Long-term (5-10 years)

C2.1b

(C2.1b)贵司如何定义实质性的财务或战略影响？

1) Definition of substantive financial or strategic impact and the indicator:

Substantive financial or strategic impact is defined as an effect or consequence that results in a loss of more than 1% of revenue. This indicator serves as a threshold to identify significant impacts on the company's financial performance or strategic direction.

2) The process to define climate change risks:

We conduct a comprehensive review of climate change related risk annually. In alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we have identified and ranked climate-related risks and opportunities. We rely on international research reports to assess climate risks and opportunities, and we evaluate potential short-term, mid-term, and long-term risks and opportunities associated with climate change. This enables us to develop response measures and take proactive actions to address climate-related challenges. In 2022, we have identified 11 climate related risks.

C2.2

(C2.2) 请描述贵司识别、评估和应对气候相关风险和机遇的流程。

涵盖的价值链阶段
直接运营
上游
下游

风险管理流程
整合至多部门的全公司风险管理流程；

评估频率
每年以上

涵盖的时间尺度
短期
中期
长期

流程描述
1) Process used to identify, assess and respond to climate-related risks and/or opportunities:
Zhen Ding facilitates cross-departmental discussions through TCFD workshops, where we identify and evaluate short-term, mid-term, and long-term climate risks and opportunities on an annual basis. We refer to international research reports on climate risks and opportunities to enhance our understanding. Through cross-departmental evaluations, we assess climate change risks and develop response measures that encompass all aspects of our operations, including upstream, downstream, and internal processes. This comprehensive approach allows us to proactively address potential risks and capitalize on possible opportunities arising from climate change.

2) A case study of Physical Risk/Opportunity Application
Due to climate change, extreme weather often occurs, which can lead to natural disasters such as droughts, rainstorm heavy rainfall, floods, etc. We reviews the flooding potential on each manufacturing sites, assess the possibility of flooding. Each manufacturing park has built flood prevention facilities, such as flood control stations, flood gates, flood pumps, flood gates and other facilities. In addition, Zhen Ding has also assessed the risk of water resources in the future climate scenario. To prevent the accumulation of water on the lowest road surface of the manufacturing park, the aforementioned flood control facilities have been built in each manufacturing sites.

3) A case study of Transitional Risk/Opportunity Application
In our transition towards net zero emission, we recognize the emerging transitional risks such as stricter carbon emission regulations, increasing demand for low-carbon products, and the expectations of investors for climate action leadership. In response to greenhouse gas regulations, Zhen Ding has implemented an effective carbon management system aimed at controlling carbon management targets. Through this system, the company strives to reduce the expenses associated with excessive carbon emissions, while also seeking to secure government policy support and incentives. Moreover, Zhen Ding aims to meet the expectations of external stakeholders and gain recognition from customers by demonstrating a commitment to good energy management practices in the market. Furthermore, the company explores opportunities to transform carbon into valuable carbon assets in alignment with prevailing market developments.

C2.2a

（C2.2a）贵组织在进行气候相关风险评估时考虑了哪些风险类别？

	相关&包含	请详述
当前法规	相关，总是包括	1) Relevance for Zhen Ding In compliance with the Financial Supervisory Commission's regulations, once a company reaches a specified capital threshold, both its parent company and regulated subsidiaries, including Zhen Ding, are obligated to conduct a greenhouse gas inventory within the stipulated timeframe 2) Zhen Ding's specific case Zhen Ding has taken proactive measures to address this requirement. The company has diligently prepared a schedule planning report for conducting the greenhouse gas inventory. Moreover, Zhen Ding has engaged with relevant partners who possess the expertise to ensure the fulfillment of regulatory obligations according to the planned schedule. By taking these steps, Zhen Ding demonstrates its commitment to compliance and responsible environmental practices.
新兴法规	相关，总是包括	1) Relevance for Zhen Ding The Shenzhen Man- ufacturing Site is an market-controlled enterprise as it is a part of the Shenzhen Emission Trading Pilot Program. It is mandatory to partici- pate in the inventory and carbon trading, and it has set up emission limits (emissions per unit of industrial value added). In the future, if the carbon quota does not meet usage re- quirements, carbon credits must be pur- chased, which may increase operating costs. 2) Zhen Ding's specific case Zhen Ding has set a goal of achieving net zero emissions by 2050, in conjunction with global development trends.
科技	相关，总是包括	1) Relevance for Zhen Ding Electric vehicles have become the goal pursued by major car manufacturers in recent years. The main reason behind this trend is the inability to escape the strong environmental protection trend. In addition to meeting the requirements for re- ducing carbon emissions in the first stage, electric vehicles also have the potential for practical applications in the future In- ternet of Things era. With the rapid development of new energy and smart automobiles, the company has been increasing its investment and exploration in the field of automotive circuit boards. It aims to expand its product line and has success- fully entered the market of new energy vehicles. The relevant products have obtained certifications and will be supplied to customers in a phased manner. 2) Zhen Ding's specific case In 2022, the Company achieved sales revenue of NT$6.8 billion from automotive, server, and other product-related boards. It is expected that these types of products will continue to experience rapid develop- ment in the future and become one of the important drivers of the Company's revenue growth.
法律	相关，总是包括	1) Relevance for Zhen Ding Increasingly stringent product environmental regulations, such as RoHS 2.0, REACH, and California Proposition 65, or specific customer's demand for environmentally friendly materials (e.g., halogen-free materials) that surpass regulations, resulting in more costs for products, in order to control the risk of exceeding harmful substance standard or to meet customers' expectations. 2) Zhen Ding's specific case We evaluate new or changed laws and regulations in accordance with ST-2B0-006 (compliance assessment management system for regulatory and other requirements), and make timely improvements to non-compliant items. Also, we strictly follow the "five no's" principle of hazardous substance control to eliminate the inflow and outflow of hazardous substances.
市场	相关，总是包括	1) Relevance for Zhen Ding Due to the response in the upstream supply chain toward global climate change, there has been an increase in investment in energy conservation and carbon reduction. As a result, the op- erating costs of the supply chain have increased, leading to an increase in the selling prices of their products. Different countries are invest- ing in green energy development and regulations require the use of new energy vehicles, resulting in a significant increase in demand for copper and an imbalance between supply and demand, resulting in a significant increase in copper prices. 2) Zhen Ding's specific case Zhen Ding has established a second source to prevent the risk of having only a single supplier, in order to ensure uninterrupted supply and improve price negotiation and services.
声誉	相关，总是包括	1) Relevance for Zhen Ding As the world's largest PCB manufacturer, Zhen Ding's stakeholders are deeply concerned about the company's climate change-related issues, particularly regarding emissions, energy consumption, water management, and waste management. Zhen Ding proactively addresses these concerns by implementing measures to reduce energy consumption and optimize resource utilization. 2) Zhen Ding's specific case Zhen Ding demonstrates its commitment to sustainability by publishing an annual Sustainability Report. The company actively engages in relevant ESG forums and participates in international evaluations and appraisals. To stay proactive, Zhen Ding continually evaluates the risks and opportunities associated with climate change impacts on its operations. The company adheres to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) framework. This strategic approach helps Zhen Ding to effectively implement its climate action plan and work towards a more sustainable future.
剧烈自然因子	相关，总是包括	1) Relevance for Zhen Ding Floods affect employee attendance and waste- water treatment systems, and may cause disruptions in water and electricity supply, logistics and transportation, or supply chain disruptions, resulting in production stoppages or reductions and loss of resources. 2) Zhen Ding's specific case We closely monitor weather forecasts and take immediate precautionary measures as soon as we receive warnings of heavy rain or severe weather conditions. Relevant departments are always prepared to ensure necessary protection measures are in place. Each manufacturing site has built flood prevention facilities, such as flood control stations, flood gates, flood pumps, flood barriers, etc.
长期自然因子	相关，总是包括	1) Relevance for Zhen Ding If there is a risk of seawater intrusion due to rising sea levels or other factors, it may lead to poor drainage and increase the probability of localized flooding. This could result in additional operational costs for managing water-related disasters. 2) Zhen Ding's specific case Zhen Ding uses Climate Central's Sea Level Rise Map to evaluate the rising sea level under different warming scenarios. Analysis of the topography, altitude, plant and ground drop, and other timing conditions of each manufacturing campus, and the overall risk assessment result of each operating manufacturing campus is low risk. Scenario Simulation scenario: Sea level rise due to rising temperature was simulated. Although the risk of rising sea level is evaluated to be low for all production campuses of Zhen Ding, in order to cope with possible extreme weather and heavy rainfall, each manufacturing campus has built flood prevention facilities, such as flood control stations, flood gates, flood pumps, flood barriers and other facilities. In addition, Zhen Ding has also assessed the risk of water resources in the future climate scenario, please refer to "Water Resources Management" in this report for more details. Simulation of extreme weather, even though the plant buildings in the manufacturing campus do not accumulate water. To prevent the accumulation of water on the lowest road surface of the manufacturing campus, the aforementioned flood control facilities have been built in each campus.

C2.3

（C2.3）您是否已识别出任何固有的气候相关风险，可能会对您的业务造成实质性经济或战略影响？

是

C2.3a

（C2.3a）请提供已识别出的任何气候相关、并有可能会对您的业务造成实质性财务或战略影响的风险详情。

识别符

风险1

该风险驱动因子出现在价值链中的哪个地方？

直接运营

风险类型和主要气候相关风险驱动因子

长期自然因子	温度变化（空气、淡水、海水）

主要的潜在财务影响
间接（运营）成本增加

与传统金融服务业风险分类对应的气候风险类型
<Not Applicable>

公司特定的描述
1) Description of risk
One of the significant chronic climate change risks that may have future impacts is the rise in temperature. As the industry expands and greenhouse gas emissions continue to grow, chronic climate change risks, such as increasing global temperatures and rising sea levels, will gradually affect daily operations. When the temperature or sea level reaches a critical point that exceeds the factory's design parameters, it can lead to higher operating costs and potentially cause disruptions in operations.

2) Zhen Ding's case
Zhen Ding remains vigilant in monitoring physical risks. Based on the RCP 8.5 scenario, floods, typhoons, and droughts are not expected to impact our facilities significantly due to the proactive inclusion of chronic climate resilience measures from the outset. Each manufacturing park has been equipped with flood prevention facilities, including flood control stations, flood gates, pumps, and other protective measures. However, there are still challenges to address. The rising temperatures, especially exceeding 40°C, will lead to increased electricity consumption for air conditioning, resulting in higher operational costs. This is an area where we need to find efficient solutions to manage and optimize energy usage.

时间范围
长期

可能性
大约可能

影响程度
中

您是否能够提供潜在财务影响数据？
是，一个预估范围

潜在财务影响
<Not Applicable>

潜在经济影响数据-最小（货币）
282800000

潜在经济影响数据-最大（货币）
707000000

财务影响说明
Under the RCP8.5 scenario, it is projected that the temperature will rise by approximately 0.5 ℃ compared to the 2010 level by 2030. This increase in temperature will result in a rise in electricity consumption for HVAC (heating, ventilation, and air conditioning) systems, estimated to be around 2% to 5% by Y2030.

The financial impacts can be outlined as follows:
The additional electricity cost due to increased HVAC consumption: Power consumption of HVAC x 2% to 5% energy increase x TWD 2 to 5/kWh = TWD 282,800,000 to 707,000,000.
Therefore, the total financial impact on increased indirect costs amounts to TWD 282,800,000 to 707,000,000.

风险应对成本
13000000

应对措施说明和应对成本计算说明
To address this risk, Zhen Ding will concentrate on the following activities:
1) Implementing additional energy-saving initiatives to offset the increased electricity consumption.
2) Improving the energy efficiency of HVAC systems to mitigate the impact of rising temperatures.

The cost of responding to this risk includes:
1) Expenses for driving more energy-saving activities: ~TWD 9,000,000.
2) Maintenance costs for the HVAC system: ~TWD 1,000,000.
3) Construction and upkeep of flood prevention facilities at each manufacturing park: ~TWD 3,000,000.
Total response cost = TWD 9,000,000 + TWD 1,000,000 + TWD 3,000,000 = TWD 13,000,000.

备注

识别符
风险2

该风险驱动因子出现在价值链中的哪个地方？
上游

风险类型和主要气候相关风险驱动因子

市场	原材料成本增加

主要的潜在财务影响
直接成本增加

与传统金融服务业风险分类对应的气候风险类型
<Not Applicable>

公司特定的描述
1) Description of risk
Due to the response in the upstream supply chain toward global climate change, there has been an increase in investment in energy conservation and carbon reduction. As a result, the operating costs of the supply chain have increased, leading to an increase in the selling prices of their products.

2) Zhen Ding's case
a. Due to various factors such as extreme weather conditions and market supply and demand, there is a shortage in the supply of upstream chemical raw materials. This shortage has resulted in price increases for raw materials and disruptions in transportation, leading to delays in the delivery of raw materials and subsequent production processes.
b. Different countries are investing in green energy development and regulations require the use of new energy vehicles, resulting in a significant increase in demand for copper and an imbalance between supply and demand, resulting in a significant increase in copper prices.

时间范围
短期

可能性
有可能

影响程度
中

您是否能够提供潜在财务影响数据？
是，一个预估范围

潜在财务影响
<Not Applicable>

潜在经济影响数据-最小（货币）
1965000000

潜在经济影响数据-最大（货币）
3275000000

财务影响说明
We have made estimations, and it appears that the average prices for gold and copper have surged by approximately 30% to 50%. Considering our total operating cost of TWD 131,000,000,000 in 2022, we can assume that 50% of this cost is attributed to purchasing raw materials from suppliers. Among our raw materials spending, around 1/10 of them are at risk of facing increased costs, which may range from 30% to 50%.

Hence, the financial impact of this risk can be calculated as follows:
131,000,000,000 * 50% * 1/10 * 30% ~ 131,000,000,000 * 50% * 1/10 * 50% = TWD 1,965,000,000 ~ 3,275,000,000.

风险应对成本
80000

应对措施说明和应对成本计算说明
To address this risk, we will focus on the following activities:
1) Establishing second sources in multiple locations or from multiple suppliers to reduce dependency on a single source.
2) Engaging with our suppliers to raise their awareness of climate change and encourage sustainable practices.
3) Negotiating with our suppliers to optimize shipment and payment terms to mitigate potential cost fluctuations.

The cost of responding to this risk includes:
Providing climate change-related training courses to our suppliers, with an expenditure of approximately TWD 80,000.

备注

识别符
风险3

该风险驱动因子出现在价值链中的哪个地方？
直接运营

风险类型和主要气候相关风险驱动因子

新兴法规	碳定价机制

主要的潜在财务影响
间接（运营）成本增加

与传统金融服务业风险分类对应的气候风险类型
<Not Applicable>

公司特定的描述
1) Description of risk
Currently, the Taiwanese government is actively working on formulating future carbon taxation policies and setting industry carbon emission limits. Meanwhile, in China, certain manufacturing site is already subject to local carbon trading regulations. These developments are likely to result in an increase in operating expenses.

2) Zhen Ding's case
The Shenzhen Manufacturing Site is an market-controlled enterprise as it is a part of the Shenzhen Emission Trading Pilot Program. It is mandatory to participate in the inventory and carbon trading, and it has set up emission limits (emissions per unit of industrial value added). In the future, if the carbon quota does not meet usage requirements, carbon credits must be purchased, which may increase operating costs.

时间范围
中期

可能性
基本确定

影响程度
中

您是否能够提供潜在财务影响数据？
是，一个预估范围

潜在财务影响
<Not Applicable>

潜在经济影响数据-最小（货币）
98000000

潜在经济影响数据-最大（货币）
114000000

财务影响说明
The financial impact arises when our carbon emissions surpass the allocated limit, leading to additional expenses for purchasing carbon rights. Considering the scope 1 and scope 2 carbon emissions in 2022 (1,086,026 tons CO2e), we assume that by 2025, 20% of our carbon emissions will exceed the limit. As a result, we would be required to pay a carbon tax ranging from TWD 300 to TWD 350 per ton of carbon.

The total financial impact on increased indirect costs can be calculated as follows:
1,086,026 * 20% * 300 ~ 1,086,026 * 20% * 350 = TWD 98,000,000 ~ 114,000,000.

风险应对成本
5000000

应对措施说明和应对成本计算说明
In response to this risk, Zhen Ding will focus on the following activities:
1) Engaging with governments through industrial organizations and associations to advocate for reasonable and feasible legal requirements.
2) Continuously monitoring legislative trends and developing comprehensive action plans accordingly.
3) Pursuing innovative carbon reduction initiatives, including the implementation of abatement systems and the adoption of low GWP (Global Warming Potential) process gases to reduce greenhouse gas emissions. Zhen Ding is dedicated to investing in innovative ideas and capital to achieve continuous carbon emission reduction.
4) Exploring the option of purchasing renewable energy or renewable energy certificates to lower emissions.

The cost of responding to this risk includes:
1) Expenses for energy and carbon reduction measures: TWD 1,000,000.
2) Solar panels installation and maintenance costs: TWD 1,000,000.
3) Procurement costs for renewable energy and Renewable Energy Certificates (RECs): TWD 2,000,000.
Total response cost = TWD 1,000,000 + TWD 1,000,000 + TWD 2,000,000 = TWD 5,000,000.

备注

C2.4

（C2.4）您是否已识别出任何可能会对您的业务造成实质性财务或战略影响的气候相关机遇？
是

C2.4a

（C2.4a）请提供已识别出的任何气候相关、并有可能会对您的业务造成实质性财务或战略影响的机遇详情。

识别符
Opp1

该机遇出现在价值链中的哪个地方？
直接运营

机遇类型
资源效率

主要气候相关机遇动因
搬至更具能效的办公场所

主要的潜在财务影响
间接（运营）成本减少

公司特定的描述
As a collaborative hub for research and development in the PCB industry, Zhen Ding's headquarters building takes pride in being the first project in Bao'an District, Shenzhen, to receive the national three-star Green Building Design Label certification. The building boasts an array of cutting-edge green building technologies, including efficient air conditioning, energy-saving lighting, soundproof floors, and advanced monitoring systems for carbon monoxide and carbon dioxide. Additionally, it features an air purification system, Building Information Modeling (BIM), optimized structural design, and rigorous carbon footprint calculation and analysis.

Moreover, the headquarters building incorporates eco-friendly measures like permeable paving, rooftop greening, rainwater collection, and utilization, as well as efficient irrigation practices to achieve the environmental benefits of a sponge city. Since its establishment, our headquarters building has proudly obtained the prestigious LEED Platinum certification, further solidifying our commitment to sustainability and environmental excellence.

时间范围
短期

可能性
基本确定

影响程度
中-低

您是否能够提供潜在财务影响数据？
是，一个预估范围

潜在财务影响
<Not Applicable>

潜在经济影响数据-最小（货币）
141400000

潜在经济影响数据-最大（货币）
282800000

财务影响说明
The annual electricity usage is estimated to decrease by approximately 5% due to the implementation of green practices in factories and buildings. Based on this estimation, the potential financial impact on reduced indirect (operating) costs can be calculated as follows:

1.414 billion kWh/y * 5% * TWD 2~4/kWh = TWD 141,400,000 ~ TWD 282,800,000

实现机遇的成本
300000000

实现机遇的策略与成本计算说明
According to our estimation, the construction cost for the green building was approximately 0.1% higher than that of a traditional building, equating to around TWD 300,000,000 per factory.

备注

识别符
Opp2

该机遇出现在价值链中的哪个地方？
直接运营

机遇类型
资源效率

主要气候相关机遇动因
减少水资源使用和消耗

主要的潜在财务影响
间接（运营）成本减少

公司特定的描述
Water resources are crucial in the PCB industry, as the availability of sufficient water directly impacts production. Zhen Ding has been actively committed to water conservation efforts for several years. We have achieved significant progress through initiatives such as wastewater reduction and process water reuse. In 2022, our wastewater recycling rate reached an industry-leading 50%. Moving forward, each production site will collaborate with local governments to promote the utilization of urban reclaimed water within the next 3 to 5 years. Our priority lies in enhancing regional comprehensive water resource utilization efficiency to contribute to sustainable water management.

时间范围
中期

可能性
基本确定

影响程度
高

您是否能够提供潜在财务影响数据？
是，一个预估范围

潜在财务影响
<Not Applicable>

潜在经济影响数据-最小（货币）
109320000

潜在经济影响数据-最大（货币）
154870000

财务影响说明
Over the past 3 years, Zhen Ding has achieved an average annual volume of approximately 9.11 million tons of recycled and reused water.

The cost savings from water usage reduction can be calculated as follows:
Water saving volume x unit water fee = 9,110,000 m3/y x TWD 12/m3 ~ TWD 17/m3 = TWD 109,320,000 ~ TWD 154,870,000.

实现机遇的成本
20200000

实现机遇的策略与成本计算说明
To seize this opportunity, Zhen Ding will focus on the following strategies:
1) Implementing water conservation activities to reduce water consumption at facilities.
2) Making investments in water recycle systems to enhance facility wastewater recycling.

The cost associated with realizing this opportunity includes:
1) Expenses for adopting water conservation activities: TWD 200,000.

2) Investment in water recycle systems: TWD 20,000,000.
Total cost = TWD 200,000 + TWD 20,000,000 = TWD 20,200,000.

备注

识别符
Opp3

该机遇出现在价值链中的哪个地方？
直接运营

机遇类型
适应力

主要气候相关机遇动因
参与可再生能源项目并采用能效型措施

主要的潜在财务影响
间接（运营）成本减少

公司特定的描述
Participating in renewable energy programs and adopting energy-efficiency measures allows a company to reduce its carbon footprint, contribute to mitigating climate change, and demonstrate a commitment to environmental sustainability. Additionally, these initiatives can lead to cost savings and improved operational efficiency. Zhen Ding is currently implementing power-saving measures, utilizing high-efficiency energy-saving equipment, promoting energy management platforms for monitoring and analysis, and maintaining regular reviews and improvements to optimize power utilization efficiency.

时间范围
中期

可能性
非常可能

影响程度
中

您是否能够提供潜在财务影响数据？
是，一个预估范围

潜在财务影响
<Not Applicable>

潜在经济影响数据-最小（货币）
57854000

潜在经济影响数据-最大（货币）
115708000

财务影响说明
The financial impact of saving 28,927 MWh of energy in 2022 results in reduced indirect costs, amounting to TWD 57,854,000 to TWD 115,708,000, based on an energy cost range of TWD 2 to TWD 4 per kWh.

实现机遇的成本
300000000

实现机遇的策略与成本计算说明
To capitalize on the opportunity for cost reduction, Zhen Ding will focus on the following strategies:
1) Embrace green machines adoption.
2) Implement precise energy control during the production process.
3) Incorporate standby control measures, such as idle mode or ECO mode.

Over the past 3 years, Zhending's average annual cost was approximately TWD 300,000,000, making the adoption of these strategies paramount for achieving cost efficiency.

备注

C3.商业战略

C3.1

（C3.1）贵组织的策略是否包括符合1.5°C温升路径要求的转型计划？

第1行

气候转型计划
是，我们有一个符合1.5°C温升路径的气候转型计划

公开的气候转型计划
是

从股东处收集关于您气候转型计划的反馈的机制
我们没有反馈机制，但是我们计划在未来两年内引入

反馈机制描述
<Not Applicable>

反馈收集频率
<Not Applicable>

附加任何与详述您气候转型计划相关的的文档（选填）
2022 Sustainability Report: Page 62 & Page 64-67
2022 ESG-EN-all-web.pdf

解释为何贵组织没有符合1.5°C温升路径要求的气候转型计划，以及未来是否打算制定相关计划
<Not Applicable>

解释为什么气候相关风险和机遇没有影响您的策略
<Not Applicable>

C3.2

(C3.1a)贵司是否使用气候相关情景分析，以便采取对应战略？

	使用气候相关情景分析为战略提供信息	贵组织不使用气候相关情景分析来为策略提供信息的主要理由	解释为何贵组织不适用气候相关情景分析来为策略提供信息，以及未来是否有相关计划
第1行	是，定性分析，但我们计划在未来两年内增加定量分析	<Not Applicable>	<Not Applicable>

C3.2a

（C3.2a）请提供贵组织使用气候相关情景分析的详情。

气候相关情景	情景分析覆盖范围	情景温度对齐	参数，假设，分析选择
物理气候情景 RCP 2.6	全公司适用	<Not Applicable>	Zhen Ding utilizes Climate Central's Sea Level Rise Map to assess the potential impact of rising sea levels under different warming scenarios. The analysis takes into account topography, altitude, ground conditions, and other factors for each manufacturing campus, and the overall risk assessment indicates a low risk level. We conducted simulations for two warming scenarios: a global temperature increase of 2°C (RCP 2.6) and a global temperature increase of 4°C (RCP 8.5). Under these scenarios, the sea level is projected to rise by approximately 4.7 meters and 8.9 meters, respectively. Although the risk of rising sea level is evaluated to be low for all production campuses of Zhen Ding, in order to cope with possible extreme weather and heavy rainfall, each manufacturing campus has built flood prevention facilities, such as flood control stations, flood gates, flood pumps, flood barriers and other facilities.
物理气候情景 RCP 8.5	全公司适用	<Not Applicable>	Each of Zhen Ding's key manufacturing campus in China conducts AWS system audit and certification every year. Annual water risk identification and assessment are carried out, and we use the Water Risk Filter AWS, a regional water crisis scoring tool of the World Wildlife Fund (WWF), to analyze the water risk in the regional watersheds, and all campuses have low risks and have no water-related impacts. We use the WRI Aqueduct Water Risk Atlas water assessment tool to simulate and test the water stress of each campus by analyzing the baseline and the worst-case scenarios (SSP3 RCP 8.5). The results of the simulation analysis are incorporated into the operational resilience strategy.

C3.2b

（C3.2b）使用气候相关情景分析为贵组织想要处理的焦点问题提供详情，并总结与这些问题相关的结果。

第1行

焦点问题

(1) We are evaluating the potential impact of sea level rise on our manufacturing sites in various geographical locations.
(2) We are assessing the effects of extreme weather events, such as rainstorms and droughts, caused by climate change and implementing necessary countermeasures.
(3) We are addressing the potential impact of water resources issues resulting from climate change and have implemented countermeasures to ensure sustainable water management.

针对焦点问题的气候相关情景分析结果

Based on the sea level risk analysis, Zhen Ding's production campuses are assessed to have a low risk of rising sea levels. However, the assessment of water resource risk in the most severe scenario (SSP3 RCP8.5) for the Qinhuangdao Campus in 2030 resulted in a classification of high risk. To address this, the campus has implemented measures to enhance water efficiency at the process level and increase water reuse. Over the past two years, the wastewater reuse rate in the Qinhuangdao Campus has consistently reached 50%, setting a leading example within the industry. Moreover, more than 90% of the water used on the campus is sourced from rivers, reducing dependence on tap water and mitigating water stress. In the upcoming 3 to 5 years, the promotion of recycled water usage will further contribute to alleviating water stress.

C3.3

(C3.3) 请描述气候相关风险和机遇在哪一环节以及和以何种方式影响了您的战略。

	气候相关风险和机遇是否影响了您在该领域的战略？	影响描述
产品和服务	是	1) Time horizon: Long-term 2) How Zhen Ding's strategy has been influenced: Electric vehicles have become the goal pursued by major car manufacturers in recent years. The main reason behind this trend is the inability to escape the strong environmental protection trend. In addition to meeting the requirements for reducing carbon emissions in the first stage, electric vehicles also have the potential for practical applications in the future Internet of Things era. 3) The most substantial strategic decision: With the rapid development of new energy and smart automobiles, the company has been increasing its investment and exploration in the field of automotive circuit boards. It aims to expand its product line and has success- fully entered the market of new energy vehicles. The relevant products have obtained certifications and will be supplied to customers in a phased manner. In 2022, the Company achieved sales revenue of NT$6.8 billion from automotive, server, and other product-related boards. It is expected that these types of products will continue to experience rapid develop- ment in the future and become one of the important drivers of the Company's revenue growth.
供应链和/或价值链	是	1) Time horizon: Long-term 2) How Zhen Ding's strategy has been influenced: Due to various factors such as extreme weather conditions and market supply and demand, there is a shortage in the supply of upstream chemical raw materials. This shortage has resulted in price increases for raw materials and disruptions in transportation, leading to delays in the delivery of raw materials and subsequent production processes. 3) The most substantial strategic decision: Zhen Ding has implemented a variety of measures to solve the supply chain risk, including the pre-qualification of purchaser for raw material and potential outsourcing suppliers. We have second sources for key suppliers and set up proper raw material inventory level with key suppliers and emergency plan in case of supply disruption.
投资研发	是	1) Time horizon: Long-term 2) How Zhen Ding's strategy has been influenced: The development of PCB process technology at Zhen Ding is focused on achieving higher density and reduced power consumption. This approach enables us to offer customers cutting-edge advantages in terms of performance, power efficiency, and overall area utilization (PPA). By continually investing in research and development, we aim to provide customers with more advanced, capable, and energy-saving products, meeting their evolving needs and driving innovation in the industry. 3) The most substantial strategic decision: Zhen Ding continued to invest in research and development, with total R&D expenditures amounting to 5% of revenue (NTD 8.3 billion) by 2022, a level that equals or exceeds the R&D investment of many other leading high-tech companies.
运营	是	1) Time horizon: Long-term 2) How Zhen Ding's strategy has been influenced: As Zhen Ding continues to develop and grow, we have been adhering to our business mission and implementing our envi- ronmental policy. Responding to climate change is our responsibility of being sustainable, our goal is to establish the "New Environment-Friendly PCB Demonstration Production Site" to become the promoter and demonstrator of environmental sustainability. We believe that only through the cooperation of industry organizations, associations, partners, industry and academia, and the whole society we can overcome the severe challenges brought by climate change. Zhen Ding began voluntarily implementing GHG inventories since 2007 to monitor the status of carbon emissions of the company's subsidiaries. We integrated local government requirements and our sustainable development strategies, for- mulated climate change management strategies and green development goals, and actively implemented various GHG emissions reduction programs. We have adopted greenhouse gas reduction strategies based on methodologies such as SBTi. We are evaluating various decarbonization scenarios and integrating the use of 100% renewable energy to achieve our net-zero emissions target by 2050. 3) The most substantial strategic decision: In 2022, Zhen Ding has obtained 36,266 MWh of green energy, of which 29,910 MWh was from solar power and 6,316 MWh was from wind power. The significant decrease in energy intensity is mainly attributed to the implementation of various energy-saving measures and process optimization, such as the utilization of system heat recovery. We will continue to promote energy-saving and consumption reduction in our processes. We will also adjust and optimize our product portfolio, develop low-carbon and energy-efficient products, increase the proportion of renewable energy usage, and enhance revenue growth momentum to achieve our long-term goal of reducing energy intensity.

C3.4

(C3.4) 请描述气候相关风险和机遇在哪一环节以及如何影响您的财务规划。

	受影响的财务规划要素	影响描述
第1行	收益 直接成本 间接成本 资本支出	Water resources are of utmost importance in the PCB industry, directly impacting production capabilities. Zhen Ding has been actively dedicated to water conservation for years, making significant strides through initiatives like wastewater reduction and process water reuse. In 2022, we achieved an industry-leading wastewater recycling rate of 50%. Looking ahead, our production sites will collaborate with local governments to promote the utilization of urban reclaimed water within the next 3 to 5 years, prioritizing enhanced regional water resource utilization efficiency for sustainable management. Over the past 3 years, Zhen Ding has successfully recycled and reused an average annual volume of approximately 9.11 million tons of water, resulting in cost savings ranging from TWD 109,320,000 to TWD 154,870,000 (Indirect costs). Additionally, to capitalize on this opportunity, Zhen Ding has invested TWD 20,000,000 (Capital Expenditures) in water recycling systems, aligning with our commitment to resource efficiency and environmental sustainability.

C3.5

（C3.5）在贵组织的财务会计中，您是否识别那些符合贵组织气候转型要求的开支/收入？

	识别符合贵组织气候转型要求的开支/收入	指明您识别符合可持续金融分类方案的支出/收入
第1行	是，我们确定符合我们气候转型计划的要求	<Not Applicable>

C3.5a

（C3.5a）量化符合贵组织气候转型要求的开支/收入百分比。

金融指标
资本性支出（CAPEX）

本财务指标所报告的对标类型
符合我们气候转型计划的要求

报告信息所依据的分类法
<Not Applicable>

报告的一致的目标
<Not Applicable>

符合报告年的选定财务指标的金额（C0.4中选择的单位货币）
370000000

符合报告年中选定财务指标的百分比（%）
0.01

计划符合2025年选定财务指标的百分比（%）
0.02

计划符合2030年选定财务指标的百分比（%）
0.06

描述用于识别符合要求的开支/收入的方法论
The methodology used to identify potential spending aligned with the 1.5 °C target involves investments in energy-saving and carbon reduction technologies, expenditures on application projects, premium payments for green energy or renewable energy certificates, and the purchase of carbon credits. These efforts are geared towards achieving our goal of contributing to limiting global warming to 1.5 °C and reducing our carbon footprint.

C4.目标和绩效

C4.1

（C4.1）在此报告年中，您是否有有效的排放目标？
强度目标

C4.1b

（C4.1b）请提供您的排放强度目标和针对这些目标的进展的详情。

目标参考号
Int 1

是否是基于科学的目标？
是，我们认为这是科学碳目标，并且我们未承诺在未来两年内通过科学碳目标倡议确认该目标

目标雄心
符合1.5°C目标

目标设定年
2017

目标覆盖范围
全公司适用

范围
范围一
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

强度指标
公吨CO2e每单位收益

基准年
2013

范围一基准年强度数据（公吨CO2e/单位活动）
0.00000055

范围二基准年强度数据（公吨CO2e/单位活动）
0.0000092

范围三，类别1的基准年强度数据：外购的商品和服务（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别2的基准年强度数据：资本货物（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别3的基准年强度数据：燃料和能源相关活动（不包含在范围一或范围二中）（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别4的基准年强度数据：上游运输和分销（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别5的基准年强度数据：运营中产生的废弃物（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别6的基准年强度数据：商务旅行（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别7的基准年强度数据：员工通勤（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别8的基准年强度数据：上游租赁资产（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别9的基准年强度数据：下游运输和分销（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别10的基准年强度数据：已售产品加工（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别11的基准年强度数据：已售产品使用（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别12的基准年强度数据：已售产品的报废处理（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别13的基准年强度数据：下游租赁资产（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别14的基准年强度数据：特许经营（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别15的基准年强度数据：投资（公吨CO2e/单位活动）
<Not Applicable>

范围三基准年其他（上游）强度数据（公吨CO2e/单位活动）
<Not Applicable>

范围三基准年其他（下游）强度数据（公吨CO2e/单位活动）
<Not Applicable>

范围三基准年总强度数据（公吨CO2e/单位活动）
<Not Applicable>

所有选定范围的基准年强度数据（公吨CO2e/单位活动）
0.0000097

该范围一强度数据覆盖的范围一基准年的总排放百分比
100

该范围二强度数据覆盖的范围二基准年的总排放百分比

100

范围三，类别1中基准年总排放量占比%：范围三，类别1覆盖的外购商品和服务：外购的商品和服务强度数据
<Not Applicable>

范围三，类别2中基准年总排放量占比%：范围三，类别2覆盖的资本货物：资本货物强度数据
<Not Applicable>

范围三，类别3中基准年总排放量占比%：范围三，类别3覆盖的燃料和能源相关活动（不包含在范围一或范围二中）：燃料和能源相关活动（不包含在范围一或范围二中）强度数据
<Not Applicable>

范围三，类别4中基准年总排放量占比%：范围三，类别4覆盖的上游运输和分销：上游运输和分销强度数据
<Not Applicable>

范围三，类别5中基准年总排放量占比%：范围三，类别5覆盖的运营中产生的废弃物：运营中产生的废弃物强度数据
<Not Applicable>

范围三，类别6中基准年总排放量占比%：范围三，类别6覆盖的商务旅行：商务旅行强度数据
<Not Applicable>

范围三，类别7中基准年总排放量占比%：范围三，类别7覆盖的员工通勤：员工通勤数据
<Not Applicable>

范围三，类别8中基准年总排放量占比%：范围三，类别8覆盖的上游租赁资产：上游租赁资产强度图
<Not Applicable>

范围三，类别9中基准年总排放量占比%：范围三，类别9涵盖的下游运输和分销：下游运输和分销强度数据
<Not Applicable>

范围三，类别10中基准年总排放量占比%：范围三，类别10覆盖的售出商品加工：售出商品加工强度数据
<Not Applicable>

范围三，类别11中基准年总排放量占比%：范围三，类别11覆盖的售出商品使用：售出商品使用强度数据
<Not Applicable>

该范围三，类别12：售出产品寿命终止处理的强度数据占基准年总的范围三类别12的排放百分比%
<Not Applicable>

范围三，类别13中基准年总排放量占比%：范围三，类别13覆盖的下游租赁资产：下游租赁资产强度数据
<Not Applicable>

范围三，类别14中基准年总排放量占比%：范围三，类别14覆盖的特许经营：特许经营强度数据
<Not Applicable>

范围三，类别15基准年总排放量占比%：范围三，类别15覆盖的投资：投资强度数据
<Not Applicable>

该范围三其他（上游）强度数据覆盖的范围三基准年的其他（上游）总排放百分比
<Not Applicable>

该范围三其他（下游）强度数据覆盖的范围三基准年的其他（下游）总排放百分比
<Not Applicable>

总的范围三强度数据覆盖基准年范围三（所有范围三类别）总排放的百分比
<Not Applicable>

该强度数据覆盖的所有选定范围基准年的总排放百分比
100

目标年度
2025

较基准年的目标减排百分比
40

所有选定范围的目标年强度数值（公吨CO2e/单位活动）[自动计算]

范围一加二绝对排放量中预计的变化占比
73

范围三绝对排放量中预计的变化占比
100

报告年范围一强度数据（公吨CO2e/单位活动）
0.00000049

报告年范围二强度数据（公吨CO2e/单位活动）
0.00000585

范围三，类别1的报告年强度数据：外购的商品和服务（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别2的报告年强度数据：资本货物（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别3的报告年强度数据：燃料和能源相关活动（不包含在范围一或范围二中）（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别4的报告年强度数据：上游运输和分销（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别5的报告年强度数据：运营中产生的废弃物（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别6的报告年强度数字：商务旅行（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别7的报告年强度数据：员工通勤（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别8的报告年强度数据：上游租赁资产（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别9的报告年强度数据：下游运输和分销（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别10的报告年强度数据：已售产品加工（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别11的报告年强度数据：已售产品使用（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别12的报告年强度数据：已售产品的报废处理（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别13的报告年强度数据：下游租赁资产（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别14的报告年强度数据：特许经营（公吨CO2e/单位活动）
<Not Applicable>

范围三，类别15的报告年强度数字：投资（公吨CO2e/单位活动）
<Not Applicable>

范围三报告年其他（上游）强度数据（公吨CO2e/单位活动）
<Not Applicable>

范围三报告年其他（下游）强度数据（公吨CO2e/单位活动）
<Not Applicable>

报告年范围三总强度数据（公吨CO2e/单位活动）
<Not Applicable>

报告年中所有选定范围的强度数据（公吨CO2e/单位活动）
0.0000063

这个目标是否包括任何与土地相关的排放？
否，它不涵盖任何与土地相关的排放（例如非FLAG SBT）

达成目标占基准年的百分比[自动计算]

报告年的目标状态
正在进行

请说明目标覆盖范围并确定所有排除项
The target cover all scope1、 scope2 of GHG emissions.
Excluding land related emissions, as our land is non agricultural.

实现目标的计划，以及截止报告年年末所取得的进展
Plan for achieving target, and progress made :
1) 36 million kWh of green electricity was obtained in 2022.
2)Expand project effectiveness and introduce new energy-saving and emission-reducing technologies (total heat recovery chillers, magnetic levitation blowers, permanent magnet motors, waste heat recovery from compressed air systems, energy-saving wire cutting machines, chemical reuse, and energy-saving harmonic testing of motors). In 2022, through initiatives such as production process energy-saving projects, adopting advanced energy-saving equipment, and implementing solar power generation, Zhen Ding's subsidiaries collectively reduced carbon emissions by approximately 25,310 metric tons.
3) 250 million kWh of green electricity is planned to be obtained from 2023 to 2024.

列出对实现这一目标贡献最大的减排倡议
<Not Applicable>

C4.2

(C4.2) 您是否有在报告年活跃的其他气候相关目标？
净零目标

C4.2c

(C4.2c) 提供净零目标的详情。

目标参考号
NZ1

目标覆盖范围
全公司适用

与该净零目标相关的绝对/强度排放目标
Abs1

实现净零的目标年
2050

是否是基于科学的目标？
是，我们认为这是科学碳目标，并且我们未承诺在未来两年内通过科学碳目标倡议确认该目标

请说明目标覆盖范围并确定所有排除项
The target covers scope1 、 Scope 2 & Scope3 of GHG emissions.
Our goal is to set a standard based on global warming of 1.5 ℃.

您是否打算在目标年通过永久性碳移除来中和任何未减少的排放？
是

目标年的碳中和计划里程碑和/或近期投资
In 2022, we purchased 36 million kWh of green electricity. In the next two years, we will also purchase nearly 250 million kWh of green electricity, and we are preparing for energy storage work.

减少价值链之外排放的计划措施（选填）
We are counting the carbon emissions on the value chain to lay the foundation for achieving the three carbon reduction goals in the scope3 of GHG emissions.

C4.3

（C4.3）您在报告年内是否有正在开展的减排行动？请注意，这可以包括处于筹备阶段和/或实施阶段的行动。
是

C4.3a

（C4.3a）请确认处于各个发展阶段中的项目数量。对于那些处于执行阶段的项目，请写下预估CO2e减排量。

	计划数量	预估年度CO2e节省总量，单位：公吨CO2e（仅供标记*的行）
调查中	2	0
将要执行*	4	9227
开始执行*	6	117047
已执行*	84	62141
不会执行	0	0

C4.3b

（C4.3b）请在下表中提供报告年中执行的行动详情。

行动类别和行动类型

运输	公司车队车辆效率

预估年度CO2e节省量（公吨CO2e）
6876

减排发生的（多个）范围或范围三类别
范围三类别4：上游运输和分销
范围三类别9：下游运输和分销

自愿/强制
自愿

年度货币节省（按照CC0.4说明的单位货币）
109000000

所需投入（按照CC0.4说明的单位货币）
0

投资回收期
< 1年

本活动的预计时效
3-5年

备注

行动类别和行动类型

低碳能源发电	太阳能光伏

预估年度CO2e节省量（公吨CO2e）
2371

减排发生的（多个）范围或范围三类别
范围二（基于位置）

自愿/强制
自愿

年度货币节省（按照CC0.4说明的单位货币）
1000000

所需投入（按照CC0.4说明的单位货币）
0

投资回收期
< 1年

本活动的预计时效
6-10年

备注
Zhen Ding builds solar power generation in manufacturing sites in voluntary. And, the cooperation for this project is in the BOO (Build-Own-Operate) model, which is investment from supliers, so we did not spend any money.

行动类别和行动类型

低碳能耗	风

预估年度CO2e节省量（公吨CO2e）
363

减排发生的（多个）范围或范围三类别
范围二（基于位置）

自愿/强制
自愿

年度货币节省（按照CC0.4说明的单位货币）
0

所需投入（按照CC0.4说明的单位货币）
100000

投资回收期
无回收

本活动的预计时效
< 1年

备注
Renewable energy purchase is a voluntary action.

行动类别和行动类型

低碳能耗	太阳能光伏

预估年度CO2e节省量（公吨CO2e）
29592

减排发生的（多个）范围或范围三类别
范围二（基于位置）

自愿/强制
自愿

年度货币节省（按照CC0.4说明的单位货币）
0

所需投入（按照CC0.4说明的单位货币）
200000

投资回收期
无回收

本活动的预计时效
< 1年

备注
Renewable energy purchase is a voluntary action.

行动类别和行动类型

生产工艺的能效	压缩空气

预估年度CO2e节省量（公吨CO2e）
1093

减排发生的（多个）范围或范围三类别
范围一
范围二（基于位置）

自愿/强制
自愿

年度货币节省（按照CC0.4说明的单位货币）
6000000

所需投入（按照CC0.4说明的单位货币）
14000000

投资回收期
1-3年

本活动的预计时效
6-10年

备注
By adjusting the air conditioning system, unnecessary energy consumption can be reduced.

行动类别和行动类型

生产工艺的能效	程序优化

预估年度CO2e节省量（公吨CO2e）
21844

减排发生的（多个）范围或范围三类别
范围一
范围二（基于位置）

自愿/强制
自愿

年度货币节省（按照CC0.4说明的单位货币）
75000000

所需投入（按照CC0.4说明的单位货币）
300000

投资回收期
< 1年

本活动的预计时效
3-5年

备注
Adjust and optimize the process to maximize energy efficiency based on the actual production situation of the production line.

C4.3c

（C4.3c）贵公司用何方法来推动减排项目的投资？

方法	备注
符合监管要求/标准	China's environmental protection policy is more and more strict, we ensure that our company' policies are in line with the requirements of codes/standards. Also we guarantee that our discharge are well below the local discharge standards of pollutants, we inspect our facilities regularly, if we find improvement opportunities, we will evaluate and implement if applicable. We will report to the chairman for financial support if necessary.
能效专用预算	Every year, we will prepare budget report and submit it to our chairman according to the next year's energy and emissions reduction plan. In order to achieve the annual reduction targets, we increase investments every year to improve energy and process efficiency.
碳内部交易价格	Through ICP, the sustainability department/energy management department will have an investment in energy conservation, which we will then invest in energy conservation and emission reduction.
其它减排活动专用预算	We have established a budget specifically for emission reduction, which can be used to invest in energy-saving projects.
低碳产品研发专用预算	In recent years, the global product trend has been towards low-carbon products, and Zhending has a special fund for developing products, which includes research and development expenses for low-carbon products. For example, we are now investing in product Carbon footprint, and importing product Carbon footprint is also to provide more reference data for developing low-carbon products.

C4.5

（C4.5）您是否从现有的产品和/或服务中区分出低碳产品？
是

C4.5a

（C4.5a）请提供贵组织归类为低碳产品的产品和/或服务的详细信息。

聚合水平
产品或服务

将产品或服务归类为低碳产品的分类方法
没有用于将产品或服务归类为低碳产品的分类方法

产品或服务类型

其它	其他，请说明 (Products that use recycled materials)

产品或服务描述
The product uses recycled materials, such as recycled tin, recycled gold, etc.

您是否估算了该低碳产品或服务带来的避免的排放
无

用于计算避免的排放量的方法
<Not Applicable>

低碳产品或服务覆盖的生命周期阶段
<Not Applicable>

使用的功能单元
<Not Applicable>

使用的参考产品/服务或基准情景
<Not Applicable>

参考产品/服务或基准情景覆盖的生命周期阶段
<Not Applicable>

与参考产品/服务或基准情景相比，估算的避免排放量（公吨CO2e/功能单位）
<Not Applicable>

解释您的避免排放计算，包含所有假设
<Not Applicable>

报告年低碳产品或服务产生的收入占总收入的百分比
70

C5.排放方式

C5.1

（C5.1）这是贵组织第一年向CDP报告排放数据吗？
无

C5.1a

（C5.1a）贵组织在报告年中是否经历结构性变化，或者在本次排放数据披露中是否考虑了之前的任何结构性变化？

第1行

是否有结构性变化？
是，一项收购

被收购、撤资或合并的组织名称
BoardTek Electronics Corporation

结构性变化详情，包含完成日期
On November 4, 2020, BoardTek Electronics Corp. officially became a 100% owned subsidiary of Zhen Ding.

C5.1b

（C5.1b）在报告年中，您的排放核算方法、边界和/或报告年定义是否改变？

	方法、边界和/或报告年定义是否有变化？	方法、边界和/或报告年定义变化详情
第1行	无	<Not Applicable>

C5.1c

（C5.1c）贵组织的基准年排放量和往年的排放量是否因C5.1a和/或C5.1b中报告的任何变化或错误而重新计算？

	基准年重算	重算范围	基准年排放重算政策，包含显著性阈值	往年重算
第1行	否，因为影响不满足我们的显著性阈值	<Not Applicable>	We have incorporated BoardTek's data in 2021 and 2022. However, since BoardTek's carbon emissions account for less than 5% of the total amount, we didn't recalculate the base year emissions (2013).	无

C5.2

（C5.2）请提供您的基准年和基准年排放量。

范围一

基准年开始时间
2013年1月1日

基准年结束时间
2013年12月31日

基准年排放（公吨C02e）
35282

备注
Covering all categories of scope1 of GHG emissions.

范围二（基于位置）

基准年开始时间
2013年1月1日

基准年结束时间
2013年12月31日

基准年排放（公吨C02e）
593025

备注
Covering all categories of scope2 of GHG emissions.

范围二（基于市场）

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别1：外购商品和服务

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别2：资本货物

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别3：燃料和能源相关活动（不包含在范围一或范围二中）

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别4：上游运输和分销

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别5：运营中产生的废弃物

基准年开始时间
2013年1月1日

基准年结束时间
2013年12月31日

基准年排放（公吨C02e）
1907

备注

范围三类别6：商务旅行

基准年开始时间
2013年1月1日

基准年结束时间
2013年12月31日

基准年排放（公吨C02e）
849

备注

范围三类别7：员工通勤

基准年开始时间
2013年1月1日

基准年结束时间
2013年12月31日

基准年排放（公吨C02e）
1730

备注

范围三类别8：上游租赁资产

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别9：下游运输和分销

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别10：售出商品加工

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别11：售出商品使用

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别12：售出商品报废处理

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别13：下游租赁资产

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别14：特许经营

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三类别15：投资

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三：其它（上游）

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

范围三：其它（下游）

基准年开始时间

基准年结束时间

基准年排放（公吨C02e）

备注

C5.3

（C5.3）请选择贵组织用来收集活动数据和计算排放的标准、协议或方法的名称。
ISO 14064-1

C6.排放数据

C6.1

（C6.1）贵组织的全球范围一的排放总量（单位为公吨CO2e）是多少？

第1行

全球范围一排放总量（公吨C02e）
83252

起始日期
2022年1月1日

结束日期
2022年12月31日

备注
Scope1 emissions in 2022.

第2行

全球范围一排放总量（公吨C02e）
53131

起始日期
2021年1月1日

结束日期
2021年12月31日

备注
Scope1 emissions in 2021.

C6.2

（C6.2）请描述贵公司报告范围二排放的方法。

第1行

范围二，基于地理位置
我们正在报告范围二基于位置的数字

范围二，基于市场
我们没有任何能够取得电力供应商排放因子或剩余排放因子的运营项目，也无法报告范围二以市场为基准的数据

备注

C6.3

（C6.3）贵组织的全球范围二排放总量（单位：公吨CO2e）是多少？

第1行

范围二，基于位置
1002774

范围二，基于市场（如适用）
<Not Applicable>

起始日期
2022年1月1日

结束日期
2022年12月31日

备注
Scope2 emissions in 2022.

第2行

范围二，基于位置
1041369

范围二，基于市场（如适用）
<Not Applicable>

起始日期
2021年1月1日

结束日期
2021年12月31日

备注
Scope2 emissions in 2021

C6.4

（C6.4）是否有任何范围一、范围二或范围三排放源（如设施、特定温室气体、活动、地理位置等）在您选择的报告范围内，但未包含在您的披露中？
无

C6.5

（C6.5）请说明贵司的全球范围三总排放，并披露和解释任何例外情况。

外购商品和服务

评估状态
相关，尚未计算

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
It is expected that the Scope 3 emissions for this category will be disclosed next year.

资本货物

评估状态
相关，尚未计算

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
It is expected that the Scope 3 emissions for this category will be disclosed next year.

燃料和能源相关活动（不包含在范围一或范围二中）

评估状态
相关，尚未计算

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
It is expected that the Scope 3 emissions for this category will be disclosed next year.

上游运输和分销

评估状态
相关，已计算

报告年的排放量（公吨CO2e）
47946

排放计算方法
基于燃料的方法
基于距离的方法

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
100

请详述
fuel usage of transportation x carbon footprint of the fuel
We collected the domestic transportation data (fuel usage) from our tool shipping forwarders. Our suppliers are in charge of the international transportation and it should be counted by them.
The data calculate by fuel usage for domestic road transportation including materials and capital goods transportation.

运营中产生的废弃物

评估状态
相关，已计算

报告年的排放量（公吨CO2e）
2376

排放计算方法
废物类型特定的方法

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
100

请详述
waste generation x carbon footprint of the waste treatment
The emission is estimated by multiplication from activity data and emission factors.

商务旅行

评估状态
相关，已计算

报告年的排放量（公吨CO2e）
909

排放计算方法
基于燃料的方法
基于距离的方法

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
100

请详述
travel miles x carbon emission of a flight
We collected the total mileages of our annual business travel and fuel consumption of factory shuttles. The emission data of traveling based on the emission factor.

员工通勤

评估状态
相关，已计算

报告年的排放量（公吨CO2e）
1502

排放计算方法
基于燃料的方法
基于距离的方法

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
100

请详述
commuting miles x carbon emission of transportation
1. We follow the CO2 emission factor of transportation vehicle .
2. collected the information of vehicle quantity of all employees' in our manufacturing sites, average mileage/gasoline consumption listed in carbon emission guidance and business days and the fuel consumption of commuting shuttles.
3.All commuting shuttles in 2022 are owned by Zhending, so this data for 2022 is 0. Data as shown above, included 2022 and 2021.

上游租赁资产

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
We didn't own any upstream leased assets in the reporting year.

下游运输和分销

评估状态
相关，已计算

报告年的排放量（公吨CO2e）
23351

排放计算方法
基于燃料的方法
基于距离的方法

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
100

请详述
We collected information on gross shipping weight, shipment quantities, vehicle types, fuel types, distance to Sea Port and distance to destination port.

售出商品加工

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
Our products are not raw materials that no processing of sold products emission.

售出商品使用

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
Our products are not end products that no processing of sold products emission

售出商品报废处理

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
Our products are not end products that no processing of sold products emission

下游租赁资产

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
Zhen Ding didn't own any downstream leased assets in the reporting year.

特许经营

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
No franchises in the reporting year.

投资

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
No addition emissions of this category.

其它（上游）

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
No further emission from other upstream

其它（下游）

评估状态
不相关，提供解释

报告年的排放量（公吨CO2e）
<Not Applicable>

排放计算方法
<Not Applicable>

使用从供应商或价值链合作伙伴处获得的数据来计算排放百分比
<Not Applicable>

请详述
No further emission from other downstream

C6.5a

（C6.5a）披露或重新报告您之前年份的范围三排放。

第2行

起始日期
2021年1月1日

结束日期
2021年12月31日

范围三：外购的商品和服务（公吨CO2e）
0

范围三：资本商品（公吨CO2e）
0

范围三：燃料和能源相关活动（不包含在范围一或范围二中）（公吨CO2e）
0

范围三：上游运输和分销（公吨CO2e）
32974

范围三：运营中产生的废物（公吨CO2e）
749

范围三：商务旅行（公吨CO2e）
522

范围三：员工通勤（公吨CO2e）
0

范围三：上游租赁资产（公吨CO2e）
0

范围三：下游运输和分销（公吨CO2e）
13365

范围三：已售产品加工（公吨CO2e）
0

范围三：已售产品使用（公吨CO2e）
0

范围三：已售产品的报废处理（公吨CO2e）
0

范围三：下游租赁资产（公吨CO2e）
0

范围三：特许经营（公吨CO2e）
0

范围三：投资（公吨C02e）
0

范围三：其他（上游）（公吨CO2e）
0

范围三：其他（下游）（公吨CO2e）
0

备注
All commuting shuttles in 2022 are owned by Zhending, so this data is 0 in 2022.

C6.7

（C6.7）贵司是否有相关的生物碳产生的二氧化碳排放？
无

C6.10

（C6.10）请提供贵公司每单位营业收入的报告年度中范围一和范围二合并的全球排放总量（单位：公吨CO2e），并提供适用于您的业务运营的任何其他强度指标。

强度数据
0.0000063

指标分子（全球范围一和二排放总量公吨CO2e）
1086027

指标分母
单位总收入

指标分母：单位总数
171356000000

范围二数据使用
基于位置

较上一年的变化百分比
10

变化趋势
减少

变化原因
可再生能源消耗量变化
其它减排活动

请详述
In 2022, the GHG emissions intensity was 6.3 ton CO2e/million NTD, showing a decrease of 10.2% compared to the previous year's 7.1 ton CO2e/million NTD in 2021. The significant decrease in intensity was primarily driven by the successful implementation of energy-saving projects and an increased utilization of renewable energy sources. Overall, the total GHG emissions reduction amounted to 25,310 metric tonnes of CO2e due to the implementation of reduction projects, and an additional 32,035 metric tonnes of CO2e were reduced through the consumption of self-generated solar power and purchased green electricity during the reporting year.

C7.排放细分

C7.1

（C7.1）贵组织是否按照温室气体类型细分范围一的排放？
是

C7.1a

（C7.1a）请按照温室气体类型，划分您的全球范围一排放总量，并提供所使用的各个全球变暖潜力值（GWP）的来源。

温室气体	范围一排放（公吨C02e）	GWP参考
CO2	34328	IPCC 第六次评估报告 （AR6 –100年）
CH4	4441	IPCC 第六次评估报告 （AR6 –100年）
N2O	78	IPCC 第六次评估报告 （AR6 –100年）
HFCs	36892	IPCC 第六次评估报告 （AR6 –100年）
PFCs	7386	IPCC 第六次评估报告 （AR6 –100年）
SF6	127	IPCC 第六次评估报告 （AR6 –100年）
NF3	0	IPCC 第六次评估报告 （AR6 –100年）

C7.2

（C7.2）请按照国家/地区/区域细分全球范围一的排放。

国家/地区/区域	范围一排放（公吨C02e）
中国	74389
中国台湾	8863

C7.3

（C7.3）请指出您可以提供哪些范围一排放量的细分信息。
按照工厂

C7.3b

（C7.3b）请按业务工厂划分贵公司的范围一全球排放总量。

工厂	范围一排放（公吨C02e）	纬度	经度
Shenzhen Plant (Guangdong Province)	21788	22.7897	113.8583
Qinhuangdao Plant (Hebei Province)	40908	39.93	119.47
Huai'an Campus I	6607	33.5969	119.1517
Huai'an Campus II	5086	33.6112	119.1539
BoardTek （Taiwan Taoyuan）	8863	25.0566	121.1214

C7.5

（C7.5）请按照国家/地区/区域细分全球范围二的排放。

国家/地区/区域	范围二，基于位置（公吨CO2e）	范围二，基于市场（公吨CO2e）
中国	953931	0
中国台湾	48843	0

C7.6

（C7.6）请指出您可以提供哪些范围二排放量的细分信息。
按照工厂

C7.6b

（C7.6b）请按业务工厂划分贵公司的范围二全球排放总量。

工厂	范围二，基于位置（公吨CO2e）	范围二，基于市场（公吨CO2e）
Shenzhen Plant (Guangdong Province)	200866	0
Qinhuangdao Plant (Hebei Province)	383536	0
Huai'an Campus I	119556	0
Huai'an Campus II	249972	0
BoradTek（Taiwan Taoyuan）	48843	0

C7.7

（C7.7）贵组织是否能够细分您CDP回复中包含的任何子公司的排放数据？
是

C7.7a

（C7.7a）按子公司细分您范围一和范围二总排放量。

子公司名称
AVARY HLODING (SHENZHEN) CO.,LTD

主要活动
电子元件

选择您可以为此子公司提供的独特识别码
ISIN代码 – 股权

国际证券识别编码（ISIN）– 债券
<Not Applicable>

ISIN代码 – 股权
CNE100003GF5

CUSIP 编码
<Not Applicable>

股票代码

<Not Applicable>

证券交易所每日正式牌价表（SEDOL）代码
<Not Applicable>

法人机构识别编码（LEI）号码
<Not Applicable>

其他独特识别码
<Not Applicable>

范围一排放（公吨C02e）
21788

范围二，基于位置的排放（公吨CO2e）
200866

范围二，基于市场的排放（公吨CO2e）
0

备注
The data is GHG emissions in 2022

子公司名称
HongQiSheng Precision Electronics (Qinhuangdao) Co.,Ltd.

主要活动
电子元件

选择您可以为此子公司提供的独特识别码
无独特识别码

国际证券识别编码（ISIN）– 债券
<Not Applicable>

ISIN代码 – 股权
<Not Applicable>

CUSIP 编码
<Not Applicable>

股票代码
<Not Applicable>

证券交易所每日正式牌价表（SEDOL）代码
<Not Applicable>

法人机构识别编码（LEI）号码
<Not Applicable>

其他独特识别码
<Not Applicable>

范围一排放（公吨C02e）
32440

范围二，基于位置的排放（公吨CO2e）
300959

范围二，基于市场的排放（公吨CO2e）
0

备注
The data is GHG emissions in 2022

子公司名称
QiDing Technology Qinhuangdao Co., Ltd.

主要活动
电子元件

选择您可以为此子公司提供的独特识别码
无独特识别码

国际证券识别编码（ISIN）– 债券
<Not Applicable>

ISIN代码 – 股权
<Not Applicable>

CUSIP 编码
<Not Applicable>

股票代码
<Not Applicable>

证券交易所每日正式牌价表（SEDOL）代码
<Not Applicable>

法人机构识别编码（LEI）号码
<Not Applicable>

其他独特识别码
<Not Applicable>

范围一排放（公吨C02e）
8468

范围二，基于位置的排放（公吨CO2e）
82577

范围二，基于市场的排放（公吨CO2e）
0

备注
The data is GHG emissions in 2022

子公司名称
HongHengSheng Electronical Technology (Huai'an) Co., Ltd.

主要活动
电子元件

选择您可以为此子公司提供的独特识别码
无独特识别码

国际证券识别编码（ISIN）– 债券
<Not Applicable>

ISIN代码 – 股权
<Not Applicable>

CUSIP 编码
<Not Applicable>

股票代码
<Not Applicable>

证券交易所每日正式牌价表（SEDOL）代码
<Not Applicable>

法人机构识别编码（LEI）号码
<Not Applicable>

其他独特识别码
<Not Applicable>

范围一排放（公吨C02e）
6607

范围二，基于位置的排放（公吨CO2e）
119556

范围二，基于市场的排放（公吨CO2e）
0

备注
The data is GHG emissions in 2022

子公司名称
QingDing precision Electronics (Huai'an) Co., Ltd.

主要活动
电子元件

选择您可以为此子公司提供的独特识别码
无独特识别码

国际证券识别编码（ISIN）– 债券
<Not Applicable>

ISIN代码 – 股权
<Not Applicable>

CUSIP 编码
<Not Applicable>

股票代码
<Not Applicable>

证券交易所每日正式牌价表（SEDOL）代码
<Not Applicable>

法人机构识别编码（LEI）号码
<Not Applicable>

其他独特识别码
<Not Applicable>

范围一排放（公吨C02e）
4767

范围二，基于位置的排放（公吨CO2e）

173179

范围二，基于市场的排放（公吨CO2e）
0

备注
The data is GHG emissions in 2022

子公司名称
YuDing Precision Eletronics (Huai'an) Co., Ltd.

主要活动
电子元件

选择您可以为此子公司提供的独特识别码
无独特识别码

国际证券识别编码（ISIN）– 债券
<Not Applicable>

ISIN代码 – 股权
<Not Applicable>

CUSIP 编码
<Not Applicable>

股票代码
<Not Applicable>

证券交易所每日正式牌价表（SEDOL）代码
<Not Applicable>

法人机构识别编码（LEI）号码
<Not Applicable>

其他独特识别码
<Not Applicable>

范围一排放（公吨C02e）
319

范围二，基于位置的排放（公吨CO2e）
76793

范围二，基于市场的排放（公吨CO2e）
0

备注
The data is GHG emissions in 2022

子公司名称
Boardtek Electronics Corporation

主要活动
电子元件

选择您可以为此子公司提供的独特识别码
无独特识别码

国际证券识别编码（ISIN）– 债券
<Not Applicable>

ISIN代码 – 股权
<Not Applicable>

CUSIP 编码
<Not Applicable>

股票代码
<Not Applicable>

证券交易所每日正式牌价表（SEDOL）代码
<Not Applicable>

法人机构识别编码（LEI）号码
<Not Applicable>

其他独特识别码
<Not Applicable>

范围一排放（公吨C02e）
8863

范围二，基于位置的排放（公吨CO2e）
48843

范围二，基于市场的排放（公吨CO2e）
0

备注
The data is GHG emissions in 2022

C7.9

（C7.9）同上一报告年相比，贵公司在报告年内的全球总排放量（结合范围一和范围二）有何变化？
减少

C7.9a

（C7.9a）请明确全球总排放量（结合范围一和范围二）变化的原因，并阐述与去年相比，该原因对贵公司排放量的影响。

	排放变化（公吨CO2e）	排放变化方向	排放值（百分比）	请解释计算方式
可再生能源消耗量变化	32035	减少	2.9	In 2022, we purchased green electricity and reduced carbon emissions by 32035 tons CO2e. In 2021, the carbon emissions (scope1 + scope2) is 1094499 tons CO2e. So, Emissions value (percentage) = 32035/1094499*100% = 2.9%
其它减排活动	6559	减少	0.6	Zhen Ding's major business locations of our subsidiaries consumed 1.4 billion kWh of electricity (including externally purchased green electricity) in 2022, which was a decrease of 0.6% compared to the previous year. The reduced carbon emissions approximately by 6559 tons CO2e, the emissions value (percentage) = 6559/1094499*100% = 0.6%
撤资	0	没有变化	0	There is no divestment in 2022.
收购	0	没有变化	0	There is no acquisitions in 2022.
合并	0	没有变化	0	There is no mergers in 2022.
产出变化	0	没有变化	0	There is no significant change in output in 2022.
方法学变化	30121	增加	2.7	As a result of modifications in the calculation methodology, our emissions have shown an increase in 2022 when compared to 2021. The changes in calculation are primarily attributed to the following factors: 1) Changes in GWP: In 2022, we adopted the GWP reference from the IPCC Sixth Assessment Report (AR6 - 100 year), whereas in 2021, we utilized the GWP reference from the IPCC Fifth Assessment Report (AR5 - 100 year). This shift in the GWP reference has influenced the quantification of carbon emissions. 2) Changes in CF4 Calculation: Regarding the calculation of CF4 emissions in the PCB manufacturing process - Plasma, we have adjusted the approach employed. In the past, the estimation of CF4 was based on an approximate 20% standard, but currently, we utilize an approximate 90% standard for this calculation. As a result of these aforementioned changes in the calculation methodology, our emissions for the year 2022 have increased by a total of 30,121 tons compared to the emissions reported for the year 2021.
范围变化	0	没有变化	0	There is no change in boundary in 2022.
实际经营条件变化	0	没有变化	0	There is no change in physical operating conditions in 2022.
未确认	0	没有变化	0	There is no unidentified changes in 2022.
其它	0	没有变化	0	There is no other changes in 2022.

C7.9b

（C7.9b）CC7.9和CC7.9a中，贵公司排放绩效的计算是基于范围二的位置数据还是市场数据？
基于位置

C8.能源

C8.1

（C8.1）您报告年度内在能源方面的花销所占运营总经费的比重？
多于0%但是少于或等于5%

C8.2

（C8.2）请选择贵组织已进行的能源相关活动。

	请说明贵公司是否在报告年开展了能源相关活动
燃料消耗（原料除外）	是
已购买或已获取电力的消耗	是
已购买或已获取热能的消耗	是
已购买或已获取蒸汽能的消耗	是
已购买或已获取制冷能源的消耗	无
电能、热能、蒸汽能或制冷能源的生成	是

C8.2a

（C8.2a）请报告贵组织的能源消耗总量（原料除外），单位为MWh。

	热值	可再生来源产生的MWh	不可再生来源产生的MWh	总计（可再生和不可再生）MWh
燃料消耗（原料除外）	HHV（高热值）	0	151381	151381
已购买或已获取电力的消耗	<Not Applicable>	36226	1377887	1414113
已购买或已获取热能的消耗	<Not Applicable>	0	38434	38434
已购买或已获取蒸汽能的消耗	<Not Applicable>	0	116947	116947
已购买或已获取制冷能源的消耗	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
自产非燃料可再生能源的消耗	<Not Applicable>	3952	<Not Applicable>	3952
能源消耗总量	<Not Applicable>	40178	1684649	1724827

C8.2b

（C8.2b）请选择贵组织燃料消耗的应用情况。

	请说明贵组织是否已进行相关燃料应用
发电燃料消耗	是
热能生产燃料消耗	是
蒸汽生产燃料消耗	是
制冷能源生产燃料消耗	无
联产或三联产燃料消耗	无

C8.2c

（C8.2c）请按照燃料类型描述贵组织已消耗的燃料（原料除外），单位为MWh。

可持续性生物质

热值
LHV

组织消耗的总燃料MWh
0

自产发电燃料消耗量MWh
0

热能自产燃料消耗MWh
0

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注
We do not consume sustainable biomass.

其它生物质

热值
LHV

组织消耗的总燃料MWh
0

自产发电燃料消耗量MWh
0

热能自产燃料消耗MWh
0

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注
We do not consume other biomass.

其他可再生燃料（例如可再生氢）

热值
LHV

组织消耗的总燃料MWh
0

自产发电燃料消耗量MWh
0

热能自产燃料消耗MWh
0

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注
We do not consume Other renewable fuels (e.g. renewable hydrogen).

煤炭

热值
LHV

组织消耗的总燃料MWh
0

自产发电燃料消耗量MWh
0

热能自产燃料消耗MWh
0

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注
We do not consume Coal.

石油

热值
HHV

组织消耗的总燃料MWh
956

自产发电燃料消耗量MWh
0

热能自产燃料消耗MWh
956

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注

天然气

热值
HHV

组织消耗的总燃料MWh
149486

自产发电燃料消耗量MWh
0

热能自产燃料消耗MWh
149486

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注

其他不可再生燃料（例如不可再生氢）

热值
HHV

组织消耗的总燃料MWh
939

自产发电燃料消耗量MWh
94

热能自产燃料消耗MWh
845

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注

总燃料

热值
HHV

组织消耗的总燃料MWh
151381

自产发电燃料消耗量MWh
94

热能自产燃料消耗MWh
151287

蒸汽自产燃料消耗MWh
0

制冷能源自产燃料消耗MWh
<Not Applicable>

自热电联产或自主三联产消耗的燃料MWh
<Not Applicable>

备注

C8.2d

（C8.2d）请描述贵司在报告年中生产和消耗了的电力、热能、蒸汽能和制冷能源的详情。

	总产量（MWh）（第2栏）	组织消耗的产量（MWh）	可再生来源产生的发电量（MWh）	组织消耗的可再生来源产量（MWh）
电力	3952	3952	3952	3952
热能	0	0	0	0
蒸汽能	0	0	0	0
制冷能源	0	0	0	0

C8.2g

（C8.2g）按国家/地区提供报告年非燃料能源消耗的明细。

国家/地区
中国

已购电力消耗量（MWh）
1318154

自发电量消耗量（MWh）
3952

此电力消耗是否排除在您的RE100承诺之外？
<Not Applicable>

已购热能、蒸汽和制冷的消耗量（MWh）
155381

自发热能、蒸汽和制冷的消耗量（MWh）
0

总非燃料能源消耗（MWh）[自动计算]

国家/地区
中国台湾

已购电力消耗量（MWh）
95959

自发电量消耗量（MWh）
0

此电力消耗是否排除在您的RE100承诺之外？
<Not Applicable>

已购热能、蒸汽和制冷的消耗量（MWh）
0

自发热能、蒸汽和制冷的消耗量（MWh）
0

总非燃料能源消耗（MWh）[自动计算]

C9.附加指标

C9.1

（C9.1）请提供与您的业务相关的任何额外气候相关度量。

描述
垃圾

指标值
0.31

指标分子
The weight of hazardous waste （tons）

指标分母（仅限强度指标）
Revenue (TWD million)

较上一年的变化百分比
22.5

变化趋势
减少

请详述
We set target of hazardous waste inrensity, The target value for 2022 is 0.38 ton/TWD million, our actual value is 0.31 ton/TWD million, and the goal has been achieved.
1. 2021 : The hazardous waste inrensity = the weight of hazardous waste 62,545 (tons) / revenue TWD 155,022 million = 0.40 ton/TWD million
2. 2022: The hazardous waste inrensity = the weight of hazardous waste 52,907 (tons) / revenue TWD 171,356 million = 0.31 ton/TWD million
3. % Change from previous year : (2022 hazardous waste inrensity 0.31 ton/TWD million - 2021 hazardous waste inrensity 0.40 ton/TWD million) / 2021 hazardous waste inrensity 0.40 ton/TWD million *100%= 22.5%

描述
垃圾

指标值
90

指标分子
weight of recycled and reused waste

指标分母（仅限强度指标）
Total weight of waste

较上一年的变化百分比
2

变化趋势
减少

请详述
Zhen Ding set target of waste resource utilization rate: keep target of achieving a waste resource utilization rate of over 90% every year.
1. 2021: The waste resource utilization rate = weight of recycled and reused waste
2. 2022: The waste resource utilization rate = weight of recycled and reused waste 73,429 tons / Total weight of waste 80,309 tons*100% = 91%
3. % Change from previous year : 2022 The waste resource utilization rate 91% - 2021 The waste resource utilization rate 93% = -2%
In 2022, the waste resource utilization rate reached 91%, successfully achieving the annual target of achieving a waste resource utilization rate of over 90% for the tenth consecutive year.

C10.核查

C10.1

（C10.1）请说明贵公司所报告的排放数据的审验/认证状态。

	审验/认证状态
范围一	有第三方审验或认证程序
范围二（基于地理位置或市场）	有第三方审验或认证程序
范围三	有第三方审验或认证程序

C10.1a

(C10.1a) 请提供审验/认证范围一排放的更多详细信息并附上相关证明材料。

有审验或认证周期
每年流程

当前报告年的状态
完成

审验或认证类型
合理确认

添加证明文件
2022-Zhending's GHG certification.pdf
2021BTK GHG certification.pdf
2021Zhending's GHG certification（China).pdf

参考页码/章节
2022: Page 1-6 & page10
2021: All of pages of 2021 Zhending's GHG certification (China) & page2 of 2021 BTK GHG certification

相关标准
ISO14064-1

报告排放量中已审验的比例（百分比）
100

C10.1b

（C10.1b）请提供审验/认证范围二排放的更多详细信息并附上相关证明材料。

范围二方法
范围二，基于位置

有审验或认证周期
每年流程

当前报告年的状态
完成

审验或认证类型
合理确认

添加证明文件
2022-Zhending's GHG certification.pdf
2021BTK GHG certification.pdf
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参考页码/章节
2022: Page 1-6 & page10
2021: All of pages of 2021 Zhending's GHG certification (China) & page2 of 2021 BTK GHG certification

相关标准
ISO14064-1

报告排放量中已审验的比例（百分比）
100

C10.1c

(C10.1c) 请提供审验/认证范围三排放的更多详细信息并附上相关证明材料。

范围三类别
范围三：上游运输和分销
范围三：运营中产生的废弃物
范围三：商务旅行
范围三：员工通勤
范围三：下游运输和分销

有审验或认证周期
每年流程

当前报告年的状态
完成

审验或认证类型
有限确认

添加证明文件
2022-Zhending's GHG certification.pdf
2021BTK GHG certification.pdf
2021Zhending's GHG certification（China).pdf

参考页码/章节
2022: Page 1-6 & page10
2021: All of pages of 2021 Zhending's GHG certification (China) & page2 of 2021 BTK GHG certification

相关标准
IS)14064-1

报告排放量中已审验的比例（百分比）
100

C10.2

（C10.2）除了在C6.1、C6.3和C6.5中回复的排放量数据外，您是否验证任何在CDP披露中报告的气候相关信息？
是

C10.2a

（C10.2a）在贵司的CDP披露中，哪些数据已经经过审验，采用了哪些审验标准？

披露模块验证相关部分	已审验数据	验证标准	请详述
C8.能源	能源消耗	The data has received independent limited assurance from PwC in accordance with ISAE 3000.	Please find the assurance statement and the scope of assurance statement in our 2022 sustainability report. 2022 ESG-EN-all-web.pdf
C9.附加指标	废弃物数据	The data has received independent limited assurance from PwC in accordance with ISAE 3000.	Please find the assurance statement and the scope of assurance statement in our 2022 sustainability report. 2022 ESG-EN-all-web.pdf

C11.碳定价

C11.1

（C11.1）您是否有任何受碳定价体系（如ETS、Cap & Trade或Carbon Tax）监管的运营业务或活动？
是

C11.1a

（C11.1a）请选择影响您运营的碳定价法规。
Shenzhen pilot ETS（深圳ETS试点）

C11.1b

（C11.1b）请针对贵公司使用的每一项排放交易体系填写以下表格。

Shenzhen pilot ETS（深圳ETS试点）

ETS所涵盖范围一排放量百分比
3

ETS所涵盖范围二排放量百分比
36

周期起始日期
2022年1月1日

周期结束日期
2022年12月31日

分配配额
432921

定量采购
0

已审验的范围一排放量（公吨C02e）
2141

已审验的范围二排放量（公吨C02e）
358076

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我们拥有和经营的工厂

备注
In the Shenzhen pilot ETS, the carbon quota does not distinguish scope1 and scope2 of GHG emissions, just a total amount (scope1 & scope2). So in the table above, we filled in the same data for scope1 and scope2.
In the reporting year, our carbon emissions did not exceed the carbon allocation quota, so we did not make any purchases.

C11.1d

（C11.1d）贵公司通过什么策略来遵从正在使用或预计即将使用的体系？

In October 2011, the National Development and Reform Commission of the People's Republic of China announced the No- tice on Initiating Pilot Emissions Trading Programs, which approved Beijing, Shanghai, Tianjin, Chongqing, Hubei, Guang- dong, and Shenzhen to initiate pilot emission trading programs. On June 18, 2013, Shenzhen was the first of the seven plac- es to launch the Carbon Emission Trading Market. In response, Zhen Ding's manufacturing campus in Shenzhen undertook a series of energy-saving and carbon-reducing projects, which gained the recognition of the local government, rendering us one of the first companies in China to adopt the pilot emission trading program.

Zhen Ding has prioritized carbon reduction initiatives and efficient resource utilization to maintain compliance with the program. By implementing innovative technologies and adopting sustainable practices, Zhen Ding aims to minimize its carbon footprint. Zhen Ding has invested in energy-saving equipment, upgraded production processes, and optimized energy consumption throughout its manufacturing sites. Zhen Ding has also introduced emission monitoring systems to track and manage carbon emissions effectively. These efforts have resulted in notable reductions in carbon emissions. Also, to further incentivize internal energy saving and carbon reduction efforts, Zhen Ding has implemented an internal carbon pricing mechanism, internalizing the external costs associated with greenhouse gas emissions.

C11.2

（C11.2）贵组织是否在报告年度内取消了任何基于项目的碳信用？
无

C11.3

（C11.3）贵组织是否使用内部碳价格？
是

C11.3a

（C11.3a）请提供贵组织使用内部碳价格的方式详情。

内部碳价格类型
影子价格

价格如何确定
与排放交易计划下的配额价格一致

实施该内部碳价格的目标
改变内部行为
推动能效
推动低碳投资
识别并抓住低碳机遇
利益相关方期望

覆盖范围
范围一
范围二

使用的定价方式 – 空间差异
统一

使用的定价方式 – 时间差异
静态

说明您预期价格如何随时间变化
<Not Applicable>

使用的实际价格 – 最低（货币在C0.4中指定，每公吨CO2e）
237

使用的实际价格 – 最高（货币在C0.4中指定，每公吨CO2e）
237

该内部碳价格应用的业务决策过程
资本支出
运营
薪酬
风险管理
机遇管理

在这些业务决策过程中强制实行该内部碳价格
是，用于所有决策过程

解释这一内部碳价格如何促进贵组织气候承诺和/或气候转型计划的实施
To further incentivize internal energy saving and carbon reduction efforts, Zhen Ding has implemented an internal carbon pricing mechanism, internalizing the external costs associated with greenhouse gas emissions. Currently, the main pro- duction facilities of Zhen Ding are located in China. Only the Shenzhen campus has initiated carbon trading. Taking into account the situation at each location, the Company adopts the carbon price in the Shenzhen carbon market as the internal carbon pricing reference. The price is set at RMB55 (approx. NT$237) per metric ton of carbon dioxide equivalent. When evaluating the investment benefits of energy saving and carbon reduction projects, the internal carbon pricing can be used to monetize the value of the environmental benefits of carbon reduction. It is then included in decision-making consider- ations, which will in turn help the implementation of energy saving projects and corporate sustainable developments.

C12.参与

C12.1

（C12.1）您是否就气候相关事宜与您的价值链接洽？
是，我们的供应商
是，我们的客户

C12.1a

（C12.1a）请提供任何其它气候相关供应商参与战略的详细信息。

合作类型
信息收集（了解供应商行为）

合作详细信息
至少每年一次从供应商处收集温室气体排放数据

供应商数量占比
70

总采购支出（直接或间接）百分比
80

C6.5中报告的供应商相关范围三排放量占比
85

说明此合作覆盖范围的合理性
To drive carbon reduction efforts in Scope 3, it is essential to gather carbon-related information across the supply chain. We have successfully collected energy consumption information from suppliers accounted for 80% of our procurement, enabling us to develop a comprehensive supply chain carbon reduction strategy. Furthermore, we have collaborated with accountants to calculate carbon emissions along our value chain, with a specific focus on suppliers who play a major role in contributing to our Scope 3 greenhouse gas emissions. This collaborative approach empowers us to target and address significant carbon emission sources within our value chain, supporting our commitment to sustainability and environmental responsibility.

参与带来的影响，包括成功效果的测量
This provides us with an important reference basis for knowledge the carbon emissions on the value chain, and does not provide us with basic data for developing a carbon reduction path for category three.

备注

合作类型
参与和激励（改变供应商行为）

合作详细信息
举行接洽活动从而向供应商传递气候变化信息
就如何设定科学碳目标提供培训、支持和最佳实践

供应商数量占比
30

总采购支出（直接或间接）百分比
60

C6.5中报告的供应商相关范围三排放量占比
70

说明此合作覆盖范围的合理性
1) The Zhen Ding Supplier Code of Conduct is based on the Code of Conduct by Responsible Business Alliance (RBA). It requires suppliers to comply with the Code of Conduct while encouraging them to ask their upstream suppliers, contractors, and service providers to approve and adopt the same code in practices and management as well.
2) We use the IPE platform to make suppliers disclose their environmental data, including carbon data. (IPE: The Institute of Public & environmental Affairs (IPE) is a non-profit environmental research organization registered and based in Beijing, China.) In addition, The platform will also publicly disclose supplier environmental anomaly information, which can promote supplier compliance with environmental regulations.
3) About every two years, we hold a global supplier cooperation conference to convey our environmental protection philosophy and future carbon reduction goals to participating suppliers.

参与带来的影响，包括成功效果的测量
The figure (% of suppliers by number: 30%) is only based on the number of suppliers coming to the conference, and in fact, we have more suppliers willing to join the action to address climate change. At present, we are working to promote carbon reduction for our suppliers, and suppliers who account for more than 50% of our total procurement amount are actively cooperating with us.
With our own efforts and the cooperation of our supplier partners, we have received the honor of the IPE platform:
8th in industry rank of CATI (The Corporate Climate Action Transparency Index (CATI) dynamically assesses corporates' climate action across their value chain. CATI aims to direct corporates' focus and efforts to reducing GHG emissions from their emissions hotspots and disclose carbon data accordingly).
3th in industry rank of CiTI (The Green Supply Chain CITI Evaluation dynamically assesses brands on the environmental management of their supply chains in China. The evaluation uses government supervision data and public information published by the brand to assess overall supply chain environmental management).

备注

C12.1b

（C12.1b）请提供与气候相关的客户参与战略的详细信息。

合作类型和合作细节

合作和创新	与客户合作建立和审核您的气候转型计划

客户数量百分占比
20

C6.5中报告的客户相关范围三排放占比%
0

请解释选择该组客户和合作范围的原因
Zhending follows the advanced customers and actively respond to climate change. At present, Zhending has collaborated with customers on energy conservation and carbon reduction, and has launched projects such as EEP/CEP/ZWP.We are pleased and willing to collaborate with our clients on energy conservation and carbon reduction.

参与带来的影响，包括成功效果的测量
1) Obtained AWS Platinum certification
2) Obtained UL2799 zero waste to landfill Platinum certification
In addition to receiving the above honors, it is more important to improve our management methods, which has had a significant impact on us.

C12.2

（C12.2）供应商满足气候相关要求是否是贵组织的采购流程的一部分？
是，气候相关要求包含在我们的供应商合同中

C12.2a

（C12.2a）请提供作为贵组织采购流程一部分的、供应商必须满足的气候相关要求以及相关合规机制的详细信息。

气候相关要求
符合监管要求

该气候相关要求描述
The Zhen Ding Supplier Code of Conduct is based on the Code of Conduct by Responsible Business Alliance (RBA). It requires suppliers to comply with the Code of Conduct.

按采购支出计算的必须遵守该气候相关要求的供应商百分比
90

按采购支出计算的应该遵守该气候相关要求的供应商百分比
10

监督该气候相关要求合规的机制
场外第三方核证

对不符合该气候相关要求的供应商的回应
剔除

C12.3

（C12.3)贵组织是否从事任何可能直接或间接影响气候相关政策、法律或法规的活动？

第1行

可能直接或间接影响气候相关政策、法律或法规活动的外部参与活动
是，我们与政策制定者有直接合作
是，我们的行业协会成员资格/参与可能会影响可能影响气候的政策、法律或法规

贵组织是否有公开承诺或立场声明来开展符合《巴黎协定》目标的活动？
是

添加承诺或立场声明文件
Achieve Net Zero Emissions by 2050（on page 62）
2022 ESG-EN-all-web.pdf

描述贵组织为确保外部参与活动符合气候承诺和/或气候转型计划而制定的流程
Zhen Ding has committed to Net Zero by Chairman. Zhen Ding's climate change governance and management framework is under the direct supervision of the Board of Directors; The Sustainability Executive Council Sustainable Govern is responsible for establishing the Company's mid to long-term climate change management strategies; The Sustainability Executive Council integrates the resource and development of interdepartmental climate actions; The Environment and Energy Conservation division formulates climate change adaptation and mitigation management plans, reviews implementation status and discusses future plans, and reports to the Board of Directors through the ESG Committee every quarter.

不参与可能直接或间接影响气候相关政策、法律或法规活动的主要原因
<Not Applicable>

解释为何贵组织不参与可能直接或间接影响气候相关政策、法律或法规的活动
<Not Applicable>

C12.3a

（C12.3a）在报告年内贵组织在哪些可能影响气候的政策、法律或法规上直接与政策制定者直接合作？

说明贵组织正在与政策制定者合作涉及的政策、法律或法规
Zhen Ding has been participating or representing industry associates, such as China Printed Circuit Association (CPCA), Guangdong Printed Circuit Association (GPCA), Shenzhen Printed Circuit Association (SPCA), Taiwan Printed Circuit Association (TPCA), Institute of Public and Environmental Affairs (IPE), CDP, Shenzhen Emissions Exchange, Ministry of Environmental Protection (China Environment News) of the People's Republic of China, Alliance for Water Stewardship (AWS), Responsible Business Alliance (RBA), and Task Force on Climate-Related Financial Disclosures (TCFD), Shenzhen pilot ETS.

可能影响气候的政策、法律或法规类别
气候变化减缓

可能影响气候的政策、法律或法规的重点领域
气候相关目标
气候转型计划

政策、法律或法规的地理覆盖范围
国家的

政策、法律或法规适用的国家/地区
中国
中国台湾

您的组织对该政策、法律或法规的立场
无例外支持

与政策制定者合作的说明
As one of the leaders in PCB industry, if any new policies, laws or regulations are formulated, legislators hope to have a dialogue with Zhen Ding.

例外情况的详细信息（如适用），以及贵组织针对政策、法律和法规提出的建议备选方案
<Not Applicable>

您是否评估贵组织对该政策、法律或法规的参与是否符合巴黎协定目标？
是，我们已经评估，结果符合

请说明该政策、法律或法规对于达成您的气候转型计划具有核心作用，如果是，如何作用？
1. Help us understand world trends
2. Provide us with more references and guidance
3. Provide guidance that is more in line with industry characteristics

C12.3b

（C12.3b）请提供贵组织所属或者参与的行业协会的具体信息， 这些协会可能会对可能影响气候的任何政策、法律或者法规采取立场。

贸易协会
其他，请说明 (Taiwan Printed Circuit Association (TPCA))

贵组织对气候变化的立场与它们的是否一致？
一致

报告年内贵组织是否试图影响它们的立场？
否，我们没有试图影响他们的立场

描述贵组织的立场如何与行业协会的立场一致或不同，以及为影响其立场而采取的任何行动
Achieve Net Zero Emissions by 2050

贵组织在报告年内向该行业协会提供资金的数额（使用C0.4中选择的货币）
20000

描述贵组织的资助目的
The fees required to become a member of the organization. Become a member of the organization, actively participate in communication, and have a comprehensive understanding of world trends

您是否评估贵组织与该贸易协会的合作是否符合巴黎协定目标？
是，我们已经评估，结果符合

贸易协会
其他，请说明 (China Printed Circuit Association (CPCA), Guangdong Printed Circuit Association (GPCA), Shenzhen Printed Circuit Association (SPCA),)

贵组织对气候变化的立场与它们的是否一致？
一致

报告年内贵组织是否试图影响它们的立场？
否，我们没有试图影响他们的立场

描述贵组织的立场如何与行业协会的立场一致或不同，以及为影响其立场而采取的任何行动
Achieve Net Zero Emissions by 2050

贵组织在报告年内向该行业协会提供资金的数额（使用C0.4中选择的货币）
70000

描述贵组织的资助目的
The fees required to become a member of the organization. Become a member of the organization, actively participate in communication, and have a comprehensive understanding of world trends

您是否评估贵组织与该贸易协会的合作是否符合巴黎协定目标？
是，我们已经评估，结果符合

C12.4

（C12.4）除了参与CDP问卷外，您是否还通过其它方式发布本报告年内企业应对气候变化和温室气体排放绩效的信息？如果是，请附上出版物。

出版物
在自发的可持续性报告中

状态
完成

添加附件
2022 ESG-EN-all-web.pdf

参考页码/章节
2022 Sustainability Report Page 58 - 89

内容要素
管理
战略
风险与机遇
排放数据
排放目标
其它指标

备注

出版物
在主流报告中

状态
完成

添加附件
2022 Annual Report.pdf

参考页码/章节
Governance: 276
Strategy: 276-283
Emissions figures: 128-129
Emissions targets: 282

内容要素
管理
战略
排放数据
排放目标

备注

C12.5

（C12.5）说明您作为签署方/成员的与环境问题相关的合作框架、倡议和/或承诺。

	环保合作框架、倡议和/或承诺	说明贵组织在各框架、倡议和/或承诺中的角色
第1行	全球报告倡议组织（GRI）社区成员 Task Force on Climate-related Financial Disclosures (TCFD)	member of TCFD & GRI

C15.生物多样性

C15.1

(C15.1) 贵组织内的生物多样性相关事务是否有董事会层面的监督和/或高管级别的责任？

	董事会层面对生物多样性相关问题的监督和/或高管级别的责任	描述与生物多样性有关的监督和目标	董事会层级监督的范围
第1行	是，董事会级监督和高管级责任	We plan to cooperate with the Forestry Bureau of Taiwan for three years starting in 2022 - to donate annually to the "Taiwan Hengchun Peninsula River Tamarind Invasive Alien Species Removal and Forest Rehabilitation" project. We have signed an agreement.	<Not Applicable>

C15.2

（C15.2）贵组织是否作出公开承诺和/或认可任何与生物多样性相关的倡议？

	说明贵组织是否作出公开承诺或认可任何与生物多样性有关的倡议	生物多样性相关的公开承诺	支持的倡议
第1行	是，我们已作出公开承诺并公开支持与生物多样性有关的倡议	其他，请说明 (we signed an agreement with Forestry Bureau of Taiwan)	其他，请说明 (At present, there is no propo sal to sign through other third parties, but we have signed an agreement with Forestry Bureau of Taiwan)

C15.3

（C15.3）贵组织是否评估其价值链对生物多样性的影响和依赖性？

对生物多样性的影响

说明贵组织是否进行了此类评估
是

涵盖的价值链阶段
直接运营

投资组合活动
<Not Applicable>

评估对生物多样性影响和/或依赖性的工具和方法
其他，请说明 (Follow the methods and requirements of environmental impact assessment for analysis)

请解释相关工具和方法是如何实施的，并提供相关结果的说明
All of our factory areas undergo environmental impact assessments in accordance with regulatory requirements, and the degree of impact of the pollutants we discharge on the surrounding environment will be tested based on local biological indicators.

对生物多样性的依赖性

说明贵组织是否进行了此类评估
否，但我们计划在未来两年内实施

涵盖的价值链阶段
<Not Applicable>

投资组合活动
<Not Applicable>

评估对生物多样性影响和/或依赖性的工具和方法
<Not Applicable>

请解释相关工具和方法是如何实施的，并提供相关结果的说明
<Not Applicable>

C15.4

（C15.4）在报告年内，贵组织是否在生物多样性敏感区域内或附近开展活动？
无

C15.5

（C15.5）报告年内贵组织采取了哪些措施来推动您的生物多样性相关承诺？

	您在报告期间是否采取任何措施来推动您的生物多样性相关承诺？	推动生物多样性相关承诺的措施类型
第1行	否，我们未采取任何措施来推动生物多样性相关承诺，但是我们计划在未来两年内采取措施	<Not Applicable>

C15.6

（C15.6）贵组织是否使用生物多样性指标来监控其各项活动的表现？

	贵组织是否使用指标来监测生物多样性表现？	监测生物多样性表现的指标
第1行	无	响应指标

C15.7

（C15.7）您是否在CDP问卷回复之外的地方发布了有关贵组织在本报告年对生物多样性相关问题回复的信息？如果是，请附上出版物。

报告类型	内容要素	随附文档，并指明相关生物多样性信息处于文档中的什么位置
在自愿性可持续报告或其他自愿性文件中	其他，请说明 (Public statement：All of Zhen Ding's production sites are located in industrial zones and are not in globally or nationally recognized areas of significant biodiversity importance or sensitivity.)	Page 88 Protecting Biodiversity 2022 ESG-EN-all-web.pdf
在自愿性可持续报告或其他自愿性文件中	生物多样性相关政策或承诺内容 管理	Environmental policy about biodiversity Environmental Protection Policies and Commitments.pdf

C16.签核

C-FI

（C-FI）使用此栏提供任何您认为与贵组织回复相关的额外信息或背景。请注意，此栏为可选项，不计分。

C16.1

（C16.1）请提供贵组织CDP气候变化回复签核人（批准人）的详细信息。

	职务	相应职务类别
第1行	CFO	首席财务官（CFO）

SC.供应链模块

SC0.0

（SC0.0）如果您愿意，请提供关于本模块的单独简介。

Zhen Ding Technology Holding Limited (Zhen Ding Tech.) is a national high-tech enterprises mainly engaged in the design, development, manufacture and sales of printing circuit board products are widely used in computers, consumer electronics, information network, automotive, medical and other fields, the clients are all world-famous enterprise, all over mainland China, Japan, South Korea, the United States, Europe and other parts of the world.

SC0.1

（SC0.1）贵公司在报告期间的年收入是多少？

	年收入
第1行	171356000000

SC1.1

（SC1.1）根据您在报告期间销售的货物或服务，将您的排放量分配给下列客户。

申请的成员
Alphabet, Inc.

排放范围
范围一

范围二核算方法
<Not Applicable>

范围三类别
<Not Applicable>

分配层级
工厂

分配层级的详细信息
This is the carbon emissions we allocated to Alphabet in 2022
Alphabet is produced in our production plants in Huai'an, Shenzhen, and Qinhuangdao. Based on the proportion of Alphabet in our production plants * greenhouse gas emissions of each production plant=the greenhouse gas emissions of Alphabet in each production plant. Then, by adding up the greenhouse gas emissions of Alphabet, we obtain the overall carbon emissions of Alphabet in Zhending.

排放量，单位为公吨CO2e
1661

不确定性（± %）
5

主要排放源
Scope1 of GHG emissions within the operational boundary:
1. Fugitive emissions: such as air conditioning
2. Mobile emissions: Such as forklifts
3. Emissions from fixed combustion: such as boilers
4. Process emissions: such as Plasma

已审验
是

分配方法
基于面积进行分配

供应给有需求成员的商品/服务的市场价值或质量
0

提供的商品/服务的市场价值或数量单位
其他，请说明 (%)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
Sorry, we cannot provide you of Market value or quantity of goods/services supplied to the requesting member. Beacause our allocation method is：Alphabet 's percentage of production area in the park * the carbon emissions of the park. After calculating the carbon content of each park using this method, and then add it up. This involves the production data of each of our production parks, so we are unable to provide.

We identify emission points in accordance with the GHG protocol guidelines and ISO14064 standards. In addition, we have also invited third-party certification agencies for certification, which will help once again confirm whether there are any omissions in the emission sources we have identified.
The calculation of each emission is also based on the guidance of international standards, and third-party certification agencies will also provide us with the most appropriate guidance.
For example: assuming that there are 8 forklifts in the manufacturing sites where Alphabet products are produced, a total of 100kg of diesel will be consumed in 2022, and the carbon dioxide emission coefficient of diesel is 3.0959 kg CO2e. The total carbon displacement of a forklift is 100kg * 3.0959kg CO2e/kg = 309.59 kg CO2e.

申请的成员
Alphabet, Inc.

排放范围
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

分配层级
工厂

分配层级的详细信息
This is the carbon emissions we allocated to Alphabet in 2022
Alphabet is produced in our production plants in Huai'an, Shenzhen, and Qinhuangdao. Based on the proportion of Alphabet in our production plants * greenhouse gas emissions of each production plant=the greenhouse gas emissions of Alphabet in each production plant. Then, by adding up the greenhouse gas emissions of Alphabet, we obtain the overall carbon emissions of Alphabet in Zhending.

排放量，单位为公吨CO2e
19009

不确定性（± %）
5

主要排放源
Our major source of emission is Purchased electricity , Electricity accounts for approximately 80% of Zhen Ding's total energy usage.
Of course, the total greenhouse gas emissions in Scope 2 also cover the steam/heat we purchase.

已审验
是

分配方法
基于面积进行分配

供应给有需求成员的商品/服务的市场价值或质量
0

提供的商品/服务的市场价值或数量单位
其他，请说明 (%)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
Sorry, we cannot provide you of Market value or quantity of goods/services supplied to the requesting member. Beacause our allocation method is：Alphabet 's percentage of production area in the park * the carbon emissions of the park. After calculating the carbon content of each park using this method, and then add it up. This involves the production data of each of our production parks, so we are unable to provide.

Calculate the carbon emissions based on the quantity of purchased electricity/steam/thermal energy consumption vouchers and the carbon conversion coefficient of each

energy source.
Taking the purchased electricity as an example:
1.) Assuming the total electricity consumption of Huai'an, Shenzhen, and Qinhuangdao in the current year:
Shenzhen Campus - 100,000,000 kWh,
Huai'an Campus - 70,000,000 kWh,
Qinhuangdao Campus - 80,000,000 kWh.
2.) Scope 2 accounting method is location-based :
Shenzhen - 0.5271 kg CO2e/kWh,
Huai'an - 0.7035 kg CO2e/kWh,
Qinhuangdao - 0.8843 kg CO2e/kWh.

So, we can calculate:
Carbon emissions of electricity
Shenzhen Campus = 100,000,000 kWh * 0.5271 kg CO2e/kWh
Huai'an Campus = 70,000,000 kWh * 0.7035 kg CO2e/kWh
Qinhuangdao Campus = 80,000,000 kWh * 0.8843 kg CO2e/kWh

The last：
After calculating the emissions of all category 2, we calculate the carbon emissions of Alphabet in each park by using its production capacity proportion, and then add it up.

申请的成员
Alphabet, Inc.

排放范围
范围三

范围二核算方法
<Not Applicable>

范围三类别
类别4：上游运输和分销
类别5：运营中产生的废弃物
类别6：商务旅行
类别9：下游运输和分销

分配层级
工厂

分配层级的详细信息
This is the carbon emissions we allocated to Alphabet in 2022
Alphabet is produced in our production plants in Huai'an, Shenzhen, and Qinhuangdao. Based on the proportion of Alphabet in our production plants * greenhouse gas emissions of each production plant=the greenhouse gas emissions of Alphabet in each production plant. Then, by adding up the greenhouse gas emissions of Alphabet, we obtain the overall carbon emissions of Alphabet in Zhen Ding.

排放量，单位为公吨CO2e
1857

不确定性（± %）
5

主要排放源
As the [Scope 3 categories] show, thoes are our major soueces of emission.
And, for example purchased services and goods, we have not yet conducted a carbon inventory of raw materials, but we will conduct inventory and disclosure in the next year.

已审验
是

分配方法
基于面积进行分配

供应给有需求成员的商品/服务的市场价值或质量
0

提供的商品/服务的市场价值或数量单位
其他，请说明 (%,)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
Sorry, we cannot provide you of Market value or quantity of goods/services supplied to the requesting member. Beacause our allocation method is：Alphabet 's percentage of production area in the park * the carbon emissions of the park. After calculating the carbon content of each park using this method, and then add it up. This involves the production data of each of our production parks, so we are unable to provide.

Taking transportation and distribution as an example:
Collect data such as distance and transportation method provided by the transportation provider, and then calculate the carbon emissions among them.
Assuming the transportation method is aircraft, the transportation distance is 1,000km, and the carbon emissions per 1km of aircraft flight are 5 tons CO2e. So the total carbon emissions for this transportation =5 tons CO2e * 1,000 km = 5000 tons CO2e.
In 2022, all the buses used for employee commuting were owned by the company, so there is no carbon emissions for employee commuting.

申请的成员
Nokia Group

排放范围
范围一

范围二核算方法

<Not Applicable>

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
45

不确定性（± %）
5

主要排放源
Scope1 of GHG emissions within the operational boundary:
1. Fugitive emissions: such as HVAC
2. Mobile emissions: Such as forklifts
3. Emissions from fixed combustion: such as boilers
4. Process emissions: such as Plasma

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
91000000

提供的商品/服务的市场价值或数量单位
货币

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
45 tons is the scope 1 emissions for Nokia in 2022.

We identify emission points in accordance with the GHG protocol guidelines and ISO14064 standards. In addition, we have also invited third-party certification agencies for certification, which will help once again confirm whether there are any omissions in the emission sources we have identified.
The calculation of each emission is also based on the guidance of international standards, and third-party certification agencies will also provide us with the most appropriate guidance.

申请的成员
Nokia Group

排放范围
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
541

不确定性（± %）
5

主要排放源
Our major source of emission is Purchased electricity , Electricity accounts for approximately 80% of Zhen Ding's total energy usage.
Of course, the total greenhouse gas emissions in Scope 2 also cover the steam/heat we purchase.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
91000000

提供的商品/服务的市场价值或数量单位
货币

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
541 tons CO2e is the scope 2 emissions for Nokia in 2022.

Calculate the carbon emissions based on the quantity of purchased electricity/steam/thermal energy consumption vouchers and the carbon conversion coefficient of each energy source.

申请的成员
Nokia Group

排放范围
范围三

范围二核算方法
<Not Applicable>

范围三类别
类别4：上游运输和分销
类别5：运营中产生的废弃物
类别6：商务旅行
类别9：下游运输和分销

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
26

不确定性（± %）
5

主要排放源
As the [Scope 3 categories] show, thoes are our major soueces of emission.
And, for example purchased services and goods, we have not yet conducted a carbon inventory of raw materials, but we will conduct inventory and disclosure in the next year.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
91000000

提供的商品/服务的市场价值或数量单位
货币

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
26tons is the scope 3 emissions for Nokia in 2022.

Taking transportation and distribution as an example:
Collect data such as distance and transportation method provided by the transportation provider, and then calculate the carbon emissions among them.
In 2022, all the buses used for employee commuting were owned by the company, so there is no carbon emissions for employee commuting.

申请的成员
Flex Ltd.

排放范围
范围一

范围二核算方法
<Not Applicable>

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
9

不确定性（± %）
5

主要排放源
Scope1 of GHG emissions within the operational boundary:
1. Fugitive emissions: such as HVAC
2. Mobile emissions: Such as forklifts
3. Emissions from fixed combustion: such as boilers
4. Process emissions: such as Plasma

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.01

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
9 tons is the scope 1 emissions for Flex in 2022.

We identify emission points in accordance with the GHG protocol guidelines and ISO14064 standards. In addition, we have also invited third-party certification agencies for certification, which will help once again confirm whether there are any omissions in the emission sources we have identified.
The calculation of each emission is also based on the guidance of international standards, and third-party certification agencies will also provide us with the most appropriate guidance.

申请的成员
Robert Bosch GmbH

排放范围
范围一

范围二核算方法
<Not Applicable>

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
508

不确定性（± %）
5

主要排放源
Scope1 of GHG emissions within the operational boundary:
1. Fugitive emissions: such as HVAC
2. Mobile emissions: Such as forklifts
3. Emissions from fixed combustion: such as boilers
4. Process emissions: such as Plasma

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.61

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
508 tons is the scope 1 emissions for Bosch in 2022.

We identify emission points in accordance with the GHG protocol guidelines and ISO14064 standards. In addition, we have also invited third-party certification agencies for certification, which will help once again confirm whether there are any omissions in the emission sources we have identified.
The calculation of each emission is also based on the guidance of international standards, and third-party certification agencies will also provide us with the most appropriate guidance.

申请的成员
Hewlett Packard Enterprise Company

排放范围
范围一

范围二核算方法
<Not Applicable>

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
83

不确定性（± %）
5

主要排放源
Scope1 of GHG emissions within the operational boundary:

1. Fugitive emissions: such as HVAC
2. Mobile emissions: Such as forklifts
3. Emissions from fixed combustion: such as boilers
4. Process emissions: such as Plasma

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.1

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
83 tons is the scope 1 emissions for HPE in 2022.

We identify emission points in accordance with the GHG protocol guidelines and ISO14064 standards. In addition, we have also invited third-party certification agencies for certification, which will help once again confirm whether there are any omissions in the emission sources we have identified.
The calculation of each emission is also based on the guidance of international standards, and third-party certification agencies will also provide us with the most appropriate guidance.

申请的成员
Cisco Systems, Inc.

排放范围
范围一

范围二核算方法
<Not Applicable>

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
34

不确定性（± %）
5

主要排放源
Scope1 of GHG emissions within the operational boundary:
1. Fugitive emissions: such as HVAC
2. Mobile emissions: Such as forklifts
3. Emissions from fixed combustion: such as boilers
4. Process emissions: such as Plasma

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.041

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
34 tons is the scope 1 emissions for CISCO in 2022.

We identify emission points in accordance with the GHG protocol guidelines and ISO14064 standards. In addition, we have also invited third-party certification agencies for certification, which will help once again confirm whether there are any omissions in the emission sources we have identified.
The calculation of each emission is also based on the guidance of international standards, and third-party certification agencies will also provide us with the most appropriate guidance.

申请的成员
Flex Ltd.

排放范围
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
110

不确定性（± %）
5

主要排放源
Our major source of emission is Purchased electricity , Electricity accounts for approximately 80% of Zhen Ding's total energy usage.
Of course, the total greenhouse gas emissions in Scope 2 also cover the steam/heat we purchase.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.01

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
110 tons CO2e is the scope 2 emissions for Flex in 2022.

Calculate the carbon emissions based on the quantity of purchased electricity/steam/thermal energy consumption vouchers and the carbon conversion coefficient of each energy source.

申请的成员
Robert Bosch GmbH

排放范围
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
6117

不确定性（± %）
5

主要排放源
Our major source of emission is Purchased electricity , Electricity accounts for approximately 80% of Zhen Ding's total energy usage.
Of course, the total greenhouse gas emissions in Scope 2 also cover the steam/heat we purchase.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.61

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
6,117 tons CO2e is the scope 2 emissions for Bosch in 2022.

Calculate the carbon emissions based on the quantity of purchased electricity/steam/thermal energy consumption vouchers and the carbon conversion coefficient of each energy source.

申请的成员
Hewlett Packard Enterprise Company

排放范围
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
1003

不确定性（± %）
5

主要排放源
Our major source of emission is Purchased electricity , Electricity accounts for approximately 80% of Zhen Ding's total energy usage.
Of course, the total greenhouse gas emissions in Scope 2 also cover the steam/heat we purchase.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.1

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
1,003 tons CO2e is the scope 2 emissions for HPE in 2022.

Calculate the carbon emissions based on the quantity of purchased electricity/steam/thermal energy consumption vouchers and the carbon conversion coefficient of each energy source.

申请的成员
Cisco Systems, Inc.

排放范围
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
411

不确定性（± %）
5

主要排放源
Our major source of emission is Purchased electricity , Electricity accounts for approximately 80% of Zhen Ding's total energy usage.
Of course, the total greenhouse gas emissions in Scope 2 also cover the steam/heat we purchase.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.041

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
411 tons CO2e is the scope 2 emissions for CISCO in 2022.

Calculate the carbon emissions based on the quantity of purchased electricity/steam/thermal energy consumption vouchers and the carbon conversion coefficient of each energy source.

申请的成员
Flex Ltd.

排放范围
范围三

范围二核算方法
<Not Applicable>

范围三类别
类别4：上游运输和分销
类别5：运营中产生的废弃物
类别6：商务旅行
类别9：下游运输和分销

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
5

不确定性（± %）
5

主要排放源
As the [Scope 3 categories] show, thoes are our major soueces of emission.
And, for example purchased services and goods, we have not yet conducted a carbon inventory of raw materials, but we will conduct inventory and disclosure in the next year.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.01

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
5 tons is the scope 3 emissions for Flex in 2022.

Taking transportation and distribution as an example:
Collect data such as distance and transportation method provided by the transportation provider, and then calculate the carbon emissions among them.
In 2022, all the buses used for employee commuting were owned by the company, so there is no carbon emissions for employee commuting.

申请的成员
Robert Bosch GmbH

排放范围
范围二

范围二核算方法
基于位置

范围三类别
<Not Applicable>

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
290

不确定性（± %）
5

主要排放源
As the [Scope 3 categories] show, thoes are our major soueces of emission.
And, for example purchased services and goods, we have not yet conducted a carbon inventory of raw materials, but we will conduct inventory and disclosure in the next year.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.61

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
290 tons is the scope 3 emissions for Bosch in 2022.

Taking transportation and distribution as an example:

Collect data such as distance and transportation method provided by the transportation provider, and then calculate the carbon emissions among them.
In 2022, all the buses used for employee commuting were owned by the company, so there is no carbon emissions for employee commuting.

申请的成员
Hewlett Packard Enterprise Company

排放范围
范围三

范围二核算方法
<Not Applicable>

范围三类别
类别4：上游运输和分销
类别5：运营中产生的废弃物
类别6：商务旅行
类别9：下游运输和分销

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
48

不确定性（± %）
5

主要排放源
As the [Scope 3 categories] show, thoes are our major soueces of emission.
And, for example purchased services and goods, we have not yet conducted a carbon inventory of raw materials, but we will conduct inventory and disclosure in the next year.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.1

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
48 tons is the scope 3 emissions for HPE in 2022.

Taking transportation and distribution as an example:
Collect data such as distance and transportation method provided by the transportation provider, and then calculate the carbon emissions among them.
In 2022, all the buses used for employee commuting were owned by the company, so there is no carbon emissions for employee commuting.

申请的成员
Cisco Systems, Inc.

排放范围
范围三

范围二核算方法
<Not Applicable>

范围三类别
类别4：上游运输和分销
类别5：运营中产生的废弃物
类别6：商务旅行
类别9：下游运输和分销

分配层级
全公司范围

分配层级的详细信息
<Not Applicable>

排放量，单位为公吨CO2e
20

不确定性（± %）
5

主要排放源
As the [Scope 3 categories] show, thoes are our major soueces of emission.
And, for example purchased services and goods, we have not yet conducted a carbon inventory of raw materials, but we will conduct inventory and disclosure in the next year.

已审验
是

分配方法
基于采购产品的市场价值进行分配

供应给有需求成员的商品/服务的市场价值或质量
0.041

提供的商品/服务的市场价值或数量单位
其他，请说明 (%，As a percentage of our revenue)

请说明您识别温室气体源的方法，包括该流程的主要限制和 作出的假设
20 tons is the scope 3 emissions for CISCO in 2022.

Taking transportation and distribution as an example:
Collect data such as distance and transportation method provided by the transportation provider, and then calculate the carbon emissions among them.
In 2022, all the buses used for employee commuting were owned by the company, so there is no carbon emissions for employee commuting.

SC1.2

（SC1.2）请提供完成SC1.1时使用过的出版信息的参考资料。

In our annual sustainability report，we have exposed GHG emissions. In addition，our GHG emissions can also be obtained in C6 and C7.

You can download our annual sustainability report from our official website：https://www.zdtco.com/en/csr

SC1.3

（SC1.3）分配排放量到不同的客户时存在哪些挑战？如何能帮助您克服这些困难？

分配挑战	请说明如何能帮助您克服这些困难？
这样做会需要我们披露业务敏感/专有信息	We will not disclose the detailed quantity of the goods sold to the customers, and the emission will be allocated through the percentage of production volumn in the total capacity.

SC1.4

（SC1.4）您未来是否计划培养向客户分配排放量的能力？
是

SC1.4a

（SC1.4a）请描述您将计划如何培养该能力。

1. Conduct inventory and certification for Scope1、Scope2 and Scope3 emission of the company by third party organizations every year.

2. Detailed the number of products sold to customers every month.

3. Allocating emissions to different customers by the percentage of goods sold in the total capacity every year.

SC2.1

（SC2.1）请提议能与特定CDP供应链成员合作开展的任何双赢气候相关项目。

申请的成员
请选择

项目的组类型
请选择

项目类型
请选择

目标排放量
请选择

碳减排实现的预计时间
其他，请说明 (We are in communication with the client, there is no specific plan yet. So we cannot provide message.)

预计整个生命周期CO2e节约量
0

预估回收
其他，请说明 (We are in communication with the client, there is no specific plan yet. So we cannot provide message.)

提议详情
We are in communication with the client, there is no specific plan yet. So we cannot provide message.

SC2.2

（SC2.2）CDP供应链成员的需求或行动是否有促使贵组织执行组织层面的减排行动？
无

SC4.1

（SC4.1）您是否将提供有关公司商品或服务的产品层面数据？
否，我不会提供数据

提交您的回复

您提交的回复的语种？
英语

请确认CDP应该如何处理您的回复

	我明白我的回复将与所有发出邀请的利益相关者共享	回复许可
请选择您要提交的选项	是	公开

请阅读并接受CDP的条款和条件
我已阅读并接受条款