

Welcome to your CDP Climate Change Questionnaire 2022

C0. Introduction

C0.1

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

As a world-leading provider of integrated communications solutions, ZTE provides innovative technologies and product solutions for global telecommunications operators, government and enterprise customers, and consumers. Founded in 1985, the company has been listed in Hong Kong and Shenzhen Stock Exchanges. Its services cover 160 countries and regions, serve more than 1/4 of the global population, and are committed to achieving a bright future of "To enable connectivity and trust everywhere."

ZTE insists on creating continuous value for its customers through continuous technological innovation. ZTE has set up 11 R&D institutions nationwide, and further strengthened its R&D investment in such core fields as 5G wireless, core network, bearer, access and chips. The R&D investment has been kept above 10% for several years. By the end of 2021, ZTE had over 8.4 million patents worldwide, and has been granted over 42000 patents, winning a total of China Patent Awards 10 gold awards. At the same time, ZTE is a major participant and contributor in global 5G technology research and standard development.

ZTE adheres to the sustainable development concept and achieves harmonious coexistence of society, environment, and stakeholders. ZTE uses communication technologies to help people in different areas enjoy equal freedom of communication. ZTE runs the concept of "innovation, integration, and green" throughout the entire product lifecycle, and the whole process of R&D, production, logistics, and customer services. ZTE makes unremitting efforts to achieve global energy consumption reduction and carbon dioxide emission reduction. ZTE also promotes community public welfare and relief worldwide. In December 2021, both ZTE A and H shares were included in the FTSE4Good Index Series. As a member of the United Nations Global Compact and GeSI (The Global Enabling Sustainability Initiative), ZTE has published the Sustainability Report/Corporate Social Responsibility Report for 14 consecutive years starting 2009.

ZTE will continue to implement the positioning of "Driver of Digital Economy," focus on ICT infrastructure, and co-exist with its partners to promote the sustainable development of the global digital economy.

Facing the challenges of low-carbon transformation, ZTE has laid the Digital Economy Shady Road in four dimensions: green enterprise operation, green supply chain, green digital infrastructure, and green industry empowerment, helping operators and industry customers achieve green and low-carbon and sustainable development. Together with our partners, ZTE is continuously carrying out extensive 5G+ innovative green practices, and has implemented over 60 demonstration projects around the world. The overall goal of the company is to achieve carbon peak by 2030 and achieve carbon neutralization by 2060.

In 2021, ZTE launched a carbon strategy planning project around the world, and set up and empowered the dual-carbon (carbon peak & carbon neutralization) strategy team to provide training on "Interpretation and application of climate change and carbon emission ISO 14064 GHG standards" and "Science Based Targets initiative, SBTi" for 170 employees. At the same time, the data of carbon emissions are calculated on the basis of the global scope of the company. In addition, the third-party certification organization is invited to conduct on-site investigation at the organization level and check of global greenhouse gas emissions in 2021 according to the ISO14064-1 :2018 standard system, and pass the external check and system review with the evaluation comments on a reasonable assurance level.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2021	December 31, 2021	No

C0.3

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

China

C0.4

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

CNY

C0.5

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

Operational control

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	CNE000000TK5
Yes, a Ticker symbol	Shenzhen Stock Exchange: 000063

Hongkong: 00763

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board Chair	<p>The adjustment of ZTE's organizational structure related to climate change shall be approved by the Chairman of ZTE.</p> <p>Example: (1) At the end of December 2021, with the approval of the Chairman, ZTE restructured the level-2 unit: Product operation division of digital energy. Digital energy product operation division consists of two major product lines: Power and DC, and new energy. The new energy product line focuses on such fields as green power generation, intelligent energy storage and intelligent electricity consumption. ZTE's digital energy will bring into play the advantages of digital technologies and power electronics, and integrate power electronics, energy storage technologies, cloud, and AI technologies to accelerate energy digitalization and build a zero-carbon society.</p> <p>(2) In July 2021, ZTE's Chairman delivered a speech on "How the Mobile Communication Industry Can Help Achieve the Green Low-Carbon Strategy" at the National Entrepreneur Day and the Annual Meeting of Chinese Entrepreneurs in 2021.</p>
Chief Executive Officer (CEO)	<p>Important commitments related to climate change shall be approved and confirmed by CEO.</p> <p>GeSI officially launched the Digital with Purpose Movement initiative after releasing the Digital with Purpose (DWP) report in 2019. The movement intends to inspire and support companies to make progress across the following four universal commitments: Become a purpose-led business, take action on climate change, embrace principles of impact transparency and collaboration and commit to inclusive digital transformation. ZTE joined the Digital With Purpose Movement from the very first moment and has been awarded the Certification level "Committed" after approved and signed by the CEO of the Company.</p>
Director on board	<p>The board of directors (Director on board): Reviews and approves ZTE's annual sustainable development strategy, major projects and related work plans, and regularly listens to reports from the Sustainable Development Management Committee to ensure that ZTE's sustainable development objectives are achieved.</p>

The board of directors reviews the company's annual report and the company's sustainability report. Environmental protection and carbon emissions reduction are important parts of the company's sustainability report. For example, the 2021 report includes the following contents: As an active practitioner of green development, ZTE pays attention to the impact of its own operations on the environment, formulates and improves the environment management system for production and operation, ensures from the source of production, and strives to minimize the impact on the environment throughout the product lifecycle. Perform the environmental protection responsibility, fully consider the environmental effects of each operation link, and take environmental protection requirements into full consideration throughout the product lifecycle, so that the environmental protection strategy can cover all business fields. At the same time, ZTE, as a Driver of Digital Economy, has laid the digital economy shady road through technological innovation. The four dimensions of green enterprise operation, green supply chain, green digital base and green industry empowering the company to achieve the "Dual Carbon (carbon peak & carbon neutrality)" goal. The company's 2021 sustainability report includes the following contents: green development, tackling climate change: green development in all industries, rational management and control of resource and energy consumption, reduction of carbon emissions, optimization of waste management, assistance to the recycling economy, laying of a digital economy shady road to contribute to carbon neutralization. Together with our partners, ZTE is continuously carrying out the green practice of 5G+ innovation, and has implemented over 60 demonstration projects around the world.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives	1) The board of directors approves ZTE's annual sustainable development strategy, major projects and related work plans, and regularly listens to reports from the Sustainable Development Management Committee to ensure that ZTE's sustainable development objectives are achieved. The board of directors reviews the company's annual report and sustainability report. Environmental protection and carbon emission reduction are important contents of the company's sustainability report. 2) In the second half of 2021, ZTE started the carbon strategy planning project globally, and set up a cross-organization integrated project team led by Chief Strategy Officer, which serves as a company-level

	<p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>project team for the top-level design, phased implementation and overall planning of project in progress. At present, the company has completed team building and empowerment. The external agency has conducted on-site investigation and global greenhouse gas emission check in 2021 according to the ISO14064-1 standard , and passed the certification based on reasonable assurance.</p> <p>3) On a quarterly basis, the Dual-Carbon team report to the senior leaders of the Company, such as the Chairman, CEO, CSO and other Top management, reporting the Company's dual-carbon strategy and implementation plan, including challenges, risks, opportunities and progress of climate change objectives (such as scientific carbon objectives), action plans and plans required to set objectives, and achieve the costs corresponding to the carbon emission strategies/objectives, Benefits, planning of building zero-carbon parks, and adjustment of the company's organizational structure</p> <p>Example: 1) At the end of December 2021, with the approval of the Chairman, ZTE restructured the level-2 unit: Product operation division of digital energy. Digital energy product operation division consists of two major product lines: Power and DC, and new energy. The new energy product line focuses on such fields as green power generation, intelligent energy storage and intelligent electricity consumption. ZTE's digital energy will bring into play the advantages of digital technologies and power electronics, and integrate power electronics, energy storage technologies, cloud, and AI technologies to accelerate energy digitalization and build a zero-carbon society.</p> <p>2) GeSI officially launched the Digital with Purpose Movement initiative after releasing the Digital with Purpose (DWP) report in 2019. This initiative aims to encourage and support the Company's commitment to and work in four major fields: Being a goal-oriented enterprise, taking action against climate change, enhancing transparency and collaboration, and committed to inclusive and digital transformation. In May 2021, after reporting to the CEO of the Company and having been approved and signed by the CEO of the Company, ZTE joined this initiative as a first group of members, and obtained the "commitment" certification.</p>
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C1.1d

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

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	<p>1) Whether there are ICT industry experience and front-line experience 2) Whether the knowledge about climate change and its impacts is obtained. 3) Whether the risks and opportunities related to climate change in the industry are understood</p> <p>The Chairman of the Company and CEO, Executive Vice President (EVP) have been working in the front line of scientific research for many years. They have extensive experience in the ICT industry, and have made public speeches related to climate change and ICT industry. On a quarterly basis, the Company's dual-carbon team shall report to the top management including chairman and CEO, and as well as the CFO, COO, CTO, chief purchaser officer and Chief Strategy Officer. They shall report on the dual-carbon strategies and implementation plans of the Company, including the challenges, risks, opportunities and progresses of the establishment of climate change objectives (such as SBTi), action plans and plans required for the establishment of SBTi. In addition, the dual-carbon team will also provide carbon emission related knowledge training to the leaders, including the background of climate change, the requirements and progress of the core stakeholders of the company, ISO14064 standard system requirements and the progress of the company, SBTi knowledge, SBTi analysis etc.)</p> <p>The Chairman of the company and CEO have delivered several speeches related to the ICT industry and climate change. In July 2021, Chairman Li Zixue specially delivered a speech on the contribution opportunities of the ICT industry in the carbon neutralization industry at the National Entrepreneur Day and Annual Meeting of Chinese Entrepreneur in 2021, explaining the overall idea of building a green network, promoting green empowerment, and building a green industry chain.</p>

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Sustainability committee	Both assessing and managing climate-related risks and opportunities	Annually
Other C-Suite Officer, please specify Chief Strategy Officer	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Other, please specify Chief Quality Officer	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Other, please specify Dual Carbon (Carbon Peak and carbon neutrality) team	Both assessing and managing climate-related risks and opportunities	Not reported to the board

C1.2a

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

1. Sustainability committee

ZTE's five strategic priorities for sustainability includes the issues of environment and climate change. The Committee has 21 senior leaders at the EVP and SVP levels or above, including COO and SVP in charge of Supply Chain. The director of the Committee is the executive director of ZTE, Executive Vice President (EVP), taking charge of Human Resources (HR).

Responsibilities :

- 1) Establish and continuously improve sustainable policies, strategies, objectives, architecture and operation system;
- 2) Ensure the effective implementation of sustainable strategy
- 3) Regularly conduct management review of major sustainable issues
- 4) Promote sustainable development to supply chain,
- 5) Periodically, and when necessary, report to the board on sustainable issues.

Selection rationale: Climate change is one of the key issues for ZTE's sustainable development, which is related to the overall operation of ZTE and value chain. The director of the Committee has the ultimate responsibility for ZTE's environmental and climate change performance. COO is responsible for the overall Operations Management, including the overall implementation of climate change. The SVP in charge of the supply chain, is responsible for promoting climate change in the supply chain. Hence, ZTE has established the committee consisting of above positions.

2. Chief Strategy Officer

- 1) Formulates medium and long-term corporate strategic plans (corporate strategy including climate

change and carbon emissions), promotes the implementation of corporate strategies, monitors and evaluates the implementation status, and makes timely responses and adjustments.

- 2) Takes charge of the daily operation of the Strategy Committee, and takes the lead in high-level discussion of major strategic issues to provide decision-making support for major strategic issues.
- 3) Plans and manages the company's strategic objectives, strategic tasks, and strategic resources to ensure the reasonableness of strategic objectives, the correctness of directions, and the effectiveness of resources.
- 4) Builds the company's strategic organizations and optimizes the strategic processes and systems to continuously improve the maturity of the company's strategic management.
- 5) Takes charge of strategic cooperation, ecological construction, and corporate brand improvement.
- 6) Plans and implements capital operation projects, such as major mergers and acquisitions, asset sales, and capital operation projects.
- 7) Looks for new business fields and directions for the long-term development of the company.

3. Chief Quality Officer (CQO)

CQO is also ZTE's Quality Director. HQ **Quality Dept.** shall organize monthly analysis meeting every month. CQO, the leaders (above SVP) in charge of major BU such as R&D, supply chain, production, and engineering, and the quality director of each BU shall attend the meeting and report on quality and other systems (including environment system, product energy) to the senior management (Chairman, CEO and COO).

The **CQO** is responsible for ZTE's quality work, to promote the end to end quality system construction and quality improvement of ZTE's products and services (including product energy saving). His responsibilities include: the establishment, implementation, and maintenance of the processes required for the operation of ZTE's quality, and environmental systems. Reports the operation of the quality and environment system to COO. Promotes all employees' awareness of quality and environmental protection. Organizes internal and external reviews on quality and environmental system.

Selection rationale: CQO directly report to COO. There's a quality department in each level of ZTE. CQO is responsible for all strategic changes and implementation at product level, including R&D contributing to low-carbon product innovation (e.g., product carbon footprint and product life cycle analysis) and supply chain resilience. As ZTE recognizes climate-related risks and opportunities embedded in product production and innovation, as well as in supply chain, CQO is assigned this role.

4. Dual Carbon (Carbon Peak and carbon neutrality) team:

In 2021, the company set up the Dual Carbon project team. The steering committee of the team includes the executive directors, CFO, COO and CSO of the company, the SVP in charge of supply chain and the SVP in charge of administration. The general team consists of 17 vice-vice President of the company.

Responsibilities:

- 1) Plans to establish and continuously improve dual-carbon policies, strategies, objectives, architectures, and operation systems.
- 2) Plans, establishes, and implements SBTi.
- 3) Ensures the effective implementation of the dual-carbon strategy.
- 4) Conducts regular joint assessment and pre-decision on major dual-carbon problems.
- 5) Reports dual-carbon implementation work to the Operation Committee (senior leaders) of the company on a regular basis, and reports dual-carbon risks to the Board of Directors if necessary.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The company offers Monetary reward and non-Monetary reward, including energy-saving products and solutions, energy-saving awareness improvement (such as offering gifts to the employees involved in energy saving and emission reduction activities), energy-saving project objective achievement rewards, dual-carbon project milestone achievement rewards, collection of climate change related gold ideas rewards to all employees, and Rational Proposals rewards for energy saving and consumption reduction.

C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
All employees	Monetary reward	Behavior change related indicator	ZTE regularly organizes various energy conservation publicity activities, and gives Monetary rewards to individuals who actively participate in and perform excellently in the activities. Enhance the awareness of each employee to reduce energy use. For example, the company launched creative energy conservation and emission reduction posters and slogan design activities for all employees, and collected 61 posters and 243 posters created by employees. Among them, 19 employees participating in the design received the corresponding incentive allowance, and 6 got the company's creative products. At the same time, 700 level-4 departments have chosen their own favorite design works to display 600 applications for office area coverage, covering more than 600 R&D laboratories and equipment rooms. Through the creative visual posters, the employees are attracted to practicing energy saving and reducing consumption, thus improving the

			<p>awareness of energy saving of each employee. At the same time, a Monetary reward was set to encourage all employees to put forward Rational Proposals of technical carbon reduction according to their business scenarios, which should be implemented by the corresponding business units.</p>
All employees	Non-monetary reward	Behavior change related indicator	<p>The Company regularly organizes various energy-saving publicity activities, and gives honorary incentives to those who actively participate in and perform well, for example, praise the in the internal publicity channel of the Company.</p>
Board/Executive board	Monetary reward	Company performance against a climate-related sustainability index	<p>ZTE use the balanced scorecard design for the performance appraisal solution of the executive directors. The solution is measured in all dimensions, focusing on the long and short term, finance and non-finance, quantitative and qualitative, result and process.</p> <p>ZTE always adheres to the sustainable development concept, for example, focusing on customers' requirements for energy conservation and emission reduction, and continuously improves ZTE's competitiveness in product design and communication system solutions. Within ZTE, energy conservation and emission reduction are the main direction for ZTE to continuously reduce internal operation costs, and have achieved remarkable results. The results of the above work will affect the annual performance appraisal scores of the executive directors.</p> <p>For the annual rewards for executive directors, ZTE uses the annual objective rewarding package mode. The annual performance results of executive directors directly affect their annual rewards results.</p>
Other, please specify Energy Saving Project Completion Rewards	Monetary reward	Energy reduction project	<p>The company has established a dual-carbon project team to set up project objectives and milestones each year, and rewards are made according to the project progress and milestone completion status. For the three fields (R&D laboratory, production line, and high-energy-consuming operation facilities) where the company's own emissions account for the</p>

			largest proportion, energy conservation objectives shall be set. After energy conservation objectives are achieved, a certain proportion of the amount shall be deducted as rewards for the corresponding team members.
Other, please specify Bonus for the dual-carbon project team members	Monetary reward	Emissions reduction project	Individuals and teams that have made outstanding contributions in the dual-carbon project of the company shall be given corresponding bonus incentives in accordance with the achievement of milestone objectives.

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	10	The short term of the company is defined as 0-10. ZTE has formulated a three-phase strategy of "recovery, development and transcendence." According to the characteristics of each strategic development phase, the company predict and identify related risks, including major climate disasters. Establish relevant process mechanisms in uncertain factors to ensure the achievement of strategic objectives.
Medium-term	10	20	The initial goals of the company's planning are to reach the " carbon peak earlier than 2030" and "carbon neutrality earlier than 2060" milestones.
Long-term	20	40	The company's long-term climate target: ZTE has established a long-term vision of net zero carbon emissions, and is expected to achieve carbon neutralization earlier than 2060.

C2.1b

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

ZTE has formulated the Operation Guide to ZTE's Strategic Risk Management, Risk Assessment and BCM Strategy Management Process , and the ZTE Risk Management Regulations to standardize

and guide the company-wide risk management process, including CSR(Corporate Social Responsibility), environmental protection and climate risk management.

Substantive impact on the company's main business refers to the greater impact on the company's strategic objectives, market share, product competitiveness, and financial losses. According to the ZTE Risk Management Regulations, the company's economic loss exceeds 50 million RMB, and its risk impact is rated as the highest level. The company will consider the impact as substantial.

C2.2

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

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

ZTE faces risks from the macro environment (domestic and international politics, economic environment, laws and regulations), market, brand reputation, strategic cooperation, and climate change. In order to strengthen risk management, identify, evaluate, and deal with major risks, reduce the impact of future uncertainty on the company's strategic objectives, and enhance the company's sustainable development capability, ZTE has formulated the Operation Guide to ZTE Strategic Risk Management, Risk Assessment and BCM Strategy Management Process, and ZTE Risk Management Regulations, and established an internal control system. This system is designed for various risks, including climate-related opportunities and risks.

ZTE's risk management process includes risk identification, risk assessment, management strategies, risk response, and supervision and improvement.

The risk impact assessment includes the following risk types: Routine operation, laws and regulations, personnel health and safety, company reputation, products, market share and financial loss (the impact degree exceeding 50 million is the highest).

There are five risk levels: Major risk, major risk, general major risk, general risk, and low risk.

For climate change,

Since 2021, The company's dual-carbon team are responsible for identifying, evaluating, and coping with climate risks at the company level.

The members of the company's dual-carbon team come from: Supply chain, R&D,

Quality Management Dept. energy saving team (responsible for product LCA), Administration Dept., Operations Management, marketing, human resources, IT etc. Identification methods: According to all stakeholders' requirements including customer , government , industry , professional agency and rating agencies, the dual-carbon team will analyze all the requirements. Also, the dual-carbon team will actively participate in industrial technology seminars and industrial associations to identify risks, including operation risks, technical risks, and financial impacts.

In 2021, based on the risks identified in the dual-carbon team, the Company will formulate the corresponding control objectives, key control points (KCP) and key control activities. At the same time, the specific financial impact and strategic impact are evaluated according to ZTE's business development trend. For the risk or opportunity of financial impact exceeding 50 million RMB or strategic risk, the company's strategic risk leadership team and the company's Internal Control and Audit defense line will be tracked, reported to the board of directors every six months and submitted to the board of directors for consideration. At the same time, the business defense line shall be responsible for communicating and coordinating each business unit to ensure the implementation of climate risk response solutions.

2021: Based on the identified opportunities and risks, the Company has set up the Top Ten Carbon related projects: Including the completion of the Company's carbon inventory check and got ISO14064 certification; improving the awareness of energy saving and emission reduction for all employees; setting objectives of energy saving for business units covering offices, production and R&D laboratories; setting objectives of material recycling for related departments.

In March 2022, Frost&Sullivan and ZTE released the white paper "Digitized Carbon Neutralization Path." The white paper notes that digital technology is an effective and powerful tool for reducing carbon emissions. The white paper details the importance of digital technologies in various industries such as telecommunications, manufacturing, power, and transportation, and the opportunities that these technologies bring to long-term carbon emission reduction.

Value chain stage(s) covered

Upstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

ZTE's Supply Chain risk assessment team is responsible for identifying and evaluating upstream supply chain risks (including climate change risks and opportunities to the supply chain), including the leader of the internal control team of the Supply Chain, the deputy leader, the leader of the responsible unit for risk, and experts in the business field. The team is responsible for identifying, evaluating, and responding to climate risks in the supply chain field.

Based on the major risks identified by the Supply Chain risk assessment team, the internal control team will assess the specific financial impact and strategic impact according to ZTE's business development trend. For the risk that the financial impact exceeds 50 million Yuan RMB, the audit team will communicate with the internal control team to work out a solution, and report to the Board of Directors every six months for review by the Board of Directors. At the same time, the business response department will be responsible for communicating and coordinating each business unit to ensure the implementation of risk response solutions.

Supply Chain risk identification includes regular and irregular risk identification. The internal control team of the company will identify and update the top risks of the company twice a year.

The supply chain risk identification methods include brainstorming, structured/semi-structured interview, questionnaire survey, historical loss event, checklist, fishbone and thorn graph, and business risk resolution.

Risk assessment: Risk factors are sorted by risk value, and risk maps are used to determine risk response priorities.

Assessment criteria: Risk assessment criteria are the basis for risk assessment.

Assessment criteria include the Risk Probability, Risk Impact, and Risk Level Criteria.

Risk probability criteria: 1) historical risk occurrence frequency: If the risk cause is not changed or effectively controlled, the more the historical risk occurred, the higher the probability of risk occurrence. 2) Gap between the current situation and objectives: The greater the gap between the current situation and objectives, the greater the possibility of failing to achieve objectives, that is, the greater the possibility of risk occurrence. 3)

Latest KRI value: The change of the KRI value indicates the possibility of risk occurrence. 4) Risk management and control: The more effective the management and control of major risk causes, the lower the probability of risk occurrence.

For example, ZTE's BCM Manual contains the requirements for risk analysis and response of the organizational environment and stakeholders (including upstream suppliers).

For the identified upstream supplier risk factors (including climate changes such as flooding disasters), ZTE's short-term and medium-term business may be interrupted.

ZTE has built a three-layer guarantee system from product design, material preparation prediction to order fulfilment. In terms of product design, ZTE adheres to the independent and controllable use of core technologies, global procurement, and resource diversification, and strictly control exclusive selection. In terms of material preparation forecast, the safe reserve for key materials for 3~6 months will be implemented to deal with unexpected risks. In terms of order fulfilment, ZTE will analyze the medium and long-term supply and demand balance together with the market and

suppliers on a weekly basis to solve various supply risks and ensure the timely delivery of global projects.

ZTE is also investing resources in digital construction, and developing the "Supply Resource Risk Map." If emergencies such as earthquakes and floods happened in any region around the world, we can know the affects within a few minutes, including the affected suppliers, materials, and products. In this way, we can have more time to make quick decisions, and respond quickly. (Physical Risk)

These precautions taken by ZTE may increase the financial costs of millions of CNY. ZTE's supply chain is faced with climate risks such as earthquakes, hurricanes, and high heat, which may bring uncertainty to the supply chain. To deal with such risks, Supply Chain will formulate different safety material preparation solutions according to the risks. The safety solutions ensure the delivery safety of Supply Chain, but also bring pressure to the increase of inventory costs to Supply Chain.

The company establishes a risk assessment model and response mechanism for the Supply Chain to quickly identify and define risks and reduce the risk response costs of the Supply Chain.

Supply chain risk level assessment model: According to $R=S^2 \cdot F$, the risk level (R) is the product of S2 and frequency index (F). According to the risk level R, the relevant supply chain countermeasures are initiated to deal with the risks.

For example, on March 20, 2021, after an earthquake of magnitude 7.0 on the east coast of Honshu, Japan, a series of actions were taken by ZTE. According to the severity of the earthquake and the identification of the suppliers and materials within 200 kilometers around the epicenter, the risk level R was 28. According to the corresponding measures of the risk level, the Supply Chain completed the countermeasures on that day, so as to ensure the continuous supply of materials and the safe delivery of projects. Compared with the 2011 Japan 311 earthquake, the affected materials were identified six days ahead of time, reducing the material preparation cost and the risks of material delivery and default, and ensuring the delivery safety of the company.

Value chain stage(s) covered

Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term

Medium-term

Long-term

Description of process

ZTE's Sales CRM platform risk assessment team is responsible for identifying and evaluating downstream risks of the value chain stage.

ZTE identifies and evaluates climate-related risks and opportunities from three dimensions of customer management: Information, behavior and specifications. The Sales CRM platform is responsible for customer relationship management business. This platform is responsible for identifying, evaluating and handling with environment and climate risks in customer management.

Evaluation scheme: Review the compliance of actual business processes and risk control through investigation, interview, on-site observation, document query, and objective evidence collected every year.

Based on the identified main risks and the specific financial impact according to the company's business development trend, for the risk or opportunity of financial impact exceeding 50 million Yuan RMB, the CRM platform will communicate with ZTE's sustainable development team and the Internal Control and Audit team to work out the countermeasures. And this risks/opportunities and measures will be reported quarterly to the Operation Committee (The Operation Committee is composed of senior leaders of ZTE). The Operation Committee will make a joint resolution. At the same time, the CRM platform is also responsible for communicating and coordinating the business units related to various customer relations to ensure the implementation of climate risk response solutions related to the greenhouse effect and sea level rise. In addition, ZTE will actively participate in or work with customers to carry out climate-related activities.

For example, on November 24, 2021, ZTE held the 5G Summit and User Congress of 2021 through online channels. GSMA, Omdia, CCS Insight, Hutchison Drei Austria, China Mobile, China Telecom and other industry leaders participated in the conference. Together with ZTE's customers, ZTE would make in-depth discussions on how to build a digital ecosystem, and would work together with ZTE's partners to build a future 5G digital era.

On October 25, 2021, the ZTE 2021 annual global analyst conference themed "To enable connectivity and trust everywhere" opened online. This conference covers four major topics: ZTE's overall strategy, communication network development, green and low-carbon development and digital transformation. ZTE works with more than 100 industry analysts, financial analysts, and the media to look forward to the digital economy and seek industrial development and ecological construction. ZTE stressed that green and low carbon are the core strategies for ZTE's future development. Based on ZTE's advantages, ZTE builds a green ICT base, provides high-performance and low-energy green infrastructure, and helps the ICT industry reduce its own carbon emissions. In terms of the bottom layer, we continue to evolve from chips, algorithms and architectures to improve product performance, lower power consumption and smaller size. On the one hand, we collaborate with operators and partners to study green 5G+ innovation in the industry, and have implemented over 60 demonstration projects around the world. In the field of intelligent manufacturing, ZTE works with Shenhua, one of the largest aluminum electrolytic enterprises in the southwestern region of China, to build a green smart factory. Through the machine visual analysis of 5G+AI, the real-time monitoring and control of aluminum electrolytic cell is optimized, the distribution of alumina concentration is improved, and electricity consumption is saved by over 90 million degrees annually. In the energy field, ZTE and China Mobile established the largest demonstration area for 5G intelligent power consumption together with the China Southern Power Grid and China Mobile in Nansha, Guangzhou.

Through 5G differential protection, 5G implements accurate load control, reducing the impact of new energy sources on the power grid. According to the company's evaluation on China Southern Power Grid, the capacity of the new energy access grid can be quadrupled by 2030. At the same time, ZTE built a global 5G intelligent manufacturing base in Binjiang, Nanjing, which is a demonstration factory for manufacturing 5G by 5G. In the production process, through the analysis of the energy consumption in the whole production process, the process is improved in the high-temperature aging process, realizing automatic temperature adjustment and accurate temperature control, and energy consumption reduction by 40%. In other processes, through unmanned intelligent preventive maintenance and online guidance of XR experts, not only carbon emissions are reduced, but the travel rate is also reduced by 30%. The overall dual-carbon goal is to achieve carbon peak earlier than 2030 and carbon neutralization earlier than 2060.

GeSI officially launched the Digital with Purpose Movement initiative after releasing the Digital with Purpose (DWP) report in 2019. This initiative aims to encourage and support the Company's commitment to and work in four major fields: Being a goal-oriented enterprise, taking action against climate change, enhancing transparency and collaboration, and committed to inclusive and digital transformation. In May 2021, ZTE joined this initiative as one of the first members and was certified as a "commitment." On November 1, 2021, China Mobile held the largest and most influential gathering each year. The 2021 China Mobile Global Partner Conference was held in Guangzhou. ZTE attended the exhibition under the theme of "growth of digital power and intelligence," and presented its thoughts and results in "new integrated wireless coverage," "new IP all-optical intelligent control," "new cloud-network edge digital integration," and "new green energy-saving empowerment."

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	China and other countries around the world have laws policies and regulations that require companies to reduce carbon emissions. In some countries or areas, it is mandatory to join the pilot emission trading scheme. ZTE has been included in emission trading scheme by the Shenzhen government. The national market for carbon trading has also been launched. According to the government requirements, it is required to disclose relevant carbon emission data. If the data is concealed or not reported, ZTE will be punished and criticized. During the carbon trading process, if ZTE's emissions exceed the quota, ZTE shall purchase quotas, and bear the due compliance costs. ZTE's annual energy cost exceeds 400 million Yuan. At present, the annual cost of the purchase carbon quota does not exceed 5 million Yuan. The current regulatory risks will not have any material impact to

		<p>ZTE. However, ZTE has incorporated climate issues into its risk management and policy formulation process, and at the same time, violation of carbon trading policies may bring reputation impacts and penalties to ZTE. According to the forecast of policy development direction, the coverage and intensity of carbon trading will increase in the future around the world, which may have a material financial impact on ZTE. Therefore, although emission trading scheme at the current stage does not have a material impact, ZTE still includes this regulation into the risk assessment scope.</p>
Emerging regulation	Relevant, always included	<p>Since the Shenzhen government initiated the carbon trading management regulations in 2014, ZTE has been incorporated into the supervision scope of the Shenzhen government. With the launch of the national carbon trading market, other R&D or manufacturing sites of ZTE are likely to be included in the national carbon trading system, and will be required to comply with the compliance and trading rules and regulations of the national ETS. According to mandatory ETS checks, once the emission exceeds the allocated limit, the company must bear the compliance costs. Therefore, since 2019, we have invested 5 million in establishing an energy management system. Each year, we will invite a third party to evaluate the carbon emissions, evaluate the financial impact of compliance costs and the regulatory risks of violations, and evaluate the consistency between our current internal management rules for carbon transactions and the ETS rules released by the government, so as to ensure the correct response policies of the company's solutions.</p> <p>In addition, the approval of the draft CBAM in June 2022 also poses risks to ZTE. If ZTE fails to meet the requirements of relevant regulations, it may be required to pay a certain amount of fines. ZTE regards this as a risk, and is actively coping with the risk by increasing the use of renewable energy and implementing technical emission reduction.</p> <p>2021: Based on the identified opportunities and risks, the Company has set up the Top Ten Carbon related projects: Including the completion of the Company's carbon inventory check and got ISO14064 certification; improving the awareness of energy saving and emission reduction for all employees; setting objectives of energy saving for business units covering offices, production and R&D laboratories; setting objectives of material recycling for related departments.</p>
Technology	Relevant, always included	<p>ZTE Corporation is a global leader in telecommunications and information technology.</p> <p>With the rapid development of technologies, the technical requirements for low-carbon products are increasing. If ZTE's technologies, including low-carbon and energy-saving technologies, cannot keep up with the times and meet customer requirements, ZTE's market share will be reduced. Therefore, ZTE believes that technology is a risk for ZTE.</p>

		<p>ZTE believes in technology innovation as a core value of the company and will reduce the risk of ZTE. ZTE invests more than 10% of annual revenue in its R&D. The company has established 11 state-of-art R&D centers in China. By the end of 2021, ZTE has filed applications for more than 84,000 patents, with over 42,000 granted. and has been granted China Patent Awards 10 Gold Awards.</p> <p>Considering the impact of 5G technologies on energy use of customers, ZTE has designed AI-based green energy saving solutions (energy saving and emission reduction for wireless support communications equipment) and low power consumption technologies (power consumption reduction through technical optimization) to improve energy efficiency in product use and reduce energy use and carbon emissions.</p> <p>Energy saving through PowerPilot service navigation-based energy saving can greatly improve the energy saving ratio without affecting user experience and maintaining the current network KPIs. The field test result shows that the energy saving ratio can be twice that of the current solutions in the industry.</p> <p>Efficient green power supply system: Through the introduction of renewable energy, ultra-efficient power supply system and intelligent lithium battery application to achieve energy saving and emission reduction), full modular data center: Indirect evaporation cooling air conditioner/high-voltage DC power supply/intelligent O&M tool, multi-dimensional reduction PUE)</p>
<p>Legal</p>	<p>Not relevant, included</p>	<p>The risk of climate-related legal risk is considered to be low. But ZTE still included legal requirements in our risk assessment. As a member of Gesi, ZTE have established ISO14001 environment management system and ISO50001 energy management system. At the operational level, we have developed energy conservation and emission reduction solutions every year to reduce the carbon emissions of Scope 1 and Scope 2 at the operational level. In addition, ZTE has developed low-carbon products and solutions to help our customers reduce their carbon footprint.</p> <p>The ICT industry is not currently within the focus of climate change regulations, and we do not expect to introduce such regulations in the next few years. The telecommunications industry is not an energy-intensive enterprise, and non-governmental organizations or people affected by climate change are less likely to sue for climate change on ICT companies. So far, ZTE has not suffered any major fines or non-monetary sanctions due to violation of environmental / climate change laws and regulations.</p>
<p>Market</p>	<p>Relevant, always included</p>	<p>As a global company, ZTE provides innovative technologies and product solutions for telecom operators and government & enterprise customers in more than 160 countries and regions around the world. Different customers at home and abroad have put forward requirements</p>

		<p>for energy saving and emission reduction of ZTE products, including disclosure of carbon data, provision of products carbon footprint and reduction of energy consumption of products.</p> <p>As a global company, ZTE provides innovative technologies and product solutions for telecom operators and government & enterprise customers in more than 160 countries and regions around the world. Customers both at home and abroad have proposed requirements for energy saving and emission reduction of ZTE products, including disclosure of carbon data, provision of carbon footprint data of products and reduction of energy consumption of products.</p> <p>By Q2 2022, 87 leading operators had set SBTi. Major operators, such as Telenor, Orange, Verion, Telia, Tele2, Vodafone, AT&T, Bharti, Telefonica, Deutsche Telekom AG, T-Mobile, ELISA and Swisscom, put forward requirements for the Supply Chain. For example, they advised to set SBTi and provide the carbon dioxide lifecycle report (LCA) of the products. They required to fill in the energy consumption of the products and the energy saving improvement solutions from R&D to production, which will affect the company's costs, sales, and business reputation. In addition, major operators have increased the weight of carbon emissions in the bidding questionnaire.</p> <p>ZTE recognizes that without the development of low-carbon products, customers will be lost, and the market share and sales amount will be affected. Therefore, market risks are considered to be relevant and included in ZTE's climate risk evaluation process.</p>
Reputation	Relevant, always included	<p>At present, many investment institutions, such as NGOs and third-party organizations, and rating agencies in the financial market, such as DJSI, FTSE, MSCI, Sustainalytics and Hang Seng, have included environment protection, climate change and carbon emissions in the ESG / Sustainability ratings. And the weights of climate change become higher and higher. Poor performance in tackling climate change and managing carbon emissions or insufficient disclosure will affect ZTE's scores and ratings, and further affect ZTE's reputation worldwide. Therefore, ZTE considers that reputation risks are relevant and are included in climate risk assessment.</p>
Acute physical	Relevant, always included	<p>Based on the ISO22301 standard, ZTE had established the BCM system covering the main business and supporting fields, and obtained the ISO22301 certification on January 13, 2020. In 2021, the management system remains effective.</p> <p>Extreme weather events are one of the factors that affect business continuity. When natural disasters such as earthquakes and hurricanes occur, it is possible that production in a partial area is interrupted, materials from a specific country or region are interrupted, or logistics and transportation to a specific country or region is partially interrupted. In particular, the majority of ICT components suppliers are located in Southeast Asia, e.g. Malaysia, Indonesia, Philippines, Myanmar, Viet Nam, where is exposed to floods and typhoons. the Climate-related</p>

		acute physical risks are included in ZTE’s risk assessment. Identify the products and services that ZTE relies on and the key activities and resources for these products and services, and carry out business impact analysis and risk assessment. ZTE will assess physical risks on a regular basis every year, formulate relevant plans, select and determine appropriate business continuity policies, and formulate business continuity plans and accident management plans. The disaster emergency and business recovery capabilities will be verified through practice to ensure the interests of customers and shareholders to the maximum extent. Reduces the company's operation risks, ensures that the organization can continuously provide products and services, and ensures business sustainability.
Chronic physical	Relevant, always included	ZTE has been always paying attention to the impact of climate on product and network operation stability, especially the high-salt and high-humidity and high-temperature climatic conditions in different areas. The high-salt and high-humidity climate in coastal areas may cause corrosion inside and outside the cabinet, affecting equipment operation stability, equipment rust, and environmental pollution. Continuous high temperature results in sea level rise. The change of rainfall may cause floods and more severe high salinity and humidity. ZTE has developed all-aluminum anti-rust cabinets, which have been under management and control since the material configuration to ensure that the cabinets are deployed in coastal areas. In areas with a high temperature and a long duration, in addition to air conditioners or a cold air system, ZTE performs preventive maintenance during the O&M process to ensure effective equipment operation and avoid equipment failure due to over-high temperature.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Emerging regulation
Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

Since the Shenzhen government initiated the carbon trading management regulations in 2014, ZTE Shenzhen has been incorporated into the trading system. For the national carbon trading system, ZTE is likely to be included, and will be required to comply with the national ETS compliance and trading regulations. As per the ETS's mandatory checks, once the emission exceeds the allocated quota, the company must bear the compliance costs and the costs of purchasing carbon quotas. At present, the annual energy cost of the whole company exceeds 400 million Yuan, and the purchase carbon trading quota and potential cost in Shenzhen area do not exceed 4 million Yuan. The promotion and implementation of the future carbon trading policy in the whole country means that ZTE may have five regions to join in the carbon trading, which may increase compliance and other operation costs by about four times, and may have materiality financial impact. Therefore, ZTE must comply with national requirements for greenhouse gas emissions to save energy and reduce emissions.

In addition, the approval of the draft CBAM in June 2022 also poses risks to ZTE. If ZTE fails to meet the requirements of relevant regulations, it may be required to pay a certain amount of fines. ZTE regards this as a risk, and is actively coping with the risk by increasing the use of renewable energy , reducing carbon footprint and implementing technical emission reduction etc.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

4,000,000

Potential financial impact figure – maximum (currency)

60,000,000

Explanation of financial impact figure

ZTE evaluates costs in accordance with the current emissions. In 2021, ZTE Shenzhen needs to purchase a carbon quota of more than 80000 tons. According to the current Shenzhen carbon price, the highest estimate is 50 yuan a ton and the cost is $80000 * 50 = 4000000$ yuan. If ZTE fails to purchase carbon quotas as required, the government will impose a fine of three times more than carbon quotas. Therefore, the fine may be 12 million yuan.

ZTE has four other major production sites (Nanjing, Xi'an, Shanghai, Changsha) in China. The capacity of these four production sites is similar to that of Shenzhen. And these four sites will be very possible to be included in Chinese Carbon trading. We estimated that the cost of purchasing carbon quotas and fines will be the same as Shenzhen. The maximum financial impact to ZTE will be $12 * 5 = 60$ million yuan.

Cost of response to risk

9,300,000

Description of response and explanation of cost calculation

ZTE faced the risk of cost increase due to emerging regulations in the upstream stage of the value chain. From 2020 to 2021, to reduce this risk, ZTE used the energy management center system to automatically collect energy consumption data and uploaded it to the data center through remote meter and transmission systems. The management software was used to implement a series of informatization and intelligent management functions, such as online monitoring, statistical analysis, efficiency evaluation, and report generation. In addition to this, ZTE optimized power consumption structure, applied energy saving technologies and improved equipment efficiency etc. based on the monthly report. ZTE built the energy management system in 2021 in Shenzhen, Nanjing, Xi'an, Shanghai, and Changsha, and the system currently functions well. ZTE also formulated annual energy saving and emission reduction measures, such as optimized high-temperature production lines, energy saving of reflow furnace and SMT machine technologies, cold storage projects, and LED lamp transformation. Through a series of actions, ZTE saved CO₂e 16,279.5 tons in 2021.

The risk response costs include:

The construction of the energy management center (5 million yuan), the timely replacement of old high-consumption equipment and equipment revision (1 million yuan), energy conservation promotion expense (100000 yuan), power consumption data visualization (1 million yuan), controllable IT system construction (1 million yuan), laboratory O&M and control (7*24 centralized construction (1 million yuan), low energy consumption promotion and low energy consumption award (200000 yuan). Third-party greenhouse gas emission verification and energy management system certification (500000 yuan) Purchase the carbon LCA calculation software (500000 yuan). The combination of all these costs is the risk response costs:
 $500+100+10+100+100+20+50+50=9.3$ million yuan.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Other, please specify

Stock price falls

Company-specific description

The decline of stock prices is affected by multiple factors. As investors and customers gradually increase their attention to climate risks, ZTE's climate response and management are also factors that may affect the recognition of ZTE.

At present, many investment institutions and third-party organizations, such as NGOs, have rated the issues related to environmental protection, climate change, and carbon emissions, and gradually increased their weights. If ZTE does not perform well in dealing with the risks and opportunities related to climate change and managing carbon emissions, it will affect our rating and score, and further affect ZTE's reputation and business recognition among investors, customers, and society.

International major rating agencies such as DJSI, FTSE, MSCI, Sustainalytics and Hang Seng rate the company in environmental, social and corporate governance aspects. In December 2021, both ZTE A and H shares were included in the FTSE4Good Index Series. ZTE's own performance and external evaluation in the environment will affect the rating, and the investment decision made by investors based on the rating results, which will affect the company's share price, market share, and sales.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)**Potential financial impact figure – minimum (currency)**

146,000,000

Potential financial impact figure – maximum (currency)

1,460,000,000

Explanation of financial impact figure

Such reports may have a negative impact on the investment of shareholders. By December 31, 2021, the market value of ZTE stock was about 146 billion yuan. Our 1% shareholders pay special attention to our sustainable development performance, including the performance of climate change and carbon emissions reduction, and have requested to communicate with the company on our sustainable development performance many times in 2021. If our rating continues to decline, such shareholders may sell our shares, resulting in a stock price decline. The financial impact may be in the range of 0.1% to 1% of the market capitalization of the Company, that is, CNY 0.146 billion to CNY 1.46 billion.

Cost of response to risk

9,800,000

Description of response and explanation of cost calculation

At present, the large international rating agencies are rating ZTE and climate change accounts for an increasingly high proportion. ZTE need improve the ESG rating as one of the annual sustainable development objectives. In view of this goal: First, ZTE has strengthened communication with rating agencies to fully understand their rating methods and standards, including those related to climate change. For example, many agencies require ZTE to disclose carbon data. Second, a company-level dual-carbon project team is established to promote dual-carbon projects. Third, ten company-level dual-carbon projects are set, and the requirements of stakeholders, including the rating agencies, are fully incorporated into the project objectives.

Example:

At present, International major rating agencies such as DJSI, FTSE, MSCI, Sustainalytics and Hang Seng rate ZTE in ESG performance. Climate change accounts for an increasingly high proportion. In order to avoid the negative impact of the rating reduction on the investment of the ZTE's shareholders, In 2021, ZTE started the carbon strategy planning project globally, and set up the dual-carbon team led by CSO, which is responsible for design, phased implementation and overall planning of project in progress. The third-party organization has conducted on-site investigation at the organization level and global GHG emission check in 2021 according to ISO14064 standard, and passed the certification. The carbon data has been publicly disclosed in ZTE's annual sustainability report.

These above measures demonstrate the transparency of ZTE and enhance the trust of investors and customers. At the same time, the measures will help improve ZTE's rating and effectively avoid the negative impact of the rating reduction on the company's share price.

Cost: Third-party consulting fees (500000 yuan); energy management center (5 million yuan); replacement of old high-consumption equipment (1 million yuan), energy conservation promotion expense (100000 yuan), power consumption data visualization (1 million yuan), IT system (1 million yuan), laboratory O&M and control (7*24 centralized construction (1 million yuan), low energy consumption promotion and award (200000 yuan). Third-party GHG verification and energy management system certification (500000 yuan) LCA calculation software (500000 yuan). All costs: 50+500+

100 +10+ 100 +100+20+50+50=980 million yuan.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical

Cyclone, hurricane, typhoon

Primary potential financial impact

Increased direct costs

Company-specific description

Among ZTE's overseas raw material suppliers, there are nearly 20% suppliers (including IC factories) located in East Asia, such as Japan, South Korea, Southeast Asia, such as the Philippines and Indonesia. These factories are sensitive to natural disasters such as tropical cyclones and earthquakes. The tropical cyclone caused by climate change is very unlikely to cause serious damage to the production facilities of these suppliers, and the impact on continuous operation is relatively controllable. Even if such a risk occurs, it will inevitably affect the security and stability of ZTE's supply chain. For example, the IC factory in Southeast Asia may be stopped production or interrupted logistics and transportation for a short time due to typhoons or earthquakes, which will affect the supply of IC materials. To avoid material shortage, ZTE will increase the material preparation capacity. As a result, the material preparation cost is increased.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

44,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The inventory of the Company in 2021 (including raw materials such as IC) is 36,316.8 million yuan. The inventory of the Company in 2020 (including raw materials such as IC) is 33689.3 million yuan. Compared with that in 2020, 7.9% million yuan is increased in 2021. Raw material inventories are increased by 2627.5 million yuan. In 2022, some chip manufacturers suspended production for more than one month due to weather conditions, accounting for 1/12 of effective production. Nearly 20% suppliers (including IC factories) are located in weather-sensitive areas. Then the financial impact $2627.5 \text{ million yuan} \times \frac{1}{12} \times 20\% = 44000000 \text{ yuan}$.

Cost of response to risk

131,375,000

Description of response and explanation of cost calculation

ZTE is managing this risk by increasing inventory of raw materials to avoid interruptions due to suppliers impacted by extreme weather events. ZTE has built three defense lines from product design, material preparation prediction, to order fulfillment. First, for wireless base station products that are easy to be exposed to extreme climatic conditions, ZTE adheres to the strategy of parallel development of core technologies and global purchase, and implements strategic cooperation with global core suppliers through front-end R&D model selection control, resource deployment. Multiple layouts of supplier resources have been adopted to eliminate exclusive supply risks and optimize comprehensive costs such as technologies, quality, costs, and delivery. Second, improve the safety stock level of long-term key risk materials, such as limited production capacity, long procurement period, and poor supply flexibility, to prevent supply interruption. For example, for wireless products, ZTE has purchased corresponding materials in advance, such as IC.

Example: ZTE's supply chain is faced with climate risks such as earthquakes, hurricanes, and high heat. To deal with such risks, Supply Chain will formulate different safety material preparation solutions according to the risks. The company establishes a risk assessment model and response mechanism for the Supply Chain. In March 2021, after a magnitude 7.0 earthquake occurred off the east coast of Honshu, Japan, according to the corresponding measures of the risk level, the Supply Chain completed the countermeasures on that day, so as to ensure the continuous supply of materials and the safe delivery of projects. Compared with the 2011 Japan 311 earthquake, the affected materials were identified six days ahead of time, reducing the material preparation cost and the risks of material delivery and default, and ensuring the delivery safety of the company.

The inventory of the Company in 2021 is 36,316.8 million yuan. The inventory of the Company in 2020 (including raw materials such as IC) is 33689.3 million yuan. The inventory of raw materials in 2021 is increased by 7.9% than that in 2020. The raw material inventory is increased by 2627.5 million yuan. Suppose that 5% is prepared due to weather, the risk response cost is $2627.5 \times 5\% = 131.375 \text{ million yuan}$.

Comment

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

At present, ZTE's customers, such as major overseas operators and domestic operators, have higher requirements for the energy efficiency of supply chains and products. Including the requirements for setting emission reduction objectives, achieving emission reduction progress, providing products with lower energy consumption for suppliers. and requiring ZTE to provide the carbon footprint of products. Therefore, ZTE believes that setting targets for emission reduction and energy efficiency improvement not only helps ZTE save costs, but also helps ZTE attract and consolidate more customers with low-carbon development requirements, and improves ZTE's overall market competitiveness.

At the end of December 2021, with the approval of the Chairman, ZTE restructured the level-2 unit: Digital Energy product operation division. Digital energy product operation division consists of two major product lines: Power and DC, and new energy. The new energy product line focuses on such fields as green power generation, intelligent energy storage and intelligent electricity consumption. ZTE's digital energy will bring into play the advantages of digital technologies and power electronics, and integrate power electronics, energy storage technologies, cloud, and AI technologies to accelerate energy digitalization and build a zero-carbon society.

The digital energy industry is likely to grow at a growth rate of more than 30% or higher

within 10 years and reach a total market volume of one trillion yuan. ZTE will make a contribution to this major market and gain profits.

In 2021, the company set up the Dual Carbon project team. The team's responsibilities include 1) Plans to establish and continuously improve dual-carbon policies, strategies, objectives, architectures, and operation systems. 2) Plans, establishes, and implements SBTi. 3) Ensures the effective implementation of the dual-carbon strategy. 4) Conducts regular joint assessment and pre-decision on major dual-carbon problems. 5) Reports dual-carbon implementation work to the Operation Committee (senior leaders) of the company on a regular basis, and reports dual-carbon risks to the Board of Directors if necessary.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

9,162,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

ZTE's overall revenue in 2021 is 114.52 billion yuan, about 20% of customers pay special attention to our climate change performance, and product categories with particularly high energy consumption requirements account for about 40% of operating revenue. If our products maintain good performance in addressing climate change, we expect that the impact will be: $1145.2 * 20\% * 40\%$ of our operating income = 9.162 billion yuan.

Cost to realize opportunity

1,601,200,000

Strategy to realize opportunity and explanation of cost calculation

At present, ZTE's most customers have higher requirements for the energy efficiency of supply chains and products. Including the requirements for setting emission reduction objectives, achieving emission reduction progress, providing products with lower energy consumption for suppliers and requiring ZTE to provide the carbon footprint of products. Therefore, ZTE believes that developing more energy saving products will not only helps ZTE save costs, but also helps ZTE attract and consolidate more customers with low-

carbon development requirements, and improves ZTE's overall market competitiveness. At the end of December 2021, with the approval of the Chairman, ZTE restructured the level-2 unit: Digital Energy product operation division. Digital energy product operation division consists of two major product lines: Power and DC, and new energy. The new energy product line focuses on such fields as green power generation, intelligent energy storage and intelligent electricity consumption. ZTE's digital energy will bring into play the advantages of digital technologies and power electronics, and integrate power electronics, energy storage technologies, cloud, and AI technologies to accelerate energy digitalization and build a zero-carbon society.

The establishment of the digital energy product operation division will help ZTE to focus on the development of energy-saving new products or services through R&D innovation. The digital energy industry is likely to grow at a growth rate of more than 30% or higher within 10 years and reach a total market volume of one trillion yuan. ZTE will make a contribution to this major market and gain profits.

ZTE achieves this opportunity by adding R&D capital allocation in energy efficiency, operation, and low-carbon innovation in the production field, thus achieving low-carbon and high-energy-efficiency production. The R&D investment in ZTE 2021 is CNY 18.80 billion, accounting for 16.4% of the operating revenue. The total R&D investment in 2020 is CNY 14.797 billion, accounting for 14.89% of the operating revenue. Compared with 2020, ZTE's R&D investment has increased by 4003 million. R&D investment includes investment in advanced technologies, such as energy conservation, energy efficiency, and emission reduction technologies. The products that require high energy consumption account for about 40%, so our cost increase is $40.03 \times 0.4 = 1601.2$ million yuan.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Now there are about 10 million 4G sites and about 3 million 5G sites around the world. The power consumption of the base station equipment alone in a year exceeds 150 billion degrees, equivalent to 72 million tons of carbon emissions per year. Therefore,

energy saving and emission reduction are very important to the mobile communication industry. ZTE considers network energy saving and consumption reduction from multiple aspects. First, ZTE provides an accurate network planning tool HIPPO to improve coverage efficiency and reduce invalid site deployment through more accurate network planning, thus maximizing user requirements for the service with the least number of sites.

Second, reduce the power consumption of a single site, including the site form, power consumption of the equipment, and power consumption during equipment operation. The sites can be deployed indoors and outdoors to save equipment rooms and air conditioners. The sites can also be larger and smaller, and can be covered by micro-base stations installed on a pole. Renewable and new energy sources are used. For example, renewable energy sources are powered by only photovoltaic power sources, and stable and high-speed communication network services are provided for users in the area and mountaineering enthusiasts around the clock. This site can be called a zero-carbon site. For the equipment itself, we adopt new materials, new processes and new technologies to reduce the equipment power consumption, and reduce the power consumption of 15%-20% for each new product generation. Various energy saving algorithms are used to achieve optimal energy consumption during the equipment running period. Our PowerPilot wireless energy saving solutions were approved by TMF and GTI respectively in 2020 and 2021, and won the Best Solution in ICT China (2021). Winning this award will help ZTE gain more customers and increase its market share.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

700,000,000

Potential financial impact figure – maximum (currency)

2,100,000,000

Explanation of financial impact figure

According to Gartner's Market Share: Communications Service Provider Operational Technology, Worldwide, 2021, the network equipment sold by ZTE in 2021 was 10.48 billion US dollars, accounting for 11.9%. With the energy saving technology, the market share is expected to increase by 1% to 3%. Therefore, the financial impact ranges from 104.8*1% billion USD (700 million CNY) to 104.8*3% billion USD (2.1 billion CNY).

Cost to realize opportunity

1,601,200,000

Strategy to realize opportunity and explanation of cost calculation

The customer's continuous demand for green and low-carbon products will bring continuous revenue growth to ZTE. For digital infrastructure, the access network and data center occupy the largest proportion of energy consumption. By actively introducing green energy sources, ZTE builds green sites and green data centers to reduce the carbon emissions of infrastructure. Specifically, ZTE has proposed a new "zero carbon" energy network with the concept of "green, efficient, intelligent, and reliable" in the process of building the energy infrastructure of the communication network to increase the proportion of green energy applications. In the process of site product design and solution implementation, ZTE is integrated with the low-carbon environmental protection concept (for example, reducing unnecessary resource waste, reducing resource pool fragment rates, and intelligent collaboration) to create green sites. At present, the UniSite+, PowerPilot and iEnergy solutions proposed by ZTE through digital practice have been widely used in the networks of operators around the world, helping them save energy and reduce consumption. For example, in Spain, ZTE worked with the operator Customer Dept. department's UniSite+ solution, which is the simplest solution in the industry, reducing the number of modules by over 60% and saving 30% as compared with the traditional solution. In Malaysia, we successfully deployed PowerPilot, which saves power 7 million degrees per year. In Shenzhen, we worked with the customer to build the largest micro module data center in Asia, saving more than 60 million degrees of power each year.

ZTE develops new products or services or solutions through the above R&D innovations, which will bring us continuous long-term opportunities and revenue growth.

ZTE achieves this opportunity by adding R&D capital allocation in energy efficiency, operation, and low-carbon innovation in the production field. The R&D investment in ZTE 2021 is CNY 18.80 billion, accounting for 16.4% of the operating revenue. The total R&D investment in 2020 is CNY 14.797 billion, accounting for 14.89% of the operating revenue. Compared with 2020, ZTE's R&D investment has increased by 4003 million. R&D investment includes investment in advanced technologies, such as energy conservation, energy efficiency, and emission reduction technologies.

The products that require high energy consumption account for about 40%, so our cost increase is $40.03 \times 0.4 = 1601.2$ million yuan

Comment**Identifier**

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced direct costs

Company-specific description

ZTE's annual energy costs exceed 460 million yuan. Currently, the main energy source of ZTE is from State Grid. Through the installation of solar photovoltaic power generation equipment, ZTE can reduce annual electricity expenses. In addition, because ZTE's Shenzhen base has joined the Shenzhen carbon emissions trade, if ZTE's annual carbon emissions exceed its quotas, ZTE will spend additional costs on purchasing carbon quotas. Installing solar devices can reduce ZTE's carbon emissions and thus reduce ZTE's costs of purchasing carbon quotas. To sum up, installing solar devices can help ZTE reduce direct costs, including electricity expenses and costs of purchasing carbon quotas.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,857,405

Potential financial impact figure – minimum (currency)**Potential financial impact figure – maximum (currency)****Explanation of financial impact figure**

ZTE's annual energy costs exceed 460 million yuan. Currently, the main energy source of ZTE is from State Grid. Through the installation of solar photovoltaic power generation equipment, ZTE can reduce annual electricity expenses. In addition, because ZTE's Shenzhen base has joined the Shenzhen carbon emissions trade, if ZTE's annual carbon emissions exceed its quotas, ZTE will spend additional costs on purchasing carbon quotas. Installing solar devices can reduce ZTE's carbon emissions and thus reduce ZTE's costs of purchasing carbon quotas. To sum up, installing solar devices can help ZTE reduce direct costs, including electricity expenses and costs of purchasing carbon quotas.

After the Shenzhen base is installed with the solar photovoltaic equipment, the total coverage area is close to 40000 square meters. In 2021, the company's solar power

generation capacity is 2564967.8 KWH, which can meet the power consumption ratio of about 2% at the site. The average electricity cost is 1.367 yuan/KWH, and the overall saving cost is $2564967.8 * 1.367 = 3506310$ yuan. Half of the cost is the profit of the environmental protection company, and the other half is $3506310/2 = 1753155$ yuan. In addition, the installation of solar energy equipment can reduce carbon emissions by about 2085 tons of CO₂. The average price of CO₂ quota is 50 yuan/ton, then ZTE will save costs: $50 * 2085 = 104250$ yuan.

Total cost saved by ZTE: $104250 + 1753155 = 1857405$ yuan

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

ZTE cooperated Solar PV project with the environmental companies and ZTE does not need investment. The project is invested by the environmental companies. And half of the electricity fees saved in the future are the profits of the environmental companies. So the cost of ZTE is Zero.

Comment

C3. Business Strategy

C3.1

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

Row 1

Transition plan

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

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

The company is comprehensively analyzing the risks, opportunities, impacts and costs of the transition plan that aligns with a 1.5°C world.

In 2021, the company set up the Dual Carbon team. Responsibility of the team

1) Plans to establish and continuously improve dual-carbon policies, strategies, objectives, architectures, and operation systems.

2) Plans, establishes, and implements SBTi.

3) Ensures the effective implementation of the dual-carbon strategy.

4) Conducts regular joint assessment and pre-decision on major dual-carbon problems.

6) Reports dual-carbon implementation work to the Operation Committee (senior leaders) of the company on a regular basis, and reports dual-carbon risks to the Board of Directors if necessary.

Based on the identified opportunities and risks, the Company has set up the Top Ten

Carbon related projects: Including the completion of the Company's carbon inventory check and got ISO14064 certification; improving the awareness of energy saving and emission reduction for all employees; setting objectives of energy saving for business units covering offices, production and R&D laboratories; setting objectives of material recycling for related departments. In addition, it has set up product energy saving and consumption reduction targets.

Some of the objectives have been completed: For example, the company has completed team building and empowerment. The third-party certification organization has conducted on-site investigation at the organization level and global greenhouse gas emission check in 2021 according to the ISO14064-1 standard system, and passed the certification based on reasonable assurance. The company's carbon data has been publicly disclosed in the company's annual sustainability report.

In March 2022, Frost&Sullivan and ZTE released the white paper "Digitized Carbon Neutralization Path." The white paper notes that digital technology is an effective and powerful tool for reducing carbon emissions. The white paper details the importance of digital technologies in various industries such as telecommunications, manufacturing, power, and transportation, and the opportunities that these technologies bring to long-term carbon emission reduction.

The transition plan that aligns with a 1.5°C world is established on process.

C3.2

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

Use of climate-related scenario analysis to inform strategy	
Row 1	Yes, qualitative and quantitative

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios Customized publicly available transition scenario	Company-wide	1.6°C – 2°C	Scenario: The impact of the Chinese government's "2030 carbon peak, carbon neutrality in 2060" on ZTE. ZTE implements the 2nd growth curve strategy, and its long-term revenue target is several times that of the current revenue. New business will expand enterprise activities and increase carbon emissions. In this way, ZTE may find it difficult to reach the emission reduction requirement of "carbon peak in 2030 and carbon neutrality in 2060." ZTE will reduce emissions by replacing fuel trucks

		<p>and gas ovens, reducing power consumption of facilities, improving energy efficiency of products, and purchasing green electric power. Under the prerequisite of economic feasibility, ZTE will try its best to meet the "2030 & 2060" requirements. ZTE is concerned about whether these measures can achieve the target. At the same time, the measures are economically feasible and do not cause financial burden that enterprises can hardly bear.</p> <p>We conducted qualitative and quantitative analysis for this scenario.</p> <p>Important assumptions: ZTE will achieve long-term revenue growth of about 160 billion yuan in 2024. The growth rate will be reduced by half every 10 years, and the total revenue will be several times that of 2060. ZTE has expanded new auto electronics, new energy, industrial solutions, and other services, whose carbon emissions are almost the same as those of ZTE.</p> <p>Calculation formula: Carbon emissions $C = \sum (\text{Revenue } R \times \text{consumption intensity } I \times \text{emission factor } F)$ Cost $= \sum (\text{Revenue scale } R \times \text{Emission reduction intensity } I \times \text{cost rate } P)$</p> <p>Important parameters: Estimated revenue from 2021 to 2060 Current emission source intensity: Oil and gas , refrigerant escaping, power consumption , and product energy consumption Emission factors of fuel, refrigerant, and power sources Cost rate: energy price, additional cost rate of green electricity , and cost of various energy saving and consumption reduction Trend: Fuel trucks and gas stoves with 100% electrification life, Freon refrigerant decrease rate, operational power consumption decrease rate, power consumption intensity, physical power consumption improvement rate, and electricity price increase rate. The intensity decline laws of various emissions come from the research output of IEA, ITU, and other authorities, and the experience of peer enterprises.</p>
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			<p>Constraints: absolute emission reduction rate and emission intensity reduction rate under the situation of 2030 carbon peak, carbon neutrality in 2060</p>
<p>Transition scenarios Customized publicly available transition scenario</p>	<p>Company-wide</p>	<p>1.5°C</p>	<p>Scenario: The transition plan aligns with the 1.5°C SBTi ZTE implements the 2nd growth curve strategy, and its long-term revenue target is several times that of the current revenue target. New business will expand enterprise activities and increase carbon emissions. In this way, ZTE may find it difficult to reach the emission reduction requirement of 1.5°C SBTi We conducted qualitative and quantitative analysis for this scenario. Important assumptions: ZTE will reduce emissions by replacing fuel trucks and gas ovens, reducing power consumption of facilities, improving energy efficiency of products, and purchasing green electric power. Under the prerequisite of economic feasibility, ZTE will try its best to meet the 1.5°C SBTi requirements. ZTE has expanded new auto electronics, new energy, industrial solutions, and other services, whose carbon emissions are almost the same as those of ZTE.</p> <p>Calculation formula: Company carbon emissions $C = \sum (\text{Revenue } R \times \text{consumption intensity } I \times \text{emission factor } F)$ Cost $= \sum (\text{Revenue scale } R \times \text{Emission reduction intensity } I \times \text{cost rate } P)$</p> <p>Important parameters: Estimated revenue from 2021 to 2036 Current emission source intensity: Oil and gas , refrigerant escaping, power consumption , and product energy consumption Emission factors: Emission factors of fuel, refrigerant, and power sources Cost rate: energy price, additional cost rate of green electricity , and cost of various energy saving and consumption reduction Trend: Fuel trucks and gas stoves with 100% electrification life, Freon refrigerant decrease rate, operational power consumption decrease rate,</p>

			<p>power consumption strength, physical power consumption improvement rate, and electricity price increase rate. The intensity declines laws of various emissions come from the research output of IEA, ITU, and other authorities, and the experience of peer enterprises.</p> <p>Constraints: absolute emission reduction rate and emission intensity reduction rate under the situation of achievements of 1.5°C SBTi requirements.</p>
Physical climate scenarios Customized publicly available physical scenario	Company-wide	4.1°C and above	<p>Scenario: When the global business model does not change, climate change may bring acute physical risks, such as heat waves, hurricanes, and floods. Most of ZTE's suppliers are located in Southeast Asia, such as Malaysia, Indonesia, the Philippines, Myanmar, Vietnam. Acute physical risks will affect our product delivery and business continuity. In addition, climate change also brings about long-term natural risks, such as high salt and high humidity and high-temperature climate conditions in different areas. The high-salt and high-humidity climate in coastal areas will also cause corrosion to our products, which will not only affect the stability of equipment operation but also cause environmental pollution due to rust. Finally, it will cause the failure of the product and the reduction of the service life.</p> <p>Important parameters: Product delivery time, product service life, and product repair rate.</p> <p>Analysis selection: The Acute physical factors and Chronic physical factors of climate change will greatly affect ZTE's delivery and product life, and thus affect customers' trust in ZTE. On the one hand, ZTE takes a series of measures to mitigate risks, and performs qualitative and quantitative analysis. For example, preventive maintenance is performed during the O&M process to ensure the effective operation of equipment and avoid equipment failure due to high temperature. 2) Identify the products and services that ZTE relies on and the key activities and resources for these products and services, regularly evaluate physical risks, formulate relevant plans, select and determine</p>

		<p>appropriate business continuity strategies, formulate business continuity plans and accident management plans, and specify business recovery time. Carry out drills to check the company's establishment of disaster emergency and business recovery capabilities, reduce the company's operation risks, and ensure that the organization can continuously provide products and services. To ensure business continuity.</p> <p>In addition, the company has taken some measures to reduce the impacts of climate change, such as establishing a dual-carbon team and formulating carbon emission reduction strategies and projects.</p>
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C3.2b

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

Row 1

Focal questions

1. ZTE need to be in line with the 2030 carbon peak & 2060 carbon neutralization of the Chinese government.

Can ZTE meet the 2030 carbon peak & 2060 carbon neutralization requirements through various emission reduction measures under the background of the second business growth strategy implemented by ZTE? Does the input cost of emission reduction pose great pressure? Does ZTE need to make major strategic adjustments?

2. Can ZTE set transition plan complies with the SBTi 1.5°C "ambitious" requirements Can various emission reduction measures meet the requirements of the SBTi1.5°C scenario under the background of the second business growth strategy? Does the input cost of emission reduction pose great pressure? Does ZTE need to make major strategic adjustments?

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

Focus 1

Climate-Related Scenario Analysis Result for Focused Question 1

- 1) ZTE does not need to make major strategic adjustments.
- 2) By purchasing green electricity, electrification, technological progress, facility transformation, and other energy-saving and emission reduction measures, ZTE can meet the requirements of carbon peak in 2030 and carbon neutralization in 2060. The most critical measure is to purchase or generate the green electricity. If the targets of carbon peak, carbon neutralization are achieved ahead of time, the green electricity cost will not constitute a significant financial burden. ZTE needs to invest in communication

infrastructure reconstruction and technology improvement, but the saved energy costs are greater than the investments.

Climate-Related Scenario Analysis Result for Focused Question 2

- 1) Through such energy substitution, electrification, technical improvement, and equipment transformation, ZTE can meet the requirements for scope 1 and scope 2 emission reduction requirements of SBTi. The most critical measure is to purchase or generate the green electricity. The cost not constitute a significant financial burden. ZTE needs to invest in communication infrastructure reconstruction and technology improvement, but the saved energy costs are greater than the investments.
- 2) By 2036, the physical intensity of scope 3 emissions from ZTE will be reduced by 63% (accounting for 90% of product sales use emissions), but the absolute scope 3 emissions will be increased. This emission mainly occurs on the upstream and downstream, and cannot be controlled directly by ZTE. For example, it's difficult for ZTE to persuade the downstream customers of developing countries to pay the extra cost of purchasing green electricity, which may not meet the SBTi requirements.
- 3) In the future, ZTE may need to implement transition plan to meet the SBTi requirements. Possible directions are: Select the fields with high proportion of software and low emission for new service expansion.

C3.3

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Although it is more energy-saving for 5G to transmit data per bit, technological progress and demand resonance require 5G to increase rates and transmit larger traffic. At present, the absolute power consumption of 5G is far greater than that of 4G, so power consumption reduction and cost reduction are the common requirements of the entire 5G industry chain. As one of the main 5G equipment suppliers, ZTE has identified the climate risks and opportunities of product technologies, and has provided advanced 5G energy-saving solutions for global customers. Committed to building green 5G technologies and products, ZTE has launched the ZTE RAN energy saving solution. This solution starts with materials, using new materials and processes to reduce the energy consumption of devices . In addition, it reduces energy consumption by adding AI-based power saving technologies, power supplies, and virtualization, and achieves more intelligent and efficient

		<p>energy saving and consumption reduction through software and AI. Since June 2019, the RAN intelligent energy-saving solution has been put into commercial use by Chinese operators, and has been deployed overseas for commercial use. It will be used as the main development direction of the green energy-saving solution in the next five years.</p> <p>Now there are about 10 million 4G sites and about 3 million 5G sites around the world. The power consumption of the base station equipment alone in a year exceeds 150 billion degrees, equivalent to 72 million tons of carbon emissions per year. Energy saving and emission reduction are very important to the mobile communication industry. ZTE considers network energy saving and consumption reduction from multiple aspects:</p> <p>First, ZTE provides the precision planning tool HIPPO to improve the coverage efficiency and reduce the invalid site deployment through more precise network planning, so as to meet the maximum user requirements for the minimum site service.</p> <p>2. Reduce the power consumption of a single site, including the site form, power consumption of the equipment, and power consumption during equipment operation.</p> <p>3. Use a more reasonable service allocation mechanism to improve the energy consumption ROI, such as PowerPilot.</p>
<p>Supply chain and/or value chain</p>	<p>Yes</p>	<p>ZTE is aware that reducing its operation and production emissions is not only related to energy saving of the 5G network itself, but also includes energy saving of large data centers and terminals. This requires the efforts of the entire industry chain and even the society. The increase in energy costs has been identified as a potential risk. Since 2012, the Company has pushed all suppliers to sign CSR agreements, including the demand for carbon reduction. Since 2022, the Company has implemented carbon reduction audit at the supplier's site.</p> <p>In addition, ZTE actively studies the latest requirements of customers and markets for energy saving and consumption reduction of products. Adhering to the green concept of energy saving and consumption reduction, ZTE has successively formulated technical requirements for energy saving of communication products and enterprise standards for a series of test requirements for energy saving of communication products in accordance with customer requirements and international, Chinese, and industrial standards. Through the links from design to verification, ZTE ensures that its products meet global certification requirements, and finally strives to provide customers with</p>

		<p>advanced energy-saving products and solutions.</p> <p>Since 2009, the company has released the first Corporate Social Responsibility (CSR) report and completed the CDP questionnaire.</p> <p>In addition, the company requires core strategic suppliers to actively participate in the CDP project. In 2021, 48 leading suppliers have submitted the 2020 CDP questionnaire.</p> <p>At the same time, the company has been actively engaged in carbon emission reduction and empowerment of suppliers. For example, in 2021, the external consultant was invited to provide "climate change and carbon emissions disclosure" training for more than 80 suppliers, and in 2022, "dual-carbon strategy and greenhouse gas verification" training was provided for more than 70 suppliers.</p> <p>In the next five years, ZTE will promote the continuous development of the above work, and adjust it in accordance with ZTE's strategies and requirements of stakeholders if necessary.</p>
Investment in R&D	Yes	<p>ZTE has deployed over 500 green 5G innovation patents, and work with operators to build 5G green networks by increasing technological efficiency and reducing consumption.</p> <p>At the chip side, ZTE continuously improves the technical performance of bearer chips and base station chips to reduce power consumption.</p> <p>Innovative hardware product design: By continuously exploring innovative hardware cooling technologies and power supply methods, ZTE can reduce energy consumption. For example, liquid cooling/air-conditioner cooling/power saving 30%. Where there are photovoltaic conditions, the BTS is powered by solar energy. The two-phase liquid cooling technology implements energy saving and emission reduction for core routers.</p> <p>The experimental data show that with the two-phase anhydrous liquid cooling technology, the heat dissipation efficiency of the core equipment can be increased by 2.5 times, and the energy consumption of the 30% equipment room and the 80% noise can be reduced.</p> <p>In areas where mains supply is unstable, efficient green energy is introduced to reduce oil engine power supply. In China, Italy, Vietnam, Burma, Pakistan, South Africa and Ethiopia, ZTE has helped over 20 operators build 500000 efficient green sites.</p> <p>ZTE actively participates in the research or standard subjects involving the terminal energy-saving mechanism,</p>

		<p>network energy-saving mechanism and its enhancement, and formulates energy-saving standards including management, such as the 5G NR Re-16's UE Power Saving in NR, Rel-17's UE power saving enhancements for NR, Power saving enhancements for UMTS, and Study on Power saving for Machine-Type Communications (MTC) devices, to contribute technical solutions to the industry. In 2022, Frost&Sullivan, the global enterprise growth consulting company, released the white paper "Digitized Carbon Neutralization Path" together with ZTE. In the next five years, ZTE will promote the continuous development of the above work. If necessary, the work will be adjusted in accordance with ZTE's strategies and the requirements and advanced technologies of related parties.</p>
Operations	Yes	<p>We believe that energy saving in operation is an opportunity and an important step in sustainable development, and can help the company save energy costs. Since 2018, ZTE has saved about 30 million yuan of energy costs each year. ZTE has formulated requirements for the environment, production equipment, and R&D, and established an energy management center to control the energy consumption of the entire company, including the scheduled switch and preventive maintenance measures for internal analysis and supervision. For example, installing photovoltaic solar energy and upgrading LED lights through various methods to reduce energy waste. In the next five years, ZTE will promote the continuous development of the above work, and adjust it in accordance with ZTE's strategies and requirements of stakeholders if necessary.</p>

C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Acquisitions and divestments	Revenues ZTE identifies that the improvement of climate management and emission management in operation and production will probably attract more customers with supply chain climate management objectives, and bring more orders and benefits. ZTE also identifies that, with the development of 5G technologies, the demands for lower-carbon energy-saving 5G products and technologies are also increasing. ZTE's

	<p>advanced energy-saving technical solutions will help improve the competitiveness of the company, and expand the production ratio of low-carbon energy-saving products and technology solutions to bring more benefits for the company. In the next five years, ZTE will continuously increase its R&D investment in energy-saving and emission-reduction technologies, and obtain continuous benefits.</p> <p>According to the 2022 Q1 report released by Dell'Oro Group, ZTE FTTx ranks second in the global market share and continues to be in the leading position in the industry.</p> <p>ZTE is committed to helping customers build green FTTx networks. The Combo PON solution can effectively save equipment room space, backbone optical fiber resources and spare parts. The Any-PON provides access capabilities of different technologies through one line card, effectively reducing line card types. The intelligent fan automatically adjusts the power consumption according to the environment. The highly integrated multi-in-one PON card chip greatly reduces the power consumption, and the series of small-capacity OLT devices can be flexibly deployed, saving space occupation and power supply. The pre-termination of the ODN reduces the time for ODN network construction.</p> <p>Acquisitions and divestments: ZTE has identified the low-carbon development trend in the future. In addition to developing 5G technologies and providing low-carbon products for customers, ZTE will also consider acquiring other assets that provide low-carbon products. In the next five years or more, the board of directors will also take into account the impact of energy conservation and emission reduction and low-carbon economy during the purchase and withdrawal process, and buy or sell companies related to energy conservation and emission reduction technologies.</p> <p>Case study: In 2016, as reviewed by the Board of Directors, ZTE purchased the Zhuhai Guangtong Bus Co., Ltd., and established ZTE Smart Vehicle Co., Ltd. ZTE intelligent registered capital 915 million yuan CNY, of which ZTE holds 86.39%.</p> <p>Direct Cost: Purchasing carbon quota, purchasing green electricity, purchasing carbon emissivity calculation software, energy management system construction investment (5 million), and cost of discarded high energy consumption equipment.</p> <p>Indirect costs: In the next five years, because the policies on carbon emissions will be stricter and the company's actions on emission reduction will be more</p>
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		difficult, ZTE will increase some indirect operating costs. For example, R&D investment costs of energy conservation and emission reduction technologies.
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C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

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

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 8: Upstream leased assets

Base year

2021

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

79,182.39

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

725,424.18

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

98,683,524.71

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

99,488,131.28

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

100

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

100

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

100

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

100

Target year

2060

Targeted reduction from base year (%)

100

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

0

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

0

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

0

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

0

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

0

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

100

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

Please explain target coverage and identify any exclusions

1. Covering the whole ZTE Corporation
2. No Exceptions

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

In the face of the "2030 carbon peak & 2060 carbon neutral" target, and SBTi required by various stakeholders, ZTE has the following measures:

I. Strategic Leadership

In the second half of 2021, ZTE started the carbon strategy planning project globally, and set up the dual-carbon team led by Chief Strategy Officer. At present, the company has completed team building and empowerment. The third-party certification organization has conducted on-site investigation at the organization level and global greenhouse gas emission check in 2021 according to the ISO14064-1 standard system, and passed the certification based on reasonable assurance. The company's carbon data has been publicly disclosed in the company's annual sustainability report.

2) Improve the awareness of emission reduction for all employees .

ZTE has posted energy saving banners and posters in public areas, launched offline dual-control knowledge and Q&A competitions on energy consumption, and released notices through public mailboxes to improve employees' awareness of energy saving and consumption reduction.

3. Focus on power saving projects

During the 13th Five-Year Plan period, ZTE invested more than 10 million yuan in energy saving projects, and completed the building-top photovoltaic power station. The area covered by solar panels was close to 40000 square meters, saving 2.8 million kilowatt-hours per year. We have invested in the transformation of the LED lights indoor and outdoor, with the power saving rate over 65%. We are constantly replacing, updating, improving the obsolete and outdated equipment .

At present, ZTE has launched nine energy-saving projects of its own in the country, saving electricity by 21.56 million KWH per year, equivalent to reducing carbon dioxide by 19800 tons.

4. Green products, improving the energy efficiency of digital infrastructure

At present, with more than 500 green innovation patents, ZTE continuously increases efficiency and reduces energy consumption, and contributes to building a green and low-carbon society through technological innovations. In the future, ZTE will continue to enhance basic research in new energy, new materials, and new components, achieve

key technological breakthroughs, promote more in-depth application of digital technologies in more fields for sustainable development, and ultimately achieve the goal of carbon neutrality.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Net-zero target(s)

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2020

Target coverage

Country/region

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency

Other, please specify

tons of standard coals

Target denominator (intensity targets only)

Other, please specify

Total Industrial Production per Unit (CNY 10,000)

Base year

2020

Figure or percentage in base year

0.009

Target year

2025

Figure or percentage in target year

0.0081

Figure or percentage in reporting year

0.0088

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

22.2222222222

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, this objective is a part of ZTE's overall energy conservation and emission reduction solution.

Is this target part of an overarching initiative?

Other, please specify

Yes, this objective is a part of ZTE's overall energy conservation and emission reduction solution.

Please explain target coverage and identify any exclusions

This objective is part of the ZTE Corporation "14th Five-Year Plan for Energy Saving (Shenzhen)." covering ZTE's Shenzhen area.

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

Project plan:

1. Installing a Solar Street Lamp
 2. replacing, updating, improving the obsolete and outdated equipment . E.g. circulating water of air conditioners is used to cool the reflow furnace.
 3. Replacing the Energy-Saving lamp
- The project is being implemented as planned.

List the actions which contributed most to achieving this target

C4.2c

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

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Target year for achieving net zero

2060

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Please explain target coverage and identify any exclusions

ZTE will achieve Net Zero before 2060. The target covers all ZTE's organizations around the world and all greenhouse gas emissions. There are no exceptions.

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

Yes

Planned milestones and/or near-term investments for neutralization at target year

In the face of the "2030 carbon peak & 2060 carbon neutral" target, and SBTi required by various stakeholders, ZTE has the following measures:

1. Strategic Leadership

In the second half of 2021, ZTE started the carbon strategy planning project globally, and set up the dual-carbon team led by Chief Strategy Officer. At present, the company has completed team building and empowerment. The third-party certification organization has conducted on-site investigation at the organization level and global greenhouse gas emission check in 2021 according to the ISO14064-1 standard system, and passed the certification based on reasonable assurance. The company's carbon data has been publicly disclosed in the company's annual sustainability report.

2) Improve the awareness of emission reduction for all employees .

ZTE has posted energy saving banners and posters in public areas, launched offline dual-control knowledge and Q&A competitions on energy consumption, and released notices through public mailboxes to improve employees' awareness of energy saving and consumption reduction.

3. Focus on power saving projects

During the 13th Five-Year Plan period, ZTE invested more than 10 million yuan in energy saving projects, and completed the building-top photovoltaic power station. The area covered by solar panels was close to 40000 square meters, saving 2.8 million kilowatt-hours per year. We have invested in the transformation of the LED lights indoor and outdoor, with the power saving rate over 65%. We are constantly replacing, updating, improving the obsolete and outdated equipment .

At present, ZTE has launched nine energy-saving projects of its own in the country, saving electricity by 21.56 million KWH per year, equivalent to reducing carbon dioxide by 19800 tons.

4. Green products, improving the energy efficiency of digital infrastructure

At present, with more than 500 green innovation patents, ZTE continuously increases efficiency and reduces energy consumption, and contributes to building a green and low-carbon society through technological innovations. In the future, ZTE will continue to

enhance basic research in new energy, new materials, and new components, achieve key technological breakthroughs, promote more in-depth application of digital technologies in more fields for sustainable development, and ultimately achieve the goal of carbon neutrality.

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

C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	5	9,873.2
To be implemented*	2	2,331.5
Implementation commenced*	1	2,017
Implemented*	5	16,279.5
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Low-carbon energy generation
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

3,362.71

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

1,753,155

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

Implemented: Solar equipment is installed on the roof. This project is invested by environmental protection companies, and ZTE does not need to invest in it. Part of the electricity bills saved in the future are the profits of environmental protection companies.

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

3,347

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

2,430,066

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

Implemented: Indoor LED lights are replaced. This project is invested by environmental protection companies, and ZTE does not need to invest in it. Part of the electricity bills saved in the future are the profits of environmental protection companies.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

49.2

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

58,462

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

91,700

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Implemented: Outdoor LED lights are replaced. This project is invested by environmental protection companies, and ZTE does not need to invest in it. Part of the electricity bills saved in the future are the profits of environmental protection companies.

Initiative category & Initiative type

Low-carbon energy consumption
Hydropower (capacity unknown)

Estimated annual CO2e savings (metric tonnes CO2e)

3,783

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

3,825,720

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

Water storage and cooling project in ZTE's Shenzhen area. The company does not need to invest. Part of the electricity bills saved in the future are the profits of environmental protection companies.

Initiative category & Initiative type

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

Estimated annual CO2e savings (metric tonnes CO2e)

5,737.6

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

4,323,862

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

600,000

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

Replacing the old Air Conditioners with high energy efficiency conditioners

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	On June 18, 2013, the Shenzhen carbon trading was officially launched, and ZTE was included in the first batch of 635 industrial company. The Shenzhen government determines the company's annual target carbon intensity in accordance with the company's annual carbon intensity and industry carbon intensity, and then

	<p>allocates annual carbon quotas.</p> <p>To achieve the carbon intensity target and quota, ZTE will promote energy conservation and emission reduction activities within the company to reduce carbon emissions.</p>
Employee engagement	ZTE organizes energy conservation and emission reduction activities every year, to improve employees' awareness of energy conservation and energy conservation.
Internal incentives/recognition programs	ZTE takes the project-based operation of energy conservation and emission reduction projects, formulates project objectives and milestones at the beginning of the year, and gives rewards to employees who have made great contributions to the projects in accordance with the achievement of the objectives and milestones.
Partnering with governments on technology development	<p>ZTE cooperates with environmental protection companies on solar energy, water storage, and cooling projects.</p> <p>ZTE and the Academy of Information and Communications Technology (CAR) jointly complete the LCA model of terminal products, and discuss and study the formulation of the roadmap of carbon neutralization technologies in vertical industries for ICT empowerment.</p>
Other Stakeholder engagement	<p>ZTE has established a supplier CSR management system covering labor rights, health and safety, environmental protection (including climate change and energy conservation and emission reduction), business ethics, and sub-tier supplier CSR management. ZTE releases the Supplier CSR Code of Conduct, which is embedded into the new supplier certification process, cross-category certification process of existing suppliers, existing supplier supervision and audit process, new site or site change review process for existing suppliers, and related IT systems. CSR management requirements are defined for each key step of the supplier's full lifecycle.</p> <p>ZTE requests strategic suppliers to actively participate in the CDP projects, including the activities related to the CDP forum. In 2021, 48 leading suppliers have submitted the 2020 CDP Questionnaire. At the same time, the company has been actively engaged in carbon emission reduction and empowerment of suppliers. For example, in 2021, the expert was invited to provide "climate change and carbon emissions disclosure" training for more than 80 suppliers, and in 2022, "dual-carbon strategy and greenhouse gas verification" training was provided for more than 70 suppliers.</p>

C4.5

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

Yes

C4.5a

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

Level of aggregation

Product or service

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

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

Type of product(s) or service(s)

Other

Other, please specify

Software solution: PowerPilot; 2) hardware solution: UniRAN Neo 3) 5G cloud core network 4) bearer product 5) energy product

Description of product(s) or service(s)

1. The PowerPilot solution integrates such intelligent technologies as artificial intelligence, big data analysis, and intelligent energy-saving platform and intelligent base station to perceive network load and capability etc. The solution can effectively reduce network energy consumption by over 30%.

2. The UniRAN Neo solution greatly simplifies the construction of wireless sites. The whole site energy consumption can be reduced by 40% or above.

3. The ZTE 5G cloud core network builds a green and low-carbon network from four levels: Architecture, deployment, process and coordination.

4. In the transport field, ZTE practices dual-carbon practices at multiple levels and dimensions from components, boards, devices, to networks.

Component level: the size and power consumption is reduced by 50%.

Board level: reduces the power consumption of the fans by 30%.

Network level: the annual average energy saving is 15%.

5. Energy products:

Low carbon power is achieved through the whole chain of energy. Solar energy and other green energy are designed to use for the products. In the energy conversion part, efficient power supply is used to reduce conversion loss. In the site construction part, low carbon power is achieved for site construction to achieve fast deployment, save power consumption of air conditioners and sites, and improve site construction efficiency. In addition, network cloud management improves energy efficiency and O&M efficiency.

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

Yes

Methodology used to calculate avoided emissions

Methodology for Environmental Life-Cycle Assessment of Information and Communication Technology Goods, Networks and Services (ITU-TL.1410)

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

Cradle-to-grave

Functional unit used

Energy consumption during network use, energy consumption throughout the site, system power consumption, resource pool fragment rate, solar energy power generation, and product lifecycle carbon emissions

Reference product/service or baseline scenario used

Compare it with products or solutions that do not implement energy saving measures.

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

Cradle-to-grave

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

1,000

Explain your calculation of avoided emissions, including any assumptions

In 2021, the carbon footprint of the ICT assets and facilities purchased from ZTE will be reduced by about 10million tCO₂e. ZTE is one of the major operators in China, and the annual statistics of energy consumption and emissions reflect the corresponding decline trend.

The total 10 million tCO₂e / amount of Functional unit = Estimated avoided emissions

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

90

C5. Emissions methodology

C5.1

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

No

C5.1a

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

Row 1

Has there been a structural change?

No

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology Yes, a change in boundary Yes, a change in reporting year definition	Method: we calculate the greenhouse gas emissions based on the ISO 14060 -1:2018 series in 2021 and got certification on 2022. Organization boundaries: Include all R&D and production bases in China, overseas representative offices, and domestic controlled subsidiaries in normal operation. Base year: Updated to 2021.

C5.1c

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

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	Yes	Our organizational boundaries have changed, including all R&D and production bases in China, overseas representative offices, and domestic holding subsidiaries. In the past, only all R&D and production bases in China were included. Therefore, the corresponding base year is updated to 2021.

C5.2

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

Scope 1

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

79,182.39

Comment

Scope 2 (location-based)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

725,424.18

Comment

Scope 2 (market-based)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

725,424.18

Comment

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

8,976,005.44

Comment

Scope 3 category 2: Capital goods

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

2,363.62

Comment

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

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

166,293.81

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

304,171.59

Comment

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

34.16

Comment

Scope 3 category 6: Business travel

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

137,482.85

Comment

Scope 3 category 7: Employee commuting

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

64,180.95

Comment

Scope 3 category 8: Upstream leased assets

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

9,330.66

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO₂e)

193,350.52

Comment

Scope 3 category 10: Processing of sold products

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Irrelevant. ZTE has not sold intermediate products.

Scope 3 category 11: Use of sold products

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

88,830,249.97

Comment

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

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

61.14

Comment

Scope 3 category 13: Downstream leased assets

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

There are few downstream leased assets in ZTE 2021, and the proportion can be ignored.

Scope 3 category 14: Franchises

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

This company does not involve franchising, so it is irrelevant and not calculated.

Scope 3 category 15: Investments

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

The main economic activities of ZTE are product production and sales, and the investment proportion can be ignored.

Scope 3: Other (upstream)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Irrelevant. All upstream nodes are included in the above calculation.

Scope 3: Other (downstream)

Base year start

January 1, 2021

Base year end

December 31, 2021

Base year emissions (metric tons CO2e)

0

Comment

Irrelevant. All downstream nodes are included in the above calculation.

C5.3

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

ISO 14064-1

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

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO₂e)

79,182.39

Comment

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

C6.3

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

Reporting year

Scope 2, location-based

725,424.18

Scope 2, market-based (if applicable)

725,424.18

Comment

C6.4

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

No

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

8,976,005.44

Emissions calculation methodology

Other, please specify

Based on the weights of different types of purchased goods and service

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

0

Please explain

Calculation method: Based on the weights of different types of purchased goods and services: the weights *CO₂ emission coefficient (IPCC 2006 years CO₂ emission coefficient) * GWP (IPCC the sixth assessment report (2021)), the total amount of carbon emissions is the sum.

Data is not obtained from suppliers, but from the ERP system of ZTE.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

2,363.62

Emissions calculation methodology

Other, please specify

Based on the fixed assets list of the company, calculate the weight of different types of fixed assets

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

0

Please explain

Based on the fixed assets list of the company, calculate the weight of different types of fixed assets, and the weight *CO2 coefficient (CO2 coefficient in IPCC 2006) * GWP (IPCC the sixth evaluation report (2021)). All the sum shall be added up to get the total amount of carbon emissions.

Data is not obtained from suppliers, but from the company's own system.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

166,293.81

Emissions calculation methodology

Fuel-based method

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

0

Please explain

The company's auxiliary material production and infrastructure, power production and infrastructure, steam production and infrastructure, and product use process all involve the activities related to fuel and energy. The activity data is obtained through our requisition record, payment invoice and ERP system. The total of the activity data * CO2 emission coefficient (CO2 emission coefficient in IPCC 2006) * GWP (IPCC the sixth assessment report (2021)) is the total amount of carbon emissions. It is not necessary to obtain data from suppliers.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

304,171.59

Emissions calculation methodology

Distance-based method

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

0

Please explain

Get the transportation distance through ERP system, and the transportation distance * carbon emission coefficient (CO2 emission coefficient IPCC 2006) * GWP (IPCC sixth assessment report (2021), and finally get the total carbon emission.

Data is not obtained from suppliers, but from the ERP system of ZTE.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

34.16

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

Based on the company's waste list and ERP system, get the waste weight, waste weight * carbon emission coefficient (IPCC 2006 CO2 emission coefficient) * GWP (IPCC sixth assessment report (2021), and finally get the total carbon emissions.

Data is not obtained from suppliers, but from the ERP system of ZTE.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

137,482.85

Emissions calculation methodology

Distance-based method

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

0

Please explain

According to the business trip expenses of the company, calculate the distance between different business trips (flight, train and vehicle), travel distance * carbon emissivity (IPCC 2006 CO2 emission coefficient) * GWP (IPCC sixth assessment report (2021), and finally get the total carbon emissions.

It is not necessary to obtain data from suppliers, but obtain and calculate data from ZTE's financial system.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

64,180.95

Emissions calculation methodology

Distance-based method

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

0

Please explain

Based on the parking space statistics table and the number of employees, the total carbon emissions are calculated by calculating the commuter distance of the employees, commuter distance *by the carbon emission coefficient (IPCC 2006 years CO2 emissivity) * GWP (IPCC sixth assessment report (2021). and finally get the total carbon emissions.

It is not necessary to obtain data from suppliers, but obtain and calculate data from ZTE's financial system.

Upstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

9,330.66

Emissions calculation methodology

Other, please specify

The upstream leased assets mainly consume electricity. Based on the energy consumption of the upstream leased assets

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

0

Please explain

The upstream leased assets mainly consume electricity. Based on the energy consumption of the upstream leased assets * carbon coefficient (CO2 emission coefficient in IPCC 2006) * GWP (IPCC sixth assessment report (2021)), the total carbon emissivity is calculated.

Data is not obtained from suppliers, but is obtained and calculated from the company system.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

193,350.52

Emissions calculation methodology

Distance-based method

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

0

Please explain

Get the transportation distance through ERP system, and the transportation distance * carbon emission coefficient (CO2 emission coefficient IPCC 2006) * GWP (IPCC sixth assessment report (2021)), and finally get the total carbon emission.

Data is not obtained from suppliers, but from the ERP system of ZTE.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

None. ZTE has not sold intermediate products.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

88,830,249.97

Emissions calculation methodology

Average product method

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

0

Please explain

Estimated sales volume of products in the current year

1. Calculate the total carbon data generated per hour during the use of the product based on the rated power of the product.
2. Average daily operation duration (in hours) of various products within the service life of products
3. Calculate the lifespan of different types of products in the company.
4. Count the sales of different types of products in 2021.

Grid emission factor database, which comes from the basic database of LCA evaluation software GaBi and uses the grid emission factor of the state.

Total carbon emissions = Total of 1*2*3*4

End of life treatment of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

61.14

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

Based on the ERP system of the company, get the weight of the waste products sold and recycled by the company, the waste weight * the carbon emission coefficient (CO2 emission coefficient in IPCC 2006) * GWP (IPCC sixth assessment report (2021), and finally get the total carbon emissions.

Data is not obtained from suppliers, but from the ERP system of ZTE.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

The company does not involve any leased downstream assets in 2021, so no calculation is required.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

This company does not involve franchising, so it is irrelevant and not calculated.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

The main economic activities of ZTE are product production and sales, and the investment proportion can be ignored.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

All upstream nodes are included in the above calculation.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

All upstream nodes are included in the above calculation.

C6.7

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

No

C6.10

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

Intensity figure

7.0258

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

804,606.57

Metric denominator

Other, please specify

Operating revenue (million RMB CNY)

Metric denominator: Unit total

114,521.6

Scope 2 figure used

Location-based

% change from previous year

58

Direction of change

Increased

Reason for change

In the last year, the emission statistics boundary of Scope 1 and Scope 2 is China Region domain. This year, the statistics boundary is ZTE's global operation scope.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO ₂ e)	GWP Reference
CO ₂	46,114.12	IPCC Sixth Assessment Report (AR6 - 100 year)
CH ₄	3,554.49	IPCC Sixth Assessment Report (AR6 - 100 year)
N ₂ O	1,659.51	IPCC Sixth Assessment Report (AR6 - 100 year)
HFCs	27,848.03	IPCC Sixth Assessment Report (AR6 - 100 year)
PFCs	0	IPCC Sixth Assessment Report (AR6 - 100 year)
SF ₆	6.24	IPCC Sixth Assessment Report (AR6 - 100 year)
NF ₃	0	IPCC Sixth Assessment Report (AR6 - 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO ₂ e)
China	79,182.39

C7.3

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

By facility

C7.3b

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

Facility	Scope 1 emissions (metric tons CO ₂ e)	Latitude	Longitude
Shanghai R&D	2,792.37	31	121
Nanjing R&D	7,716.26	32	118
Nanjing Manufacture Site	7,390.98	39	116
Changsha Manufacturing Site	2,709.64	28	112
Xi'an R&D and Manufacturing Site	7,178.76	34	108
Shenzhen R&D and Manufacturing Site and all other ZTE's operation sites except Nanjing, Shanghai, Changsha, Xi'an, Heyuan	48,350.78	22	113
Heyuan Manufacturing Site	3,043.6	23	114

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
China	725,424.18	725,424.18

C7.6

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

By facility

C7.6b

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

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Shanghai R&D	34,065.81	34,065.81
Nanjing R&D	113,475.53	113,475.53
Nanjing Manufacturing Site	141,832.61	141,832.61
Changsha Manufacturing Site	26,913.21	26,913.21
Xi'an R&D and Manufacturing Site	107,582.25	107,582.25
Shenzhen R&D and Manufacturing Site and all other ZTE's operation sites except Nanjing, Shanghai, Changsha, Xi'an, Heyuan	240,533.47	240,533.47
Heyuan Manufacturing Site	61,021.3	61,021.3

C7.9

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

Increased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
--	--	---------------------	------------------------------	----------------------------

Change in renewable energy consumption	0	No change	0	ZTE's renewable energy is mainly solar power, and the carbon emissions of solar power are 0.
Other emissions reduction activities	16,279.5	Decreased	3.8	According to the data of C4.3a, the carbon reduction initiatives that have been implemented by ZTE in 2021 reduced a total of 16279.5 tons, and 2020 ZTE scope 1 emission was 18676.16 tons and scope 2 emission was 432398.06 tons. The percentage of reduction = reducing carbon emissions / total emissions in scope 1 + scope 2: $16279.5 / (18676.16 + 432398.06) = 3.8\%$
Divestment				
Acquisitions				
Mergers				
Change in output				
Change in methodology				
Change in boundary	353,532.35	Increased	58	The data calculated in 2020 is the carbon data of ZTE's China Region domain. The data calculated in 2021 is the carbon data of ZTE's global region.
Change in physical operating conditions				
Unidentified				
Other				

C7.9b

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

Location-based

C8. Energy

C8.1

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

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

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	224,560	224,560
Consumption of purchased or acquired electricity		0	889,549	889,549
Consumption of purchased or acquired steam		0	2,630	2,630

Consumption of self-generated non-fuel renewable energy		2,565		2,565
Total energy consumption		2,565	1,116,739	1,119,304

C8.2b

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

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

C8.2c

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

Sustainable biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

无

Other biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

无

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

无

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

无

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

125,580

MWh fuel consumed for self-generation of electricity

120

MWh fuel consumed for self-generation of heat

125,460

Comment

无

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

98,980

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

98,980

Comment

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

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

224,560

MWh fuel consumed for self-generation of electricity

120

MWh fuel consumed for self-generation of heat

224,440

Comment

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	2,685	2,685	2,565	2,565
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

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

Sourcing method

Direct line to an off-site generator owned by a third party with no grid transfers

Energy carrier

Electricity

Low-carbon technology type

Solar

Country/area of low-carbon energy consumption

China

Tracking instrument used

Contract

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

2,565

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

China

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

2,013

Comment

C8.2g

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

Country/area

China

Consumption of electricity (MWh)

889,549

Consumption of heat, steam, and cooling (MWh)

229,755

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

1,119,304

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 ISO14064-EN.pdf

Page/ section reference

1-4

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 ISO14064-EN.pdf

Page/ section reference

1-4

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

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

Scope 3 category

- Scope 3: Purchased goods and services
- Scope 3: Capital goods
- Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Upstream transportation and distribution
- Scope 3: Waste generated in operations
- Scope 3: Business travel
- Scope 3: Employee commuting
- Scope 3: Upstream leased assets
- Scope 3: Investments
- Scope 3: Downstream transportation and distribution
- Scope 3: Processing of sold products
- Scope 3: Use of sold products
- Scope 3: End-of-life treatment of sold products
- Scope 3: Downstream leased assets
- Scope 3: Franchises

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 ISO14064-EN.pdf

Page/section reference

1-4

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Year on year change in emissions (Scope 1 and 2)	AA1000AS	The third party also verified the total power consumption, natural gas consumption, diesel oil, gasoline, and solar power generation. For details, refer to P80, 84 of ZTE's sustainability report.  1

 12021 Sustainability Report.pdf

C11. Carbon pricing

C11.1

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

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Shenzhen pilot ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Shenzhen pilot ETS

% of Scope 1 emissions covered by the ETS

2.2

% of Scope 2 emissions covered by the ETS

22.34

Period start date

January 1, 2021

Period end date

December 30, 2021

Allowances allocated

82,000

Allowances purchased

80,000

Verified Scope 1 emissions in metric tons CO₂e

1,740.02

Verified Scope 2 emissions in metric tons CO₂e

162,068.57

Details of ownership

Facilities we own and operate

Comment

C11.1d

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

In 2014, ZTE was included in the pilot ETS in Shenzhen as the first batch of enterprises. The government allocates carbon quotas to ZTE every year. If ZTE's carbon emissions exceed the allocated carbon quotas in that year, ZTE will purchase carbon quotas. Therefore, the company needs to try to reduce carbon emissions and the cost of purchasing carbon quotas. Each year, the company formulates energy-saving and emission-reducing projects, such as installing solar photovoltaic equipment, replacing LEDs, transforming production equipment for energy saving, and transforming air conditioners, saving 16279.5 tons of carbon dioxide emissions each year.

According to the latest GSMA report, the annual carbon emissions generated in the mobile communications industry account for 0.4% of the global total carbon emissions. The early achievement of carbon peak and carbon neutralization is also the direction of the industry-wide joint efforts. To build a green network for energy saving and consumption reduction, ZTE advocates taking positive measures from the full lifecycle of the network.

The production and manufacturing links at the upstream of the industry rely on multiple technologies such as 5G+, such as industrial Internet, MEC and AI, to achieve more efficient and intelligent production, energy saving and emission reduction. In terms of BS product innovation, the energy efficiency of products can be continuously improved through chip design, efficient amplifier and highly integrated design. In the network construction link, sites can consider the introduction of clean energy and more efficient backup technologies. The data center can use new heat dissipation technologies such as modular design and liquid cooling to further reduce carbon emissions. In the network operation stage, the energy-saving scheme similar to PowerPilot can be used to reasonably dispatch and allocate services through intelligent algorithms, thus achieving the optimal energy consumption per bit while guaranteeing the user experience.

C11.2

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

No

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

- Stakeholder expectations
- Change internal behavior
- Drive energy efficiency

GHG Scope

- Scope 1
- Scope 2
- Scope 3

Application

During internal operation, we take the price of carbon quotas into full consideration, and carry out energy conservation and emission reduction projects to reduce carbon emissions and thus reduce the company's cost of purchasing carbon quotas.

During the R&D and design of products, the carbon emissions and prices during product

materials, operation, and use are fully considered. Energy-efficient products are developed, carbon emissions are reduced, and the company's costs and customer costs are reduced.

The company has set up a project award for its energy conservation and emission reduction projects. For the reduced carbon emissions of the project, a certain proportion of the reduced costs shall be awarded for team members.

Actual price(s) used (Currency /metric ton)

29.2

Variance of price(s) used

The prices in the carbon market are constantly changing. We adjust our internal prices in accordance with the changes in the market prices.

Type of internal carbon price

Shadow price

Internal fee

Impact & implication

In 2014, ZTE was included in the pilot ETS in Shenzhen as the first batch of enterprises. The government allocates carbon quotas to ZTE every year. If ZTE's carbon emissions exceed the allocated carbon quotas in that year, ZTE will purchase carbon quotas. Therefore, the company needs to try to reduce carbon emissions and the cost of purchasing carbon quotas. Therefore, in addition to energy conservation and emission reduction projects, ZTE has formulated internal carbon prices in accordance with the market carbon prices, which are applied in energy conservation and emission reduction projects of various units of ZTE. Such as energy saving in R&D laboratories, production reconstruction, and office. We have defined the objective of energy saving and emission reduction for each project. If the objective is achieved and carbon emissions are saved, we will calculate the total cost saving based on the internal carbon price, and reward the project team members in proportion.

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers/clients

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

100

Rationale for the coverage of your engagement

ZTE's Supplier CSR Agreement and Supplier Code of Conduct include environment and climate change requirements. ZTE requires all suppliers to sign CSR agreements and comply with supplier codes of conduct.

ZTE regards compliance as a basic requirement for suppliers, including compliance with laws and regulations related to environment and climate change. In addition, ZTE's supply chain has incorporated climate risks. Therefore, ZTE has always allowed 100% of suppliers to comply with laws and regulations related to climate change and energy. Since 2012, ZTE has signed CSR agreements with suppliers, including compliance related to environmental laws and regulations and climate issues.

Impact of engagement, including measures of success

ZTE has incorporated the green and low-carbon requirements into the entire supplier management process, and clarified the green and low-carbon requirements in key links such as supplier agreement signing, on-site audit, and performance evaluation.

These measures will improve suppliers' awareness and capabilities of energy conservation and emission reduction, and provide environment-friendly and low-carbon materials from the source, thereby enhancing the market competitiveness of ZTE products.

ZTE takes the percentage of suppliers who have signed the CSR agreement (exceeds 85%) as the measures of success. In 2018, 84% signed the CSR agreement. In 2019, 86% signed the CSR agreement. In 2020, 87% signed the CSR agreement. In 2021, 88% signed the CSR agreement, exceeding the 85% standard.

Comment

C12.1b

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

Type of engagement & Details of engagement

Collaboration & innovation

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

100

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

90

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

As a global company, ZTE provides innovative technologies and product solutions for telecom operators and government & enterprise customers in more than 160 countries and regions around the world. Customers both at home and abroad have proposed requirements for energy saving and emission reduction of ZTE products, including disclosure of carbon data, provision of carbon footprint data of products and reduction of energy consumption of products.

By Q2 2022, 87 leading operators had set SBTi. Major operators, such as Telenor, Orange, Verion, Telia, Tele2, Vodafone, AT&T, Bharti, Telefonica, Deutsche Telekom AG, T-Mobile, ELISA and Swisscom, put forward requirements for the Supply Chain. For example, they advised to set SBTi and provide the carbon dioxide lifecycle report (LCA) of the products. They required to fill in the energy consumption of the products and the energy saving improvement solutions from R&D to production, which will affect the company's costs, sales, and business reputation.

In addition, major operators have increased the weight of carbon emissions in the bidding questionnaire.

ZTE recognizes that if carbon emissions are not reduced without the development of low-carbon products, customers will be lost, and the market share and sales amount will be affected. Therefore, the company fully cooperates with operators and government and enterprise customers at home and abroad to help customers reduce carbon emissions by using our products, technologies, and solutions.

For example, on November 24, 2021, ZTE held the 5G Summit 2021 and User Congress through online channels. Industry leaders such as GSMA, Omdia, CCS Insight, Hutchison Drei Austria, China Mobile and China Telecom are gathered in the cloud to discuss in-depth how to build a digital ecosystem and build a future 5G digital era together with ZTE. ZTE CEO Xu Ziyang said at the meeting: "ZTE has been deeply involved in the ICT technology for 36 years, and insists on end-to-end technical innovation. Wireless access, wired access, core network, all-optical transport network, IP data network, computing power infrastructure, green energy, cloud service components, digital applications and terminals, and other solutions help operators lay the foundation for the digital transformation of society and industry. "

Impact of engagement, including measures of success

The cooperation with the customer has led to significant progress in physical energy consumption and emission intensity of ZTE products. In 2021, the carbon footprint of the ICT assets purchased by the customer from ZTE will be reduced by about 10 million

tCO₂e. ZTE is one of the major operators in China, and the annual statistics of energy consumption and emissions reflect the corresponding decline trend.

The successful performance of the company is measured by its energy-saving products of above 30% energy saving products or by its top three global market shares.

According to the 2022 Q1 report released by Dell'Oro Group, a well-known consulting firm in the world, ZTE FTTx ranks second in the global market share and continues to be in the leading position in the industry.

The company's PowerPilot solution integrates such intelligent technologies as artificial intelligence and big data analysis. It organically combines the intelligent energy-saving platform and intelligent BTS to perceive the network load and network capability, and forms an energy-saving closed loop by network load prediction, energy-saving strategy and optimization, and real-time KPI performance monitoring. When the network performance requirement changes, the energy-saving strategy should be changed in time, less man-machine interaction and improving efficiency. In this way, the energy-saving technologies in the time domain, frequency domain and air domain can be deployed in the network in an adaptive and deep way without the worry. Effectively reduce network energy consumption by over 30%.

The UniRAN Neo solution greatly simplifies the construction of wireless sites. With the continuous improvement of the self-developed chip processing capability, the multi-frequency and multi-sector integration is realized in the construction of wireless sites, effectively reducing the number of site modules, simplifying site deployment and significantly reducing the antenna installation cost. The whole site energy consumption can be reduced by 40% or above.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

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

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

ZTE has incorporated the green and low-carbon requirements into the entire supplier management process, and clarified the green and low-carbon requirements in key links such as supplier agreement signing, on-site audit, and performance evaluation.

These measures will improve suppliers' awareness and capabilities of energy conservation and emission reduction, and provide environment-friendly and low-carbon materials from the source, thereby enhancing the market competitiveness of ZTE

products.

ZTE's Supplier CSR Agreement and Supplier Code of Conduct include environment and climate change requirements. Since 2012, ZTE requires all suppliers to sign CSR agreements and comply with supplier codes of conduct.

ZTE regards compliance as a basic requirement for suppliers, including compliance with laws and regulations related to environment and climate change. In addition, ZTE's supply chain has incorporated climate risks. Therefore, ZTE has always allowed 100% of suppliers to comply with laws and regulations related to climate change and energy.

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

100

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

100

Mechanisms for monitoring compliance with this climate-related requirement

- Certification
- First-party verification
- Off-site third-party verification

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

Retain and engage

C12.3

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

Row 1

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

Yes, we engage directly with policy makers

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

ZTE has committed to achieve the national carbon peak before 2030 and the carbon neutralization before 2060, which are indirect commitments to comply with the objectives of the Paris Agreements.

Refer to P61 of ZTE's Sustainability Report: On a green path to the digital economy, ZTE is determined to achieve "carbon peak" before 2030 and "carbon neutrality" before 2060. Towards this goal, ZTE is making great efforts to promote green operations, green supply chain, green digital infrastructures, and empowerment for the green

development of industries despite various challenges posed by the low carbon transformation

 2021 Sustainability Report.pdf

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

ZTE has set up a joint company-level dual-carbon project team led by COO and CSO, with 170 direct members. The work of the team has been guided by consulting institutions and supported by all employees of the company.

ZTE is implementing a 2022 emission reduction project to reduce emissions from R&D, production, and administrative activities. This year, many tasks are being executed, such as improving energy conservation and emission reduction awareness for all employees, studying on purchasing green power, building and using an energy management system, saving fuel in the vehicle fleet, energy conservation of R&D laboratory systems, air conditioning reconstruction, and energy conservation optimization of production processes.

C12.3a

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

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

Adaptation and/or resilience to climate change

Carbon tax

Climate-related targets

Electricity grid access for renewables

Emissions trading schemes

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

ZTE participated in the enterprise surveys and interviews held by the Ministry of Industry and Information Industry of China and other government departments (Environmental Protection Bureau) during the policy-making process. ZTE expressed its concerns and suggestions through written answers and speeches, such as suggestions on industry emission reduction objectives, carbon neutralization costs, concerns about the accelerated development of carbon and new energy trading markets, and expectations about industry climate standards.

ZTE also received climate change inquiries from the Stock Exchange, and responded in a timely manner.

Policy, law, or regulation geographic coverage

National

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

China

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

Neutral

Description of engagement with policy makers

ZTE participated in the enterprise surveys and interviews held by the Ministry of Industry and Information Industry of China and other government departments (Environmental Protection Bureau) during the policy-making process. ZTE expressed its concerns and suggestions through written answers and speeches, such as suggestions on industry emission reduction objectives, carbon neutralization costs, concerns about the accelerated development of carbon and new energy trading markets, and expectations about industry climate standards.

ZTE also received climate change inquiries from the Stock Exchange, and responded in a timely manner.

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

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

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

Publication

In mainstream reports

Status

Complete

Attach the document

 2021 Sustainability Report.pdf

Page/Section reference

65, 83

Content elements

Governance

Strategy

Risks & opportunities
Emissions figures
Emission targets

Comment

C15. Biodiversity

C15.1

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

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, executive management-level responsibility	

C15.2

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

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity
Row 1	No, and we do not plan to do so within the next 2 years

C15.3

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

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	Yes, we assess impacts on biodiversity in both our upstream and downstream value chain

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Other, please specify Use our ICT technologies to protect biodiversity.

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

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

C15.6

(C15.6) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	the world's first 5G messaging app, Panda's Coming P52  1

 12021 Sustainability Report.pdf

C16. Signoff

C-FI

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

N/A

C16.1

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

	Job title	Corresponding job category
Row 1	COO	Chief Operating Officer (COO)