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Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial)
Disclaimer Statement
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Chapter I General Provisions

Article 1 These Guidelines are established by the Shanghai Stock Exchange ("SSE" or the "Exchange") in accordance with the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, the Measures for the Administration of Information Disclosure of Listed Companies, the Governance Standards for Listed Companies, and other laws, administrative regulations, ministry-level rules, and normative documents (collectively, "Laws and Regulations") as well as rules including the Rules Governing the Listing of Stocks on Shanghai Stock Exchange and the Rules Governing the Listing of Stocks on the Science and Technology Innovation Board of Shanghai Stock Exchange, for the purposes implementing the new development philosophy, promoting high-quality development, encouraging listed companies to practice sustainability thinking, and regulate the disclosure of sustainability-related information.

- Article 2 Each listed company shall incorporate sustainability thinking into its development strategies and business and management activities; strengthen ecological and environmental protection, the fulfillment of social responsibilities, and corporate governance on an ongoing basis; steadily improve its capacity for corporate governance, competitiveness, capacity for innovation, risk resilience, and profitability; promote the sustainable development of itself and the broader economy and society; and progressively increase its positive impact on the economy, the society, and the environment.
- Article 3 Any company that is a constituent of the SSE 180 Index or the STAR 50 Index, or is listed simultaneously in Chinese Mainland and overseas markets, shall publish its Sustainability Report or ESG (Environmental, Social, and Governance) Report (collectively, "Sustainability Report") in accordance with these *Guidelines* and the relevant rules of the Exchange. The Exchange encourages other listed companies to also voluntarily publish their Sustainability Reports; any content in such report that is governed by these *Guidelines* must comply with the requirements of these *Guidelines*.

The term "constituent" as used in the preceding paragraph refers to any company that is included in the corresponding index throughout the entirety of a reporting period.

Listed companies that publish Sustainability Reports, either in compliance with these *Guidelines* or voluntarily, are hereinafter collectively referred to as "disclosing entities."

Article 4 A disclosing entity shall prepare its Sustainability Report in accordance with these *Guidelines* within four months following the end of each fiscal year, and, following the approval thereof by its board of directors, publish it no earlier than its annual report.

The Sustainability Report and the annual report shall be consistent in terms of the disclosing entity and reporting period.

Article 5 A disclosing entity shall identify whether each topic in these *Guidelines* is expected to have a major impact on such aspects as its business model, operations, development strategy, financial positions, operating results, cash flows, and financing methods and costs over the short, medium, and long term ("financial materiality") and whether its performance in that topical area has a material impact on the economy, society, and environment ("impact materiality"), and explain how that materiality analysis is conducted, in each case taking into consideration of the industry it operates in and the characteristics of its businesses.

For any topic specified in these *Guidelines* that the disclosing entity believes to be having neither financial materiality nor impact materiality, the disclosing entity shall offer explanations in accordance with Article 7 of these *Guidelines*.

Aside from the topics stipulated by these *Guidelines*, a disclosing entity shall also identify and disclose information on other topics that have financial materiality or impact materiality according to the requirements of the *Guidelines* based on such considerations as the characteristics of the industry it operates in, the level of maturity of that industry, and its own business model and its position in the value chain.

Article 6 The sustainability-related information disclosed by a disclosing entity shall objectively and accurately reflect the entity's performance in sustainable development. No disclosing entity shall make selective disclosure, conflict with any information disclosed according to law, or mislead investors and other stakeholders. The disclosing entity shall further comply with the following requirements:

- (1) It shall use the terms, units, and measurement methods prescribed by such norms as national, local, industry, or recognized international standards, and ensure data are measured and calculated through consistent methods to facilitate comparisons of its quantitative data and information from different time periods as well as comparisons of the information of different disclosing entities.
- (2) It shall identify the source of all referenced data and explain all specialized terminologies in a plain language; and
- (3) If there is a change to how data are collected, measured, or calculated, the disclosing entity shall make retrospective adjustment to the affected data and explain how and why the adjustment is made or explain why such retrospective adjustment is impracticable.

The disclosing entity shall increase its use of information and digital technologies in the collection, calculation, and analysis of sustainability-related data, and continuously improve the reliability and comparability of data and the quality of sustainability disclosures.

Article 7 If a disclosing entity is unable to perform its information disclosure obligations in compliance with certain provisions of these *Guidelines* or such disclosure may seriously harm its interests, or if certain provisions are inapplicable or not of financial materiality or impact materiality, in each case because the information involves state secret or commercial secret or because of some other special circumstances, the disclosing entity may adjust what it discloses or take alternative actions based on its circumstances on condition that it adequately

explains the reasons for its choice.

The provisions of the preceding paragraph are not applicable where the disclosure of the disclosing entity's sustainability-related information is mandated by Laws and Regulations.

- Article 8 If a disclosing entity discloses estimated or forward-looking information such as financial impact, GHS emission reduction targets, it shall base such information on reasonable assumptions and premises and make adequate risk disclosures on any major factors that may impact the accuracy of these evaluations or forecasts. Any material change in the assumptions or premises that underlies the evaluation or forward-looking information shall be promptly disclosed.
- Article 9 A disclosing entity shall take note of the requests and concerns of stakeholders. The Exchange encourages each disclosing entity to understand and collect feedbacks on the Sustainability Report from stakeholders, and to facilitate effective communications with stakeholders through such means as interviews, roundtable discussions, and surveys, to improve the quality of sustainability disclosures.
- Article 10 In identifying sustainability-related impacts, risks, and opportunities, evaluating the financial implications of sustainability-related risks and opportunities, determining the scope of the value chain, and performing scenario analysis, a disclosing entity shall employ methods in line with its capabilities, the results of its previous works, and its resources to collect information that can be both reasonably accessible and affordable.

Chapter II Disclosure Framework for Sustainability Information

Article 11 For any topic specified in these *Guidelines* that has and any topic identified in accordance with paragraph 3, Article 5 of these *Guidelines* by the disclosing entity as having financial materiality, the disclosing entity shall analyze and make disclosures on the topic in accordance with the following four key aspects as well as the rules of these *Guidelines* for that specific topic:

- (1) Governance: This refers to the governance structure and internal rules that it uses to manage and oversee sustainability-related impacts, risks, and opportunities;
- (2) Strategy: This refers to the planning, tactics, and methods it uses to address the sustainability-related impacts, risks, and opportunities;
- (3) Impacts, Risks, and Opportunities Management: This refers to the measures and processes it implements to identify, assess, monitor, and manage the sustainability-related impacts, risks, and opportunities; and
- (4) Indicators and Targets: These are the metrics and goals it uses to measure, manage, oversee, and evaluate its response to the sustainability-related impacts, risks, and opportunities.

For any topic specified in these *Guidelines* that has and any topic identified in accordance with paragraph 3, Article 5 of these *Guidelines* as having only impact materiality to the disclosing entity, the disclosing entity shall make disclosures in accordance with the rules of these *Guidelines* for that specific topic. Disclosures for topics not specified in these *Guidelines* shall be made in accordance with paragraph 3, Article 14 of these *Guidelines*.

- Article 12 A disclosing entity shall develop a sound corporate governance structure and sound internal rules; ensure its relevant internal bodies possess the requisite expertise and can effectively carry out such duties as the identification, assessment, management, and oversight of sustainability-related impacts, risks, and opportunities; and disclose the following governance information:
 - (1) The internal bodies (such as the board of directors and specialized committees) tasked with managing and overseeing sustainability-related impacts, risks, and opportunities, including their composition, authority, tasks, and objectives;
 - (2) The professional expertise and capabilities of the aforementioned internal bodies and personnel in executing and overseeing the strategies and rules and systems for sustainability-related impacts, risks, and opportunities;
 - (3) The information reporting mechanisms the company has established to ensure the aforementioned internal bodies and personnel can be promptly informed of the sustainability-related impacts, risks, and opportunities, including but not limited to the method and frequency of such reports;
 - (4) Information on the setting of targets, execution of strategies, and achievement of goals by the aforementioned internal bodies and personnel in overseeing and managing the sustainability-related impacts, risks, and opportunities, including but not limited to information on internal controls, oversight procedures, oversight measures, and evaluations; and

(5) The measures and methodologies employed by the aforementioned internal bodies and personnel to incorporate sustainability-related impacts, risks, and opportunities into the decision-making process as they oversee strategy implementation, major transaction decisions, and risk management activities of the disclosing entity.

Any disclosing entity that has already established holistic governance structure and internal rules to manage and oversee sustainability-related impacts, risks, and opportunities may make consolidated disclosures of the contents specified in the above paragraphs in lieu of disclosures for the individual topics.

- Article 13 A disclosing entity shall, in accordance with Articles 14 to 17 in these *Guidelines*, analyze and disclose the strategies it uses to address the sustainability-related impacts, risks, and opportunities.
- Article 14 A disclosing entity shall identify and thoroughly assess the sustainability-related risks and opportunities that may have a material impact on such aspects as its business model, operations, development strategy, financial positions, operation results, cash flows, financing methods and costs, over the short, medium, or long term, and shall disclose:
 - (1) The sustainability-related risks (such as the physical and transition risks associated with climate change) and opportunities that the company has identified, as well as the timeframes within which these risks and opportunities will have a material impact on the company; and
 - (2) The company's definitions for short-term, medium-term, and long-term periods, and the alignment of these definitions with its strategic development planning and resource allocation.

The disclosing entity is encouraged whenever appropriate for its circumstances, indicate the effect of the sustainability-related risks and opportunities on its business model, its key suppliers, and other stakeholders within the current period, as well as the regions, facilities, or asset types predominantly affected by these risks and opportunities, and forecast their future impacts.

The disclosing entity shall adequately identify and assess whether its purchasing, production, sales, service, internal management, external investment, and societal activities have a material impact on the economy, society, and environment. It shall disclose the sustainability-related material impacts in both qualitative and quantitative terms, and indicate the measures and actions it takes to monitor, prevent, manage, control, and mitigate such material impacts.

Article 15 A disclosing entity shall disclose the effect of sustainability-related impacts, risks, and opportunities on its strategies and decision-making, including but not limited to:

- (1) Methods employed by the company to develop strategies and make key decisions to address sustainability-related impacts, risks, and opportunities such as strategy decision-making mechanism, management approach etc.;
- (2) The plans developed for achieving the relevant strategic goals and the qualitative and quantitative metrics to evaluate the progress on those plans; and
- (3) The assessments and judgments made by the company regarding the sustainability-related impacts, risks, and opportunities.

Article 16 A disclosing entity shall analyze and disclose the impacts of sustainability-related risks and opportunities on its current period's financial positions, operating results, and cash flows and whether such risks and opportunities will impact its financial positions, operating results, and cash flows in the following year.

The Exchange encourages a disclosing entity to disclose the impacts of sustainability-related risks and opportunities on its financial positions, operating results, and cash flows over the short, medium, and long term, including but not limited to the following qualitative and quantitative information:

- (1) Forecasted trends in the company's assets and liabilities over the short, medium, and long term, taking into account its strategies for managing sustainability-related risks and opportunities, its investment and asset disposal plans, and the corresponding funding sources; and
- (2) Forecasted trends in the company's operating results and cash flows over the short, medium, and long term, taking into account its strategies for managing sustainability-related risks and opportunities.

In disclosing any quantitative information in relation to the aforementioned financial impacts, the disclosing entity shall disclose the specific values or a reasonable range of values as appropriate for the circumstances. If the disclosing entity is incapable of disclosing such quantitative information, or the relevant financial impacts cannot be individually identified, or such quantitative information has no usage value due to the excessive measurement uncertainty, the disclosing entity shall disclose qualitative information in relation to the financial impacts and explain the reasons for not making quantitative disclosures. The disclosing entity shall, to the extent reasonable, additionally provide information and explanations that help investors understand the relevant impacts, and detail its plan, progress, and timetable for the relevant disclosures.

Article 17 A disclosing entity is encouraged to assess and disclose the extent to which its strategies and business models are adapted to the sustainability-related risks,

encompassing such topics as the assessment methods, the timeframes considered, and the outcomes of such assessment.

- Article 18 A disclosing entity shall disclose its procedures for identifying, assessing, and managing the sustainability-related impacts, risks, and opportunities, including but not limited to:
 - (1) Its methodology for identifying and assessing sustainability-related impacts, risks, and opportunities and its approach for estimating their likelihood, severity, and impact;
 - (2) Its priority ranking and ranking standards for the sustainability-related impacts, risks, and opportunities;
 - (3) How the company monitors the sustainability-related impacts, risks, and opportunities such as management mechanism and detailed procedures; and
 - (4) The integration of the processes for managing sustainability-related impacts, risks, and opportunities into the company's internal management procedures, and any adjustments thereto in the reporting period.
- Article 19 A disclosing entity shall disclose the sustainability targets and related indicators mandated by Laws and Regulations and these *Guidelines* or based on the entity's needs, as well as the overall achievement of these targets as of the end of the reporting period and the progress made in the reporting period.

Chapter III Environmental Disclosure

Section 1 Climate Response

- Article 20 A disclosing entity shall actively pursue green and low-carbon growth and support the building of a beautiful China through such means as improving the processes, upgrading the production equipment, optimizing the energy mix, raising energy efficiency in production activities, developing and offering green products and services, and improving and strengthening management.
- Article 21 Aside from disclosing governance related to climate change tackling; strategies; impacts, risks, and opportunities management; indicators; and targets in accordance with Chapter II of these *Guidelines*, a disclosing entity shall also provide information on its climate response as required by this Section.
- Article 22 A disclosing entity shall, in the context of the climate risks and opportunities it has identified, assess the extent to which its strategies, business models, and other similar aspects are adapted to climate change, and disclose:
 - (1) Its assessment of how climate change impacts its strategies and business models, as well as how it responds to these impacts;

- (2) Significant uncertainties it has considered when assessing its climate adaptation; and
- (3) Its capacity to adjust its strategies and business models over the short, medium, and long term to adapt to climate change.

The Exchange encourages those disclosing entities that are able to assess its climate adaptation through scenario analysis, and disclose the key assumptions and the procedures of such scenario analysis.

- Article 23 A disclosing entity shall disclose its transition plans, actions, and progress in responding to climate risks and opportunities, including but not limited to:
 - (1) Adjustments made in the company's current and future strategies, business models, and resource allocation to respond to climate risks and opportunities;
 - (2) Actions taken or planned by the company to update the production processes and equipment to directly or indirectly tackle climate risks and opportunities;
 - (3) The transition plan created by the company to address climate risks and opportunities and the fundamental assumptions underpinning the plan;
 - (4) The resources allocated by the company to execute the transition plan; and
 - (5) The progress in executing the company's transition plan.
- Article 24 A disclosing entity shall calculate and disclose its total GHG emissions in the reporting period, and convert different GHG emissions into metric tons of carbon dioxide equivalent. The disclosing entity should disclose Scope 1 and Scope 2 emissions and, if able, is encouraged to disclose Scope 3 emissions.

Any disclosing entity that uses carbon credits shall disclose the source and amount of the carbon credits it uses. Any disclosing entity that participates in carbon emissions trading shall disclose whether it has completed settlement and whether it has been ordered to take corrective actions or is formally investigated by a government agency within the reporting period.

The Exchange encourages those disclosing entities that are able to engage a third party to audit or provide assurance on the GHG emissions data and other relevant figures.

- Article 25 To enhance the transparency and comparability of GHG emissions data, a disclosing entity is encouraged to provide GHG emissions details at each scope level according to the following categories:
 - (1) Operational units or facilities;

- (2) Countries or regions; and
- (3) Type of source (e.g., combustion, processing, electricity, heating, cooling, and steam).
- Article 26 A disclosing entity shall disclose the standards, methods, assumptions, or calculation tools used for GHG emissions accounting and state how emissions data are consolidated (such as by equity share proportion or financial and operating control). If there is a change to the accounting standards, methods, or assumptions in the reporting period, the disclosing entity shall state the reasons and specific impacts of these changes.
- Article 27 A disclosing entity shall disclose information on GHG emissions reduction practices, including its participation in the various emissions reduction initiatives, emissions reduction targets and measures (e.g., management strategies, funding, development of technologies), and the outcomes.

The disclosing entity shall disclose, for each scope level, the amount of GHG emissions directly reduced by such emissions reduction measures as redesigning production procedures, updating equipment, improving manufacturing processes, and switching fuels, and convert the data into metric tons of carbon dioxide equivalent. Emissions reductions may be disclosed by each measure used to achieve the reduction.

The disclosing entity shall disclose its registration and trading activities in relation to the national projects for voluntary GHG emissions reduction and the China Certified Emission Reduction (CCER), as well as its registration and trading of any other emissions reduction initiatives and emissions savings.

Article 28 Any disclosing entity that discloses new technologies, products, and services that contribute to decarbonization and carbon neutrality and the related R&D progress shall provide an objective and prudent account of the specifics of the technologies or services developed based on the relevant processes and technologies, the R&D investment and progress in the relevant businesses, approvals or certifications it has obtained, its mass production capacity, and its existing orders, among other information. The disclosing entity is encouraged to describe the impacts thereof on its current period's and future financial positions and operating results, as well as the possible uncertainties and risks.

Section 2 Pollution Control and Ecosystem Protection

Article 29 A disclosing entity shall integrate the goal to support building a beautiful China and ecological and environmental protection requirements into its development strategy and corporate governance process. It shall, based on the characteristics of its production and operational activities, the requirements on ecological and environmental management, the impact on the environment, the general demand of the affected public, and other relevant aspects of its circumstances,

implement the relevant environmental management rules, take effective actions to fulfill its ecological and environmental obligations, control pollution, and protect biodiversity.

- **Article 30** If a disclosing entity or one of its significant subsidiaries is listed on the registry of enterprises legally obligated to release environmental information, the disclosing entity shall disclose:
 - (1) Information on pollutant discharge, including but not limited to the types, names, total discharge, certified total discharge, over-discharge, and environmental performance grade (if any) of or in relation to the key pollutants, characteristic pollutants, and the controlled substances specified by international environmental conventions. Disclosing entities are encouraged to present details on its pollutant discharge by category in the dimensions of business units or facilities, type of source, and type of activity.
 - (2) The technologies and methods employed to treat pollutants, as well as the building, operation, and results achieved by pollution control facilities (e.g., reduction in the concentration/intensity or total amount of discharge);
 - (3) The targets set for the amount of discharge reduction of the key pollutants and the specific actions taken to achieve these targets; and
 - (4) The impact of pollutant discharge on such groups as its employees and local communities; and.
 - (5) Any major administrative penalties received by and any criminal liabilities charged against it in the reporting period for pollutant discharge, and whether there exist significant flaws in the company's environmental monitoring schemes and risk management practices.

The Exchange encourages other disclosing entities to make disclosures in line with the provisions of the preceding paragraph.

- Article 31 If the wastes produced by a disclosing entity's production and operational activities have a material impact on the environment, the disclosing entity shall disclose the essential details of the wastes produced in the reporting period, including:
 - (1) The total amounts (in metric tons) and density (e.g., per unit of revenue, unit of output, or facility) of hazardous wastes and non-hazardous wastes produced; and
 - (2) The treatment methods and disposal of hazardous and non-hazardous wastes.
 - (3) The targets set for the amount of discharge of the wastes and the specific actions taken to achieve these targets.

- **Article 32** If a disclosing entity's production and operational activities have a material impact on the ecosystem or biodiversity, the disclosing entity shall disclose the below content in the reporting period:
 - (1) The discontinuation of any production and operational activities and relevant facilities that were in the ecological red zones;
 - (2) Efforts and achievements in the protection and restoration of the areas around the production and operational sites, key land and marine ecological functional areas, ecological red zones, nature reserves, and other regions with critical ecological functions or ecologically fragile regions;
 - (3) Efforts and achievements in the protection of wild plants and wildlife and protection and restoration of natural habitats;
 - (4) Efforts and achievements in the protection, sustainable use, obtainment and benefit-sharing, monitoring and early warning, and risk management of biological genetic resources; and
 - (5) Efforts and achievements in reducing its products' ecological footprint and reliance on the ecosystem, biological species and their habitats, and biological genetic resources over their lifecycles.
- **Article 33** A disclosing entity shall disclose the following environmental information in accordance with the actual situations in the reporting period:
 - Risk assessments for environmental incidents, management protocols to prevent the related risks, and the overview of contingency plans for environmental emergencies;
 - (2) The dates, locations, and duration of the major environmental emergencies in the reporting period; the classification of these incidents, the responses, and the outcome of these responses; their impacts on the company and the public; and its corrective actions; and
 - (3) Details on any major administrative penalties or criminal charges received from an ecological and environmental authority or other government agencies in the reporting period for an environmental incident, including but not limited to violations, the reasons for and the amount of the penalties, the impacts on the company's production and operational activities, and its corrective actions.

Section 3 Resource Utilization and Circular Economy

Article 34 A disclosing entity shall use resources such as energy, water, and raw materials economically and efficiently, improve resource saving during the usage process, and promote reduction, reuse, and recycling of resources throughout the production and distribution processes.

- **Article 35** A disclosing entity shall disclose the details of its energy use in the reporting period, including but not limited to:
 - (1) An overview of energy usage, including but not limited to the total direct and indirect consumption (expressed in metric tons of standard coal) of energy (e.g., coal, electricity, gas, or oil) categorized by type, the energy consumption structure, and the overall energy intensity (e.g., expressed as per unit of output);
 - (2) Details on the use of clean energy, including but not limited to wind, solar, hydro, geothermal, biomass, and marine energy, as well as the types, total amounts, and proportions of clean energy used such as natural gas; and
 - (3) Energy saving goals and the specific actions taken, including but not limited to purchasing energy-efficient production, lighting, and temperature control equipment and implementing residual heat and pressure recovery and tiered energy use, and any specific challenges encountered in the use of energy.
- **Article 36** A disclosing entity shall disclose the specifics of its use of water resources in the reporting period, including but not limited to:
 - (1) An overview of the usage of water resources, including but not limited to total water consumption (expressed in metric tons) and usage intensity (e.g., per unit of output); and
 - (2) Water conservation goals and the specific actions taken, and any specific challenges encountered in the recycling and the use of water resources.
- Article 37 A disclosing entity shall disclose the specifics of the circular economy activities conducted within the reporting period, including but not limited to:
 - (1) The specific goals and plans established to achieve a circular economy;
 - (2) The specific actions taken in the reporting period toward achieving a circular economy, including reducing the use of resources, improving resource efficiency, using renewable resources, and preventing and reducing waste creation and recycling wastes; and
- (3) The specific progress and achievements in attaining circular economy objectives in the reporting period, such as the recycling and comprehensive utilization of wastes (including the amount of waste recycled), the consumption of renewable resources, and the proportion of renewable resources in the total amount of resources consumed.

Chapter IV Social Disclosure

Section 1 Rural Revitalization and Social Contributions

- Article 38 The Exchange encourages disclosing entities to support rural revitalization and public welfare programs in alignment with their principal businesses, in order to ensure the companies' healthy development and sustainable returns for investors while promoting the sustainable development of the broader economy and society.
- **Article 39** A disclosing entity shall disclose its contributions to rural revitalization in the reporting period, including but not limited to:
 - (1) If a high proportion of the disclosing entity's businesses is in the rural and poverty alleviation areas, it shall, in the context of its business activities, disclose in detail how its support for rural revitalization and for current progress on poverty alleviation is integrated into its corporate strategies;
 - (2) The specific actions taken to support the specialty industries and local employment in rural areas in the context of its business activities in the rural and poverty alleviation areas, as well as other specific actions taken to support rural revitalization;
 - (3) The specific achievements, such as the total investment made and the scope and number of beneficiaries in the reporting period, and the impact on the company's brand and businesses.
- Article 40 A disclosing entity shall provide an overview of its contributions to the public and society in the reporting period, including but not limited to details on any charitable and volunteer activities organized, the amount of funds invested, number of personnel and time allocated, the outcomes, and the impact on its brand and businesses.

Section 2 Innovation-Driven Development and Ethics of Science and Technology

- Article 41 The Exchange encourages disclosing entities to actively implement innovation-driven development strategies and improve its innovation capacity and competitiveness on an ongoing basis, and to abide by the ethics and norms of science and technology in its innovation decisions and practices, embrace the scientific spirit, and create positive impacts from science and technology.
- Article 42 Provided that national security and state secrets are not involved and commercial secrets are protected, a disclosing entity is encouraged to voluntarily disclose the details on its promotion of technological innovation, commercialization and application of scientific and technological progress, and improvement of its technological edge in the reporting period, including but not limited to:

- (1) The strategies and objectives for technological innovation and, if investment is involved, the arrangements for fundraising and the safeguards;
- (2) Details on its innovation activities, such as the creation of institutional systems for R&D and innovation management, its involvement in R&D and innovation projects and technology collaboration projects, the amount and percentage of R&D expenditure relative to its operating revenue, the number and proportion of R&D personnel, and the number of invention patents applied in its principal businesses; and
- (3) R&D progress and achievements, professional qualifications, and significant awards received, including the number of invention patent applications filed and granted and the number of valid patents; its certification as a high-tech enterprise; and national science and technology awards received in the reporting period; and
- (4) Any achievements in innovation and of their application in promoting the new quality productive forces and the impact on the broader economy, society, environment, and stakeholders.
- Article 43 Any disclosing entity engaged in such activities as scientific research and technology development in an ethically sensitive domain such as life sciences and artificial intelligence shall provide an overview of its compliance with the ethics of science and technology in the reporting period, including but not limited to:
 - (1) The fields of the company's scientific and technological activities such as research and development, and the ethical standards in science and technology it adheres to;
 - (2) Rules within the company's internal management systems that concern the ethics of science and technology and the company's observance thereof, the establishment of any ethics (review) committee for science and technology programs and its operations;
 - (3) Any instances of a violation of the ethics of science and technology, including an overview of such violations, the penalties imposed by competent authorities, the internal investigation and accountability processes conducted, and the corrective actions taken; and
 - (4) The internal and external training on ethics in science and technology and efforts to raise public awareness on the related topics (if any).

Section 3 Suppliers and Clients

- Article 44 The disclosing entities shall protect the interests of creditors, treat their suppliers, clients and customers with integrity while pursuing economic benefits and protecting the interests of shareholders.
- Article 45 Any industrial enterprise that is a disclosing entity may disclose its efforts to enhance supply chain risk management and ensure the security and stability of the supply chain in the reporting period, including but not limited to:
 - (1) An overview of its supply chain risk management program, including but not limited to its objectives and specific plans for supply chain risk management, risk response mechanisms, actions taken, and their outcomes; and
 - (2) Actions, such as mergers, acquisitions, or reorganization and technological innovations, and the positive outcomes related to maintaining supply chain security and increasing the company's competitive edge in supply chain management.

The Exchange encourages disclosing entities to disclose actions and measures in enhancing the supply chain management and promoting the sustainable development of supply chain.

Article 46 If the balance of accounts payable (including notes payable) exceeds RMB30,000,000,000 or represents more than 50 percent of the total assets at the end of the reporting period, the disclosing entity shall disclose the amount of overdue accounts payable as of the end of the reporting period and the solutions it plans to implement.

If a disclosing entity or one of its subsidiaries publicly indicates through the National Enterprise Credit Information Publicity System that it owes an overdue payment to a small and medium-sized enterprise ("SME"), it shall disclose the amount of the overdue payment, the payment term for SME suppliers, the reasons behind the overdue payment, whether the overdue payment has led to litigation or arbitration, and the solutions.

The Exchange encourages other disclosing entities to make disclosures in line with the provisions of the preceding two paragraphs.

- Article 47 A disclosing entity shall provide an overview of the safety and quality management of its products and services in the reporting period, including but not limited to:
 - (1) The establishment, execution, and specific measures of the product and service quality management systems and policies;
 - (2) Quality management-related certifications received by the company and the certification status of its quality management systems for the major products and services;

- (3) Any significant safety or quality liability incidents in the reporting period relating to its products and services, including the nature of such incidents (e.g., administrative penalties), their impact and the amount of damages, and the actions taken in response and the progress on those actions; and
- (4) The establishment and implementation of after-sales service and product recall policies, the channels for receiving customer complaints, and the process and outcome of complaint handling.

The Exchange encourages disclosing entities in such industries as finance, healthcare, power, telecommunications, and utilities to disclose the availability of their products and services within the reporting period (e.g., inclusive finance and inclusive healthcare).

- **Article 48** A disclosing entity shall provide an overview of its data security and customer privacy programs in the reporting period, including but not limited to:
 - (1) The development, functioning, and specific measures of its data security management system and certifications (if any);
 - (2) Details on any data security incident that occurred in the reporting period, including its impact, the monetary amount involved, the actions taken in response and the progress on those actions;
 - (3) The development and functioning of its customer privacy protection system; and
 - (4) Details on any privacy breach incident that occurred in the reporting period, including its impact, the monetary amount involved, and the actions taken in response and the progress on those actions

Section 4 Employees

- Article 49 A disclosing entity shall protect the legitimate rights and interests of its employees in accordance with the law, provide them with a healthy and safe work environment, pay them salary and social security timely, strengthen employee training, and establish a reasonable and effective employee appeal system..
- **Article 50** A disclosing entity shall disclose the general information about its employees in the reporting period, including but not limited to:
 - (1) Employment and compensation policies and how they are implemented, information including but not limited to job creation and flexible employment in the reporting period, a breakdown of the gender and age distribution of employees at the end of the period, as well as information on payment of salary and social security, labor disputes, employee turnover, protection of the rights

- of flexible employees and the compliance, fairness, and transparency of the recruitment and hiring procedures;
- (2) Basic information on occupational health and safety, including but not limited to the identification and assessment of occupational safety risks and their sources, the establishment and implementation of the occupational health and safety management systems, the obtainment of certain certifications, related training, the investment in and coverage of work-related injury insurance and workplace safety liability insurance, and the details of any safety accidents that occurred in the reporting period; and
- (3) General information on employee career development and training, including but not limited to the disclosing entity's position structure, the mechanisms for employee promotion, selection, and career development, the type, frequency, and implementation of employee training, as well as the annual expenditure on training and the training coverage rate.

Chapter V Corporate Governance Information Related to Sustainable Development Disclosure

Section 1 Sustainability-Related Governance Mechanisms

- Article 51 A disclosing entity shall, in line with its realities and the requirements of these *Guidelines*, actively integrate sustainability thinking into all aspects of its corporate governance systems and processes, in order to further improve its governance mechanisms and improve its sustainability.
- Article 52 The Exchange encourages each disclosing entity to, in line with its realities, disclose information on the due diligence it has conducted during the reporting period in relation to identifying and responding to the negative sustainability-related impacts or risks, including but not limited to the organization or personnel carrying out the due diligence, the scope of due diligence, the procedures for identifying such negative impacts or risks, and the details on its response to the relevant negative impacts and risks
- Article 53 A disclosing entity shall disclose the details about its engagement with investors and other stakeholders during the reporting period, including but not limited to:
- (1) The establishment and execution of its stakeholder engagement rules; and
- (2) The channels for receiving and responding to stakeholder comments and suggestions and how they are implemented, e.g., the method, frequency, and content of the relevant communications.

Section 2 Commercial Behaviors

- Article 54 In its business operations, a disclosing entity shall follow the principles of voluntariness, fairness, equitable compensation, and good faith; adhere to social and business ethics; not seek improper benefits through bribery or any other illegal activities; not infringe on others' intellectual property rights such as trademarks, patents, and copyrights; and not engage in any anti-competitive practices.
- Article 55 A disclosing entity shall disclose the specifics of its anti-commercial bribery and anti-corruption efforts in the reporting period, including but not limited to:
 - (1) The establishment and operation of the anti-commercial bribery and anti-corruption risk management system, and whether a whistleblower protection policy has been established;
 - (2) An assessment of the commercial bribery and corruption risks;
 - (3) The total count and percentage of board members, management-level staff and other employees who received anti-commercial bribery and anti-corruption training; and
 - (4) Details about all commercial bribery and corruption incidents that occurred in the reporting period, including the specifics of the resulting dismissals or disciplinary actions against any board members, management-level staff and employees, investigations by competent authorities, termination or non-renewal of contracts with business partners, and any lawsuits against the disclosing entity, its board members, management-level staff or employees.
- **Article 56** A disclosing entity shall disclose the specifics of its efforts to combat unfair competition in the reporting period, including but not limited to:
 - (1) The establishment, operation, and specific measures of the management system to prevent unfair competition (e.g., untrue publicity, implementing monopoly behaviors, and infringing on commercial secrets); and
 - (2) If any litigation or significant administrative penalties arise from the disclosing entity's anti-competitive practices in the reporting period, it shall disclose the specifics about the litigation, the amount involved, the administrative penalties imposed, and its corrective actions.

Chapter VI Supplementary Provisions and Interpretation

Article 57 The Exchange encourages disclosing entities to adopt an indicator index in the Sustainability Report, which provides the structure and overview of the report topics and allows users to locate related information, thereby enhancing the clarity and user-friendliness of the disclosure.

If any sustainability information has been disclosed in an interim or periodic report, the disclosing entity can, without compromising the integrity of the disclosure and causing reading inconvenience, simplify the relevant information in the Sustainability Report by using citations or indices.

Article 58 If a disclosing entity engages a third-party assurance provider to audit or assure its Sustainability Report, it shall disclose the provider's independence, its relationship with the provider, its experience, qualifications, the assurance or audit report. The report content shall include but is not limited to the assurance or audit scope, standards adopted, the primary procedures, methods, and limitations, and opinions or conclusions.

Article 59 In these *Guidelines*, the following terms have the meanings given below:

- (1) **Sustainable development** or **sustainability:** Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It requires the society to promote economic development, while meeting the needs of human development by enhancing potential productivity and ensuring equal opportunities for all, hence balancing economic, social, and environmental development.
- (2) **Topics**: Items or factors that indicate the impacts on listed companies, the economy, society, environment, and stakeholders. See annex for a list of topics specified by these *Guidelines*.
- (3) **Sustainability-related impacts**: The actual or potential impact on the economy, society, or environment, either positive or negative, of an enterprise's performance in a particular sustainability topic.
- (4) **Sustainability-related risks and opportunities:** Environmental, social, or governance factors that could have a negative or positive impact on an enterprise's business models, strategies, targets, and value-creation capabilities.
- (5) Material impact: Sustainability-related topics may have different impacts on different companies. Based on the feature of their sectors and own conditions, companies shall decide whether relevant impacts are material using the following approaches: (1) the materiality of the expected impact of a sustainability-related topic on such aspects of a disclosing entity as its business model, operations, development strategy, financial positions, operating results, cash flows, and financing methods and costs over the short, medium, or long term can be evaluated from two dimensions: the likelihood of its occurrence and the extent of its financial impact; (2)the materiality of an actual or potential impact of a disclosing entity on the economy, society, and environment can be evaluated from three dimensions: its scale (severity), scope (extent), and irremediability (difficulty in offsetting or repairing the damage).

- (6) Scenario analysis: The approach and process for identifying and assessing the potential outcomes of future events under uncertain conditions. In the case of climate change, companies can use climate-related scenario analysis to assess how the physical and transition risks of climate change may affect their future operations, strategies, and financial positions.
- (7) **Climate-related risks**: Potential negative impact of climate change on companies, including climate-related physical risks and climate-related transition risks.
- (8) Climate-related physical risks: These include acute physical risks and chronic physical risks. The former is climate-event-driven, such as hurricanes, floods, droughts, or heatwaves. The latter refers to longer-term shifts in climate, including changing precipitation or temperature that may cause sea level rise, shrinking water supplies, biodiversity loss, or altered soil productivity. These risks may have financial implications for companies, such as direct loss of assets and indirect effects of supply chain disruptions.
- (9) Climate-related transition plan: A company's goals, actions, or resources for transitioning towards a low-carbon economy, including actions to reduce GHG emissions.
- (10) **Climate-related transition risk**: Risks incurred by a company's move toward a low-carbon economy, including but not limited to policy, legal, technology, market, and reputation risks.
- (11) **Climate opportunities**: The potential positive effects of climate change on a company, or the opportunities for a company that may arise from global actions to mitigate and adapt to climate change.
- (12) Climate adaptation: A company's ability to manage climate-related risks and capitalize on climate-related opportunities, including its strategic adaptation and its operational adaptation in response to climate-related changes and uncertainties.
- (13) **Short, medium, and long term**: The durations corresponding to "short-term," "medium-term," and "long-term" may differ from company to company, influenced by such factors as the specific features of an industry (e.g., cash flows, investment, and business cycles), corporate strategic decisions and capital allocation plans, and the time horizons investors use to assess companies in that industry. Companies shall base on their actual circumstances to define the time spans for "short-term," "medium-term," and "long-term."
- (14) **Greenhouse gas (GHG)**: The seven greenhouse gases identified in the Kyoto Protocol, namely carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, nitrogen trifluoride, perfluorocarbons, and sulfur hexafluoride.

- (15) **Carbon dioxide equivalent**: it is obtained by multiplying the quantity of a gas in metric tons by its Global Warming Potential (GWP).
- (16) Scope 1 emissions: Direct GHG emissions from sources that are owned or controlled by an enterprise. Examples include emissions from combustion in owned or controlled boilers, furnaces, and fleet vehicles; emissions from the production and processing of materials such as chemicals, cement, and steel; and intentional or unintentional GHG releases due to lack of physical containment.
- (17) **Scope 2 emissions**: Indirect GHG emissions resulting from the consumption of purchased electricity, steam, heating, or cooling by an enterprise.
- (18) **Scope 3 emissions**: Indirect GHG emissions, including both upstream and downstream emissions but excluded from Scope 2 emissions, that occur in an enterprise's value chain, encompassing: (1) purchased goods and services; (2) capital goods; (3) fuel- and energy-related activities not included in Scope 1 emissions and Scope 2 emissions; (4) upstream transportation and distribution; (5) waste generated in operations; (6) business travel; (7) commuting by employees; (8) upstream leased assets; (9) downstream transportation and distribution; (10) processing of sold products; (11) use of sold products; (12) end of life treatment of sold products; (13) downstream leased assets; (14) franchises; and (15) investments.
- (19) Value chain: All activities, resources, and relationships connected to a listed company's business model and its external environment. It encompasses the activities, assets, and relationships leveraged or relied upon to take products and services from conception to delivery, consumption, and end-of-life treatment. These activities, assets, and relationships include those involved in a company's operations, such as human resources; those relate to the company's supply, marketing, and distribution channels, such as purchase of materials and services and the sales and delivery of products and services; and the company's financing, geographical, geopolitical, and regulatory environments.
- (20) **Supply chain**: The range of activities conducted by the upstream entities that supply the products or services used by a listed company to develop its proprietary products or services.
- (21) **Circular economy**: An economic model characterized by the saving and recycling of resources to achieve harmony with the environment. Circular economy emphasizes organizing economic activities into a feedback loop of "resources products regenerated resources," and is known for low resource extraction, efficient resource utilization, and low emissions. Circular economy enables the reasonable and long-lasting use of all materials and energy in these economic loops to minimize the environmental footprint of economic activities.

(22) **Stakeholder:** Any individual or group whose interest is or may be affected by the activities of a disclosing entity, such as employees, consumers, customers, suppliers, and investors.

For terms not defined in these *Guidelines*, their meanings are to be construed in accordance with the Laws and Regulations of China, the rules of the Exchange and the relevant international practices.

- Article 60 A listed company otherwise required to disclose a corporate social responsibility report pursuant to the rules of the Exchange is exempt from making such disclosure if it publishes the Sustainability Report either pursuant to these Guidelines or voluntarily.
- Article 61 The Exchange will impose supervisory measure or disciplinary sanction on any disclosing entity that violates these Guidelines based on the circumstances
- **Article 62** The Exchange shall reserve the right to interpret the *Guidelines*.
- **Article 63** These *Guidelines* take effect as of May 1st, 2024 with the following transitional arrangements:
 - (1) Any disclosing entity required by these *Guidelines* to publish a Sustainability Report shall publish the 2025 Sustainability Report before April 30, 2026. Listed companies shall make the relevant technical, data, and internal governance arrangements in advance in accordance with these *Guidelines*;
 - (2) The Exchange encourages the early adoption of these *Guidelines* and disclosure of the 2024 Sustainability Report by listed companies. The content of the 2024 Sustainability Report disclosed by listed companies shall be consistent with relevant requirements of these *Guidelines*;
 - (3) In the first reporting period that a disclosing entity adopts these *Guidelines*, disclosure of year-on-year change in the relevant indicators is not required. Furthermore, for those indicators that are difficult to quantify, the disclosing entity may opt for qualitative disclosure on condition that it explains why quantitative disclosure is impossible and that no quantitative disclosures have been made on such indicators previously.

Annex

Index of Topics of the Guidelines

Dimension	Number	Торіс	Article
I Environment	1	Climate change tackling	Article 21-28
	2	Pollutant discharge	Article 30
	3	Waste disposal	Article 31
	4	Ecosystem and biodiversity protection	Article 32
	5	Environmental compliance management	Article 33
	6	Energy usage	Article 35
	7	Usage of water resources	Article 36
	8	Circular economy	Article 37
II Society	9	Rural revitalization	Article 39
	10	Contributions to the society	Article 40
	11	Innovation-driven	Article 42
	12	Ethics of science and technology	Article 43
	13	Supply chain security	Article 45
	14	Equal treatment to small and medium-sized enterprises	Article 46
	15	Safety and quality of products and services	Article 47
	16	Data security and customer privacy protection	Article 48

	17	Employees	Article 50
	18	Due diligence	Article 52
III Sustainablity-	19	Communications with stakeholders	Article 53
related governance	20	Anti-commercial bribery and anti-corruption	Article 55
	21	Anti- unfair competition	Article 56