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PetroChina Company Limited

2025 Environmental, Social And Governance Report



PetroChina Company Limited

Address: 9 Dongzhimen North Street, Dongcheng District, Beijing, P.R.China

Post Code: 100007

E-mail: ir@petrochina.com.cn/ hko@petrochina.com.hk

Website: www.petrochina.com.cn

2025

Environmental, Social And
Governance Report

About the Report

Reporting Period

This report presents the Company's fulfillment of its environmental, social and governance ("ESG") responsibilities and its sustainable development practices in 2025. The reporting period is consistent with that of the Company's annual financial report, covering the period from 1 January 2025 to 31 December 2025. For the purpose of continuity and comparability, certain matters are described with appropriate extensions before and after the reporting period.

Reporting Scope

Unless otherwise specified, the data in this report covers the Company and its wholly-owned and controlled subsidiaries, consistent with the scope of consolidation in the Company's annual financial report.

Basis of Information

The information in this report is derived from the Company's official documents, statistical reports and summaries of the actual performance of its affiliated enterprises. It also takes into account the Company's development priorities and stakeholder concerns. This report was reviewed and approved by the Board of Directors on March 27, 2026. The Board and all directors of the Company hereby confirm that, to the best of their knowledge, this report contains no false records, misleading statements, or material omissions, and they accept full responsibility for the truthfulness, accuracy, and completeness of its content.

Forward-Looking Statements

Except for historical facts, any statements regarding events that may or will occur in the future (including, but not limited to, assumptions, objectives, estimates, and business plans) are forward-looking statements. Actual future developments or trends may differ materially from those expressed or implied in these statements due to various external factors and uncertainties. The forward-looking statements in this report are made as at December 31, 2025, and the Company undertakes no obligation or responsibility to update or revise any of the aforesaid forward-looking statements.

Availability of the Report

This report is available in simplified Chinese, traditional Chinese and English. In the case of any discrepancies, the simplified Chinese version shall prevail.

Basis of Report Preparation

This report has been prepared with reference to the following key standards:

- Guidelines No. 14 of Shanghai Stock Exchange (SSE) for Self-Regulation of Listed Companies – Sustainability Report (Trial) and Guide No. 4 for Self-Regulatory Supervision on Listed Companies of the SSE – Compilation of Sustainable Development Reports
- Environmental, Social and Governance Reporting Code issued by The Stock Exchange of Hong Kong Limited (HKEX)

Additional references used in preparing this report include:

- Sustainability Disclosure Standards for Business Enterprises – Basic Standard (Trial) and Sustainability Disclosure Standards for Business Enterprises No. 1 – Climate (Trial) jointly issued by nine ministries and commissions of China, including the Ministry of Finance
- Guidelines for Centrally-administrated State-owned Enterprises to Fulfill Social Responsibilities in High Standard in the New Era and Reference of ESG Indicators System for ESG Reports of Listed Companies Controlled by Central Enterprises issued by SASAC
- United Nations 2030 Agenda for Sustainable Development (SDGs)
- Ten Principles of the UN Global Compact (UNGC)
- IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures issued by the International Sustainability Standards Board (ISSB)
- GRI Sustainability Reporting Standards (2021) issued by the Global Sustainability Standards Board (GSSB)
- Sustainability Reporting Guidance for the Oil and Gas Industry jointly issued by the International Petroleum Industry Environmental Conservation Association (IPIECA), the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP)

Reporting Principles

This report adheres to the principles of materiality, quantitation, consistency, and balance to ensure that its ESG governance information is disclosed in an accurate, objective and comprehensive manner.

Materiality

The Company conducted research and assessment from both impact materiality and financial materiality perspectives and comprehensively identified ESG issues material to the Company’s sustainable development. For details, please refer to ‘Identification of Material Topics’ on page 24 of this Report.

Quantitation

The Company implements comprehensive quantitative management across all aspects of material ESG topics. Core performance indicators cover critical aspects across environmental, social and governance segments. Quantitative data are used to support full-process control and effectiveness evaluation of ESG efforts. Please refer to “Key Performance Data” and other relevant chapters of this report for details.

Consistency

This report follows the principle of consistency to ensure the comparability of disclosed data across years. In 2025, the Company adjusted the statistical methodology for the employee turnover rate by age group and restated the historical data for the previous two years based on the new methodology. Except for the above adjustment, the statistical scope and calculation methods of the other ESG performance indicators disclosed in this report remained consistent with those of the previous year, with no material changes.

Balance

The report aims to objectively and comprehensively reflect the Company’s ESG governance strategies and performance, thereby enhancing the transparency of ESG information disclosure.

To access the electronic version of this report and further information, please visit the Company’s website at www.petrochina.com.cn or scan the attached QR code.



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Message from the Chairman



Dear Shareholders, Customers, Partners, Employees, and Members of the Public:

Thank you for reading this report. On behalf of the Company, I would like to express our sincere gratitude for your continued interest and support of PetroChina!

In 2025, the global landscape was characterised by intertwined volatility, with the world economy advancing under pressure, international oil and gas prices experiencing persistent fluctuations, and the transition towards green energy accelerating. Anchored to its vision of becoming a world-class company, PetroChina upheld its commitment to high-quality development and successfully achieved the objectives of the 14th Five-Year Plan. The Company steadily enhanced its overall strength, delivered notable achievements in technological innovation, and significantly improved its ESG performance, while core competitiveness and international influence continued to strengthen. Overall, the Company essentially realised high-quality development, presenting shareholders and stakeholders with remarkable results. The Company's transformation accelerated comprehensively, with significant progress achieved in building a safe, healthy, and green enterprise. We successfully realised the phased strategic goal of "clean energy substitution," vividly demonstrating and profoundly embodying our corporate value pursuit of "Pursuing green development and supplying reliable energy to fuel the growth of our customers and power people's happy life".

Advancing Green and Low-Carbon Transition to a new level through Climate Action and Accelerated Development of New Energy and New Materials.

The Company has consistently strengthened strategic guidance by incorporating “green and low-carbon” into its core development strategy. Closely aligned with the overall “Three-Step” framework of clean alternative, strategic replacement and green development, the Company has advanced the integrated development of oil, gas, geothermal, electricity, and hydrogen. In 2025, the phased objectives of the “clean energy substitution” stage were achieved on schedule. The Company has fully leveraged the bridging role of natural gas in the energy transition. Vigorous expansion of the natural gas business and intensified exploration and development efforts have driven domestic production to maintain rapid growth, with natural gas now accounting for more than 55% of total oil and gas output equivalent. The Company has accelerated the development of new energy and new materials, with annual investment of RMB41.46 billion, representing a year-on-year increase of 72.4%. Installed capacity and power generation from wind and solar have reached new records, with year-on-year growth of 40.6% and 68.0% respectively. Geothermal and hydrogen industry chain demonstration projects have advanced prudently, while emerging and future industries have flourished, effectively expanding the scope for business development. The Company has also accelerated the integrated supply of oil, gas, geothermal, electricity, and hydrogen, as well as the high-end transformation of refining, chemicals, biochemicals, fine chemicals and new materials. The proportion of new energy development and utilization within the Company’s domestic energy supply has continued to rise steadily. The Company recognizes the temperature control targets set under the Paris Agreement and remains committed to serving the national “Carbon Peak and Carbon Neutrality” goals and Nationally Determined Contribution (NDC) targets. By joining the Oil and Gas Decarbonisation Charter (OGDC), the Company has continued to strengthen the dual-control system for carbon emissions and carbon asset management. Efforts have been intensified in clean energy substitution and the research and development of green and low-carbon technologies, while carbon capture and utilisation have been vigorously promoted. Fifteen affiliated enterprises have been rated as national-level green factories, and more than 2.27 million trees have been planted across over 10,000 well sites, stations, and depots. During the year, carbon dioxide injection under CCUS projects reached 2.66 million tonnes. The Company is determined to act as a pioneer in building a green enterprise, a contributor of clean and low-carbon energy, and a frontrunner in the carbon circular economy. Strict adherence has been maintained to ecological red lines and environmental baselines, with solid progress made in pollution prevention and control initiatives covering wastewater, waste gas, solid waste, and soil and groundwater protection. The overall safety and environmental performance have continued to improve. High-quality development has been advanced in tandem with high-level ecological protection, with concrete actions taken to safeguard biodiversity and to consolidate the ecological foundation of a Beautiful China.

Enhancing Governance Effectiveness and ESG Risk Response, Making New Steps in Governance Modernization.

The Company upholds the governance philosophy of value creation, integrity and innovation, compliance with laws and regulations, and shared responsibility. Steady progress has been made in modernising the corporate governance system and governance capabilities, with continuous improvement of a governance framework aligned with regulatory requirements and international standards. A comprehensive revision of the Articles of Association has been completed, while the independence and diversity of the Board of Directors have been further enhanced, resulting in a systemic improvement in corporate governance. At the same time, the Company continues to optimise and refine its science and technology innovation system. Advanced and innovative productive capabilities are being developed in line with local conditions, with strong emphasis placed on achieving high-level self-reliance in science and technology. A series of original and landmark achievements have emerged, and the foundation of “Digital Intelligence PetroChina” has been initially established. The Company attaches great importance to ESG management, incorporating ESG as a dedicated chapter within the “15th Five-Year Plan”. Key indicators such as energy conservation and emission reduction, safety and environmental protection, and compliance management have been integrated into management performance assessments, ensuring that the concept of sustainable development is deeply embedded across strategic planning and operational decision-making. In full implementation of the *Corporate ESG Management Measures (Trial)*

and the Three-year Action Plan for ESG Work Enhancement, efforts have focused on improving ESG management quality. Comprehensive identification and evaluation of ESG topics have been carried out, risk control has been continuously strengthened, and management strategies and resource allocation have been optimised. Dynamic tracking of topic performance has enabled timely responses to stakeholder concerns, leading to a significant improvement in ESG performance and ratings. The Company regards the integrity philosophy of exercising power impartially and practising honesty as an integral part of corporate culture. A comprehensive anti-bribery and anti-corruption management system has been established and continuously improved, covering the entire Company and its business partners. The Company resolutely prohibits the pursuit of improper benefits through any illegal means such as corruption, bribery, or transfer of interests, and strictly forbids all forms of corrupt behaviour. By doing so, a strong defence line for clean and honest operations has been firmly built.

Fulfilling Social Responsibility with High Standard, Supporting Community Development and Delivering New Achievements for Shared Stakeholder Value.

The Company attaches great importance to occupational safety, always placing employees’ health and life security as the top priority. Safety principles are deeply integrated into every aspect of production and operations, building a comprehensive defence line for safe production and safeguarding occupational health. Upholding the people-oriented philosophy, the Company firmly protects employees’ lawful rights and interests, addressing their most pressing and practical concerns so that development achievements are shared more broadly and equitably among all employees. Active efforts are made to provide platforms for employee growth and talent development, while fostering a diverse, inclusive, equal, trustworthy, and collaborative working environment, achieving the unity of corporate value and employee value. The Company continues to make strong efforts in supporting comprehensive rural revitalisation, with more than a thousand assistance projects benefiting communities across China. Infrastructure has been steadily improved, employment skills enhanced, and education and healthcare levels promoted, contributing meaningfully to the advancement of common prosperity. At the international level, cooperation for mutual benefit has been deepened, with overseas community development expanded across multiple dimensions including environmental protection, people’s well-being, and cultural exchange. By integrating deeply into the economic and social development of host countries and regions, the Company actively supports sustainable community development. Sharing development opportunities with global partners, a series of international events were successfully hosted, including the 12th World Congress of Chemical Engineering, the COP30 China Pavilion Side Event, and the 8th PetroChina International Cooperation Forum. These initiatives have contributed Chinese wisdom and solutions to expanding international energy cooperation and to building a community with a shared future for mankind.

The year 2026 marks the beginning of the “15th Five-Year Plan” and represents a new starting point for the Company’s overall “Three-Step” strategy. Efforts will be coordinated to ensure both high-quality development and high-level safety, with a clear focus on creating long-term corporate value. Firm commitment will be made to advancing the green and low-carbon transition, continuously improving corporate governance, and actively fulfilling social responsibilities. Together with stakeholders, greater contributions will be made towards achieving the “Carbon Peak and Carbon Neutrality” goals, promoting common prosperity, and fostering harmony between humanity and nature. The Company will continue to generate integrated economic, social, and environmental value, delivering returns to shareholders, giving back to society, and benefiting the people.



Dai Houliang

PetroChina Company Limited

Chairman of the Board

About Us

PetroChina Company Limited ('PetroChina', also referred to as the 'Company', 'we' or 'us' in this report) was established as a joint stock company with limited liability on November 5, 1999, as part of the restructuring of China National Petroleum Corporation ('CNPC'). The H shares and A shares of the Company were listed on The Stock Exchange of Hong Kong Limited (stock code: 857) on April 7, 2000, and on the Shanghai Stock Exchange (stock code: 601857) on November 5, 2007, respectively. As one of China's leading oil and gas producers and distributors and a key player in the global oil and gas industry, we engage in a broad range of activities related to oil, natural gas and new energies and new materials, continuously supplying energy and petroleum products to support economic and social development while striving to promote a harmonious relationship between energy, the environment, and society.

Our Vision

To become a world-class integrated international energy company built to last



Our Values

Pursuing green development and supplying reliable energy to fuel the growth of our customers and power people's happy life



Corporate Strategy

Innovation.
Resources. Market.
Internationalization.
Green & Low Carbon.



Our Business Chain



Oil, gas and new energies

We are accelerating our green transition, comprehensively promoting the integrated development of oil, gas and new energies. We are focused on building a multi-energy complementary structure and transforming into an integrated oil, gas, geothermal, electricity & hydrogen energy company to provide society with clean and affordable energy products.



Refining, chemicals and new materials

We are fully committed to promoting the synergistic development of refining, chemicals, biochemicals, fine chemicals and new materials, accelerating our move towards the mid-to-high end of the refining, chemicals, biochemicals, fine chemicals and new materials industrial chain, in order to provide society with high-quality, green and low-carbon refining, chemicals and new material products.



Marketing

We continue to expand our marketing network, actively developing service stations, comprehensive energy service stations and new energy stations to supply the market with a diverse range of energy products and ensure energy security.



Natural gas sales

We leverage the role of natural gas as a bridge in energy transition, continuously enhancing our marketing and service capabilities in natural gas while contributing to the optimization of the energy consumption structure.

Oil and gas business

We are a leader of China's oil and gas E&P. We operate in numerous major oil and gas producing areas, including Daqing, Changqing, Tarim, Southwest China and Liaohe. We also carry out oil and gas investment activities in many countries and regions around the world. To date, we have established five international oil and gas cooperation zones across Central Asia-Russia, the Middle East, Africa, the Americas and Asia-Pacific. In 2025, our crude oil output reached 948.0 million barrels and marketable natural gas output reached 5,363.2 billion cubic feet, representing a total oil and gas equivalent output of 1,841.9 million barrels.

New energies business

We continue to expand our new energies business, including geothermal, wind and solar power, hydrogen, and carbon capture, utilisation and storage (CCUS), accelerating the integrated development of oil and gas E&P with new energies as part of our green transition. In 2025, the Company's investment in new energy and new materials reached RMB41.46 billion, up 72.4% year on year. Newly added wind and solar installed capacity (including capacity under construction) exceeded 7 million kW, representing a year-on-year increase of more than 40%. Wind and solar power generation reached 7.93 billion kWh, up 68.0% year on year.

Refining and chemicals business

We operate 14 ten-million-tonne refining bases in China. In 2025, we processed 1,375.9 million barrels of crude oil and produced 116.78 million tonnes of refined oil products. We produce six categories comprising thousands of grades of chemical products. Our production capacity for ethylene, synthetic resin and synthetic rubber ranks among the highest in China. In 2025, we marketed 40.03 million tonnes of chemical products domestically, up 2.7% year-on-year.

New materials business

We are actively developing the new materials business, with accelerated progress in technological research and capacity building. In 2025, our output of chemical new materials reached 3.327 million tonnes, with significant growth in the production of materials such as functional synthetic resins, high-performance synthetic rubber, specialty fibres and high-end carbon materials.

Refined Oil Marketing Business

We operate 22,127 service stations and 19,814 uSmile convenience stores across China, along with 6,340 battery charging and swapping stations, 29 hydrogen refuelling stations and 4,176 photovoltaic stations, covering 31 provinces, autonomous regions and municipalities and the Hong Kong SAR. We actively develop international trading and have established three major oil and gas operation centres in Asia, Europe and the Americas. In 2025, our total sales volume of refined oil products reached 160.81 million tonnes, of which domestic sales accounted for 118.66 million tonnes.

Natural Gas Sales Business

As the leading natural gas retailer in China, we have a nationwide natural gas sales network. In 2025, our natural gas sales totaled 314.71 billion cubic metres (bcm), with domestic sales accounting for 247.53 bcm.

Statement of the Board of Directors

This statement is made by the Board of Directors of PetroChina Company Limited in accordance with the requirements of the HKEX Environmental, Social and Governance Reporting Code.

The Company and its Board consistently regard ESG management as the foundation for achieving sustainable development and remain committed to the deep integration of ESG concepts into the Company's development strategy and daily operations. We continue to strengthen and improve the ESG governance system, enhancing the professionalism and standardization of ESG management, accurately identifying and effectively controlling various ESG risks, and aiming to achieve a positive interaction among economic, social, and environmental benefits.

ESG Management Responsibilities of the Board

As the highest decision-making body in respect of ESG issues, the Board holds the decision-making and oversight responsibilities for the ESG management of the Company. The Board has established the Sustainable Development Committee (the SDC) consisting of four directors, with Mr. Ren Lixin, executive director and president of the Company, serving as the chairman. The SDC is responsible for overseeing the implementation of ESG policies, strategies and targets, and reviewing the Company's ESG Report on a regular basis.



Sichuan Petrochemical plant area

ESG Management Approach and Strategy

The Company fully, accurately, and comprehensively implements the new development philosophy, upholding our values of “pursuing green development and supplying reliable energy to fuel the growth of our customers and power people’s happy life”. We continuously strengthen and improve the ESG governance and control system, with the enhancement of ESG governance effectiveness serving as the main focus. Management improvement and practical innovation are consistently reinforced, ensuring the deep integration and synergistic alignment of ESG management with corporate strategic planning, business decision-making, and production operations. This approach comprehensively elevates the level of ESG governance and strengthens sustainable development capabilities.

The Board regularly reviews significant ESG matters and continuously strengthening ESG management through issue assessment, risk control, and inspection and supervision. The Company identifies material ESG topics based on the macro policy environment, industry development trends and stakeholders expectations, and conducts ESG risk identification and analysis. We establish key ESG management measures, continuously improves the ESG management system, and carries out regular inspections and supervision to ensure the effective implementation of ESG initiatives.

Targets, Indicators and Progress Review

The Company has established ESG governance objectives and performance indicators covering topics including corporate governance, compliance operations and risk management, anti-bribery and anti-corruption, climate change and green and low-carbon transition, environmental compliance management, pollutant emissions, waste treatment, ecosystem and biodiversity protection, energy utilisation, water resource utilisation, rural revitalisation and social contribution, employee rights and development, workplace safety and occupational health, product and service safety and quality, supply chain management, and technological innovation and digital empowerment, and regularly reviews progress towards the achievement of these objectives. Value contribution, business operations, energy conservation and emission reduction, safety, environmental protection, and compliance management have been incorporated into the annual performance appraisal of the Company’s management. The Company has engaged the Hong Kong Quality Assurance Agency (HKQAA) to conduct independent assurance on its ESG Report (for details, please refer to page 159 of this Report). GHG emissions data have been subject to third-party verification in accordance with ISO 14064-3 (for details, please refer to page 161 of this Report).



ESG GOVERNANCE

We consistently regard ESG governance as a key initiative to drive high-quality corporate development and enhance sustainable competitiveness. We integrate environmental, social, and governance principles comprehensively into our corporate governance framework, embed them throughout compliance and operational management, and incorporate them across the entire risk prevention and control system. We continuously advance the standardisation, refinement, and institutionalisation of ESG management, establishing a transparent and efficient ESG governance mechanism, responsible ESG practices, and high-level ESG performance to meet stakeholder expectations. These efforts provide a solid foundation for the Company's steady progress and long-term value creation.

The UN Sustainable Development Goals

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



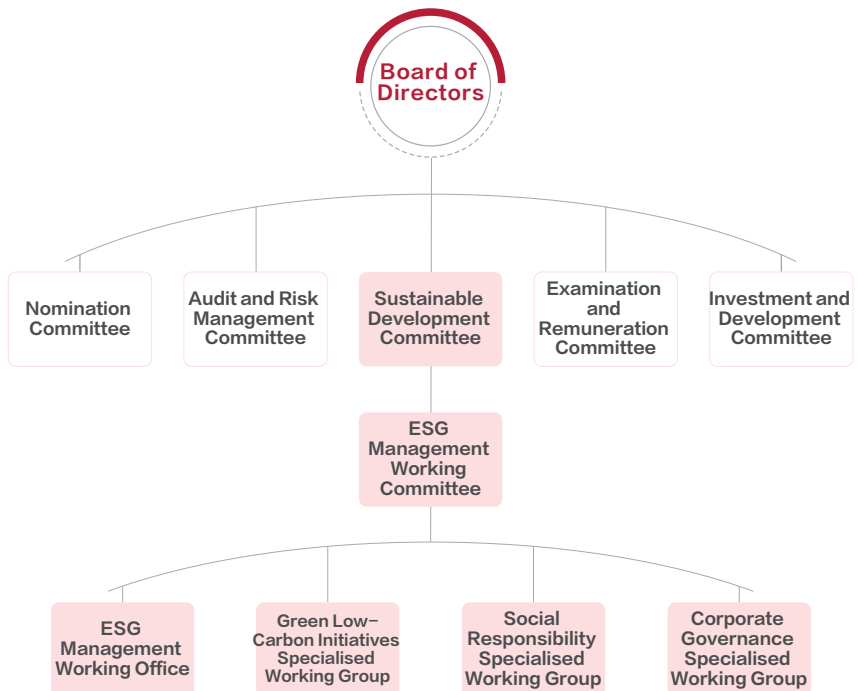
ESG Governance System

We strictly comply with applicable laws and regulations in our listing locations and the markets where we operate. Our ESG governance system, overseen by the Board, its committees, and senior management, provides robust oversight of our sustainability practices and drives continuous improvement. Through systematic and holistic management policies, we establish clear responsibilities, foster collaboration, and refine our workflows and procedures. This framework enables us to comprehensively identify and manage ESG risks while rigorously assessing the ESG performance of our subsidiaries, thereby continuously elevating our overall ESG governance standards.

Governance Framework

The Company has established a three-level governance framework covering decision-making and oversight, management and execution. The Board, as the highest decision-making body for ESG matters, is responsible for approving material matters relating to ESG strategy and management policies. The Sustainable Development Committee performs review and oversight functions, conducts professional assessment of ESG strategies, risks and opportunities, and makes recommendations to the Board. The ESG Management Working Committee is responsible for coordinating implementation, advancing the execution of decisions, and overseeing work progress. At the same time, the ESG Management Working Office, specialised working groups and subsidiaries integrate ESG work into their daily operations and management systems, designate dedicated management and working personnel, and collaborate in the Company's ESG governance.

PetroChina ESG Governance Structure



Body and Personnel Composition

Key Responsibilities



Board of Directors

Decision-making and Oversight

As at 31 December 2025, the Board comprised 13 members, including 5 independent non-executive directors. Mr. Dai Houliang serves as Chairman.

For details, please refer to our website and our 2025 Annual Report.

- ◇ Review and approve the Company's ESG management system
- ◇ Review and approve the Company's annual ESG Report
- ◇ Review and approve other material ESG-related matters



Sustainable Development Committee

Decision-making and Oversight

The Sustainable Development Committee of the Board comprises 4 directors, with Mr. Ren Lixin, Executive Director and President of the Company serves as Chairman of the Committee; Mr. Zhang Daowei and Mr. Song Dayong, Executive Directors and Senior Vice Presidents; and Mr. Zhang Yuxin, Independent Non-executive Director.

- ◇ Review the Company's ESG policies and strategies, targets, measures and related material topics, and supervise and inspect implementation against ESG targets.
- ◇ Study the Company's ESG-related matters, identify and assess significant ESG risks and impacts, and strengthen risk management
- ◇ Oversee the Company's commitments and performance on key ESG topics, including climate change, health, safety and environmental protection, social responsibility, product and service quality, supplier management, information security, business ethics and anti-corruption, and compliance and risk management
- ◇ Review the Company's annual ESG Report and HSE Report
- ◇ Handle other matters as authorised by the Board



ESG Management Working Committee

Management

Under the Sustainable Development Committee of the Board, the ESG Management Working Committee is chaired by Mr. Ren Lixin, Executive Director and President of the Company. The Vice President in charge of development planning, the Chief Financial Officer, the Secretary to the Board and Safety Director serve as Deputy Chairmen. Its members include the person in charge of ESG work from the departments of each specialised working group.

- ◇ Implement the ESG-related decisions and deployments of the Board and the Sustainable Development Committee
- ◇ Review the Company's medium- and long-term ESG development plan, and approve the annual ESG work plan
- ◇ Continuously improve the ESG management system, facilitate cross-departmental collaboration, and oversee the identification of ESG topics and the management of related impacts, risks and opportunities



ESG Management Working Office and specialised working groups, affiliated enterprises

Execution






The ESG Management Working Committee has established the ESG Management Working Office and three specialised working groups: Green and Low-Carbon, Social Responsibility, and Corporate Governance. The ESG Management Working Office is housed within the General Management Department (Board Office). Each specialised working group has one lead unit and one deputy lead unit, with participation from other relevant departments and specialised companies.

- ◇ The ESG Management Working Office maintains dedicated ESG personnel responsible for: reporting ESG management matters to the ESG Management Working Committee and coordinating implementation as directed; leading the development of the ESG governance system and institutional framework; leading the preparation of the Company's medium- and long-term ESG special plans; leading the compilation and publication of the annual ESG Report; leading ESG communication and collaboration with stakeholders.
- ◇ The Specialised Working Groups are primarily responsible for: identifying relevant topics and establishing robust indicator systems aligned with the Company's strategic planning, investment plans, financial budgets and production operations; developing specific targets and optimization measures; promoting digitalisation initiatives; managing the performance of material topics, including the collection, verification, analysis and optimization of relevant indicators; managing risks and opportunities related to their respective topics and developing risk prevention and control plans; and drafting special reports on key topics and assisting in the preparation of the annual ESG Report.

Professional Skills and Competencies

We systematically build and continuously enhance the ESG competencies of our Board and relevant management personnel, ensuring the professionalism and standardisation of our ESG governance. Mr. Ren Lixin, our executive director and president, brings extensive management experience in the field of sustainable development. He serves as Chairman of the Sustainable Development Committee and concurrently as Chairman of the ESG Management Working Committee. Ms. Liu Xiaolei, our Independent non-executive Director, is a seasoned expert in corporate governance and risk management. She has long been engaged in research and practice relating to risk governance in listed companies and sustainable governance of financial institutions. Mr. Zhang Yuxin, our Independent non-executive director, brings professional experience in new energy development and energy conservation and consumption reduction. Mr. Song Dayong possesses extensive experience in safety production and efficient utilisation of water resources. Mr. Zhang Daowei has systematic understanding and extensive practical experience in comprehensive energy utilisation and energy structure optimization. Together, they provide professional insights for the Company's ESG governance.

Training of Board Members, Management and ESG-related Personnel

Organization	Target Audience	Training Course	Number of Participants (person-times)	Training Duration (hours)	Course Content	Training Outcomes
Internal Training	 Directors and Management	ESG-related training	24	18	Corporate governance, technological innovation, energy transition, director competencies, building a world-class enterprise	Enhanced the Board's strategic ESG review and decision-making capabilities, and strengthened its oversight and guidance of the Company's ESG initiatives
	 ESG personnel in Affiliated Enterprises	ESG management standardisation training	93	30	13 courses including Addressing Climate Change and Practical Application, Social Responsibility Requirements and Practices in ESG Work, and ESG Case Studies in Corporate Governance	All participants passed
	 Employees	ESG-related business training	110,000	10	ESG fundamentals, material topic identification, case studies	Acquired foundational knowledge and understanding of ESG concepts
Shanghai Stock Exchange and China Association for Public Companies	 ESG personnel	Sustainability information disclosure training	202	12	Sustainability disclosure rules, practical challenges for A+H dual-listed companies, ESG management and supply chain practices	Training hours completed
Central University of Finance and Economics	 ESG personnel	ESG training for listed energy companies	102	18	12 courses including Application of ISSB Standards in China, Climate-related Disclosure Strategies and Impact Analysis for Energy Companies, and Methodologies for Calculating GHG Emission Scopes	Deepened understanding of new ESG policies and practical implementation approaches

24 person-times
 All directors and management completed ESG-specific training



Information Reporting Mechanism

To ensure timely access to key information at all levels of our ESG governance framework, we have established a combined reporting mechanism of regular and special reports. Regular reports, which follow established procedures, include quarterly briefings and semi-annual reports submitted to decision-making and supervisory bodies, as well as the annual ESG Report disclosed to the public. Special reports are prepared to assess periodic performance on material topics and to address challenges encountered in ESG work. In terms of reporting frequency, the Board reviews the annual ESG Report at least once a year and receives thematic briefings every six months. The Sustainable Development Committee meets quarterly, and the ESG Management Working Committee and the specialised working groups also meet quarterly to discuss detailed progress on ESG initiatives and support effective decision-making. In 2025, we convened 8 Board meetings, 16 committee meetings, and 2 ESG Management Working Committee meetings, while each specialised working group met quarterly. Our independent directors conducted 2 thematic reviews of ESG governance practices.

Integrating ESG into Board and Management Performance

Evaluation

The Company has incorporated ESG indicators, including energy conservation and emissions control, safety, environmental protection and compliance management, into the performance assessment of the management, with performance-based remuneration linked to the assessment results, in order to promote the effective implementation of its sustainable development strategy. Among these, the energy conservation and emissions control indicator carries a weighting of 10%, and failure to meet the target may result in a maximum deduction of 10 performance points. The safety, environmental protection and compliance management indicators are binding indicators, and failure to meet the assessment target for any one of them will result in a deduction of 5 performance points. For details, please refer to “Management and Compensation Assessment” on page 35 of this report.

ESG Governance Strategy

We recognize that ESG considerations have a fundamental and long-term impact on our business development, and that our production and operations likewise generate extensive effects across economic, social and environmental domains. To foster synergy and mutual reinforcement between sustainable development and business objectives, we have established a systematic and comprehensive framework for identifying and assessing ESG risks and opportunities. This framework is deeply embedded throughout our strategic decision-making process, providing robust scientific support for strategy formulation, business layout and resource allocation.

The Company strictly adheres to the United Nations 2030 Agenda for Sustainable Development and the Ten Principles of the United Nations Global Compact (UNGC), actively practicing ESG concepts. As the only member of the Oil and Gas Climate Initiative (OGCI) in China, we are deeply involved in shaping industry strategies to address climate change. As a signatory to and steering committee member of the Oil & Gas Decarbonisation Charter (OGDC), we actively promote the green and low-carbon transition of the global oil and gas industry. Domestically, we have joined the China Association for Public Companies (CAPCO), serving as a vice president and deputy chair of its ESG Committee, contributing to the advancement of ESG practices among listed companies in China. We have also joined the China Oil and Gas Methane Control Alliance as chair, leading efforts to promote methane reduction collaborations across the domestic oil and gas industry.

Management of ESG Impacts, Risks and Opportunities

We have deeply integrated the core framework of the Risk Management Guidelines (ISO 31000:2018) with domestic ESG regulatory requirements to establish an ESG risk governance framework and full-cycle closed-loop management system with clearly defined responsibilities and efficient operating mechanisms. The Board of Directors, the Sustainable Development Committee, and the Audit and Risk Management Committee perform decision-making and oversight responsibilities, while the ESG Management Working Committee coordinates ESG risk management implementation, ensuring execution through cross-departmental collaboration. Building on our comprehensive risk management and internal control systems, we have fully integrated ESG-related risks into our existing risk management framework. Following a closed-loop approach of 'risk identification and assessment – dynamic monitoring and early warning – scientific response and resolution – review and continuous improvement', we promote standardised and systematic ESG risk management by strengthening institutional frameworks, optimizing management processes, refining performance indicators, and reinforcing oversight and accountability. We continuously integrate ESG risks into key processes including strategic planning, investment decision-making, budget management, and production and operations, with clearly defined risk management responsibilities at all levels and across departments. We consistently enhance the forward-looking nature of risk identification, the effectiveness of response measures, and the systematic approach to continuous improvement, ensuring that ESG-related risks are identifiable, monitorable, controllable and accountable throughout the entire process.

Management Process for ESG Impacts, Risks and Opportunities

Major Process	Key Content
Identification of ESG Risks and Opportunities	<ul style="list-style-type: none"> • Identification of ESG risks: Establish a multi-dimensional, multi-level risk identification framework across the full lifecycle of oil and gas operations, tailored to segments including oil and gas and new energies, refining, chemicals and new materials, marketing, and natural gas sales, to ensure comprehensive identification and sound assessment of all ESG risks • Identification of ESG opportunities: Closely aligned with green transition trends and policy directions, proactively identify opportunities arising from sustainable development, including business growth, efficiency gains and brand enhancement
Assessment of ESG Risks, Opportunities, and Impacts	<ul style="list-style-type: none"> • Assessment of risks and opportunities: Develop an assessment model integrating both quantitative and qualitative approaches, focusing on analysing the material impacts of ESG risks and opportunities on core business dimensions • Identification and assessment of impacts: Establish a full-chain impact assessment mechanism to comprehensively evaluate the economic, social and environmental effects of business activities, aiming to mitigate negative impacts and enhance positive value creation
Integration of Assessment Results into the Decision-making Process	<ul style="list-style-type: none"> • Strategy formulation: Optimise the Company's strategic planning based on ESG impacts, risks and opportunities assessment results, in alignment with corporate vision, industry trends and policy requirements • Strategy deployment: Cascade ESG goals to business segments and departments, integrating them into annual operating plans and performance evaluations to ensure quantifiable and traceable implementation • Resource allocation: Based on assessment results, prioritise resources for ESG areas with material impacts, optimizing the deployment of financial, human and technological resources • Updating and optimization: Regularly update the inventory of ESG impacts, risks and opportunities, dynamically track strategy implementation, and adjust measures and resource allocation promptly to respond swiftly to emerging opportunities
Implementation and Monitoring	Responsible departments execute strategic plans, while the Company monitors progress through a key performance indicator (KPI) system and regularly reports performance to the Board and management
Audit and Disclosure	Disclose ESG performance through periodic reports and other channels, and establish a regular review mechanism to dynamically update the material topics list and management strategies, thereby achieving closed-loop management and continuous improvement

Key ESG Indicators and Targets

We have systematically established measurable ESG indicators and targets based on our material topics, and we regularly track performance progress to ensure effective target implementation and drive continuous improvement in our ESG performance.

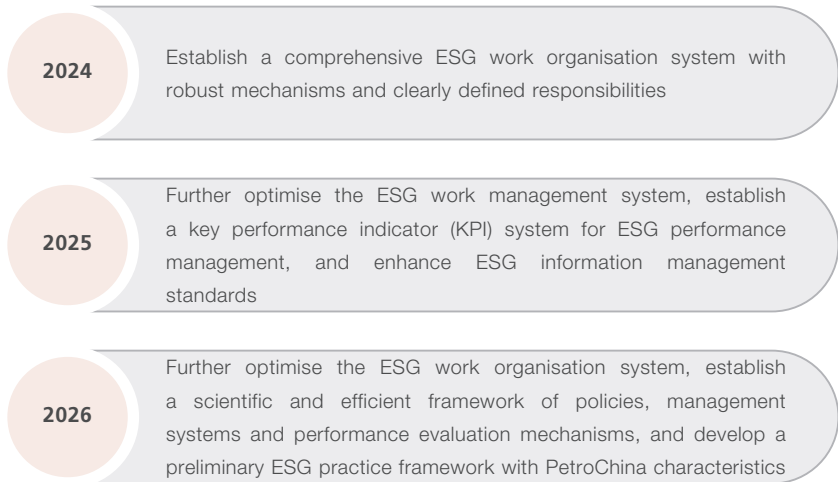
Dimension	Topic	2025 Progress	Targets
Governance	Corporate Governance	<ul style="list-style-type: none"> Proportion of independent directors: 38.5% Rated A for information disclosure by SSE for 11 consecutive years 	<ul style="list-style-type: none"> Maintain A rating for information disclosure by SSE
	Compliance Management and Risk Management	<ul style="list-style-type: none"> Taxes Payment: RMB394.1 billion 	<ul style="list-style-type: none"> Pay taxes in accordance with laws and regulations
	Anti-commercial Bribery and Anti-corruption	<ul style="list-style-type: none"> Anti-commercial bribery and anti-corruption training coverage (including Board members and all employees): 100% 	<ul style="list-style-type: none"> Full coverage of anti-commercial bribery and anti-corruption training
Environmental	Climate Change and Green and Low-carbon Transition	<ul style="list-style-type: none"> Total GHG emissions (Scope 1 and 2): 164.62 million tCO₂e Domestic GHG emissions per unit of oil and gas equivalent: 0.22 tCO₂e/toe Total methane emissions: 277,400 tonnes, down 10.14% year-on-year Methane emissions intensity: 0.25, achieving the expected target Annual CO₂ injection volume from CCUS projects: 2.664 million tonnes, exceeding the expected target Investment in new energies and new materials reached RMB 41.46 billion, up 72.4% year-on-year Proportion of domestic natural gas production of domestic oil and gas equivalent output: 55.3%, exceeding the expected target 	<ul style="list-style-type: none"> Methane emissions intensity to reach 0.20 by 2035 Annual CO₂ injection volume from CCUS projects to reach 3 million tonnes by 2026
	Environmental Compliance Management	<ul style="list-style-type: none"> Environmental protection expenditures: RMB3.56 billion, up 19.1% year-on-year No major or above environmental pollution incidents occurred during the year. 	<ul style="list-style-type: none"> Eliminate major or above ecological and environmental damage and pollution incidents
	Pollutant Emission Management	<ul style="list-style-type: none"> Nitrogen oxides (NOx) emissions: 43,400 tonnes, down 3.13% year-on-year Volatile organic compounds (VOCs) emissions (refining and chemicals): 55,900 tonnes, down 3.95% year-on-year Chemical oxygen demand (COD) emissions: 3,800 tonnes, down 9.52% year-on-year 	<ul style="list-style-type: none"> Continuously reduce the Company's major pollutant emissions

Dimension	Topic	2025 Progress	Targets
	Waste Management	<ul style="list-style-type: none"> Compliance disposal rate of general solid waste: 100% Compliance disposal rate of hazardous waste: 100% 	<ul style="list-style-type: none"> Compliance disposal rate of solid waste in accordance with laws and regulations: 100%
	Ecosystem and Biodiversity Protection	<ul style="list-style-type: none"> Voluntary Contribution Biodiversity Protected Area (OECMs) established: 12 Mining rights selected for national and provincial green mines: 126 	<ul style="list-style-type: none"> 100% of operation sites to be reclaimed upon project completion
	Energy Utilisation	<ul style="list-style-type: none"> Total energy consumption: 64.83 million tonnes of standard coal, down 0.23% year-on-year Energy saved: 720,000 tonnes of standard coal, exceeding the target 	<ul style="list-style-type: none"> Energy saved to reach over 520,000 tonnes of standard coal by 2026
	Water Utilisation	<ul style="list-style-type: none"> Fresh water consumption: 741.44 million m³, down 0.88% year-on-year Water saved: 7.53 million m³, exceeding the target 	<ul style="list-style-type: none"> Water saved to reach over 5.5 million m³ by 2026
	Circular Economy Development	<ul style="list-style-type: none"> Renewable energy consumption: 16,274,877 MWh Proportion of renewable energy consumption in total energy consumption: 3.09% 	<ul style="list-style-type: none"> Continuously optimise the energy mix and increase the proportion of renewable energy in total energy consumption
	Rural Revitalisation and Social Contribution	<ul style="list-style-type: none"> Total investment in public welfare: RMB576.76 million 	<ul style="list-style-type: none"> Steady progress was made in advancing all-round rural revitalisation
	Employee Rights and Development	<ul style="list-style-type: none"> Employee training coverage: 100% Proportion of foreign employees in overseas projects: 96.84% 	<ul style="list-style-type: none"> Employee training coverage to reach 100% by 2026
	Quality Product and Service Safety and Quality	<ul style="list-style-type: none"> 956100 customer service satisfaction rate: 99% 	<ul style="list-style-type: none"> 956100 customer service satisfaction rate to reach over 99%
Society	Supply Chain Management	<ul style="list-style-type: none"> Certification rates of tier-1 manufacturers: ISO9001 Quality Management System: 96.93%; ISO14001 Environmental Management System: 93.73%; ISO45001 Occupational Health and Safety Management System: 94.23% 	<ul style="list-style-type: none"> On-site inspection coverage of manufacturers: 100%; application rate of tier-1 material supplier evaluation results: 100%
	Technological Innovation and Digital and Intelligent Empowerment	<ul style="list-style-type: none"> R&D expenditure: RMB27.25 billion Annual patents granted: 2,096 	<ul style="list-style-type: none"> Advanced high-level self-reliance and strength in science and technology

Annual Progress of ESG Work

The year 2025 was defined as the Company’s ESG Quality Enhancement Year. During the year, we comprehensively implemented the Three-year Action Plan for ESG and the ESG Quality Enhancement Year Action Plan, systematically, effectively and continuously strengthening our ESG governance.

Action Plan Goals



Work Progress in 2025



Awards and Ratings

ESG Ratings



A
MSCI 

52
S&P Global

A
Wind ESG

Climate: B
CDP

ESG Awards



Ranked 3rd in Brand Value among Global
 Oil and Gas Enterprises
 Global Outstanding Energy Brand

★
Brand Finance

ESG Disclosure Contribution Award

★
**Hong Kong
 Quality Assurance Agency**

Best Practice Cases for Listed Company Boards
 Best Practice Cases in Sustainable Development for
 Listed Companies

★
**China Association for
 Public Companies
 (CAPCO)**

'Gold Quality' ESG Award

★
Shanghai Securities News

ESG Sustainability Pioneer Enterprise

★
Securities Daily

Best ESG in Asia's Oil and Gas Sector

★
Extel (former Institutional Investor)

Best ESG Pioneer Award

★
**Ta Kung Wen Wei
 Media Group**

Excellent ESG Practice Award

★
**China Enterprise Reform
 and Development Society
 (CERDS)**

Note: The above information is updated as of the date of publication of this report.

Stakeholder Engagement

We are committed to high-quality development and dedicated to rewarding all stakeholders through sustainable value creation, pursuing mutual growth and value maximisation for both the Company and our stakeholders. We have established a multi-level, ongoing stakeholder communication and engagement mechanism. Through diverse channels, we actively listen to the needs and expectations of key stakeholders – including regulatory authorities, shareholders, employees, customers, business partners and associations – to deepen communication and collaboration, build consensus on development, and ultimately achieve the sustainable development goals of mutual benefit and harmonious coexistence.



Case Study

The Eighth 'PetroChina Open Day'

In 2025, we hosted the eighth 'PetroChina Open Day'. The event ran from April through October, during which time our subsidiaries welcomed government representatives, journalists, customers, community representatives and other stakeholder groups to visit our facilities. Visitors gained a comprehensive understanding of the full petroleum industry value chain.

Through a variety of formats – including facility tours, live demonstrations, product showcases, expert talks, interactive activities, themed lectures and media livestreams – we comprehensively showcased our achievements in areas such as technological innovation, green and low-carbon transition, digital intelligence petroChina development, new energy development and utilisation, and coordinated community development. These activities helped build effective online and offline communication channels between the Company, the media and the public.

Since 2018, we have held the 'Open Day' event for eight consecutive years. By the end of 2025, the event had attracted more than 82 million participants in total, both online and offline, effectively bringing us closer to our stakeholders and deepening public understanding of and identification with the petroleum industry and PetroChina's development philosophy.



Enhancing Stakeholder Engagement through Various Channels

Stakeholder	Topics of Communication	Channels and Mechanisms
 <p>Governments and regulatory authorities</p>	<ul style="list-style-type: none"> ✦ Paying taxes and operating in full compliance ✦ Ensuring energy supply ✦ Climate change and energy transition ✦ Employment promotion ✦ Rural revitalisation and social contribution ✦ Environmental and biodiversity protection ✦ Sustainable development and ESG governance 	<ul style="list-style-type: none"> ✦ Government supervision and inspection ✦ Daily communication and reporting ✦ Policy discussions and feedback ✦ Participating in government-related forums and conferences
 <p>Shareholders and investment institutions</p>	<ul style="list-style-type: none"> ✦ Board governance ✦ Shareholder rights protection ✦ Operating results ✦ Sustainable development and ESG governance ✦ Climate change and energy transition 	<ul style="list-style-type: none"> ✦ Fulfilling statutory information disclosure obligation ✦ Organising results presentations and other communication activities ✦ Issuing periodic reports and holding results announcement and investor meetings ✦ Ad hoc engagements and seminars
 <p>Employees</p>	<ul style="list-style-type: none"> ✦ Employee rights protection ✦ Diversity, equality and inclusion ✦ Compensation and benefits ✦ Employee training and development ✦ Employee health and safety 	<ul style="list-style-type: none"> ✦ Establishing trade unions at all levels ✦ Convening employee representative meetings and reporting on work ✦ Maintaining complaints and feedback channels ✦ Providing education and training
 <p>Customers</p>	<ul style="list-style-type: none"> ✦ Product and service quality improvement ✦ Consumer rights protection 	<ul style="list-style-type: none"> ✦ Carrying out consumer care initiatives ✦ Publicising service quality commitment ✦ Operating the 956100 hotline ✦ Conducting customer satisfaction surveys
 <p>Business partners</p>	<ul style="list-style-type: none"> ✦ Fair and transparent procurement ✦ Business ethics and compliant operations ✦ Local procurement 	<ul style="list-style-type: none"> ✦ Conducting tenders, regular business exchanges and various meetings ✦ Leveraging e-procurement platforms ✦ Contract negotiations and routine meetings ✦ Organising partner training sessions to share management experience and technical standards ✦ Hosting large-scale multinational business negotiations, technical exchanges and executive forums
 <p>Industry associations and NGOs</p>	<ul style="list-style-type: none"> ✦ Climate change and energy transition ✦ Environmental and biodiversity protection ✦ Sustainable development and ESG governance ✦ Human rights protection and community development 	<ul style="list-style-type: none"> ✦ Participating in industry association activities to strengthen communication and cooperation ✦ Engaging with charitable organizations and NGOs through dialogues and exchanges on issues of public concern, and collaborating on social welfare projects ✦ Participating extensively in various forums and conferences to promote international exchange
 <p>Communities</p>	<ul style="list-style-type: none"> ✦ Protecting community human rights and respecting cultural traditions ✦ Protecting the community environment ✦ Promoting community development ✦ Local procurement and local employment 	<ul style="list-style-type: none"> ✦ Establishing comprehensive community engagement mechanisms ✦ Fulfilling notification obligations and enhancing information disclosure ✦ Participating in social welfare initiatives, monitoring community feedback and enhancing social impact

Measures and Progress

◇ Actively cooperated with the CSRC, SSE, HKEX, CAPCO, and SASAC, completing surveys and providing feedback and recommendations for ESG disclosure policy consultations

◇ For details, please refer to the 'Investor Relations Management' on page 37 of this report

◇ For details, please refer to 'Employee Communication and Engagement' on page 120 of this report

◇ For details, please refer to 'Consumers Rights Protection' on page 135 of this report

◇ For details, please refer to 'Supplier Communication' on page 140 of this report

◇ As Vice President of CAPCO and Deputy Head of its ESG committee, actively supported the association, strengthened experience sharing with member companies, and was recognised the '2025 Collection of Best Practice Cases for the Board of Directors of Listed Companies' and the '2025 Collection of Best Practice Cases of Sustainable Development of Listed Companies'

◇ Joined the Oil & Gas Decarbonisation Charter (OGDC) and other industry initiatives to collectively address climate change. For details, please refer to 'Strengthening Cooperation and Exchanges on Carbon Emissions Reduction' on page 73 of this report

◇ Collaborated with organizations such as the China Rural Development Foundation to implement social welfare projects

◇ For details, please refer to 'Enhancing Community Engagement' on page 107 of this report



Identification of Material Topics

We follow the double materiality principle, with impact materiality and financial materiality serving as the core dimensions for identifying and analysing ESG topics.



Focuses on the potential scope and magnitude of impacts that topics may have on the environment, society and stakeholders



Considers the material impacts that topics may have on the Company's business model, operations, development strategy, financial position, operating results, cash flows, financing methods and costs over the short, medium and long term



Process for Identifying Material Topics

We have established a scientific and standardised process for identifying and assessing topics, enabling us to systematically analyse and identify ESG material topics – those that are material from both an impact and financial perspective.

Formulating a List of Material Topics

Systematically review domestic ESG regulatory policies and industry compliance standards to identify mandatory disclosures and compliance thresholds; benchmark against internationally recognised ESG standards such as GRI and ISSB, as well as leading practices of domestic and international peers, to enhance the depth and relevance of topics; and develop an initial list of material topics aligned with our development strategy and business characteristics

Assessing Materiality

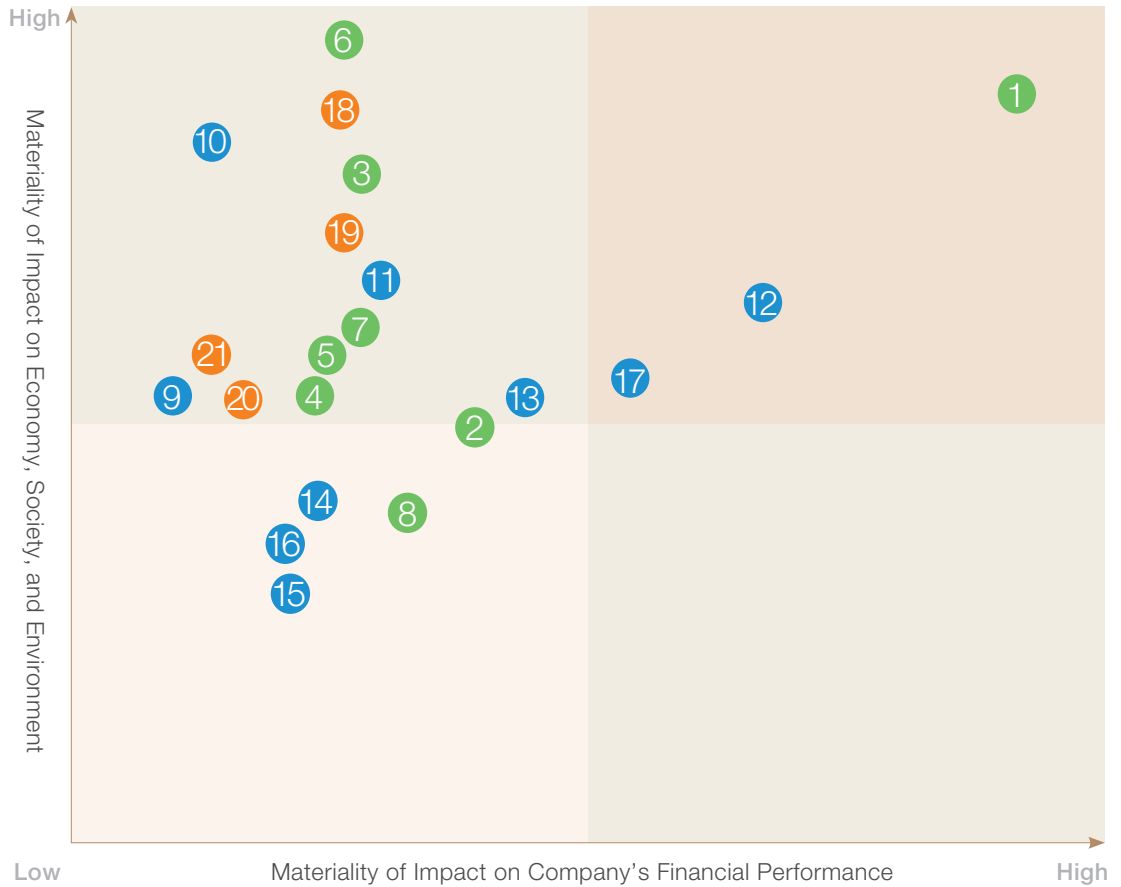
Engage key stakeholders – including shareholders, employees, customers, suppliers and communities – through dialogues, interviews, surveys and questionnaires; convene a panel of ESG policy experts to provide professional insights and recommendations based on industry trends and risk considerations; analyse and assess ESG topics across the two dimensions of impact materiality and financial materiality; review prior-year topic lists and implementation outcomes, retaining core topics of ongoing significance and removing those that have been resolved or have diminished in relevance

Finalising the List

Comprehensively analyse and evaluate the results from the above procedures, conduct cross-validation and multiple rounds of review, and finalise the list of material topics that reflects compliance requirements, industry relevance, stakeholder concerns and our distinctive characteristics



Material Topics List and Matrix



 Environmental	<ul style="list-style-type: none"> 1 Climate Change and Green and Low-Carbon Transition 2 Environmental Compliance Management 	<ul style="list-style-type: none"> 3 Pollutant Emission Management 4 Waste Management 5 Ecosystem and Biodiversity Protection 	<ul style="list-style-type: none"> 6 Energy Utilisation 7 Water Utilisation 8 Circular Economy Development
 Society	<ul style="list-style-type: none"> 9 Community Engagement 10 Rural Revitalisation and Social Contribution 11 Employee Rights and Development 12 Occupational safety and Occupational Health 	<ul style="list-style-type: none"> 13 Product and Service Safety and Quality 14 Supply Chain Management 15 Data Security and Customer Privacy Protection 	<ul style="list-style-type: none"> 16 Equal Treatment of SMEs 17 Technological Innovation and Digital Intelligence Empowerment
 Governance	<ul style="list-style-type: none"> 18 Corporate Governance 19 Compliance and Risk Management 	<ul style="list-style-type: none"> 20 Anti-commercial Bribery and Anti-corruption 21 Anti-unfair Competition 	

Following a thorough identification and assessment process, we did not include the three topics listed by the SSE — Technology Ethics, Due Diligence and Stakeholder Engagement — as separate material ESG topics of the Company. The reasons are as follows:

(1) The Company's principal business does not involve scientific research, technology development or other activities in technology areas with heightened ethical sensitivity. Upon assessment, "Technology Ethics" was not considered a material ESG topic for the Company. For digital and intelligent applications involved in its existing business, the Company has already addressed the relevant risks under the topics of "Data Security and Customer Privacy Protection" and "Technological Innovation and Digital Empowerment". Therefore, "Technology Ethics" was not included as a separate item in the list of material topics.

(2) "Due Diligence" and "Stakeholder Engagement" are embedded throughout the management and implementation of all our material ESG topics. Their substance is already addressed within the standardised management practices for each topic, and therefore they do not require standalone listing as material topics.

Identification of Material Topics

In 2025, we conducted a materiality assessment and identified three topics that are material from both an impact and financial perspective: Climate Change and Green and Low-Carbon Transition, Occupational Safety and Occupational Health, and Technological Innovation and Digital Intelligence Empowerment. We subsequently developed a list of material topics and a materiality matrix. We also analysed the impacts, risks and opportunities associated with these topics to inform the chapter-by-chapter disclosures that follow and to drive continuous improvement in our management approach.

Changes in Material Topics for 2025

2025 Material Topics	2024 Material Topics	Change	Reason for Change
Community Engagement	--	New Topic Added	Added in response to our industry characteristics and capital market requirements
Rural Revitalisation and Social Contribution	Rural Revitalisation Social Contribution	Topics consolidated	Based on our management practices, the two topics were consolidated for disclosure this year due to significant content overlap
Occupational safety and Occupational Health	Employee Health and Safety	Description revised	Revised to more accurately reflect the scope of the topic in light of our business operations
Supply Chain Management	Supply Chain Security	Description revised	Scope expanded to better align with stock exchange requirements and our current disclosure practices
Technological Innovation and Digital Empowerment	Innovation-Driven	Description revised	Revised to better reflect our future management direction for this topic based on our business operations
Corporate Governance	Board Governance	Description revised	Refined to encompass investor relations management and information disclosure, in addition to board governance, based on our disclosure practices, peer benchmarking and capital market priorities
Compliance and Risk Management	Compliant Operations	Description revised	Refined in line with our disclosure practices, peer benchmarking and rating agency priorities
--	Due Diligence	Topic removed	Due diligence is embedded throughout the management of all material ESG topics and is addressed within each topic discussion, therefore no longer requires standalone listing
--	Stakeholder Engagement	Topic removed	Stakeholder engagement is integral to the materiality analysis process and is already reflected in the identification and analysis of each topic, therefore no longer requires standalone listing

01 GOVERNANCE

We support international frameworks and initiatives including the UN Global Compact and the UN 2030 Agenda for Sustainable Development. In pursuit of sustainable development, we are committed to delivering clean, reliable and affordable energy in a responsible, sustainable and ethical manner. We abide by laws and regulations, respect human rights, protect the environment and contribute to the economic and social development of the communities in which we operate.

The UN Sustainable Development Goals





Corporate Governance

We uphold a governance philosophy of value creation, integrity-driven innovation, legal and regulatory compliance, and collaboration for shared value. We are committed to modernising our governance system and capabilities to enhance governance effectiveness. This enables us to strengthen our corporate core competitiveness, technological innovation capability, industrial control capability, industry influence, and risk management capability, thereby ensuring scientific decision-making, effective checks and balances, standardised operations, and robust supervision. In doing so, we promote high-quality and sustainable development while safeguarding the interests of all stakeholders.



Governance Framework

Upon its incorporation, PetroChina Company Limited (the “Company”) has had in place a corporate governance framework aligned with regulatory requirements and international practices. We have formulated and strictly adhere to the Company’s Articles of Association (the “Articles of Association”), and so have built a governance system characterised by statutorily enshrined and transparent powers and responsibilities, smooth coordination, and effective checks and balances, driving the continuous modernisation of our corporate governance system and capabilities. The Shareholders’ Meeting, the Board of Directors (the “Board”), its committees and the Management operate with clearly defined authorities, close collaboration, and high efficiency. Our governance system complies with the requirements of the *Company Law of the People’s Republic of China* (the “Company Law”), the *Securities Law of the People’s Republic of China*, the relevant provisions of the China Securities Regulatory Commission (CSRC), and the regulatory requirements of the jurisdictions where our shares are listed.



Our governance system complies with the requirements of the *Company Law of the People’s Republic of China* (the “Company Law”), the *Securities Law of the People’s Republic of China*, the relevant provisions of the China Securities Regulatory Commission (CSRC), and the regulatory requirements of the jurisdictions where our shares are listed.

In response to the enactment of the revised Company Law in 2024 and the latest capital market regulatory requirements, we finalized comprehensive amendments to the Articles of Association during the reporting period. The amendments were deliberated and approved at the 15th Meeting of the Ninth Board of Directors and the 2025 Extraordinary General Meeting. The newly amended Articles of Association are available for reference on our website.

Corporate Governance Framework



Ensuring Fair and Reasonable Connected Transactions

We strictly comply with the relevant regulations governing connected transactions applicable in our listing jurisdictions, including the Listing Rules of the Stock Exchange of Hong Kong Limited and the Shanghai Stock Exchange Self-Regulation Guidelines No. 5 – Transactions and Connected Transactions. We have established and strictly enforce comprehensive management protocols, including the Connected Transaction Management Measures, the Internal Control Management Manual, and the Internal Control Operation Evaluation Management Measures, ensuring that all connected transactions are conducted in a compliant manner within a rigorous institutional framework from the outset.



All connected transactions conducted in 2025 between the Company and its connected persons were governed by the principles of fairness, equity, and transparency. These transactions are not expected to adversely affect the Company's future financial condition or operating results, nor create any reliance on its connected persons or compromise the Company's independence. For further details, please refer to our website and our annual report for 2025.

At the time of its listing, the Company entered into a continuing connected transaction agreement with CNPC. In accordance with regulatory requirements, we regularly update the specific details of our continuing connected transactions with CNPC, submitting them to the Board and the Shareholders' Meeting for approval. The transaction amounts of our continuing connected transactions have consistently remained within the caps approved by the Shareholders' Meeting and the Board, and are disclosed annually in our annual reports. To ensure the fairness and reasonableness of connected transactions, CNPC, as a connected shareholder of the Company, abstains from voting on resolutions concerning connected transactions at shareholders' meetings.

The Audit and Risk Management Committee conducts semi-annual reviews of internal control evaluations and the implementation of continuing connected transactions, with the external auditors performing annual reviews and issuing an assurance report on such matters. Moreover, the Company actively improves shareholder circular disclosures by including additional content such as CNPC's commitments and the risk management practices of China Petroleum Finance Company Limited, offering detailed explanations of our connected transactions to address the concerns and demands of independent shareholders, and have received widespread recognition and support.

Board Development

The members of the Board are elected by and accountable to the Shareholders' Meeting. Directors shall serve a term of three years and may be re-elected upon expiration of their term. At PetroChina, we have formulated the Board of Directors Rules of Procedure, which establish standardised mechanisms for the election, appointment and removal of Board members and rules of procedure. We continuously improve the Board's structure, enhancing its independence and diversity while fully leveraging the professional expertise and supervisory capabilities of its members. The Company has procured Directors and Officers Liability Insurance (D&O Insurance) for members of the Board of Directors, in order to effectively mitigate performance-related risks and safeguard the lawful rights and interests of both the Directors and the Company. As at 31 December 2025, the Board comprised 13 members. For further details, please refer to our website and our annual report for 2025.

The Board has five committees: the Nomination Committee, the Audit and Risk Management Committee, the Investment and Development Committee, the Examination and Remuneration Committee, and the Sustainable Development Committee. Each committee performs its duties in accordance with the Articles of Association and under the authorisation of the Board. Proposals from these committees are submitted to the Board for deliberation and approval. In 2025, we held eight Board meetings and sixteen committee meetings, at which 83 Board resolutions were deliberated and approved, covering topics including climate change and green and low-carbon transition, technological innovation and digital empowerment, work safety and occupational health. Attendance of directors and its specialised committee members was 100%.

Meetings of Board Committees

Committee	Nomination Committee	Audit and Risk Management Committee	Investment and Development Committee	Examination and Remuneration Committee	Sustainable Development Committee
Number of meetings	6	5	3	1	1

Management and Compensation Assessment

The Company's management team includes President, Senior Vice Presidents, Vice Presidents, the Chief Financial Officer, the Secretary to the Board and the General Counsel. These executives are appointed by and accountable to the Board. In accordance with the Company Law and the Articles of Association, and under the authority delegated by the Board, they implement Board resolutions and oversee our operational activities.

The remuneration structure for management is performance-oriented, comprising three main components: basic salary, performance-based annual remuneration (performance-based remuneration), and term-based incentive income (medium and long-term incentive). Performance-based remuneration shall account for no less than 50% of the total of base salary and performance-based remuneration. All members of management enter into annual performance contracts with the Company, with their performance-based annual remuneration directly linked to the results of their appraisal. Term-based incentives are paid upon completion of the three-year term, based on performance against the term contract. We also strictly comply with regulatory requirements for listed companies, publicly disclosing the remuneration of the President and other management personnel on an annual basis, ensuring transparency and standardisation in remuneration management.

The performance appraisal system for the President and management has successfully achieved the deep integration of financial indicators and ESG indicators into the management performance appraisal framework. The financial dimension focuses on key value creation indicators such as economic value added, return on equity, net profit, profit before tax, and free cash flow, thereby strengthening the assessment of operational efficiency and value creation capabilities. The ESG dimension incorporates core indicators such as energy conservation and emissions reduction, safety and environmental protection, and compliance management into the appraisal framework, ensuring the deep integration of sustainable development into business operations and management decision-making.

We have established a remuneration clawback mechanism. In cases where performance targets are not met, or where major decision-making errors, safety responsibility accidents classified as 'relatively serious' or above, major quality responsibility accidents, major environmental pollution responsibility accidents, or major disciplinary violations and legal dispute losses occur, corresponding penalties, such as deduction of performance-based remuneration and fines, are imposed on the responsible personnel. For details on management remuneration and shareholdings, please refer to our annual report for 2025.



The Performance Appraisal of Management Members

ESG-related categories and weightings	Performance indicator	Weight
Value contribution (60%)	Economic Value Added (EVA)	15%
	Return on Equity (ROE)	10%
	Net profit	15%
	Profit before tax	10%
	Free cash flow	10%
Operational performance (30%)	Domestic oil and gas equivalent reserve replacement ratio	10%
	Oil and gas production	10%
	Net profit per capita	10%
Energy conservation and emissions reduction (10%)	Energy and water conservation	2%
	Chemical oxygen demand (COD) emissions	2%
	Nitrogen oxides (NOx) emissions	2%
	Volatile organic compound (VOC) emissions	2%
	Emissions per RMB10,000 of output value	2%
Safety and environmental protection (mandatory)	Fatality rate per million hours worked	5 points deducted for each unmet indicator
	Major work safety incidents	
	Major environmental incidents	
Compliance management (mandatory)	Control of investment plans	
	Evaluation of internal control framework operation	

Investor Relations Management

We comply with relevant national laws and regulations, as well as the securities regulatory rules of our domestic and overseas listing jurisdictions. We have formulated and continually revised core governance documents, including the Measures for the Management of Information Disclosure and the Measures for the Management of Investor Relations, thereby establishing a comprehensive and standardised management framework. Through strict adherence to these requirements, we ensure that information disclosure is truthful, accurate, complete and timely, effectively safeguarding the legitimate rights and interests of investors while consistently enhancing our corporate governance standards and credibility in the capital markets.

Key Initiatives and Annual Progress in Investor Relations Management

High-quality information disclosure

- ✧ We improved the information disclosure management framework, promptly informed stakeholders of our operations and governance, fulfilled information disclosure obligations in accordance with applicable laws, and enhanced information transparency. A total of 191 announcements were issued throughout the year.
- ✧ We regularly published quarterly, interim and annual financial reports, as well as the annual ESG report, providing comprehensive disclosure of the Company's operations, financial performance and ESG management information.
- ✧ We received an A rating for information disclosure from the SSE for 11 consecutive years.

Comprehensive Investor Communication

- ✧ We conducted four results presentations throughout the year, attended 62 broker conferences, hosted 38 investor meetings, made 50 outreach visits to investors, arranged 12 group investor sessions, and met with more than 1,000 buy-side and sell-side analysts.
- ✧ We answered over 1,000 investor calls, replied to more than 1,000 email inquiries, and achieved a 100% response rate to investor queries.

Reverse Roadshow

- ✧ In 2025, we organised two reverse roadshow events for investors, in June and December.
- ✧ From 9 to 13 June, we invited 28 investors and analysts from institutions including CICC, JP Morgan and Morgan Stanley to visit the Xinjiang Oilfield, Karamay Petrochemical, Dushanzi Petrochemical and KunLun Energy's Urumqi city gas project, comprehensively showcasing our practical achievements and experience in advancing its green and low-carbon transition, leveraging technological innovation and optimizing its strategic layout.
- ✧ From 1 to 4 December, we invited 43 investors and analysts from institutions including JP Morgan, Everbright Securities and Bank of China International, as well as reporters from three mainstream financial media outlets, including Shanghai Securities News, Securities Daily, and Securities Times, to visit core production and operation sites at several entities in the Sichuan-Chongqing region, including Southwest Oil and Gasfield, Sichuan Petrochemical and Sichuan Marketing, comprehensively showcasing our core competitive advantages, industrial chain profitability, and sustainable development potential in our natural gas, refining and chemicals, and marketing businesses.

Compliance Operations and Risk Management

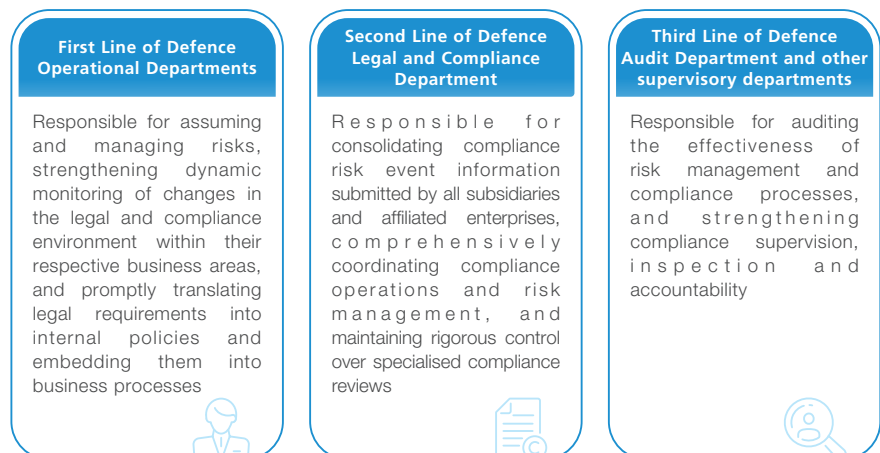
We uphold the compliance concept of ‘supremacy of the law, compliance as the priority, honesty and good faith, and protection of rights in accordance with the law’. By coordinating risk, compliance and internal control efforts, strengthening the compliance management framework, clarifying compliance responsibilities, and reinforcing compliance risk control mechanisms, we continuously enhance our compliance management system to comprehensively improve our compliance standards.

Governance Framework

We strictly comply with laws, regulations and other regulatory requirements, embedding compliance requirements into our systems and processes. We have clearly defined the compliance management responsibilities of our governance bodies and established a compliance operations and risk management organisational framework characterised by Board-level coordination, departmental division of responsibilities, shared accountability and coordinated action.

At the decision-making and oversight level, the Board has overall responsibility for the Company’s ESG work, including the topic of compliance operations and risk management. The Sustainable Development Committee is responsible for identifying and assessing related material risks and impacts, overseeing the Company’s commitments and performance, reviewing the implementation of relevant policies, targets and measures, and reviewing the content related to compliance operations and risk management in the annual ESG report. The Audit and Risk Management Committee is responsible for supervising and evaluating the Company’s internal control. At the management level, the ESG Management Working Committee is responsible for implementing the decisions and arrangements of the Board and the Sustainable Development Committee on compliance operations and risk management, organizing cross-departmental coordination, and systematically carrying out the management of related impacts, risks and opportunities. At the execution level, the Legal and Corporate Reform Department is responsible for the development, implementation and operation of the internal control and risk management system. The Audit Department is responsible for organizing and conducting internal control supervision and evaluation. Each specialized company and subsidiary establishes and improves the compliance and risk management system in its respective area at each level, and implements compliance and risk management work in accordance with the Company’s requirements.

Three Lines of Defence in Risk Management and Compliance



Management System

We have established a three-tier institutional compliance framework comprising basic policies, specific standards and operational guidelines, systematically integrating compliance, internal control and risk management requirements into all business processes, ensuring effective alignment from macro principles to micro execution.

Three-Tier Institutional Framework for Compliance Operations and Internal Control Risk Management



Enhancing Compliance Management

We continuously strengthen compliance risk prevention and control, enhancing our compliance management mechanisms, including compliance risk assessment and early warning, compliance review, effectiveness evaluation of the compliance management system, compliance appraisal and reporting, and reinforcing compliance management oversight and accountability. As at 31 December 2025, such as PetroChina International Co., Ltd and China National Oil and Gas Exploration and Development Corporation had obtained dual certification of their compliance management systems under ISO 37301 and GB/T 35770.

Compliance Management Mechanisms

Compliance risk assessment and early warning	Dynamically track changes in the legal and regulatory environment; establish and improve information reporting mechanisms, including special reports and briefings; and issue timely alerts on material compliance risks.
Compliance review	Strengthen the compliance review mechanism; improve the list of matters subject to specialised compliance review; integrate compliance reviews into business processes; and ensuring that all required reviews are conducted.
Effectiveness evaluation of the compliance management system	Develop and improve evaluation indicators; and promote the continuous improvement and effective operation of the compliance management system through effectiveness evaluations.
Compliance assessment and reporting	Continuously improve assessment indicators for lawful and compliant operations; rigorously implement assessments with performance-based outcomes; strengthen incentives and accountability; specify requirements for monthly compliance risk reports and reports on major compliance risk events; and enhance compliance monitoring.

Key Initiatives and Annual Progress

Strengthening compliance review

- ✧ We developed compliance review norms that integrate frameworks, lists, and templates, ensuring full coverage of compliance reviews for both legally related decisions and operational management matters.
- ✧ We conducted compliance reviews and assessments for major business investments, mergers and acquisitions, restructuring, and corporate reforms.

Focusing on key areas and emerging risks

- ✧ We regularly monitored changes in the legal environment and issue multiple editions of the Risk Alert Letter in response to major and typical risks.
- ✧ Targeted compliance risk assessments and rectification of potential risks are carried out in key areas, including sales and trading, health, safety and environmental protection, tendering and bidding, finance, and foreign-related operations.
- ✧ We developed and revised legal compliance and risk control guidelines for business areas including refined oil products, natural gas, and chemical product sales.




Compliance training by level and type

- ✧ We organised online specialised training on lawful and compliant operations for mid-level management, reaching over 40,000 participants.
- ✧ We held multiple specialised training sessions for the General Counsel, mid-to-senior level legal staff, and key personnel involved in foreign-related legal matters, training over 400 professionals in total.
- ✧ The Company provides targeted compliance training to personnel in key positions, as well as to specialized subsidiaries and affiliated enterprises.

Strengthening Internal Control and Risk Management

Drawing on the Risk Management Guidelines (ISO 31000:2018), the Company continues to strengthen the development of an internal control system characterized by full coverage, strong constraints, and rigorous oversight. It focuses on enhancing process review and optimization, improving the closed-loop mechanism for supervision, evaluation and rectification, and effectively enhancing its capability to prevent and mitigate major operational risks. The Company also strengthens supervision, assessment, and accountability. The Compliance Management Policy explicitly incorporates the implementation of responsibilities related to legal compliance, including law-based governance and administrative penalties, as key assessment indicators into the performance contracts of personnel at all levels, with strict evaluation and enforcement. In the Risk Management Measures, the principle of “those responsible for business operations are also responsible for risk control” is clearly defined. It further requires that risk management departments at all levels conduct self-inspections and self-assessments, during the internal control evaluation process, on the design and implementation of risk management systems at their respective levels, the execution of major risk control measures, and the effectiveness of risk management.

Closed-loop Risk Management

Stage	Description
 <p>Risk assessment</p>	<p>Closely integrate annual major risk assessments, business risk assessments, and special risk assessments with annual operating plans, business controls, and major events and high-risk activities; implement risk response measures in key departments and positions, continuously monitoring and enhancing implementation effectiveness</p>
 <p>Risk monitoring and early warning</p>	<p>Dynamically and continuously track changes in risks; establish appropriate risk indicators and warning thresholds; conduct ongoing monitoring of risk indicators, and enhance the proactivity and forward-looking capability of our risk management</p>
 <p>Addressing risks</p>	<p>Integrate risk response measures into work plans and assessment requirements; monitor changes in risks and the effectiveness of response measures in real time, and promptly adjust response measures based on actual circumstances</p>

Key Initiatives and Annual Progress

Optimising and improving the risk management framework

- ✧ We established material operational risk assessment as a core annual task, systematically identifying and prioritising material risks for the year.
- ✧ We established and implemented a material operational risk monitoring and early-warning mechanism featuring 'monthly reporting and quarterly analysis', creating a regular reporting system.
- ✧ We developed a monitoring and early-warning indicator system for material operational risks, with ongoing tracking of eight key risk indicators.

Identifying and responding to long-term and emerging strategic risks

- ✧ We focused on the identification and assessment of long-term, structural and external risks, and formulated corresponding response strategies.
- ✧ The Company incorporates ESG-related risks into its risk assessment scope.

Enhancing risk management effectiveness

- ✧ The Company incorporates key areas, including procurement and sales, and investment, into the scope of internal control supervision, and promptly addresses control deficiencies.
- ✧ Explore the conduct of forward-looking risk research, optimize the thresholds of eight key risk indicators, and enhance the accuracy of risk assessment.

Risk management training

- ✧ In October 2025, we organised the Industry Finance Advanced Training Programme (II) in collaboration with Peking University Law School. The programme featured courses on industry-finance integration, macroeconomics and the rule of law, as well as risk management and practical applications. Nearly 60 senior managers from the Company participated in the training.

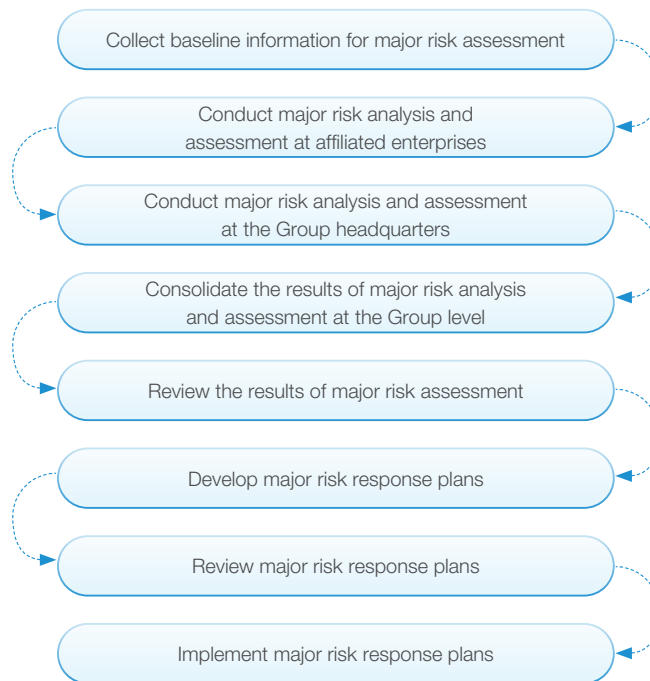


In 2025, the Company proactively adopted various measures to respond to and mitigate different types of risks, including risks related to industry regulation and tax policies, oil and gas price volatility, foreign exchange fluctuations, market competition, uncertainties in oil and gas reserves, overseas operations, climate change, safety hazards, and force majeure. For further details, please refer to the Company’s website and its 2025 Annual Report.

Material Operational Risk Assessment

We treat material operational risk assessment as a key annual task. Consistent with industry characteristics and operational realities, we conduct a thorough review of risk sources across economic conditions, market trends, industrial policies and technological developments, systematically evaluating risk assessment results at all levels to comprehensively assess and determine our material operational risks. In 2025, the Company proactively adopted various measures to respond to and mitigate different types of risks, including risks related to industry regulation and tax policies, oil and gas price volatility, foreign exchange fluctuations, market competition, uncertainties in oil and gas reserves, overseas operations, climate change, safety hazards, and force majeure. For further details, please refer to the Company’s website and its 2025 Annual Report.

Material Operational Risk Assessment Procedures



Assessment of Emerging Risks

We closely monitor emerging risks and incorporates them into our risk assessment framework in accordance with relevant domestic and international standards and guidelines, including ‘Risk management — Guidelines for managing an emerging risk to enhance resilience’ (ISO/TS 31050:2023), and ‘Risk management — Guidelines for managing an emerging risk’ (GB/T 46409-2025). We proactively monitor emerging risks and systematically assesses their potential far-reaching impact on our long-term development and daily operations to enhance our overall adaptability and resilience.

Risk Assessment and Management for New Products and Projects

We require our subsidiaries to strictly follow risk assessment procedures during the development of new products and projects. Risks are dynamically and proactively identified and evaluated, and an effective closed-loop risk event management system is established to improve our overall operating performance and efficiency.

Risk Assessment and Management for New Products and Projects



Focusing on engineering projects, we have established a bidding risk database by collecting historical data and developing a comprehensive risk classification register. Engineering project risks are categorised based on their likelihood and nature, forming a consolidated risk analysis summary. In addition, quantitative analytical tools such as Monte Carlo simulation are applied to identify major risks across the two dimensions of probability and impact. Combined with qualitative analysis, total bid prices are simulated under different confidence intervals to provide a basis for decision-making.



We have established a closed-loop risk management mechanism featuring preliminary prevention, in-process control, and post-project evaluation. For example, in a new shale gas project, we engaged a third-party risk assessment institution to conduct quantitative analysis of geological uncertainties, established an emergency reserve, and held monthly cross-departmental risk evaluation meetings to identify and address issues in a timely manner.



In new deep oilfield oil and gas exploration and production projects, we proactively follow a stepwise approach of 'introduction, assimilation, absorption, innovation and advancement', combined with a full value chain collaborative research model, to eliminate deficiencies and mitigate risks at source. In addition, we have established a comprehensive quality evaluation system, introducing an innovative 'standards + scenarios' assessment methodology. We have also built key laboratories and high-performance testing centres to ensure technological reliability and reduce risks associated with new product development.



During the research and development of new products, we adopt a full life-cycle management approach to access benefit-related risks across all operational stages, from exploration to production. With this full life-cycle approach, economical benefits can be safeguarded. Through professional collaboration, market-oriented operations and other measures, we have reduced per-barrel oil costs, achieving large-scale development with enhanced efficiency.



Implementing the 'Digital Intelligence PetroChina' strategic initiative, we have established an Engineering Project Management (EPM) information system integrating multiple functional modules. This enables real-time visualisation of construction progress, helping management promptly identify project deviations and providing data-driven support for risk assessment, thereby enabling more accurate risk identification and response.

Enhancing Supervision and Auditing

To ensure the effective and sustained operation of our compliance and risk management system, we regard supervision and auditing as critical safeguards. Through systematic and targeted oversight activities, we continue to strengthen our internal control framework.

We have established a routine supervision and inspection mechanism. We continue to refine daily supervision methodologies, focusing on key areas, processes and positions, and review the effectiveness of our internal control system. We conduct structured supervision sampling and testing, and put forward targeted improvement measures to address both root causes and symptoms and combine prevention with control. We review the rectification of problems identified through internal control supervision, and conduct comprehensive evaluations of work organisation, implementation and effectiveness, thereby enhancing rectification effectiveness.

We have established a supervision system that combines internal and external audits. We conduct internal audits annually to comprehensively review and assess the finance, operations and risk management of our wholly-owned and controlled subsidiaries, and further strengthen internal control and risk management. We prioritise key audit areas and carry out special audits on the economic responsibilities of management personnel, major investment and infrastructure projects, and overseas operations, to standardise the exercise of power, improve investment returns and mitigate operational risks. We broaden the scope of audit oversight and include business ethics in audit coverage. To strengthen internal control supervision and evaluation, we align closely with national policies and capital market regulatory requirements, strengthen testing in key areas such as internal control design, bidding and tendering, project management and information system control, and provide risk alerts for critical internal control links. We strictly implement the audit rectification system, focus on source governance, strengthen follow-up supervision, and continuously intensify accountability for problems identified in audits.

The Company leverages the independence and authority of external audits to identify potential risks and management deficiencies, and takes external audit opinions as an important basis for improving institutional processes and optimizing its corporate governance structure, thereby continuously enhancing its level of law-based and compliant operations as well as its risk resilience. In 2025, the Company engaged KPMG Huazhen LLP to conduct an audit of the design and effectiveness of its internal controls in accordance with the *Basic Standard for Enterprise Internal Control* and other relevant regulations. No material weaknesses were identified. The Company's internal control system is sound and has been effectively implemented.

In 2025, we initiated and completed 100% of the internal audit projects. All identified problems have been fully rectified, driving the formulation and revision of 428 rules and regulations. Full audit coverage was achieved for economic responsibility audits covering all outgoing personnel and those completing a three-year term, for construction project audits covering all completed final accounts, for domestic cooperative projects covering joint accounts every two years, and for key overseas investment projects over 100 million USD covered every three years.

In 2025, the Company conducted and completed **100%** of the internal audit projects and reported on its audit work to the Board's Audit and Risk Management Committee on **3** occasions.

Transparent Tax Compliance and Payment

We have formulated the Tax Policy and the Tax Management Measures as the fundamental standards guiding tax practices across our global operations. We are committed to complying with laws and regulations in all business activities, with systematic tax risk management constituting a critical component of our corporate governance. We and our subsidiaries maintain a strong awareness of the rule of law and compliance, rigorously implementing tax laws, regulations and policy requirements. We pay taxes and conduct tax planning in accordance with the law, and strictly prohibit illegal acts such as tax evasion, supporting the Company's sustainable development through transparent and standardised tax practices.

Tax Policy

-  Tax Compliance and Planning. The Tax Policy was approved by management and is aligned with our strategy. It requires us to pay taxes according to the law in the jurisdictions where we operate and create value.

-  Lawful and Compliant Tax Planning. In full compliance with international tax treaties, global tax regulations and local tax laws in the countries where we operate, we adopt tax structures with economic and commercial substance and implement reasonable tax planning according to business needs. We avoid aggressive tax planning to prevent potential losses and negative impacts on the Company's reputation and sustainable development.

-  Good-Faith tax payment. In full compliance with applicable tax laws in the countries or regions where we operate, as well as our internal management framework and operational standards, we maintain a high professional standard, ensuring that taxes are paid accurately and on time in accordance with the law.

-  Compliant Information Disclosure. We support efforts to enhance tax transparency and disclose tax information as required. All disclosures are based on accurate and complete tax documentation, ensuring compliance with the regulatory requirements of tax authorities.

-  Tax Risk Management and Control. We manage tax risks through our robust and effective internal control system and business procedures. When ambiguities arise in relevant tax laws regarding significant tax matters, we make professional judgements after consulting professional tax advisors and engaging in thorough communication with tax authorities.

-  Anti-Tax Avoidance Commitment. We undertake not to shift value to low-tax jurisdictions.

-  Related-Party Transaction Compliance. We undertake that connected transactions adhere to the arm's length principle and are not conducted for the purpose of base erosion and profit shifting (BEPS).

-  International Tax Cooperation. In collaboration with the international community, we promote fairness and consistency across national tax systems to create a fair and stable tax environment, while establishing fair, open and transparent communication channels with tax authorities worldwide.

-  Fulfillment of Social Responsibilities. We strictly comply with local laws and regulations in the countries where we operate, pay taxes to relevant governments in accordance with the law, and contributes as appropriate to the development of local economies. In countries where the Extractive Industries Transparency Initiative (EITI) standard is implemented, our local operations disclose tax payments in a timely manner, providing more details than the minimum requirements prescribed by the EITI. We support the anti-BEPS initiative and adhere to the Tax Policy, pledging to pay taxes in accordance with the law in the jurisdictions where we operate and create value, contributing to socio-economic development while pursuing its Imports are principally sourced from, while pursuing our own sustainable development.



Anti-commercial Bribery and Anti-corruption

We strictly comply with the Supervision Law of the People's Republic of China, the Regulations on the Implementation of the Supervision Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, and other applicable national laws and regulations, as well as international frameworks and initiatives such as the United Nations Convention against Corruption and the United Nations Guiding Principles on Business and Human Rights. We committing to uphold and support its Ten Principles in the four areas of human rights, labour, environment and anti-corruption through concrete actions, with these Principles guiding our ESG practices.

We consider the integrity values of 'exercising power impartially and performing duties with integrity' to be a fundamental component of our corporate culture, continuously developing and enhancing our anti-commercial bribery and anti-corruption management framework to ensure coverage across the entire Company and our business partners. We demonstrate zero tolerance for seeking improper gains through corruption, bribery, illicit benefit transfers or any other illegal means, and strictly prohibit all forms of corrupt practices, thereby strengthening our safeguards for ethical and compliant operations.



Governance Framework

We have established a top-down, tiered governance framework with clearly defined roles and responsibilities, integrating internal and external oversight resources across legal, internal control, and audit. Through this multi-dimensional and collaborative supervision network, we provide robust organisational support for the operation of our anti-commercial bribery and anti-corruption management framework.

At the decision-making and supervisory level, the Board of Directors has comprehensive responsibility for ESG matters, including the topic of "Anti-Commercial Bribery and Anti-Corruption." The Sustainable Development Committee is responsible for identifying and assessing related significant risks and impacts, monitoring the company's commitments and performance, reviewing the implementation of relevant policies, objectives, and measures, and deliberating on the content related to the "Anti-Commercial Bribery and Anti-Corruption" topic in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for executing the decisions and deployments made by the Board of Directors and the Sustainable Development Committee regarding anti-commercial bribery and anti-corruption management. It organizes cross-departmental collaboration and systematically manages related impacts, risks, and opportunities. At the implementation level, the Legal and Enterprise Reform Department is responsible for conducting specialized anti-commercial bribery compliance operations and the Audit Department oversees the development of systems related to anti-bribery and anti-corruption. Various professional companies and subordinate enterprises progressively establish and improve anti-commercial bribery management systems within their respective fields, ensuring the completion of annual tasks in accordance with company requirements. As an independent third party, the Discipline Inspection and Supervision Group of the National Supervisory Commission stationed at China National Petroleum Corporation (CNPC), in collaboration with the Human Resources Department, carries out regular integrity supervision, accepts reports and complaints, investigates violations, and proposes handling recommendations.

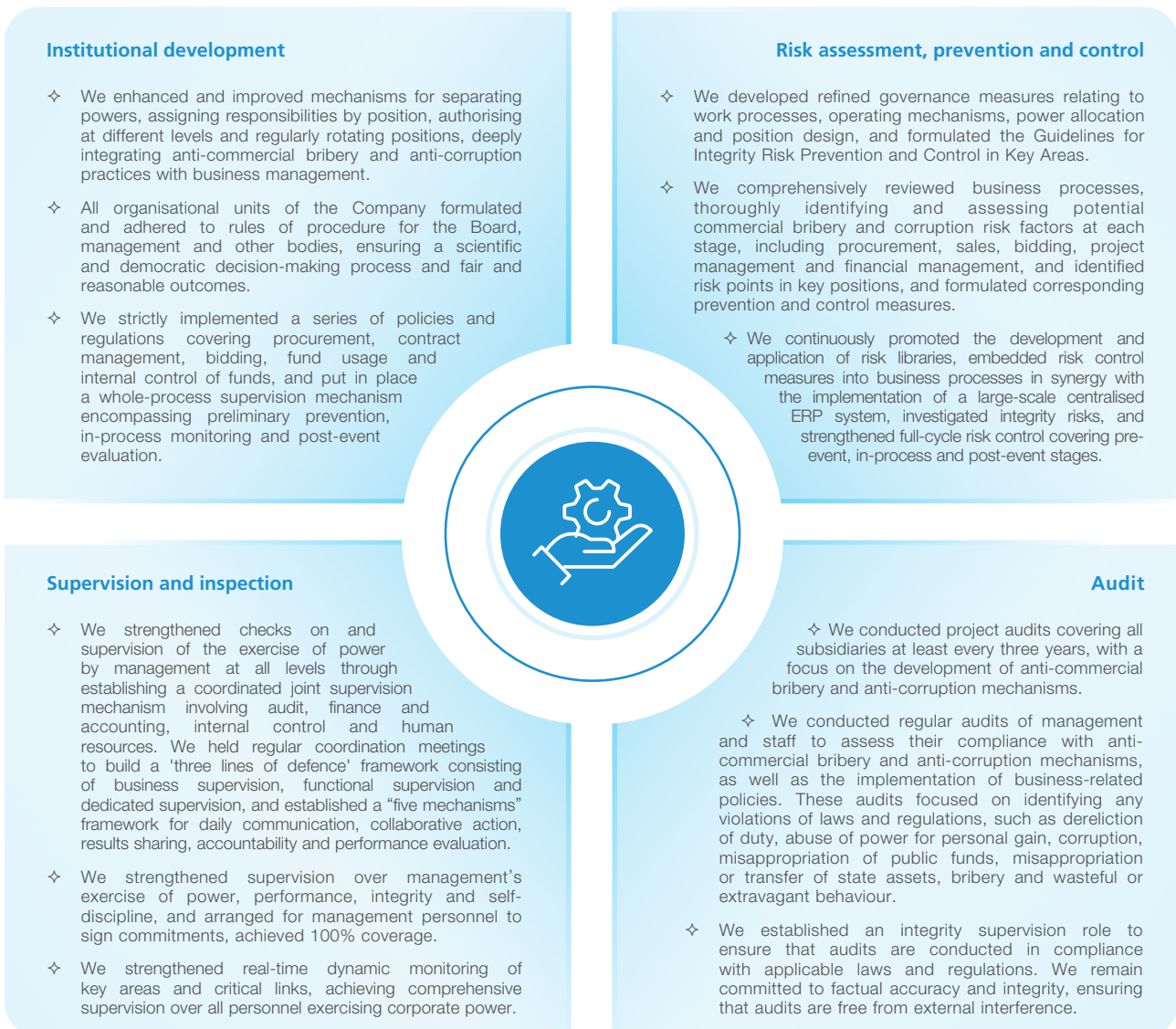


Management System

We have formulated and strictly implemented a series of policies and ethical standards, including the Anti-Commercial Bribery Manual, the Integrity and Compliance Manual, the Corporate Culture Manual, the Professional Code of Conduct for Senior Management, the Professional Code of Conduct for Employees, and the Regulations on Handling Employee Violations. These require management and employees, as well as suppliers and business partners, to strictly comply with legal norms and ethical standards against bribery, extortion, fraud and money laundering, and strictly prohibit them from providing, giving, soliciting or accepting financial benefits in their dealings with service recipients or business partners, or from engaging in any form of fraud by taking advantage of their positions.

Management Operating Mechanism

To build a systematic and sustainable anti-commercial bribery and anti-corruption governance framework, we have established a multi-dimensional management mechanism covering all business areas and processes. Through the coordinated operation of key links such as institutional regulation, risk management and control, personnel supervision, and closed-loop audit, we continuously enhance the operating mechanism to fully prevent and defuse commercial bribery and corruption risks, ensuring the effective implementation and ongoing improvement of our governance practices.



Violation Handling Procedures

Key step	Description
Investigation and verification	Receive and conduct preliminary verification of reported leads. Where case filing criteria are met, initiate a formal investigation. Based on investigation findings, determine liability and formulate recommended disciplinary actions.
Review and approval	Organise reviews and multi-departmental consultations on the violations, and review and approve the violation handling report and corresponding disciplinary decisions.
Decision and implementation	Serve and announce the disciplinary decision, ensuring its full and effective implementation.
Reconsideration and review	Accept and process requests for reconsideration or review submitted by the disciplined party, and conduct supplementary investigations where necessary.

Integrity Culture Training and Promotion

Our Targets

100% Coverage of Anti-Bribery and Anti-Corruption Training

We have established an anti-commercial bribery and anti-corruption training and education mechanism covering all management personnel, employees (including contract workers²) and business partners. We provide ongoing training on relevant laws and regulations, including the Supervision Law, the Law on Administrative Discipline for Public Officials, anti-fraud policies, and rules for ethical conduct. We also compile cautionary case studies, organise integrity awareness sessions (including pre-appointment integrity education) and deliver anti-corruption education activities tailored to different levels and categories, thereby establishing a sustained and effective mechanism for integrity education.

Anti-Commercial Bribery and Anti-Corruption Training in 2025

Training group	Training participation (person-times)	Training coverage (%)
Directors	13	100
Management personnel	11	100
Employees (including contract workers)	430,300	100
Newly qualified suppliers and contractors	3,296	100

² We have no part-time staff.

Supervision and Whistleblowing Mechanisms

We have established multi-stakeholder and multi-channel supervision and whistleblowing mechanisms as a key measure to prevent duty-related violations and strengthen internal oversight. The Discipline Inspection and Supervision Team of the National Commission of Supervision stationed at PetroChina, acting as an independent oversight body, is responsible for receiving and managing reports and coordinating the end-to-end process for handling anti-commercial bribery and anti-corruption leads, ensuring the utmost confidentiality of reporting information and safeguarding the objectivity and fairness of case handling.

We have established accessible complaint and whistleblowing channels available to all employees, third parties conducting business with us, and the public. Any individual may submit a report, either by name or anonymously, concerning duty-related violations associated with our operations.

We regularly organise dedicated training sessions for all employees on the use of whistleblowing channels. Topics covered include specific procedures for submitting reports, evidentiary requirements for anti-commercial bribery and anti-corruption leads, the scope of whistleblower protections and confidentiality commitments. These sessions help employees accurately identify various forms of commercial bribery, corruption and misconduct, raising their awareness and encouraging proactive engagement in oversight and reporting.

Procedures for Handling Whistleblowing Information



We have formulated the Measures for the Management of Employee Violation Leads to ensure that all complaints, whistleblowing reports and reported leads are processed strictly in accordance with established procedures, guaranteeing the prompt initiation of investigations. We also engage professional resources to verify and handle cases in full compliance with laws and regulations, thereby effectively ensuring the timeliness of responses and the fairness of the handling process.

Key steps	Description
Receiving and screening	Receive whistleblowing leads, determine the relevant jurisdiction, and assign or transfer the case to the responsible department.
Classification and analysis	Classify the reported leads and determine the corresponding handling procedures and approval requirements.
Verification and decision-making	Investigate and verify the reported case, and make a formal decision based on the findings.
Documentation and tracking	Document the entire handling process, and track and monitor the timeliness and progress of the case handling.
Daily management	Manage the handling of violation leads through a standardised unified information platform, documenting key violations, lead sources, handling status and other relevant details, while promptly updating case outcomes.



Complaint and whistleblowing address:
 9 Dongzhimen North Street, Dongcheng District, Beijing
 The Discipline Inspection and National Commission of Supervision stationed at PetroChina
 Postcode: 100007

Whistleblower Protection

We strictly implement regulations such as the Supervision Law and the Regulations on the Supervision and Law Enforcement Work of Supervisory Organs, firmly safeguarding the personal freedom, life, health, property and right to remedy of individuals under investigation. We also strengthen the protection of the legitimate rights and interests of whistleblowers, accusers, witnesses, individuals under investigation and their relatives, and other relevant persons. We have zero tolerance for retaliation resulting from supervisory actions such as criticism, whistleblowing, complaints and accusations.

We fully respect whistleblowers' preference for anonymity and strictly prohibit the use of technical means to trace related information. For signed reports, we rigorously follow the notification and feedback procedure, maintaining strict confidentiality regarding the whistleblower's name, workplace, address and any related reporting information. Throughout the process of accepting reports or conducting verification, the identity of the whistleblower remains undisclosed. Any retaliatory behaviour is met with zero tolerance and dealt with seriously and in full accordance with applicable laws and regulations.

Supplier Ethics Supervision

To build a transparent supply chain ecosystem based on integrity, we have established the Measures for the Management of the Supply Chain and the Measures for the Management of the 'Three Categories of Blacklisted Suppliers', which place suppliers involved in bid rigging, commercial bribery or those severely undermining fair market competition and normal social order directly on the 'Three Categories of Blacklisted Suppliers', with strict disciplinary measures applied. This forms an anti-corruption management system covering all suppliers. We have incorporated anti-commercial bribery clauses into our standard contract templates and require suppliers to sign commitment letters, embedding controls into standardised and formalised processes. We maintain a routine supervision mechanism for supplier ethics, requiring suppliers to strictly comply with anti-commercial bribery policies. We also integrate business ethics performance into the full-cycle management of supplier onboarding, process control and offboarding.

We regularly organise compliance and anti-commercial bribery training sessions for business partners, and rigorously investigate and penalise duty-related violations such as power rent-seeking, illicit transfer of benefits and bribery. We have also strengthened the joint disciplinary mechanism for bribery. Suppliers failing to meet relevant requirements may be subject to interviews, warnings, downgraded collaboration ratings, market access restrictions or placement on a 'collaboration blacklist'. These measures are designed to create a fair, open and transparent business environment. For details, please refer to the section entitled 'Sustainable Supply Chain' on page [139] of this report.



Anti-unfair Competition

We strictly comply with relevant laws and regulations, including the Anti-Unfair Competition Law of the People's Republic of China, the Anti-Monopoly Law of the People's Republic of China, and the Trademark Law of the People's Republic of China, adhering to the principles of voluntariness, equality, fairness and integrity. We resolutely oppose all forms of unfair competition, such as false advertising, monopolistic practices and infringement of trade secrets. We do not seek commercial opportunities or undermine the competitive advantages of other operators through means that violate business ethics, and remain committed to maintaining market order and respecting and protecting the legal rights and interests of all customers and partners.

Management Framework

At the decision-making and supervisory level, the Board of Directors has comprehensive responsibility for ESG matters, including the topic of "Anti-Unfair Competition." The Sustainable Development Committee is responsible for identifying and assessing related significant risks and impacts, monitoring the company's commitments and performance, reviewing the implementation of relevant policies, objectives, and measures, and deliberating on the content related to the "Anti-Unfair Competition" topic in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for executing the decisions and deployments made by the Board of Directors and the Sustainable Development Committee regarding anti-unfair competition. It organizes cross-departmental collaboration and systematically manages related impacts, risks, and opportunities. At the implementation level, the Legal and Enterprise Reform Department is responsible for conducting specialized anti-unfair competition compliance operations. Various professional companies and subordinate enterprises progressively establish and improve anti-unfair competition management systems within their respective fields, ensuring the completion of annual tasks in accordance with company requirements.



Guangxi Petrochemical 3.5 Mt/a catalytic cracking unit

Management System

The Company, in accordance with the requirements of the *Compliance Management Guidelines for Fair Competition of Business Operators* (GB/T 45205-2024), has established a fair competition and anti-monopoly compliance management system covering all business areas and the entire process. The Company has formulated and continuously improved the Implementing Measures for the Anti-Monopoly Law of the People’s Republic of China, the Integrity and Compliance Manual, the Anti-Monopoly Compliance Guidelines and our anti-unfair competition management system, establishing clear conduct prohibitions and a closed-loop management process to ensure that all business activities are conducted in an orderly manner within the policy framework, thus preventing monopolistic and other unfair competition risks at source.

Commitments and Standards on Anti-Monopoly and Anti-Unfair Competition Practices

The Integrity and Compliance Manual serves as our fundamental standard for business conduct. Targeted at all employees, it clearly communicates our commitment to fair competition and sets out prohibitions against entering into monopolistic agreements with competitors and abusing market dominance.

	Adhering to anti-monopoly requirements	Anti-unfair competition
Commitments	<p>We are committed to competing fairly and freely within the legal framework, strictly adhering to the anti-monopoly laws in the jurisdictions where we operate, and prohibiting all monopolistic practices that undermine fair competition</p>	<p>We strictly adhere to relevant regulations and uphold the principles of voluntariness, equality, fairness and integrity, participating in competition in a lawful and proper manner.</p>
Standards	<p>We adhere to the following standards:</p> <ul style="list-style-type: none"> ✦ Submit documents to the Legal Department for review when drafting marketing plans, pricing strategies, joint venture agreements and merger and acquisition transaction documents ✦ Refrain from discussing prices, costs, sales volumes, customers, transaction terms, sales markets, R&D or other sensitive information with competitors ✦ Adopt a prudent approach when assessing monopoly risks <p>We prohibit the following practices:</p> <ul style="list-style-type: none"> ✦ Sharing or discussing any competitively sensitive information with competitors ✦ Entering into agreements with competitors to fix or alter product prices, production or sales volumes or allocate markets ✦ Restricting the resale prices of goods by distributors ✦ Abusing a dominant market position ✦ Engaging in unlawful concentration of undertakings ✦ Engaging in bid rigging 	<p>We adhere to the following standards:</p> <ul style="list-style-type: none"> ✦ Respect consumers and other business operators ✦ Promote our products and services in an objective and truthful manner ✦ Consult the Legal Department when formulating prize promotions or sales campaigns <p>We prohibit the following practices:</p> <ul style="list-style-type: none"> ✦ Making disparaging remarks about competitors ✦ Conducting unlawful prize promotions ✦ Counterfeiting third-party trademarks, trade names or packaging ✦ Misappropriating trade secrets

Operational Framework

We have established a dynamic, end-to-end risk management and response mechanism in the areas of anti-monopoly and anti-unfair competition, covering 'risk identification', 'risk classification and assessment', 'early warning and response', 'process control', 'review and optimization' and 'capacity-building'. This mechanism systematically prevents and mitigates compliance risks and ensures the fairness and sustainability of business activities. In 2025, we were not involved in any litigation or subject to any material administrative penalties arising from unfair competition.



In 2025, we were not involved in any litigation or subject to any material administrative penalties arising from unfair competition.

Anti-Monopoly and Anti-Unfair Competition: Operational Framework and Annual Progress



Dynamic risk identification and early warning

- ✦ We revised the legal compliance and risk control guidelines for the sales of refined oil products, natural gas and chemical products. We updated and refined anti-monopoly and anti-unfair competition compliance risks and corresponding control measures by business scenario, ensuring alignment between policies and operational practices and enabling precise risk identification.
- ✦ In response to increasingly stringent anti-monopoly and anti-unfair competition compliance requirements, we issued multiple risk alerts, requiring business units to implement laws and regulations, as well as internal policies, reinforce management accountability and strengthen targeted risk prevention and control.



Embedded risk management and control

- ✦ We incorporated anti-monopoly and anti-unfair competition reviews into the scope of specialised compliance assessments, embedding review checkpoints into business processes to strengthen prevention and control of anti-monopoly legal compliance risks at source.



Systematic capacity building

- ✦ We incorporated anti-monopoly and anti-unfair competition compliance content into targeted legal compliance training for middle and senior management, heads of overseas operations and the General Counsel.
- ✦ We promoted anti-monopoly and anti-unfair competition compliance requirements through legal lectures, exhibition boards and other activities, enhancing the awareness and capabilities of staff across all levels in these areas.
- ✦ In 2025, we conducted 557 anti-monopoly and anti-unfair competition compliance training sessions, with a total of 441,402 participants.

In 2025

we conducted **557**

anti-monopoly and anti-unfair competition compliance training sessions, with a total of

441,402

participants.

02 ENVIRONMENTAL

We recognize that a sound ecological environment is the foundation of sustainable development. While operating responsibly across our regions in strict compliance with environmental protection laws and regulations, we continuously reduce the environmental impact of our activities, contributing to the building of a beautiful homeland where humanity and nature coexist in harmony.



UN Sustainable Development Goals





Climate Change and Green Low-carbon Transition

Climate change is a global challenge that demands collective action from all nations. China has proposed building a community with a shared future for mankind and established carbon peaking and carbon neutrality targets, calling on the energy sector to accelerate transformation. PetroChina endorses the temperature control goals set by the *Paris Agreement* and is committed to implementing national “dual carbon” policies. The Company has incorporated climate change response into its corporate governance and development strategy, steadily advancing toward carbon peaking and carbon neutrality. In line with climate-related governance and disclosure requirements set out by the Ministry of Finance and eight other ministries, as well as the HKEX and the SSE, and guided by the four pillars of the ISSB framework — Governance, Strategy, Risk and Opportunity Management, and Metrics and Targets — the Company has established and refined its climate-related governance framework, conducted assessments of climate risks and opportunities, formulated response measures, and continuously enhanced climate resilience. PetroChina has built a climate risk and opportunity management system commensurate with the characteristics of a major energy enterprise and spanning the full business chain.

Initiatives and Organizations Related to Climate Change that the Company Participates in or Supports

- *United Nations Framework Convention on Climate Change (UNFCCC)*
- *Paris Agreement*
- *National Climate Change Adaptation Strategy 2035*
- *Action Plan for Carbon Peaking by 2030*
- *China's 2035 Nationally Determined Contribution (NDC) Report*
- *China's Methane Emission Control Action Plan*
- *Declaration on Carbon Peaking and Carbon Neutrality by China's
Petroleum and Chemical Industry*
- *Oil and Gas Climate Initiative (OGCI)*
- *Oil and Gas Decarbonization Charter (OGDC)*
- *Carbon Capture, Utilization and Storage Industry Technology Innovation
Strategic Alliance (CTSA-CCUS)*
- *China Oil and Gas Enterprise Methane Emission Control Alliance*
- *China Energy and Chemical Industry Carbon Footprint Alliance*



Governance

The Company has improved its top-down three-tier governance framework comprising a decision-making and oversight tier, a management tier, and an execution tier, and has formulated the *ESG Management Measures (Trial)*. These measures comprehensively enhance the systematic, professional, and standardised approach to climate-related governance, ensuring the steady advancement of all climate-related initiatives.

Governance Framework

The Company has fully integrated climate-related work into its ESG governance and decision-making framework, systematically embedding the management of climate-related risks and opportunities into its green development strategy, major decision-making processes, risk management framework, and policy formulation, thereby ensuring that climate change governance permeates every aspect of operations and that all response measures are effectively implemented.

At the decision-making and oversight level, the Board of Directors has overall responsibility for ESG matters, including the topic of “Climate Change and Green Low-Carbon Transition”. The Sustainable Development Committee is responsible for identifying and assessing significant climate-related risks and impacts, overseeing the Company’s commitments and performance on climate change response, reviewing the implementation of climate-related policies, targets and measures, and deliberating on the content relating to “Climate Change and Green Low-Carbon Transition” in the annual ESG report.

At the management level, the ESG Management Working Committee is responsible for implementing the decisions and directives of the Board of Directors and the Sustainable Development Committee regarding climate change response and green low-carbon transition, organizing cross-departmental coordination, and systematically conducting the management of climate-related impacts, risks and opportunities.

At the execution level, implementation is jointly undertaken by the relevant functional departments at headquarters, specialised companies and subsidiaries. Functional departments, including the Office of the Board of Directors, the Quality, Health, Safety and Environmental (QHSE) Department, the Development Planning Department, the Legal and Enterprise Reform Department, the Finance Department, the Production and Operation Management Department, and the Human Resources Department, work collaboratively to conduct research on climate change response policies, analyse climate-related risks and opportunities, provide recommendations to the management based on the Company’s climate management practices, and implement the climate-related targets and work arrangements set by the management. Among these departments, the QHSE Department, as the dedicated department for carbon emissions management, is responsible for carbon emissions monitoring, verification and accounting, as well as carbon trading management, and takes the lead in organising carbon emissions performance assessment. The Development Planning Department is responsible for organising the preparation of the Company’s development plans and reviewing their implementation. The Legal and Enterprise Reform Department is responsible for risk management and the operation and maintenance of the risk management system. The Finance Department is responsible for asset management and insurance management. The Company has established a Carbon Asset Trading Centre under the International Business Company to execute carbon asset trading and manage carbon asset reserves. It has also established a GHG Emissions Verification and Accounting Centre under the Safety and Environmental Protection Technology Research Institute to carry out carbon emissions verification and accounting, as well as research on carbon reduction policies, technologies and methodologies for emission reduction projects. In line with the Company’s overall plans and targets, specialized companies and subsidiaries implement green and low-carbon development plans and fulfil their assigned targets and tasks.

Management System

The Company has continued to improve its management system for addressing climate change. In the area of new energy development, it has issued documents such as the *Green Low-Carbon Development Action Plan 3.0 and the New Energy Management Measures (Trial)*, providing clear action pathways for optimising the energy mix and advancing low-carbon transition. In the area of carbon emission management, it has established a system with the *Guiding Opinions on Strengthening Greenhouse Gas Emission Management and the Opinions on Improving the Quality of Carbon Emissions Data and Advancing the Construction of a Dual-Control Framework for Carbon Emission Management* serving as the top-level design; the *Carbon Emission Statistics and Data Quality Management Measures*, the *Carbon Emission Assessment Management Measures*, and the *Methane Emission Control Management Rules* providing institutional support; and the *Implementation Plan for Building a Product Carbon Footprint Management System*, the *Methane Emission Control Action Plan*, and the *Methane Emission Control Action Enhancement Plan* serving as action guidelines. In the area of climate risk management, it has issued a series of documents including the *Company's Risk Management Regulations*, the *Measures for the Prevention and Response to Natural Disasters*, the *Emergency Response Plan Management Measures*, the *Green Procurement Management Measures*, the *Carbon Asset Financial Management Measures*, and the *Property Insurance Management Measures*, forming a climate resilience management framework that covers the full business chain.

Professional Skills and Competencies

The directors and management personnel responsible for climate change and green low-carbon transition possess solid professional expertise and extensive practical experience. The Company provides annual training for directors and management on climate change and related topics and periodically invites external experts to share the latest trends on climate-related issues, enhancing the Board's knowledge and understanding of climate topics and keeping them abreast of the latest developments in the field. In 2025, the Company organized training for directors and management totaling 18 person-times on matters including climate-related risks and opportunities.

18 person-times



Organized climate-related training for directors and management

The Company has incorporated climate change response and dual-carbon-related topics as compulsory content for training programmes for Safety and Environmental Directors of its subsidiaries. It holds annual training sessions for mid-to-senior-level managers on carbon emission management, deepening their understanding of climate change response and dual-carbon work, and enhancing their ability to address climate risks and capture green development opportunities.

Information Reporting Mechanism

The Company has incorporated the "Climate Change and Green Low-Carbon Transition" topic into its systematic management framework and has established a regular information reporting mechanism. The Board of Directors and the Sustainable Development Committee receive dedicated annual briefings and assess the effectiveness of annual climate action. The Company convenes at least two meetings per year of the Leading Group for Carbon Peaking and Carbon Neutrality and Emerging Industries, at which the Chairman receives briefings on work related to the "dual carbon" goals, climate change response, and green low-carbon transition, and studies and advances key tasks. The ESG Management Working Committee receives at least two dedicated briefings per year on climate change and green low-carbon transition, and coordinates solutions to difficult issues. The execution tier regularly reports the latest progress on climate-related work to the ESG Management Working Committee through dedicated meetings and progress reports. In 2025, the Corporate Governance Working Group and Green Low-Carbon Working Group under the ESG Management Working Committee convened 8 meetings, specifically studying and continuing to advance key initiatives related to climate change response.

Incorporating Climate into Board and Management Performance Assessments

The Company incorporates climate-related indicators into management performance assessments and links performance pay to assessment scores, thereby driving the effective implementation of its sustainable development strategy. A combined weighting of 10% is assigned to GHG emission intensity and energy conservation and emission reduction indicators; failure to meet targets may result in a deduction of up to 10 assessment points (refer to page 35 of this report, “Management and Compensation Assessment”).

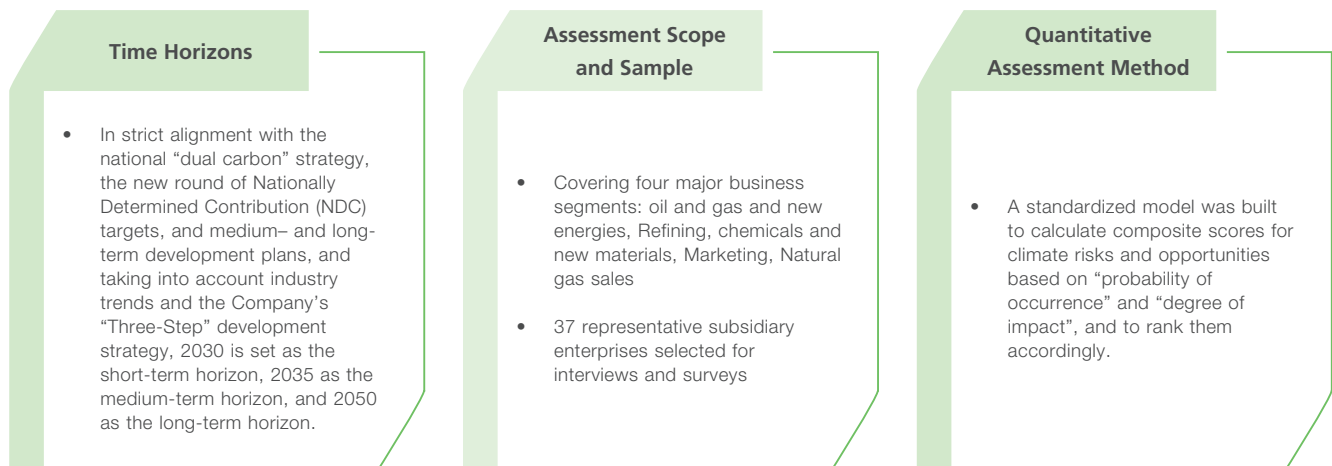
Strategy

In 2025, the Company conducted a comprehensive identification of potential climate-related risks and opportunities, clarified the specific transmission pathways through which climate risks affect its business, and refined the climate risk and opportunity register tailored to the Company’s business. For identified key risks and critical business segments, the Company conducted in-depth scenario analyses and quantitative assessments, integrated climate risks into its corporate strategy, and materially enhanced its adaptability and operational resilience in the face of climate change.

Identification of Climate-Related Risks and Opportunities

The Company adheres to the requirements and recommendations of the *Enterprise Sustainable Disclosure Standards No. 1 – Climate (Trial)* jointly issued by the Ministry of Finance and eight other ministries, the *Environmental, Social and Governance Reporting Code* issued by the Stock Exchange of Hong Kong Limited and its related climate disclosure regulations, and the *Shanghai Stock Exchange Listed Companies Self-Regulatory Guidelines No. 4 – Sustainable Development Report Preparation: No. 2 Responding to Climate Change*. In alignment with its own strategic planning, the Company has established a comprehensive, multi-dimensional climate risk assessment framework aimed at systematically identifying and quantifying the material impacts of climate-related risks and opportunities on the Company’s financial position, operating results and cash flows, and at integrating assessment findings into strategic planning, investment decision-making and risk management processes.

To ensure the objectivity, scientific rigor and comparability of assessment results, the Company has further defined the time horizons, assessment scope and sample for climate risk and opportunity analysis, and has established standardized quantitative assessment methods:



Based on model scoring results and multi-dimensional analysis by internal and external experts, PetroChina has systematically constructed a climate risk and opportunity register, identifying 8 acute physical risks, 3 chronic physical risks, 6 transition risks and 5 transition opportunities.

Climate Risk Register (Physical Risks)

Risk Type	Risk Name	Risk Level	Impact Scope	Impact Horizon	Risk Impact Description
Acute Physical Risk	Extreme Precipitation	High	Nationally prevalent	Short-term	Extreme precipitation is characterized by high intensity, concentrated duration, and wide geographic impact. It readily induces sharp increases in surface runoff and geological instability and is a key trigger for secondary disasters such as flooding and landslides that threaten asset safety.
	Strong Winds	High	Northwest and Northeast China	Short-term	Typically caused by cold air outbreaks or orographic airflow, with characteristics of high suddenness and widespread, most common during cold waves and sandstorm periods in winter and spring. Poses a direct threat to the safety of outdoor assets and operational continuity.
	Flooding	High	Northeast, Southwest and North China	Short-term	A disaster caused by abnormal rise and overflow of watercourses and drainage systems due to heavy rain, snowmelt or tides. This risk is characterized by wide inundation extent, long duration and high destructiveness, and is a core risk factor threatening asset safety in riverine and low-lying production facilities and operational continuity.
	Thunderstorms	Medium	South, Southeast coastal, Southwest, and North China	Short-term	A localized, short-duration severe weather event triggered by strong convective activity, typically accompanied by lightning, short-duration heavy rainfall and sudden gusts or hail. Directly impacts outdoor production continuity and can cause lightning damage to precision electronic equipment and infrastructure.
	Extreme Cold	Medium	Mainly in northern China, occasionally in southern China	Short-term	A strong cold air process in which temperatures drop significantly below historical averages for several days or longer, typically accompanied by heavy snow, freezing rain, or severe snowfall. May result in freezing and cracking of oil and gas production equipment, increased frost risk in long-distance pipeline networks, and a sharp rise in seasonal energy security pressure.
	Extreme Heat/Heatwave	Low	Northwest China, Yangtze River Basin	Short-term	An extreme weather event in which temperatures remain significantly above historical averages for several days or longer. Characterised by persistence, insufficient overnight cooling and high humidity, posing threats to the occupational health and safety of frontline workers, and prone to triggering equipment cooling failures and safety risks in storage and transportation.
	Typhoon/Tropical Cyclone	Low	Coastal areas	Short-term	A powerful cyclone system formed over tropical or subtropical ocean surfaces, often accompanied by storm surges and large-scale heavy rainfall. Directly threatens the safety of the Company's coastal oil and gas assets, maritime transport continuity, and the stability of terminal supply networks.
	Wildfire	Low	Southwest mountainous areas	Short-term	Uncontrolled combustion events occurring in the wilderness. May threaten the safety of production facilities and oil and gas pipeline corridors in remote areas and pose challenges to the Company's ecological compliance and safe production management.
Chronic Physical Risk	Shifts in Rainfall Patterns	High	North and Northwest China	Medium- and Long-term	Long-term trending changes in precipitation distribution and frequency. Through altering soil moisture and runoff patterns, this risk generates a disaster "compounding effect", significantly amplifying the destructive power of secondary disasters such as flooding and landslides; and poses systemic challenges to the resilience of the Company's full value-chain assets in terms of infrastructure design standards, natural gas pipeline stability, and water resource security.
	Long-term Rise in Average Temperature	Medium	Nationwide	Medium- and Long-term	A long-term upward temperature trend driven by the accumulation of greenhouse gases. Over the long term, this will significantly increase the frequency and intensity of extreme heat events, and will also inject more energy into tropical cyclones through ocean warming, exacerbating the destructive power of compound meteorological disasters; and exerts sustained systemic pressure on the Company's full value-chain operations in terms of production cooling energy consumption, equipment depreciation rates and employee occupational health.
	Sea Level Rise	Low	Coastal areas	Medium- and Long-term	A long-term water level rise process driven by glacier melt and seawater thermal expansion. This risk has a slow-moving but irreversible cumulative effect, significantly amplifying the intensity of coastal flooding and storm surges, and inducing coastal erosion and saltwater intrusion; posing sustained pressure on the asset integrity and long-term operational safety of the Company's coastal assets.

Climate Risk Register (Transition Risks)

Risk Type	Risk Name	Risk Level	Impact Horizon	Risk Impact Description
Market Risk	Fossil Energy Price Volatility Risk	Medium	Medium- and Long-term	Fossil energy prices, under the lens of their high linkage to the crude oil market, are subject to the overlapping influences of global macroeconomic policy adjustments and climate anomalies, exhibiting pronounced high-frequency volatility. This compound risk directly impacts the profit margins across the Company's full value chain, posing a sustained challenge to the stability of operating results and cash flows.
	Fossil Energy Market Supply-Demand Change Risk	Medium	Medium- and Long-term	Driven by the upgrading of low-carbon consumer preferences and macroeconomic policy orientation, traditional fossil energy demand is experiencing fluctuations while demand for clean energy such as electricity and natural gas continues to rise. This deep restructuring of the energy supply-demand relationship will accelerate the reshaping of market dynamics, posing material challenges to the transformation of the Company's business portfolio, asset optimization, and the consolidation of market share.
Policy and Legal Risk	Environmental Compliance Risk	Low	Medium- and Long-term	As environmental laws and regulations become increasingly stringent, the Company needs to accelerate the retirement and upgrading of high-energy-consumption assets in order to meet carbon emission and VOC reduction targets. Failure to meet standards or complete equipment upgrades in a timely manner will result in severe regulatory penalties and high compliance costs, posing material challenges to the Company's stable operations, access qualifications and environmental reputation.
	Carbon Market Mechanism Risk	Low	Medium- and Long-term	As domestic carbon market mechanisms become increasingly well-established, the Company faces more stringent emission regulations and quota management. Combined with the trend of rising carbon prices, if carbon emission controls fall short of expectations, the Company's carbon compliance costs will increase directly, posing material challenges to overall profitability and market competitiveness.
Reputational Risk	Stakeholder Attention Risk	Low	Medium- and Long-term	Stakeholder expectations regarding climate responsibility are rising, and the maintenance of brand value and social reputation continues to face long-term pressure. If the Company's climate performance or pace of transition falls short of social expectations, it may trigger intangible asset impairment risks such as rising financing costs, shifts in partner preferences, and restrictions on social licenses to operate.
Technology Risk	Risk of Underperforming Energy Conservation and Low-Carbon Technologies	Low	Short-term	The Company needs to continuously invest in R&D for low-carbon and energy-saving technologies, but faces multiple challenges including technological bottlenecks, uncertainty in R&D pathways, and high transformation costs. If technology iteration or application outcomes fall short of expectations, this may not only lead to a divergence from emission reduction targets but may also trigger risks of below-expected returns on low-carbon transition investments and a relative decline in the efficiency of existing assets.

In the process of green low-carbon transition, climate change not only brings challenges but also gives rise to new development opportunities.



Climate Opportunity Register

Opportunity Name	Opportunity Level	Impact Horizon	Opportunity Impact Description
Intrinsic Development Opportunities from Natural Gas	High	Medium- and Long-term	The Company is increasing natural gas exploration, development and sales network construction, positioning natural gas as a low-carbon alternative option during the energy transition period, and continuously expanding markets in industry, urban gas and other sectors. Additionally, by fully capitalising on the inherent opportunities presented by continuous iterations of key engineering technologies and innovation in production management, the Company is driving the transformation of natural gas exploration toward higher efficiency and lower energy consumption, reducing carbon emissions in production, and building a competitive advantage of "low cost, low emissions".
External Market Opportunities for Natural Gas	High	Medium- and Long-term	The Company is seizing the strategic window of opportunity presented by the deep structural adjustment of the energy mix under China's "dual carbon" targets, and fully tapping the market potential of natural gas as a key "bridge fuel" and "peak-shaving energy source". As environmental policies tighten and the process of "controlling coal and reducing oil" deepens, the substitution demand for "coal-to-gas" and "oil-to-gas" in industrial, urban gas and transport sectors is continuously being released; meanwhile, in the process of building a new power system with new energy as the mainstay, gas-fired power generation, by virtue of its flexibility advantages, has become a low-carbon power source supporting the large-scale development of new energy, and its peak-shaving value will receive greater recognition.
New Energy Products and Services	Medium	Medium- and Long-term	Leveraging its own business chain and resource advantages, the Company is accelerating its positioning in new energy businesses such as geothermal, wind and solar power, driving the "strategic succession" of new energy over traditional oil and gas energy, and striving with full force to transform from a traditional oil and gas supplier into an integrated energy service provider.
Zero-Carbon, Carbon Capture, and Negative-Carbon Industries	Medium	Medium- and Long-term	In the oil and gas and new energies business segments, the Company is actively developing technologies such as CCUS (Carbon Capture, Utilisation and Storage), capturing, utilising or storing carbon emissions generated during the production process, exploring and realising carbon capture and utilisation during production, and exploring commercial applications of negative-carbon technologies.
Reputational Enhancement and Brand Premium Opportunities	Low	Medium- and Long-term	The Company's subsidiaries actively disclose their carbon reduction implementation plans, progress on climate actions, and investments in green technologies, and conduct open-house activities and other external communications to improve PetroChina's ESG performance, build a responsible corporate image, and continuously strengthen brand recognition.

Current Financial Impacts of Climate-Related Risks and Opportunities

The Company incorporates all economic activities arising from climate change-related risks and opportunities — including prevention, response, recovery and transition — into the existing financial management system for accounting purposes. Based on economic substances, related expenditures are classified and managed as either expensed or capitalized. At present, the Company has not adjusted major accounting estimates due to climate risks but has established an internal regular assessment and review mechanism to ensure that future climate risk impacts are reflected in financial statements in a timely and accurate manner. In addition, the Company transfers and shares climate risks through external insurance mechanisms; by adopting a centralized insurance model for commercial property coverage and adhering to the principle of “ensuring full coverage as required”, the Company has established a centralized commercial property insurance coverage system to address property losses caused by climate disasters.

Current Financial Impacts of Climate Risks and Opportunities³

Indicator Name	2025 Amount
Work Safety Expenses ⁴ (RMB100 million)	77.8
Investment in New Energy and New Materials ⁵ (RMB100 million)	414.6
Investment in Energy Conservation and Carbon Emissions Reduction ⁶ (RMB100 million)	6.7
Insurance Expenses ⁷ (RMB100 million)	12.2



³ The Company operates in the oil and gas industry, which is characterized by a long business chain and a high proportion of heavy assets. The impacts of climate-related risks and opportunities are complex in scope and diverse in transmission pathways. Currently, no unified, mature, and implementable quantitative assessment model for climate-related risks has been established within the industry, and non-financial impacts such as brand reputation and intangible assets are difficult to reasonably quantify in monetary terms, with significant uncertainty inherent in any such estimates. In accordance with the relevant explanatory notes to the HKEX’s Environmental, Social and Governance Reporting Code, as of the date of this report, the Company is unable to obtain reasonable and well-supported quantitative data without incurring unnecessary cost or undue effort, and therefore has not disclosed the amounts and percentages of assets or business activities affected by climate-related transition risks, physical risks, and opportunities. The Company will continue to monitor industry best practices and regulatory developments, and will further enhance the quantitative disclosure of climate-related information when technological and data conditions permit.

⁴ Work Safety Expenses: These include expenses for upgrading safety protection facilities to strengthen climate resilience, procuring emergency equipment and stockpiling supplies for climate-related disasters, organizing emergency drills under extreme weather scenarios, and conducting special training and awareness campaigns to enhance all employees’ climate resilience and response capabilities.

⁵ Investment in New Energy and New Materials: This includes expenditures incurred in advancing the low-carbon transition strategy, covering investments in wind and solar power, geothermal energy, and CCUS projects.

⁶ Investment in Energy Conservation and Carbon Emissions Reduction: This refers to special-purpose investments that advance transformation projects and equipment upgrades in key areas such as improving energy efficiency in production systems, phasing out outdated equipment, and applying low-carbon technologies, thereby supporting the goals of energy conservation and carbon emissions reduction.

⁷ Insurance Expenses: These include premiums for insurance against natural disasters caused by climate change, including but not limited to property insurance, liability insurance, and other related premiums.

Climate Scenario Analysis

PetroChina has conducted qualitative and quantitative analyses of identified climate-related risks and opportunities by incorporating multiple climate scenarios published by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA), taking into account core dimensions including the socio-economic environment, business characteristics and geographic distribution.

The Company has selected the “average operating profit over the most recent three years⁸” as the baseline indicator for risk quantification and has established a dynamic rolling update mechanism. The time horizons for scenario analysis are consistent with those for the short-, medium – and long-term analysis of climate risks and opportunities.

Risk Thresholds and Materiality Levels

Threshold Range	Materiality Level
≥0 and <1%	Low
≥1% and <3%	Medium
≥3% and <5%	High
≥5%	Very High

Results of Physical Scenario Analysis

PetroChina selected three scenarios published by the IPCC — SSP1-2.6, SSP2-4.5 and SSP5-8.5 — to analyze the changing trends of the identified physical risks.

Physical Scenario Selection

Scenario Name	Scenario Description
SSP1-2.6	This scenario assumes a world centered on sustainable development with low population growth, high technological progress, and rapid decarbonization of the energy system. Through globally coordinated action with significant emission reductions, it aims to limit global warming to approximately 1.8-2.0°C by the end of the century, making it one of the low-emission pathways closest to the temperature control targets of the Paris Agreement.
SSP2-4.5	This scenario assumes a “moderate emissions pathway” with a continuation of current policies and moderate pace of development. Socio-economic transitions are limited, energy mix improvements are slow, and mitigation efforts are insufficient, with projected global warming of approximately 2.7-3.0°C by the end of the century.
SSP5-8.5	This scenario assumes high global emissions and continued deepening dependence on fossil fuels, with economic growth primarily driven by high-carbon energy, limited global cooperation and climate governance, and continuously rising GHG concentrations. Warming may exceed 4°C by the end of the century.

⁸ The Company uses the average operating profit of the three most recent complete financial years (2023-2025) as the denominator in its calculations, smoothing data fluctuations caused by oil price volatility or non-recurring gains and losses in any given year. When conducting climate scenario analysis in the next cycle, the threshold will be recalculated based on the average operating profit of the three most recent financial years.

The scenario assessment results indicate that, under different climate pathways, the Company faces a dual trend of increasing frequency and escalating intensity in physical risks. The uncertainty of climate risks has significantly heightened due to regional climate anomalies and declining ecosystem stability. This means that the Company will face more frequent, diverse and compound climate shocks in the future, placing higher demands on the disaster prevention standards, operational continuity, and long-term resilience building of its full value-chain assets.

Historical data shows that financial loss rates from extreme weather events and natural disasters over the past ten years have remained consistently within the low-risk threshold. Therefore, even if climate change trends intensify in the future, supported systematically by comprehensive forward planning, continuously strengthened engineering resilience, and risk management mechanisms such as insurance risk transfer, the impact of relevant physical risks under various scenarios on the Company’s overall financial stability is expected to remain within the 1% threshold.

Results of Transition Scenario Analysis

PetroChina selected three IEA-published scenarios — the Stated Policies Scenario (STEPS), the Announced Pledges Scenario (APS) and the Net Zero Emissions Scenario (NZE) — to analyze the potential impacts on the Company’s business strategy, operational management and supply chain stability under different climate policies and transition pressures.

Transition Scenario Selection

Scenario Name	Scenario Description
Stated Policies Scenario (STEPS)	Based on the latest market data, technology costs and current policies of countries worldwide, this scenario forecasts the future development of the global energy system.
Announced Pledges Scenario (APS)	Based on climate pledges and targets announced by governments and industries up to August 2024, this scenario assumes these pledges will be fully and timely realized, including Nationally Determined Contributions (NDCs) and long-term net zero targets.
Net Zero Emissions Scenario (NZE)	The global energy sector targets net zero emissions by mid-century through deployment of clean energy technologies and improvements in energy efficiency, while limiting global warming to within 1.5°C.

The scenario analysis results show that, influenced by global emission reduction policy constraints and shifting consumer preferences, both the demand and market prices for fossil fuels exhibit uncertainty. Benefiting from the Company’s parallel deployment in oil and gas and new energies, the transformation of refining toward chemicals and new materials, continuous technological iteration in traditional businesses, and the ongoing expansion of low-carbon businesses, the related risks are identifiable, manageable and controllable, remaining within an overall manageable range.

In addition, as domestic carbon market mechanisms become increasingly well-established, the tightening of carbon quotas and rising carbon prices will become a long-term trend. In the short to medium term, owing to factors such as a moderate pace of carbon price increases and a lower proportion of compliance obligations, the incremental carbon cost increase has not exceeded the 1% threshold. In the long term, as the Company advances deeply into its green low-carbon transition, the reduction in total absolute emissions will fundamentally offset the financial pressure from future high carbon prices.

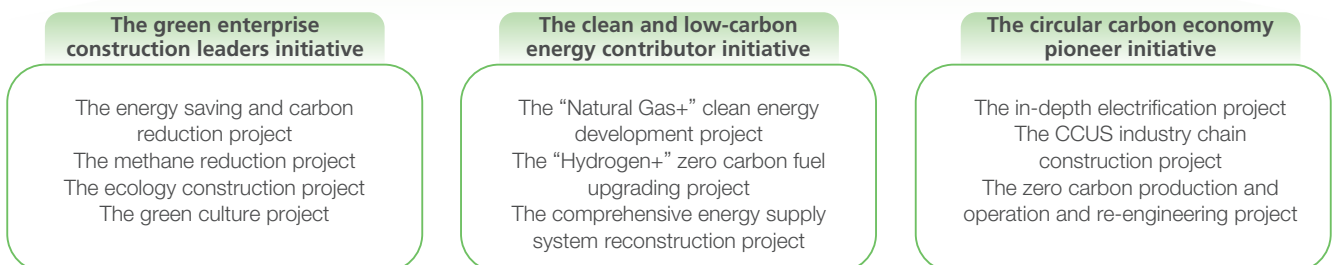
Green Low-Carbon Transition

PetroChina is wholeheartedly implementing the national carbon peaking and carbon neutrality targets and the new round of nationally determined contribution targets, adhering to the three-step overall arrangement “clean alternative, strategic replacement and green development”, and advancing the three major actions and ten major projects of green low-carbon development in depth, and accelerating the transition from “dual control of energy consumption” to “dual control of carbon emissions”.

PetroChina’s transition path to green and low-carbon energy



Action deployment (“Three major initiatives”, “Ten major projects”)



Risk and Opportunity Management

The Company systematically classifies climate-related risks and opportunities into two major categories: physical risks and transition risks. The Company not only identifies the characteristics and potential impacts of various risks, but also assesses their material significance on financial, operational and strategic objectives, ensuring that risk management, investment decisions and capital allocation adequately reflect climate factors. At the same time, the Company has established a dynamic monitoring and response mechanism, creating a closed loop among risk identification, quantitative analysis and management measures, thereby enhancing overall climate resilience and long-term sustainability.



Process for Identifying and Assessing Climate Risks and Opportunities

The Company systematically classifies climate-related risks and opportunities into two major categories: physical risks and transition risks. The Company not only identifies the characteristics and potential impacts of various risks, but also assesses their material significance on financial, operational and strategic objectives, ensuring that risk management, investment decisions and capital allocation adequately reflect climate factors. At the same time, the Company has established a dynamic monitoring and response mechanism, creating a closed loop among risk identification, quantitative analysis and management measures, thereby enhancing overall climate resilience and long-term sustainability.

Process for Identifying and Assessing Climate Risks and Opportunities

Through sustainability standards research, peer benchmarking, thematic analysis, and internal research interviews and questionnaires, the Company preliminarily identifies climate-related risks and opportunities covering all business segments, regions and functional departments, and compiles them into a register. Following in-depth benchmarking and verification against industry standards from the IPCC, WRI, IEA and the World Bank, the Company ultimately establishes a climate risk and opportunity register that is both industry-appropriate and internationally comparable, and conducts in-depth analysis of the transmission pathways to operations, the value chain, and financial performance for each risk and opportunity (refer to page 59 of this Report).

Identification of Climate Risks and Opportunities

Materiality Assessment of Climate Risks and Opportunities

To effectively manage climate-related risks and opportunities, the Company uses quantitative assessment methods. Based on a systematic survey of 37 representative enterprises across four core business segments, it conducts a comprehensive quantitative assessment of each climate risk and opportunity from the two dimensions of probability of occurrence and degree of impact and determines their materiality level and ranking accordingly. The sample selection fully accounts for geographic distribution across the major climate zones of China and prioritizes the inclusion of key business entities with higher proportions of assets and revenues (refer to page 62 of this Report).

Drawing on leading domestic and international peer climate scenario analysis practices and in conjunction with the identified climate risk matrix and preset impact time horizons, the Company selects applicable climate scenarios. Building on this foundation, it systematically analyses the external parameters required by the scenario analysis model, sets a financial materiality threshold based on the Company's average operating profit over the most recent three years, and constructs corresponding analytical models to conduct in-depth scenario analyses of identified key physical and transition risks. This quantifies the potential impacts of different climate transition pathways on the Company's strategy and finances, thereby systematically assessing and enhancing the Company's climate resilience (refer to page 63 of this Report).

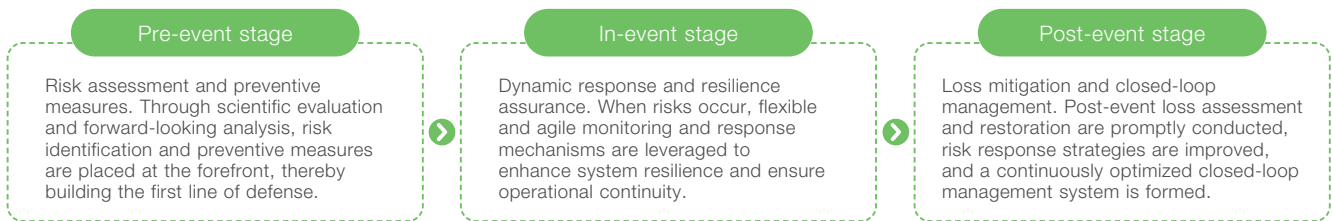
Scenario Analysis and Climate Resilience Analysis

Management of Climate Risks and Opportunities

The Company has comprehensively and systematically integrated climate risk management into its corporate governance and operations, forming a climate governance management framework that spans the full business chain.

Full-Process Management of Physical Risks

We implement a closed-loop, end-to-end management approach to physical climate risks, spanning prevention, response and recovery.



For different types of climate physical risks, the Company has established differentiated management mechanisms and has deeply embedded risk monitoring into its existing production, operations, and emergency systems. Through classified management, digital empowerment, and process integration, the Company achieves precise prevention and systematic response to various physical risks.

Response Measures for Physical Risks

Risk Type	Physical Risks Covered	Response Measures
Water-related Risks	Extreme Precipitation, Flooding	The Company has established a regular identification mechanism, forming a flood prevention leadership team at the beginning of each year to conduct systematic hazard investigations and remediation. Through a three-tiered response plan — pre-flood reinforcement, in-flood monitoring, and post-disaster recovery — and by establishing a regional joint defense mechanism with local governments, the Company has significantly enhanced disaster response capabilities. Upon receiving a red-alert warning, subsidiaries organize production management and maintenance departments to implement targeted safety protection measures at high-risk locations in accordance with preset plans, with clear assignment to responsible departments. During extreme precipitation events, if severe drainage failures occur, emergency plans are immediately activated, self-contained pumps are utilized, and forced drainage is carried out in conjunction with urban sewage and rainwater networks to minimize waterlogging risks to the greatest extent possible.
Wind-related Risks	Strong Winds, Typhoon/ Tropical Cyclone	Prior to the arrival of strong winds and typhoons, subsidiaries take advance wind-resistant measures, reinforce equipment, ensure the safety of large tower structures and storage tanks, provide wind protection for goods, and ensure the smooth operation of factory drainage systems in order to minimize losses caused by strong winds and typhoons. Upon receiving a red alert, subsidiaries execute emergency plans and, where necessary, implement orderly production shutdowns. Refined products sales enterprises also adopt logistics pathway switching strategies such as "ship-as-warehouse" and "rail complementing pipelines" and strengthen protective measures at terminal sites to make every effort to ensure stable supply of oil and gas to the market. In addition, water-related risks brought about by strong winds/typhoons, the Company concurrently implements coordinated management in accordance with water-related risk management measures.
Temperature-related Risks	Extreme Heat, Extreme Cold	The Company takes comprehensive measures to ensure workplace safety. It proactively adjusts work schedules, requiring reductions in outdoor carrying and other operations one day in advance following the release of extreme temperature warnings; strictly controls outdoor working hours, prohibiting prolonged operations under extreme temperatures in accordance with relevant regulations and occupational disease prevention provisions; and strengthens emergency preparedness by formulating emergency plans and conducting emergency drills for departments with high-frequency outdoor operations, while equipping emergency medical supplies and materials to prevent accidental injuries and ensure personnel safety.
Other Physical Risks	Wildfire, Thunderstorms and Other Disasters	The Company deeply integrates its energy management systems with production data platforms to achieve real-time analysis and early warning of production parameters affected by extreme weather events such as thunderstorms and wildfires. Once a warning is issued, it immediately activates equipment protection, production load adjustment and emergency material deployment processes in accordance with the plan, ensuring the safe and stable operation of key installations and minimizing compliance risks.

Coordinated Management of Transition Risks and Opportunities

To address transition risks related to energy markets, carbon regulation and technology pathways, and to capitalize on the strategic opportunities they present, the Company has built a coordinated management mechanism combining institutional controls, technology pathways and market regulation. The Company continues to strengthen its transition resilience through controlling greenhouse gas emissions, increasing clean energy substitution and green low-carbon technology R&D, carbon capture and carbon Utilisation and Developing Forestry Carbon Sinks, improving carbon trading and carbon asset management, and strengthening cooperation and exchanges on carbon reduction.

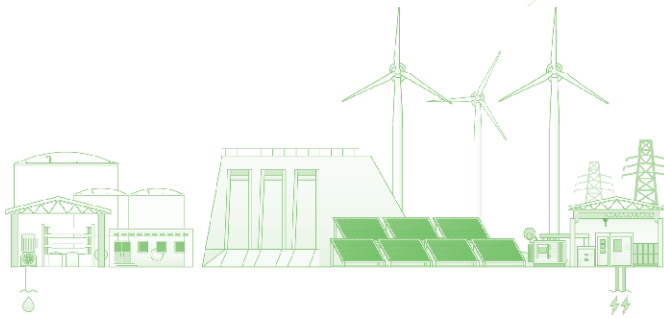
Controlling GHG Emissions

To address carbon market regulatory pressures, the Company has continuously improved its carbon emission “dual control” and carbon asset management system, building an institutionalized carbon management framework. The Company has also launched pilot projects for carbon footprint accounting of key products, and by conducting life cycle assessments of products such as crude oil, natural gas and refined products, has established and improved a carbon footprint management standards system, thereby enhancing the market competitiveness of its products in a low-carbon regulatory environment. Furthermore, in response to increasingly stringent regulatory requirements for non-CO₂ greenhouse gases, the Company has implemented the Methane Emissions Control Enhancement Action Plan to systematically reduce methane emissions during operations.

Key Measures and Annual Progress in Carbon Emissions Management

Initiative	Annual Progress
Continued strengthening of carbon emission “dual control” management	<ul style="list-style-type: none"> Conducted “dual control” assessments of total carbon emission volume and intensity, decomposing and incorporating eight specific indicators under two categories of total GHG emissions and intensity into the performance assessment systems of subsidiaries at all levels. Established an internal carbon emission cost assessment mechanism. Taking into account both industry best practices and the Company’s actual circumstances, this mechanism sets annual carbon emission intensity benchmarks for major emitting subsidiaries, and implements internal cost accounting and control for carbon emissions exceeding the benchmarks. Through this mechanism, the Company conducts cost-benefit analysis, continuously improves energy efficiency, promotes investment in low-carbon sectors, and deeply integrates carbon cost management into its corporate strategy and financial planning, guiding all entities to proactively reduce emissions and enhance efficiency. Launched the “Carbon Emission Data Quality Improvement Campaign”.
Implemented Emission Reduction Measures Across the Entire Industry Chain ⁹	<ul style="list-style-type: none"> Production process optimization: Conducted comprehensive recovery of associated gas in oil and gas fields, optimized refining and chemical production processes, and reduced GHG fugitive emissions and process-related emissions. Equipment and process retrofitting: Implemented technological retrofits such as replacing high-efficiency heating furnaces, improving motor energy efficiency, and recovering low-temperature waste heat to reduce energy consumption and direct emissions. Fuel and energy substitution: Expanded the scope of renewable electricity procurement, advanced electrification retrofits in production and office facilities, and replaced fossil fuels with clean electricity.
Methane emission control reaching internationally advanced levels	<ul style="list-style-type: none"> Advanced the <i>Methane Emission Control Action Enhancement Plan</i>, resolutely advancing the ten major actions for methane emission control, including extinguishing routine flares, upgrading closed-loop processes, and conducting methane leak detection and repair. Conducted methane leak detection and repair at 386 key field stations, extinguished 12 continuous flares, and achieved the target of reducing methane emission intensity by 50% compared to 2019. Undertook the formulation of ISO standards for methane leak detection and repair.
Significant progress in fundamental carbon emission research	<ul style="list-style-type: none"> Led the preparation and implementation of CCER methodologies for associated gas recovery from low-gas-volume onshore oil fields and wellhead flare gas recovery from onshore gas fields. Participated in building the national GHG emission factor database, leading to the completion of localized research on methane fugitive emission factors for onshore natural gas extraction. Led research on national carbon footprint factors for crude oil and natural gas, establishing industry-wide carbon footprint accounting rules.
Continuous improvement in intelligent carbon reduction management	<ul style="list-style-type: none"> Built a centralized carbon asset management and control platform, with functions including statistical accounting, indicator analysis, data anomaly comparison and early warning. Promoted full coverage of carbon emission data collection, accounting and reporting across key subsidiaries, extending to the installation level. The “Greenhouse Gas Verification and Accounting Centre” conducts monthly routine checks on enterprise-reported data.
Enhanced team capacity building	<ul style="list-style-type: none"> Subsidiaries have established carbon emission accounting officer positions, implementing a system of training, assessment and certification. Organized the inaugural carbon accounting officer competition, conducting centralized testing and exchange of accounting officers’ professional competencies through theoretical assessments and hands-on training, accelerating the construction of a professional talent pipeline.

⁹ The Company will continue to monitor industry developments in quantitative assessment methodologies and regulatory requirements, and will enhance the quantitative disclosure of emission reductions when conditions permit.



Ten Major Actions for Methane Emission Control

- Continuously strengthen the recovery and utilization of associated gas and vented gas in oil and gas fields
- Vigorously promote methane leak detection and repair in oil and gas production
- Steadily advance the phasing out of routine flares in oil and gas fields
- Further enhance closed-loop process retrofits in oil and gas production
- Actively implement methane control measures in natural gas storage, transportation, and marketing
- Vigorously promote methane control in overseas oil and gas investment activities
- Continuously strengthen the control of abnormal methane emissions
- Explore the establishment of a localized methane emission factor database
- Actively enhance information technology development for methane emission control
- Vigorously advance research on key technologies for methane emission control

Increasing Clean Energy Substitution and Green Low-Carbon Technology R&D

The Company actively responds to the national *Action Plan for Accelerating the Integrated Development of Oil and Gas Exploration and Development and New Energy (2023-2025)*, incorporating “green and low-carbon” as one of its five major strategies. Through diversified technology pathways, it vigorously pursues stable oil and increasing gas production, accelerates the deployment of new energy and new materials, continuously promotes the integrated development of “Oil, Gas, Geothermal, Electricity and Hydrogen”, seizes opportunities in the construction of a new type of energy system, and strives to build a “Green PetroChina”.

Vigorously Developing the Natural Gas Business

Natural gas is the Company’s strategic, growth-oriented and value-generating business, playing a key supporting role in the energy transition process and serving as a bridge from fossil fuels to clean energy. The large-scale development and utilization of natural gas is a foundational project running throughout the Company’s green low-carbon transition. The Company coordinates the clean and efficient utilization of fossil fuels, continuously increases the proportion of natural gas in the energy consumption mix, vigorously develops “Natural Gas +” clean energy, and strives to achieve full green substitution of production energy consumption.

55.3%



Domestic natural gas production as a percentage of the company’s total domestic oil and gas equivalent production

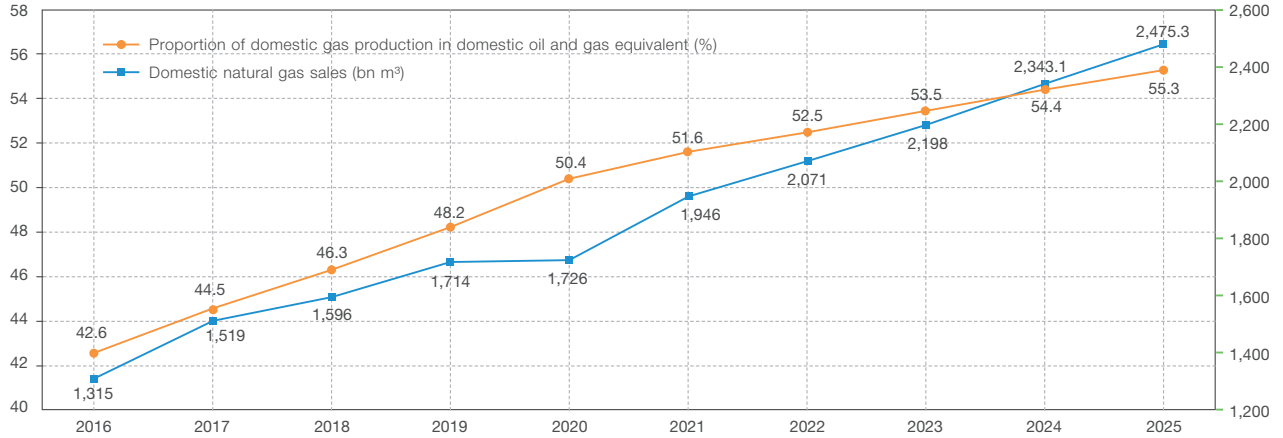
63.2%




The company’s domestic natural gas production as a percentage of China’s total natural gas production

In 2025, the Company continued to intensify natural gas exploration and development, introduced foreign natural gas resources through multiple channels, accelerated the construction of liquefied natural gas (LNG) receiving terminals and gas storage facilities, and built a diversified energy supply system to ensure stable natural gas supply. The Company’s annual domestic natural gas production reached 165.46 billion cubic meters, a year-on-year increase of 4.3%, with domestic marketable natural gas production reaching 147.28 billion cubic meters, a year-on-year increase of 4.9%. It has continuously improved the natural gas marketing network, with gas supply covering all 31 provinces (autonomous regions and municipalities directly under the central government) and the Hong Kong Special Administrative Region, achieving annual domestic natural gas sales of 247.53 billion cubic metres. The Company is vigorously developing the gas-fired power business, continuously deepening joint ventures and cooperation with large power enterprises, accelerating the development of distributed natural gas businesses at cooling, heating and electricity demand load centers, and developing peak-shaving gas power and combined heat and power (CHP) businesses in accordance with local conditions. Focusing on diversified energy needs on the user side — including electricity, heat, cooling and gas — the Company is promoting the integrated development of natural gas and new energy in terminal consumption, with a focus on developing integrated parks, public buildings and industrial enterprises, thereby making a positive contribution to optimizing China’s energy consumption structure.

Domestic Natural Gas Business Development

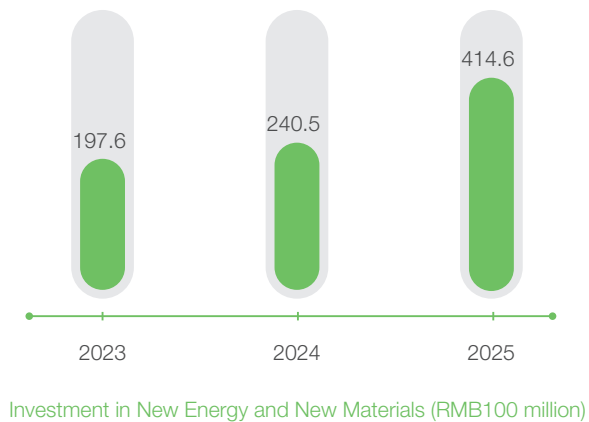


Accelerating R&D and Deployment in New Energy and New Materials

72.4% 
 Year-on-year increase in investment
 in new energy and new materials

The development of new energy and new materials is the inevitable pathway to address climate change and achieve energy transition. PetroChina treats new energy as a new engine driving its green low-carbon transformation, implementing development plans such as the *Action Plan for Accelerating the Integration of Oil and Gas Exploration, Development and New Energy Development (2023-2025)*, promoting the large-scale development of new energy, and accelerating the expansion of geothermal, wind and solar power generation, hydrogen energy, and EV charging (swapping) stations and photovoltaic stations, thereby promoting the integrated development of oil and gas and new energies businesses and building a “low-carbon energy ecosystem”.

In 2025, the Company accelerated the large-scale development of new energy, continuously improved the industrial layout in new energy sectors including geothermal, hydrogen energy and clean electricity; wind and solar installed capacity and power generation set new records; and the proportion of new energy development and utilization capacity in the Company’s domestic energy supply continued to rise.



Annual Progress in New Energy and New Materials

New Energy and New Materials	2025 Technology Progress and Business Development
Geothermal	<ul style="list-style-type: none"> Advanced R&D on geothermal resource assessment and development and utilization technologies Cumulative geothermal heating (and cooling) area (including operations and maintenance) exceeded 70 million m², up 44.2% year-on-year Actively expanded the geothermal heating market; newly signed geothermal heating contracts (agreements) for an area exceeding 100 million m²
Wind and Solar Power Generation	<ul style="list-style-type: none"> Zhongyou Electric Energy Company was officially established, further improving the new energy full industry chain layout Annual wind and solar power generation: 7.93 billion kWh Newly added wind and solar power installed capacity exceeding 7 million kW (including projects in progress)
Hydrogen Energy	<ul style="list-style-type: none"> Participated in the Green Hydrogen Production, Storage and Transportation Innovation Consortium Focused on tackling key technologies across the hydrogen energy industrial chain Total high-purity hydrogen production capacity reached 9,600 tons/year, up 18.5% year-on-year Annual production of high-purity hydrogen: 1,178 tons Cumulative number of hydrogen refueling stations built: 29, up 11.5% year-on-year
Energy Storage and Multi-Energy Synergy	<ul style="list-style-type: none"> Participated in the new energy storage technology innovation consortium Advanced the construction of the National Key Laboratory for Green Extraction of Multi-Resource Synergistic Continental Shale Oil Partnered with CATL to position in the electrochemical energy storage system integration business
EV Charging (Swapping) Stations and Photovoltaic Stations	<ul style="list-style-type: none"> Cumulative number of EV charging (swapping) stations built: 6,340; photovoltaic stations: 4,176; up 66.7% and 27.9% year-on-year, respectively

Advancing Carbon Capture and Carbon Utilisation

In 2025, the Company continued to improve its carbon capture and carbon utilisation technology system, and steadily advanced CCUS work across the “four large and six small” ten oil and gas fields. Field experiments cover multiple reservoir types including low-permeability/ultra-low-permeability, multi-layer, conglomerate, multi-fracture, buried-hill and water-sensitive, enhancing CO₂ injection and sequestration capacity. The cumulative annual CO₂ injection volume reached 2.66 million tonnes. The Company accelerated CO₂ pipeline construction, launching a CO₂ pipeline construction project in Jilin Province. It led the establishment of the CCUS Standardization Technical Committee for the Energy Sector under the National Energy Administration, passed reviews for 2 national standards, and continued to consolidate the Company’s leading position in the CCUS industry. The Company established the PetroChina CCUS/CCS Certification Centre and completed the Carbon Reduction Accounting Methodology for CCUS-EOR Projects (Version 2.0) and the Carbon Reduction Accounting Methodology for CCUS-EGR Projects, quantifying the carbon asset benefits of CCUS/CCS technologies.

Our Targets

- CCUS project annual CO₂ injection volume to reach **3 million** tonnes by 2026

Indicator	2025 Progress
CO ₂ injection volume of CCUS projects (10,000 tons)	266

1.93 million



Participants in the “I Plant a Tree for Carbon Neutrality” public welfare activity

4,830 mu



Forest land was built through the “I Plant a Tree for Carbon Neutrality” public welfare activity

Actively Developing Forestry Carbon Sinks

At the same time, the Company actively positioned in the construction of carbon sink forests and carbon neutral forests, continued to deepen the expansion, promotion and protection of green areas, and advanced the transformation from “expanding green” to “expanding green + increasing carbon sinks”. The Company has built multiple key forest areas including the Jiyuan Carbon Sink Forest, Maanshan Carbon Neutral Forest and Junggar Carbon Neutral Forest. The Company actively participates in and promotes the “Internet + National Voluntary Tree Planting” model, advancing ecological construction. As of the end of 2025, the “I Plant a Tree for Carbon Neutrality” public welfare activity initiated by the Company has cumulatively raised over RMB57.40 million, attracted 1.93 million participants, and built 4,830 mu of forest land, setting a record for projects under the China Green Foundation. Responding to the World Economic Forum’s “Leaders for Nature” initiative (1 trillion trees), the Company has deeply carried out the “Ten Thousand Wellsite’s Afforestation Action” and “Ten Thousand Station and Storage Facilities Afforestation Action”, cumulatively planting over 2.27 million trees at more than 10,000 wellsite’s and station and storage facilities, comprehensively carrying out nature conservation actions.

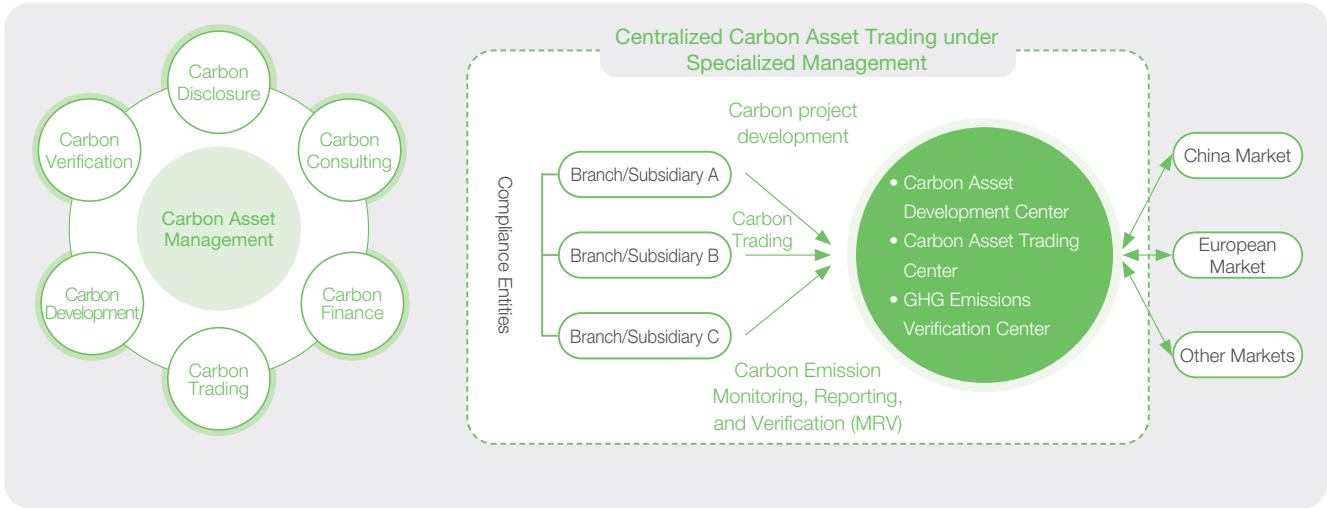
Improving Carbon Trading and Carbon Asset Management

Relying on the centralized carbon asset management and control platform, the Company has established and deepened a centralized carbon asset trading mechanism, implementing unified and standardized management of national carbon allowances (CEA), Chinese Certified Emission Reductions (CCER) and international carbon credits, and formulating “one enterprise, one policy” carbon asset reserve plans. The Company actively participates in building the national carbon market and has cooperated in policy research on incorporating the refining, ethylene and other industries into the national carbon emission rights trading market. The Company actively advances the development of voluntary emission reduction projects and has promoted the formal issuance of two CCER methodologies — associated gas recovery from low-gas-volume onshore oil fields and wellhead flare gas recovery from onshore gas fields — achieving a zero breakthrough in the oil and gas industry. In 2025, the Company completed the annual carbon allowance clearance on schedule and in full, with no instances of being required by relevant authorities to undertake rectifications or being subject to formal investigation.



PetroChina Hainan Sales Co., Ltd. has advanced its green and low-carbon transition at the operational level by developing new energy businesses such as photovoltaic power generation, EV charging, and hydrogen refueling, while promoting technological upgrades at oil depots and digital energy and carbon management. In September 2025, the Company obtained the Carbon Neutrality Certificate issued by Tianjin Emissions Exchange. For this certification, TÜV Rheinland conducted an independent verification of the Company’s greenhouse gas emissions in line with ISO 14064-1:2018, and completed the organizational carbon neutrality assessment in line with ISO 14068-1:2023. By retiring Green Electricity Certificates (GECs) from the “Xingxing County 60MW Agrivoltaic Solar Power Project in Guangdong Province” and Verified Carbon Units (VCUs) from the “Yumen Changma No. 3 Wind Power Project in Gansu Province”, the Company offset a total of 3,350.62 tons of carbon dioxide equivalent (tCO₂e), covering the carbon emissions generated from its operations in 2024.

In 2025, the Company fully utilised its own carbon sink resources and obtained the “PetroChina Headquarters Carbon Neutrality Evaluation Certificate” for 2025 through self-declaration and certification by Beijing Sanxing 9000 Certification Body Co., Ltd.



PetroChina Carbon Asset and Carbon Trading Management System

Strengthening Collaboration and Exchange on Carbon Reduction

The Company actively advocates for and practices the sustainable green development model of “low energy consumption, low pollution, low emissions.” The Company signed and joined the *Oil and Gas Decarbonization Charter (OGDC)*, becoming a member of its Steering Committee; and, together with its parent company CNPC, strengthened cooperation with the Oil and Gas Climate Initiative (OGCI), sharing technology and experience with other member companies, and jointly contributing PetroChina’s strength to addressing climate change and achieving the low-carbon transition of the oil and gas industry. The Company widely participates in and promotes the work of the China Oil and Gas Enterprise Methane Emission Control Alliance, and the Alliance’s influence continues to expand.

Annual Progress in Carbon Emission Reduction Cooperation and Exchange

Oil and Gas Climate Initiative (OGCI)	<ul style="list-style-type: none"> The Junggar CCUS Regional Centre application case and the Natural Climate Solutions and Biodiversity Conservation case were selected for inclusion in the <i>OGCI 2025 Annual Progress Report</i>, establishing them as global benchmarks for oil and gas decarbonization. Participated in the revision of OGCI’s post-2030 industry decarbonization strategic targets, driving the upgrading of standards for reducing routine flare combustion emissions.
Oil and Gas Decarbonization Charter (OGDC)	<ul style="list-style-type: none"> Jointly released the first industry decarbonization implementation guidelines with 56 global enterprises, driving joint progress on carbon reduction actions across the international oil and gas industry.
UNFCCC COP30	<ul style="list-style-type: none"> Led and hosted two thematic side events at the China Pavilion at COP30: “Green Development Transformation of Chinese Enterprises under Dual Carbon Targets” and “Control of Non-CO₂ Greenhouse Gas Emissions”. Released the <i>China Oil and Gas Enterprise Methane Emission Control Alliance 2025 Annual Progress Report</i> in its capacity as the Chair of the Alliance.
China Oil and Gas Enterprise Methane Emission Control Alliance	<ul style="list-style-type: none"> Added 3 new members — China Gas Holdings, Kunlun Energy and Port City Smart Energy — bringing the total to 10 members, achieving full industry chain coverage of oil and gas. Promoted the implementation of the national <i>Methane Emission Control Action Plan</i>.
CCUS Innovation Consortium	<ul style="list-style-type: none"> Actively participated in the construction of the CCUS Innovation Consortium, collaborating through national-level platforms to tackle key technologies and drive the large-scale development of the CCUS industry.
Energy and Chemical Industry Carbon Footprint Alliance	<ul style="list-style-type: none"> Formulated the <i>Implementation Plan for Building a Carbon Footprint Management System</i>; established industry-recognized carbon footprint accounting rules for crude oil and natural gas, and jointly completed research on carbon footprint accounting for domestic crude oil and natural gas with industry peers. Sichuan Petrochemical’s benzene-series product carbon footprint passed the Together for Sustainability (Tfs) audit, receiving international recognition.



In 2025, the Company's new energy business achieved the phased strategic target of "clean energy substitution".

Metrics and Targets

The Company has established scientific, reasonable, and measurable multi-phase climate targets. Guided by the overall "Three-Step" deployment of "clean alternative, strategic replacement and green development", the Company advances the carbon peaking and carbon neutrality process in stages. The Company has established dynamic assessment targets, and through the inspection and evaluation of annual target execution, dynamically optimizes and adjusts the target framework based on internal and external feedback, laying a solid foundation for the steady achievement of climate strategic targets. Climate targets are also decomposed level by level to all departments and subsidiaries and based on the annual completion of climate targets and the progress of medium – and long-term climate targets, the Company ensures that strategic implementation progresses step by step and delivers practical results. In 2025, the Company's new energy business achieved the phased strategic target of "clean substitution".

The Company identifies, quantifies, monitors, and reports GHG emissions in accordance with internationally recognized standards, and engages a third party to verify its GHG emission data in line with ISO 14064-3. For details, please refer to page 161 of this report.

The Company has conducted research and trial calculations on Scope 3 accounting in accordance with international accounting rules and common practices of international oil companies and has prioritized the data stocktaking of Category 11 and other categories that are more closely related to its business and have potentially higher emission contributions. The Company notes the lack of executable, comparable and mutually recognized industry standards for Scope 3 accounting and recognizes the limitations of data inaccessibility and the significant difficulty in implementing accounting techniques. At the current stage, it is difficult to produce consistent, comparable, and reasonably assured Scope 3 emission disclosure results. In the future, the Company will continue to conduct Scope 3 accounting research and pay close attention to Scope 3 emissions in key areas.

Indicator	Specific Metric	2025 Progress
Total GHG Emissions	Direct emissions (Scope 1) (million tCO ₂ e)	126.24
	Indirect emissions (Scope 2) (million tCO ₂ e)	38.38
	GHG emissions per unit of domestic oil and gas production (tCO ₂ e/toe)	0.22
	Total methane emissions (10,000 tonnes)	27.74
	Methane emission intensity (%)	0.25
Oil and Gas and New Energies	Direct emissions (Scope 1) (million tCO ₂ e)	36.21
	Indirect emissions (Scope 2) (million tCO ₂ e)	18.00
	Methane emissions (10,000 tonnes)	24.79

(Table continued)

Indicator	Specific Metric	2025 Progress
Refining, Chemicals and New Materials	Direct emissions (Scope 1) (million tCO ₂ e)	83.92
	Indirect emissions (Scope 2) (million tCO ₂ e)	18.28
	Methane emissions (10,000 tonnes)	0.19
Refined Products Sales and Natural Gas Sales	Direct emissions (Scope 1) (million tCO ₂ e)	6.11
	Indirect emissions (Scope 2) (million tCO ₂ e)	2.09
	Methane emissions (10,000 tonnes)	2.75



Environmental Compliance Management

We are committed to reducing adverse impacts on the environment, improving the ecological and environmental protection management mechanism, conducting in-depth environmental governance, protecting biodiversity and natural habitats, actively building a green enterprise, and striving to achieve harmonious coexistence between energy and the environment.



Overall Environmental Governance Framework

At the decision-making and oversight level, the Board of Directors assumes full responsibility for ESG matters, including topics such as “Environmental Compliance”, “Pollutant Emissions Management”, “Waste Management”, “Ecosystem and Biodiversity”, “Energy Utilization”, “Water Resource Utilization” and “Circular Economy”. The Sustainable Development Committee is responsible for identifying and assessing relevant material risks and impacts, overseeing the Company’s commitments and performance, reviewing the implementation of relevant policies, targets and measures, and deliberating on the relevant content in the annual ESG report on these topics. The Audit and Risk Management Committee is responsible for overseeing and evaluating the Company’s internal controls. At the board level, the ESG Management Working Committee, with the Company’s President serving as its Chair, is responsible for implementing the decisions and directives of the Board of Directors and the Sustainable Development Committee on environmental compliance management, organizing cross-departmental coordination, and systematically conducting management of relevant impacts, risks and opportunities. At the execution level, the QHSE Department is responsible for organizing the management and operation of environmental management systems including environmental compliance, pollutant emissions management and waste management; and also works jointly with the Production and Operations Management Department on water resource utilization, with the General Management Department and the Finance Department on ecosystem and biodiversity conservation, and with the Development and Planning Department on energy utilization and circular economy. Professional companies and their subsidiaries establish and improve environmental governance systems at all levels in accordance with Company requirements and implement all key environmental tasks.

The Company has established and improved an environmental performance assessment mechanism, formulating the *Environmental Protection Performance Assessment Rules*. Assessments are conducted across three dimensions — environmental process management, environmental incidents, and environmental indicators — and targets for wastewater, exhaust gas, and solid waste emission reductions, environmental incidents, and illegal and non-compliant administrative penalties are incorporated into the annual assessments of management personnel at the Company, professional company and subsidiary levels. Performance contracts are signed at each level to cascade pressure. In addition, the Company has built digital control platforms for environmental statistics and online pollutant monitoring, providing data support and technical assurance for assessments. The Company incorporates environmental compliance into the compensation and performance assessments of the Board of Directors and management; details are provided on page 35.

The Company ensures that environmental responsibilities are progressively enforced, and compliance requirements are strictly implemented through routine supervision and auditing. The Company has established a “three-tiered supervision system” at the headquarters, professional companies and subsidiary levels. Through the comprehensive management of the QHSE Department, special supervision by the Safety and Environmental Protection Supervision Centre, and daily inspections by environmental departments at subsidiaries, the Company has formed a multi-tier, full-coverage supervision structure.

The Company’s internal audit department conducts at least one full-coverage audit of subsidiaries every three years, with environmental protection as a key area of audit verification. The scope covers whether project construction complies with environmental impact assessment (EIA) requirements; whether environmental protection measures are properly implemented; whether the “three simultaneous” system, soil and water conservation, and other protection measures are implemented; whether “three wastes” emissions are up to standard; whether effective protection measures are taken in accordance with requirements of cultural relic authorities during construction; whether there is any construction started without EIA approval or construction not in accordance with EIA requirements; and whether land reclamation, vegetation restoration and remediation are conducted in a timely manner in accordance with environmental policies and requirements.

Risk Identification and Management

The Company incorporates environmental risks into its overall risk prevention and control framework, conducts in-depth ecological and environmental risk identification, investigation and assessment, establishes an environmental risk monitoring system, and implements key prevention and control of the identified “six major environmental risk factors”. The Company has continuously improved the “three-tiered prevention and control” and enterprise environmental risk classification assessment systems, formulated the *Enterprise Environmental Risk Classification Assessment Standards (Trial)*, and classified enterprise risk levels based on the environmental risk level of the subsidiaries’ operating regions and their environmental management performance, adopting targeted risk management and control measures. The Company has formulated the *Ecological Environment Hazard Investigation Specifications* and conducts annual environmental hazard investigations and remediation, with priority given to the treatment of significant ecological environmental hazards, to prevent major environmental risks. It has formulated and revised the *Emergency Response Plan for Sudden Environmental Incidents*, refined the responsibilities of all departments and levels of the Company, enhanced the operability of the plan, and regularly conducted emergency drills for handling sudden environmental incidents, continuously improving the subsidiaries’ environmental risk prevention and control capabilities.

In 2025, the Company did not experience any major or above environmental incidents, nor did it receive any major administrative penalties from environmental authorities at any level or incur any criminal liability in connection with environmental incidents.



Environmental Risk Three-level Prevention and Control System

Level 1

By establishing berms, tank area fire dikes and their supporting facilities to prevent potential minor environmental pollution risks.

Level 2

By establishing rainwater cut-off systems, pollution containment dams, anti-overflow and diversion facilities, necessary intermediate incident buffer facilities and their supporting facilities to prevent potential significant environmental pollution risks.

Level 3

By establishing terminal incident buffer facilities and their supporting facilities to prevent potential major environmental pollution risks.

PetroChina's "Six Major Environmental Risk Factors"

Risk of major safety accidents leading to secondary disasters and environmental incidents

Risk of hazardous chemicals leaks leading to personal injury or environmental damage

Risk of oil and gas leaks leading to environmental pollution incidents

Risk of radioactive sources being lost, stolen, out of control, or falling into wells, leading to public security incidents

Risk of environmental issues leading to public incidents

Risk of environmental pollution incidents caused by excessive discharge of "Three Wastes"

Key Initiatives and Annual Progress

Strictly Upholding Environmental Compliance Boundaries

- Conducted special investigations and rectifications on "soil and water conservation management" and "pollutant discharge permit management", ensuring that all subsidiaries fully achieve lawful discharge with permits and compliant operations;
- Drafted LDAR intelligent management standards and optimized produced water reinjection environmental standards; leveraged information-based control platforms to track and measure the completion of environmental indicators, and dynamically optimized emission reduction measures.

Routine Monitoring and Continuous Improvement

- Implemented the "three-tiered supervision system" at headquarters, professional companies and subsidiaries, and routinely conducted "ecological and environmental protection for special assistance inspections";
- Established and improved the environmental statistics management platform, pollution source online monitoring and control platform, solid waste management platform, etc., achieving information-based tracking and dynamic early warning of environmental indicators, and dynamically optimizing emission reduction measures based on the completion of environmental indicators tracked by the information-based control platform;
- Made environmental compliance management a key focus of audit verification. In 2025, the Company's internal audit project completion rate was 100%;
- Revised the *Emergency Response Plan for Sudden Environmental Incidents* to improve its targeting and operability; organized environmental emergency monitoring and sudden environmental incident emergency drills at Guangdong Petrochemical and other enterprises.

Strengthening Management of Toxic Emissions and Pollutants from Suppliers

- Incorporated environmental requirements for toxic and hazardous substance emissions, waste management and other aspects into supplier admission and evaluation standards, explicitly requiring suppliers to comply with the Company's environmental protection-related management systems, and strengthening risk identification and management at the source;
- Established a supplier ESG performance screening and on-site audit mechanism, assembling specialist teams to conduct due diligence with a focus on verifying suppliers' compliance with pollutant emission regulations and waste disposal management;
- Incorporated environmental performance into dynamic supplier management; in accordance with laws and regulations, took rectification, restriction or exit measures for suppliers that experienced significant environmental violations or improper emission management, continuously improving supply chain compliance levels.

Strengthening Training on Ecological and Environmental Protection Laws and Regulations

- Regularly holds ecological and environmental protection training programs, inviting external industry experts and internal QHSE specialists to interpret environmental laws, regulations and policy standards, share case studies of violations, and promote the implementation of the Company's *Environmental Incident Management Measures*, *Environmental Performance Assessment Rules* and other relevant requirements, thereby strengthening employees' awareness of environmental compliance and enhancing their professional skills.
- Established the "QHSE Policies, Regulations and Standards" internal public account, promptly publicizing the latest environmental protection policies, building an environmental protection training examination question bank, compiling the *Ecological and Environmental Protection Essential Knowledge Handbook*, and guiding frontline environmental management employees to master environmental business knowledge, clarify job responsibilities and standardise operational processes. The column has been released with a total click count exceeding 110,000.
- In 2025, 9 environmental management training programs were held, training over 900 person-times; 4 batches of specialized training for environmental monitoring on-duty certificates were conducted, covering soil and groundwater, exhaust gas, wastewater, noise, LDAR and other areas, with 105 persons passing the training assessment and obtaining the PetroChina Environmental Monitoring Personnel On-Duty Certificate. Subsidiaries held 43 training sessions, with second-tier units conducting multiple rounds of environmental-themed training to comprehensively enhance all employees' environmental management capabilities and compliance levels.

Enhancing Environmental Awareness Among All Employees

- In 2025, the Company released the *PetroChina Environmental Protection Bulletin* for the 26th year in a row, comprehensively showcasing its ecological and environmental protection philosophy, initiatives, achievements, and honors. It also organized public open house events, extensively inviting nearby community residents, young students, and media reporters to visit its facilities, where on-site explanations and interactive activities were conducted to promote the Company's green and environmental protection philosophy and outstanding practices.



Panoramic view of Yunnan Petrochemical

126



mining rights selected for national and provincial green mines

56



subsidiaries passed green enterprise certification

Our Targets

- Eliminate major and above ecological environmental damage and pollution incidents



Pollutant Emissions Management

Green Enterprise Construction

The Company has positioned green enterprise construction as an important pathway for promoting sustainable high-quality development, planning systematically and advancing it in depth. The Company has built an integrated creation system linking green enterprises, green mines, green factories and green grassroots through “four-in-one coordinated action”, and has accordingly issued scientific guidance, action plans and “9+1” review standards, ensuring that the creation work is conducted in a standardized and systematic manner.

Since the Company released the *Action Plan for Green Enterprise Creation and Enhancement at PetroChina* in 2024, 56 subsidiaries have successfully passed the Company’s green enterprise certification, 126 mining rights have been rated as national-level green mines, and 15 factories have been recognized as national-level green factories; the Company has also actively built a number of advanced demonstration units such as “zero-waste factories”, “zero-carbon parks” and “carbon-neutral stations”, and the depth and breadth of green development practices continue to expand.

Indicators and Targets

Indicator	2025 Progress
Environmental protection expenditures (RMB100 million)	35.6

The Company strictly complies with national laws and regulations on pollution prevention and control, rigorously implements emission standards for various pollutants including wastewater, exhaust gases and soil, implements the *Implementation Opinions on Deepening the Fight against Pollution Prevention and Control*, and continues to deepen the fight to defend blue skies, clean water and clean soil. The Company systematically carries out key tasks in pollution prevention and control, standardizes the “one permit” management of enterprise pollutant discharge permits, and enhances the level of pollution prevention and control as well as pollution treatment performance.

Management System

The Company strictly complies with laws and regulations including the *Environmental Protection Law of the People’s Republic of China*, the *Water Pollution Prevention and Control Law of the People’s Republic of China*, the *Atmospheric Pollution Prevention and Control Law of the People’s Republic of China*, the *Soil Pollution Prevention and Control Law of the People’s Republic of China*, and the *Pollutant Discharge Permit Management Regulations*, as well as environmental protection standards including the *Comprehensive Wastewater Discharge Standard*, the *Atmospheric Pollutant Emission Standard*, and the *Soil Environmental Quality — Risk Control Standard for Soil Contamination of Development Land*. The Company has established and continuously improved its pollutant emission management system, forming a management framework with the *Company’s Environmental Protection Management Regulations* as the core, supplemented by special systems including the *Environmental Monitoring and Environmental Information Management Measures*, *Pollutant Discharge Permit Management Implementation Measures*, *Online Monitoring System for Pollution Sources Operation Management Measures*, *Environmental Statistics Technical Specifications*, and *Ecological Environment Hazard Investigation and Remediation Implementation Specifications*.

Pollutant Emission Control and Treatment

Pollutant Emission Control Measures



Pollutant Discharge Permit Management

- Standardise enterprise pollutant discharge permit management processes, relying on the Company's pollutant discharge permit management platform and compliance report submission system
- Conduct monthly tracking and scheduling of pollutant discharge permit compliance, implementing discharge in accordance with permits, lawful discharge, and full-process control



Source Control Measures

- Continuously strengthen the standardised construction and management of wastewater discharge outlets; issue requirements for the standardised construction and management of wastewater discharge outlets; comprehensively conduct investigations of wastewater discharge outlets; and systematically implement remediation of river-entering discharge outlets
- Standardise the setting of rainwater and wastewater discharge outlets; strengthen pollution prevention and control of surface runoff within production and operations areas; and resolutely prevent the direct discharge of wastewater into rainwater pipe networks to safeguard water environment safety
- Conduct analysis of enterprise wastewater emission reduction potential, forming a list of key enterprise wastewater emission reduction engineering projects



Online Monitoring and Real-Time Early Warning

- Utilise the online pollution source monitoring system to conduct real-time monitoring of pollutant emission data from key stationary pollution sources at various enterprises, with daily analysis and monthly assessment to ensure comprehensive standard-compliant discharge of pollutants
- Automatic monitoring of pollution sources covers main production installations and pollution sources of PetroChina, with data transmitted in real time to national and local regulatory platforms
- Conduct dynamic analysis and early warning for excessive and abnormal emissions; regularly conduct on-site inspections of enterprise automatic pollution source monitoring facilities



Operation Management of Treatment Facilities

- Strengthen the operation management of existing wastewater and exhaust gas pollution treatment facilities, ensuring comprehensive standard-compliant discharge of pollutants
- Optimise the operational efficiency of sewage treatment facilities; strengthen routine supervision and management



Implementing Pollution Reduction Projects

- Comprehensive treatment projects for volatile organic compounds (VOCs)
- Advanced treatment projects for conventional air pollutants
- Wastewater pollution prevention and resource utilization, and soil source control projects

Annual Work Progress

In 2025, with the “deepening the fight against pollution prevention and control” as its core mission, the Company made systematic plans and implemented targeted policies, achieving significant results in the reduction of air and water pollutant emissions, and in the protection of soil and groundwater, with environmental governance performance continuing to improve.



- NOx emissions down **3.13%** year-on-year
- (Refinery) VOC emissions down **3.95%** year-on-year



In 2025, the Company’s wastewater discharge volume and COD, ammonia nitrogen emissions decreased year-on-year by **0.06%**, **9.52%** and **31.86%** respectively

885



online pollution source monitoring points connected to network

Regarding air emission reductions, the Company formulated and implemented the *Enhanced Action Plan for Atmospheric Pollution Prevention and Control*, conducted special investigations and rectifications of volatile organic compounds (VOC) treatment, and invested special funds for systematic treatment. Differentiated management was applied across the full business chain for VOCs: in the oil and gas and new energies segment, focusing on key sources such as storage tanks, loading and unloading facilities, and flares, hundreds of treatment tasks were cumulatively completed, controlling leakage emissions at the source; in the refining, chemicals and new materials segment, deepening upgrades to higher standards, conducting deep treatment of storage tanks and exhaust gas treatment facilities, effectively reducing emission intensity; and in the refined products sales segment, completing the treatment of storage tank floating disc systems and tank sweeping gas at multiple oil depots, building solid terminal emission reduction defences. Simultaneously, the Company vigorously promoted deep treatment of conventional pollutants, focusing on implementing ultra-low emission retrofits for coal-fired boilers and low-nitrogen combustion retrofit projects for gas-fired boilers and heaters, cumulatively completing upgrades to dozens of pieces of equipment throughout the year, significantly reducing the generation and emission of nitrogen oxides and other pollutants. In 2025, nitrogen oxides (NOx) and (refinery) volatile organic compound (VOC) emissions decreased year-on-year by 3.13% and 3.95%, respectively.

Regarding wastewater treatment, the Company adhered to the principle of equal emphasis on prevention and control and recycling and focused on promoting pollution reduction. By implementing wastewater recovery and technical transformation, improving sewage reuse rates, and optimizing the operation of sewage treatment facilities, the Company effectively reduced wastewater generation and external discharge concentrations. Key progress was made on 14 wastewater emission reduction projects throughout the year, with half completed and put into operation; wastewater external discharge concentrations met national standards while decreasing 15% compared to the previous year. At the same time, the Company continued to strengthen the standardized management and supervision of discharge outlets, systematically conducted investigations and remediation of river-entering and sea-entering discharge outlets, improved the rainwater-sewage separation system, and implemented tiered management and deep treatment of production wastewater to ensure stable standard-compliant discharge of pollutants. Driven by dual engines of refined management and engineering treatment, in 2025 the Company’s wastewater discharge volume and chemical oxygen demand (COD), ammonia nitrogen emission volumes decreased year-on-year by 0.06%, 9.52% and 31.86%, respectively. Online pollution source monitoring points with network connectivity totaled 885, with all key pollution sources required by the state fully achieving monitoring network connectivity.

Regarding soil and groundwater protection, the Company accelerated the implementation of the *Soil and Groundwater Pollution Prevention and Control Action Plan (2024-2027)*, deepened pilot initiatives for production-integrated control, and through conducting pollution investigations, risk assessments, and control and remediation, effectively reduced soil and groundwater environmental risks and continuously improved the pollution control system for in-production enterprises. In 2025, all 16 of the Company’s major soil pollution source control engineering projects were completed.

Industry Collaboration and Participation in Initiatives | | | | | | | | | |

To strengthen industry coordination in wastewater and exhaust gas pollution treatment, the Company has actively integrated into green development networks and proactively reached out to authoritative platforms and responded to industry initiatives. As a founding member, the Company joined the Petroleum and Chemical Industry Specialized Committee of the China Chemical Environmental Protection Association, led 3 joint R&D topics on common technologies including VOC treatment and deep wastewater treatment, and participated in drafting two group standards related to ultra-low emissions in the petrochemical industry, including the *Technical Guidelines for Ultra-Low Emissions in the Petrochemical Industry*, providing practical models for industry pollution treatment.

The Company joined the Industrial Technology Innovation Strategic Alliance for Reclaimed Water Utilization and Risk Control in the Huaihe River Basin, jointly developing the “Integrated Technology for Deep Treatment and Recycling of Chemical Wastewater”; in response to the China Petroleum and Chemical Industry Federation’s green low-carbon development initiative, the Company participated in the collaborative action for pollution reduction, carbon reduction and synergistic efficiency improvement in the petrochemical industry, and its differentiated management model for VOCs across the full industry chain was selected as a typical industry case for promotion throughout the industry.

Indicators and Targets

Our Targets

- 2026 target: (Refinery) VOCs: below **56,000** tons

In 2025, 7 of the Company's refining and chemical enterprises received Grade A in atmospheric environment performance classification; a register of enterprise discharge outlets in key river basins and regions such as the Yangtze River Economic Belt, the Yellow River Basin, the Songhua-Liao River Basin, and the Beijing-Tianjin-Hebei region was established; and 227 industrial wastewater discharge outlets in key river basins achieved stable standard-compliant discharge. During the reporting period, the Company’s pollutant discharges did not have a material impact on employees, local community residents, and other groups.

Category	Indicator	2025 Progress
Air Pollutants	Sulphur dioxide (SO ₂) (10,000 tons)	0.59
	Nitrogen oxides (NOx) (10,000 tons)	4.34
	(Refinery) Volatile organic compounds (VOCs) (10,000 tons)	5.59
	Soot/Dust (10,000 tons)	0.23
Water Pollutants	Total industrial wastewater (100 million tons)	1.41
	Chemical oxygen demand (COD) (10,000 tons)	0.38
	Ammonia nitrogen (NH ₃ -N) (10,000 tons)	0.0055

Note: The Company's pollutant emission data are consistent with the online monitoring data of national ecological and environmental regulatory authorities, and the analogous discharge volume data has been verified.



Waste Management

The Company places great importance on the comprehensive management of solid waste and strictly adheres to the principles of reduction, recycling, and harmlessness. It has built a full-process management and control system covering generation, collection, storage, transportation, utilization and disposal, and is continuously improving the level of standardized and refined solid waste management, accelerating the simultaneous advancement of compliant waste disposal and resource recycling.



Management System

The Company strictly complies with national laws and regulations including the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste* and the *Pollutant Discharge Permit Management Regulations*, as well as industry standards such as the *Standard for Pollution Control on Hazardous Waste Storage* and the *Standard for Pollution Control on Hazardous Waste Landfill*. The Company has formulated the *Industrial Solid Waste Management Measures* and implemented the *Action Plan for Solid Waste Compliance Control*, and extended management requirements to cover all subsidiaries and all business locations across oil and gas and new energies, Refining, chemicals and new materials, Marketing, Natural gas sales. At the same time, the Company actively benchmarks against international sustainable development standards, supports international initiatives such as the United Nations Global Compact and the *2030 Agenda for Sustainable Development*, and meets its responsibilities under the Sustainable Development Goals related to reducing waste generation and improving recycling rates; signed the *Oil and Gas Decarbonization Charter* (OGDC) to promote the coordinated advancement of industry low-carbon transition and solid waste management; and enterprises stationed in the Middle East have consecutively participated in the UAE "Clean UAE" environmental action, fulfilling regional waste management responsibilities in overseas operations.

100%



Legally compliant solid waste disposal rate during the reporting period



Compliant Waste Disposal Measures and Annual Progress

In 2025, the Company continued to deepen the legally compliant management of solid waste, with systematic improvements to full-chain management and control levels. During the reporting period, the Company's solid waste legally compliant disposal rate reached 100%, all in compliance with national standards; the volume of solid waste outsourced for disposal decreased; and the comprehensive utilization rate improved effectively.

104



subsidiaries with information-based management and control implemented for waste generation data

In terms of strengthening supervision, the Company conducted a systematic special action for compliant management and control of solid waste over three years, systematically investigating and rectifying management shortcomings. Information-based management and control was implemented for waste generation data across 104 subsidiaries, with a comprehensive ledger system established to ensure that the full process of solid waste disposal is traceable and auditable. Compliant waste management was incorporated as a key focus of audit supervision to continuously improve the level of legally compliant management and control.

In terms of source reduction, the Company fully promoted the no-ground-contact technology for drill cuttings at oil and gas field production sites, eliminating traditional mud pits; and applied pre-treatment technologies such as box-type platforms and steam cleaning to achieve source reduction of drilling waste. Refining and chemical enterprises applied technologies such as "cyclone drying", significantly reducing sludge water content to below 10%, with notable reduction effects.

In terms of standardized disposal and resource recycling, the Company continuously optimized waste treatment methods, achieving harmless disposal of waste through multiple methods such as thermal washing of oil sludge, co-processing in cement kilns, and high-temperature incineration, ensuring compliance with national and local standards, while actively exploring resource recovery pathways.

In terms of information-based management, the Company built and applied a unified solid waste management information system, achieving data collection and process monitoring of key “generation, transportation and disposal” links for solid waste from major waste-generating enterprises, providing powerful information-based support for full-chain compliant management and driving the transformation of management models towards precision and dynamic management.

Solid Waste Classification and Disposal Methods

Solid Waste Category	Disposal Method
Hazardous Waste	Utilized or disposed of using the enterprise’s own facilities or entrusted to qualified third-party organizations holding hazardous waste business licenses for utilization or disposal.
General Industrial Solid Waste	Entrusted to technically capable units for comprehensive utilization, or disposed of by means of safe landfill.
Construction Waste	Disposed of in accordance with the plan approved by the local government.
Domestic Waste	Entrusted to qualified units approved by the local government for unified collection, transportation and harmless treatment.



Tarim Oilfield Explores and Practices a New Paradigm for Comprehensive Drilling Solid Waste Management

Facing the ecologically fragile environment of the Taklimakan Desert, PetroChina Tarim Oilfield Branch has systematically built and practiced a new paradigm for comprehensive drilling solid waste management featuring “source reduction, process standardization and end-of-pipe resource recovery”. Through implementing no-ground-contact technology, strengthening on-site solid-liquid separation, and implementing digital full-process control, the Company has achieved a reduction of over 40% in solid waste per well, with significantly reduced treatment costs, providing replicable technical and management experience for similar oil and gas fields.

Indicators and Targets

Our Targets

- Legally compliant solid waste disposal rate of **100%**

Indicator	2025 Progress
General solid waste disposal volume (10,000 tons)	184.0
General solid waste legally compliant disposal rate (%)	100
Volume of general industrial solid waste recovered and recycled (10,000 tons)	685.4
Hazardous waste disposal volume (10,000 tons)	78.6
Hazardous waste legally compliant disposal rate (%)	100
Volume of hazardous waste recovered and recycled (10,000 tons)	306.1



Ecosystem and Biodiversity Conservation

The Company actively responds to international initiatives such as *the United Nations 2030 Agenda for Sustainable Development*, *the Convention on Biological Diversity*, and *the Kunming-Montreal Global Biodiversity Framework*, strictly implements national policies on biodiversity conservation, and firmly upholds the ecological civilization philosophy of respecting, adapting to and protecting nature.

As an important participant in the global energy industry, the Company adheres to ecology-first and green development principles, fully integrates biodiversity conservation into the entire process of project construction and operational management, actively transitions toward becoming "nature positive", and seeks a dynamic balance between high-quality development and high-level ecological protection, safeguarding biodiversity and contributing to the construction of a Beautiful China through concrete action.

Our Commitments

- Incorporate the management processes for nature-related impacts, risks and opportunities into the Company's enterprise risk management system, and regularly conduct assessments and analyses of nature-related impacts, dependencies, risks and opportunities related to the Company's business activities; based on assessment results, set biodiversity matters with significant risks as priority management objectives, and strive to achieve zero net loss¹⁰.
- Effectively apply the biodiversity "mitigation hierarchy" (Avoid, Reduce, Regenerate & Restore, Transform) framework strategy proposed by the Science Based Targets Network (SBTN), minimize the impacts of business activities on biodiversity, and strive to achieve a net positive impact¹¹ on biodiversity by conducting ecological and environmental protection of key river basins such as the Yangtze River and Yellow River, and building Voluntary Contribution Biodiversity Protected Area (OECMs).
- Commit to strictly avoiding internationally recognized or nationally designated important biodiversity conservation areas in the site selection and planning of new projects, ensuring no large-scale deforestation during operations, and actively exploring participation in afforestation and carbon sequestration actions, without causing net deforestation.
- Require all business partners across the value chain to jointly comply with and take concrete action on the above commitments.
- Encourage employee participation in ecological and environmental protection volunteer activities, and continuously strengthen cooperation with local communities, government agencies and non-governmental organizations (NGOs), and implement ecosystem restoration projects that promote biodiversity conservation.

¹⁰ "Zero net loss" is defined as the overall balance achieved between a project's impacts on biodiversity and the management measures taken by the Company, including Avoid, Reduce, Regenerate & Restore, and Transform.

¹¹ "Net positive impact" is defined as a project's positive impacts on biodiversity (including ecosystems and species diversity) outweighing its negative impacts, measured against the project's outcomes, achieved through measures such as avoiding and mitigating ecological impacts, restoring damaged species and natural landscapes, and compensating for residual ecological impacts.

Ecosystem and Biodiversity Governance

The Company is committed to reducing and eliminating potential impacts that production and operations may have on the ecological environment and biodiversity. It manages the ecological environment across the full business chain and full life cycle through improving the governance framework, strengthening the institutional system, and implementing source management and control.

Governance Framework

At the decision-making and oversight level, the Board of Directors assumes full responsibility for ESG matters, including the “Ecosystem and Biodiversity Conservation” topic. The Sustainable Development Committee is responsible for identifying and assessing relevant material risks and impacts, overseeing the Company’s commitments and performance, reviewing the implementation of relevant policies, targets and measures, and deliberating on the relevant content in the annual ESG report on “Ecosystem and Biodiversity Conservation”. At the board level, the ESG Management Working Committee is responsible for implementing the decisions and directives of the Board of Directors and the Sustainable Development Committee on ecosystem and biodiversity conservation, organizing cross-departmental coordination, and systematically conducting management of relevant impacts, risks and opportunities. At the execution level, the QHSE Department is responsible for organizing ecological environment hazard investigations and greening work; the Finance Department is responsible for land resource management. Professional companies and their subsidiaries shall establish and improve biodiversity management action plans for their respective sectors at each level, and implement annual tasks as required by the Company.

Institutional System

The Company has issued *the Biodiversity and Zero-Deforestation Policy Statement* and continues to improve *the management system for biodiversity-related matters*, including *the Ecological Conservation Action Program*, *Environmental Protection Management Regulations*, *Construction Project Ecological Environment Protection Management Measures*, *Land Use and Protection Management Rules*, and *Opinions on Building Voluntary Contribution Biodiversity Protected Areas at PetroChina*, enhancing the level of professionalization in biodiversity conservation work.



Camels and oil wells at Qinghai Oilfield

Ecosystem and Biodiversity Risk Management

In combination with the Company’s actual biodiversity comprehensive monitoring and project management practice, it has established a five-step standardized assessment process of “preparatory work — risk identification — classification and assessment — layered management and control — dynamic updating”, achieving the scientification and standardization of risk assessment.

Ecosystem and Biodiversity Risk Assessment Process



In 2025, the Company used the ENCORE database¹² to identify business activity impacts on and dependencies on nature, and conducted materiality assessments, providing reference for the Company to formulate targeted natural risk and opportunity management measures. Based on assessment results, the main natural change driver factors involved in the Company’s business are climate change, pollution, noise/light disturbance, and changes in land/freshwater use.

¹² Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) is a key tool jointly developed by the Natural Capital Finance Alliance (NCFA) and the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) to help financial institutions, at the portfolio level, assess their dependencies and impacts on nature.

Heatmap of Operational Impacts and Dependencies on Nature

Impact/Dependency Factor	Oil & Gas	New Energy	Refining	New Materials	Refined Products Sales	Natural Gas Sales
Greenhouse gas emissions	H	M	M	M	VH	H
Non-GHG air pollutants	M	H	H	M	VH	M
Solid waste generation and discharge	L	VL	M	M	H	L
Toxic pollutants discharged to water and soil	VH	VL	VH	M	VH	VH
Water resource consumption	L	L	L	L	M	L
Noise/light disturbance	VH	M	VH	M	VH	M
Use of terrestrial ecosystems	L	L	L	L	M	M
Use of freshwater ecosystems	VH	N	N	N	M	M
Use of marine ecosystems	VH	N	N	N	N	N
Global climate regulation services	H	VH	VL	VL	M	VL
Rainfall pattern regulation services	N	N	N	N	N	M
Air filtration services	VL	VL	VL	VL	VL	VL
Storm mitigation services	L	M	M	M	L	VL
Atmospheric and ecosystem dilution	M	N	L	N	N	N
Soil and sediment retention services	L	M	M	L	M	L
Solid waste remediation	L	L	L	L	M	L
Water purification services	VL	M	H	M	M	M
Water flow regulation services	M	M	M	M	H	VL
Flood mitigation services	H	M	M	M	M	VL
Water resources	M	M	N	L	H	VL
Noise attenuation services	VL	VL	VL	VL	VL	VL

Note 1: According to international industry standard classification, oil and gas business falls under “crude oil extraction”; new energy business falls under “geothermal, wind and solar power generation”; new materials business falls under “rubber manufacturing”; refining and chemical business falls under “refined petroleum manufacturing”; refined products sales falls under “fossil fuel supply”; natural gas sales falls under “natural gas supply”.

Note 2: [Red] indicates impact on nature; [Green] indicates dependency on nature.

Note 3: VH = Very High materiality; H = High materiality; M = Medium materiality; L = Low materiality; VL = Very Low materiality; N = No materiality.

The Company has incorporated biodiversity risks into its comprehensive risk management system. In accordance with the Environmental Risk Enterprise Classification and Assessment Standards, it has conducted in-depth identification, screening, and assessment of ecological and environmental risks, established an ecological and environmental monitoring system, and strengthened tiered risk management and control of ecological and environmental risks. In 2025, the Company conducted its first pilot assessments of selected operating locations using the TNFD (Taskforce on Nature-related Financial Disclosures) LEAP (Locate, Evaluate, Assess and Prepare) risk and opportunity assessment methodology, laying the foundation for further analysis of nature-related impacts and risks.

Case Study

PetroChina Yunnan Petrochemical Co., Ltd. carried out biodiversity impact and risk analysis

Yunnan can be called the epitome of the global ecosystem, known as the “plant kingdom”, “animal kingdom” and “world garden”, an important biodiversity treasure house in China and an ecological security barrier in southwest China, and an important part of China’s “two screens and three belts” ecological security strategic pattern.

We used PetroChina Yunnan Petrochemical Co., Ltd. (hereinafter referred to as “Yunnan Petrochemical”) as a pilot to assess the biodiversity risk level of Yunnan Petrochemical’s (WWF) Biodiversity Risk Filter (BRF) in the location of Yunnan Petrochemical’s operations (Kunming Anning). According to the assessment results, Yunnan Petrochemical attaches great importance to and takes targeted risk control measures. We further apply the Biodiversity Impact Assessment Tool (BIA) and the Integrated Biodiversity Assessment Tool (IBAT) to analyze the spatial interaction between Yunnan Petrochemical and nature. According to the assessment results, certain rare species are present within a 5 to 15 km radius of Yunnan Petrochemical, and the surrounding area is adjacent to forest parks and wetlands.

This assessment provides a key scientific basis for identifying potential ecological impacts, improving biodiversity conservation measures, and fulfilling social responsibilities during Yunnan Petrochemical’s long-term operation. At the same time, the assessment has also become a demonstration sample of the company’s gradual clarification of priority areas and locations to deal with natural risks, providing important support for formulating the company’s overall biodiversity risk management response.

Yunnan Petrochemical embeds industrial production into the natural cycle, and takes three measures to reduce ecological disturbance, conserve habitats, and closed-loop material flow at the source, so as to achieve economic benefits and biodiversity conservation at the same frequency.

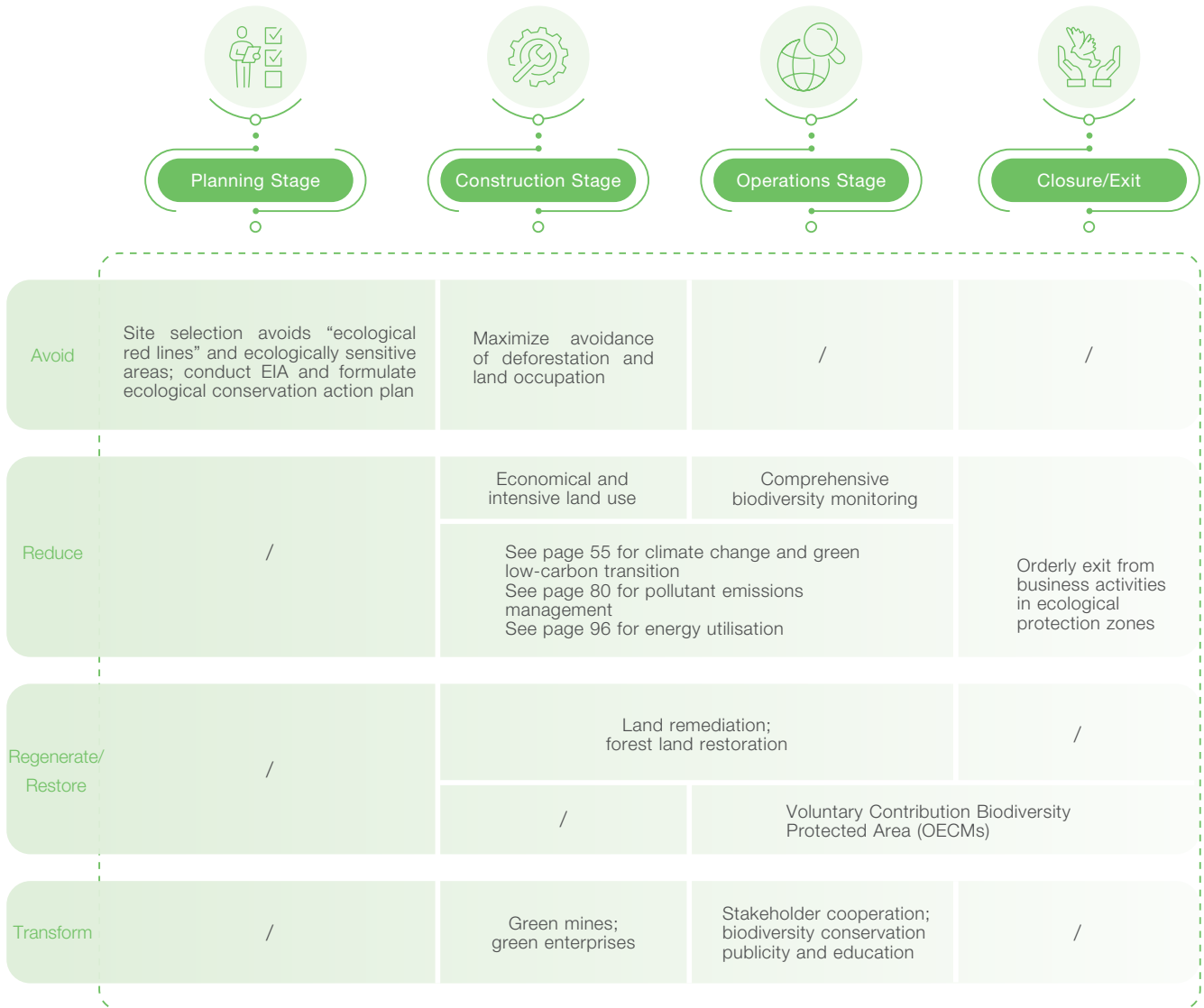
- Energy conservation and carbon reduction to protect habitats: continue to reduce energy consumption for oil refining, reduce carbon emissions, and mitigate the impact of climate change on species habitats.
- Water cycle conserves freshwater ecology: wastewater reuse, rainwater recycling, reducing water intake and pollution load, and maintaining the living space of aquatic organisms.
- Resource recycling and ecological footprint: sulfur recovery, filter slag conversion, solid waste recycling, achieve “zero emissions”, reduce mining and pollution, and protect terrestrial ecosystems.



Biodiversity risk level of Yunnan Petrochemical (Kunming Anning).

Actions for Ecosystem and Biodiversity Conservation

The Company persists in proactively fulfilling its corporate social responsibility in the process of global production and operations, adhering to the principles of the “mitigation hierarchy” and working with all stakeholders on the path toward becoming nature positive.



Avoid: Source Prevention

The Company always places prevention first and builds a closed-loop “prevention-treatment-monitoring” management system in the planning and construction stages of projects, eliminating potential impacts of business activities on biodiversity from the source as far as possible.

Site Selection Planning: Strictly uphold the “ecological protection red line”, proactively avoiding ecologically sensitive areas such as nature reserves, important wetlands and areas with extremely sensitive ecological functions; conduct environmental impact assessments and formulate ecological conservation action plans.

Case Study

PetroChina Changqing Oilfield Company actively explores the practice of Voluntary Contribution Biodiversity Protected Area (OECMs)

During the development of the Sulige gas field, PetroChina Changqing Oilfield Company took the initiative to explore and practice a new path of synergistic symbiosis between energy development and ecological protection in the face of the rare plant Willow-leaved Buckthorn population found in the operation area.

With precise protection as the core, the Voluntary Contribution Biodiversity Protected Area in Su 6 of Changqing Oilfield has completed the age measurement, listing and filing of more than 280 Willow-leaved Buckthorn trees in the area, and set up risk warning signs and monitoring facilities. Through cooperation with Northwest A&F University, it has successfully broken through artificial breeding technology, cultivated more than 150 seedlings, and built a special seedling protection base. At the same time, we will strengthen near-habitat conservation and ecological restoration, plant native plants such as Mongolian rock astragalus in and around the well site, restore a total of 2,430 vegetation well sites, build 2,600 kilometers of windproof and sand-fixing forest and grass belt, and build an ecological barrier in the production area.

This practice has formed a replicable comprehensive management model of “near-habitat conservation + artificial breeding + smart monitoring”, which has realized the improvement from single species protection to positive succession of regional ecosystems. The Voluntary Contribution Biodiversity Protected Area in Sulige Area 6 of Changqing Oilfield was selected as a “case of China’s potential OECMs” and shared at the 16th Conference of the Parties (COP16) to the United Nations Convention on Biological Diversity, providing practical “Changqing experience” for biodiversity conservation in the global resource development industry.



Changqing Oilfield Su 6 Voluntary Contribution Biodiversity Protected Area

9



Green shared huts were built and selected into the “2025 Beautiful China Green Space User Typical Case Collection”

11



Volunteer service teams have been established

198



Employees became biodiversity conservation volunteers

Transform: Contributing to Nature Positive

The Company is committed to transforming its business development model toward becoming “nature positive”, comprehensively building green mines and green enterprises, and jointly exploring and promoting nature-based solutions with various partners, driving the entire industrial system toward environmental friendliness and resource efficiency.

The Company actively establishes deep partnerships with governments, scientific research institutions, communities and non-governmental organizations, and has formally joined the China Partnership for Biodiversity Conservation in Business (CPBB). Through sharing practices and conducting joint research, the Company jointly explores and promotes nature-based solutions. At the same time, through jointly conducting themed publicity and education activities such as World Wildlife Day and World Environment Day, building “Green Shared Cabins” that integrate ecological display and community services, and carrying out ecological conservation volunteer services and other diverse initiatives, conservation is made a sustainable undertaking with full employee participation and co-construction by society.

Case Study Low-carbon practice of Kunlun Energy Hainan Green Shared Hut

Kunlun Energy has innovatively transformed a training center for an LNG reserve into the first industrial scene biodiversity education base in Hainan Province – a green shared hut, with indoor reading, specimen display and multimedia science popularization functional areas, and outdoor ecological corridors and seabird perching piles to realize the integration of knowledge dissemination and nature observation.

Through the “government-enterprise-school-community” synergy mechanism, the base receives an average of more than 300 people per year, and incubates school-enterprise scientific research projects, successfully transforming industrial sites into public windows for disseminating biodiversity conservation and low-carbon concepts, and has been awarded the PetroChina OECM demonstration model, providing a replicable innovative path for industrial enterprises to participate in community environmental education.



Kunlun Energy Hainan Green Shared Hut



Energy Utilisation

Energy is a precious and finite gift from the earth to humanity; protecting and conserving energy is an important mission that concerns the future of mankind. We are committed to adopting scientific and rational approaches to intensive and efficient energy utilisation, strengthening resource conservation and protection during resource utilisation, promoting clean substitution in production processes, and achieving sustainable energy utilisation.



Management System

The Company strictly implements laws and regulations including the *Energy Law of the People's Republic of China* and the *Energy Conservation Law of the People's Republic of China* and continues to improve the energy utilization management system across the full business chain. The Company has established regulations and systems including *the Energy Conservation and Water Saving Management Measures, Fixed Asset Project Energy Conservation Review Management Measures, Energy Conservation and Water Saving Supervision Management Measures, Energy Conservation and Water Saving Statistics Management Rules, and Energy Conservation and Water Saving Monitoring Management Rules*, to improve energy use efficiency, promote resource recycling and clean substitution, and minimize energy consumption to the greatest extent possible.



Fushun Petrochemical

Key Management Initiatives

The Company has deeply implemented the comprehensive conservation strategy, and through *the requirements of the 2024-2025 Energy Conservation and Carbon Reduction Action Plan* and subsequent annual action plans, has systematically promoted energy conservation and carbon reduction through multiple measures.

Technology Enhancement and Process Optimization

- Continuously promote high-efficiency energy-saving technologies and process improvements in the oil and gas and refining sectors
- Promote the “energy diagnosis + transformation” model, implementing upgrades to key equipment and optimizing operating parameters

Management Optimization and Monitoring and Assessment

- Strictly implement the energy conservation review system, strengthening source management and control of construction projects and mid- and post-process supervision
- Conduct three-level precise accounting and benchmarking of energy and water efficiency at the “production system, installation and equipment” levels, establishing a “frontrunner” indicator system
- Strengthen energy efficiency monitoring of key equipment and data quality checks

Energy Mix Transformation and Electrification Enhancement

- Continuously promote clean energy substitution and electrification improvements; advance the construction of distributed clean energy projects such as photovoltaic and energy storage; reduce fossil fuel consumption

Resource Conservation and Circular Utilization

- Deepen the intensive and economical utilization of water resources and energy; strengthen water quota management; promote the achievement of installation water efficiency standards; continuously reduce unit product water and energy consumption



Employee Energy Conservation Capacity Building

- Build a tiered, differentiated energy benefit training system covering all positions; through multi-format approaches such as “online + offline” integration and scenario-based practical operations, focus on energy conservation norms and energy efficiency technologies, strengthening employees’ energy conservation and consumption reduction awareness and practical skills, providing talent support for the achievement of energy conservation targets

Energy Efficiency Enhancement

In 2025, through systematic optimization, technical improvements and refined management, the Company conserved energy across all processes and fields, and the level of energy and resource utilization improved significantly. The Company achieved annual energy savings of 720,000 tons of standard coal equivalent (tce), with energy consumption per RMB10,000 of industrial output at 0.5123 tce, all exceeding 2025 targets.

Key Measures and Annual Progress in Energy Efficiency Enhancement

Key Measures	Main Content
Improve the energy conservation management system	<ul style="list-style-type: none"> Revised <i>the Energy Conservation and Water Saving Management Measures</i>, clarifying management responsibilities and strengthening energy efficiency and water efficiency quota management Revised <i>the Energy Conservation Review Management Measures</i>, strengthening energy conservation review and acceptance management throughout the entire process of project review and approval, construction commencement, completion acceptance, and operations management
Vigorously implement energy conservation and carbon reduction efficiency improvements	<ul style="list-style-type: none"> Annual investment of RMB670 million was made to implement 67 energy conservation and carbon reduction transformation projects, achieving cumulative energy savings of 144,000 tonnes of standard coal Oil and gas field enterprises focused on implementing oil and gas production system efficiency improvement and advancing regional integrated optimization energy conservation projects Refining and chemical enterprises focused on implementing refining and chemical energy system optimization and advancing the "95+" heating furnace transformation program cumulatively achieving energy savings of 144,000 tce
Advance energy efficiency standard achievement and upgrade improvements in refining and chemicals	<ul style="list-style-type: none"> Implemented energy efficiency standard achievement and upgrade improvements for 7 refining and chemical installations including Fushun Petrochemical and Jilin Petrochemical, continuously improving energy efficiency levels The energy efficiency of refining enterprises and ethylene facilities with a scale of 300,000 tonnes/year and above has all reached the industry benchmark level. The proportion of capacity at or above the industry-leading level for refining and ethylene businesses exceeded national requirements one year ahead of schedule.
Strengthen project energy conservation review source management and control	<ul style="list-style-type: none"> Conducted internal technical pre-reviews of energy conservation reports for 20 key projects consuming 5,000 tce or more, including Southwest Oil and Gas Field and Daqing Petrochemical; strictly checked energy compliance review at key stages including preliminary feasibility study, design, commencement, completion, and operations, ensuring leading energy efficiency levels
Regularly conduct energy and water efficiency benchmarking	<ul style="list-style-type: none"> Oil and gas field enterprises organized energy efficiency benchmarking for 124 oil/gas production plants Refining and chemical enterprises comprehensively investigated energy and water efficiency indicators in refining, ethylene, para-xylene (PX), synthetic ammonia, urea and other production processes, and implemented improvement measures Guangdong Petrochemical, Yunnan Petrochemical and 5 other enterprises received 6 annual petroleum and chemical industry product energy efficiency "Frontrunner" designations
Conduct energy-saving equipment application effectiveness monitoring and assessment	<ul style="list-style-type: none"> Completed testing and evaluation of energy utilization status for over 24,500 sets of mechanical pumping wells, heating furnaces, pump sets and other equipment, and 45.1 km of steam injection (steam) insulation pipelines

Clean Energy Utilisation

The Company vigorously implements clean substitution for production energy, optimizes the energy consumption structure, improves the clean energy utilization rate, reduces fossil fuel consumption and CO₂ emissions in the production process, and drives the green low-carbon transition of the entire production process.

In 2025, the Company continued to build photovoltaic and wind power projects, and vigorously improved clean energy self-supply capabilities. By building distributed photovoltaic, distributed wind power, pressure differential power generation, cold energy utilisation, and geothermal heating projects, the Company improved the level of clean power self-supply, reduced carbon emissions, and built low-carbon and zero-carbon stations.

Key Clean Substitution Initiatives and Annual Progress

Key Initiative	Main Content
Large-scale clean energy bases and infrastructure construction	<ul style="list-style-type: none"> ✧ Wind and solar power achieved leapfrog growth: The wind and solar power business accelerated strongly, with cumulative wind and solar installed capacity exceeding 17 million kW, and annual wind and solar power generation 7.93 billion kWh. ✧ Geothermal heating scaled up: Promoted solar thermal, geothermal and other alternatives to fossil energy heating, accelerating the process of heat supply clean transformation. Annual new geothermal heating area exceeded 22 million m². ✧ Hydrogen energy supply chain initially established: Actively positioned in strategic emerging industries; cumulatively built 6 high-purity hydrogen projects including North China Petrochemical, forming 9,600 tonnes/year of capacity; external supply of high-purity hydrogen in 2025 reached 912 tonnes, up 33.5% year-on-year. ✧ Accelerating the positioning in green emerging industries: Advanced the construction of projects including North China Petrochemical bio-aviation fuel and Jinxi Petrochemical 100,000 tons/year green methanol, cultivating new growth drivers for green development. ✧ CCUS scale improved: Advanced CCUS industry development; annual CCUS project CO₂ injection volume of 2.66 million tonnes.
Terminal energy electrification and direct green power substitution	<ul style="list-style-type: none"> ✧ Increasing the proportion of green electricity consumption: Refining and chemical enterprises continued to improve the clean and low-carbon level of the energy mix, with the proportion of green electricity consumption rising to 12.1% and the electrification rate reaching 10.97%; refined products sales and natural gas sales businesses consolidated high electrification levels, with electrification rates maintained above 80% and 61%, respectively. ✧ Improving electrification of terminal energy use in natural gas sales: Cumulatively built 110 station photovoltaic power generation and pressure differential power generation projects, achieving clean substitution power generation installed capacity of 23 MW. ✧ Exploring new models for clean power supply: Promoting the “photovoltaic + energy storage” integrated power supply model at qualified oil depots and petrol stations to supplement production and office electricity.
Diversified clean energy applications and model innovation	<ul style="list-style-type: none"> ✧ Actively developing distributed clean energy: In areas where grid power conditions are immature, increasing clean substitution of methanol power generation, natural gas power generation, etc., promoting the implementation of “mobile energy storage direct supply” and “energy storage + gas” energy use models, achieving a replacement of 75,000 tons of diesel oil throughout the year. ✧ Implementing clean heat supply demonstration projects: Sales enterprises, combining oil depot and petrol station land resources, piloted the application of solar energy, air-source heat pumps, geothermal energy and other clean heat supply technologies to replace traditional oil and gas heating equipment.

Indicators and Targets

Our Targets

2026 targets:

- Energy savings: **520,000** tce or more
- Comprehensive energy consumption per unit of oil and gas equivalent production: below **100** kg tce/tonne
- Energy consumption per energy factor: below **7.68** kg standard oil/(tonne•energy factor)
- Comprehensive energy consumption per ton of ethylene: below **570** kg standard oil/tonne

Category	Indicator	2025 Progress
Energy Consumption	Total energy consumption (10,000 tce)	6,483
	Direct energy consumption (10,000 tce)	5,525
	Indirect energy consumption (10,000 tce)	958
	Comprehensive energy consumption per unit of oil and gas equivalent production (kg tce/tonne)	98
	Energy consumption per energy factor (kg standard oil/(tonne•energy factor))	7.52
	Comprehensive energy consumption per ton of ethylene (kg standard oil/tonne)	560
Renewable Energy Consumption	Total (MWh)	16,274,877
	Wind and solar power generation (MWh)	15,271,608
	Geothermal energy (MWh)	1,003,269



Water Resource Utilisation

The Company adheres to the dual emphasis on the conservation and intensive utilization of water resources and efficient recycling, actively explores water quota management and total volume control, and embeds “improving water resource utilization efficiency and achieving sustainable water resource use” throughout all aspects of production and operations.

Management System

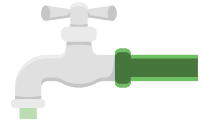
The Company strictly implements laws and regulations including the *Environmental Protection Law of the People's Republic of China*, the *Water Law of the People's Republic of China*, the *Soil and Water Conservation Law of the People's Republic of China*, the *Yangtze River Protection Law of the People's Republic of China*, and the *Yellow River Protection Law of the People's Republic of China*. It has formulated systems including the *Water Withdrawal Management Measures*, the *Refining and Chemical Enterprise Water Withdrawal and Use Management Measures*, and the *Construction Project Soil and Water Conservation Management Measures*, clarifying management responsibilities and strengthening water resource protection-related institutional safeguards. The Company has set up management personnel at different management levels, implements a target responsibility system and assessment and evaluation system, incorporates water saving indicators into performance assessments, and continuously strengthens water saving management work.

Key Water Resource Management Initiatives

The Company continues to improve the water resource management system; core production units of all subsidiaries have passed ISO 14001 Environmental Management System certification which includes core modules for water resource management, establishing a water resource management process covering the full life cycle. The Company actively participates in national water resource conservation initiatives and volunteer services, and shares water-saving technologies and management experiences with global peers through the World Petroleum Council (WPC Energy) platform.

The Company has formulated and implemented a water resource risk management plan covering all businesses, implementing specialised controls for the Yangtze River and Yellow River basins, systematically assessing water resource dependency-related risks, dynamically forecasting future available water volumes, verifying water resource carrying capacity boundaries in water-scarce areas, and continuously monitoring water quality fluctuations to prevent cumulative impacts of reinjection and discharge on water bodies; simultaneously conducting orderly assessment of relevant risks and impacts, identifying disturbances from production water intake and discharge on surrounding communities and ecologically sensitive areas, proactively studying trends of local water saving and wastewater discharge policy tightening, and embedding basin protection regulatory requirements into annual risk review and management and control target updates, forming a closed-loop management mechanism. During the reporting period, the Company did not encounter significant issues in seeking suitable water sources.

Full Life Cycle Water Resource Management Measures



Water Resource Assessment

- ✧ Before project construction, conducts systematic water resource assessment of business locations, including water source site arguments, total volume accounting, water use rationality analysis, water intake and use impacts, and water resource protection recommendations, forming a water resource assessment report and providing scientific guidance for water resource development and utilization.



Water Withdrawal

- ✧ Establishes and continuously improves water withdrawal management systems, clarifying the full-process management requirements for water withdrawal permit applications, replacement, renewal and annual water use plan preparation.
- ✧ Strictly implements "water-determined production", implements total water withdrawal control, and scientifically prepares and strictly executes annual production water withdrawal plans based on production and operational needs and water resource conditions at business locations.
- ✧ Focuses on identifying and monitoring water sources in areas with significant water resource pressure, strictly implementing water withdrawal quota management, and simultaneously promoting the use of unconventional water sources such as municipal reclaimed water, rainwater, mine water and desalinated seawater to reduce freshwater consumption.



Water Use

- ✧ Build a "dual control, one improvement" (total volume control, intensity control, water efficiency improvement) water use system, systematically managing water use with the "system + platform + supervision" approach. Formulate annual water use plans, conducting monthly statistics, analysis, and assessment. Achieve dynamic monitoring and unified management through information-based platforms.



Water Consumption

- ✧ Strictly implement national and industry water use quota standards; establish an internal energy and water efficiency benchmarking system to guide water saving and potential tapping. Promote the application of water-saving processes, technologies and equipment; continuously carry out water balance tests, system optimization and pipeline network management to systematically reduce unit product water consumption.



Water Resource Recovery and Utilization

- ✧ Reduce produced water external discharge volume, improve water quality compliance rates, conduct oil-water separation and filtration treatment on recovered sewage, achieve oil recovery and water reinjection.
- ✧ Implement tiered water resource utilization; promote the recovery and use of refinery condensate water, stripped and purified water, and clean wastewater; appropriate purification treatment of sewage for use as circulating water replenishment.
- ✧ Conduct improvements to production and domestic sewage purification and reuse equipment.

Annual Progress in Water Resource Management

In 2025, through optimizing water system production operations, promoting the application of advanced water saving and sewage reuse technologies, and strengthening the utilization of unconventional water resources, the Company continuously improved water resource utilization efficiency and rationally controlled freshwater usage. During the reporting period, the Company’s annual freshwater usage was 741.44 million cubic meters, the water consumption per tonne of crude oil processed was 0.448 cubic meters/ton, achieving water savings of 7.53 million cubic meters, exceeding the annual target.

<p>Conducting water saving target responsibility assessments</p>	<p>Incorporated water saving indicators as binding performance contract assessments, progressively formulating assessment indicators at each level and breaking them down to frontline teams and workshop installations; improved energy conservation and water saving assessment rules, strengthened KPI assessments on water use quota benchmark values, enhanced process monitoring and analysis and early warning of indicator completion, and strictly conducted assessments and reward/penalty management.</p>
<p>Improving the energy and water saving management system</p>	<p>Revised <i>the Company’s Energy Conservation and Water Saving Management Measures</i>, clarifying management responsibilities and strengthening energy efficiency and water efficiency quota management; organized on-site inspections of energy conservation and water saving management execution at 8 subsidiaries.</p>
<p>Strengthening energy and water use statistics and accounting</p>	<p>Improved the Company’s energy and water saving statistics system; conducted energy conservation and water saving statistics training.</p>
<p>Conducting water efficiency benchmarking and water efficiency ‘frontrunner’ activities</p>	<p>Implemented improvement measures for water efficiency indicators including refining, ethylene, para-xylene (PX), synthetic ammonia and urea; water consumption per ton of crude oil processed and water consumption per ton of ethylene product decreased year-on-year by 1.10% and 10.38%, respectively. Yunnan Petrochemical and 7 other enterprises received 8 annual petroleum and chemical industry water efficiency “Frontrunner” designations.</p>



Daqing Oilfield Park rainwater resource utilization system

In response to the call for sponge city construction, Daqing Oilfield Company collected and utilized rainwater from the oilfield headquarters park to replace clean water and created a demonstration project for the utilization of rainwater resources in the park, which achieved good practical results. The project conducts a one-year regional rainwater collection and utilization experiment to formulate an implementation plan of “retention, good storage, smooth drainage, no waterlogging, return, and reuse” by researching and demonstrating meteorological data, rain drainage systems, artificial lakes, roads, squares and buildings in the region in the past ten years. Since the implementation of the project, more than 600,000 cubic meters of rainwater have been collected and utilized, with an average annual efficiency of more than one million yuan, the incidence of cyanobacteria in the water has decreased by 70% year-on-year, and the quality of the ecological environment has been significantly improved, alleviating the shortage of urban water resources and reducing the load of the urban drainage system during the flood season. The project has independent intellectual property rights, has the characteristics of low investment, good effect and reproducibility, and has been highly affirmed and praised by experts from the Ministry of Housing and Urban-Rural Development, the Ministry of Finance, the Ministry of Water Resources and the Daqing Municipal Government, and has become a classic case of the Heilongjiang Provincial Department of Water Resources to “save water and build ecological civilization together”.

Indicators and Targets

Our Targets

2026 targets:

- Water savings: **5.5** million cubic meters or more
- Fresh water consumption per ton of crude oil processed: below **0.46** cubic meters

Indicator	2025 Progress
Total water use (10,000 cubic meters)	2,068,015
– Fresh water use (10,000 cubic meters)	74,144
– Water recycled and reused (10,000 cubic meters)	1,993,871
Water recycling and reuse rate (%)	96.4
Water savings (10,000 cubic meters)	753
Fresh water consumption per unit of oil and gas equivalent production (cubic meters/toe)	1.29
Water withdrawal per ton of crude oil processed (cubic meters)	0.448

Developing a Circular Economy

The Company is committed to creating a resource-saving and environment-friendly enterprise, actively developing the circular economy, with efficient, clean and circular utilisation of resources as its core, promoting reduction, reuse and recycling throughout the entire production and distribution process, and contributing to the green low-carbon and sustainable development of the full business chain.

Planning and Plans

The Company closely aligns with the “dual carbon” targets and has formulated the Green Low-Carbon Development Action Plan 3.0 and the Implementation Plan for Accelerating Green Development and Promoting Beautiful China Construction at PetroChina. Following the “Three-Step” deployment, the Company aims to build a low-carbon energy ecosystem and transform into an integrated energy service provider. It focuses on developing the green and environmental industry while integrating green development into all business segments, using circular economy practices to contribute to Beautiful China construction.



Promoting Circular Economy Development

Key Initiatives for Developing a Circular Economy

Achieving Efficient Resource Utilization

- ✦ Vigorously promote energy conservation, carbon reduction and efficiency improvement; strengthen energy and water conservation technology innovation; promote resource recycling to minimize resource consumption (see “Energy Utilization” and “Water Resource Utilization” sections of this report).
- ✦ Comprehensively develop and utilize associated resources such as associated gas and geothermal, as well as waste heat generated in oil and gas production, by building recovery devices and processing facilities, recovering and utilizing them for power generation, heat supply or as chemical feedstocks, achieving maximum utilization of resources.

Recovery and Utilization of Emissions and Waste

- ✦ Conduct deep treatment of wastewater generated in the production process through physical, chemical and biological treatment processes to achieve treated water quality meeting reuse standards; reuse in cooling, water injection and other aspects of the production process to achieve water resource recycling, reducing freshwater uptake and wastewater discharge volumes.
- ✦ Use desulphurization and denitrification technologies to treat exhaust gases including nitrogen oxides and sulfur dioxide generated in the production process, recovering and utilizing useful components.
- ✦ Actively explore and improve CCUS technology and profit pathways; advance R&D on CO₂-enhanced oil recovery technology; innovatively forming a CCUS full industry chain technology system; driving CCUS projects into the industrial application stage in the CO₂-enhanced oil recovery utilization field.
- ✦ Through pyrolysis, extraction, regeneration and other technologies, conduct classified collection and treatment of solid waste generated in petroleum and petrochemical production processes, achieving resource-based treatment and recycling of solid waste.



Shanghai Sales company B5 biodiesel helps urban green development

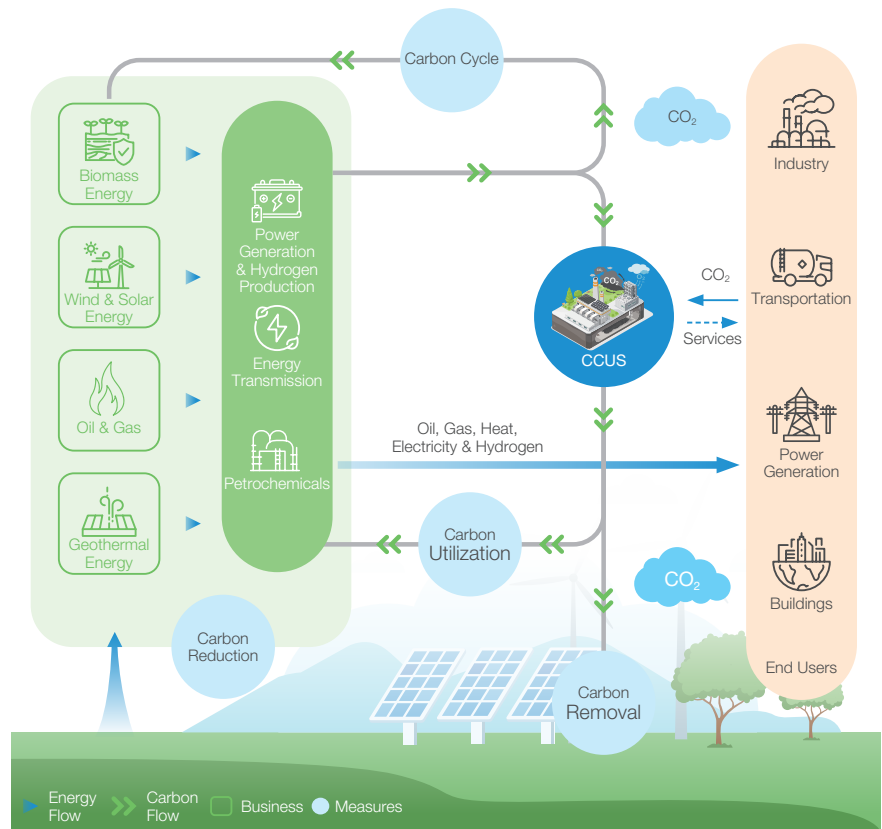
Shanghai Sales Company actively implements Shanghai’s work requirements to prevent gutter oil from returning to the table and ensure food safety and makes every effort to promote and apply B5 biodiesel.

The waste oil (“gutter oil”) produced by catering, food processing and other enterprises every day can be made into BD100 biodiesel that meets the national standard through esterification, dealcoholizing, distillation and other links, and then through the modulation process, it can be made into B5 biodiesel that meets the national standard for diesel vehicles (ships). This type of biodiesel has the advantages of good lubricity, high cetane number, non-toxic, low sulfur, degradable, and aromatics-free, which is conducive to reducing diesel engine exhaust pollutant emissions and is a green and environmentally friendly renewable fuel.

Shanghai Sales Company completed the renovation project of the company’s Yunfeng Oil Depot B5 biodiesel modulation facility in only 46 days, and the quality of one-time modulation of B5 biodiesel was qualified, and it was recognized as a Shanghai B5 biodiesel modulation and sales enterprise. At present, the company has built more than 50 gas stations that can fill with B5 biodiesel, forming a sales network covering the whole city, refueling more than 10 million vehicles for citizens, selling nearly one million tons of B5 biodiesel, and helping to digest more than 27,000 tons of “kitchen waste grease”, with significant social benefits.

Building a Carbon Circular Economy System

PetroChina, with “carbon reduction, carbon utilization, carbon circulation and carbon removal (4Rs)” as its core, has proposed the concept of developing a “carbon circular economy system”. The Company is conducting the “Carbon Circular Economy Pioneer Action”, comprehensively implementing the Deep Electrification Transformation Project, the CCUS Industry Chain Construction Project and the Zero-Carbon Production Operations Reengineering Project. Through continuously optimizing the Company’s energy flows and carbon flows, and implementing process reengineering centered on CO₂ reduction, reuse and resource utilization, the Company is actively positioning in new energy, new materials and new industries, building the CCUS industry chain, and accelerating the realization of clean energy supply and the scale-up of the carbon industry, driving the green low-carbon transition.



Carbon Circular Economy Development Pathways

Indicators and Targets

Indicator	2025 Progress
Renewable energy consumption (MWh)	16,274,877
Proportion of renewable energy consumption in total energy consumption (%)	3.09

03 SOCIAL

The Company's development is inseparable from the support of society and the dedication of its employees. Giving back to society and helping employees realise their potential are responsibilities the Company is duty-bound to fulfil. Upholding a people-oriented philosophy of harmonious and win-win development, the Company is committed to sharing the fruits of development with all stakeholders and contributing PetroChina's strength to improving people's wellbeing and promoting social harmony.

The UN Sustainable Development Goals





Community Communication and Engagement

Adhering to Global Development initiative, Global Safety Initiative, Global Civilisation Initiative, and Global Governance Initiative, we uphold responsible operations, and actively cultivate harmonious community relationship. By strengthening communication and coordination, creating employment opportunities, paying taxes in accordance with the law and with integrity, and engaging in community welfare, we protect the lawful rights and interests of community residents, and help enhance regional capacity for sustainable and self-directed development.

Management System

The Company adheres to the principle of “Free, Prior and Informed Consent (FPIC)”, complies with national policies and regulations such as the *Guidelines for Chinese Enterprises to Fulfil Social Responsibilities Overseas*, and has formulated several systems and regulations including the *Overseas Community Communication Manual and the Measures for the Management of External Donations*, with a view to optimising communication mechanisms and improving communication effectiveness on a continuous basis. Affiliated enterprises refine and improve their community communication management measures in compliance with local laws and regulations and with due regard for actual conditions. For example, we have formulated the *Measures for the Management of Oil-Land Relations* for operations at the Tarim Oilfield as well as for other affiliated enterprises. These efforts facilitate the standardisation and localisation of community communication management.

Community Communication and Engagement Approach

Community Communication and Engagement Throughout the Full Project Cycle

<p>Before Commencement</p>	<ul style="list-style-type: none"> ✦ The Company adheres to the principle of “Free, Prior and Informed Consent (FPIC)”, comprehensively identifies communities and stakeholders potentially affected by the project, maps stakeholders, and determines the scope of impact ✦ Conducting comprehensive community consultation and communication through multifaceted research methodologies, including questionnaires, community forums, and targeted door-to-door interviews to comprehensively. This strategic approach enables a holistic understanding of community demographics, economic landscape, cultural nuances, existing infrastructure and the critical concerns and fundamental needs of residents ✦ Leveraging consultation findings to develop a detailed impact assessment addressing potential environmental, social, economic and cultural implications, subsequently formulating environmental and social impact assessment reports ✦ Incorporating the opinions of affected communities into operational and project decision-making, and formulating corresponding management plans which are made publicly available to community members
<p>During Project Implementation</p>	<ul style="list-style-type: none"> ✦ Rigorously implementing comprehensive management plans to minimise construction-related disruptions to communities ✦ Maintaining close communication with community residents through community open days, providing regular project progress updates and promptly addressing community concerns and resident feedback ✦ Formulating traffic diversion plans, carefully optimising construction vehicle routing and scheduling to mitigate potential travel interference for local residents ✦ Proactively engaging with local businesses and vendors, prioritising local raw material and service procurement, and creating employment opportunities
<p>After Completion</p>	<ul style="list-style-type: none"> ✦ Executing site restoration and environmental rehabilitation, ensuring comprehensive recovery of construction site ✦ Monitoring and assessing the effectiveness of communication with stakeholders, and making prompt improvements so as to achieve targets ✦ Continuously reinforcing community relationships through welfare project funding, community planning and development, and providing professional expertise to support sustainable community development

Key Measures for Community Communication and Engagement:

 <p>Improving Community Relationship Management Systems and Organisational Safeguards</p>	<p>The Company formulates and rigorously implements community relationship management guidelines and related regulations based on local conditions. We establish environmental protection and community relationship coordination bodies, conducting environmental and social impact assessments on an ongoing basis, and ensuring that community communication and coordination mechanisms operate in a standardised manner on a regular basis</p>
 <p>Strengthening Information Disclosure and Public Communication</p>	<p>The Company proactively fulfils its notification obligations, establishes procedures for notifying communities of material matters and emergencies, and releases relevant information to local communities in a timely manner. Local media are invited to report on the Company’s activities, and publications and video materials are used to enhance community understanding of the Company’s operations and project activities</p>
 <p>Establishing Complaint-Handling and Feedback Mechanism</p>	<p>The Company formulates community relationship complaint-handling procedures that standardise the management of community complaints and provision of timely feedback, as well as giving substantive protection of privacy and safety of complainants, thereby ensuring that our responses effectively address community demands to the extent that they are reasonable</p>
 <p>Prompt Responding to Social Community Concerns</p>	<p>The Company regularly holds communication meetings with government officials, local enterprises, and community representatives to systematically manage stakeholder relations, and responds to and addresses community concerns in a timely manner. For significant issues that affect communities, specialised meetings or hearings are held to jointly identify potential risks and development opportunities with the community and to negotiate solutions</p>
 <p>Enriching Daily Interaction and Community Engagement</p>	<p>The Company proactively participates in local associations in operating locations to listen and respond to community concerns in a timely manner. Meanwhile, open-day activities and interactive exchange events are organised to actively build communication platforms with governments and community residents, foster mutual trust, and promote the formation of positive and productive community relationship</p>
 <p>Promoting of Stakeholders’ Participation in Community Development</p>	<p>The Company encourages its staff to participate in community activities, and promotes its ESG concepts to suppliers and contractors, encouraging their participation in community development projects</p>

Total global social welfare investment by the Company in 2025: **RMB576.76 million**

Of which

- Rural Revitalisation: RMB**270.22** million
- Donations to Support Education: RMB**113.92** million
- Disaster Relief Donations: RMB**29.19** million
- Environmental Protection: RMB**11.45** million
- Other Public Welfare Expenditures: RMB**151.98** million

Community Investment, Building, and Development

The Company actively participates in community investment, building, and development initiatives. We strictly adhere to international conventions related to community matters and social responsibility as well as the laws and regulations of areas where we operate. We respect local customs and cultural traditions, and conduct all business operations in a legally compliant and responsible manner, thereby fostering the coordinated development of communities and projects.

In alignment with local socio-economic development plans and the actual needs of community residents, the Company has formulated and implemented community development plans, and outlined community investment projects in a reasonable manner, with a focus on supporting community capacity building projects in areas such as environmental protection, public health, education development, and public infrastructure.

Protection of Local Environment

We strongly believe in the importance of striking a balance between business development and environmental protection. Therefore, we strictly comply with the environmental protection laws and regulations of countries where we operate as well as the international standards on environmental protection, and protect the local ecological environment and historical and cultural heritage during operations.

Case Study

Strengthening Systematic Environmental Management in Sensitive Ecological Areas

SAPET Peru draws on the characteristics of sensitive ecological areas such as the Amazon rainforest and tropical marine environments to conduct systematic environmental management, encompassing ecological baseline monitoring, flora and fauna protection, engineering mitigation measures, and ecological restoration, which helps us to gradually form replicable environmental management experience.

For our onshore projects, multidisciplinary ecological baseline surveys and continuous monitoring are carried out, with multi-year ecological databases established to optimise construction scheduling. We strictly adhere to the principle of “relocation before operations” during site clearance, with biologists providing on-site guidance for the relocation of flora and fauna. In the removal of coastal trestles and ecological restoration, we conduct land-sea integrated surveys, adopt low-noise and low-vibration construction methods, strengthen water monitoring and standardised waste disposal, and commission biological observers to provide real-time monitoring, so that the shoreline landscape is systematically restored.

Law-Abiding and Transparent Tax Payment

The Company strictly complies with local laws and regulations in the countries where it operates, and pays taxes to local governments according to law. In countries where the *Extractive Industries Transparency Initiative* (EITI) standard is implemented, the Company timely publishes information on its tax payments that exceeds the minimum disclosure requirements prescribed by the EITI, upholding responsible operations through transparent governance. We support and implement the anti-Base Erosion and Profit Shifting (BEPS) initiative to pay taxes where we create value, and have formulated the *Tax Policy of PetroChina Company Limited* and pledge to pay tax according to the law where we operate and create value, and to eliminate profit shifting and tax avoidance arrangements lacking commercial substance. Through concrete actions, we support local fiscal development and socio-economic progress, achieving a win-win outcome for both corporate and regional sustainable development. The Company conducts regular training to ensure that taxation is conducted in accordance with the law.



Promotion of Local Employment

The Company makes continuous improvements to its international operation and management standards. We vigorously promote local employment, respect local working culture and facilitate cultural integration. Through training and capacity-building for local employees, the Company supports the career growth and development of local talents, providing impetus for socio-economic development of project locations in parallel with the pursuit of its own high-quality development.

In 2025, the proportion of foreign employees in the Company's overseas projects was 96.84%. Taking our Aktobe Petroleum in Kazakhstan as an example, the Company consistently advances employee localisation in a systematic manner, upholding the concept of "local employees growing and progressing together with the enterprise.". As of the end of 2025, the project Company had 102 Chinese employees and 5,288 Kazakhstani employees, with a Chinese-to-Turkmen the percentage of Kazakhstani staff ratio of 1:10.2 reaching 98.1%; approximately 1,766 Kazakhstani employees hold mid-to-senior level positions in professional and technical and management roles, accounting for 33.4% of total Kazakhstani employees. This approach effectively supported the development of a local talent pipeline.

Local Procurement

The Company gives priority to local products and services in its procurement process, treating localised procurement as an obligatory community-building commitment. The Company has formulated the *Regulations on the Procurement Management of Overseas Entities*, which explicitly stipulate that local materials, equipment, consumables, and other localised supply resources shall be selected preferentially and on merit, thereby providing local suppliers, contractors, and service providers with opportunities to participate in projects, and supporting the development of local SMEs and community entrepreneurs, thus enhancing the regional industrial chain support capacity. For example, Suriname Company has engaged 24 local service providers in procurement activities, accounting for 73% of the total. At the same time, the Company actively participates in the Bluewave Supplier Development Programme, conducting capability assessments and capacity-building coaching for 60 local service providers to enhance their ability to engage with international energy projects and drive the sustainable development of the local supply chain.



For example, Aktobe Petroleum in Kazakhstan has signed a contract with the local government, stipulating that 1% to 3% of the annual investment from local projects will be allocated to local infrastructure development

Participation in Welfare Activities in Overseas Communities

The Company actively participates in local community building, deeply integrating into the economic and social development of the countries and regions where it operates. Based on the actual needs of local communities, it provides support to surrounding communities in areas such as the environment, health, education, public facilities, and community activities. Through various public welfare activities, it actively fulfils its social responsibility, achieves harmonious integration with communities, and helps communities achieve sustainable development. For example, Aktobe Petroleum in Kazakhstan has signed a contract with the local government, stipulating that 1% to 3% of the annual investment from local projects will be allocated to local infrastructure development. At the same time, it actively participates in other public welfare programme, such as funding the construction of an art centre and a table tennis centre to foster cultural exchanges and support the development of local sports. A children's summer camp has also been built, bringing benefits to more than 2,000 local children.

In 2025, the Company carried out a variety of community welfare activities overseas

Iraq	<ul style="list-style-type: none"> Since 2015, a special annual social welfare fund has been established on a continuous basis, with 61 social welfare projects implemented cumulatively, totalling approximately USD26.95 million in investment. In 2025, 9 projects have been completed, covering multiple areas including healthcare, transport, education, sports, and power infrastructure Trained Iraqi oil-gas professionals, supported development of scientific research institution, conducted professional, technical and language training, international degree education, and provided scholarship programmes
Kazakhstan	<ul style="list-style-type: none"> Organised the “DELVE Camp” summer camp for 450 children of our employees. Sponsored the 29th International Middle School Basketball Championship Funded the construction of a school in the Tupkaraghan District of Mangistau Region Donated a total of approximately USD310,000 to social organisations and public welfare institutions in areas such as Kyzylorda Region and Almaty to support local cultural, educational, public health, and sports development
Singapore	<ul style="list-style-type: none"> Joined efforts with the National Parks Board of Singapore to organise employees to participate in the annual tree-planting event at Punggol Waterway Park, took concrete action to support Singapore’s “One Million Trees Movement” Hosted a Chinese New Year luncheon for the elderly in conjunction with the Singapore Women’s Association (SWA) Donated to organisations including the Singapore Children’s Society and the Singapore Chinese Orchestra
Thailand	<ul style="list-style-type: none"> Implemented 46 public welfare and donation projects cumulatively Provided financial support to the Village No. 8 Fund near the oilfield to improve the living conditions of villager and enhance grassroots public service capacity



Community Co-Development as a Model for Sino-Kazakh Cooperation

Adhering to the principles of “joint consultation, joint construction, and shared benefits”, CNPC International Aktobe Petroleum is committed to creating a model project that fosters strong connections among local communities. Through systematic investment, it has significantly improved the local environment and achieved a multi-win outcome, benefiting the economy, the environment, and society.

An innovative “government-enterprise-community” three-party collaborative mechanism was established, with the opinions of local governments and community residents fully considered at each stage of project planning, construction, and operation, ensuring that projects precisely meet local needs and enhancing community identification and engagement. By deeply integrating local cultural characteristics and community needs, we have formed a sustainable closed-loop encompassing investment, construction, operation, and realisation stages, achieving optimal resource utilisation. A distinctive development path was implemented. A convalescent camp originally used for “petroleum workers” was repurposed into a summer camp for children, achieving optimised resource allocation and functional upgrading. Through projects such as an arts centre and dance academy, sustainable cultural exchange platforms have been created. Popular sports such as table tennis have been used as a medium to establish regular channels for non-governmental exchange, creating new forms of people-to-people engagement.



Summer Camp for Children

Management of Security Providers

The Company strictly complies with laws and regulations in its areas of operation, gives priority to engaging security service providers with sound human rights management systems to strengthen human rights risk prevention and control at the source. Management of security contractors has been strengthened, with clearly specified requirements of ethical standards and responsibilities and obligations in relation to human rights protection set out in our contracts. We forbid any inappropriate treatment to local employees and community residents, and the Company actively guards against potential violence risks during security operations, prohibiting all actions that could give rise to human rights violations. The Company has established a systematic ethics and human rights training system to continuously strengthen the capacity of security personnel to perform their duties in accordance with laws and regulations. We conduct comprehensive audits of the compliance performance of security contractors at all operating locations, monitoring and driving the effective implementation of human rights protection policies. At the same time, the Company has established a regular communication and grievance feedback mechanism for human rights protection, proactively monitoring security practices and taking strict measures to address any issues of violence or discrimination. This enables the Company to effectively prevent human rights violations at the institutional level.

Community Resettlement

The Company strictly complies with laws and regulations including the *Land Administration Law of the People's Republic of China* when planning and implementing new projects, focusing on standardised, fair, and transparent resettlement work at the core, building a responsible and sustainable resettlement management framework through systematic measures.

Community Relocation Management Framework






Rural Revitalisation and Social Contribution

Rooted in society, the Company regards giving back to society as its due responsibility. Actively responding to national policies such as the *Opinions on Further Deepening Rural Reform and Advancing Comprehensive Rural Revitalisation*, we fully support rural revitalization and social welfare initiatives. While maintaining a steadfast commitment to the Company's sustainable growth and delivering consistent shareholder value, we foster broader economic and social sustainability.



Governance Framework

At the decision-making and supervision level, the Board of Directors has overall responsibility for ESG matters relating to the topic on "Rural Revitalisation and Social Contribution". The Sustainable Development Committee is responsible for identifying and assessing major risks and impacts, overseeing the Company's commitments and performance, reviewing the implementation of relevant approaches, objectives, and measures, as well as considering the content related to "Rural Revitalisation and Social Contribution" in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for executing the decisions and directives set by the Board of Directors and Sustainable Development Committee regarding rural revitalisation and social contribution. This includes organising cross-departmental collaboration and systematically managing related impacts, risks, and opportunities. At the executive level, professional companies and affiliated enterprises progressively establish and refine their own management systems for rural revitalisation and public welfare, ensuring the implementation of annual tasks in accordance with Company's requirements.



Support for Rural Revitalisation and Public Welfare Causes

We focus on key domains including industry, talent, culture, and ecology, with the goal of cultivating sustainable development capabilities within local communities, and strengthening the effective integration of poverty alleviation achievements with rural revitalisation. In 2025, we launched 1,050 rural revitalisation projects, including the Special Industry Improvement Initiative and the Empowerment through Consumption Campaign, benefiting over 9 million people. At the same time, through the development of innovative charitable models, the establishment of collaborative platforms, and the consolidation of resources across multiple societal sectors, we have actively organised public welfare projects such as the Teacher Training Programme, the Health Protection and Support Programme, the "Gem Flower" Youth Volunteer Service. These efforts aim to promote the sustainable socio-economic development of local communities and achieve shared social values.

Enhancement of Sustainable Development Capabilities | | | | | | | |

PetroChina actively develops strategic community initiatives across key sectors, including agricultural product processing, distinctive rural industries, rural leisure tourism, and innovative rural service sectors. We implement targeted, localised approaches, strategically investing financial, human, material, and technological resources to drive agricultural industrialisation and integrated rural industrial development. By aligning our comprehensive corporate strengths with local resource advantages, we aim to enhance rural industrial operational capabilities and support farmer income generation.

In 2025, drawing on the resource endowments of various localities, the Company optimised its planning for distinctive industries, invested RMB 130 million in funding to support 18 industrial projects, including the Taiqian down industry cluster and the Zoige Tibetan sheep industry cluster. We also advanced the development of pillar industries such as the "wind and solar economy" in Jimunai, "oil-gas development" in Balikun; and supported the construction of projects including the Nileke black bee resort farm, the Fanxian agricultural-tourism integration project, and Hengfeng "West Slope" Boutique Homestay, contributing towards a stronger mechanism for connecting with farmers and promoting farming income and driving deep integration across primary, secondary, and tertiary industries. In collaboration with China Agricultural University, we have established a "Science and Technology Courtyard" to promote the development of new productive forces in agriculture tailored to local conditions.

2025

Rural Revitalisation Projects
Launched during the Year:

1,050

Beneficiary Population: Over

9

 million



Tailored Approach to Driving High-Quality Rural Industrial Development

The Company maintains its focus on industrial revitalisation as the primary priority for rural revitalisation. In 2025, leveraging local resource endowments, industrial foundations, and comparative advantages, the Company used flagship projects as its vehicle, and took multiple concerted measures to improve rural industrial development.

In Qinghe County, the Company has persisted in efforts to improve farmland, supporting the construction of electric irrigation stations, renovating irrigation canals for farming, and advancing efficient water-saving irrigation projects to transform more than 20,000 mu of Gobi Desert into productive farmland. In Jimunai County, a smart grain silo was built with a storage capacity of 61,000 tonnes, greatly increasing the total grain reserve capacity of the Altay region. In Fanxian, Henan, the Company supported the intelligent transformation of flower cultivation, helping a leading enterprise become Asia’s largest anthuriums cultivation and sales base, with an annual output value exceeding RMB60 million, ultimately benefiting more than 1,000 surrounding flower growers with an increase of over RMB10,000 in annual income per household.

Improvement of Rural Infrastructure

Our goal is to achieve basic modern living conditions for rural villages, ranging from living facilities, public services, ecological environment to rural landscape, striving to improve the completeness of rural infrastructure and the convenience of public services, and support villages in stepping up from clean and tidy to beautiful and liveable conditions.

In 2025, the Company continued to carry out initiatives to improve living environments, accelerating the rollout of clean energy renovations for households in high-altitude and cold regions, completing upgrades to facilities for clean heating, cooking, and green lighting, cumulatively building 115 “zero-carbon courtyards,” systematically driving the green and low-carbon transition of rural energy use for daily life. The Company introduced leading domestic technology in drip irrigation to Qinghe County, renovating more than 6,000 mu of water-saving irrigation facilities over the year, and raising water resource utilisation rates from 40% to over 90%. In Zoige County, the Company piloted a saline-alkali land remediation project, promoting integrated technologies such as water-saving salinity control and soil improvement, enhancing the comprehensive productive capacity of saline-alkali land, improving living environment, enhancing green ecological environment, and developing ecological agriculture to create a high-quality rural living space.

Enhancement of Employment Skills

The Company makes use of its advantages in resources to provide and create employment opportunities, build employment platforms and launch differentiated skills training programmes for talents in different regions. By raising their skill level, we motivate and help the local population to find employment and start businesses.

In 2025, the Company collaborated with specialist institutions to develop customised curricula using a “challenge-based task assignment” format, tailored to the development conditions of different regions and the professional needs of different groups. We enriched the teaching resources on our proprietary “Farmers’ Classroom” training platform, and created a customised curriculum matrix. Focusing on grassroots officials, the Company organised thematic training sessions on topics such as the “Thousand Villages Demonstration and Ten Thousand Villages Renovation Programme”, grassroots governance, and emergency management. For rural revitalisation leaders, expert lectures were advanced in areas such as e-commerce live-streaming, featured industries, and smart agriculture. For professional and technical personnel, programmes such as “Teacher Training Programme”, “Cloud Clinic”, and maternal and infant care were offered. Cumulatively, 48 training sessions were conducted throughout the year, training more than 140,000 participation instances for both online and offline sessions across different categories, helping to develop a new base for cultivating rural talent.

PetroChina

Scholarship Programme:

25 consecutive years

Our “Teacher Training Programme” provided training

to **21,000**

teachers in the year

Approximately

1,400

high school seniors graduated with support from the “Xuhang” student assistance project

Promotion of Education Development

From improving the education environment and quality to teacher training, PetroChina makes use of its own social influence and network to establish specialist schools, innovate student support models and connect various forms of education resources, to help youths in underdeveloped areas access equal education opportunities and to promote social concern as well as joint efforts in addressing the issue of fair education.

In 2025, the Company supported the renovation and upgrading project for a kindergarten in Zoige County. We renovated school buildings, built outdoor venues and developed distinctive cultural spaces, providing a safer and higher-quality educational environment for 372 pre-school-age children. In collaboration with Beijing Normal University, the Company continued to implement the “Teacher Training Programme” for the 10th consecutive year, inviting renowned teachers to the assisted counties to establish “Top Teacher” workshops and to conduct master-class lesson study and refinement activities, and selecting outstanding headmasters and core teachers from assisted counties to participate in on-site mentored training at high-quality schools. Over the year, 21,000 educational workers were trained, promoting high-quality regional education development.

Volunteer Services

Total Volunteer Service Hours:

196,000

hours

Average Volunteer Service

Hours per Person:

2 hours

Number of Staff Volunteers:

98,000

Percentage of

Staff Volunteers:

26.7%

Volunteer Service

Participation Instances:

154,000

Staff Volunteer Projects

The Company promotes and advocates the volunteer spirit. We organise the “Gem Flower” Youth Volunteer service campaign with a focus on energy supply security, ecological civilisation, rural revitalisation, emergency rescue, elderly care and student assistance and community services.

In 2025, the Company had 3,937 youth volunteer service teams and 67,000 youth volunteers, conducting 9,056 instances of various youth volunteer service activities. Youth volunteers focused on the “Xuhang” student assistance project, children from impoverished families, welfare institutions, and “left-behind” children (LBCs), they implemented caring assistance encompassing poverty relief, science education, psychological counselling, and teaching assistance. They served retirees of a broad spectrum including petroleum workers, senior experts, and model workers, providing heartfelt companionship in the form of healthcare, daily companionship, and life assistance. For the families of employees on long-term overseas postings, they also provided support encompassing life assistance, childcare, and care for family members. They also actively participated in community governance, advancing warm-hearted initiatives such as gas safety, home appliance repair, legal awareness, community convenience services, and community beautification, demonstrating the spirit of youth volunteers from PetroChina through heartwarming activities.

Prohibition of Child Labor and Forced Labor

The Company strictly abides by the *Forced Labor Convention 1930*, the *Abolition of Forced Labor Convention 1957*, the *Convention Concerning Minimum Age for Admission to Employment*, and the *Convention Concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor* promulgated by the International Labor Organization, and the *Law of the People's Republic of China on the Protection of Minors* and the *Provisions on the Prohibition of Child Labour* promulgated by the State and similar legal requirements of countries and regions where we operate our overseas operations. The Company has formulated the *Measures for the Management of Employment Contracts*, the *Measures for the Management of Internal and External Recruitment*, the *Measures for the Management of Overseas Employment*, and the *Measures for the Management of Graduate Recruitment*. We prohibit the employment of child labour, and reject all forms of forced and compulsory labour.

The Company has established an employment examination and supervision mechanism under which the recruitment of new employees, the daily management of human resources, supplier/contractor access and other processes are subject to review and oversight. The Company has also established processes for handling cases of non-compliant child labour employment, so as to effectively prevent and control related risks. The Company has established a clear procedure for dealing with cases of illegal child labour: upon discovery, the employment relationship shall be terminated immediately; the child shall be safely removed from the premises and the matter promptly reported to the relevant authorities; the company shall cooperate with the investigation and ensure the child is properly cared for; at the same time, the root causes shall be thoroughly investigated, supplier and employment vetting processes shall be strengthened, and strict measures shall be taken to prevent such incidents from recurring, thereby effectively mitigating the associated risks.

During the reporting period, the Company has never used any child labour or forced labour.

Equal Employment, Diversity and Inclusion

The Company upholds an equal and non-discriminatory employment policy, treating employees of different nationalities, ethnicities, gender, religious beliefs and cultural backgrounds equally, and actively fostering a diverse, inclusive, equitable and mutually trusting corporate culture.

During the recruitment and promotion process, the Company stipulates that candidates must not be discriminated against on the grounds of sex, ethnicity, religious belief, or physical condition. All positions are assessed on the main criteria of individual capability and qualifications, and equal career development opportunities are substantively offered to every employee through open and well-established recruitment and selection procedures and scientific and objective appraisal. The Company places particular emphasis on providing equal employment and development opportunities for groups including female employees, ethnic minority employees and persons with disabilities, strictly implementing regulations on maternity and nursing leave for female employees, attending to reasonable accommodation arrangements for employees with disabilities, and promoting employment in ethnic minority regions and economically underdeveloped areas.

The Company strictly follows international conventions and relevant national and international laws and regulations, fostering a fair and respectful working environment. We conduct regular training and awareness education on anti-discrimination and anti-harassment to reinforce employees' awareness of non-discriminatory employment principles, communicating clear prohibitions on workplace harassment.

The Company respects the cultural diversity of different nations and peoples as well as local customs. We proactively create an environment of multicultural integration, promote communication and exchanges between employees of different cultural backgrounds, and enhance their understandings, in order to foster cross-cultural collaboration in workplace.

Remuneration, Benefits and Performance Appraisal

The Company deeply understands the needs and expectations of its employees. We have formulated a remuneration and benefits policy that aligns with our employees' actual needs, established a scientific performance appraisal system, and consistently ensured that the distribution of remuneration and benefits is fair and just, in order to motivate employees to work enthusiastically and creatively.

The Company determines employees' compensation in strict accordance with national policies, taking into account factors such as job position, performance contribution, and labor market rates. We strictly implement equal pay for equal work regardless of gender, safeguarding the rights

Total Number of Employees

367,200

Percentage of Female

Managers in Total Employees

7.35%

Percentage of Ethnic Minority

Employees in Total Employees

6.87%

and interests of all employees. The Company implements a relatively standardised remuneration system, which mainly consists of an annual salary system for corporate leaders, a position-grade salary system for middle and lower management and technical personnel and a skill-based salary system for operational personnel. We continuously improve our market-oriented remuneration distribution mechanism, ensuring that pay raises align with the labor market, and are linked to the Company's economic efficiency and labor productivity. The Company has optimised its remuneration structure, balancing fairness and efficiency, and has continued to increase the share of remuneration distribution in favour of grassroots front line personnel, those in key and arduous positions, and professional and technical staff. The Company has also strengthened remuneration incentives for high-end operational and management talents, core scientific and technological R&D talents, and high-skilled leading talents.

The Company has established a comprehensive performance appraisal system. At the beginning of each year, performance contracts are signed with each enterprise, and performance appraisal targets for the year are issued. In the first quarter of the following year, the completion of performance targets by each enterprise is appraised, with emphasis placed on communication, feedback and improvement, continuously improving the Company's value creation capabilities and core competitiveness.

Non-Salary Benefits

In accordance with the *Social Insurance Law of the People's Republic of China* as well as social security requirements of host countries and regions of its overseas operations, the Company pays all statutory social insurance contributions for employees in full and on time. We have established and will consistently refine our enterprise annuity and corporate health insurance systems, implementing unified coverage for serious illness protection programs, and effectively protecting employees' rights and interests.

The Company strictly adheres to national labor laws and regulations such as the *Regulations on Paid Annual Leave for Employees*, and the *Regulations on Public Holidays for National Annual Festivals and Memorial Days*. We have scientifically developed and enforced a management system for working hours and rest, and provide paid annual leave, family reunion leave, marriage and bereavement leave, maternity leave, sick leave and other types of leave to employees, ensuring that employees enjoy rest and holiday breaks as mandated by law while fulfilling their job responsibilities. The Company operates a system offering both standard and special working hours tailored to the nature of different roles and work requirements. We arrange shift rotations reasonably and minimize overtime as far as possible. During the reporting period, the Company implemented various leave and benefits schemes in accordance with the law, effectively safeguarding employees' rights and interests to a balanced family and working life.

In terms of family-friendly arrangements and employee care, the Company safeguards the equal rights and interests of female employees in accordance with the law, strictly implementing maternity leave provisions related to pregnancy, childbirth, and breastfeeding, provides breastfeeding and nursing facilities, and supports female employees in healthy breastfeeding. The Company strictly follows the laws and regulations of the relevant countries and regions to provide employees with family-friendly leave, including paid maternity leave for female employees, paid parental leave for primary caregivers, paid parental leave for non-primary caregivers, paid family care leave, and paternity leave for male employees. Female employees in the Chinese Mainland are entitled to paid maternity leave of not less than 98 days; male employees are entitled to 15 days of paternity leave. Employees in other countries and regions are subject to the applicable statutory standards. The Company also continues to enhance childcare support for employees' children through means such as establishing kindergartens through equity participation and improving childcare facilities.



During the reporting period, the Company implemented all leave and benefits protection systems in accordance with the law, substantively protecting employees' rights and interests to maintain a work-life balance

100%



In 2025, the proportion of employees who returned to and retained their positions after maternity/paternity leave reached

Employee Support and Care

The Company regards caring for its employees as a vital cornerstone for pooling development synergy. It has rolled out targeted initiatives across multiple dimensions, including work support, daily livelihood security, and physical and mental health, to effectively deliver tangible corporate care to every employee.

For frontline employees working in arduous and challenging positions, the Company has launched a warm-hearted material distribution model featuring "customization+ independent selection". In addition, it has organized medical experts to conduct on-site medical rounds and consultations at frontline work sites, which has effectively met the practical needs of employees for material support and health care services.

The Company has formulated the Administrative Measures for Assistance Programs, covering employees, retirees, employees' family members and dependents of deceased employees. Centered on targeted and precise assistance, the Company has launched regular and normalized support measures, including special relief for employees in financial hardship, condolences to retirees, financial aid for employees' children's education, living security for dependents of deceased employees, and mutual medical assistance for critical illnesses. These measures have effectively alleviated the living burdens of struggling families and significantly enhanced employees' sense of happiness and well-being.

During the reporting period, the Company provided assistance to a total of approximately 4,680 people.

182 persons



Veterans recruited during the year

253 persons



Persons with disabilities employed during the year

96.84%



Proportion of Foreign Employees in the Company's Overseas Projects

Employment Promotion

The Company actively creates employment opportunities. By tapping into the potential of internal human resources, and improving the efficiency and effectiveness of human resources allocation, we have fully implemented an employment-first strategy, aiming to expand our employment capacity through various measures. Leveraging the advantage of our business scale, we guide and encourage our partner enterprises on our industrial chains and supply chains to attract talent. The Company did not conduct any large-scale redundancy exercises in 2025.

The Company actively offers veterans positions that are related to the Company's core business with development potential to support veteran employment. We received a total of 182 veterans in 2025.

The Company actively supports the employment of persons with disabilities, developing positions suited to employment of persons with disabilities, and arranged employment for 253 persons with disabilities during the year. Focusing on "local employment as empowerment", the Company incorporates employment assistance for local unemployed persons at its operating locations into its social responsibility system, contributing to livelihood improvement and synergistic economic development at its operating locations.

Local Employment

We are committed to "local, specialized, and market-based employment". We comply with all relevant laws and regulations of countries where our operations are located. We have established an optimal system for recruitment, deployment, performance appraisal, incentives and penalties. We strive to attract and train top local talents and to provide them with a working environment conducive to their growth.

We actively recruit and train local employees, increase local job opportunities. Professionals employed in our overseas projects involve multiple disciplines, such as environmental protection, ESG management, exploration and development, refining and chemicals, pipeline operation, international trade, finance, accounting, and human resources management. With continuous efforts, the Company has gradually established localised, regionalised and internationalised career development channels. For example, the company in Iraq has cumulatively created more than 20,000 employment positions for local unemployed persons, effectively alleviating local employment pressure as the localization employment rate continues to rise. SAPET Peru gives priority to absorbing labor from surrounding communities, providing hundreds of positions through both its employment promotion program and contractor management in 2025, while also supporting the growth of local youth through a diverse range of programs including safety and environmental protection training, code of conduct training, skills training, and internship and trainee positions.

Employee Communication and Engagement

Further to having a foundation of lawful and compliant employment, the Company values robust democratic management and communication mechanisms, which ensure accessible channels for employee engagement and expression of demands, thus enhancing its employees' sense of fulfillment and organizational cohesion.

Employee Communication and Democratic Management

We fully respect our employees' democratic rights and lawful rights and interests. We attach great importance to employees' role in democratic management, democratic participation, and democratic oversight. We have put in place a democratic style of management and a transparent system to deal with matters at our plants, through the Employees' Congress system, to protect employees' rights to information, participation, expression, and supervision. We have further standardized the content, procedures, and model of our open system for matters at our plants by clarifying the duties and authorities, organizational system, and working processes for the Employees' Congress. Through the establishment of a labor union system, continuous strengthening of organisational development of labor union, and stimulating organizational vitality of labour union, employee cohesion and sense of unity improves continuously.

Commitments and Objectives of Employee Human Rights

The Company strictly complies with the labour laws and regulations of the countries and regions in which it operates, and upholds the principle of "people first", committed to safeguarding the lawful rights and interests of all employees.

We solemnly commit to:

Safeguarding of fundamental rights and interests and dignity. We strictly comply with labour regulations to ensure that the lawful rights and interests of our employees in respect of remuneration and benefits, working hours, rest and leave are comprehensively enforced, establish a safe and healthy working environment, respect the privacy and personal dignity of our employees, and resolutely prevent any infringement of human rights.

Resolute prohibition of child labour and forced labour. We strictly observe international labour standards, and adopt a "zero tolerance" policy towards forced labour and child labour.

Upholding of equality and non-discrimination. We prohibit any form of discrimination based on nationality, race, gender, religious belief and cultural background in recruitment, training, promotion and remuneration, and provide fair development opportunities for all employees.

Promotion of communication and career development. We respect the freedom of association and the right to collective bargaining of our employees, and establish open communication channels. We attend to the professional growth and skills development of our employees, and through diversified career development pathways, support our employees in realising their personal value, achieving shared progress for both the enterprise and our employees.

The Company actively builds a diverse range of regular communication channels. We conduct in-depth grassroots frontline personnel surveys, listen to employees' opinions and suggestions, implement communication mechanisms such as "Employee Dialogue Day" and "Demands and Suggestions", and uphold the performance of democratic procedures. We conduct multi-level communication and exchanges such as forums for employee representatives and online interactions to encourage employee participation in the Company's production, operation, and management. Employee satisfaction surveys are conducted to gather employees' opinions and suggestions about the Company.

Employee Satisfaction Survey and Feedback

The Company has established a normalized monitoring mechanism for employee satisfaction, conducting annual questionnaire surveys that cover core dimensions such as job satisfaction, working environment, career development, and remuneration and benefits. The survey also incorporates assessments of work pressure, emotional state, and perceived workplace happiness to comprehensively evaluate employee experience and psychological wellbeing. The survey results are compiled into a special report, which serves as a key basis for management optimization. Survey results are statistically analyzed to produce a special report, which serves as the basis for management improvement, with targeted measures implemented accordingly, in order to continuously improve employee wellbeing and organizational cohesion.

Employee Grievances and Labor Dispute Handling

The Company has established an employee grievance system and a labor dispute handling system that involve the relevant headquarters departments and all affiliated enterprises. The system clarifies the division of responsibilities for listening to and addressing demands from all parties and standardizes relevant procedures, ensuring a transparent handling process for all grievance and disputes. We have also established a mailbox, a hotline, and a dedicated section on our website for handling grievances. Relevant departments at the headquarters are responsible for policy interpretation and supervision, while affiliated enterprises are responsible for policy implementation and issue follow-up. The Company prioritizes negotiation and mediation and, when necessary, involves independent third parties to assist in handling disputes, to protect the legal rights and interests of its employees. For disputes related to remuneration, performance appraisal and contract termination, we have formulated relevant policies which specify compensation standards and procedures to reduce labor disputes arising from improper procedures. Furthermore, we have adopted stringent international business ethics standards for our production operation and management systems, and have established effective employee grievance channels.

Management of Human Rights

The Company considers respecting and protecting human rights as an important foundation for sustainable development. We continuously improve our human rights management mechanism, prohibiting human trafficking, forced labor, child labor, and discriminatory practices, respecting employees' freedom of association and rights to collective bargaining, implementing equal pay for equal work, protecting the lawful rights and interests of workers in accordance with the law. During the reporting period, the Company recorded no incidents of human rights violations.

Through human rights due diligence covering its own operations, affiliated enterprises, and business partners, the Company proactively identifies and assesses potential adverse impacts and risks related to human rights include, but are not limited to, forced labor, human trafficking, child labor, restrictions on freedom of association and rights to collective bargaining, and discrimination, covering groups including, but not limited to, direct employees (with particular focus on compliance in the employment of female employees and the employment of minors), third-party workers, local communities, and indigenous peoples.

470,000

participant-times



In 2025, the Company conducted a total of 470,000 participant-times of training sessions related to human rights protection

The Company extends human rights protection requirements throughout the entire supply chain, supervising and guiding suppliers and partners to strictly comply with the laws and regulations of their respective countries and regions and to protect employees' lawful rights and interests. The Company supervises implementation through contractual provisions and on-site audits, incorporating human rights performance of suppliers into its access, appraisal and evaluation system, and taking corresponding measures against those who breach relevant requirements, thereby promoting the formation of a human rights protection mechanism for supply chain characterized by corresponding responsibilities and mutual benefit.

The Company has established comprehensive human rights risk mitigation and remediation mechanisms covering all operation locations. Through pre-emptive prevention measures including compliance training, process optimization, and supply chain constraints, and by initiating special investigations for issues occurred, implementing corrective measures, and protecting the lawful rights and interests of affected parties, we achieve closed-loop management to improve the effectiveness of human rights protection on a sustained basis.

The Company has been continuously strengthening its human rights awareness, and conducts trainings on human rights protection for all employees, building a training system around three key aspects (workplace anti-discrimination and anti-harassment, labor rights and interests and human rights compliance awareness, and diversity, inclusion and the rights of special groups). Its training has achieved comprehensive coverage including key groups such as overseas employees and contractors. In 2025, the Company conducted a total of 470,000 participant-times of training sessions related to human rights protection.

Promotion of Employee Development

The Company addresses the career development needs of its employees at different stages, paying close attention to their career planning. We continuously improve the system and mechanism for talent cultivation, optimize the environment for talent growth, prioritize the construction of a resource system to support talent cultivation, and provide a broad platform for employees to realize their self-worth.

Strengthening of Enterprise with Talent

Talent is the most important resource for the Company's development. We vigorously implement strategic measures to strengthen the enterprise through talent, focusing on the nurturing, introduction, and utilization of skilled individuals. This approach aims to stimulate the Company's creativity and vitality and enhance the overall value of talents.

10 Special Projects for Strengthening of Enterprise with Talent

Special Project for Organization System Upgrading and Optimization

Special Project for Talent Value Enhancement

Special Project for Cadre Building

Special Project for Leadership Skills Improvement

Special Project for Advanced Technology Research Talent

Special Project for Converging Wisdom of the Scientific and Technological Innovation Team

Special Project for Training and Developing Skilled Talent

Special Project for Gathering Internationalized Talent

Special Project for Talent Team Succession

Special Project for Development Talent of New Energies, New Materials and New Businesses



Employee Training

The Company has always placed a high value on employee training as a key measure for implementing the Company’s talent-driven enterprise strategy, achieving high-quality development, enhancing core competitiveness, and strengthening core functions. Adhering to modern enterprise training concepts, the Company focuses training on job performance capability enhancement and special talent training, advancing reform of education and training systems and mechanisms, conducting extensive on-the-job performance training and on-the-job empowerment training, deepening training on digital transition, comprehensively enhancing training service support capabilities, improving employees’ overall quality and professional capabilities on a continuous basis, striving to achieve positive synergies between employee growth and corporate development. The Company invested RMB1.93 billion in training over the year, implementing approximately 100,000 training projects by category and level, in total providing training of 4,887,000 instances, a training coverage rate of 100% among employees, achieving dual improvement in training scale as well as quality and effectiveness.

The Company provides employees with time support for academic qualification enhancement (on-the-job postgraduate study, advancement from junior college to bachelor’s degree) and professional qualification certification (Registered Safety Engineer, Certified Public Accountant, etc.). The Company has successively established regular collaboration mechanisms with 25 partner universities including Tsinghua University and Peking University, integrating the advantageous resources of 42 partner enterprises, and actively building high-quality practice platforms. The Company has driven cooperation with universities including East China University of Science and Technology and China University of Petroleum to conduct joint university-enterprise engineering doctorate enrolment targeting long-serving employees with outstanding performance, promoting training in traditional areas of strength of the Company to support employee career development and enhance their core competencies.

In 2025, the outcomes of the training work of the Company were as follows

- | | |
|---|--|
| Optimisation of training mechanism | <ul style="list-style-type: none"> ✦ Revised the <i>Measures for the Management of Employee Education and Training</i> and prepared the <i>Employee Training Management Handbook</i>. ✦ Established a closed-loop management mechanism of “implementation assessment, benchmarking review and dynamic optimisation” for training programmes, driving the conversion of training outcomes into practical capabilities ✦ Improved internal and external training organisation and implementation process standards to enhance the targeted nature and effectiveness of training |
| Training by category | <ul style="list-style-type: none"> ✦ Strengthened training efforts for core principal businesses, emerging segments, key business operations, key minority personnel and scientific research backbone staff ✦ Developed a range of innovative training projects targeting technical employees and scientific research talents ✦ Established training systems for marketing and safety and environmental protection talents, along with a precise position-based capability-building training project ✦ Scientifically developed an internationalisation talent training system, systematically building a “1+6” international business talent training and certification system ✦ Deepened the financial and audit talent development system to build a diversified and composite audit talent pool ✦ Developed a training system for interdisciplinary talents in the power segment, with a focus on cultivating high-calibre, multi-skilled professionals ✦ Conducted specialised training in frontier fields including new energy, new materials, artificial intelligence and advanced experimentation and testing |

As of the end of 2025, the Company has:

391

experts entitled to the Special Government Allowance

15

newly nominated national experts

4

newly appointed corporate chief experts

216

corporate senior experts

7

newly nominated corporate senior experts

128

Skilled Expert Studios

38

including National Skilled Expert Studios

Unimpeded Career Development Paths

We attach great importance to the career planning of our employees, and strive to expand their career paths and establish platforms to help them realize their full potential. We have developed a democratic, open, competitive and merit-based selection process, along with an improved talent development mechanism. Our goal is to create a positive environment where all kinds of talents can stand out, and every individual can fully utilize their abilities.

We continue to strengthen talent development, and improve our talent development mechanism. We have established a three-tier and nine-level career path for operational staff, ranging from junior workers to corporate-level skill masters, as well as a three-tier and nine-level career progression system for technical staff to inspire innovation and creativity. In line with the organization hierarchy, we also set up an eleven-level management position structure. Promotions are achieved through internal recommendations and selections, competitive recruitment, and open recruitment.

Employee Development Programme

The Company has formulated an employee development program covering all employees, including dispatched workers, and continuously upgrades employees' professional skills through diversified learning methods and targeted special plans, so as to achieve common growth and progress for both the enterprise and its employees.

For new employees, the Company assigns dedicated business mentors and career development tutors to provide personalized guidance. Relying on carriers such as expert workshops and master craftsman workshops, senior technical and management talents carry out targeted "mentorship, guidance and assistance" programs, which effectively help young employees adapt to their posts quickly and achieve rapid career growth. We have built multiple communication and cooperation platforms including employee resource groups, professional technical committees and cross-business collaboration networks. It promotes extensive knowledge sharing and accumulates practical work experience through various forms such as team workshops and key project tackling, fostering a collaborative and learning-oriented working atmosphere across the company.

Specialized Employee Development Programs

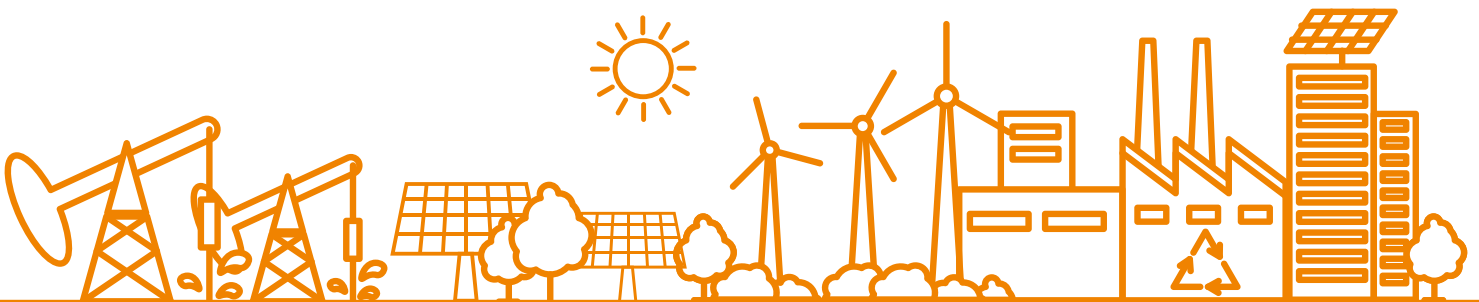
Program Name	Core Content
Leadership Development & Succession Planning	Implement tiered and categorized management training, and build a comprehensive training model integrating "political literacy, professional competence and team management". Advance the "Three-Strong" Cadre Project, establish a multi-level cadre succession plan, and carry out targeted cultivation for entrepreneurs, leading talents and young backbones, so as to form a well-structured talent echelon with reasonable hierarchy and sustainable supply.
Cultural Education	Integrate the Petroleum Spirit, Daqing Spirit, Iron Man Spirit, along with professional ethics, compliance and ethics, and diversity and inclusion into all-employee training. The program aims to strengthen employees' cultural identity with the Company and enhance their professional integrity and code of conduct.
Digital Transformation Program	Relying on platforms including CNPC E-Learning, the Company carries out specialized training on digital technologies, intelligent oil and gas fields and AI applications. It also drives employees to transfer and develop in emerging sectors such as new energy and digitalization, matching talent resources with corporate strategic transformation.
Transition Program for Retiring & Departing Employees	For retiring employees: Provide pre-retirement counseling covering corporate policies, daily life planning and physical health guidance to help them adapt smoothly to post-retirement life. For departing or transferred employees: Offer job transfer training and personalized career consultation, and give priority to recommending eligible employees to new energy and digital business sectors within the Company.

Fair and People-Centred Transition

In the process of green and low-carbon transition, the Company upholds a people-centered approach and a fair transition, actively attracting external talents in high-quality green technology. We place great emphasis on protecting the development rights and interests of existing employees during the transition. Through systematic cultivation and empowerment, the Company helps all employees to simultaneously adapt to the green and low-carbon development trajectory, achieving mutual benefit and win-win outcomes in both corporate transition and employee growth.

The Company has established a customized talent cultivation and transition mechanism that takes into account employees' career development aspirations and the Company's green business layout. Through the selective assignment of outstanding employees to universities and "pacesetter" enterprises for special training, the Company drives orderly the transfer and transition of employees from traditional sectors such as exploration and development to green emerging segments such as wind power, PV, hydrogen energy, digitalization, and artificial intelligence, converting and cultivating with precision a cohort of key technical talent for positions in clean substitute energy such as electric and hydrogen energy, and accelerating the development of a high-level green talent team suited to the Company's energy transition needs, ensuring that employees are not left behind and continue to advance as business evolves, and safeguarding employment equity and career development continuity throughout the transition process.

To achieve comprehensive coverage of all employees in the fair transition, the Company has built an all-round, multi-tiered green and low-carbon transition training system, breaking down barriers between hierarchical levels and positions, and bringing green development concepts and skills to every employee. Core training themes encompass the carbon peaking and carbon neutrality strategy and policy interpretation, practical applications of low-carbon technology, carbon asset management, green production and operation standards, and the current state and development trends of emerging industries such as PV, solar thermal energy, and energy storage, comprehensively improving employees' green skills and capabilities. In 2025, this system focused on empowering mid-to-senior management personnel, mid-to-senior technical experts, and specialist backbone staff, whilst simultaneously extending through online training channels to all employees of the Company, ensuring that employees at different positions and levels substantively enjoy equal learning opportunities and development resources during the transition, laying a robust foundation of capabilities for the entire workforce in the fair transition.





Work Safety and Occupational Health

The Company strives for the goals of zero accidents, zero pollution and zero harm, always putting the health and safety of its employees as the top priority of the Company, driving the deep integration of safety principles into every aspect of production and operations, continuously improving working conditions, devoting full efforts into promoting employees' physical and mental health, and maintaining constant improvement in the Company's safety management and occupational health standards.

Governance

Governance Framework

The Company has established a closed-loop management framework encompassing decision-making and supervision, professional management, and company-wide execution, with clearly delineated responsibilities and coordination mechanisms at each level. This framework comprehensively reinforces the line of defence for work safety, and protects employees' health rights and interests.

At the decision-making and supervision level, the Board of Directors has overall responsibility for ESG matters relating to the topic on "Work Safety and Occupational Health". The Sustainable Development Committee is responsible for identifying and assessing material related risks and impacts, overseeing the Company's commitments and performance, reviewing the implementation of relevant policies, objectives and measures, and considering the content related to "Work Safety and Occupational Health" in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for implementing the decisions and directives of the Board of Directors and Sustainable Development Committee with respect to work safety and occupational health, organising cross-departmental collaboration, and systematically managing related impacts, risks and opportunities. At the executive level, the Quality, Health, Safety and Environment Department is responsible for researching and formulating relevant management policies, improving the health and safety management system, organising safety diagnosis and assessment in key areas, and coordinating and guiding employee health management and related work. Professional companies and affiliated enterprises progressively establish and improve the work safety and occupational health management system within their respective scope, and implement annual tasks in accordance with the Company's requirements.

Professional Skills and Competencies

The directors and management of the Company responsible for work safety and occupational health possess solid professional competence and extensive practical experience. The President of the Company has overall responsibility for the day-to-day work related to work safety and occupational health and has long coordinated the overall work safety agenda of the Company. He also serves as Chairman of the Sustainable Development Committee and takes the lead in implementing the Board's decisions on work safety, occupational health and climate governance. He is deeply involved in climate risk management, green and low-carbon transition and other related work, and widely participates in routine safety management, including strengthening accountability for work safety, building risk prevention and control systems, upgrading safety management and control during special periods, overseeing contractor safety, and improving the emergency management system. He therefore possesses strong judgment on material topics such as work safety and occupational health. Two directors and one member of the management have experience serving as Safety Directors and are recognised experts in the fields of work safety and occupational health, providing independent, scientific and professional advice for major decisions on the Company's work safety management system, risk assessment, emergency management and other matters. At the execution level, personnel in relevant departments and positions possess professional backgrounds in safety engineering, occupational health, climate risk management and other related fields. At the same time, the Company has established a regular training mechanism and regularly organises relevant personnel to participate in specialised training on work safety standardisation, occupational health risk assessment, emergency response capability enhancement, climate risk identification and carbon asset management, so as to continuously strengthen the team's professional capabilities and ensure the standardised and professional advancement of work safety, occupational health and climate risk management.

Information Reporting Mechanism

The decision-making and supervision level holds regular annual briefings on work safety and occupational health work, supervises and guides the implementation of goals, discusses annual work progress and evaluates internal control results. The Chairman of the Board of Directors convenes a quality, health, safety, and environment (QHSE) work conference at the beginning of each year to analyse the situation and challenges, and to study and assign the year's priority tasks. The management receives briefings on the implementation of annual work safety and occupational health tasks at least twice per year, coordinates solutions to difficult issues, supervises and advances strategic tasks, and reviews key work items. At the executive level, the QHSE Information is published on a regular basis, sharing the latest developments and representative cases in the Company's work safety and occupational health initiatives. Affiliated enterprises submit reports on work safety and occupational health information to the centralised administration department via a combination of online and offline channels.

Internal Control, Supervision and Appraisal

The Company respects and adopts the International Labour Organization (ILO)'s relevant conventions and initiatives on work safety and occupational health, complies with all laws and regulations on occupational health and safety in our areas of operation, and rigorously abides by domestic laws and regulations including the *Work Safety Law of the People's Republic of China*, the *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, the *Law of the People's Republic of China on Basic Medical and Health Care and the Promotion of Health*, and the *Fire Protection Law of the People's Republic of China*. The Company has formulated and revised rules and regulations including the *Regulations on the Management of Work Safety*, the *Measures for the Management of Work Safety Accidents*, the *Work Measures for Supervision and Inspection of Work Safety*, and the *Measures for the Management of International Business Aviation Safety*, continuously strengthening the work safety and occupational health management system, covering the full process of pre-event prevention, in-event handling and post-event response, providing a solid institutional safeguard for the Company to achieve intrinsic safety. At the same time, the Company actively joins a number of national and international industry organisations, such as the China Petroleum and Chemical Industry Federation, and through these association platforms, participates in the formulation and revision of industry safety standards, shares safety management experience, and draws on peers' best practices.


The Company has established a HSE management system covering the entire industrial chain, centred on the Q/SY 08002 series standards and which integrates the requirements of ISO 45001 and ISO 14001, ensuring that the global business operations comply with uniform high standards. The Company continuously drives HSE standardisation at the grassroots level. As of the end of 2025, a total of 107 and affiliated enterprises of the Company had been certified in accordance with the HSE management system (Q/SY08002.1).

The Company incorporates work safety and occupational health indicators into the performance appraisal of management personnel including the President, and awards performance-related remuneration based on appraisal scores. For further details, please refer to "Management and Compensation Assessment" on Page 35 of this Report.

Strategy

Focusing on work safety and occupational health topic, the Company systematically conducts risk identification and judgement, comprehensively assesses its impact on the Company's production and operations, compliant operations, employee rights and interests, and long-term sustainable development. This material topic is deeply integrated into the top-level design of our overall development strategy. In the course of strategy formulation, major transactions, important decisions and risk management, the impacts, risks and opportunities relating to work safety and occupational health are incorporated into the full decision-making process, driving the deep integration of the concept of safe development into every aspect of the Company's strategy and operational management. For this purpose of implementing this strategy, the Company simultaneously formulates special strategic plans and clear and implementable pathways, makes coordinated progress in risk prevention and control, compliance management, and value enhancement, and leverages work safety and occupational health management to support the Company's high-quality and stable development.

List of Safety and Occupational Health Risks

Risk Category	Typical Risks	Impact Time Horizon	Risk Description	Critical Response Measures
	Uncontrolled blowout in oil-gas exploration, drilling and workover operations	Short-term/sudden	During drilling operations, improper control of formation pressure may lead to blowouts and further result in serious safety accidents	Strictly implement real-time well control operations; ensure that blowout preventers and other well control equipment are in a state of immediate readiness; strengthen real-time formation pressure monitoring; conduct emergency drills frequently
	Fire and explosion at refining and chemical plant	Short-term/sudden	Refining and chemical plants involve high-temperature and high-pressure operations, and flammable and explosive substances. Equipment faults or operational errors could easily lead to fire or explosion	Strictly manage and control special operations such as hot work and confined space entry; ensure that safety instrumented systems (SIS) and fire suppression systems are in good standby condition; strengthen operational discipline and real-time monitoring of process indicators
Safety Risks	Risk of fire and explosion at oil-gas terminal point of sales	Short-term/sudden	Leaks from storage and transportation equipment at sales terminals such as petrol stations and gas stations can readily cause accidents upon contact with ignition sources.	Strictly implement on-site operating procedures; promptly manage and control on-site ignition sources and static electricity; ensure that firefighting equipment and emergency shut-off devices are readily available
	Fire and explosion risk at large-scale storage facilities	Medium-term	Large storage facilities such as oil depots and gas stations may develop leaks due to equipment ageing and corrosion, leading to accidents upon contact with an ignition source	Implement regular equipment integrity management and inspection and testing plans; implement leak detection and repair (LDAR) programmes; conduct periodic safety assessments and fire suppression system tests

(Table continued)

Risk Category	Typical Risks	Impact Time Horizon	Risk Description	Critical Response Measures
 Occupational Health Risks	Exposure to toxic and hazardous gas	Short-term	During drilling, well completion, well control, station operations, and inspection and maintenance activities, workers may be exposed to substances such as hydrogen sulphide (H ₂ S), carbon monoxide (CO) and hydrocarbon vapours, with risks of acute poisoning and asphyxiation	Conduct job hazard identification and hierarchical control; deploy fixed/portable gas detection alarms in key areas; strictly enforce confined space entry permits and monitoring; provide and standardise the use of respiratory protection equipment; conduct emergency drills and response training
	Noise and vibration hazards	Medium-term	Prolonged exposure to noise generated by drilling rigs, compressors, pump rooms, refining and chemical plants, and engineering machinery may cause noise-induced hearing loss and related occupational injuries	Carry out noise reduction/sound insulation renovation for equipment; divide and mark noise zones; ensure the wearing and proper fitting of hearing protection devices; implement hearing health monitoring and job rotation; achieve closed-loop management of over-standard noise points.
	Exposure to chemical and hazardous substance	Medium-term	During refining, oil product storage and transportation, laboratory testing, and use of cleaning solvent, workers may be exposed to substances such as benzene series, polycyclic aromatic hydrocarbons (PAHs) and catalyst dust, with potential risk of chronic occupational disease among workers	Establish a full-lifecycle chemical management system covering the preparation of safety data sheets (SDS), full-process label management, standardised storage and handling, and compliant waste disposal; implement engineering control measures such as enclosed operations, automation and local exhaust ventilation; provide personal protective equipment (PPE) and skin protection products; and carry out regular occupational health examinations and necessary biological monitoring to safeguard the physical and mental health of employees.
	Shift work and fatigue management	Long-term	Work arrangements such as long-cycle oilfield postings and cross-time-zone work modes of overseas projects may lead to sleep disruption, fatigue and increased psychological stress, affecting long-term health and performance	Optimize the shift scheduling system, improve the working environment, establish psychological support channels, alleviate the pressure of rotating shifts, include fatigue in pre-operation risk analysis, and dynamically adjust work tasks.

Management of Impacts, Risks and Opportunities

The Company adopts a systematic approach in identifying, assessing, and managing risks and opportunities related to work safety and occupational health, and is committed to preventing and mitigating adverse impacts on workers.

Risk Identification, Assessment, and Control Process

The Company has established a full-process management mechanism for work safety and occupational health covering “identification – assessment – monitoring – management – review and improvement”, in order to systematically address related impacts, risks and opportunities. Through job hazard analysis, on-site hazard identification and inspection, regulatory compliance benchmarking, employee health monitoring, and historical accident and incident analysis, the Company comprehensively identifies safety risks and occupational health hazards across all stages of operations, while also identifying development opportunities in areas such as process improvement, protection upgrades and management efficiency enhancement. The Company applies the risk matrix method to conduct qualitative and quantitative assessments, define risk levels, control hierarchy and responsible parties, and develop a risk control list. A real-time monitoring system has been established to dynamically track changes in risks through intelligent monitoring, regular special inspections, occupational health examinations and a closed-loop hazard management system. Supporting systems, including the work safety accountability system, occupational health surveillance, and hazard identification and rectification mechanisms, have also been improved. Engineering controls, administrative measures and personal protective measures are implemented accordingly. Based on risk levels and control needs, the Company reasonably determines the priority of action plans and closely links improvement measures with occupational health and safety objectives, so as to ensure prioritized control of occupational risks and the steady achievement of key targets. Management reviews and performance assessments are conducted annually to systematically evaluate the effectiveness of health risk prevention and mitigation against established targets, continuously optimise processes and measures, strengthen the defence line for safety and health, and promote controllable risks and the effective conversion of opportunities.

Annual Progress in Work Safety Management

The Company coordinates and advances the work safety campaign to address root causes, continuously improves its safety management system, comprehensively strengthens supervision and management throughout the process, precisely identifies and rectifies safety hazards, and rigorously prevents and defuses all types of safety risks.

<p>Safety Hazard Control</p>	<ul style="list-style-type: none"> Formulating a “1+1+6” criteria for identifying major and significant hazards relating to work safety accidents, and providing benchmark guidance for affiliated enterprises to conduct hazard investigation and management Coordinating and implementing specialised safety management in 5 key areas (well control and shut-in wells, hydrogen sulphide, contractors, key projects and major overhauls of refining and chemical plants, and new energy and new materials), as well as special management of urban gas pipelines Implemented the “Thunderbolt Action” for work safety and completed seven key tasks, including the inspection and rectification of safety warning signs and enhanced safety management and control during critical periods
<p>Safety Risk Management</p>	<ul style="list-style-type: none"> Optimising and improving the dual prevention mechanism for work safety on a continuous basis, maintaining regular risk identification and alert warnings, distributing 17 issues of the Advisory Circular for Safety Risks, and conducting “enterprise-specific” risk warnings for key enterprises
<p>Work Safety Emergency Management</p>	<ul style="list-style-type: none"> Organising the revision of the “1+21” emergency plans for headquarters Organising Daqing Oilfield, Changqing Oilfield, PetroChina Dalian Petrochemical Company and PetroChina Lanzhou Petrochemical Company to actively participate in the national “Emergency Mission 2025” Exercise, and organising more than 170,000 emergency drills at various levels across all units on a regular basis
<p>Offshore Oil Safety</p>	<ul style="list-style-type: none"> Promoting the application of the offshore oil safety risk monitoring and early warning system, implementing the guarantee responsibilities for onshore and offshore operations, and maintaining progress on the construction of the “1222” long-term mechanism for offshore oil work safety
<p>Work Safety Training</p>	<ul style="list-style-type: none"> Holding 22 training sessions relating to HSE for personnel on key positions of work safety including Safety Directors, safety and environmental protection management personnel, auditors, and safety supervision personnel Implementing tiered and classified management. We conducted 164 thematic training sessions for work safety management system covering more than 15,000 person-times, for the purpose of improving the job performance capabilities of work safety personnel Building and launching the QHSE sub-college on the CNPC e-Learning platform, and organised a series of QHSE Lecture events

Annual Progress in Occupational Health Management

The Company diligently implements the *Outline of the "Healthy China 2030" Plan* and accelerates the development of a healthy enterprise, to provide employees with a safe and healthy working environment, and safeguard their physical and mental health.

The Company launched the special actions on investigation and remediation of occupational disease hazard risks, conducted by tiers the "Three Simultaneous" management of occupational disease protection facilities in construction projects, occupational disease hazard factor testing in workplaces, and occupational health examinations for workers exposed to occupational disease hazards, promptly rectified issues and hazards and rigorously implemented the primary responsibility of affiliated enterprises for occupational disease prevention and treatment, thereby preventing occupational disease hazards at the source. The Company has formulated the *Essential Occupational Health Knowledge for Petroleum Workers*, covering the interpretation of laws and regulations on occupational health, identification of hazard factors, application of protection measures, and emergency response, in order to help employees raise comprehensive occupational health awareness.

Publicity and Popularization of Occupational Health Knowledge

- Launching awareness week activities of the *Law on the Prevention and Control of Occupational Diseases* for all employees
- 15 business cases from 14 affiliated enterprises of the Company received recognition as part of the fourth batch of exemplary cases in building healthy enterprises from the National Health Commission

Building of Healthy Enterprises

- Building healthy enterprises with 84 enterprises achieving the Company's healthy enterprise certification
- Conducting an in-depth "Weight Management Year" campaign, promoting exercise and healthy lifestyles for employees, optimising a healthy weight-loss environment, providing differentiated medical support
- Implementing health examination assessment and intervention, promoting health knowledge through activities such as knowledge quizzes and seminar

Occupational Health Management

- Conducting special action on rectification of occupational disease hazard risk
- Refining the health exclusion list of special operations, and specifying health protection requirements for employees working in high-altitude, extreme cold, and other challenging environments
- Building a disease safety-net protection mechanism, and constructing a medical protection system for severe illness consisting of "three occupational health management services + four categories of medical protection for severe illness"
- Held more than 860 health promotion activities of various kinds, attracting more than 167,000 participation instances

Caring for Mental Health

- Strengthening physical and mental health education for employees. We organised "8 Sessions of Physical and Mental Health Lectures for Petroleum Workers", attracting an online viewership of more than 210,000 employees
- Continuously developing the psychological counselling volunteer service team. We assisted approximately 600 individuals cumulatively during the year
- Held the overseas employee assistance programme (EAP) business training session, with 106 EAP core business staff in attendance

Health Management of Overseas Employees

- Completed health assessments for 24,600 outbound employees, and psychological wellbeing assessments for more than 5,000 overseas employees
- Providing dedicated assistance to overseas employees experiencing sudden serious illness. We conducted 33 instances of remote emergency medical treatment, and successfully coordinated cross-border medical treatment for 4 critically ill patients
- During the year, overseas EAP hotline services were provided for 838 instances, with a cumulative service duration of 1,294 hours
- Successfully organised the "Soothing Caring, Healthy Living" mental care initiative covering mental care activities such as thematic lectures, enterprise visits, children's open days and family happiness camps
- Our case study titled the *Mental Health Care Initiative for Overseas Employees* was awarded the "First Prize for Outstanding Achievements in Promoting Corporate Development through Mental Health" by the China Culture Administration Association, and was selected as a nationally recommended key case for corporate mental health services

Indicators and Objectives

The Company has set clear and quantifiable occupational health and safety objectives, tracking relevant performance indicators on a continuous basis, in order to assess the effectiveness of strategy implementation, and drive sustained improvement. During the reporting period, the Company prevented the occurrence of work safety accidents and fire and explosion accidents of significant or greater scale as well as loss-of-control blowout accidents.

HSE Management System Certification

Number of Subsidiaries Certified by HSE Management System (Q/SY08002.1):

107

Number of Subsidiaries Certified by Occupational Health and Safety Management System (ISO45001):

121

Category	Indicators	2025 Progress
Work Safety	Fatality rate (persons/100 million working hours)	0.09
	Total accident rate (incidents/million working hours)	0.0137
	Work-related fatalities (persons)	2
	Loss of working days due to work-related injury (days)	1,495
	Amount of employer liability insurance premium (RMB100 million)	2.13
	Amount of work-related injury insurance (RMB100 million)	10.34
	Coverage of work-related injury insurance (%)	100
Occupational Health	Filing occupational health surveillance records for our employees (%)	100
	Detection rate of occupational disease hazard factors in workplaces (%)	100
	Occupational health examination rate for employees exposed to occupational disease hazards (%)	100





Quality and Safety of Products and Services

The Company adheres to the principle of “quality first”, setting its strategic goals as “zero accidents, zero defects, and achieving leading standards both domestically and globally”. We continuously improve our quality management system to deliver clean, safe, and high-quality products and services that fully satisfy consumers. In strict compliance with relevant guidelines on consumer rights protection, the Company is committed to steadily improving its customer service capabilities.

Governance Framework

At the decision-making and supervision level, the Board of Directors has overall responsibility for ESG matters relating to the topic on “Safety and Quality of Products and Services”. The Sustainable Development Committee is responsible for identifying and assessing material related risks and impacts, overseeing the Company’s commitments and performance, reviewing the implementation of relevant policies, objectives and measures, and considering the content related to “Safety and Quality of Products and Services” in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for implementing the decisions and directives of the Board of Directors and Sustainable Development Committee with respect to safeguarding product and service safety and quality, organising cross-departmental collaboration, and systematically managing related impacts, risks and opportunities. At the executive level, the Quality, Health, Safety and Environment Department is responsible for implementing quality supervision over the Company’s products and procured materials and organising product quality accreditation and related work. Professional companies and affiliated enterprises progressively establish and improve the product and service management system within their respective scope, and implement annual tasks in accordance with the Company’s requirements.

Management System

The Company strictly complies with the *Law of the People’s Republic of China on Product Quality*, the *Regulations of the People’s Republic of China on Certification and Accreditation*, the *Regulations of the People’s Republic of China on Administration of Production License of Industrial Products* and other laws and regulations. The Company has also formulated the *Quality Management Manual*, the *Measures for the Supervision and Administration of Product Quality*, and the *Measures for the Management of the Quality Supervision and Inspection of Purchased Materials*, along with other management regulations and implementation rules covering all enterprises, all employees and the entire process. We provide consumers with products that meet legal requirements and standards in a responsible manner.

Quality and Safety Management and Control

The Company promotes the development and certification of its quality management system, implements quality responsibilities at all levels, strengthens process quality control and end-product quality supervision, and advances a quality management model featuring “full participation, full-factor coverage, full-process control and full-data management”, so as to provide consumers, in a responsible manner, with products that comply with applicable laws, regulations and standards. All of the Company’s subsidiaries have established and implemented quality management systems in accordance with the ISO 9001 standard. As at the end of 2025, the number of subsidiaries and subordinate units of the Company that had obtained quality management system (ISO 9001) certification reached 415.

The Company continuously strengthens quality management and control. We implement strict management and control over the quality of oil products throughout the entire process of procurement, transportation, storage, and sales, with a special focus on quality control at key points including oil depots, transportation, and refuelling stations. At the same time, we strictly implement a monthly supervision and inspection mechanism in combination with activities such as Quality Month and Measurement Day to effectively promote quality awareness and strengthen management efforts. In terms of the quality management of non-oil products, the Company expands the scope and strengthens the intensity of its annual

415



Number of subsidiaries and subordinate units of the Company that had obtained quality management system (ISO 9001) certification

Handling of Customer Complaints and Service Improvement

Handling of Customer Complaints

Number of Customer Complaints

281

Resolution Rate of Customer Complaints

100%

Number of Joint Inspections and Mystery Shopper Visits

37,637

Handling of Complaints of Different Levels

- ✦ Level-1 Complaints: Handled by regional finished oil sales companies
- ✦ Level-2 and Level-3 Complaints: Handled by municipal finished oil sales companies under the guidance of regional finished oil sales companies

Customer Complaints and Feedback on Issues

- ✦ Analysis of customer complaints
- ✦ Visits by mystery shoppers
- ✦ Video surveillance of stations

Analysis of Issues

- ✦ Conducting service quality benchmarking
- ✦ Conducting customer satisfaction survey
- ✦ Analysing the issues identified

Improvements

- ✦ Supervising the rectification of issues
- ✦ Summarising lessons learned on a regular basis
- ✦ Conducting service training
- ✦ Implementing more rigorous service standards
- ✦ Improving service quality

Product Recall System

The Company attaches great importance to consumer rights protection. Taking the safety and quality of products and services as our core baseline, we have built a whole-process consumer rights protection system. With product recall management system rigorously implemented, we have established a quality monitoring and defect information collection mechanism covering the full chain of product R&D, production, sales, and after-sales service to identify product safety risks in a timely manner. Once a defect is confirmed, the recall process is initiated in strict compliance with regulatory requirements, and obligations including information disclosure, customer notification, and after-sales handling are fulfilled to achieve full traceability and closed-loop management throughout the recall process. At the same time, complaint and consultation channels are kept open, after-sales response mechanisms are standardised, and consumers' rights to information, choice, and compensation are substantively protected. Through rigorous and compliant recall management and comprehensive rights and interests protection, we continue to improve customer trust and consumer satisfaction.

Recall Process of Lubricant Products





Supply Chain Management

PetroChina attaches great importance to supplier chain management, adhering to the supplier management philosophy of “global sourcing, open cooperation, resource sharing, mutual benefit, and win-win relationships”. The company bases operations on the principles of “compliance, quality, efficiency, and effectiveness”, continually optimizing supply chain management and promoting sustainable development.

Governance Framework

At the decision-making and supervision level, the Board of Directors has overall responsibility for ESG matters relating to the topic on “Supply Chain Management”. The Sustainable Development Committee is responsible for identifying and assessing material related risks and impacts, overseeing the Company’s commitments and performance, reviewing the implementation of relevant policies, objectives and measures, and considering the content related to “Supply Chain Management” in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for implementing the decisions and directives of the Board of Directors and Sustainable Development Committee with respect to supply chain management, organizing cross-departmental collaboration, and systematically managing related impacts, risks and opportunities. At the executive level, the Engineering and Materials Management Department is responsible for materials management, supplier management, tendering and related work. Professional companies and affiliated enterprises progressively establish and improve the supply chain management system within their respective scope, and implement annual tasks in accordance with the Company’s requirements.

Management System

The Company focuses on the development of a supplier management system. We have formulated and constantly improved relevant regulations and policies including the *Regulations on the Management of Material Supply and the Measures for the Management of Suppliers*, and continuously strengthened compliance management of suppliers. The Company has formulated detailed special management measures for materials of different types and purposes, including the *Measures for the Procurement Management of Imported Materials*, *the Measures for the E-Commerce Procurement Management of Non-Productive Materials*, and *the Measures for the Procurement Management of Engineering and Construction Project Materials*. In 2025, the Company introduced the *Measures for the Management of the Quality Supervision and Inspection of Purchased Materials*, substantively strengthening quality supervision and management of purchased materials.

Ensuring of Supply Chain Security

Supply Chain Risk Management

The Company strengthens end-to-end supply chain management and control, enhances management resilience, and has established a risk management system covering the full life cycle of materials and equipment. It advances digital and intelligent governance, establishes a performance indicator system, refines risk identification lists, and improves management manuals, tiered and categorised risk inventories, and response measures. In response to potential environmental and social risks across the supply chain, including health and safety, labour rights and interests, environmental protection and business ethics, the Company has established a mechanism for identification, assessment and dynamic control throughout the entire process of procurement, transportation, storage, use and disposal, thereby achieving full coverage of risk prevention and control and systematically safeguarding supply chain stability and sustainable development.

Typical Supply Chain Risks and Mitigation Measures

Typical Risks	Risk Description	Response Measures
Environmental Protection, Health and Safety	Uncertainties in full-chain activities or products including transportation, and storage that may have adverse impacts on the ecological environment and the health and safety of employees and communities.	The company requires all suppliers to comply with PetroChina's unified quality, environmental, health, and safety standards, organize training for all newly admitted suppliers, focusing on key topics including supplier health, safety, environmental protection, and compliant operations, and establish a regular communication mechanism.
Labour Rights and Interests	Systemic risks arising from violations of international labour standards or the laws and regulations of the relevant country by parties in supply chain operations (including suppliers, contractors, service providers, and others), resulting in harm to the basic rights of workers, and potentially causing operational disruptions, financial losses, legal proceedings, and reputational crises for the Company.	The company requires partners to establish sound occupational health and safety management systems, improve working environments and labor conditions, and guard against operational safety risks. The Company monitors implementation through contractual provisions and on-site audits, incorporates ESG performance into the supplier appraisal and evaluation system, and takes corresponding measures against those who violate relevant requirements, driving the formation of a mutually beneficial human rights protection collaborative mechanism with corresponding responsibilities.
Business Ethics	Potential threats to the Company arising from actions by partners or the Company itself that violate the principles of business ethics including integrity, fairness, and transparency in procurement, production, and logistics operations of supply chain, leading to legal sanctions, financial losses, reputational damage, and disruption of the value chain.	The company continuously strengthens supplier conduct supervision, incorporating business ethics, compliant operations, and contract performance into the supplier appraisal and procurement evaluation system. At the same time, the company maintains a supplier blacklist system with public exposure of non-compliant parties and increased penalties.
Supply of Core Materials	Potential risks whereby external factors such as geopolitical developments, natural disasters or poor supplier management lead to supply disruptions of a minority of critical and difficult-to-replace materials, in turn affecting production continuity and operating costs	Through compiling the <i>Procurement Catalogue of Imported Materials</i> , driving diversification at the source from a R&D and design perspective, and intensifying domestic substitution efforts, risks are diversified at the supply end, and independent capabilities are cultivated. A strategic emergency reserve system has been established and is continuously improved with dynamic optimisation of the inventory list, improving risk buffering and response capabilities on the side of supply chain security. The company improves our "Three-First" products green procurement mechanism, builds an independent supply chain, and provides sustained incentives for innovative substitution on the institutional and market sides.

Enhancement of Supply Chain Advantages

The Company implements unified management of strategic procurement of critical materials. By establishing long-term collaborative relationships with suppliers, the company effectively reduces the full lifecycle cost of materials and equipment, and ensures the stable supply of critical materials. For materials with high generality and frequent procurement, the framework agreement is implemented for procurement based on centralized procurement results to improve procurement efficiency.

The Company employs an innovative procurement model to enhance the efficiency of resource allocation and promotes a centralized procurement sharing model for projects, optimizing resource allocation and reducing duplicated investment. For non-productive materials, the company actively promotes the e-commerce procurement model to lower transaction costs.

The Company further strengthens whole-process management and control of service procurement, continuously enhancing the level of standardisation, normalization and digitalization of procurement. The company has formulated the *Measures for the e-Commerce Procurement Management of Non-Productive Materials*, established a unified internal e-commerce platform to centrally connect with partner e-commerce platforms, and achieved demand integration and procurement sharing across the entire Company. PetroChina has improved master data standards for service procurement, and built a digital management platform, continuously strengthening supervision and management of service procurement.

Sustainable Supply Chain

The company upholds responsible procurement commitment, incorporates ESG concepts into all stages of procurement and supply chain management, and continuously improves the overall quality and sustainable development capabilities of suppliers. The company has strengthened ESG management of supply chain; in 2025, suppliers' ESG performance was incorporated as an important element of the supplier access scheme review, and a specialized working group was entrusted to conduct on-site inspections, including assessment of ESG performance, of new suppliers in accordance with the approved scheme. Actions have been taken to actively publicize and communicate the Company's ESG management concepts, and establish a positive interaction mechanism with suppliers.



In 2025, the company conducted random quality inspections on **32** batches of procured materials, and took strict action against non-compliant suppliers and products.

In 2025, the company completed **318,092** orders, with a dynamic quantitative assessment rate of **100%**.

Supply Chain Management

Number of Material Suppliers

23,533

Number of Tier 1 Manufacturers

3,067

Percentage of Tier 1 Manufacturers Certified by the Quality Management System (ISO9001)

96.93%

Percentage of Tier 1 Manufacturers Certified by the Environmental Management System (ISO14001)

93.73%

Percentage of Tier 1 Manufacturers Certified by the Occupational Health and Safety Management System (ISO45001)

94.23%

Procurement Expenditure

RMB **206.5** billion

Note: Data on suppliers for international business is not included.

Full Lifecycle Supply Chain Management System

The Company has established a full-lifecycle supply chain management system focused on four core areas: supplier admission, routine supervision, exit management and diversified communication. It has developed a full-process management mechanism covering qualification review, ESG assessment, performance evaluation and risk prevention and control, with a view to continuously enhancing supply chain compliance and sustainability, safeguarding supply chain security and stability, and promoting value co-creation.

Full-lifecycle Supply Chain Management



Supplier Access

- ◇ The company strengthens supplier access management by continuously optimizing the supplier resource structure, and constantly improving the access mechanism. The company actively guides suppliers to strengthen lawful and ethical business practices, observe business ethics, and fulfil corporate social responsibility. The company requires suppliers to comply with relevant anti-commercial bribery policies and regulations, conducts necessary due diligence on suppliers, and includes compliance performance as a prerequisite for supplier access
- ◇ The company entrusted a professional team to conduct on-site inspections of the ESG performance of nearly 2,000 suppliers, and took the inspection results as access conditions for suppliers
- ◇ The company requires all suppliers to comply with PetroChina's unified quality, health and safety, and environmental standards. Suppliers are also required to protect labor rights and interests, and human rights
- ◇ The company organized access training for all new suppliers on topics including business ethics, integrity risk prevention and control, and quality, health and safety, and environmental protection (QHSE). The company also promoted the Company's business and management philosophy. Suppliers were required to sign a commitment letter for access, with a signing rate of 100%



Supplier Supervision

- ◇ We have established a tripartite supervision system comprising contractual stipulations, supplier self-assessment and on-site audits, which forms a mechanism for the day-to-day management, supervision and performance evaluation of suppliers, while continuously strengthening the identification, prevention and control of environmental and social risks, and promoting improvements in supplier performance
- ◇ The company improved the material supplier system, and continued to optimize the entire supplier management process. The company achieved full appraisal and evaluation coverage for all suppliers transacted with during the year



Supplier Exit Management

- ✦ The company strengthened relevant regulations including the *Measures for the Management of Suppliers*. In line with national policy guidance, the company has revised the *Measures for the Management of Blacklist of Suppliers, Contractors and Service Providers*, which clearly define the blacklist determination criteria for suppliers, contractors and service providers, and standardize the blacklist management mechanism and application process. Suppliers that seriously violate laws and regulations, trigger quality safety or environmental accidents, provide false materials, engage in bid manipulation or collusion, or perpetrate commercial bribery and other acts that undermine fair competition and have a major impact on production and operations are brought under blacklist management, and are subject to penalties of 3 or 5 years depending on the severity of their violations
- ✦ For suppliers with other issues, the company categorizes the matter and adopts different disciplinary measures depending on its severity, including (from light to severe) suspension of product trading rights, suspension of supplier trading rights, revocation of product access qualifications, and revocation of supplier access qualifications, in order to achieve full coverage in managing and controlling risky behavior
- ✦ The company built a diversified connectivity and communication mechanism with suppliers to create accessible channels for suppliers to voice concerns and demands, and strengthen strategic coordination and in-depth cooperation



Communication with Suppliers

- ✦ The company continued to strengthen strategic procurement relationships with 18 national and international suppliers including China Baowu and Baotou Steel. We engaged in discussions with suppliers on green and low-carbon initiatives, sustainable development, and other areas, in order to uncover further potential collaboration
- ✦ The company paid attention to key issues such as health, safety, environmental protection and compliant operations of suppliers. The company established a regular communication mechanism to enhance supply chain synergy and responsiveness, and work towards a win-win goal of jointly advancing ESG performance and creating shared value

Ethical Compliance Management of Suppliers

The company has consistently advocated for a culture of integrity and legal compliance, considering compliance as a prerequisite for any partnership, and incorporating relevant indicators into the supplier appraisal and evaluation system as well as the tender and supplier selection processes. The company tracks, inspects and supervises suppliers' business ethics, compliant operation, and performance. The company has formulated and implemented compliance guidelines for materials and equipment supply chain management and a list of compliance responsibilities for key positions, with accompanying whole-process supervision and inspection plans and implementation checklists, driving the formation of a regular and comprehensive supervision and inspection mechanism. The company has improved the closed-loop rectification mechanism for materials and equipment supply chain issues, strengthening compliance supervision and management effectiveness across the full supply chain process and systematically safeguarding the standardized and stable operation of the supply chain. The company has established a blacklist system for suppliers, where violators face restrictions everywhere for a single illegal act, disclose their information on www.cnpcbidding.com, and continuously strengthen the deterrent measures against illegal and non-compliant suppliers. Through various methods, including special inspections, signing integrity cooperation agreements, and commitment letters, the company works to create an honest and law-abiding business environment. In 2025, 83 enterprises were added to the blacklist of suppliers, contractors and service providers for corruption and illegal activities.

Building of Green Supply Chain

In line with the "green and low-carbon" development concept, the Company is committed to building a whole-process green supply chain including supplier access, project design, procurement, storage & logistics, and material disposal, while vigorously adopting a green procurement approach. In the *Measures for the Management of Green Procurement*, it is clearly stipulated that access priority is given to energy-saving and environmentally friendly enterprises, and energy-saving, environmentally friendly, and low-carbon materials are preferred during procurement. The company actively encourages suppliers to carry out green manufacturing and use green and environmentally-friendly packaging. The Company's current procurement plans fully comply with the regulations mentioned in this paragraph, and appropriate points are awarded for green procurement in our evaluation.

In 2025, the Company established a special working group for the green materials and equipment supply chain, issued a special work plan, set out clear task lists and appraisal and incentive mechanisms, built a comprehensive, efficient, and continuously improved management system for green material and equipment supply chain.



Data Security and Customer Privacy Protection

The Company has established a strict information security management system that defines access permissions, usage regulations, and confidentiality rules for different types of information. Any leakage of customers' personal information is strictly prohibited. The Company has also developed and implemented stringent privacy protection policies and data protection measures.



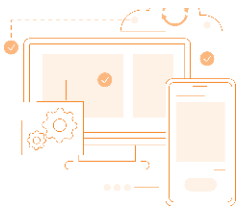
Governance Framework

At the decision-making and supervision level, the Board of Directors has overall responsibility for ESG matters relating to the topic on "Data Security and Customer Privacy Protection". The Sustainable Development Committee is responsible for identifying and assessing material related risks and impacts, overseeing the Company's commitments and performance, reviewing the implementation of relevant policies, objectives and measures, and considering the content related to "Data Security and Customer Privacy Protection" in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for implementing the decisions and directives of the Board of Directors and Sustainable Development Committee with respect to data security and customer privacy protection, organizing cross-departmental collaboration, and systematically managing related impacts, risks and opportunities. At the executive level, the Digital and Informatization Management Department is responsible for researching and formulating information-related policies, standards and specifications, organizing and implementing digital and information construction projects, and conducting cybersecurity supervision and inspection and related work. Professional companies and affiliated enterprises progressively establish and improve the data security management system within their respective scope, and implement annual tasks in accordance with the Company's requirements.



Management System

The Company strictly complies with laws and regulations including the *Cybersecurity Law of the People's Republic of China*, the *Data Security Law of the People's Republic of China*, and the *Personal Information Protection Law of the People's Republic of China*, and has built a comprehensive data security management system to ensure the confidentiality, integrity and availability of data.



PetroChina has formulated and issued the *Regulations on Digital and Informatization Management*, which specifies the red lines and baselines for cybersecurity and data management. Meanwhile, the company has also developed supporting measures including policies and regulations such as the *Cybersecurity Management Measures*, the *Data Management Measures*, and the *Detailed Rules for Data Security Management*, all of which constitute a "1+N" system.



The "three-synchronization" principle is strictly observed, which means that the cybersecurity and IT system must be "synchronously planned, synchronously built, and synchronously put into use". A tiered cybersecurity protection system has been implemented. The company conducts grading registration and level assessments to ensure that compliance requirements are met before systems are put into operation.



Digitalization and informatization are incorporated into annual performance appraisal. It is explicitly stipulated that incidents of information leakage or major system security accidents will result in strict accountability of the relevant personnel against whom a veto will be exercised.



A data security emergency response mechanism and disaster recovery mechanism have been established, with regular offensive and defensive demonstrations and emergency drills conducted to identify and patch security defects and vulnerabilities in a timely manner.

Specific Data Security Management Measures

The Company employs a combination of “physical protection + technical protection” and has deployed industry-leading monitoring platforms to enable comprehensive management and control of sensitive data and cross-border data.

Data Security Management Measures

Key Measures	Main Contents
Leakage Prevention of Sensitive Information	Deployment of Information Content Audit Platform: A pioneer in the deep integration of confidentiality fields with information technology, with protection coverage extending to 450,000 office terminals, and coverage of key departments exceeding 95%.
Security Monitoring of Cross-border Data	Development of Data Export Security Monitoring System: This system covers all -built Internet exits and overseas specific network exits of the Company. The system was officially launched in December 2024, with capabilities for cross-border data asset management, real-time monitoring, and traceability
Protection of Special Overseas Scenarios	Leveraging network storage technology and Beidou positioning system, portable secure network infrastructure is provided for overseas pilot entities. Encrypted storage, rapid transfer, and data self-destruction and automatic device location capabilities in emergency situations are achieved for overseas data, ensuring the security of overseas assets
Full Lifecycle Audit	The Audit Department conducts regular audits of digital projects within its scope of authority. The Digital and Informatization Management Department organizes annual assessments of systems in use, enforces the decommissioning of systems that fail to meet security standards or have low utilization rates, and completes data migration and destruction accordingly. In 2025, the company conducted security self-assessments for cross-border data transfers across all affiliated enterprises and systems, achieving a coverage of 100%, effectively safeguarding the data sovereignty of the Company and the privacy and security of customers



In 2025, the Company did not record any major data security incidents or incidents involving the leakage of customer privacy.

Customer Information Security and Privacy Protection

The Company has established a strict information security management system, clearly defining access permissions, usage requirements and confidentiality obligations for different types of information, and strictly prohibiting any act of disclosing customers’ personal information.

Through channels such as the uSmile app and the Company’s official website, the Company clearly informs consumers of the rules governing the collection, use and sharing of personal information, and obtains their explicit consent. In its core production and operation systems, the Company adopts technical measures such as encryption and data anonymisation to build strong safeguards for personal information protection. At the same time, the Company encourages consumers to set strong passwords and update them regularly, and strengthens specialised training for employees on privacy protection and data security, so as to ensure that all personnel are fully aware of and strictly comply with privacy policies, and to effectively prevent the risk of information leakage.

Customer Privacy Protection and Data Security

Data collection

- ✧ Except for necessary personal information required to provide better services and improve customer experience, no other data is collected from customers
- ✧ The company clearly informs customers through platforms such as our uSmile app and the Company's website about the methods of collecting, using, and sharing personal information, and obtain explicit consent from customers

Data preservation

- ✧ All information collected is encrypted through technical means, and transmitted to a database located in a central data center at the Company's headquarters for storage. The database uses security components to encrypt and store information
- ✧ Information on the database is secured by an internal management system, and can only be accessed and managed by authenticated and authorized personnel; private personal information is redacted in the customer information query and display interface

Security - capacity building for information managers

- ✧ The Company has established a cybersecurity management system under the oversight of senior management, with dedicated personnel taking responsibility and specialised teams carrying out routine management. Through graded control and multi-layered protection, the Company safeguards customer information to the greatest extent possible
- ✧ The Company has conducted regular training sessions for employees on information security awareness, information protection regulations, and operating procedures for information security, in order to enhance their awareness on customer privacy protection



Equal Treatment of SMEs

Adhering to the principles of fairness and impartiality, the Company is committed to creating a sound development environment for SME suppliers, and promoting win-win cooperation through a multifaceted approach:

Market Access: To vigorously advance the opening-up of the internal market, the company has formulated a unified and open standard system, expanded the scope of public disclosure for tender information, and standardized the transparent tendering process. No differentiated entry thresholds are set to ensure that SMEs have equal opportunities to participate in market activities alongside other market players. The company strictly complies with national laws and regulations on bidding and tendering, as well as policies for the nationwide unified large market.

Protection of Rights and Interests: The Company upholds the baseline of compliant and integral operation and adopts fair and reasonable contract terms, clearly define the rights and responsibilities of both parties, and fully respect intellectual property rights. Meanwhile, the company has established an efficient settlement mechanism to ensure the timely and full payment of accounts payable, which has effectively alleviated the capital pressure on SMEs, and laid a solid foundation of trust for long-term cooperation.

Empowerment for Growth: A regular communication mechanism has been set up to provide targeted support for SMEs in key areas such as technology and management. The Company encourages SMEs to practice green production, and strictly abide by labor laws and regulations, jointly promoting the green transition and upgrading of the supply chain. In addition, the company has also strengthened long-term and stable cooperation with specialized, sophisticated, distinctive and innovative "Little Giant" enterprises, and strived to build a win-win ecosystem featuring "leadership by large enterprises and collaboration by small enterprises".

As at the end of 2025, the Company had not made any overdue payments to small and medium-sized enterprises.



Scientific and Technological Innovation and Digital Intelligence Empowerment

The Company places innovation as its primary strategy and the basis for its entire development. We are increasing the pace at which we develop our position in scientific research and the improvement of our innovation system, accelerating deep integration of scientific and technological innovation and industrial innovation, continuously improving the efficiency and effectiveness of scientific and technological innovation, enhancing our capacity for independent innovation, and strengthening our strategic guidance role in scientific and technological innovation. We have vigorously implemented our strategic initiative of “Digital Intelligence Petroleum”, made substantial progress toward establishing “Digital Intelligence PetroChina” in preliminary form, comprehensively upgraded our artificial intelligence capacity to empower scientific and technological innovation, and achieved steady progress in digital transformation and intelligent development.

Governance

Governance Framework

At the decision-making and supervision level, the Board of Directors has overall responsibility for ESG matters relating to the topic on “Scientific and Technological Innovation and Digital Intelligence Empowerment”. Sustainable Development Committee is responsible for identifying and assessing material related risks and impacts, overseeing the Company’s commitments and performance, reviewing the implementation of relevant policies, objectives and measures, and considering the content related to “Scientific and Technological Innovation and Digital Intelligence Empowerment” in the annual ESG report. At the management level, the ESG Management Working Committee is responsible for implementing the decisions and directives of the Board of Directors and Sustainable Development Committee with respect to scientific and technological innovation and digital intelligence empowerment, organising cross-departmental collaboration, and systematically managing related impacts, risks and opportunities. At the executive level, Science and Technology Management Department is responsible for researching and formulating science and technology management policies, standards and specifications, organizing and implementing relevant scientific and technological projects, managing scientific and technological achievements and intellectual property rights, and promoting scientific and technological cooperation and technology exchange and related work. The Digital and Informatization Management Department is responsible for researching and formulating information-related policies, standards and specifications, preparing annual work plans for digital transition and intelligent development, organising and implementing digital and information construction projects, and conducting technical exchange and talent development and related work. Professional companies and affiliated enterprises shall establish and continuously improve the scientific and technological innovation and digital intelligence empowerment management system within their respective scope, and implement annual tasks in accordance with the Company’s requirements.

Professional Skills and Competencies

The directors and management personnel responsible for the Company’s scientific and technological innovation and digital intelligence development all possess solid professional accomplishments and rich practical experience. The Company selects and appoints professionals with specialized backgrounds in scientific and technological innovation and digital intelligence as well as extensive practical experience to work in these fields. We regularly organize directors, management personnel and specialists to participate in special training on scientific and technological innovation and digital intelligence management, covering cutting-edge digital intelligence technology applications and innovative management concepts, allowing them to improve professional skills on a continuous basis. Through these measures, the Board of Directors, management and frontline employees are able to accurately grasp the development direction of scientific and technological innovation and digital intelligence, efficiently supervise and implement relevant strategies and measures, and continuously advance the Company’s high-quality development in the field of scientific and technological innovation and digital intelligence.

Strategy

When formulating its overall development strategy, making major transaction decisions and conducting risk management, the Company coordinates and considers the relevant impacts, risks and opportunities of scientific and technological innovation and digital intelligence transformation, carries out a comprehensive risk assessment in combination with the latest domestic and foreign policy requirements, and incorporates the assessment results and response measures into the Company's decision-making process. We have formulated a medium and long-term science and technology development plan, with the goal of achieving high-level self-reliance and self-improvement in science and technology to drive our development, with new quality productive forces as the main engine, thereby enhancing our original innovation capability and core competitiveness, supporting and driving the Company towards high quality development.

List of Risks and Opportunities for Scientific and Technological Innovation and Digital Intelligence Empowerment

Risks and Opportunities	Impact Time Horizon	Risk Description	Response Measures
Scientific and Technological Innovation Risks	Medium to long-term	In the process of R&D and application of new technologies, there are risks of technology bottlenecks or failures, or failure to timely and effectively grasp the cutting-edge direction of science and technology, which may affect the Company's resource allocation, slow down development speed, and reduce competitiveness.	<ul style="list-style-type: none"> ✧ Strengthening of Strategic Overall Planning: Maintain a combination of supporting present operations and leading future developments, implement a new round of "Five Major Special Plans", and formulate precise strategies for future segments ✧ Development of Core Technologies: Focus on deep geothermal and deep sea development, unconventional oil-gas, and high-end new materials, carry out research on original and disruptive technologies, and improve independent and controllable capabilities ✧ Digital Intelligence Empowerment and Cooperation: Accelerate the construction of "Digital Intelligence PetroChina", leveraging AI to empower R&D; deepen industry-university-institute-application collaboration, strengthen protection of intellectual property rights, and build an open and efficient innovation ecosystem
Policy Opportunities	Medium to long-term	Investment in scientific and technological innovation will allow us to enjoy tax incentives, financing support, etc., which may reduce the Company's operating costs and provide financial and resource support for the Company's innovative development.	<ul style="list-style-type: none"> ✧ Strategic Positioning in Emerging Industries: Capture policy opportunities of "new quality productive forces" and the "carbon peaking and carbon neutrality", and accelerate the development of our position in CCUS, hydrogen energy, new materials and digital intelligence industries ✧ Reforming of Institutional Mechanisms: Promote research models such as "challenge-based task assignment" and "horse race system", improve mechanisms for scientific research evaluation and medium and long-term incentives, and stimulate the innovation vitality of all employees
Market Opportunities	Medium to long-term	Innovative technologies can give rise to new products such as new materials and new energy, which can help the Company explore new markets and drive sustained revenue growth.	<ul style="list-style-type: none"> ✧ Strategic Positioning in Emerging Segments: Systematically develop our position in the emerging and future industries, accelerate the high-end transition of the integrated energy supply of "oil, gas, geothermal, electricity and hydrogen" and the industrial chains of "refining, chemicals, biochemicals, fine chemicals and new materials", and establish a strong presence in the new energy and new materials markets ✧ Digital Intelligence Empowerment: Implement the "Digital Intelligence PetroChina" project, cultivate new forms of digital economy with AI and big data, and restructure the value chain ✧ Production-Sales-Research-Application Collaboration: Establish a rapid response mechanism to market demand, connect the innovation chain with the industrial chain, and accelerate the conversion of scientific and technological achievements into market benefits

Scientific and Technological Innovation Achievements and Their Applications

Technological Achievements	Application of Achievements and Value Transformation
Successful development of 175MPa extreme-pressure wellhead series equipment	<ul style="list-style-type: none"> Performance comparable to international advanced level, realising independent control of key technologies; Completing industrial tests in ultra-deep wells, and setting a national record for wellhead pressure
Key technologies for the three-dimensional development of hybrid-sedimentary shale oil in Jimsar supporting the construction of China's first national continental shale oil demonstration zone	<ul style="list-style-type: none"> Achieved annual oil production of 1.8 million tonnes, increasing the recovery rate to 10.5%, significantly reducing single well investment, and forming a replicable development technology system
3,000m ultra-long horizontal well drilling and completion and shaped charge fracturing technologies supporting the economic development of coalbed methane	<ul style="list-style-type: none"> Built China's first coalbed methane well with a 3,000m ultra-long horizontal section, setting several world records; increased single well production by 12% after fracturing, achieving significant cost reduction and efficiency improvement
Large-scale application of dimerinally functionalized solution-polymerized styrene-butadiene rubber in high-end green tires	<ul style="list-style-type: none"> Produced "Grade AA" tires; produced 15 million green tires, reducing energy consumption and braking distance
Independent and controllable naphthalene ring aromatic monomer technology to support high-end polyester raw materials	<ul style="list-style-type: none"> Developed the whole process of preparing high-performance polyester raw materials, and completed verification at hundred-ton scale; provided a solution for high-value utilisation of inferior raw materials
R&D and first industrial application of high-activity metallocene polypropylene catalyst	<ul style="list-style-type: none"> Achieved industrial application of independently developed catalysts towards the development of high-end new medical products; reduced catalyst costs by more than 20%, promoted the upgrading of the polyolefin industry
R&D and first industrial application of carboxylated nitrile rubber, a key material for flexible electronics	<ul style="list-style-type: none"> Achieved "zero-to-one" breakthrough in localization, with product application taken up by leading domestic electronic enterprises
Large-scale application of China's first set of dynamic simulation engine software for the whole process of oil-gas reservoirs-wellbores-pipelines	<ul style="list-style-type: none"> Self-developed code rate exceeding 90%, with calculation error lower than 5%; 205 sets sold to domestic and foreign oil-gas fields, and selected as a landmark achievement by SASAC

Key Initiatives and Annual Progress in Digital Intelligence Empowerment

We maintain value orientation, strategic guidance, innovation-driven development and platform support as our general principles, and have identified "Digital Intelligence Petroleum" as our fifth major strategic initiative, formulated and thoroughly implemented the *Guiding Opinions on Digital Transition and Intelligent Development*, issued development policies such as the *Guidelines for Digital Transition Construction (1.0)*, formulated and released the overall plan for a "Digital Intelligence PetroChina", advanced three major projects of informatization enhancement, digital empowerment and intelligent development, thereby establishing a "Digital Intelligence PetroChina" on a preliminary basis. We have set up a Informatization Leading Group and a Data Working Group, issued the plan for a "Digital Intelligence PetroChina" and the implementation plan for our "AI+" initiative, and established Kunlun Digital Technology Co., Ltd. and CNPC (Beijing) Digital Intelligence Research Institute Co., Ltd., continuously enhancing the systematicness, integrity and coordination of its cybersecurity and informatization efforts. During the Reporting Period, Kunlun Digital Technology Co., Ltd. successfully passed the information security management system certification and obtained the ISO/IEC 27001:2022 certificate. The Company advances digital transition in accordance with the three main lines of business development, management reform and technological empowerment. Through the construction of the industrial internet technology system and the application ecosystem with the cloud platform as the core, we have formed a digital intelligence empowerment system with horizontal and vertical integration.



Business Development

Collaborative Optimisation of the Oil-Gas Business Chain

With the goal of maximising the overall benefits of the upstream and downstream business chains and the value of shareholders, carrying out optimal allocation of resources, overall planning of operating benefits and linkage of emergency response

- ✧ The construction of the production and operation platform has been accelerated. 70 master data standards, 613 indicator standards and 16 IoT standards have been formulated. Pilot units have been put online as planned, and initial results have been achieved in the deep integration with the centralized ERP system.

Transition and Upgrading of Main Businesses

Integrating IoT, big data, artificial intelligence and other technologies with the Company's businesses to support industrial transition and upgrading

- ✧ Typical application scenarios are constantly enriched. The efficiency of seismic full waveform inversion has been increased by 10 times, the identification accuracy of sweet spot for reservoir reconstruction optimization has reached 86%, and the ethylene yield has been increased by 0.3 percentage points. Pilot applications of robots have been carried out in oil-gas fields and refining and chemical enterprises, and the artificial intelligence innovation ecosystem is taking shape.
- ✧ Positive results have been achieved in digital transition. Transition models such as intelligent oil-gas fields, intelligent refining and chemical engineering, smart sales and smart logistics have been continuously enriched and improved. Innovative practices such as unattended stations and yards, digital drilling teams and digital delivery have been gradually promoted. Changqing Oilfield and PetroChina Lanzhou Petrochemical Company have been awarded the title of Excellent-Level Intelligent Factories in 2025 by the Ministry of Industry and Information Technology.



Management Reform

Promoting the improvement of decision support, operation management, collaborative office, collaborative R&D and shared services through digitalization, and pushing forward the modernization and transformation of the corporate governance system and governance capabilities

- ✧ Key information technology projects have reshaped the management model of the Company. Remarkable results have been achieved in the integration of business and finance¹³, coordination of operation and production, coordination of upstream and downstream sectors, and the "integration of four flows"¹⁴. These initiatives have further driven the Company to transition fully to refined management, and move towards lean management to further improve the Company's value creation capacity.



Technological Empowerment

Creating a first-class industrial internet system in the energy and chemical fields to empower digital transition with technologies

- ✧ The basic capabilities of the industry large model are continuously evolving. We have strived to give play to the respective advantages of open-source and closed-source large models, accelerating the technological iteration of in-depth thinking, complex reasoning, multi-modal content understanding and generation, scientific computing, etc., and steadily improved the unified resource scheduling and management capabilities of the AI hub platform.
- ✧ The cybersecurity barrier has been continuously consolidated. We have formulated a special plan, improved the cybersecurity system with equal emphasis on management and technical protection, researched and applied self-reliant and controllable cloud platforms, continuously enhanced the industrial internet platform, steadily and orderly promoted the replacement of independent and controllable technologies and products, and gradually carried out the equipment renewal of data centers. The large-scale deployment and application of IPv6 have grown steadily.

¹³ "Business-finance integration" refers to the integration of business development and financial management.

¹⁴ "Four-flow integration" refers to the integration of logistics, capital flow, information flow and value flow.



In 2025, the Company issued **9** international standards, **40** national standards, **77** industrial standards.



In 2025, we filed 6,808 national and international patent applications, and held **23,075** valid national and international patents.



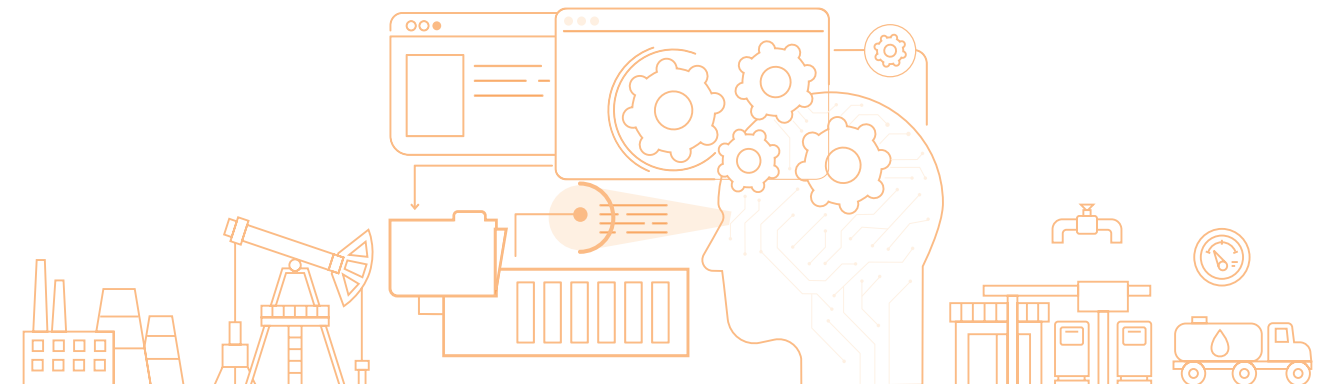
In 2025, **63** employees obtained the qualification of national patent agents. The number of employees who passed the qualification examination for national patent agent reached a total of **372**.

Standardisation Management

The Company has actively played the role of undertaking the Secretariat of International Technical Organizations for Standardization, and promoted the conversion of more technological innovation achievements into international standards. While being deeply involved in international standardisation affairs, we have also newly undertaken the position of convener of 4 working groups including ISO/TC67/SC02/WG32, receiving international recognition in many niche fields such as carbonate analysis. We actively promote the global outreach of Chinese standards, and have reached general mutual recognition opinions with foreign partners over several standards. We issued 2 inter-enterprise mutual recognition standards, providing effective technical support for both parties to carry out cooperation in cross-regional and large-scale coalbed methane project. We have strengthened implementation management of standards, intensified efforts in benchmark studies on key standards and the promotion of standards, and carried out research and promotion on assessment examples and methods for implementation effects of standards.

Protection and Management of Intellectual Property Rights

The Company has further strengthened creation, application, protection and management of intellectual property rights, and improved the development of intellectual property systems, talent and capabilities. Focusing on the deep integration of scientific and technological innovation and industrial innovation, and channeling efforts through management of scientific and technological achievements, we accelerate the transformation and application of scientific and technological achievements, and vigorously develop new quality productive forces. In 2025, the Company's intellectual property rights sustained high-quality development, with the total number of valid patents reaching 23,075, of which 64.8% were invention patents. The Company owns a total of 22,546 valid active national patents, including 14,429 invention patents, as well as 529 valid active international patents. The Company has demonstrated significant results in the commercialization of scientific and technological achievements and the utilization of intellectual property rights.



Indicators and Objectives

Category	Indicators	2025 Progress
Technology R&D Expenditure	Annual R&D expenditure (RMB100 million)	272.51
	Percentage of R&D expenditure in the Company's operating revenue (%)	1.0
Technology R&D Personnel	Total number of R&D personnel (persons)	35,790
	Percentage of R&D personnel in total employees (%)	9.74
Intellectual Property Rights	Number of patent applications in the year (pcs)	6,808
	Number of patent grants in the year (pcs)	2,096
	Number of valid patents owned by the Company (pcs)	23,075
	Number of invention patents applied to main businesses (pcs)	12,283
	Number of high-value patents per 10,000 employees (pcs)	151.39
Digital Intelligence Empowerment	Transaction scale of digital economy (RMB100 million)	7,200
	Number of national-level intelligent manufacturing benchmark enterprises (pcs)	11



Key Performance Data

Governance Indicators

Topic	Indicator	2023	2024	2025
Corporate Governance	Board Diversity			
	Proportion of Independent Directors (%)	41.7	41.7	38.5
	Board Composition by Gender			
	Male (%)	91.7	91.7	92.3
	Female (%)	8.3	8.3	7.7
	Board Composition by Professional Background			
	Finance (%)	8.3	8.3	7.7
	Accounting (%)	25.0	25.0	23.1
	Petroleum and Petrochemicals (%)	66.7	66.7	61.5
	Risk Management (%)	–	–	7.7
Compliance Operations and Risk Management	Tax Compliance			
	Taxes Payment (RMB 100 million)	4,639	4,416	3,941
	Overseas Taxes Payment (RMB 100 million)	518	495	338
Anti-bribery and Anti-corruption	Coverage Rate of Anti-bribery and Anti-corruption Training (including Board members and all employees) (%)	100	100	100

Environmental indicators

Topic	Indicators	2023	2024	2025
GHG				
Climate Change and Green Low-Carbon Transition	Total GHG emissions ¹ (Scope 1, Scope 2) (million tCO ₂ e)	171.18	170.46	164.62
	Direct GHG emissions ² (Scope 1) (million tCO ₂ e)	124.66	122.76	126.24
	Indirect GHG emissions ³ (Scope 2) (million tCO ₂ e)	46.52	47.70	38.38
	Oil and gas and new energies businesses (million tCO ₂ e)	56.67	56.19	54.21
	Refining, chemical and new materials businesses (million tCO ₂ e)	107.21	106.36	102.20
	Other businesses (million tCO ₂ e)	7.30	7.91	8.20
	Domestic GHG emissions per unit of oil and gas production ⁴ (tCO ₂ e/toe)	0.24	0.235	0.22
	Methane emission (10,000 tonnes)	37.12	30.87	27.74
	Methane emission intensity ⁵ (%)	0.34	0.28	0.25
	Vent gas recovery (100 million m ³)	21.1	23.6	33.5
Green and Low-carbon Transition				
	Investment in new energies and new materials (RMB 100 million)	197.6	240.5	414.6
Environmental Compliance Management	Environmental protection expenditures (RMB 100 million)	31.4	29.9	35.6
	Number of subsidiaries certified by the Environmental Management System (ISO14001)	117	114	119

[1-4] GHG emissions are direct emissions (Scope 1) and indirect emissions (Scope 2) arising within the Company's operational boundary. Our domestic projects mainly comply with the Guide to Accounting Methods and Reporting of Greenhouse Gas Emissions by China's Oil and Gas Producers (Trial) (No. 2920 [2014] on Climate, National Development and Reform Commission ("NDRC")), the Guide to Accounting Methods and Reporting of Greenhouse Gas Emissions by China's Petrochemical Companies (Trial) (No. 2920 [2014] on Climate, NDRC), the Guide to Accounting Methods and Reporting of Greenhouse Gas Emissions by China's Chemical Production Enterprises (Trial) (No. 2526 [2016] on Climate, NDRC), the Carbon Emissions Accounting and Reporting Requirements Part 15: Petrochemical Enterprises (GB/T 32151.15), the Carbon Emissions Accounting and Reporting Requirements Part 16: Oil and Gas Production Enterprises (GB/T 32151.16), and other relevant industry guidelines and national accounting standards; while for overseas projects, local accounting standards and requirements of the countries where the operations are located take precedence over the PRC laws on the basis of the local indicators. Since 2024, in accordance with the Requirements of the Carbon Emission Accounting and Reporting - Part 16: Oil and Gas Production Enterprises (GB/T 32151.16-2023), the Global Warming Potential (GWP) of methane was adjusted to 28, which will affect the Company's total GHG emissions by approximately 2 million tonnes.

[5] Methane emissions intensity is the percentage of methane emissions generated by the Company's upstream oil and gas assets relative to the total volume of the Company's natural gas products. Its calculation method aligns with the standards set by the Oil and Gas Climate Initiative.

Topic	Indicators	2023	2024	2025
Pollutant Emissions Management	Chemical oxygen demand (COD) emissions ⁶ (10,000 tonnes)	0.49	0.42	0.38
	Nitrogen oxides (NOx) emissions ⁷ (10,000 tonnes)	4.85	4.48	4.34
	Volatile organic compounds (VOCs) emissions (from refining operations) ⁸ (10,000 tonnes)	6.39	5.82	5.59
Waste Management	Amount of general solid waste ⁹ (10,000 tonnes)	355.5	246.8	184.0
	Amount of hazardous waste ¹⁰ (10,000 tonnes)	130.0	125.7	78.6
	Compliant disposal rate of general solid waste (%)	100	100	100
	Compliant disposal rate of hazardous waste (%)	100	100	100
Ecosystem and Biodiversity Conservation	New construction land saved (hectares)	1,400	1,200	1,080
Energy Utilisation	Total energy consumption ¹¹ (10,000 tonnes of standard coal)	6,548	6,498	6,483
	Total raw coal consumption ¹² (10,000 tonnes)	1,108	1,044	994
	Total crude oil consumption ¹³ (10,000 tonnes)	156	142	117
	Total natural gas consumption ¹⁴ (100 million m ³)	181	179	181
	Total electricity consumption ¹⁵ (100 million kWh)	623	646	671
	Energy saved (10,000 tonnes of standard coal)	83	74	72
	Comprehensive energy consumption per unit of oil and gas equivalent production (kg of standard coal/tonne)	106	101	98
	Energy consumption per unit energy factor (kg of standard oil/ [tonne · energy factor])	7.77	7.77	7.52
Water Resource Utilisation	Fresh water consumption (10,000 m ³)	77,123	74,801	74,144
	Year-on-year change in freshwater consumption (%)	3.26	-3.01	-0.88
	Water withdrawal per tonne of crude oil processed (m ³)	0.473	0.453	0.448
	Water saved (10,000 m ³)	814	783	753

[6-8] The Company has been implementing national requirements to win the strategic fight against pollution. We have vigorously upgraded our wastewater treatment standards, implemented ultra-low emission modifications for exhaust gases, applied clean production methods, alternative cleaner fuels, and carried out other engineering and structural projects to reduce emissions, resulting in a significant decrease in pollutant emissions. At the same time, in accordance with the results of the Second National Census on Pollution Sources and the specific pollutant emissions accounting standards outlined in the Technical Specifications for the Application and Issuance of Pollutant Permits for industries related to the Company's operations, the Company has adopted the preferred accounting method using online monitoring pollution statistics. The exhaust emission statistics include flaring emissions.

[9-10] The amount of solid waste disposed of by third-party organisations with relevant qualifications, as commissioned by the Company.

[11-15] Total energy consumption is calculated by converting the actual physical energy consumed in the production and daily operations of the enterprise according to the calculation methods and conversion factors stipulated in the PetroChina's Corporate Standards (Q/SY09061-2023), using the following formula: total energy consumption (tonnes of standard coal) = \sum actual physical energy consumed in the production process of the enterprise \times conversion factor. For example, the conversion factors are 0.7143 tonnes of standard coal per tonne for raw coal, 1.4286 tonnes of standard coal per tonne for crude oil, 13.3 tonnes of standard coal per 10,000 cubic metres for natural gas, and 1.229 tonnes of standard coal/10,000 kWh for electricity. The total energy consumption is calculated by multiplying the actual physical energy consumption of the enterprise by the conversion factors.

[16] Starting from 2025, we have renamed the "Unit Ethylene Energy Consumption" indicator to "Comprehensive Energy Consumption per Unit Product of Ethylene," in the "Norm of Energy Consumption per Unit Product for Petroleum Refining" (GB 30251-2024), with consistent calculation methods for both.

Social indicators

Topic	Indicators	2023	2024	2025
Rural Revitalisation and Social Contribution	Total investment in public welfare (RMB ten thousand)	54,444	56,671	57,676
	Rural revitalisation (RMB ten thousand)	26,881	24,465	27,022
	Educational donations (RMB ten thousand)	6,216	7,291	11,392
	Disaster relief donations (RMB ten thousand)	4,723	1,429	2,919
	Environmental protection (RMB ten thousand)	349	4,836	1,145
	Other public welfare investment ¹⁷ (RMB ten thousand)	16,275	18,650	15,198
Employee Rights and Interests and Development	Number of employees (10,000)	37.58	37.08	36.72
	Employee Diversity			
	Percentage of female managers ¹⁸ (%)	7.17	7.22	7.35
	Percentage of ethnic minority employees (%)	6.82	6.81	6.87
	Percentage of foreign employees in overseas projects (%)	96.71	96.89	96.84
	By employment type			
	Full-time employees (%)	100	100	100
	Part-time employees (%)	0	0	0
	By gender			
	Male employees (%)	76.90	78.20	78.79
	Percentage of female employees (%)	23.10	21.80	21.21
	By age			
	50 years old and above (%)	38.61	41.77	44.52
	30-50 years old (%)	56.27	52.34	48.54
30 years old and below (%)	5.12	5.89	6.94	

[17] Including public welfare investments such as medical and healthcare, culture and sports, construction of public welfare facilities, donations to support people with disabilities, other public welfare relief, and donations to public welfare causes.

[18] Female managers include mid and senior-level female managers in the Company.

Topic	Indicators	2023	2024	2025
By position				
	General staff (%)	96.85	96.96	97.24
	Middle management (%)	2.94	2.84	2.56
	Senior management (%)	0.21	0.20	0.20
By education level				
	Master's degree and above (%)	5.50	6.11	6.93
	Bachelor's degree (%)	39.05	40.10	41.16
	Junior college degree (%)	22.00	21.64	21.52
	Secondary vocational education and below (%)	33.45	32.15	30.39
By country/region				
	China (%)	99.6	99.6	99.6
	Outside China (%)	0.4	0.4	0.4
Employee Training				
	Average training time per person ¹⁹ (hour)	59.0	68.4	70.0
	General Staff (hour)	57.2	67.0	67.3
	Middle Management (hour)	66.5	77.2	79.0
	Senior Management (hour)	67.8	67.1	68.7
	Male employee (hour)	63.5	74.3	74.2
	Female employee (hour)	44.7	54.7	54.8
	Training rate of employees (%)	100	100	100
	General Staff	100	100	100
	Middle Management	100	100	100
	Senior Management	100	100	100
	Male employees (%)	100	100	100
	Female employees (%)	100	100	100

[19] Average training time per person = Total training time/Total number of employees.

Topic	Indicators	2023	2024	2025
	Staff Turnover Rate²⁰			
	Staff turnover rate (%)	0.15	0.10	0.08
	Male employees (%)	0.14	0.09	0.09
	Female employees (%)	0.16	0.14	0.08
	50 years old and above (%)	0.03	0.03	0.04
	30-50 years old (%)	0.13	0.09	0.08
	30 years old and below (%)	1.19	0.59	0.40
	Employee engagement			
	Employees who returned to work and retained their positions after maternity/paternity leave (%)	100	100	100
	Production safety			
	Fatality rate (persons/100 million working hours)	0.30	0.13	0.09
	Employee (persons/100 million working hours)	0.33	0.13	0.14
	Contractor/service provider (persons/100 million working hours)	0.25	0.13	0
	Total accident rate (case/million working hours)	0.0222	0.0291	0.0137
	Employee (case/million working hours)	0.0326	0.0405	0.0193
	Contractor/service provider (case/million working hours)	0.0025	0.0067	0.0015
	Work-related fatalities (persons)	7	3	2
	Employee (persons)	5	2	2
	Contractor/service provider (persons)	2	1	0
	Loss of working days due to work-related injury (days)	11,772	2,760	1,495
	Employee (days)	2,767	2,559	1,495
	Contractor/service provider (days)	9,005	201	0
Work Safety and Occupational Health				

[20] In 2025, the Company adjusted the statistical methodology for the employee turnover rate by age group and recalculated the historical data for the previous two years based on the new methodology to ensure comparability of the data.

Topic	Indicators	2023	2024	2025
	Number of subsidiaries certified by the HSE Management System (Q/SY08002.1)	109	104	107
	Employee Health			
	Number of subsidiaries certified by the Occupational Health and Safety Management System (ISO45001)	120	112	121
	Creation of occupational health records for employees (%)	100.00	100.00	100.00
	Detection rate of occupational health hazards in the workplace (%)	100.00	100.00	100.00
	Employees exposed to occupational health hazards receiving health checks (%)	99.66	100.00	100.00
	Pass rate of third-party certification of quality management system (%)	100	100	100
Quality and Safety of Products and Services	Number of subsidiaries certified by the Quality Management System (ISO9001)	296	347	415
	Number of customer complaints	678	361	281
	Customers complaint response rate (%)	100	100	100
	Products recalled for safety and health reasons (%)	0	0	0
	Number of material suppliers ²¹	22,845	22,327	23,533
Supply Chain Management	Tier 1 manufacturers certified by the Quality Management System (ISO9001) ²² (%)	98.44	98.71	96.93
	Tier 1 manufacturers certified by the Environmental Management System (ISO14001) ²³ (%)	94.98	95.68	93.73
	Tier 1 manufacturers certified by the Occupational Health and Safety Management System (ISO45001) ²⁴ (%)	94.13	94.95	94.23
	Procurement expenditures (RMB 100 million)	2,103	1,930	2,065

[21-24]
Note:

Excluding data from suppliers involved in our international business.

Conversion standards. 1 barrel of oil equivalent = 1 barrel of crude oil = 6,000 cubic feet of natural gas = 169.9 cubic metres of natural gas; 1 cubic metre of natural gas = 35.315 cubic feet of natural gas; 1 tonne of crude oil = 7.389 barrels of crude oil (assuming an API gravity of 34 degrees)

Independent Third-Party Assurance



Independent Limited Assurance Report

To the Management of PetroChina Company Limited

1. Limited Assurance Conclusion

Hong Kong Quality Assurance Agency (“HKQAA”, “we”, “our”, “us”) was engaged by PetroChina Company Limited (“the Company”) to conduct an independent limited assurance engagement on the sustainability disclosures (“Sustainability Disclosures”) presented in its 2025 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT (“the Report”) for the reporting period from 1 January 2025 to 31 December 2025 (“Reporting Period”) and issue this Independent Assurance Report (“Assurance Report”).

Based on the procedures performed, evidence obtained, and subject to the stated assumptions, dependencies, boundaries, limitations, and exclusions set out in Appendix A, nothing has come to our attention that causes us to believe that the Sustainability Disclosures are not presented, in all material respects, in accordance with the requirements of the ESG Reporting Code and Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial).

2. Engagement Overview

The objective of this sustainability assurance service is to provide an independent conclusion, with a limited level of assurance, on whether the Sustainability Disclosures have been prepared in accordance with the following reporting criteria:

The Environmental, Social and Governance Reporting Code (“ESG Reporting Code”) set out in Appendix C2 of the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited. Guidelines No. 14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies—Sustainability Report (Trial).

For the avoidance of doubt, the Appendices listed at the end of this Assurance Report form an integral part of it, though certain Appendices are intended for the Company’s internal use only. For reference, a generic version of Appendix A (which sets out the assumptions, dependencies, boundaries, limitations, exclusions, roles and responsibilities, and independence applicable to this engagement) is publicly available on the HKQAA website (www.hkqaa.org) under the navigation path: News & Resources > Guides & Forms > Guidelines > Sustainability Assurance.

3. Basis for Conclusion

HKQAA’s assurance procedure was conducted in accordance with the International Standard on Sustainability Assurance 5000, General Requirements for Sustainability Assurance Engagements (“ISSA 5000”), issued by the International Auditing and Assurance Standards Board (“IAASB”).

A limited assurance engagement involves performing procedures that vary in nature and extent from those performed for a reasonable assurance engagement. Accordingly, the level of assurance obtained is substantially lower than that obtained in a reasonable assurance engagement.

In conducting this engagement, we confirm our independence from the Company. The engagement team performed the engagement in accordance with the HKQAA Code of Conduct. Based on the procedures performed and the evidence obtained, we consider the evidence sufficient and appropriate to form a basis for our conclusion.

4. Responsibilities for the Sustainability Disclosures

The Company’s management is responsible for the preparation of the Sustainability Disclosures in accordance with the applicable reporting criteria, and for designing, implementing and maintaining such internal controls as it determines necessary to enable the preparation of Sustainability Disclosures that are free from material misstatement, whether due to fraud or error.



Those charged with governance are responsible for overseeing the Company's sustainability reporting process.

5. Responsibilities of the Engagement Team

Our responsibility is to plan and perform this engagement to obtain limited assurance about whether the Sustainability Disclosures are free from material misstatement, whether due to fraud or error, and to issue this Assurance Report that includes our conclusion.

Misstatements can arise from fraud or error and are considered material if they could reasonably be expected to influence the decisions of users taken on the basis of the Sustainability Disclosures.

As part of this engagement, we exercise professional judgment and maintain professional skepticism, perform risk assessment procedures including obtaining an understanding of relevant internal controls (but not for the purpose of providing a conclusion on their effectiveness), and design and perform procedures responsive to assessed risks. As fraud is inherently more difficult to detect than unintentional error, the risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error.

6. Summary of Work Performed

A limited assurance engagement involves performing procedures to obtain evidence about the Sustainability Disclosures. The nature, timing and extent of procedures selected depend on professional judgment, including the assessed risks of material misstatement, whether due to fraud or error.

Our assurance procedures included, but were not limited to:

- reviewing relevant policies, procedures, relevant documentation and records provided by the Company, including those related to sustainability-related information such as governance, risk identification, and performance metrics;
- interviewing key management and responsible personnel of the Company for reporting and sustainability-related governance;
- conducting analytical reviews of disclosures for plausibility and consistency with relevant external frameworks and internal supporting data;
- selecting representative samples of disclosures, with a focus on materiality and risk, and assessing the underlying evidence for each sample using judgmental sampling;
- evaluating the transparency of disclosed assumptions, dependencies, and boundaries; and
- assessing the completeness of coverage with respect to the requirements of the reporting criteria, including reviewing methodologies used for estimations, sensitivity analyses, and disclosures of uncertainties.

This Assurance Report is made solely for the use of PetroChina Company Limited and the users of its 2025 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT, and for use in accordance with the reporting criteria stated in Section 2 of this Assurance Report. We do not accept or assume responsibility for any other purpose or to any other person to whom this Assurance Report is shown or in whose hands it may come.

The engagement leader on the assurance engagement resulting in this Assurance Report is K T Ting.

Signed on behalf of Hong Kong Quality Assurance Agency



Hong Kong, PRC
20 March 2026
Ref: 14993124



GHG Emissions Verification



14995979-VER

Verification Statement

Scope and Objectives

Hong Kong Quality Assurance Agency ("HKQAA") has been commissioned by PetroChina Company Limited ("PetroChina") to conduct an independent verification of the Environmental Information Statement / Greenhouse Gases ("GHG") emissions inventory ("Emissions Inventory") for the period 1st January 2025 to 31st December 2025. The aim of this verification was to provide a **limited assurance** on the completeness and accuracy of the consolidated data in the Emissions Inventory of the entities within the scope of PetroChina's 2025 Environmental, Social and Governance Report, by applying the operational control approach against the ISO 14064-1:2018 *Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*, as well as in compliance with *Requirements for Carbon Emission Accounting and Reporting Part 15: Petrochemical Enterprises* (GB/T 32151.15) and *Requirements for Carbon Emission Accounting and Reporting Part 16: Petroleum and Natural Gas Production Enterprises* (GB/T 32151.16). This verification covers GHG Scope 1 (direct GHG emissions and removals) and Scope 2 (indirect GHG emissions), excluding Scope 3 emissions.

HKQAA conducted:

- Sampling verification on the core emission sources, emission volumes, removal volumes and relevant accounting information involved in the GHG Emissions Inventory through document review, online interviews with relevant personnel of PetroChina, online walk-through tests and data comparison for core emission sources.

Methodology

The verification was conducted in accordance with ISO 14064-3:2019 '*Specification with guidance for the validation and verification of greenhouse gas assertions*'. The process included an assessment of:

- The reporting boundaries selected;
- The quantification methodology and emission factors used;
- The integrity of the historical activity data used;
- The accuracy and completeness of the GHG calculations;
- The conformance with the requirements of ISO 14064-1:2018, *Requirements for Carbon Emission Accounting and Reporting Part 15: Petrochemical Enterprises* (GB/T 32151.15) and *Requirements for Carbon Emission Accounting and Reporting Part 16: Petroleum and Natural Gas Production Enterprises* (GB/T 32151.16).

Integrity and accuracy of the aggregated data was tested by tracing sample data back to its source. The underlying processes for data collection, aggregation, estimation, calculation and internal checking were reviewed and undergone reliability test. A materiality threshold of **5% of emission share** was adopted for this verification. HKQAA verification team did not partake in the GHG data preparation process. PetroChina Company Limited assumes the primary responsibility for the preparation of the GHG Emissions Inventory and the authenticity and completeness of the original data, and HKQAA only issues an independent verification opinion on the content within the verification scope.

Conclusion

Total GHG emissions of PetroChina in 2025:

2025 GHG Emissions	Megatonnes of CO ₂ equivalent(Mt CO ₂ e)
Scope 1 (Direct GHG emissions and removals)	126.24
Scope 2 (Indirect GHG emissions and removals)	38.38
Total (Scope 1 + Scope 2)	164.62

Signed on behalf of Hong Kong Quality Assurance Agency:

Verifier:

Date of Issuance: 23 March 2026

Hong Kong Quality Assurance Agency
19/F., K. Wah Centre, 191 Java Road, North Point, Hong Kong
Contact detail www.hkqaa.org

Remarks: This verification statement includes page <1> to page <3>

HKQAA-F1025-HKO-8E-OB 31 July 2025



Chief Operating Officer: KT Ting


Our Commitment to the UN Global Compact

As a member of the UN Global Compact, we are committed to observing and supporting its Ten Principles in the four areas of human rights, labour, environment, and anti-corruption, through concrete actions. We will incorporate these Ten Principles into our practices for fulfilling social responsibilities and consistently disclose our progress in adhering to them in our annual report.


Ten Principles of the Global Compact		Corresponding Sections in this Report
Human Rights	1. Businesses should respect and uphold internationally proclaimed human rights	<ul style="list-style-type: none"> ✦ Community Communication and Engagement ✦ Rural Revitalisation and Social Contribution ✦ Employee Rights and Interests and Development
	2. Businesses should not take part in any activities that disregard or abuse human rights	<ul style="list-style-type: none"> ✦ Employee Rights and Interests and Development
Labour	3. Businesses should uphold the freedom of association and recognise the right to collective bargaining between employers and employees	<ul style="list-style-type: none"> ✦ Employee Rights and Interests and Development
	4. Businesses should eliminate all forms of forced labour	
	5. Businesses should support the abolition of child labour	
	6. Businesses should eliminate all discriminatory behaviours in relation to employment and occupation	
Environment	7. Businesses should be prepared to confront environmental challenges	<ul style="list-style-type: none"> ✦ Climate Change and Green Low-Carbon Transition ✦ Ecosystem and Biodiversity Conservation ✦ Developing a Circular Economy
	8. Businesses should take the initiative to fulfil their environmental responsibility	<ul style="list-style-type: none"> ✦ Environmental Compliance Management ✦ Pollutant Emissions Management ✦ Waste Management
	9. Businesses should encourage the development and diffusion of environmentally friendly technologies	<ul style="list-style-type: none"> ✦ Energy Utilisation ✦ Water Resource Utilisation
Anti-Corruption	10. Businesses should oppose all forms of corruption, including extortion and briber	<ul style="list-style-type: none"> ✦ Compliance Operations and Risk Management ✦ Anti-bribery and anti-corruption ✦ Fair competition

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In accordance with the "Comply or Explain" provisions of the ESG Reporting Code of the HKEX, we provide the following explanations for the non-disclosure of Indicator A2.5 and the partial disclosure of Indicator B1.2:

1. The Company uses only a minimal amount of packaging materials for its principal business products, and such use does not constitute a material resource input in the course of production and operations. Based on the materiality assessment, this indicator is not material to the Company. Accordingly, the relevant disclosure requirements under Aspect A2.5 are not applicable, and no separate disclosure has been made.
2. The proportion of the Company's employees working outside China is minimal. Based on the materiality principle, the employee turnover rate by region is no longer disclosed in this Report