Glossary

Proven reserves	According to China National Standards, proven reserves are estimated quantities of hydrocarbon deposits possibly to be recovered from reservoirs proved by appraisal drilling during the period of reservoir evaluation, with a reasonable certainty or a relative difference of no more than ±20%.
Proved reserves	According to the guidelines of the US Securities and Exchange Commission, proved reserves refer to, against current economic and operating circumstances, the quantity of oil, natural gas or liquid natural gas which can be reasonably identified and recovered from known oil & gas layer in the future according to geological and engineering documents. Their price and cost are based on the reality in evaluation. Price changes will only consider the changes of current price specified by contract agreement rather than escalations. Proved reserves include proved reserves developed and undeveloped.
Reserve replacement ratio	The reserve replacement ratio refers to the value of the amount of oil and gas reserves added in a year divided by the amount of oil and gas produced during that same year.
Recovery ratio	The percentage of oil/gas in place that is recoverable from underground.
Horizontal well	A class of nonvertical wells where the wellbore axis is near horizontal (within approximately 10 degrees of the horizontal), or fluctuating above and below 90 degrees deviation. A horizontal well may produce at rates several times greater than a vertical well, enhance recovery efficiency and prolong the production cycle, due to the increased wellbore surface area within the producing interval. Meanwhile, the environmental costs or land use problems that may pertain in some situations, such as the aggregate surface "footprint" of an oil or gas recovery operation, can be reduced by the use of horizontal wells.
Liquefied natural gas (LNG)	Liquefied natural gas is produced by dewatering, deacidifying, dehydrating and fractionating the natural gas produced from a gas field and then turning it into liquid under low temperatures and high pressure.
New energy	New energy refers to unconventional energy and renewable energies, mainly including CBM, shale gas, oil sands, oil shale, fuel ethanol, biodiesel, geothermal energy, wind energy, solar energy, hydrogen energy, water-soluble gas and NGH.
Low-carbon economy	A low-carbon economy is an economic development model characterized by low energy consumption, low pollution and low emissions. Its essence is efficient energy consumption, development of clean energy and pursuit of green GDP. The core of this model is the optimization of the industrial structure, low-carbon technology and institutional innovation. A low-carbon economy is developed by means of energy conservation, emissions reduction and the development of clean energy.
Greenhouse gas (GHG)	Greenhouse gases are gases in an atmosphere that absorb solar radiation from the surface and then emit radiation, such as water vapor, CO_2 , and most refrigerants. Their effect is making the Earth' s surface warmer, as the "greenhouse effect" sequestrates solar radiation and increases the temperature of the air. Greenhouse gases in the Earth's atmosphere mainly include CO_2 , CH_4 , N_2O, HFCs, PFCs and SF_6.

Carbon sequestration	Also refers to carbon sinks. It is the process, activity and mechanism to remove carbon dioxide from the air. Generally, it indicates the capability of forests to absorb and store carbon dioxide. Carbon dioxide in the atmosphere is artificially sequestrated in biological forms in plants and the soil through forestation, forest management, and other forest carbon sequestration measures.
HSE management system	HSE is the acronym of the health, safety and environment management system. The HSE management system is an integration of various elements such as organizational structures, mandates, practices, procedures, processes and resources used for health, safety and environment management. The advanced, scientific and systematic integration and operation of these elements create the mutually reinforcing, supportive and interactive and dynamic management system.
Oils (mineral oil)	Compounds of hydrocarbons in wastewater. These include all substances collected by certain solvents, as well as all substances extracted by solvents from acidified samples, which remained fixed during the extracting process.
Chemical oxygen demand (COD)	Chemical oxygen demand is the quantity of strong oxidant consumed to process water samples. It serves as a comprehensive index of pollutants in wastewater and their impact on the environment. A higher COD represents the heavier pollution of reductive substances in the water body.
Major accident	Major accidents refer to accidents that cause deaths above 10 but below 30, or grievous harm to people numbering above 50 but below 100, or economic losses worth above RMB 50 million but below RMB 100 million.
Emergency accidents	Emergency accidents refer to sudden emergent accidents which result in or may result in serious casualties, and/or damage to property, the environment, society and public safety. Emergency accidents faced by CNPC include four types, namely natural disasters, accidents, public health and social security.
Occupational disease	Diseases caused by exposure to dust, radioactive substances and other toxic and hazardous substances to employees working for enterprises, institutions and private organizations.
Stakeholders	Stakeholders are groups and individuals that are able to impact the accomplishment of corporate goals, or groups and individuals that are impacted by corporate goals, including the natural environment, future generations, and non-human specifies that are directly or indirectly affected by corporate business activities.
Production base	Generally, this refers to mining zones recovered, being recovered or to be recovered. It includes several regions covering mines and open mines equipped with utilities like production processes, ground transportation, power supply, telecommunication scheduling, production management and living services.
Community	A community is an administrative jurisdiction within which a group of people live in a fixed geographical area, fulfilling their social functions and creating social norms. It is at the same administrative level as an administrative village.