## ACTION PLAN FOR CARBON DIOXIDE PEAKING BEFORE 2030

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This Action Plan is formulated to advance actions on carbon dioxide peaking in further implementing the major strategic decisions by the Central Committee of the Communist Party of China (CPC) and the State Council to peak carbon dioxide emissions and achieve carbon neutrality.

#### I.GENERAL GUIDANCE

#### **1. Guiding Principles**

We must follow the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, fully implement the guiding principles from the 19th CPC National Congress and the second through fifth plenary sessions of the 19th CPC Central Committee, and thoroughly apply Xi Jinping's thought on ecological civilization. We need to ground our work in the new stage of development, apply the new development philosophy, and foster a new pattern of development. Through the application of systematic thinking, we will strike a balance between development and emissions reduction, between overall and local imperatives, and between short-term and longer-term considerations, and coordinated efforts in terms of maintaining steady growth and restructuring. Endeavors to peak carbon dioxide emissions and achieve carbon neutrality must be incorporated into the overall economic and social development framework. We need to stick to the overarching principles of exercising nationwide planning, prioritizing conservation, leveraging the strengths of the government and the market, coordinating efforts on the domestic and international fronts, and guarding against risks. Work related to peaking carbon dioxide emissions must carry out in a vigorous, orderly and effective manner by setting explicit targets and tasks for different regions, fields and industries. We need to accelerate the shift to more environmentally friendly living patterns and modes of production, base economic and social development upon highly efficient utilization of resources and green and low-carbon growth and ensure that the goal of carbon dioxide peaking before 2030 is achieved.

#### 2. Working Guidelines

• Planning from an overall perspective and implementing tailored policies. We will take a whole-of-nation approach, bolstering top-level design and coordination on all sides. In all regions, fields, and industries, we will implement tailored policies, and set targets and tasks in a manner that both fits individual realities and satisfies overall requirements.

• Employing a systematic approach and pushing for key breakthroughs. We will maintain a comprehensive and precise understanding of the carbon dioxide peaking action's far-reaching effects on economic and social development, and make policies more systematic and coordinated. We will devote our attention to the main problems and the main aspects of these problems, and encourage key fields and key industries as well as regions with the favorable conditions to take the lead in reaching peak emissions.

• Leveraging the strengths of the government and the market. We will give better play to the role of the government by building a new system for mobilizing the nation, and give full play to the role of the market. We will vigorously promote innovation in green and low-carbon

science and technology, deepen institutional reform in energy and other relevant fields, and develop effective incentive and constraint mechanisms .

• Working in a steady and orderly manner to safely reduce carbon emissions. Based on China's energy resource conditions of rich in coal but poor in oil and gas, we must insist construction before destruction, stabilize energy stock and expand energy increment. We must keep national energy security and economic development as the bottom line, strive for time to realize the gradual replacement of new energy, and promote the smooth transition of energy low-carbon transformation. We will take concrete steps to safeguard China's energy security, food security, and the security of industrial and supply chains and to keep ordinary citizens living and working as normal. As we advance the carbon dioxide peaking initiatives through a steady, step-by-step approach, we will put concentrated effort into addressing various potential risks and hazards and avoid excessive side effects, thus ensuring a safe reduction of carbon emissions.

#### **II.MAIN OBJECTIVES**

Over the 14th Five-Year Plan period, notable progress will be made in adjustment and optimization of the industrial structure and the energy mix. Energy efficiency will be largely improved in key industries, strict controls will be placed upon coal consumption growth, construction of new electric power systems based upon new energy resources will speed up, new progress will be made in the R&D and broad application of green and low-carbon technologies, environment-friendly production modes and living patterns will become widespread, and further improvement will be made in the policy framework for green, low-carbon and circular development. By 2025, the share of non-fossil fuels in total energy consumption will reach around 20%, while energy consumption and carbon dioxide emissions per unit of GDP will drop by 13.5% and 18%, respectively, compared with 2020 levels, laying a solid foundation for carbon dioxide peaking.

During the 15th Five-Year Plan period, major progress will be made in adjustment of the industrial structure, a clean, safe, efficient and low-carbon energy system will be preliminary established, low-carbon development models will have largely taken shape in key fields, energy efficiency among China's key energy consumption industries will reach advanced international standards, non-fossil fuels will account for a larger share of energy consumption, coal consumption will gradually fall, crucial breakthroughs will be made in green and low-carbon technology, the public will opt for environment-friendly living patterns, and formulation of the policy framework for green, low-carbon and circular development will be mostly complete. By 2030, the share of non-fossil energy consumption will reach around 25%, and carbon dioxide emissions per unit of GDP will have dropped by more than 65% compared with the 2005 level, successfully achieving carbon dioxide peaking before 2030.

#### **III.KEY TASKS**

We will see that the goal to peak carbon dioxide emissions permeates the whole process and every aspect of economic and social development. Particular focus will be placed on implementation of ten major peaking carbon dioxide emissions actions, which are the action for green and low-carbon energy transition, the action for energy saving, carbon emission mitigation and efficiency improvement, the action for peaking carbon dioxide emissions in industry sector, the action for peaking carbon dioxide emissions in urban-rural development area, the action for promoting green and low-carbon transportation, the action for promoting circular economy in carbon mitigation purpose, the action for advancing green and low-carbon technology innovation, the action for consolidating and enhancing carbon sink, the action for green and low-carbon society, the action for promoting all regions peaking carbon dioxide emissions hierarchically and orderly.

## 1. The action for green and low-carbon energy transition

Energy is an important material foundation for economic and social development, as well as the principal source of carbon emissions. We will maintain commitment to cutting carbon emissions in a safe manner by vigorously promoting substitution of renewable sources of energy under the condition that energy security is ensured, and accelerate the development of a clean, low-carbon, safe and efficient energy system.

### (a) Promoting coal substitution as well as transformation and upgrading

We will pick up the pace in cutting coal consumption, strictly and rationally limit the increase in coal consumption over the 14th Five-Year Plan period and phase it down in the 15th Five-Year Plan period. Severe restrictions will be placed on new coal power projects, and newly constructed units will meet the most advanced international standards for coal consumption. We will orderly phase-out outdated coal power capacity, accelerate energy-saving upgrades and flexibility retrofits on units that remain in service, actively advance retrofits in coal-fueled heating facilities, and push forward coal's transition into a power source that is for ensuring basic needs and serves as a system regulating source. In trans-regional transmission of power generated by new energy resources, we will strictly control the scale of supplementary coal power, and ensure in principle that no less than 50% of electricity transmitted via newly constructed lines is generated from renewable resources. We will push key coal consuming industries to reduce and limit their coal consumption. We will vigorously promote the clean utilization of coal. We will rationally designate zones where burning of bulk coal is prohibited, promote efforts to replace bulk coal and make coal cleaner in an active and orderly manner through multiple measures, and gradually reduce and eventually prohibit burning of bulk coal

#### (b) Vigorously developing new energy resources

We will spur large-scale, high-quality development of wind and solar power generation across the board, continue to promote both concentrated and distributed systems, and accelerate the construction of wind and solar farms. We will speed up innovative upgrading and specialized application of innovations in smart photovoltaic industry, creatively develop the "solar +" model, and promote a diversified layout in photovoltaic power generation. Emphasizing both onshore and offshore power generation systems, we will promote rapid and coordinated development of wind power, improve industrial chains for offshore wind power, and encourage the construction of offshore wind bases. We will actively develop solar thermal power generation, and promote the establishment of comprehensive bases for generating power with renewable resources where solar thermal, photovoltaic, and wind power complement each other. We will develop biomass power generation and heating as well as biogas according to local conditions. We will explore ways of expanding the exploitation and utilization of geothermal energy as well as new marine energy sources such as wave, tidal and ocean thermal energy. We will further refine mechanisms for ensuring the uptake of power generated from renewable sources. By 2030, total installed generation capacity of wind and solar power will reach above 1200 gigawatts.

## (c) Developing hydro power according to local conditions

We will actively advance the construction of hydro power bases. This includes pushing for work to begin on the construction of hydro power projects that have already been incorporated into the plan and meet environmental protection requirements, including those on the upper Jinsha River, the upper Lancang River, the middle section of the Yalong River, and the upper Yellow River, pushing the development of hydro power on the lower Yarlung Zangpo River, and promoting the green development of small hydro power plants. We will push for coordination and complementarity between hydro, wind, and solar power generation in southwestern China. We will plan hydro power development and environment protection as a whole, and look into establishing mechanisms for compensating ecological conservation efforts in this regard. Approximately 40 gigawatts of additional hydro power capacity will be installed during both the 14th and 15th Five-Year Plan periods, respectively, while a renewable energy system based largely on hydro power will be generally established in southwestern China.

#### (d) Actively developing nuclear power through a safe and orderly approach

We will set a reasonable layout and timetable for the construction of nuclear power stations, and maintain a steady pace of construction. We will develop nuclear power in an orderly manner under the premise of ensuring safety and maintain a steady pace of construction. We will push forward demonstration projects for advanced reactor types including high-temperature gas-cooled reactors, fast reactors, small modular reactors, and offshore floating reactors, and conduct demonstrations on the comprehensive utilization of nuclear energy. We will step up efforts to make nuclear power more standardized and independently driven, move faster to make breakthroughs in key technologies and equipment, and foster industry clusters for the manufacturing of high-end nuclear power equipment. We will enforce the strictest safety standards and the most rigorous oversight, and continue to enhance capacity for supervising nuclear safety.

#### (e) Rationally regulating oil and gas consumption

We will keep oil consumption within a reasonable range, gradually adjust the scale of gasoline consumption, vigorously promote alternatives like advanced liquid biofuels and sustainable aviation fuel in substitution for traditional fuel oils, and make end-user fueled by oil more efficient. We will speed up the large-scale exploitation of unconventional oil and gas resources including shale gas, coal bed gas, and tight oil and gas. We will steer natural gas consumption in an orderly manner by optimizing the structure of use with priority given to meeting public needs. Meanwhile, we will vigorously promote integrated development between natural gas and other energy resources, build natural gas peak shaving power plants according to local conditions, and rationally guide the use of natural gas for industrial and as feedstocks for chemicals industries. We will support the use of liquid natural gas as fuel for vehicles and ships.

#### (f) Speeding up the development of the new electric power system

We will build a new electric power system that the share of new energy resources keep increasing, and work toward an optimized distribution of clean electricity generation on a broad scale. We will make vigorous efforts to enhance the overall adjustable capacity of our electric power system, expedite the construction of flexible power sources, incorporate enterpriseaffiliated power plants, the load of traditional energy intensive industries, interruptible industrial and commercial load, electric vehicle charging grids, and virtual power plants into regulation of the power system, build resilient smart electrical grids, and make grids more secure and reliable. We will actively develop the "new energy + energy storage" model, promote coordination of power source-grid-load-storage, use multiple energy sources to supplement each other, and support the deployment of appropriate energy storage systems for distributed new energy sources. We will draft a new round of medium to long-term development plans for pumped-storage hydro power stations, and refine policies and mechanisms for spurring the development of this type of energy storage. We will accelerate the broad demonstration and application of new types of energy storage. We will deepen structural reform with regard to electric power, and speed up development of a unified national electricity market. By 2025, installed capacity of new types of energy storage will reach 30 gigawatts or more. By 2030, installed pumped-storage hydro power capacity will reach approximately 120 gigawatts, and provincial-level electrical grids will be equipped with peak load response capacity of 5% or more.

#### 2. The action for energy saving, carbon emission mitigation and efficiency improvement

We will implement the policy of putting conservation first, and improve systems for keeping energy consumption under control in terms of both volume and intensity, with especially strict controls on intensity and reasonable controls on volume. We will advance revolutionary changes in energy consumption, and build an energy conserving society.

## (a) Raising capacity for managing energy conservation across the board

We will introduce a energy budget management approach, intensify energy conservation reviews regarding fixed-asset investment projects, and conduct comprehensive assessments of projects' energy use and carbon emissions, thus promoting energy conservation and carbon emissions reduction from the beginning. We will raise the level of informatization of energy management, improve systems for online monitoring of the energy consumption of key energy users, establish country-wide and industry-wide service platforms to promote energy-saving technologies, and push energy-intensive enterprises to set up energy management centers. We will refine energy measurement systems, and encourage the use of certification as a means to improve the level of management over energy conservation, improve systems for supervising energy conservation at the provincial, city, and county levels, establish mechanisms for interdepartmental action, and make full use of measures including administrative penalties, credibility checks, and tiered rates for electricity in order to make supervision over energy conservation a more binding force.

## (b) Implementing key energy conservation and carbon reduction projects

We will implement energy conservation and carbon reduction projects in urban areas, carrying out energy-saving upgrades on building, transportation, lighting, and heating infrastructure, promoting the trial application of advanced green construction technologies, and advancing overall improvement of energy efficiency in urban areas. We will implement energy conservation and carbon reduction projects in industrial parks, promoting systematic optimization of energy systems and cascading use of energy with a focus on industrial parks where energy-intensive, high-emissions projects are concentrated, so as to foster a group of energy-saving, low-carbon industrial parks that meet advanced international standards. We will implement energy conservation and carbon reduction projects in key industries, carrying out energy-saving and carbon-cutting improvements in industries such as electric power, steel, non-ferrous metals, building materials, petrochemicals, and chemicals, and raising the efficiency with which energy and resource are used. We will implement major technological demonstration projects for energy conservation and carbon reduction, and support the trial industrial application of key green and low-carbon technologies in which breakthroughs have already been achieved.

## (c) Advancing better energy saving performance and higher efficiency of major energy consuming equipments

We will raise energy efficiency standards across the board with a focus on equipment including electrical machinery, draught fans, pumps, compressors, transformers, heat exchangers, and industrial boilers. We will establish efficiency oriented incentives, popularize advanced high efficiency products and equipment, and move faster to retire outdated, low efficiency equipments. We will step up energy conservation checks and regular oversight on major energy consuming equipment, strengthen full-chain management covering production, marketing, sales, utilization, and disposal, crack down hard on activities that violate laws and regulations, and thus ensure full execution of energy efficiency standards and energy conservation requirements.

## (d) Strengthening energy conservation and carbon reduction in new types of infrastructure

We will optimize the spatial layout, and make overall plans to set up new types of infrastructure such as data centers appropriately, avoiding low-quality duplicate construction. We will optimize the energy consumption mix in new types of infrastructure by employing models including direct current electricity, distributed energy storage, and "solar + storage," making explorations into diversified energy supply, and raising the share of non-fossil fuels in total energy consumption. Comparing our initiatives with the advanced international standards, we will work faster to improve energy efficiency standards for communications, computing, storage, and transmission equipment, raise minimum thresholds, and retire outdated equipment and technologies. We will strengthen management over the energy usage of new types of infrastructure, putting all data centers whose annual overall energy consumption exceeds 10,000 tons of standard coal-equivalent under the energy consumption online monitoring system for key energy using organizations, and carrying out energy measurement audit. We will advance environmentally friendly upgrades for existing infrastructure, and actively promote the use of technologies including high-efficient refrigeration, advanced ventilation, surplus heat utilization, and smart control of energy usage, thus making infrastructure more energy efficient.

#### 3. The action for peaking carbon dioxide emissions in industry sector

The industrial domain is one of the primary sources of carbon dioxide emissions, and therefore exerts an important impact on China's efforts to peak overall carbon dioxide emissions. Industry must accelerate high-quality development and the green and low-carbon transition, and strive to take the lead in peaking carbon dioxide emissions.

#### (a) Promoting green and low-carbon development in the industrial domain

We will optimize the industrial structure, accelerate efforts to eliminate outdated production capacity, vigorously develop strategic emerging industries, and speed up green and low-carbon transformation in traditional industries. We will spur industrial energy consumption to go low-carbon, promote clean and efficient use of fossil fuels, increase the proportion of renewable energy used, strengthen electricity demand-side management, and raise the level of industrial electrification. We will thoroughly implement the green manufacturing project, vigorously promote green design, refine the green manufacturing system, and build green factories and industrial parks. We will drive integrated development of digital, smart, and green technology in the industrial domain, and bolster technological transformation in key industries and sectors.

#### (b) Pushing the steel industry to peak carbon dioxide emissions

We will deepen supply-side structural reform in the steel industry, rigorously execute production capacity replacement, strictly prohibit additional production capacity, push for the optimization of existing capacity, and retire outdated capacity. We will promote mergers and reorganization of steel enterprises across regions and ownership types, so as to make the industry more concentrated. We will optimize the layout of productive forces, and continue to push down steel production capacity with a particular focus on the Beijing-Tianjin-Hebei region and surrounding areas. We will spur structural optimization for steel industry and the substitution of clean energy, vigorously promote demonstrations of non-blast furnace technology, improve recycling and reuse of steel scrap, and advance the use of electric furnace which can be totally charged with steel scrap. We will drive the application of advanced and appropriate technologies, squeeze out all available potential for saving energy and cutting carbon emissions, encourage linking steel and chemical production, conduct integrated trials on hydrogen metallurgy and integrated capture and utilization of carbon dioxide, and promote heating development with low-grade residual heat.

#### (c) Pushing the non-ferrous metals industry to peak carbon dioxide emissions

Building on our success in addressing overcapacity in electrolytic aluminum production, we will rigorously execute capacity replacement and strictly control additional capacity. We will promote substitution of clean energy, and increase the proportion of hydro, wind, and solar-

generated electricity used. We will accelerate the development of the regenerated non-ferrous metals processing industry, improve the network of recycling, sorting and processing of non-ferrous metals scrap, and increase output of recycled non-ferrous metals. We will move faster to spread the use of green and low-carbon technologies that are advanced and applicable, step up recycling of residual heat from the non-ferrous metal production process, and continue to cut energy consumption per unit of production.

#### (d) Pushing the building materials industry to peak carbon dioxide emissions

We will strengthen oversight on production capacity replacement, move faster to eliminate low efficiency production capacity, strictly prohibit new cement clinker and flat glass production capacity, and guide the building materials industry in transitioning to become lighter, more intensive, and more product-oriented. We will promote making staggered production of cement a regular practice, and reasonably reduce the operating time of cement clinker equipment. We will utilize renewable energy like wind and solar according to local conditions, and gradually increase the proportion of electricity and natural gas in energy consumption. We will encourage building material enterprises to use coal fly ash, industrial waste residue, and mine tailings as raw materials or for mixing cement. We will speed up efforts to certify green building materials and spread their use, and accelerate the R&D and application of low-carbon gel material products like new binding materials, low-carbon concrete, and wood and bamboo building materials. We will expand the use of energy-saving technology and equipment and develop energy management systems to conserve energy and achieve higher efficiency.

## (e) Pushing the petrochemical industry to peak carbon dioxide emissions

We will optimize the scale and layout of production capacity, step up efforts to retire outdated capacity, and address problems arising from structural overcapacity through effective measures. We will set strict thresholds on projects, appropriately arrange the timing of construction, strictly control additional production capacity in oil refining and traditional coalbased chemicals industry, and pursue development of a modern coal-based chemical industry in a steady and orderly manner. We will guide enterprises in shifting their energy use model, encouraging the substitution of sources like electricity and natural gas to coal. We will adjust the mix of raw materials, control additional use of coal, expand sources to import hydrogenrich raw materials, and push for a transition to lighter raw materials in the petrochemical industry. We will optimize the product structure, promote coordinated development between the petrochemical industry and other industries including coal mining, metallurgy, building materials, and chemical fibers, and bolster efficient utilization of refinery byproducts such as dry gas and liquefied petroleum gas. We will encourage enterprises to carry out energy-saving upgrades, and promote cascading use of energy as well as circular use of materials. By 2025, domestic capacity for primary refining of crude oil will be kept below 1 billion metric tons, and the utilization rate of production capacity for main products will rise to 80% or more.

# (f) Firmly curbing the irrational expansion of energy-intensive and high-emission projects

Through forceful measures, we will implement list-based management and dynamic monitoring on energy-intensive and high-emission projects and handle them in a category-based manner. We will conduct a full investigation of ongoing projects, suspending operations in accordance with relevant regulations where energy efficiency levels are below the minimum threshold for the industry in question until problems are addressed. We will push for energy efficiency to be enhanced wherever possible, and strive to reach full compliance with advanced domestic and even international standards. We will scientifically assess planned projects. In industries where production capacity has already reached the point of saturation, we will push down capacity according to the "cut and replace" principle; in industries where capacity has not yet reached the point of saturation, we will raise thresholds to align with advanced international standards in accordance with national planning and review and filing

requirements; and in emerging industries with relatively high energy consumption, we will provide guidance and support for enterprises in utilizing green and low-carbon technologies and raising energy efficiency. We will thoroughly tap into existing projects, accelerate efforts to phase-out outdated production capacity, and squeeze out potential for energy conservation and emissions reduction through upgrades. We will strengthen regular oversight, and rein in energy-intensive and high-emission projects that fail to meet requirements.

**4.** The action for peaking carbon dioxide emissions in urban-rural development area We will speed up green and low-carbon development in urban and rural areas, ensuring that urban renewal and rural revitalization both meet green and low-carbon requirements.

## (a) Promoting green and low-carbon transformation in urban and rural development

We will promote the development of city clusters, deciding the size of cities in a rational manner and curbing excessively rapid increase in the amount of incremental construction land. We will promote green and low-carbon concepts of planning and design, making urban and rural areas more climate resilient and developing sponge cities. We will expand the use of green and low-carbon building materials and green approaches of construction. We will promote the industrialization of new types of buildings, work harder to develop prefabricated buildings, build more steel structure houses, promote recycling of building materials, and intensify green design and construction management. We will strengthen green and low-carbon development of county towns. We will establish mechanisms for managing urban and rural planning and development that are geared toward green and low-carbon development. We will formulate regulations on the management of building demolition and put an end to demolition and construction of buildings on a large scale. We will work hard to develop green cities, towns, and communities.

#### (b) Accelerating building energy efficiency improvement

We will work faster to update standards in fields such as building energy efficiency and municipal infrastructure, instituting higher requirements for saving energy and reducing carbon emissions. We will step up the R&D and application of energy-saving and low-carbon technologies that can be used in various climatic regions and for different buildings in order to develop ultra-low-energy consumption and low-carbon buildings on a large scale. We will speed up renovation of residential and public buildings to achieve energy efficiency and continue to advance energy-saving and carbon-cutting upgrades of heating pipe networks and other municipal infrastructure. We will increase the intelligence level of managing the operations of urban buildings and infrastructure. We will move more quickly to expand the use of metered charging for heating and energy performance contracting, and gradually set energy consumption caps for public buildings. By 2025, all newly constructed buildings in urban areas will meet green building standards.

#### (c) Accelerating the optimization of building energy consumption structure

We will work deeply to promote the use of renewable energy in buildings, and expand the integration of photovoltaics into buildings. We will actively promote clean energy heating in regions with cold and severe cold conditions. We will promote central heating with combined heat and power, and speed up the large-scale application of residual heat from industrial processes in heating systems. We will launch demonstrations of nuclear heating in an active and prudent manner, and promote clean, low-carbon heating using heat pumps, biomass, geothermal energy, and solar energy according to local conditions. We will guide regions with hot summers and cold winters in procuring heating through rational, clean, and highly efficient means based on their conditions. We will increase proportion of buildings' energy consumption on electricity, and construct buildings integrating photovoltaic power generation, energy storage, DC power distribution, and flexible power consumption. By 2025, renewable resources will account for 8% of the alternative to conventional energy used in buildings, and

we will strive to reach 50% photovoltaic coverage on the roofs of newly constructed public buildings and factories.

(d) Promoting a low-carbon transition in rural development and energy consumption

We will spur the construction of environmentally friendly rural housing, and speed up energysaving upgrades on rural housing. We will advance clean energy heating in rural areas by adopting heating approaches suitable to local conditions. We will develop energy-saving, lowcarbon greenhouses for agriculture and promote the use of energy-saving, eco-friendly cookers, electric agricultural vehicles, and energy-saving, eco-friendly agricultural machinery and fishing boats. We will speed up the application of renewable energy resources, such as biomass energy and solar energy, in agricultural production and daily life in rural areas. We will strengthen development of rural electrical grids so as to expand the share of electricity in rural energy consumption.

#### 5. The action for promoting green and low-carbon transportation

We will move faster to develop green and low-carbon modes of transportation to keep the growth of carbon emissions in the transportation domain within an appropriate range.

## (a) Promoting low-carbon transformation of transportation vehicles and equipment

We will expand the application of new and clean energy in transportation, such as electricity, hydrogen power, natural gas, and advanced liquid biofuels. We will vigorously promote newenergy vehicles, while gradually reducing the proportion of cars that run on traditional oilbased fuels in new car sales and car ownership, promote the replacement of public service vehicles with electric vehicles and the use of heavy cargo trucks fueled by electricity, hydrogen fuel, and liquefied natural gas. We will make the railway system more electricity based. We will work faster to upgrade old ships, and develop ships fueled by electric power and liquefied natural gas. We will further promote the use of shore power by ships while in port. We will make in-depth efforts to advance demonstration and utilization of green, smart ships along coastline and inland waterways according to local conditions. We will work to make airport operations based increasingly on electric power and smart technology, and develop new-energy aircraft. By 2030, the share of incremental vehicles fueled by new and clean energy will reach around 40%, carbon emission intensity of commercial vehicles measured on the basis of converted turnover will be cut by about 9.5% compared with 2020, and comprehensive energy consumption of the national railways per unit of converted turnover will be cut by 10% compared with 2020. We will strive to reach a peak in petroleum consumption for land transportation before 2030.

#### (b) Developing green, high efficiency transportation systems

We will develop smart transportation and promote rational division of functions and effective linkages between different means of transportation, so as to reduce empty-loading ratio and unreasonable turnover in passenger and freight transportation. We will make great effort to develop multimodal transportation with railway and waterway transportation as the mainstay. We will continue to construct special railway lines for industrial and mining enterprises, ports, and logistic parks, and accelerate development of high-level inland waterway networks so as to facilitate a shift in bulk cargo transportation and mid-long distance freight transportation from highways to railways and waterways. We will boost application of advanced and applicable technologies so as to make operation and management of civil aviation more efficient. We will guide businesses in the aviation sector in making their operations smarter and saving energy and reducing carbon emissions in a systematic manner. We will speed up development of the urban-rural logistics and distribution system, and create green and lowcarbon, intensive, and highly efficient modes of distribution. We will develop public transport service systems that are fast, convenient, comfortable, and linked efficiently, and actively encourage people to choose green and low-carbon means of transportation. During the 14th Five-year Plan period, the volume of rail-ship container transportation will increase above 15%

annually. By 2030, no less than 70% of travel will be conducted through environmentally friendly means in cities with permanent populations of one million or more.

## (c) Accelerating construction of green transport infrastructure

We will implement green and low-carbon thought throughout the whole process of planning, building, operating, and maintaining transport infrastructure, reducing lifecycle energy consumption and carbon emissions. We will carry out green and low-carbon transformation of transport infrastructure, and make utilization of infrastructure more efficient by coordinating the use of route, land, and airspace resources in comprehensive transportation corridors and integrating resources such as waterfront and anchorage. We will boost construction of infrastructure such as charging piles, supporting power grids, and natural gas and hydrogen fueling stations through an orderly approach to improve public transport infrastructure in urban areas. By 2030, all ground vehicles and equipment at civil airports will strive to be powered by electricity.

#### 6. The action for promoting circular economy in carbon mitigation purpose

Focusing on resource utilization as a key factor, we will push ahead with the development of the circular economy, and work toward an all-around improvement in the efficiency of resource utilization. In the process, we will fully leverage synergistic effects between efforts to reduce resource consumption and cut carbon emissions.

## (a) Pushing industrial parks to develop in a circular manner

Setting our sights on enhancing the productivity of resources and raising the rate at which they are recycled, we will optimize the spatial layout of industrial parks, and retrofit these parks to facilitate circular production. Circular production in enterprises and circular organization of industries in these parks will be encouraged as well, and arrangements will be made for enterprises to conduct retrofits for clean production. We will promote the comprehensive utilization of waste, cascading use of energy, and circular use of water resources. To be specific, we will facilitate the recycling of residual heat and pressure as well as waste gas, liquid, and slag from industrial processes, and actively expand the application of centralized gas and heating supply. We will set up platforms for sharing infrastructure and public services, and strengthen the management of material flow in parks. By 2030, all key industrial parks at the provincial level or above will be upgraded to support circular operations.

## (b) Strengthening the comprehensive use of bulk solid waste

We will enhance the comprehensive utilization level and increase the multipurpose utilization rates of mineral resources. We will support the large-scale utilization of waste in manner that maximizes proportion and value with a focus on bulk solid wastes including coal gangue, coal fly ash, tailings, associated minerals, smelting slag, byproduct gypsum, construction refuse, and crop straw, and encourage the use of such waste as a substitute for raw non-metallic minerals and gravel. On the condition of being safe and eco-friendly, we will explore the use of phosphogypsum in improving soil, back filling underground mines, and preparing sub-grade for roads. The recycling of construction wastes will be promoted, and the in-situ reclamation and use of abandoned pavement materials will be widely applied. We will accelerate the recycling of crop straw in a way that maximizes its value by refining systems for purchase, storage, and transportation, while strictly enforcing the burning ban. We will also speed up efforts to carry out demonstration projects for the comprehensive utilization of bulk solid waste. By 2025, the amount of bulk solid waste recycled annually will reach around 4 billion metric tons, rising to about 4.5 billion by 2030.

## (c) Refining systems for resource recycling

We will improve recycling networks for used materials and waste, and put an "Internet +" recycling model into practice, thus realizing the reclamation of renewable resources to the fullest possible extent. We will strengthen the standardized management of industries related to the comprehensive utilization of renewable resources in order to foster industry clusters. We

will advance the high-standard construction of modernized centers for recovering mineral resources from urban waste, and promote the clean, standardized, and large-scale use of renewable resources. We will push forward circular utilization of waste from emerging industries such as decommissioned batteries, photovoltaic modules, and rotor blades of wind turbines. We will also drive high-quality development of remanufacturing industries such as auto parts, engineering machinery, and stationery and office equipment. We will expand the use of remanufactured products and products made from recycled resources. By 2025, the total amount of nine major reusable resources including steel scrap, cooper, aluminum, lead, zinc, waste paper, plastic, rubber, and glass recycled will top 450 million metric tons, reaching 510 million by 2030.

## (d) Vigorously promoting efforts to reduce and recycle household waste

We will move steadily ahead with the sorting of household waste, and work faster to establish collection, transportation, and disposal systems for household waste covering all of society, thereby ensuring that all household waste can be discarded, collected, transported, and disposed of in a well-sorted manner. We will intensify efforts to control plastic pollution throughout the entire process from production to recycling, and take action against excessive packaging, so as to reduce the amount of household waste from this source. We will promote incineration of household waste, bring down the proportion of waste disposed in landfills, and develop recycling technology that is tailored to the peculiarities of kitchen waste in China. The recycling of sewage will also be advanced. By 2025, a basic sorting system for urban household waste will be established, with the reclamation rate up to about 60%. By 2030, the sorting system for urban household waste will cover all cities, and the reclamation rate will rise to 65%.

#### 7. The action for advancing green and low-carbon technology innovation

We will give full play to the supporting and guiding role of scientific and technological innovation and improve the relevant mechanisms and systems, so as to enhance our innovation capability and accelerate the revolution in green and low-carbon science and technology.

#### (a) Improving innovation mechanisms and systems

An action plan will be formulated to ensure that science and technology support and guide China's achievement of peaking carbon dioxide emissions and achieving carbon neutrality. Major R&D and demonstration projects for key technologies related to the achievement of peaking carbon dioxide emissions and achieving carbon neutrality will be set up in national key R&D programs, making use of open competition mechanisms to select the best candidates to lead the projects, and intensifying core technology research for reaching low carbon, zero carbon, and carbon negative. Achievements in green and low-carbon technological innovation will be included in the performance assessments of institutions of universities, scientific and research institutes, and state-owned enterprises. We will boost the principal role of enterprises in innovation, support their participation in major national green and low-carbon science and technology projects, and encourage the sharing of facilities, data, and other resources. A national green technology trade center will be set up to accelerate the commercialization of innovations. The intellectual property rights protection for green and low-carbon technologies and products will be strengthened, and the testing, evaluation, and certification systems for them will be improved.

### (b) Enhancing innovation capability and personnel training

National laboratories, key national laboratories, and national technology innovation centers related to the realization of peaking carbon dioxide emissions and achieving carbon neutrality will be set up, relevant major national science and technology infrastructure will be planned in advance, and enterprises, universities, and research institutes will be guided in a joint effort to build national green and low-carbon industrial innovation centers. We will develop new approaches in personnel training, encourage institutions of universities to accelerate discipline

development and talent training in new energy, energy storage, hydrogen energy, carbon emissions mitigation, carbon sinks, and the carbon emission trading, and establish a group of future institutes of technology, modern industrial institutes, and demonstration energy institutes focusing on green and low-carbon technologies. We will deepen industry-education integration, encourage school-enterprise cooperation in educating students, launch an alliance for industry-education integration on the realization of peaking carbon dioxide emissions and achieving carbon neutrality, and set up a number of national innovation platforms for industryeducation integration on energy storage technology.

## (c) Boosting application-oriented basic research

We will launch a group of major national projects for forward-looking, strategically important cutting-edge technologies with a view to making breakthroughs in low-carbon, zero-carbon, and carbon-negative technological equipment R&D. Focusing on green and smart development and the clean, low-carbon utilization of fossil energy, large-scale utilization of renewable energy, new types of power system, energy conservation, hydrogen energy, energy storage, power batteries, and carbon dioxide capture, utilization, and storage, we will deepen application-oriented basic research. We will step up R&D in advanced nuclear energy technology, particularly cutting edge and disruptive technologies such as controlled nuclear fusion.

## (d) Accelerating the R&D and wider application of advanced practical technologies

We will intensify innovation on technologies, particularly into the safe, stable operation and control of major complex power grids, large wind farms, high-efficiency photovoltaic panels, heavy-duty liquefied natural gas engines, large capacity energy storage, low-cost hydrogen production from renewable energy sources, and low-cost carbon dioxide capture, utilization, and storage; accelerate R&D in basic materials such as carbon fiber, aerogel, and special steel; and shore up our short slab in key spare parts, components, and software. We will broaden the application of advanced, mature green and low-carbon technologies and carry out related demonstrations. We will carry out demonstration projects for whole-process, integrated, and large-scale carbon dioxide capture, utilization, and storage as well as demonstrations for the application of molten salt storage for heat supply and power generation. R&D into hydrogen energy technology and its demonstrations applications will be accelerated, and its large-scale application will be trialed in industry, transportation, and construction.

## 8. The action for consolidating and enhancing carbon sink

We will apply systems thinking, and adopt a holistic approach to the conservation of mountain, river, forest, farmland, lake, grassland, and desert ecosystems. Efforts will be made to improve the quality and stability and the carbon sink capacity of our ecosystems.

## (a) Consolidating the carbon sequestration capacity of ecosystems

By making and implementing China's territorial space plans, we will work to form a new model of development and protection, which is conducive to peaking carbon dioxide emissions and achieving carbon neutrality. We must strictly enforce red lines in ecological conservation, control the use of ecological spaces, and build a nature reserve system centered on national parks, to stabilize the carbon sequestration ability of forests, grasslands, rivers and lakes, wetlands, oceans, soil, permafrost, and karst areas. We must strictly implement standards for land use, promote economical and intensive use of land, and spread relevant technologies and practices.

## (b) Enhancing the carbon sink capacity of ecosystems

We will carry out large-scale programs to protect and restore major ecosystems. We will push ahead with large-scale afforestation, and consolidate achievements already made in returning marginal farmland to forests and grasslands, to increase forest and grassland resources. We will strengthen forest protection, and take targeted measures to improve the quality of our forests, so as to enhance the quality and stability of forests. We will step up efforts to protect and restore grassland ecosystems, and increase the overall vegetation coverage of grasslands. We will strengthen the protection and restoration of rivers, lakes, and wetlands. We will comprehensively protect and restore marine ecosystems, improve the carbon sequestration capacity of mangroves, seagrass beds, and salt marshes. We will move forward with efforts to restore and improve degraded land, and make comprehensive efforts to curb desertification, rocky desertification, and soil erosion. We will work to improve and restore environments surrounding abandoned mining areas. We will expand forest coverage around 25% of China's total land area and increase forest stock volume to 19 billion cubic meters by 2030.

#### (c) Strengthening the foundation for ecological system carbon sinks

Based on and supported by the systems for investigating and monitoring natural resources, we will make good use of the results of national comprehensive monitoring and evaluation of forest and grassland ecosystems, and develop a system for monitoring and accounting the carbon sink capacity of ecosystems. We will carry out background surveys of carbon sink in forests, grasslands, wetlands, oceans, soil, permafrost, and karst areas, evaluate their stock, and analyze their potential. We will also monitor and evaluate carbon sink capacities of protected and restored ecosystems. We will strengthen research on basic theories, basic methods, and cutting-edge disruptive technologies in relation to carbon sinks in land and marine ecosystems. We will improve mechanisms for ecological compensation, with a focus on measuring the value of carbon sinks. We will work to establish rules for carbon sink projects involving in national carbon market.

## (d) Promoting carbon emissions reduction and carbon sequestration in agriculture and rural areas

We will step up efforts to develop green, low-carbon and circular agriculture, and support lowcarbon modes such as agricultural photovoltaics, the integration of photovoltaic power and protected agriculture, and the combination of offshore wind farms and marine ranches. We will research applied agricultural technologies that can increase carbon sequestration. We will improve the quality of cropland and protect China's chernozem soils, to enhance soil organic carbon content. We will appropriately control the use of chemical fertilizers, pesticides, and agricultural plastic sheeting, carry out plans for replacing conventional fertilizers and pesticides with organic alternatives, and step up efforts to recycle and comprehensively utilize resources from crop straw and livestock and poultry waste.

### 9. The action for green and low-carbon society

We will raise public awareness of the need to conserve resources, protect the environment, and maintain the ecosystems, and encourage simple, moderate, green, low-carbon and healthy ways of life, so that the people become more active in pursuing green development.

#### (a) Strengthening publicity and education for ecological civilization

We will incorporate education on ecological civilization into the national education system, inform the public of China's current situation in terms of resources and the environment in various ways, and help them better understand peaking carbon dioxide emissions and achieving carbon neutrality. We will raise awareness on ecological civilization, and ensure that literary and artistic works reflect our green and low-carbon direction. We will develop related cultural and creative products and public service advertisements, and continue to carry out themed campaigns including Earth Day, World Environment Day, National Energy-Saving Week, and National Low-Carbon Day, so as to raise public awareness of green and low-carbon development and spur public enthusiasm for ecological civilization.

## (b) Advocating green and low-carbon living patterns

We must curb luxury, waste, and unnecessary consumption, put a resolute stop to wasteful behaviors, and work tirelessly to reduce food waste in the catering industry. We will promote energy conservation throughout whole society, launch demonstration campaigns to build a green and low-carbon society, intensify initiatives to promote eco-friendly living patterns,

select and publicize a group of role models, and foster new trends for green and low-carbon living patterns. We will vigorously expand green consumption, promote green and low-carbon products, and improve the system for green product certifications and labels. We will increase green government procurement rate.

## (c) Encouraging enterprises to fulfill their social responsibilities

We will encourage enterprises to take proactive steps to meet needs for green and low-carbon development, shoulder more responsibility for environmental protection, strengthen energy and resource conservation, and take green innovation initiatives to the next level. State-owned enterprises in key areas, especially those managed by the central government, should draw up peaking carbon dioxide emissions action plans and strengthen their ability to take the lead and offer guidance. Major energy consumers should review and account for their own carbon emissions, further explore ways to cut emissions, and formulate dedicated work plans tailored to their specific conditions to advance efforts in energy conservation and emissions according to requirements of environmental information disclosure laws. We will support industry associations and other similar social organizations in encouraging enterprises to fulfill their social responsibilities.

#### (d) Increasing training for cadres

We will designate Xi Jinping's thought on ecological civilization as a core part of education and training for officials. Party schools and academies of governance at all levels should include peaking carbon dioxide emissions and achieving carbon neutrality in their programs and conduct phased training for officials at all levels. The training should popularize scientific knowledge, explain policy priorities, raise officials' rule of law awareness, and deepen their understanding of the importance, urgency, scientific essence, and systematic approaches of work related to peaking carbon dioxide emissions and achieving carbon neutrality. Leading officials in charge of green and low-carbon development should improve their professional competence and abilities as soon as possible to effectively fulfill their duties.

## 10. The action for promoting all regions to peak carbon dioxide emissions hierarchically and orderly

All regions should clarify their development priorities by taking into account their economic and social development status and resource and environmental endowments, and proceed toward peaking carbon dioxide emissions with a categorized, region-specific, orderly approach in phases through coordination between different levels of government.

#### (a) Setting sound, systematic targets

In areas where carbon emissions have been generally stabilized, we need to consolidate our achievements in emission reductions, and continue to cut down carbon emissions after firstly realizing peak carbon emissions. In areas with a relatively light industrial structure and an optimal energy mix, we need to stick to a path of green and low-carbon development, resolve not to follow the old path of relying on energy-intensive, high-emission projects to fuel economic growth, and above all, strive to peak carbon dioxide emissions. In areas with a heavy industrial structure or coal-dominant energy mix, and in areas that are economically reliant on local resources, we need to prioritize energy conservation and carbon emissions reduction, do our utmost to improve the industrial structure and energy mix, gradually decouple economic growth from carbon emissions growth, and endeavor to peak carbon dioxide emissions in line with the rest of China.

#### (b) Promoting green and low-carbon development according to local conditions

In light of major regional strategies along with the strategy for coordinated regional development and the functional zoning strategy, all local governments should promote green and low-carbon development that is based on their own local realities. The Beijing-Tianjin-Hebei region, the Yangtze River Delta, and the Guangdong-Hong Kong-Macao Greater Bay

Area etc. will play their roles as drivers and growth poles for China's high-quality development and lead the way in promoting an overall green transformation of economic and social development. The Yangtze Economic Belt, the Yellow River Basin, and the national ecological civilization pilot zones will strictly follow the strategic guidance to prioritize ecological conservation and boost green development, and take the lead in China's drive to pursue a green and low-carbon development. In line with state industrial policies and requirements for controlling both the total amount and intensity of energy consumption and striving to improve the energy consumption structure, the central and western regions and northeast China will relocate energy-intensive industries to areas with clean energy potentials in an orderly manner and proactively foster new drivers for green development.

## (c) Formulating local peaking carbon dioxide emissions plans through coordination between central and local authorities

The people's governments of provinces, autonomous regions, and municipalities directly under the central government will follow the overall plans and requirements of the state and take into consideration local resource endowments, industrial layouts, and development stages, considering whole-of-nation approach and avoiding "jump the gun," to formulate their peaking carbon dioxide emissions action plans and set out pragmatic timetables, road maps, and blueprints. We must avoid "one size fitting all" approach for electricity consumption restriction and industrial production restriction, and must avoid campaign-style carbon mitigation. Upon the overall assessment and approval by the Leading Group on Carbon Peaking and Carbon Neutrality(hereinafter referred to as the Leading Group) for realizing peaking carbon dioxide emissions and achieving carbon neutrality, regional peaking carbon dioxide emissions action plans will be published and implemented by local governments.

## (d) Carrying out pilot projects

The central government will provide more support for local governments to help them reach peaking carbon dioxide emissions. A total of 100 pilot cities and industrial parks will be designated and given support in terms of policy, funding, and technology to launch peaking carbon dioxide emissions trials, so that they will move faster toward their green and low-carbon goals and provide transferable experience that can be applied elsewhere in China.

## **IV.INTERNATIONAL COOPERATION**

#### 1. Participating in global climate governance

In enthusiastically communicating to the public Xi Jinping's thought on ecological civilization, we are willing to share with others our concept and practices of pursuing ecological progress and green development, to contribute China's wisdom, approach and strength to building a clean and beautiful world, and to work together toward building a community of life for humankind and nature. China will actively participate in the development of the global green governance system, and adhere to the principle of common but differentiated responsibilities and respective capabilities as well as the principle of fairness. China will uphold multilateralism, safeguard the UN-centered international system, and urge all parties to fulfill the United Nations Framework Convention on Climate Change and the Paris Agreement. We will take an active part in the negotiations on reducing greenhouse gas emissions in international aviation and shipping.

## 2. Carrying out green cooperation on business, technology, and finance

We will optimize the trade structure, and promote the trade of high-quality, high-technology and high value-added green products. We will step up international cooperation on green standards, promote the implementation of the system for conformity assessment cooperation and mutual accreditation, and ensure compatibility between the green trade rules and import & export policies. We will boost the import and export of energy-saving and environmental protection products and services. In expanding green technology cooperation, we will promote research cooperation and technological exchanges relating to renewable energy, energy storage, hydrogen power, carbon dioxide capture, utilization and storage, and take an active part in major international scientific projects such as the International Thermonuclear Experimental Reactor Project. We will intensify green finance cooperation across the world, actively participate in carbon pricing and global macro policy coordination on green finance standards, and work with all parties concerned to move forward with the transformation toward a green and low-carbon growth model.

#### 3. Making the Belt and Road Initiative a green initiative

We will follow the principle of extensive consultation, joint contribution and shared benefits, uphold openness, green development, and integrity in advancing the Belt and Road Initiative (BRI), and strengthen cooperation with other participants on green infrastructure, green energy, and green finance. We will make overseas projects more environmentally sustainable, develop a BRI energy partnership characterized by green development and inclusiveness, and expand the export of new energy technology and products. We will bring into full play the role of cooperation platforms such as the BRI International Green Development Coalition, advocate the Green Investment Principles, advance the implementation of the Belt and Road South-South Cooperation Initiative on Climate Change and the Belt and Road Science, Technology, and Innovation Cooperation Action Plan.

#### **V.POLICY SUPPORT**

## 1. Developing a unified and standardized carbon emissions measuring and counting system

We will improve our capacity for the statistics and accounting of carbon emissions, work for better accounting methods, and accelerate the establishment of a unified and standardized carbon emissions measuring and counting system. We will support industries and businesses in conducting methodology research on carbon emissions accounting based on their own characteristics, and set up a sound measuring system for that purpose. To upgrade measurement technology for carbon emissions, we will move faster to apply new technologies such as remote sensing measurement, big data, and cloud computing, and raise our statistical accounting capabilities. We will take part in international cooperation for accounting method development, thus promoting the establishment of fairer and more equitable carbon accounting systems.

#### 2. Improving laws, regulations, and standards

To build a legal system that supports the green and low-carbon development, we will promote the formulation and revision of the Energy Law, the Energy Conservation Law, the Electric Power Law, the Coal Industry Law, the Renewable Energy Law, the Law on Promoting the Circular Economy, and the Law on Promoting Clean Production. We will update energy efficiency standards at a faster pace, and revise a raft of energy consumption caps, compulsory national standards for the energy efficiency of products and equipment, and project construction standards, in an effort to raise the standards for energy conservation and carbon emissions reduction. We will refine the system of standards for renewable energy and expedite the pace of formulating and updating standards in these sectors. We will establish wellconceived standards for the production, storage, transportation and usage of hydrogen. We will improve standards on environmentally friendly and low-carbon development of industries. We will lay out standards for calculating, reporting, and verifying the carbon emissions from major enterprises, and explore ways to set life cycle carbon footprint standards for major products. We will actively participate in the formulation and revision of international standards on energy efficiency, low-carbon development etc., and strive for better alignment of these standards.

#### 3. Optimizing economic policies

All governments should deliver greater support to work related to peaking carbon dioxide emissions and achieving carbon neutrality. We will establish a sound tax policy system that is conducive to green and low-carbon development, refine and implement preferential tax policies for energy and water conservation and the comprehensive use of resources, and better leverage the role of tax in spurring environmentally friendly and low-carbon development of market entities. We will refine green pricing policy for electricity, introduce sound tiered pricing for household electricity consumption and time-of-use electricity pricing, and explore ways to establish a dynamic mechanism for adjusting time-of-use electricity pricing. We will improve the evaluation mechanism and standards for green finance and establish a sound green finance standard system. We will make an all-out effort to develop green credit, equity, bond, insurance, fund and other financial instruments. With the introduction of tools which support carbon emissions reduction, we will guide financial institutions in providing long-term, lowcost funding for green and low-carbon projects, and encourage development and policy-backed financial institutions to provide continued long-term financial support for peaking carbon dioxide emissions initiatives by employing market-oriented and law-based measures. We will expand the depth and width of the green bond market, and support qualified green enterprises in their efforts to go public and refinance. We will research to set up a national fund for lowcarbon transformation to support traditional industries and resource-rich regions in pursuing green transformations. Nongovernmental capital will be encouraged to set up green and lowcarbon industry investment funds in a market-based manner.

### 4. Establishing sound market mechanisms

We will give full play to the role of the national carbon emission trading market, further refine supporting systems, and expand the trading scope in due course. We will build a national market for energy-use rights, improve the system for the paid use and trading of energy-use rights, and ensure its compatibility with the system to control both the total amount and intensity of energy consumption. We will make systematic efforts to build markets for trading carbon emission rights, energy-use rights and electricity, and make the market mechanisms better linked and more coordinated, so that the trading of carbon emission rights and energy-use rights can be included in trading platforms for public resources. We will promote contracted energy management, and encourage one-stop services for the consultancy, diagnosis, design, financing, renovation, and entrustment of energy-saving projects.

#### **VI.IMPLEMENTATION**

#### 1. Strengthening planning and coordination

The CPC Central Committee will strengthen its centralized, unified leadership over the efforts to peak carbon dioxide emissions and carbon neutrality. The Leading Group will make overall plans and systematic steps, and take a holistic approach to major issues and major policies. The members of the Leading Group will make solid efforts in line with the decisions and plans of the CPC Central Committee and the State Council and relevant requirements defined by the Leading Group. The Leading Group Office will strengthen planning and coordination, examine and coordinate work in all regions and key areas and industries on a regular basis, and scientifically put forward the timetable and road map for carbon dioxide peaking step by step so as to ensure the thorough and effective implementation of all targets and tasks.

#### 2. Ensuring responsibility

Being fully aware of the importance, urgency, and complexity of initiatives related to carbon dioxide peaking and carbon neutrality, all regions and departments must take on responsibilities, work toward the goals and major tasks defined in this plan and in line with the Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy, focus on the key targets and important tasks, and ensure all policies and measures are implemented effectively. The performance of all these tasks will be subject to central and provincial environmental inspections. In light of state plans, all relevant departments, people's organizations, and social groups should make full use of their strengths to promote green and low-carbon development.

#### 3. Exercising strict oversight and assessment

We will implement a system for controlling both carbon intensity and total carbon emissions, taking the former as the priority. We will coordinate the management, allocation, and assessment of energy consumption and carbon emissions targets, and gradually develop a sound and comprehensive evaluation mechanism for peaking carbon dioxide emissions and achieving carbon neutrality. We will make better use of evaluation results, rewarding outstanding regions, organizations, and individuals for their contributions to achieving peak carbon dioxide emissions while holding accountable those regions and departments which fail to accomplish targets and tasks with circular criticisms and admonishment in accordance with laws and regulations. Governments of provinces, autonomous regions and municipalities directly under the central government will evaluate the performance of major peaking carbon dioxide emissions targets on an annual basis, and report promptly to the Leading Group on the ongoing progress and major issues.